

Yek's Guide to the Fractal Audio Amplifier Models



Original content by Yek

Additional content by Simviz

Firmware: Q3.03

Version: 1.0

Table of Contents

Introduction	6
The Amps	8
5F1 Tweed (Fender Champ Tweed)	8
5F8 Tweed (Keith Urban's high power Fender Twin-Amp)	10
6G4 Super ('60 Fender Brownface Super)	14
6G12 Concert ('60 Fender Brownface Concert)	16
59 Bassguy ('59 Fender Tweed Bassman, 5F6-A)	19
65 Bassguy ('65 Blackface Fender Bassman, AB165)	22
1959SLP (Marshall SLP1959 Vintage Re-Issue)	25
1987X (Marshall 1987X Plexi Vintage Re-issue)	29
5153 (EVH 5150-III)	32
AC-20 (Morgan AC20 Deluxe)	35
Angel Severe (Engl Savage 120)	38
Atomica (Cameron Atomica)	40
Band-Commander ('68 Fender Bandmaster, AB763)	42
Big Hair (Fractal Custom Model)	45
Blankshp Leeds (Blankenship Leeds 21)	46
Bludojai (Bludotone Ojai)	48
Bogfish (Bogner Fish)	52
Boutique (Matchless Chieftain)	54
Brit 800 and Brit 800 Mod (JCM 800)	56
Brit AFS100 and Brit Super (Marshall AFD100)	59
Brit Brown and FAS Brown	62
Brit JM45 (Marshall JTM 45)	64
Brit JVM (Marshall JVM410H)	67
Brit Pre and Brit JMPre-1 (Marshall JMP-1)	69
Brit Silver (Marshall Silver Jubilee)	72
Buttery (Budda Twinmaster)	74
CA OD-2 (Carol-Ann OD2)	76
CA Triptik (Carol-Ann Triptik)	79
CA Tucana (Carol-Ann Tucana 3)	84
CA3+ (Custom Audio Amplifiers 3+ SE)	87
Cali Leggy (Carvin Legacy VL100)	89
Cameron CCV	91

Car Roamer (Carr Rambler).....	94
Citrus A30 (Orange AD30HTC)	97
Citrus Bass 200 (Orange AD200B).....	99
Citrus RV50 (Orange Rockerverb 50 MK II).....	101
Citrus Terrier (Orange Tiny Terror)	103
Class-A 15W TB (Vox AC-15)	105
Class-A 30W (Vox AC-30)	109
Class-A 30W	110
Class-A 30W BRT	110
Class-A 30W TB	110
Class-A 30W HOT	110
Comet 60 (Komet 60).....	112
Comet Concourse (Komet Concorde)	115
Corncob M50 (Cornford MK50 II)	118
Das Metall and Dizzy V4 (Diezel VH4)	121
Deluxe Tweed (Fender Deluxe, 5E3).....	125
Deluxe Verb ('65 Fender Deluxe Reverb, AB763)	129
Dirty Shirley (Friedman Dirty Shirley)	133
Div/13 CJ11 (Divided By 13 CJ 11).....	136
Div/13 FT37 (Divided By 13 FTR 37).....	138
Double Verb (Fender Twin Reverb)	140
Energyball (Engl Powerball)	143
Euro Blue and Red (Bogner Ecstasy)	145
Euro Uber (Bogner Uberschall)	149
FAS models.....	152
FAS 6160.....	152
FAS Bass	152
FAS Brootalz	152
FAS Brown.....	152
FAS Class-A	152
FAS Crunch	152
FAS Hot Rod	152
FAS Lead 1	153
FAS Lead 2	153
FAS Modern.....	153

FAS Modern II.....	153
FAS Modern III.....	153
FAS Rhythm.....	153
FAS Wreck.....	153
Fox ODS (Fuchs Overdrive Supreme).....	154
Friedman BE and HBE (Friedman BE-100).....	157
Friedman SM Box (Friedman Small Box).....	161
Fryette D60 (Fryette Deliverance 60).....	164
Gibtone Scout (Gibson Scout).....	168
Nuclear-Tone (Swart Atomic Space Tone).....	170
Herbie (Diezel Herbert).....	173
Hipower (Hiwatt DR103).....	176
Hot Kitty (Bad Cat Hot Cat 30).....	179
Jazz 120 (Roland Jazz Chorus 120).....	182
Jr Blues (Fender Blues Junior).....	185
JS410 (Marshall JVM410HJS).....	188
Matchbox D-30 (Matchless DC-30).....	192
MR Z HWY 66 (Dr. Z Route 66).....	196
Mr Z MZ-8 (Dr. Z Maz 8).....	198
Mr Z MZ-38 (Maz 38 SR).....	201
ODS-100 (Dumble Overdrive Special).....	203
Plexi models (Marshall Plexi).....	206
PLEXI 100W 1970.....	207
PLEXI 100W HIGH/JUMP/NRML.....	207
PLEXI 50W 6550.....	207
PLEXI 50W HI 1/JUMP/NRML.....	207
PLEXI 50W HI 2.....	207
Prince Tone (Fender Princeton).....	211
Prince Tone (Fender Princeton Tweed).....	211
Prince Tone NR (Fender Princeton Silverface w/o Reverb).....	212
Prince Tone Reverb (Fender Princeton Reverb Blackface).....	213
PVH 6160 Block (“block letter” EVH 5150 / Peavey 6505).....	217
Recto1 and Recto2 (Mesa Dual Rectifier, 2-ch and 3-ch).....	221
Ruby Rocket (Paul Ruby Rocket).....	225
Shiver (Bogner Shiva 20th Ann.).....	227

SOLO 88 and SOLO X99 (Soldano X88R and X99)	230
SOLO 100 (Soldano SLO-100)	232
Spawn Nitrous (Splawn Nitro).....	235
Spawn Rod (Splawn Quickrod).....	237
Suhr Badger 18 and 30.....	239
Suhr Badger 18.....	239
Suhr Badger 30.....	240
Super Verb ('64 Fender blackface Super Reverb, AB763).....	242
Supertweed (Fractal Custom Model).....	246
Supremo Trem (Supro 1964T Dual-Tone).....	247
SV Bass (Ampeg SVT).....	250
Thordendal (pre-G3 Recto models)	254
Tremolo Lux (Fender blackface Tremolux, AA763).....	255
Tube Pre	258
Two Stone J35 (Two-Rock Jet 35)	259
TX Star (MESA Lone Star)	261
USA Bass 400 (MESA Bass 400).....	264
USA Clean / USA Lead / USA Rhythm (MESA/Boogie Mark IV).....	267
USA Clean.....	270
USA LEAD.....	270
USA LEAD+.....	270
USA LEAD BRT	270
USA LEAD BRT+	270
USA RHYTHM	270
USA IIC+ (MESA/Boogie Mark IIC+).....	271
USA IIC+.....	274
USA IIC+ Bright	274
USA IIC+ Deep	274
USA IIC+ BRT/DP.....	274
USA Pre (MESA/Boogie TriAxis)	276
USA Pre Clean.....	278
USA Pre LD1 RED	279
USA Pre LD2 GRN	279
USA Pre LD2 YLW	280
USA Pre LD2 RED	281

USA Sub Blues (MESA/Boogie Subway Blues).....	283
Vibra-King (custom Fender Vibro-King)	285
Vibrato Lux (Fender Vibrolux, 6G11)	288
Vibrato Verb (Fender Vibroverb)	291
Vibrato Verb.....	293
Vibrato Verb AA	293
Vibrato Verb AB	293
Vibrato Verb CS.....	293
Wrecker Express (Trainwreck Express).....	294
Wrecker Liverpool (Trainwreck Liverpool).....	296
Wrecker Rocket (Trainwreck Rocket)	298
Amp Categories.....	300
Fender Circuits	300
Vox-type Amps.....	301
Dumble-type Amps	302
Preamps	303
References	304
Manufacturer Websites	304
Amplifier Information	305
YouTube Channels.....	305
Other Fansites.....	305
Fractal Forum Content.....	305

Introduction



In February 2016, Yek (or Alexander van Engelen) from the Fractal Audio forum began writing **articles describing the amplifier models** in the Axe FX and Ax8. He even created **presets** to demonstrate each amp.

This document is made up of those articles with some additional summaries and pictures.

Each amplifier section contains a synopsis of the amp model, tips on how to dial it in, links to sound clips and recommended speakers or impulse responses (IRs) to use with the model (I didn't capture all the sound clips, so check out the forum posting to hear more).

The heading of each amp description is a link to the original posting on the forum.

The text within each section typically describes the specifics of the original amplifier and references the manufacturer's website and the amplifier manual.

A table has been added (by me – not in the original posting) summarising the original amplifier specifications and includes the tonestack location in the modelled version.

Any tips or information provided by Cliff Chase is highlighted in a 'Cliff says...' box, and any of Yek's personal comments is a 'Yek's comments...' box.

The information is up to date as of Firmware Version Q3.03.

If you like this document, please support Yek (and his girlfriend) by **donating**:

"I have a great job (not related to music) and I'm doing fine. I've never asked for a donation for wiki maintenance etc.

But there are other people on this earth who are in need. My girlfriend Mariette recently visited Nepal to do voluntary work, among others in a children's home. Where young children stay, who otherwise would have to live on the streets and risk becoming victims of human trafficking, which is a big issue in Nepal, sadly. While she was away, I started writing the threads.

If you found the series of threads entertaining, perhaps learned something from it, enjoyed the read or just want to show appreciation, please consider donating in return. Any amount you feel is right. It will be used to keep helping these children, through a bona fide organization." - Yek

You can donate at:

<https://www.paypal.me/alexandervanengelen>

Enjoy!

simviz

Disclaimer: I don't own the copyright for any of the photos. Most of them are sourced from the references at the back of this document

The Amps

The Fractal Audio wiki contains a full and up to date [list of amplifier models](#) in the Axe FX.

5F1 Tweed (Fender Champ Tweed)



Synopsis:	A model of a 5F1 Fender Champ from the late 50's/early 60's. Allegedly the type of amp used to record Eric Clapton's Layla.
Tips:	Only has a Volume on the original so leave everything else as default. The small speaker makes it sound boxy with 'farty' bass notes with the volume cranked.
Sound Clips:	1957 Fender Champ Demo
Recommended Cab/Speaker:	Factory Cab: #002 1x8 Tweed

The 5F1 Tweed model is based on a Fender Champ from the Tweed era.

The Tweed era is the earliest period of Fender amplification (late '40s - early 60s'), before the Blonde, Brownface, Blackface and Silverface models. Very collectible amplifiers. "Tweed" is based on the cloth covering used at that time, as seen in the picture above. Tweed amplifiers typically break

up earlier than later "cleaner" models and are known for their warm-sounding overdrive. More information.

The Fender Champ was originally marketed as a practice amp with only 5 watts output. This specific model has a simple 5F1 circuit, which was produced between '58 and '64. It's Class-A, single-ended: one 6V6 power tube.

The low output and small 1x8" speaker make the amp break up early. The tiny speaker also makes it sound boxy. Crank the volume and you understand immediately what the expression "farty bassnotes" mean. Nevertheless, the Champ was a popular amp for use in recording studios. Eric Clapton's Layla and Joe Walsh's Rocky Mountain Way were recorded through a Champ, allegedly.



It just has a single Volume control. There are no tone knobs or other controls. If authenticity matters to you, stick to adjusting Input Drive.

The Champ provides a High and a Low input to plug the guitar into. Axe-Fx II models of Fender amps are always based on the High input. To get the equivalent of using the Low input, set Input Trim to 0.500.

Select one of the "1x8" stock cabs for authenticity. This wiki page lists the stock 1x8" cabs.

Amplifier Specifications	
<i>Year of Manufacture</i>	1958-1964
<i>Circuit</i>	5F1
<i>Power</i>	5 watt
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	No
<i>Preamp Tubes</i>	1x 12AX7
<i>Power Amp Tubes</i>	1x 6V6GT
<i>Tonestack Location</i>	PRE

5F8 Tweed (Keith Urban's high power Fender Twin-Amp)



Synopsis:	A model of Keith Urban's Narrow Panel High Power Fender Tweed Twin. Sounds similar to a Bassman but warmer and larger.
Tips:	With single coils you have to crank Input Drive to get it into overdrive. And even then it doesn't distort a lot; compression increases and the tone gets fatter in a nice way. This model is not as bright as the later Twin Reverb. In fact, if you combine it with its stock cab (#020: 2x12 Double Amp KSM313), it becomes a rather dark-sounding amp. So be like Keith Urban and turn up Treble and Presence.
Sound Clips:	Keith Richards Fender High Powered Tweed Twin Amp Carter Vintage Guitars – '59 Twin - J.D. Simo
Recommended Cab/Speaker:	#020: 2x12 Double Amp KSM313 (Keith Urban's amp with Two-Rock speakers) Cab Pack 15, The American 2x12 Collection.

The name of the model is very similar to the 5F1 Tweed, but boy, what a difference!

The 5F8 Tweed model is based on a Fender "high power" Twin-Amp from the Tweed era (Tweed Twin).

This is a model of Keith Urban's personal #1 Twin-Amp. Hooray for Fractal Audio!

The Tweed era is the earliest period of Fender amplification (late '40s - early 60s'), before the

5F8 Tweed (Keith Urban's high power Fender Twin-Amp)

Blonde, Brownface, Blackface and Silverface models. "Tweed" is based on the cloth covering used at that time, as seen in the picture above. Tweed amplifiers typically break up earlier than later "cleaner" models and are known for their warm tone. [More information.](#)



Tweed-era amps are very collectible. In fact, this Tweed Twin-Amp is listed #3 on [Vintage Guitar's list of the 25 most valuable guitar amps!](#) That's higher than SRV's famous Vibroverb model.

This particular model is a "narrow panel" Tweed model. This refers to the panels around the speaker grill which are narrower than earlier "wide panel" models such as the 5F1 Tweed (Fender Tweed Champ) model which looked like old televisions.

So this is an early version of the famous Fender Twin. Note that, as with all Fender amps, early *non-reverb* models like this one, are very different from later models *with* reverb such as the Twin Reverb. The high-power version is based on the Fender 5F8 circuit. [More technical information.](#) The Twin-Amp is said to sound similar to a Bassman, but warmer and larger. [More information about the Fender Twin models.](#)

BTW, I don't know where the name "Twin" came from. This amp does not have two channels, just two inputs. Maybe it's because of the two 12" speakers?

This amp marked the start of a period when Fender started to design amps which were loud enough to fill a large room by themselves, without the assistance of a FOH sound system, with enough headroom to stay clean when played loud. That's why this model is referred to as "high-power". It has four 5881 power tubes which put out around 80 watts. There also is a low-power 40 watts Twin Amp, based on the 5E8 circuit.

5F8 Tweed (Keith Urban's high power Fender Twin-Amp)

This amp doesn't stay as pristine clean at higher volume levels as the later Twin Reverb, especially when you play it with humbuckers. But it still has a lot of clean headroom. With single coils you have to crank Input Drive to get it into overdrive. And even then it doesn't distort a lot; compression increases and the tone gets fatter in a nice way.

This model is not as bright as the later Twin Reverb. In fact, if you combine it with its stock cab (#020: 2x12 Double Amp KSM313), it becomes a rather dark-sounding amp. So be like Keith Urban and turn up Treble and Presence. Yes, this Fender has a Presence control, just like a Bassman.

Other controls on the original amp: Middle, Bass, Treble, Volume Bright input, Volume Normal input. No Master Volume, so keep the Master control in the model dimed.

The original amp provides a Bright and Normal input to plug the guitar into. AFAIK it's not documented which input has been modeled, but Keith Urban uses the Normal input.

The picture below shows Keith Urban's amp settings:



Note that the range of the controls go to 12, so you can't copy those settings exactly to the amp model controls. [Here's a translation table](#) created by forum member Barhrecords.

Other famous Twin-Amp players are Keith Richards, Eric Clapton and the late Rory Gallagher.

The speakers in Keith Urban's Tweed Twin aren't stock, they are from Two-Rock, captured in stock cab #020: "2x12 Double Amp KSM313". A full collection of IRs from this amp can be purchased in Cab Pack 15, [The American 2x12 Collection](#).

The amp originally came with Jensen P12Ns. A Fender re-issue of the '57 low-power Twin-Amp had Weber AlNiCo speakers. So if you prefer those speakers instead of the stock cab, [check this page](#) for 2x12 Fender stock cabs or 2x12 AlNiCo stock cabs.



Amplifier Specifications

<i>Year of Manufacture</i>	1959
<i>Circuit</i>	5F8
<i>Power</i>	65 watt
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	2x 12AX7 1x 12AY7
<i>Power Amp Tubes</i>	4x 6L6GC
<i>Tonestack Location</i>	POST

6G4 Super ('60 Fender Brownface Super)



Synopsis:	Model of the vibrato channel of a Fender 1960 Super amp. Cleaner than a Tweed but warmer and dirtier than a later Blackface.
Tips:	There's no Middle tone control, so keep this at "5" in the model for authenticity. No Master Volume either, so keep the Master control in the model dimed.
Sound Clips:	<p>1951 Fender Esquire played through a 1960 Fender Super Amp</p> <p>1951 Fender Esquire - played through a 1960 Fender Super Amp (2)</p>
Recommended Cab/Speaker:	The amp originally came with two Jensen 10" speakers (P10R, P10Q, Oxford 10K5). The modeled amp has two 12" speakers, captured in stock cab #22: 2x12 Brown Super M160.

After discussing two Fender "tweed" amps, it's a "brownface" this time. Recognizable by the brown control panel. It's the period between the Tweed and Blackface models: '59 - '63. Brown Fenders sound cleaner than the Tweed amp, but still warmer and dirtier than the blackface models. Like the Tweed amps, brownface amps are very collectible. [More information.](#)

According to [Wikipedia](#), the Super originated as a renamed version of the Dual Professional, supposedly the world's first twin-speaker guitar amp. The 5F4 Super circuit with 6L6 tubes is said to be similar to the 5E5 Pro and 5E7 Band-Master, and to distort more quickly than a Bassman. Remember, this is the Super, not the Super Reverb which is a different amp.

And we've got a classic amp here, again. According to Vintage Guitar the sound of a Tweed Super "in the estimation of many a vintage-amp fan, is among the sweetest and most delectable of any amp

ever made". The Tweed-version of the Super (single channel, 30 watts) is the most sought-after version of the Fender Super and was Leo Fender's personal favorite, according to Vintage Guitar. The '57-'60s Fender Super occupies spot #12 on [Vintage Guitar's list of the 25 most valuable guitar amps](#). The Fender Super is also very famous for its built-in vibrato, which in fact is a tremolo, sometimes called a "harmonic tremolo".

About the circuit numbers: in general the first number indicates the decennium (5 is '50s, 6 is '60s). The letter indicates the circuit revision, and the last number indicates the amp model (4 = Super).

The Super, modeled by Fractal Audio, has the 6G4 circuit, which puts out around 40 watts through two 6L6 tubes. [Here are pictures of the insides of the 6G4](#).

It has two channels: Normal and Vibrato. The Fractal Audio model is based on the Vibrato channel, with these controls: Volume, Treble, Bass, Presence and Vibrato (the vibrato is not modeled). There's no Middle tone control, so keep this at "5" in the model for authenticity. No Master Volume either, so keep the Master control in the model dimed.

Note that the range of most Fender models is 1 to 10, while the model controls range from 0 to 10. For the OCD-crowd, [here's a translation table](#), created by forum member Barhrecords.

The Super provides two inputs per channel. Fractal Audio models of Fender amps are always based on the input with the highest input level. To get the equivalent of using the lower input, set Input Trim to 0.500.

The amp originally came with two Jensen 10" speakers (P10R, P10Q, Oxford 10K5). The modeled amp has two 12" speakers, captured in stock cab #22: 2x12 Brown Super M160.

A full collection of IRs from this amp can be purchased in [Cab Pack 15](#), The American 2x12 Collection

With the stock cab, and a strat or telecaster, there's not a lot of tweaking required IMHO. All amp controls at default, Input Drive at 4, and you have a great vintage Fender tone. Increase Input Drive to 6 for a little more bite.

If you prefer 10" speakers, try stock cab #089: 2x10 Super Tweed Mix, for a totally different sound.

And [here's how to add harmonic tremolo](#), which will sound closer to the amp's "Vibrato" than the Tremolo/Panner block.

(That thread is seeking to emulate the Strymon Flint, which in turn is emulating the harmonic tremolo from early 60s brownface Fenders).

Amplifier Specifications

<i>Year of Manufacture</i>	1960
<i>Circuit</i>	6G4
<i>Power</i>	40 watt
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	5x 7025
<i>Power Amp Tubes</i>	2x 6L6GC
<i>Tonestack Location</i>	PRE



6G12 Concert ('60 Fender Brownface Concert)



Synopsis:	Model of the vibrato channel of a 1960 Fender Concert amp.
Tips:	It has a lot of clean headroom and a lot of bass. You have to really crank it with single coils to get it into overdrive territory, that delightful "brown" mild overdrive
Sound Clips:	JD Simo playing a Fender Concert with a Les Paul Junior
Recommended Cab/Speaker:	#032: 4x10 Bassguy cab

Another classic Fender. The brown control panel indicates it's from the period between the Tweed and Blackface models: '59 - '63. Like the Tweed amps, amps from this period are very collectible.

More information.

The Concert was introduced around 1960. Wikipedia states that the Concert was the same amplifier as the Fender Pro but with four 10" speakers. Premier Guitar writes that it was similar to the flagship Vibrasonic.

About the circuit numbers: in general the first number indicates the decennium (6 is '60s). The letter indicates the circuit revision, and the last number indicates the amp model (12 = Concert).

There is a lot of variation in the appreciation of this amp. Some say it's the best thing after the "holy grail" Tweed Bassman. Some think there are better amps among the Fender Professional series from that era. It is a big and heavy beast, with its four 10" speakers. Like the Super, people love the Vibrato on this amp.

Interesting: while the Bassman was designed for bass players and adopted by guitar players, the Concert was a guitar amp which was used by living legend Carol Kaye for bass.

The version on which the model is based, has the 6G12 (not: 6G12-A) circuit with a solid-state rectifier, which puts out around 40 watts through two 6L6 tubes. It has a lot of clean headroom and a lot of bass. You have to really crank it with single coils to get it into overdrive territory, that delightful "brown" mild overdrive. (For some reason I think "brown" is a really adequate word to describe the characteristic tone of brownface amps.)



Two channels: Normal and Vibrato. The Fractal Audio model is based on the Vibrato channel, which has these controls: Bass, Treble, Volume, Presence and Vibrato (the vibrato is not modeled). There's no Middle tone control, so keep this at "5" in the model for authenticity. No Master Volume either, so keep the Master control in the model dimed.



Note that the range of most Fender models is 1 to 10, while the model controls range from 0 to 10. Here's a handy [translation table](#) created by forum member Barhrecords.

The Concert has two inputs per channel. Fractal Audio models of Fender amps are always based on the input with the highest input level. To get the equivalent of using the lower input, set Input Trim to 0.500.

The amp originally came with four 10" speakers (P10R, P10Q, C10R or Oxford), just like a Bassman. Use the stock UltraRes 4x10 Bassguy cab: 032. This is a great cab. Try it with any Fender model which

originally came with any number of 10" speakers (like the Fender Super, discussed in the previous edition of this thread series).

A full collection of UltraRes Bassman 4x10" IRs from this amp can be purchased in **Cab Pack 10**, Universal Noise Storage Vol. 2



Amplifier Specifications

<i>Year of Manufacture</i>	1960
<i>Circuit</i>	6G12
<i>Power</i>	40 watt
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	6x 7025
<i>Power Amp Tubes</i>	2x 6L6GC
<i>Tonestack Location</i>	PRE

59 Bassguy ('59 Fender Tweed Bassman, 5F6-A)



Synopsis:	A model of the Bright channel of a 1959 Fender Bassman.
Tips:	There are no Mid or Master Volume controls on the original amp, so keep at default for authenticity
Sound Clips:	Original '59 Fender Bassman Amp with Telecaster Hendrix Jam on a Vintage 1959 Fender Bassman Rory Gallagher's Bassman Amp
Recommended Cab/Speaker:	#032: 4x10 Bassguy cab

With the '59 Fender Bassman we return to the Tweed era.

Tweed is the early period of Fender amplification (late '40s - early 60s'), before the Blonde, Brownface, Blackface and Silverface models. "Tweed" is based on the cloth covering used at that time, as seen in the picture above. Tweed amplifiers typically break up earlier than later "cleaner" models and are known for their warm tone. More information.

This particular model is the holy grail narrow panel Tweed model. This refers to the panels around the speaker grill which are narrower than earlier "wide panel" models which looked like old televisions.

Tweed-era amps are very collectible. In fact, this '59 Tweed Bassman Amp is listed #4 on Vintage Guitar's list of the 25 most valuable guitar amps, just behind the Tweed Twin.

The Fender Bassman was originally intended to amplify Fender bass guitars, but soon was adopted as a guitar amplifier. It is known for its simple, pure and raw tone. The "grandfather of rock and roll", says Carl Verheyen. The 5F6-A Bassman is the final '50s Tweed Bassman, a landmark of amp design. The design was copied by Marshall within their JTM-45 amplifier.

About the circuit numbers: in general the first number indicates the decennium (5 is '50s). The letter indicates the circuit revision, and the last number indicates the amp model (6 = Bassman).

Many famous players use(d) a Bassman. Among them: Eric Clapton, Jimi Hendrix and Brian Setzer.

The 5F6-A circuit puts out around 50 watts through two 6L6 tubes. It has a lot of bass. It starts to distort when increasing the volume (Input Drive), and makes a great blues amp.



The original amp has two channels: Normal and Bright. In the Fractal Audio model the Bright channel is selected when the Bright switch is turned on (source). Of the models discussed so far, this is the first one to have the Bright switch enabled by default.

The original amp controls are: Volume, Treble, Bass, Presence, Volume Bright and Volume Normal. There's no Middle tone control, so keep this at "5" in the model for authenticity. No Master Volume either, so keep the Master control in the model dimed.

Note that the range of the controls on this amp is 1 to 12, while the model's controls range 0 to 10. Here's a [translation table](#), created by forum member Barhrecords.

The Bassman provides two inputs per channel: High and Low. Fractal Audio models of Fender amps are always based on the input with the highest input level. To get the equivalent of using the lower input, set Input Trim to 0.500.

The early amp models had four Jensen 10" AlNiCo speakers (P10R). Use the stock UltraRes 4x10 Bassguy cab: 032. This is a great cab. Try it with any Fender model which originally came with any number of 10" speakers.

A full collection of UltraRes Bassman 4x10" IRs from this amp can be purchased in [Cab Pack 10](#), Universal Noise Storage Vol. 2.



Drive pedals: for some vintage fun, put the Face Fuzz before the amp. Or control the low end of the amp model by engaging a Treble Booster.

Amplifier Specifications:

<i>Year of Manufacture</i>	1959
<i>Circuit</i>	5F6-A
<i>Power</i>	40 watt
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	2x 12AX7
	1x 12AY7
<i>Power Amp Tubes</i>	2x 6L6GC
<i>Tonestack Location</i>	POST



65 Bassguy ('65 Blackface Fender Bassman, AB165)



Synopsis:	2 models (Bass and Normal channels) of Dweezil Zappa's 1965 Fender Bassman with the AB165 circuit. A much 'nastier' version of the Bassman that has more a Marshall sound. It is crunchy and bright.
Tips:	The original amp controls are: Treble, Bass, Volume Bright and Volume Normal, and the Bright switch. In the model the Presence parameter is maxed, because the real amp has a fixed Presence setting inside. There's no Middle tone control, so keep this at "5".
Sound Clips:	1965 Blackface Fender Bassman Head Amp & 1971 Les Paul Cranked by Tyler Grund
Recommended Cab/Speaker:	Jensen or Oxford 12"

We already discussed the '59 Tweed Bassman. This version of the Bassman is a very different animal, which dates from the blackface/CBS period. Note: Fractal Audio modelled Dweezil Zappa's personal amp.

The Blackface Fenders were produced between 1964 and 1967. Pre-CBS blackface Fenders are in high demand, and not as expensive as the Tweed and Brownfaces. The blackface name originates from the black tolex and controls panel. More information.

The '65's AB165 circuit is much dirtier and "nastier" than the previously discussed version of the Bassman. The AB165 gets Fender into Marshall territory. If I'm not mistaken this particular amp is an early "CBS"-era model. That's when CBS owned Fender (and in the opinion of many wasted a lot of great Fender circuit designs). That's why the AB165 is not regarded as a true blackface amp by some. But it's still a great amp, just listen to Tyler Grund's clip (see Sound Clips above), or the model. More background information on [PremierGuitar](#) and [Fenderguru.com](#).

The AB165 puts out 50 watts through two 6L6 tubes.

Cliff says:



"The 65 Bassguy was matched to a 65 Bassman that Dweezil sent me. It's a vicious amp that sounds more like a Plexi than a Fender. It's the infamous AB165 circuit which is very crunchy and bright and does not sound like your typical Fender. I was told it is stock. Definitely not your father's Bassman. Has a pissed-off Marshall vibe to it."

"Dweezil's Bassman has two channels like a regular Bassman. The Normal channel is "normal" and corresponds to the 65 Bassguy Nrml model. The Bass Instrument channel is modified and that's the basis for the new model (Dweezil's B-man). It has a boatload of gain and sounds more like a Plexi than a Fender."

"AB165 uses 7025 preamp tubes (which are relabeled 12AX7). The phase inverter, however, is a 12AT7. The secret to the AB165 is the summing stage. It uses an inverting summing amp to sum the Normal and Bass inputs. This stage clips, because of all the local negative feedback, quite hard."

It has two channels: "Bass instrument" and "Normal". That's why Fractal Audio gives us two models of this amp. Don't get fooled: the Bass channel can be used with guitar, which gives a mellow tone. The Normal channel has a Bright switch, which is enabled in the Normal model. There's no model of both channels jumpered.

The original amp controls are: Treble, Bass, Volume Bright and Volume Normal, and the already mentioned Bright switch. In the model the Presence parameter is maxed, because the real amp has a fixed Presence setting inside. There's no Middle tone control, so keep this at "5" in the model for authenticity. No Master Volume either, so keep the Master control in the model dimed.

Note that the range of the controls on this amp is 1 to 10, while the model's controls range 0 to 10.

The Bassman provides two inputs per channel. Fractal Audio models of Fender amps are always based on the input with the highest input level. To get the equivalent of using the lower input, set Input Trim to 0.500.

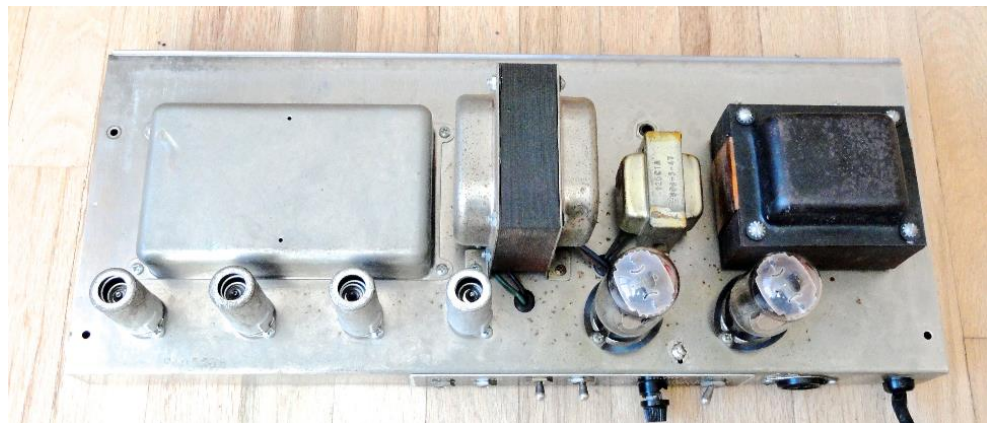
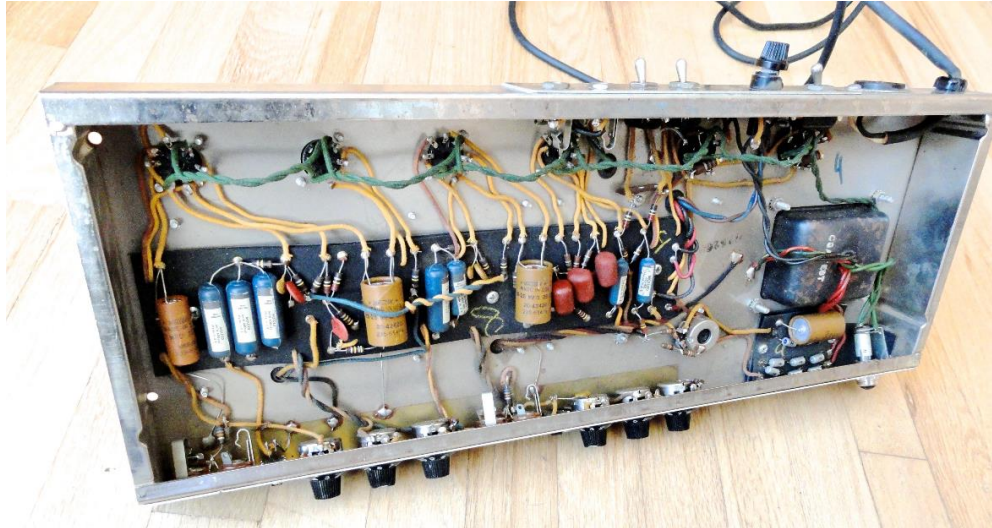
Unlike the other Bassman, this Bassman was used with a 2x12 cabinet, with Jensen or Oxford 12" speakers. Marshall cabs also work well.

Fenderguru:

So what does the blackface Bassman sound like? Describing tone is best done with establishing a common and well-known reference point, for example the traditional blackface AB763 amps such as the Super Reverb and Twin Reverb. The Bassman is known for its simple, pure and raw tone. It is 50w loud with power supply and output transformers sized approx. as the Super Reverb and Bandmaster. The bass channel of the AB165 and AA864 is much mellower and deeper than the normal channel of any AB763 amps since it is voiced for bass guitars. The Bassman bass channel features a deep switch that can remove the lowest frequencies, which is practical when you're playing loud and using different speaker cabinets where you need to adjust the lower bass. The normal channel is more relevant for guitar players. The Bassman sounds "browner" than the AB763-amps, particularly the AB165 model, and it has more preamp distortion and mids when the volume is turned up. The reason that the Ab763-amps have less preamp gain is the use of only one half/triode (V4 12ax7) in the second gain stage vs both halves/triodes (V2 12ax7) in the the Bassman AB165. The normal channel in the AA864 Bassman is cleaner than in the AB165 since it has no additional gain stage. The Bassman amps have more mids than the AB763-amps, and

particularly without the reverb effect (the reverbs thins the tone) the Bassman experience is a fuller, direct and less camouflaged tone.

The Bassman circuit is simpler and has less components and tubes than other AB763 amps. A less complicated circuit means fewer things that can go wrong, less component drift issues, easier to service and less potential for noise problems. The Bassman has significantly influenced the whole guitar amp industry since it was introduced. It's tone stack, tube configuration, preamp and power section has inspired numerous amps builders including Jim Marshall, the founder of Marshall amps, who used the Bassman tweed 5F6-A circuit in 1958-1959 as template the legendary Marshall JTM45.



Amplifier Specifications

<i>Year of Manufacture</i>	1965
<i>Circuit</i>	AB165
<i>Power</i>	50 watt
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	3x 7025
<i>Power Amp Tubes</i>	2x 6L6GC
<i>Tonestack Location</i>	PRE

1959SLP (Marshall SLP1959 Vintage Re-Issue)



Synopsis:	Models Normal, Treble and Jumpered channels of a 1959 SuperLead Plexi, a re-issued version of the 1960's 100w SuperLead amp, the 'world's greatest rock amp'!
Tips:	<p>Don't be afraid to turn the bass all the way down or the treble all the way up. Just like with the actual amp. For example, on the normal channel of a Plexi most people turn the bass way down. Otherwise it's too flubby.</p> <p>Cliff: "My settings for a "typical" Plexi tone are Bass: 2, Mid: 8, Treble 7.5. Adjust Presence to taste."</p>
Sound Clips:	<p>Marshall Plexi 1959SLP 100W Tube Guitar Amp Head Standard</p> <p>Johan Segeborn comparing 1959SLP vs 1987x</p>
Recommended Cab/Speaker:	Celestion G12M, G12H
Manual:	Vintage Re-issue Series Manual

The world's greatest rock amp is a Marshall "Plexi". These came to the market in the mid '60s, when Marshall and Fender started to make loud amps. These amps are referred to as "Plexi" amps because of the gold Plexiglass front panel, later replaced with gold aluminum. Plexis with 4x12 cabinets gave rise to the "Marshall stack". The Plexi was built for almost 20 years, and was then replaced by the JCM 800. Even today amp builders still design amps based on the Plexi, such as the Bogner Helios. And its looks are being copied for all kinds of guitar amps.

So why has the Plexi become such a popular amp? According to **Legendary Tones**:

"Many things. First and most important perhaps is the sense of dynamics and rich harmonics. No large-production amp created before or since the early Marshall plexi series has been able to capture the feel of the player through varying degrees of dynamics and coloration from the (mostly) EL34-based tube circuits of these Marshalls. Call it a lucky accident with the

folks at Marshall, but they were able to create amplifiers that really responded well to the guitars that played through them. A wide palette of distortion color that is rich and full and just powerful and timeless in tone is what these amps deliver. It takes some time to really get used to playing a basic amp such as a Marshall plexi. No multi channels or reverb or effects and no master volume controls. Turn up the amp and play – play hard and the amp rewards you with fullness of tone and smooth distortion. Back off your playing and the amp will respond, and move into lighter shades of overdrive. Roll down your guitar volume a touch and you’ve got a warmed up clean sound. There just isn’t anything like the ability to feel a set of power and preamp tubes overdriving together musically.”

A Plexi is raw, unrefined, honest and touch sensitive. Hit a chord on a Plexi and feel that explosion of sound in your face and body...

Numerous guitar heroes played some kind of Plexi: Pete Townsend, Jimi Hendrix, Jimmy Page, Angus Young, Yngwie Malmsteen, Jeff Beck and of course Eddie Van Halen.

The Plexi came in various incarnations. Some of these are modelled by Fractal Audio, so we’ll discuss these later. Many (but not all) Plexis have a JMP logo.

The ‘60s Marshall Super Lead was one of the original 100 watts Plexi amps, a very desirable amp. The 1959SLP is a re-issue of the Super Lead, made in the ‘90s, as part of the Vintage Re-issue series. The number “1959” does not refer to the build year, it’s a model number. **Marshall:**

“The 100 Watt Super Lead head of the late ‘60s (‘68 – ‘69) with the famed Plexiglas front panel, is re-issued here in all its glory. The 1959SLP ‘Plexi’ head is the amp that defines classic rock tone. To ensure absolute tonal authenticity, we took a ‘Plexi’ head from said era, and using it as a template, our R&D experts developed a replica so exact, that sonically we couldn’t tell them apart. The 1959SLP truly is the sound of rock.”

Not only do we have the model of the SLP re-issue in our Fractal Audio, we also have a model of the original: the Plexi 100W.

Cliff says:



"The old one (Plexi 100w model) has a 2.7K cathode resistor on the first stage, the new one (1959SLP) has an 820 ohm."

"Don't be afraid to turn the bass all the way down or the treble all the way up. Just like with the actual amp. For example, on the normal channel of a Plexi most people turn the bass way down. Otherwise it's too flubby."

Like the original Plexi, the SLP comes with four EL34 tubes and blasts 100 watts through (preferably) a 4x12 cabinet.

It provides two channels: Normal and Treble, and two inputs per channel. Both channels are modelled by Fractal Audio.

The Normal channel is (duh) less bright and has loads of bass. Cliff:

The Treble channel can be very (duh)

bright, even painfully bright. A popular “amp mod” of the real Plexi was clipping the bright cap. In Fractal Audio’s amp model that’s easy: you turn off Bright. Or you can adjust the Bright Cap value on the Advanced page. Note: turning off Bright will result in noticeable loss of amp gain.

Apart from the Volume controls, the amp has Bass, Middle, Treble and Presence controls. Cliff: "My settings for a "typical" Plexi tone are Bass: 2, Mid: 8, Treble 7.5. Adjust Presence to taste."

Eddie Van Halen had all these controls maxed out. And to emulate his variac: set the parameter "AC Voltage (Variac)" on the model's Advanced page to 75 or so.

Some players of a real Plexi use patch cables to "jumper" the inputs (2nd input of channel 1 goes into 1st input of channel 2). This enables them to have the benefits of both channels at once. This is modelled in the "Jumpered" model of the 1959SLP in the Axe-Fx II and AX8. That's why this specific model has two Drive controls. Set them at the same position, or keep Normal Drive lower than Treble Drive.

Like an original Plexi, the 1959SLP doesn't have a Master Volume, so keep the Master control in the model dimed. Without a Master Volume control, Plexi amps rely on power amp distortion. To achieve a nice overdriven rock tone, you need to turn up the 100 watts Plexi a lot. This makes it a very loud amp in real life.

If you like to experiment, turn up Supply Sag in the model for more compression. Note that high Sag settings may cause "ghosts notes". Exactly like on the real amp at high volume: check the interview with J.D. Simo below. If you don't want ghosts notes, switch Supply Type to "DC".

Another tweak is to turn on Boost on the Advanced page, to slam the model's input stage for more gain.



You can't discuss Marshall amps and leave out speakers, in particular: greenbacks. Early Marshall amps were used with 4x12" cabinets with Celestion G12M speakers. Greenbacks have a sweet midrange and good bass reproduction. The rear of those speakers was green, and the nickname "greenbacks" was born. They are the reason that 4x12 cabinets were designed: the G12M was only 20 of 25 watts, so you needed four of them to prevent blowing them up.

Another popular speaker in those days (and it still is): the G12H. A 30 watts Celestion speaker that compresses less than a greenback and has a flatter response. It's the "Jimi Hendrix" speaker.

Cliff says:



"One of the first mods people make to real 'Plexi' Marshalls is to "clip the bright cap". The bright cap varied over the years, supposedly depending on what was lying around in the shop. The model defaults to the bright cap in the circuit. If you turn off Bright you're effectively clipping the bright cap. The bright cap in Marshalls can be very bright and harsh. However, if you crank the Master you might find the extra brightness helps compensate for the power amp getting darker."

[In response to complaints that a Plexi can sound fizzy]
"It's the way a Plexi is supposed to sound. That's due to the cathode follower. That raspiness helps it cut through in a mix. I own three of them and they are that fizzy."

You check [this page](#) for the stock "greenbacks" cabs, suitable for the Marshall models. Personal favorites among the stock cabs are: 54 and 55 (Cab Pack 20), 58 and 59 (Cab Pack 8), 103 (Cab Pack 2), 131 and 132 (Cab Pack 14, I think...).



(Premier Guitar - JD Simo rig rundown)

JD Simo's Settings:

- Bright Channel
- Bass:0, Mid: 10, Treble:10, Volume I:10
- Presence: to taste (around 5 or 6)
- Cabs: '69 4x12 Basketweave, with 2x 25w Greenbacks (mic'd) and 2x Weber Cerwin Vega copies (try OH Marshall 1966B), mic'd with Cascade Fat Head.



Amplifier Specifications

<i>Year of Manufacture</i>	1993 to 1995
<i>Circuit</i>	N/A
<i>Power</i>	100 watt
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	2x ECC83
<i>Power Amp Tubes</i>	1x ECC83 3x EL84
<i>Tonestack Location</i>	POST



1987X (Marshall 1987X Plexi Vintage Re-issue)



Synopsis:	Models of the Normal and Treble channels of a 1987X. It is a re-issue of the original '67 Marshall JMP 50, a 50 watts Plexi with model number 1987. The 1987X re-issue, made in the '90s, is part of Marshall's Vintage Re-issue series
Tips:	<p>More aggressive than the '60s 'Plexis', the 1987X is much more of the '72 period, with a heady, sweet/aggressive tone. These tonal characteristics are what define this much respected all-valve head</p> <p>The 1987X is enormous bass-heavy. Don't hesitate to turn the Bass control all the way. The Treble channel is not as bright as the one in the 1959SLP. In the model the Bright switch is turned off by default.</p>
Sound Clips:	<p>Johan Segeborn comparing 1959SLP vs 1987x</p> <p>Johan Segeborn Marshall 1987x - Better than the real thing?</p>
Recommended Cab/Speaker:	Celestion G12M, G12H
Manual:	Vintage Re-issue Series Manual

The world's greatest rock amp is a Marshall "Plexi". These came to the market in the mid '60s, when Marshall and Fender started to make loud amps. These amps are referred to as "Plexi" amps because of the gold Plexiglass front panel, later replaced with gold aluminum. Plexis with 4x12 cabinets gave rise to the "Marshall stack". The Plexi was built for almost 20 years, and was then replaced by the JCM 800. Even today amp builders still design amps based on the Plexi, such as the Bogner Helios. And its looks are being copied for all kinds of guitar amps.

So why has the Plexi become such a popular amp? According to **Legendary Tones**:

"Many things. First and most important perhaps is the sense of dynamics and rich harmonics. No large-production amp created before or since the early Marshall plexi series has been able to capture the feel of the player through varying degrees of dynamics and coloration from the (mostly) EL34-based tube circuits of these Marshalls. Call it a lucky accident with the folks at Marshall, but they were able to create amplifiers that really responded well to the

guitars that played through them. A wide palette of distortion color that is rich and full and just powerful and timeless in tone is what these amps deliver. It takes some time to really get used to playing a basic amp such as a Marshall plexi. No multi channels or reverb or effects and no master volume controls. Turn up the amp and play – play hard and the amp rewards you with fullness of tone and smooth distortion. Back off your playing and the amp will respond, and move into lighter shades of overdrive. Roll down your guitar volume a touch and you’ve got a warmed up clean sound. There just isn’t anything like the ability to feel a set of power and preamp tubes overdriving together musically.”

A Plexi is raw, unrefined, honest and touch sensitive. Hit a chord on a Plexi and feel that explosion of sound in your face and body...

Numerous guitar heroes played some kind of Plexi: Pete Townsend, Jimi Hendrix, Jimmy Page, Angus Young, Yngwie Malmsteen, Jeff Beck and of course Eddie Van Halen.

The Plexi came in various incarnations. Some of these are modeled by Fractal Audio, so we’ll discuss these later. Many (but not all) Plexis have a JMP logo.

The 1987X is a re-issue of the original ’67 Marshall JMP 50, a 50 watts Plexi with model number 1987. The 1987X re-issue, made in the ’90s, is part of Marshall’s Vintage Re-issue series. Our respected forum veteran @javajunkie owns a real 1987X.

Not only do we have the model of the 1987X re-issue in our Fractal Audio, we also have a model of the original 50-watter: the Plexi 50W.

So in what aspect is a 50 watts Plexi different from a 100 watts Plexi? Not a lot in volume (the 50-watter is also a very loud amp) and not a lot in gain either. The 50 watts Plexi maybe is a little more aggressive and compressed, while a 100 watts Plexi sounds more open and bigger with more “kerrang”. IMHO the 1987X sounds and feels really juicy. It’s a very versatile amp, that can handle anything between funk and hard rock.

Marshall:

“While the 50 Watt 1987X head shares the same ‘Plexi’ front and rear panel features as the 1959SLP, it has its own distinctive sonic personality. More aggressive than the ‘60s ‘Plexis’, the 1987X is much more of the ’72 period, with a heady, sweet/aggressive tone. These tonal characteristics are what define this much respected all-valve head.”

The re-issue has two EL34 tubes and blasts 50 watts through (preferably) a 4x12 cabinet.



It provides two channels: Normal and Treble, and two inputs per channel. Both channels are modeled by Fractal Audio.

The 1987X is enormous bass-heavy. Don’t hesitate to turn the Bass control all the way.

The Treble channel is not as bright as the one in the 1959SLP. In the model the Bright switch is turned off by default.

Apart from the Volume controls for both channels, the amp has Bass, Middle, Treble and Presence controls.

Some players of a real Plexi use patch cables to “jumper” the inputs (2nd input of channel 1 goes into 1st input of channel 2). This enables them to have the benefits of both channels at once. This is modelled in the “Jumpered” model of the 1987X in the Axe-Fx II and AX8. That’s why this specific model has two Drive controls. Set them at the same position, or keep Normal Drive lower than Treble Drive.

Like an original Plexi, the 1987X doesn’t have a Master Volume, so keep the Master control in the model dimed. Without a Master Volume control, Plexi amps rely on power amp distortion. To achieve a nice overdriven rock tone, you need to turn up the 100 watts Plexi a lot. This makes it a very loud amp in real life.

If you like to experiment, turn up **Supply Sag** in the model for more compression. Note that high Sag settings may cause “ghosts notes”. Exactly like on the real amp at high volume. If you don't want ghosts notes, switch **Supply Type** to “DC”.

Another tweak is to turn on **Boost** on the Advanced page, to slam the model's input stage for more gain.

You can’t discuss Marshall Plexi amps and leave out speakers, in particular: greenbacks. Early Marshall amps were used with 4x12” cabinets with Celestion G12M speakers. Greenbacks have a sweet midrange and good bass reproduction. The rear of those speakers was green, and the nickname “greenbacks” was born. They are the reason that 4x12 cabinets were designed: the G12M was only 20 of 25 watts, so you needed four of them to prevent blowing them up.

Another popular speaker in those days (and it still is): the G12H. A 30 watts Celestion speaker that compresses less than a greenback and has a flatter response. It’s the “Jimi Hendrix” speaker.

Yek’s personal note:

Of the Plexi Marshalls the 1987X may be my favorite, together with the 1970 model. I like the slightly darker, juicy tones of these versions.

You check [the wiki page](#) for the stock “greenbacks” cabs, suitable for the Marshall models. Personal favorites among the stock cabs are: 54 and 55 (Cab Pack 20), 58 and 59 (Cab Pack 8), 103 (Cab Pack 2), 131 and 132 (Cab Pack 14, I think...).

Cliff says:



“The 1987x doesn't have the 0.68uF cap on the last triode. Gives it a smoother distortion.”

Amplifier Specifications

<i>Year of Manufacture</i>	<i>1990's</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>50 watt</i>
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	2x ECC83
<i>Power Amp Tubes</i>	1x ECC83 2x EL84
<i>Tonestack Location</i>	POST

5153 (EVH 5150-III)



Synopsis:	Models of the Fender-backed EVH 5150-III, Eddie Van Halen's signature amp, an amp popular with metal players. Includes 3 channels (Green/Clean, Blue/Crunch, Red/Lead of the 100w version and 1 channel (Blue/Crunch) of the 50w version
Tips:	The 50W version has a different input network than the 100W version for that channel (Blue). The 50W version has about twice the gain as a result. Otherwise things are pretty similar. You can simulate this using the Input Trim knob. The red channels (of 50w and 100w models) are identical
Sound Clips:	Premier Guitar Monsters of High Gain Demo
Recommended Cab/Speaker:	Celestion G12EVH
Manual:	EVH 5150-III Owner's Manual

Eddie Van Halen got his own signature amps, the first two generations in collaboration with Peavey, and the third one with Fender. These signature amps were well received by guitar players in the metal scene. In fact it's hard to find a non-metal video on YouTube featuring this amp. All 3 generations are represented in the Axe-Fx II and AX8. We'll first discuss the current model: 5150-III, which is a popular amp model among the high-gainers. **Eddie talks about the 5150-III.**

The 5150-III has three channels: Green (clean), Blue (crunch) and Red (lead). On the 100 watts head each channel has its own controls: Gain, Low, Mid, High, Master Volume, and Presence.

Cliff says:



"IMO, it's a very good amp. The build-quality is great and the design is very good. It is similar to the previous versions but voiced a bit different. Personally, I think all of the 5150's have more gain stages than necessary which just makes for unnecessary failure points but the "OMG, this amp has sooo many toobz it must sound awesome" marketing makes it understandable. It's incredibly heavy though."

Fractal Audio has modelled all 3 channels of the 100 watts head, plus the Blue channel of the 50 watts amp (see below). The Red channel model has the Bright switch enabled, the others don't.

Click to see Eddie's real amp settings. Which are identical to the recommended settings in the **owner's manual.**

The 100 watts version has four 6L6 tubes and rates 100 watts.

There's also a smaller 50 watts model with two power tubes, shared EQ controls, master Presence control and an additional Resonance control (model: Depth) and much more gain in the Blue channel.

There's a more recent 5150-III Stealth model. Its circuit adds even more gain (!) to channels 2 and 3 and makes those channels sound more alike. **Eddie demonstrates the Stealth on YouTube**

This is the first amp model in our series that has a Master Volume. This means that the amp's distortion is created in particular by the preamp tubes, not the power amp. The Master Volume, which works in the power amp section, is still very important to the tone and feel. You have to decide for yourself what setting in the model works for you best. The default setting is a good point to start of course.

In older firmware versions the Saturation parameter was engaged in the 5153 Blue and Red models. This is no longer the case.

The EVH amps use cabinets with custom speakers. In the 5150-III these are Celestion G12EVHs. Check this page to see which 5150 stock cabs are available. If you want more choices:

Cab Pack 12 "ML 5153 4x12 UltraRes" provides IRs of a 4x12 5150-III Straight cabinet with G12EVH speakers, created by ML Sound.

Cab Pack 14 "The 4x12 Collection 2.0 - UltraRes" contains IRs of a 4x12 5150-III Straight cabinet with G12EVH speakers, created by Universal Noise Storage Studio, using the "MIC+DI" method. This Cab Pack also includes Cab Pack 5 with older IRs of a 5150-III cabinet.

OwnHammer also sells IR libraries with the G12EVH speaker.

Cliff says:



"The 50W version has a different input network than the 100W version for that channel (Blue). The 50W version has about twice the gain as a result. Otherwise things are pretty similar. You can simulate this using the Input Trim knob. The red channels (of 50w and 100w models) are identical."

"A 5150 uses a fixed bias with no adjustment. Depending on the tubes used the bias can run from average to cold. The model uses average. Some people like a colder sound. If you prefer your amps biased cold, then reduce the bias parameter to taste."



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>100 watt</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>8x 12AX7</i>
<i>Power Amp Tubes</i>	<i>4x 6L6GC</i>
<i>Tonestack Location</i>	<i>POST</i>

AC-20 (Morgan AC20 Deluxe)



Synopsis:	4 models of a Morgan AC-20, a Vox-based amplifier. The models cover Bass and Treble channels with 12AX7 and EF86 preamps.
Tips:	It doesn't have tone controls, apart from Cut (model: Hi-Cut) which attenuates highs, a Bright switch, a Brilliant switch (cuts bass) and a 12AX7/EF86 switch. For authenticity, keep all tone controls in the models except Hi-Cut at default. Cliff: As with the real amp I dial in quite a bit of Hi-Cut.
Sound Clips:	Rhett Shull Demo
Recommended Cab/Speaker:	Celestion G12H, Celestion Gold.
Manual:	AC20 Deluxe Instruction Manual

The AC-20 models are based on a Morgan AC20 Deluxe. This is a very popular EL-84 equipped 20 watts boutique amplifier that looks like a mini Plexi. It's based on a Vox, and according to many, far superior.

Morgan:

"The Morgan AC20 Deluxe is a deceptively simple amplifier that is capable of producing a myriad of early 60s British tones but that is just the beginning. The switchable EF86 tube helps to make the range of tones from the cleanest of EL84 chime to ferocious high gain growl. The power level control allows you to dial in just the right amount of volume without sacrificing your tone the way some master volumes do. The AC20 Deluxe was created to solve modern guitar player amplifier issues with the ability to stay true to vintage tonality. It is

equally at home in the studio or on the stage. It can be seen on the stages of superstars like Jeff Tweedy, Tim McGraw, The Band Perry, Taio Cruz and with Toshi Yanagi on Jimmy Kimmel Live. Plug into the AC20 Deluxe and you will instantly notice the familiar chime and compression of the Class A EL84 driven output section. The amplifier's extreme touch-sensitivity will allow you to coax clean tones even at the highest of gain settings. To quote Keith Armstrong (Chief Engineer at Mix LA) "It is impossible to get a bad sound out of this amp!" (...) The AC20 Deluxe uses 3 separate switches to give you all of the original early 60's EL84 tonalities, Normal, Brilliant and EF86. Never has such a deceptively simple amp had so many tonal options. Handwired in the USA."

To my ears it's a delicate tone. The AC-20 sounds intimate and "small" in a good way.

It doesn't have tone controls, apart from Cut (model: Hi-Cut) which attenuates highs, a Bright switch, a Brilliant switch (cuts bass) and a 12AX7/EF86 switch. For authenticity, keep all tone controls in the models except Hi-Cut at default.

The models have the Bright switch enabled. If that's too bright for you, turn it off or adjust Hi-Cut.

Use Input Drive to dial in the desired amount of gain. Don't hesitate to use low settings for a really clean tone.

The modes are represented by the separate Bass and Treble (Brilliant mode) models, and EF86 preamp and 12AX7 preamp models.

The 12AX7 preamp tube sounds more glassy and has more sparkle. The EF86 is more full-bodied and fat. Increase Input Drive and the EF86 gets a lot more distorted than the 12AX7. Some players use the EF86 setting with single coils pickups and the 12AX7 setting with humbuckers, for matched response and output.

The original AC20 Deluxe also features power scaling.

The Morgan pairs well with a G12H or AlNiCo Gold speaker. The Gold sounds like an AlNiCo Blue speaker that has been "well played-in". Use [the wiki page](#) to see which AC-20 cabs stock cabs are available.

Additional AC-20 IRs are available in Cab Pack 4: Universal Noise Storage - UltraRes.





Cliff says:



"As with the real amp I dial in quite a bit of Hi-Cut."

"The AC-20 model is based on the amp with the power scaling at maximum power which effectively disables it (and sounds best IMO)."

Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>20 watt</i>
<i>Master Volume?</i>	<i>No</i>
<i>Negative Feedback?</i>	<i>No</i>
<i>Preamp Tubes</i>	1x 12AX7 2x EF86 2x 7025
<i>Power Amp Tubes</i>	2x EL84
<i>Tonestack Location</i>	POST

Angel Severe (Engl Savage 120)



Synopsis:	2 models of Channel 2 in “Rough” mode of an Engl Savage 120, a high-gain amp.
Tips:	Emphasis on high and low ends. Use Bass sparingly.
Sound Clips:	Engl TV Demo
Recommended Cab/Speaker:	Celestion V30 Factory Cab: # 047 4x12 German V30 (RW)
Manual:	Engl Savage 120 Manual

The Powerball was the first model of an Engl amp in the Axe-Fx. People kept begging for a model of the Savage and it was introduced in firmware 14.

Famous Engl players include Steve Morse, Thin Lizzy and Ritchie Blackmore. More Engl players...

The Engl Savage is a 120 watts hard rock and metal monster with four channels: Main 1 Clean/Crunch and Main 2 Crunch 2/Lead. It runs on two 6550 power tubes, rates 120 watts (80 watts continuously) and has loads of preamp gain. Engl’s later Ritchie Blackmore signature amp is based on the Savage. Made in Germany.


Fractal Audio has modeled Main Channel 2 of the original amp in its “Rough” mode. As described in **Engl’s manual**: “emphasis on high and low ends. Use Bass sparingly.”

The “Angel Savage 1” model was created with Channel 2’s Contour switch turned off. This boosts the lower midrange around 500 Hz for a warm tone.

The “Angel Savage 2” model was created with Channel 2’s Contour switch turned on. This boosts from 1200 Hz and cuts the lower midrange for more transparency.

It’s a high-gain amp with a Master Volume. This means that the amp’s distortion is created in particular by the preamp tubes, not the power amp. The Master Volume, which works in the power amp section, is very important to the tone and feel. You have to decide for yourself what setting in the model works for you best. The default setting is a good point to start of course.

The applicable controls on the original amp’s channel are: Gain, Lead, Master, Bass, Middle, Treble, Contour, Rough/Smooth, Depth Boost (6dB at 80Hz) and Presence.



Cliff says:

Presence:
“From noon and up it's a presence boost, from noon down it's a presence cut.”

Input Drive:
“Input Drive increases the gain amount as you rotate the knob clockwise. As the gain increases the tone is shifted from a treble and upper mid emphasis, which produces an up front sparkling tone, to a lower mid and bass emphasis, which produces a thick meaty tone”.

Overdrive:
“Overdrive increases the gain amount as you rotate the knob clockwise but with no alteration of the tonal balance.”

“Different combinations of Input Drive and Overdrive settings will have a dramatic effect on the response of the amplifier and the personality of your instrument. It is easy to get familiar with the action of these controls and you’ll be amazed with your ability to make any guitar sound mellow, fat, soulful or aggressive.”

In this thread series this is the first amp model (other than the jumpered Plexis) which features TWO gain controls: Gain and Lead (model: Input Drive and Overdrive). On all amps like this, including those by Dumble, Fryette, Carol-Ann and Mesa, the first control sets the “sensitivity” and the second one sets the amount of distortion. Cliff:

I don’t know if this is pure imagination, but models with Input Drive and Overdrive controls always feel “elastic” and spongy, a real joy to play.

Engl uses Celestion V30 and V60 speakers. You’ll find many V30s among the stock cabs.

Cab #047 is an IR of an Engl 4x12 PRO cabinet with V30s, created by Red Wirez. Note: the Red Wirez IRs in the Axe-Fx II and AX8 have been captured using a neutral microphone, so you may want to add a mic model in the Cab block.

Cab Pack 19 by ML Sound contains a full library of that were captured of an Engl 4x12 Pro Straight Cabinet with Chinese Celestion Vintage 30 speakers.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>120 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>5x ECC83</i>
<i>Power Amp Tubes</i>	<i>1x ECC83 2x 6550</i>
<i>Tonestack Location</i>	<i>POST</i>

Atomica (Cameron Atomica)



Synopsis:	Models of the Cameron Atomica amp, designed to reproduce the 'brown sound' of a Jose Arrendendo modified Super Lead Plexi. High Gain and Low Gain channels are modelled.
Tips:	If you want grinding high gain, don't be afraid to dime out bass, mids, and depth, and then set your treble and presence fairly high (7-ish range). I keep my gain around 6 and master volume at 5
Sound Clips:	Cameron Atomica 80's Rock!
Recommended Cab/Speaker:	Celestion G12H

The Cameron Atomica was built to reproduce the legendary "brown sound" of an mysterious Super Lead Plexi, modded by Jose Arrendendo, and supposedly sounding like the best thing ever (that is: if you are a fan of the "brown sound"). That Plexi had a label on it reading "Atomica". Before it got lost, amp modder Mark Cameron had his hands on it and examined its insides. His findings led to the creation of the Cameron Atomica. Well, that's the story anyway. There was a long waiting list for this amp but it was built for a short time only. The whole thing turned into an ugly financial mess. People's orders weren't fulfilled, people lost money etc. Cameron and others involved fought it out online, it's all on Rig-Talk.

The Atomica is a 100 watts head with EL34 tubes. It has L(ow) gain and H(igh) (additional gain stage) inputs, which are available as separate models.

I haven't found a good use for the Low model, but maybe I haven't tried hard enough.

It's an amp with a Master Volume. This means that the amp's distortion is created in particular by the preamp tubes, not the power amp. The Master Volume, which works in the power amp section, is still very important to the tone and feel. You have to decide for yourself what setting in the model works for you best. The default setting is a good point to start of course, but don't hesitate to turn it up.

Cliff says:



"The Atomica can tolerate high MV because it is a "Jose-style MV". The Jose-style MV imparts a very high source resistance to the tone stack which causes much more insertion loss and therefore lower drive level into the power amp."

The controls on the original amp are: Thump (model: Depth), Bass, Middle, Treble, Master, Gain model: Input Drive), Edge switch (model: Bright switch, defaults to off), Presence. Plus a Gain Style knob at the rear which selects between three voicings.

Presence at default is set pretty modest. You might want to turn that up. **Tone tips from Paramore's Justin York (@JustinYork):**

"That's my favorite model in the Axe for dirty tones. If you want grinding high gain, don't be afraid to dime out bass,

mids, and depth, and then set your treble and presence fairly high (7-ish range). I keep my gain around 6 and master volume at 5. I like to pull back the Xformer Match just a touch and add a little speaker drive (2) on the Speaker page.

If you want to get a little more aggressive with it, try setting the Output Comp to Feedback and just edge it up a little bit. Also, backing off the preamp hardness seems to make it breathe a little better to my ears. I also drop off about 1.5db of 250hz on the graphic eq page.

Every guitar is different, and every IR makes a huge difference, so play around with it and see if any of those adjustments puts you in the ballpark of where you want to be."

Both models feature an engaged Saturation parameter. This attributes to the mean sound, especially in the High model. This model cuts like a knife and adds a nice aggressive growl to it. The Cameron CCV-100, which will be discussed later, sounds even meaner (and much brighter) than the Atomica. A side-product of these cutting tones is that you may not like them as much for single notes high on the neck; they can sound thin. All IMHO of course.

By the way, you can NOT select the Atomica High model and NOT play Van Halen. Try it. You simply can't, it's impossible.

This cab head is often used with 4x12 cabinets with G12H speakers. You'll find the list of stock G12H cabs here. Alternatively you can use the EVH stock cabs with these amp models.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>100 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>Unknown</i>
<i>Power Amp Tubes</i>	<i>EL34</i>
<i>Tonestack Location</i>	<i>POST</i>

Band-Commander ('68 Fender Bandmaster, AB763)



Synopsis:	A model of the vibrato channel of a silver face 1968 Fender Bandmaster with a AB763 circuit. This model screams: "Play a John Mayer tune".
Tips:	It's an amp with quite a lot of headroom. When it does start to break up, it produces a nice overdrive.
Sound Clips:	Music Store Live Demo
Recommended Cab/Speaker:	Jensen or Oxford 12" speakers

Maybe not as famous as some of the other Fender amps, but the modeled Bandmaster with the AB763 circuit is considered to be another "holy grail" Fender.

This amp has the looks of a silverface Fender, the period between 1967 and 1981 following the blackfaced Fenders. Silverfaces are commonly associated with less desirable Fenders. But this amp has the AB763 circuit from the blackface period, considered the best circuit version produced for this amp. So you may as well regard this amp as a blackface version. This "hybrid" Bandmaster was produced shortly by Fender, before the introduction of lesser-quality circuits. More information. Do not confuse this version with the later Bandmaster Reverb or the earlier Tweed Bandmaster.

Ampwares.com:

"In August 1967, Fender changed the cosmetics once again, this time to the silverface style. The earliest of these (Aug. '67 to July '68) had aluminum grill trim, black vertical lines on the control panel, and a highly textured version of the famous silver/blue sparkle grill cloth. In addition, the speaker cabinet was enlarged and ported. In June 1968, the Bandmaster was given the infamous AC568 silverface circuit. The amp shown here is one of the very last silverface Bandmasters produced with the blackface AB763 circuit."

Fenderguru.com:

“Not all silverface amps were developed in a bad direction. Let’s study the blackface Bandmaster AB763 and Bassman AA864. They are similar in the way that both are clean sounding with just one 12ax7 tube in the preamp stage (vibrato ch in bandmaster and normal channel in bassman). The vibrato channel in the Bandmaster is even more clean than the Bassman because of the vibrato circuitry loading the signal chain and reducing the gain level in the preamp section. Hence, the AA864 Bassman normal channel has more preamp “juice” and reaches the sweet spot at an earlier volume knob setting. The Bassman has a slightly bigger output transformer resulting in a firmer tone and more attack. A smaller output transformer will introduce sag and compression in the power amp section. The blackface Bandmaster is therefore ideal for those who look for a pure Fender clean sound without making ones ears bleed. The blackface and silverface Bandmaster is a big sounding amp with a flexible speaker impedance of 4 ohm, allowing anything between one and four speakers (8 ohm each) to be connected via the main and/or external speaker jack. This makes it possible to adapt to small and big stages and gigs just by configuring the speakers.”

This amp puts out around 40 watts through two 6L6 tubes. It has two channels: “Normal ” and



“Vibrato”. The model is based on the Vibrato channel.

It’s an amp with quite a lot of headroom. When it does start to break up, it produces a nice overdrive.

The Bandmaster sounds very balanced to me. I know quite a few people use it as their main Fender model.

The original amp controls are: Treble, Bass, Volume Bright and Volume Normal, and a Bright switch. There’s no Middle tone control, so keep this at “5” in the model for authenticity. No Master Volume either, so keep the Master control in the model dimed.

Note that the range of the controls on this amp is 1 to 10, while the model's controls range 0 to 10. Here's a translation table, created by forum member Barhrecords.

The Bandmaster provides two inputs per channel. Fractal Audio models of Fender amps are always based on the input with the highest input level. To get the equivalent of using the lower input, set Input Trim to 0.500.



This Bandmaster was used with a 2x12 cabinet, with Jensen or Oxford 12" speakers. Find the 2x12" Fender stock cabs on this page.

Amplifier Specifications

<i>Year of Manufacture</i>	1968
<i>Circuit</i>	AB763
<i>Power</i>	40 watts
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	1x 12AX7 2x 7025
<i>Power Amp Tubes</i>	2x 6L6GC
<i>Tonestack Location</i>	PRE

Big Hair (Fractal Custom Model)



Synopsis:	Big Hair: a Fractal Audio custom amp model, similar to a JCM800
Tips:	For more '80s revival, try a Pitch block set to Detune after the CAB block, and add a circular delay
Sound Clips:	N/A
Recommended Cab/Speaker:	4x12 Marshall cab with a G12M, V30 or G12-75 speaker.

Fractal Audio has added a considerable number of custom amp models to the collection. These virtual amps have no real-life equivalents. They solely exist within Axe-Fx II and AX8, surpassing the electrical limitations of traditional amps.

The Big Hair model dates back to the first Axe-Fx generation when there were far less models.

According to the manual, it delivers "mids without mud, and revives the 80s metal scene (Spandex not included)".

Cliff says:



"It was a total guess. I just tuned it by ear. It's just my idea of what 80's hair metal might sound like."

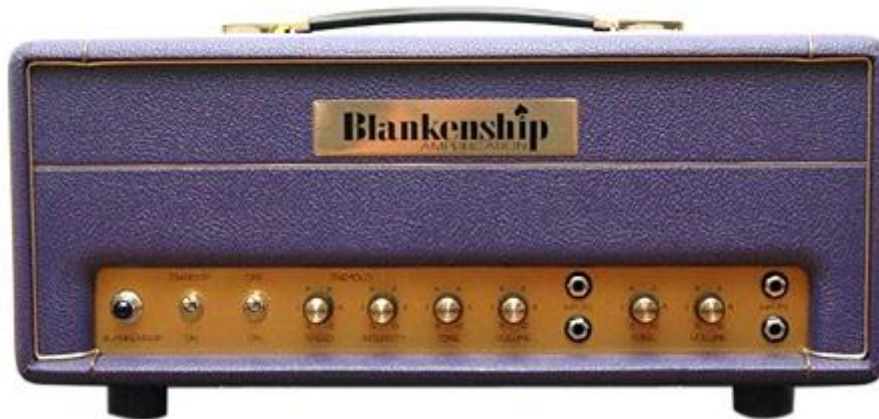
With this description and judging by its sound, the Big Hair model should probably be comparable to a JCM 800. And it is. Just compare the Big Hair to the Brit 800 Mod amp model with a low-gain T808 OD in front of it.

About the amp controls: an advantage of the custom models is that most sound already great at default settings.

For more '80s revival, try a Pitch block set to Detune after the CAB block, and add a circular delay.

Logical cab choices: a 4x12 Marshall cab with a G12M, V30 or G12-75 speaker.

Blanknshp Leeds (Blankenship Leeds 21)



Synopsis:	Blankenship Leeds 21 amp, a boutique replica of an 18w Mini Bluesbreaker
Tips:	The best way to use this thing is to max out the Volume (Input Drive), turn up Tone (Treble) to your liking and then use the guitar's volume knob to regulate the gain
Sound Clips:	Premier Guitar review of Blankenship Amps
Recommended Cab/Speaker:	Celestion G12H30

This is a 21 watts head with EL84 tubes. It's a boutique replica of a famous and expensive 18 watts open-back Marshall from the '60s, often referred to as "Mini Bluesbreaker" or "18 watter". That Marshall amp is placed 16th on [Vintage Guitar's list of most valuable amps](#). Marshall released a couple of [reissues](#). This Marshall and its clones, such as the Blankenship, are known for sounding "big" despite being relatively low power. [More information is available on the Gibson website.](#)

Cliff says:



"The model was matched to Dweezil's amp. He loaned it to me because it was one of his favorite amps and I can see why. It's a really cool amp."

"The amp has no hi-cut circuit therefore the control won't do anything. Neither will the Depth."

The Blankenship has two channels, one with and one without tremolo. The controls are simple: Volume and Tone, and tremolo controls. The Tone knob is mapped to the Treble control in the model.

As Blankenship explains in the video below, the best way to use this thing is to max out the Volume (Input Drive), turn up Tone (Treble) to your liking and then use the guitar's volume knob to regulate the gain. So simple, so awesome.

The original Marshall came in three flavors: 2x10" (model 1958), 2x12" (model 1973) and 1x12" (model 1974). Marshall's reissue has a 1x12" 20 watts G12M speaker. The Leeds 21 combo comes with two G12H30 speakers.

Take your pick from the Marshall cabs listed here. Or try a "smaller" stock cab like the Triptik, Nuclear Tone or Division 13.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>18 watts</i>
<i>Master Volume?</i>	<i>No</i>
<i>Negative Feedback?</i>	<i>No</i>
<i>Preamp Tubes</i>	<i>3x 12AX7</i>
<i>Power Amp Tubes</i>	<i>2x EL84</i>
<i>Tonestack Location</i>	<i>POST</i>

Bludojai (Bludotone Ojai)



Synopsis:	Models of the clean and overdrive channels of a Bludotone Ojai, itself a copy of a specific Dumble Overdrive Special amp used by Robben Ford.
Tips:	<i>See Austinbuddy's comments below</i>
Sound Clips:	<p>Bludotone Ojai Tone Test</p> <p>Bludo-Drive by Bludotone</p>
Recommended Cab/Speaker:	Celestion G12-65

The Ojai is an exact copy of a specific Dumble Overdrive Special amp, used by Robben Ford. When you Dumble, you say Robben Ford, and vice versa. It's sort of an authorized clone: Robben Ford owns and sometimes plays a Bludotone Ojai, in addition to his famous **"Tan" Dumble ODS**.

A Dumble is THE most expensive amplifier available, no.1 of **Vintage Guitar's list of most valuable guitar amps**. A combo version listed on Reverb.com recently with an asking price of more than € 80.000.

Other famous Dumble players include Larry Carlton, John Mayer, Carlos Santana, Keith Urban, SRV, Eric Johnson, Joe Bonamassa.

There's always a lot of talk on the forums about Robben Ford's Dumble tone. It's an elusive tone, worshipped by a lot of jazz / blues / fusion players. It's a thick, mid-heavy, smooth lead tone, very touch-sensitive. The "note flip" is a certain tonal characteristic attributed to the Dumble and some of its clones. So what's the note flip? Quote: "It sounds KIND of like its starting to feed back, but its not. It flips the note up so that a different harmonic order is heard, or something like that".

That trademark tone is not for everybody: hit a power chord and it may be terrible to your ears.

By the way, there's more to Dumble than the Robben Ford sound. Each Dumble was voiced specifically for its buyer, by Alexander Dumble.

Replicating an original Dumble amp is hard. The amp's circuit often has goop all over it, hiding the electronics.

The Ojai is a 100 watts amp with 6L6 tubes. Ojai is the name of the city where Robben Ford lives. The Ojai is part of Bludotone's line of Bludo-Drive amps.

From The Gear Page:

"The Ojai is an exact copy of Dumble #102. Robbens tan Dumble. It also requires the Dumbleator and specific capacitance cables to run to and from the Dumbleator (about 180-200pf per cable). This due to the large bright cap on the amp master. All controls are marked in silver sharpie for the exact settings of Robbens tone. The pot tapers are all 30% audio taper, except the treble control, presence, and the OD in/out which are linear. Robben sets his mids at about 70K from ground."

The Ojai has two inputs: FET and normal. The FET input has a different impedance. The models are based on the Normal input.

The amp has two channels: clean and overdrive.

The Clean model is based on the Ojai's clean channel with Preamp Boost (PAB) turned on, which makes it kind of crunchy. To get the equivalent of the clean channel without the PAB, change the **Tonestack** to: Skyline. Also dial back Input Drive to about 1.5 or 2.0, or dial down the Input Trim to .500. You might also want to increase **Preamp Dynamics** from the default value to 0.5 for more "touch responsiveness."

There are two models of the OD channel: one with the PAB engaged (Lead 1), and one without (Lead 2). If you are on a quest for the Robben Ford tone, start with Lead 2.

The controls on the original amp are: Volume for each channel. Shared tone controls: Treble, Middle and Bass. Overdrive on the OD channel. Master Volume and Presence.

The switches work on both channels. "Bright" adds spark, it's less noticeable when the volume is turned up. "Mid" boosts mids for more gain, like the FAT switch in the model. And there's a "Rock/Jazz" switch. On the real amps the first two switches are often turned off, and Rock/Jazz is set to Rock, so the models were created like that. There's also a footswitchable Preamp Boost (PAB). It boosts some mids and adds gain.

There are two gain controls for the OD channel: Volume and Drive, modeled as Input Drive and Overdrive. On all amps like this, including those by Engl, Fryette, Carol-Ann and Mesa, the first control sets the "sensitivity" and the second one sets the amount of distortion. Cliff:

"Input Drive increases the gain amount as you rotate the knob clockwise. As the gain increases the tone is shifted from a treble and upper mid emphasis, which produces an up front sparkling tone, to a lower mid and bass emphasis, which produces a thick meaty tone.

Overdrive increases the gain amount as you rotate the knob clockwise but with no alteration of the tonal balance.

Different combinations of Input Drive and Overdrive settings will have a dramatic effect on the response of the amplifier and the personality of your instrument. It is easy to get familiar with the action of these controls and you'll be amazed with your ability to make any guitar sound mellow, fat, soulful or aggressive."

Models with Input Drive and Overdrive controls always feel "elastic" and spongy, a real joy to play.

It's a Master Volume amp. This means that the amp's distortion is created in particular by the preamp tubes, not the power amp. The Master Volume, which works in the power amp section, is still very important to the tone and feel. You have to decide for yourself what setting in the model works for you best. The default setting is a good point to start of course. Master Volume has a bright cap switch on it: if you turn it down, it gets brighter to compensate.

Austinbuddy's amp

This model is based on an amp owned by forum member @austinbuddy. He says:

"The model is of a 100w 6L6 BludoDrive Ojai by Bludotone amps. The Ojai has the same schematic as the famous "Tan" boutique amp played by Robben Ford (Rumble)."

"The Bludojai is a Robben Ford voiced amp. The clean channel is pretty gainy. So here are some tips, some of this is in the Amp Wiki too. For the Bludo CLEAN amp, take the tone stack from "default" and replace it with either the Skyline or Skyline Deep tonestack. Next, set the master volume to 5 (it has a brite cap on it, so the louder the master, the less trebly; Ford sets his around 5). Next, set the Drive control to literally 1 or 1.5 - pretty low, and the guitar input gain control to 0.5. (Think about how Robben constantly uses that volume pedal to control the amount of guitar signal going into the amp...this gives you some room). Now you have a very nice sounding Dumble Fender on Steroids with mids clean, with Bass at 5, Mids at 3-5, treble at 5, presence at 3-5. Jack up the Level output volume to compensate for the lower gain settings. Pair it with a G12-65H speaker. Cab Pack 17 has many choices (full disclosure, I produced 5 of the 6 Cabs in that Cab Pack). The BludoMix Cab in factory firmware is a 1x12 Alnico dual port cab, and will sound good but perhaps a tad darker (great for Jazz) on clean sounds than the G12-65H will. Now, if you like, put a Zen drive in front on the BludoClean amp....or a boost...and listen to how that clean channel wakes up fast for grittier leads and touch-responsiveness.

For BludoLead, take the Lead default amp values. Put the Master Volume on 5. Put drive at 4-5 and Overdrive at 4-5, and experiment with the tone stack swaps above. If you want the amp to feedback effortlessly on a note, raise the overdrive setting higher combined with the gain, provided you have sufficient volume coming out your speakers to hit your guitar pickups in a reinforcing loop, it will do it! Throw a boost or Zen drive on that, if you like..."

"Cab Pack 17 also has the oval-back 2x12 cabinet with Celestion G12-65H speakers which Robben uses live. Be sure to play with the speaker resonance in the amp block (lower it to around 75-85) to compensate for the open-back cab and get your bottom end correct!"

About the cabs: for the Robben Ford tone, you'll need the G12-65. There isn't a recent, good-quality near-field IR of a G12-65 among the stock cabs. But you can get them in **Cab Pack 17: Buddy's Boutique**, which was produced mostly by Austinbuddy.

Cab Pack 16 ML Suhr also has G12-65 IRs. OwnHammer has some too.

Alexander Dumble himself liked the EV-12L. Check out stock cabs #008 and #105 if you prefer that sound. There are more EV-12L IRs in Cab Pack 17.

Alternatively try stock cab #011. It's the IR of Buddy's dual-ported 1x12 closed-back cab. While Larry Carlton uses an old EV-12L in his, this one uses a modern replacement for an EVL-SRO, a Blackhawk AlNiCo WGS. There are more IRs of this cab in [Cab Pack 17](#).

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>100 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>Unknown</i>
<i>Power Amp Tubes</i>	<i>6L6GC</i>
<i>Tonestack Location</i>	<i>MID (Clean) POST (Lead 1) PRE (Lead 2)</i>

Bogfish (Bogner Fish)



Synopsis:	Models of the Strato and Brown channels of a Bogner Fish preamp.
Tips:	Not as thick as the trademark Bogner tones, less depth, slightly “papery”
Sound Clips:	N/A
Recommended Cab/Speaker:	Bogner cabinets

Bogner is a guitar amplifier manufacturing company, founded by the very entertaining and eccentric Reinhold Bogner. The Fish is his all-tube blue-colored 12AX7 pre-amp from the '90s. It's most famous for its use by Jerry Cantrell of Alice in Chains. It was re-issued (for a short time) a few years ago.

Bogner:

“The Fish preamp was created in 1989-90 and ushered in a new era of boutique design and tone. It featured 4 channels: Country, Strato, Shark and Brown that covered a wide range of tones from crystalline clean to heavy modified amps tones all within a 2-space rack mountable chassis.”

We've got models of the Strato and Brown channels in our Fractal Audio devices. The Brown channel has the most gain. The controls are simple. On the original amp Stratos and Brown share Treble, Middle and Bass controls and have their own gain controls.

The real Fish is a pre-amp only. Fractal Audio added a power amp model.

Cliff says:



“I used the power amp models from the XTC.”

Besides the amps, the Bogner cabinets are famous too. From the small 1x12 Cube to the large 4x12 Uberkab. So the Bogner stock cabs are a logical choice.

More IRs of Bogner cabs are available in **Cab Pack 9** and **Cab Pack 14** (which includes Cab Pack 5). **OwnHammer** also has a large collection of Bogner IR libraries.

Yek's personal comments

I was a Bogner guy. I owned various Bogner Ecstasy models. It was my mainstay amplifier before I got the Axe-Fx Ultra. I never played a real Fish. The Fish certainly is a different type of amp / model for that matter. Not as thick as the trademark Bogner tones, less depth, slightly "papery".

Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>N/A</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>N/A</i>
<i>Preamp Tubes</i>	<i>Unknown</i>
<i>Power Amp Tubes</i>	<i>N/A</i>
<i>Tonestack Location</i>	<i>POST</i>

Boutique (Matchless Chieftain)



Synopsis:	2 models of the Matchless Chieftain: Normal and Boost mode.
Tips:	Bass, Middle and Treble are interactive. The Bass control has a very wide range. Excessive amounts of bass can cause floppiness and lack of definition at high volume settings.
Sound Clips:	Matchless Chieftain demo
Recommended Cab/Speaker:	Factory Cab: #026 2x12 Boutique (ES212 cab with G12H and G12M speakers) Factory Cab: #030 2x12 Boutique R121 (DC-30 cab)
Manual:	Matchless Clubman / Chieftain Manual

Matchless initiated the boutique amplifier craze in the '90s. Hence the name of this amp model. One of its founders was Mark Sampson. The amplifiers that were made during the time that he worked at Matchless are considered the best (“Sampson-era”). Matchless amps are often associated with country music (Nashville) but they are also used by bands like Kings of Leon. [More information.](#)

Matchless takes the Class-A tone to a higher level. The C-30 is their most famous amp (the DC-30 is modelled by Fractal Audio). [The Chieftain](#) is lesser known but a fine amp in its own right.

There are two Boutique models. “Boutique 2” is modelled with a boost for more gain and high-frequency emphasis.

The Chieftain is a single channel 40 watts amp, with a single input jack and two EL34 tubes. Medium-gain amp, thick, yet crisp, with a fair amount of power amp breakup.

The preamp on the Chieftain Reverb employs a 12AX7A tube for the first preamplifier and an EF-86 (6267) tube in the tone control circuit. It uses four 12AX7s for the pre-amp, tone controls, and reverb.



The Volume control sets the gain of the first preamp stage. It acts as a sensitivity control and a drive control.

The Master Volume control adjusts the overall gain of the output amplifier. For maximum clean headroom set the Master to its maximum position. For dirtier sound, lower the Master and turn up Volume.

Bass, Middle and Treble are interactive. The Bass control has a very wide range. Excessive amounts of bass can cause floppiness and lack of definition at high volume settings.

The Brilliance control on the modelled amp adjusts the overall high frequency response of the power amplifier. It is used to smooth out high frequency edginess or bring it forward. It offers extra flexibility and tone shaping by widening or narrowing the broad-band response of the amplifiers. Brilliance is mapped to the Hi-Cut control in the model. Defaults is "0", I like it much better around "5".



Read the manual for more information about the controls.

Matchless amplifiers commonly use a combo of custom G12-H and G12-M speakers. We've got them in our devices: look for the Boutique stock cabs.

Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>40 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>N/A</i>
<i>Preamp Tubes</i>	<i>5x 12AX7</i>
<i>Power Amp Tubes</i>	<i>2x EL34</i>
<i>Tonestack Location</i>	<i>PRE</i>

Brit 800 and Brit 800 Mod (JCM 800)



Synopsis:	2 amps based on the Marshall JCM800 (one modified). The classic 80's rock amp.
Tips:	An unmodified JCM 800 is a very harsh amp at lower volume levels. To make a JCM 800 sound less brittle, you have to turn up that Master Volume, or drastically reduce Treble and Presence.
Sound Clips:	Johan Segeborn JCM800 Comparison
Recommended Cab/Speaker:	Celestion G12M or G12H
Manual:	JCM 800 2203 Owner's Manual

Brit 800: based on Marshall JCM 800, model 2204 (50 watts)

Brit 800 Mod: based on Marshall JCM 800 with mods

Some amplifiers define an era or a particular style in music. The JCM 800 is such an amp. It'll always be associated with hard rock and metal in the '80s and '90s. Slash, Iron Maiden, Slayer, etc. All hard rock bands used them.

"JCM" are Jim Marshall's initials. "800" denotes the decennium in which it was released, followed by the JCM 900 series in the 90s and the JCM 2000 series in the new millennium. Model 2203 is the 100 watts versions, model 2204 is the 50 watts version.

It's a simple single channel amp, with Low and High Sensitivity inputs. The model is based on the High input.

The JCM 800 has EL34 or 6550 tubes and puts out 50 watts (model 2204) through (preferably) a 4x12 cabinet. If you prefer the 100 watts JCM 800, check out the Brit AFS100 1 model, which will be discussed in the next article.

It has Presence, Bass, Middle, Treble, Master and Pre-Amp Volume controls.

Read the handbook of the current re-issue.

An unmodified JCM 800 is a very harsh amp at lower volume levels. To make a JCM 800 sound less brittle, you have to turn up that Master Volume, or drastically reduce Treble and Presence. This applies to the model too.

Cliff says:



"It's a vertical input Canada export version. I went through several before settling on this one as it was the best sounding by far."

"It is a very bright model. However, it sounds exactly like the amp it was based on. If it is too bright, you can adjust the various tone controls and parameters to reduce the brightness to your tastes. They are designed to be run loud and the brightness decreases as the MV is increased. The sound of 80's hair metal for sure."

"Rips my head off here. I have to turn the presence way down. Check the MV. Too high and will get muddy."

"Those amps are all designed to get their character from power amp distortion. If you don't push the power amp all you are hearing is the preamp which is voiced to be trebly. The power amp then compresses the highs and the sound gets fatter."

"That 'interference' is due to all the treble peaking used in the design. JCM800s have quite a bit of treble boost. When you first attack the string the note is unpitched. It's basically a brief explosion of noise. The treble boosting amplifies the upper frequencies of this noise burst which is what you hear. However, when you playing in a loud mix that treble boosting helps the sound cut. Modern designs use more carefully crafted treble boosting to retain the cut but tame some of the harshness of the attack. This is accomplished typically by putting a capacitor in parallel with the plate resistor(s) which rolls off around a few kHz. This preserves the treble boost in the upper midrange but softens the attack. I believe the SLO100 was one of the first amps to do this. You can see this in the Axe-Fx II as your Triode Freq parameters. You can soften the JCM800 attack by lowering the Triode Freq values. Most modern hi-gain designs use some form of HF rolloff like this. Another reason is that JCM800s use relatively low amounts of negative feedback (which is why they're so loud). This causes a treble boost in the power amp. Increase the Damping parameter to increase the negative feedback."

[about the Brit 800 Mod model in Quantum 2.01]:

"I changed the 800 Mod considerably from Quantum 2.00. In 2.00 I was driving the last triode stage much harder but in real life you wouldn't be able to drive the stage that hard so I lowered it to a realistic value."

Another way to make the model of this amp less bright, is to turn off the Bright switch. This is equivalent to modifying the real amp by removing its treble peaker.

It was common practice to use a pedal such as the Tubescreamer to shape the tone and distortion of the JCM 800. Set the pedal's gain low and turn up its level.

A JCM already is an angry-sounding amp. Adding the renowned Jose Arrendendo mod makes it even meaner. This is accomplished by turning on **Saturation**.

Alternatively, or combined with Saturation: try turning on **Boost** on the amp's Advanced page for even more gain.

The "Brit 800 Mod" model is based on the JCM 800 that has all the common mods applied, such as removing the treble peaker and more gain, to sound heavier and less strident.

The Brit 800 and Brit 800 Mod models can be used with a lot of stock Marshall cabs, **listed on the wiki**. Take your pick from G12-M or G12-H speakers, or the higher-powered version G12-75, or the V30.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>50 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>ECC83</i>
<i>Power Amp Tubes</i>	<i>2x EL34</i>
<i>Tonestack Location</i>	<i>POST</i>

Brit AFS100 and Brit Super (Marshall AFD100)



Synopsis:	Slash's signature amp. A replica of the amp used for the Appetite for Destruction album. The amp has 2 modes: #34 (or Brit AFS100 1) – a modified JCM800 used for some parts on the AFD album, and AFD (or Brit AFS100 2) based on a modified SuperLead Plexi. AFD is thicker with more gain than #34
Tips:	According to the amp's manual, Slash sets all controls around 1 o'clock. And this works on the model too, with Presence and Master at default. And use a Les Paul, of course.
Sound Clips:	AFD100 Launch Video
Recommended Cab/Speaker:	Celestion Vintage 30
Manual:	AFD100 Slash Signature Series Amplifier Owner's Manual

Brit AFS100 and Brit Super: based on Marshall AFD100SCE

NOTE: you should listen to Gun 'N Roses' Appetite For Destruction while reading this article.

The AFD Special Collector's Edition is Slash's signature amp, produced in a small quantity. It's a replica of a famous amp used by Slash to record the GnR album Appetite For Destruction (AFD). People love the raw rock tones on that album, widely regarded as one of the best rock albums ever. The amp has a silver front panel (borrowed from the Marshall Silver Jubilee) with the signature of Slash on it. So I guess the thought behind the name of the model simply is: Appetite For Slash (AFS).

The AFD is a 100 watts head with 6550 tubes, offering two modes which represent legendary Marshalls: #34 and AFD.

Mode #34 (LED off) is a modded JCM 800, model 2203. This was a rental amp (number #34) from the company S.I.R., which was used for a few parts on the Appetite for Destruction album. It was modded to sound similar to amps #36 and #39, see below. Modelled by Fractal Audio as "Brit AFS100 1".

Mode AFD (LED on): supposedly a Super Lead Plexi. Modified to add gain and a master volume. It's thicker and has more gain than mode #34. It's responsible for THE sound that defines the Appetite For Destruction album. The story goes that this was a rental amp loved so much by Slash that he falsely reported the amp as stolen. The amp was reclaimed later by the rental company. And Slash never replicated that AFD tone on later albums.

The story goes that it was a modified Super Lead Tremolo, model 1959T, S.I.R. rental #39. This was an amp of almost mystical proportions. Modded and sounding so good that everybody wanted to rent it. It's gone missing and nobody knows its current whereabouts. This is the story told in the [amp's manual](#).

However, [according to this report](#), which seems based on proper investigating and is a great read (read all 3 pages), Slash didn't use S.I.R. rental amp #39. He used a substitute model 1959 (S.I.R. rental #36), which had been modded in the same way as #39.

The AFD mode has been modelled by Fractal Audio as "Brit AFS100 2".

The AFD mode is also modelled in the "Brit Super" model. Unlike the AFS100 "AFD" model, Brit Super is based on a schematic of the original amp and therefore sounds different (more gain, more boosted high end). It was introduced before the AFS100 models, so you might say it has been superseded by those.

If you didn't like the AFS models before, due to their harshness, try again. They are much improved in Quantum 2.01 and later.

Cliff says:



"I have an actual Slash signature model and spent a lot of time measuring, listening and comparing."

Besides the Mode switch, the amp has Presence, Bass, Middle, Treble, Master Volume and Gain controls, and Low/High inputs. As always, the models are based on the High input.

The amp has a Master Volume. So the amp's distortion is created by the preamp and power tubes. You have to decide for yourself what

setting in the model works for you best. Don't hesitate to turn it up.

According to the amp's manual, Slash sets all controls around 1 o'clock. And this works on the model too, with Presence and Master at default. And use a Les Paul, of course.

Remember: while the gain (Input Drive, Overdrive) and tone controls (B/M/T) in all models visually match the controls on the original amps (within 10%), Master Volume / Presence / Depth do not.

Slash uses V30s in his Marshall cabs. Take your pick from the stock cabs



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	100 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	2x ECC83
<i>Power Amp Tubes</i>	4x 6550
<i>Tonestack Location</i>	POST

Brit Brown and FAS Brown



Synopsis:	FAS Models of the Eddie Van Halen 'brown' sound. The Brit Brown was modelled by ear, based on a 100W SLP. The FAS Brown was an Ultra/Standard model ported to the Axe FX II
Tips:	I keep the Brit Brown controls pretty much at default, only increasing Input Drive and Presence.
Sound Clips:	N/A
Recommended Cab/Speaker:	Celestion V30

Brit Brown and FAS Brown: Fractal Audio custom amp models

Eddie van Halen's legendary "Brown sound" probably still is the most sought-after guitar tone. A Marshall Super Lead Plexi, perhaps modded, with a Variac to run at lower than normal voltage, a 4x12, reverb and some EQ-ing magic at the mixing table. The sound on those early Van Halen records is immediately recognizable.


Supposedly Eddie himself said this: "There is a difference between being just loud and having what I call a warm, brown sound, which is a toney sound." Another story it that the term "brown sound" originally was used to describe Alex Van Halen's drum sound. More background information on the Brown Sound is available on legendarytone.com.

The Brit Brown and FAS Brown models are Cliff's takes on that pure, raw guitar sound.

The "Brit Brown" model was created on the Axe-Fx II. It's a popular model.

The “FAS Brown” model was created in the Axe-Fx Standard/Ultra period, named Brown at that time. Initially it was part of the Axe-Fx II firmware. When people requested it, it was ported to the Axe-Fx II. It sounds very similar to Brit Brown, a bit more bright and lower in volume.

The Brit Brown model has the **Saturation** parameter (simulating the Jose Arrendendo mod) turned on, for that aggressive tone. The FAS Brown model doesn't.



Cliff says:

“Brit Brown is my personal take on what the ultimate “Brown” plexi should sound like. It's based on a 100W SLP with Arredondo mods and a few little voicing tweaks.”

“The Brit Brown was built by ear.”

Eddie used to crank all controls on his amps. But since that sound is already modelled, you don't have to do that. But there are no rules. I keep the Brit Brown controls pretty much at default, only increasing Input Drive and Presence.

If you listen to the isolated tracks below, you'll hear that the early Eddie Van Halen didn't use that much gain, and that his tone was very bright.

For authenticity select Marshall cabs with V30 speakers on [the wiki page](#). He didn't use his custom speakers until later on.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>N/A</i>
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	<i>N/A</i>
<i>Power Amp Tubes</i>	<i>N/A</i>
<i>Tonestack Location</i>	POST

Brit JM45 (Marshall JTM 45)



Synopsis:	Marshall's copy of the Fender Bassman amp with British components. Different to other Marshall amps in that it doesn't deliver the Marshall 'crunch'. The High Treble and the 'Jumpered' channels have been modelled.
Tips:	The JTM 45 doesn't have a Master Volume, so keep the Master control in the model dimed. Without a Master Volume control, the JTM relies on power amp distortion. To achieve a nice warm overdriven blues or rock tone, you need to turn up the drive a lot, and crank the tone controls. This makes it a very loud amp in real life. Simeon's Gary Moore settings: Gain: 3, Pres: 3, Everything on default except Cab #103 - Basketweave TV T808 in front, Drive:7, Tone: 6, Level:7
Sound Clips:	Marshall JTM-45 Marshall JTM45 2245 Plexi Amp Demo
Recommended Cab/Speaker:	Celestion Greenbacks, G12H
Manual:	2245 'JTM45' Owner's Manual

The JTM 45 was Marshall's first amplifier in the '60s. Its design was entirely copied from the Fender Bassman. It was a hit, and a vintage JTM 45 is worth a lot, listing #6 on [Vintage Guitar's list of most valuable amps](#). Some production models were named JTM 50.

Vintage Guitar:

"Despite being derived virtually point-by-point from Fender's 5F6-A Bassman schematic, British components give the JTM45 a tone all its own."

It is a different kind of Marshall tone than the later Plexi amps. [Wikipedia](#):

"For all of its differences with the Bassman, the sound of the JTM 45 is still described as "like a tweed Fender"; it has more sag and less crunch than the later Marshalls, and is favored for blues and rock rather than for hard rock and metal. The JTM 45 does not deliver the famous Marshall "crunch" that became so sought after."

Eric Clapton played a JTM 45 combo known as the Blues Breaker on the famous '66 Beano album by the John Mayall Bluesbreakers. [More JTM 45 history](#) and [more about Eric Clapton's amps and guitars](#).

The JTM 45 was re-issued by Marshall, with 6L6 tubes:

“The very first Marshall amp, made back in 1962, was the JTM45. It was an instant hit and launched a whole new generation of groundbreaking guitar players and sounds. Since then, connoisseurs of tone have sought out rare original JTM45s from the '60s. Now they shall seek no more, thanks to this meticulously accurate re-issue. It was GZ34 rectification that was the key to the JTM45's sound, and this is a feature painstakingly reproduced in this re-issue. The way the rectifier interacts with the other valves causes subtle harmonics to shift and smoulder beneath every note, producing the unmistakable, original, and much emulated Marshall sound.”

The JTM 45 uses KT66 tubes and is 30 watts. It has four inputs, two per channel.

It provides two channels: Normal and High Treble, and two inputs per channel. Fractal Audio has models of the High Treble channel and of the jumpered inputs.

Jumpered channels: some players use patch cables to “jumper” the inputs (2nd input of channel 1 goes into 1st input of channel 2). This enables them to have the benefits of both channels at once. This is modeled in the “Jumpered” model of the JMT 45. This model has two Drive controls. Set them at the same position, or keep Normal Drive lower than Treble Drive.

The High Treble channel is bright. The amp is also heavy on bass. Like a Plexi's Normal channel, it's not unusual to turn down the Bass control all the way to prevent the tone getting flubby.

Apart from the Volume controls for both channels, the amp has Bass, Middle, Treble and Presence controls.

The JTM 45 doesn't have a Master Volume, so keep the Master control in the model dimed. Without a Master Volume control, the JTM relies on power amp distortion. To achieve a nice warm overdriven blues or rock tone, you need to turn up the drive a lot, and crank the tone controls. This makes it a very loud amp in real life.

Unlike its cousin the Fender Bassman, the JTM 45 was designed to be used with a 4x12 cabinet with Celestion G12M (greenbacks) or G12H speakers.

Greenbacks have a sweet midrange and good bass reproduction. The rear of those speakers was green, and the nickname “greenbacks” was born. Another popular speaker in those days (and still): the G12H, a 30 watts Celestion speaker that compresses less than a greenback and has a flatter response (“Jimi Hendrix” speaker).

Cliff says:



“They had no Master Volumes so people rarely got the Drive past 3.00 since it would melt your face. Without the specter of having your skin flayed off as is afforded by a model of the amp, the temptation is to turn the Drive way up. When you do this, the low notes get very muddy. Single notes can form an almost perfect square wave which will sound like a synthesizer.”

You check [the wiki page](#) for the stock "greenbacks" cabs, suitable for the Marshall models. Personal favorites among the stock cabs are: 54 and 55 (Cab Pack 20), 58 and 59 (Cab Pack 8), 103 (Cab Pack 2), 131 and 132 (Cab Pack 14, I think...).

Click to open the current re-issue's [handbook](#)

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	30 watts
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	2x ECC83
<i>Power Amp Tubes</i>	1x ECC83 2x EL84
<i>Tonestack Location</i>	POST

Brit JVM (Marshall JVM410H)



Synopsis:	Models of the 4 channels on Marshall's flagship amplifier JVM410H: Clean, Crunch, OD1 and OD2. The OD1 and OD2 channel models also have 3 modes modelled: Green, Orange and Red. The amp is supposed to cover multiple Marshall sounds from JTM45 to modern high-gain.
Tips:	Some of the models have a lot of gain, so keep the drive low.
Sound Clips:	<p>Marshall JVM4 series product demo</p> <p>Johan Segeborn: Can Marshall JVM410H sound like a Plexi?</p>
Recommended Cab/Speaker:	Celestion G12H, V30
Manual:	JVM410H Head & JVM410C Combo Owner's Manual

The JVM410H is Marshall's flagship guitar amplifier, for a long time already. It's a 100 watts EL-34 powered head with four channels and three modes (voices) per channel. These twelve (!) sounds cover the entire Marshall spectrum: JTM 45, Plexi, JCM 800 etc. and adding over the top hi-gain. Versions of the JVM with less channels are also available.

According to the amp's handbook, the JVM's power amp stage is based on the one found in the JCM800 2203 and model 1959 Super Lead Plexi. The JVM410JS, Joe Satriani's signature amp, is based on the JVM410, but with enough differences to warrant its own thread (later on).

Cliff says:



"IMO, the reason the JVM sounds good is the plate cap on the second-to-last triode. That smooths out the tone considerably. The second-to-last triode is associated with "Triode 1 Freq" in the advanced parameters. You can adjust this to simulate adding a cap to the plate. The other thing that helps the tone is the 220K plate resistor on the last triode. This shifts the bias point down vs. a "classic" Marshall. Unfortunately the bias points aren't exposed to the user."

Here’s what Marshall has to say about its pride and joy:

“The British-built JVM4 is the current flagship Marshall amp. The JVM4 Series has been hailed as a market leader, trouncing the competition on tone and value for money. One review described, 'In a market sector with more than its fair share of indifferent, run-of-the-mill black boxes, Marshall has just unleashed a powerhouse of tone that easily competes with boutique designs costing two or three time as much.' – Guitarist Magazine.

British-built, the 100 Watt all-valve JVM410H head redefines versatility thanks to four tonally independent channels: Clean, Crunch, OD1 and OD2, each with three switchable modes. Each mode reconfigures the gain structure of each channel, making twelve modes in total.

The JVM410H front panel looks mind boggling with its twenty-eight controls and eight switches, but because it is intuitively laid out, it is remarkably simple to use. The JVM410H also features four studio-quality digital Reverbs (one per channel), individual channel EQ, two Master Volumes, and a memory that can recall your Reverb, FX loop and Master settings.

Combining some of the finest Marshall sounds, the JVM410H has a vast tonal palette, taking you from ‘Plexi’/JTM45 cleans through JCM800 roar to modern high gain.”

As noted above, the JVM channels are: Clean – Crunch – OD1 – OD2.

Each channel has these modes: Green, Orange and Red. Fractal Audio provides models of all three modes of channels OD1 and OD2.

OD1 Green is similar to a hot-rodged JCM 800. OD1 Orange has an additional gain stage, suitable for hard rock and leads. OD1 Red adds even more gain.

The OD2 modes have even more gain and the Middle control is shifted down to being centred around 500 Hz instead of the more typical Marshall value of 650 Hz.

The JVM is equipped with channel/mode switches, reverb and MIDI and has these controls: Bass, Middle, Treble, Gain, Master Volume, Presence and Resonance (Depth).

Note that some of these models have so much gain that it suffices to keep Input Drive pretty low.

Marshall's JVM cabinet uses a combination of the G12 Heritage (G12H) and Vintage 30 (V30) speakers.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	100 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	4x ECC83
<i>Power Amp Tubes</i>	1x ECC83 4x EL84
<i>Tonestack Location</i>	POST

Brit Pre and Brit JMPre-1 (Marshall JMP-1)



Synopsis:	2 versions of the Marshall JMP-1 preamp, Brit Pre (original model) and JMPre-1 (reworked model). The modelled amp adds a ‘typical’ Marshall 100w power amp. The amp has four modes: 2 Clean, OD1 and OD2. The JMPre-1 modelled the OD1 and OD2 channels.
Tips:	Note the tone settings don’t line up to the actual amp due to a different tone stack.
Sound Clips:	Marshall Amp Demo (JMP-1 / EL-34 50/50) - Part 1 – Clean Marshall Amp Demo (JMP-1 / EL-34 50/50) - Part 2 - Overdrive
Recommended Cab/Speaker:	N/A
Manual:	JMP-1 Handbook

The Marshall JMP-1 is a MIDI-controllable rack-mount tube preamp, based on the JMC 900, Marshall’s amp from the ‘90s. Bands such as Def Leppard, ZZ Top and Deftones are known for their use of the JMP-1. (Deftones now use the Axe-Fx II.)

Don’t confuse this with the current JMP1 “baby” Marshall.

Fractal Audio’s first model of the JMP-1 was the Brit Pre. Cliff re-worked the JMP-1 modeling, resulting in the JMPre-1 models. The Brit Pre stayed on, because it is used by several prominent “A-list” artists.

The power amp section of the models is based on a typical Marshall 100 watts power amp of the ‘90s.

The JMP-1 has four modes: two Clean ones, and OD1 and OD2. Fractal Audio modeled both OD modes.

OD1 is “a warm vintage drive reminiscent of Marshall Super Lead amps through to modern day Master Volumes”. And: “Features the purity of distortion from the golden age of the plexi glass Super Leads. As the gain is increased you pass through degrees of distortion into a rich higher gain mode, with just the right nuances for the modern blues rock player. Vintage crunch, modern metal and fat blues lead sounds are all readily available.”

OD2 is “a tightly focused high gain drive which can be smooth or aggressive depending on the E.Q. and gain settings”. And: “Tightly focused stunning high gain is what you will find in OD2. Modern and aggressive, smooth and fluid, the gain levels and singing tone of this channel will give you infinite sustain whilst retaining a pure toneful quality.”

The JMP-1 provides Gain, Bass, Middle, Treble and Presence controls, all adjusted through keys instead of rotary knobs. No Master Volume because it’s a preamp.



Cliff says:

(commenting on the Brit Pre model)

"The two channels have preset tone stacks. Then there is a digitally controlled 4-band graphic EQ which is the B/M/T and Presence. This technique gets around the problem of trying to digitally control a tone stack. The Triaxis uses LDRs in place of potentiometers. The Soldano X-99 uses motorized pots. Both techniques being expensive. So the JMP-1 uses a fixed tone stack and then a digitally controlled graphic EQ. The Axe-Fx model of the JMP-1 is "better" in the sense that the tone controls control the tone stack rather than a graphic EQ. You then have the separate graphic EQ to further tailor the sound. What I didn't do, and why people probably feel the model differs, is "normalize" the tone controls so that with B/M/T at noon the tone stacks match. On the Axe-Fx you might need to set the Bass to 3, Mid to 7, etc. to get the tone to match. I just used a standard Marshall tone stack whereas the JMP-1 uses a standard Marshall tone stack but the pots are replaced with fixed resistors but those values don't necessarily correspond to the pots at noon."

(commenting on the JMPre-1 models)

"The JMP-1 tone controls have more range than the actual preamp. The preamp has about +/- 8 dB for each tone control while the model has the standard +/- 12 dB."

There is also a Bass Shift control on the JMP-1. Marshall:

"It's a subtle low frequency character control. When selected it thickens the bottom end of the sound and tightens the playing feel. On clean selections it adds body and on overdrive it provides the extra low end "throb" so essential for heavy rock sound."

The two models with "BS" in the name were created with the Bass Shift function engaged on the real amp. I prefer the non-BS models, because I don't like too much bass in my tone, but that's a matter of personal preference of course.

IMHO the models of the JMP-1 are well balanced. At default values they already sound fine, although you may want to turn up the gain.

Because the JMP-1 is a preamp, there's no matching cabinet per se. Let your ears decide, or go with the traditional **Marshall ones**.

JMP-1 Preamp Presets										
PRESET	TITLE	MODE	B/S	VOL	GAIN	BASS	MID	TREB	PRES	Comments
25	Mellow	CL-1	off	20	14	2	-2	1	1	Clean & pretty Roll back guitar tone for full "Jazz"
24	Warm Grit	CL-1	on	16	20	-1	3	6	6	Dark & on the edge Hi output pickups will distort
03	Cleeeeen	CL-2	off	20	9	3	-1	4	6	Cleeeeen CL 2 Very Lots of headroom
22	Grit Clean	CL-2	off	16	19	3	-1	4	6	Clean & on the edge Hi output pickups will distort
17	Britaevious	CL-2	on	17	17	4	-2	6	6	Modern clean - Pick's up EFX well Hi output pickups will distort
01	Chunkus	OD-1	off	17	20	1	-3	3	4	Big, Ugly & Fat Gain controls "chunkiness"
13	Biffa	OD-1	off	15	20	2	0	3	3	Obnoxious overdrive In your face crunch
19	800's	OD-1	off	16	15	6	0	3	3	Deliverin' the dB's Set bass to suit your guitar
02	Sticky	OD-1	on	15	13	1	2	6	3	Edgy grime Big change for different guitars
11	Tej'as	OD-1	on	16	14	1	-1	4	1	Punchy/dark drive Increase gain for vintage singles
12	Modster	OD-1	on	14	20	2	1	5	5	Mod-ed Plexi More than enough
15	Mid-lands	OD-1	on	14	17	2	6	3	3	Honky mid range voice Cuts through
18	Trash	OD-1	on	17	9	4	-1	2	3	Very broad modern tone Fills up a lot of space
20	LA Crunch	OD-1	on	16	17	6	1	3	2	Mod-ed JCM800 on "5" Decrease Pres. for single coils
21	Crusher	OD-1	on	18	12	5	-4	5	4	JCM900 on "8" Mid control very effective
23	Shred Spread	OD-1	on	17	20	5	0	6	6	Full scoop shred tone Bass control is the key here
00	Smoke-em	OD-2	off	18	20	3	-3	3	1	Lots of drive & sustain It starts here
04	British Steel	OD-2	on	17	16	4	0	4	1	Warm & Heavy English overdrive
05	Nasal Tone	OD-2	on	16	20	0	1	6	6	Thin, midrangy & cutting When tracks are full, this fits
06	Quo!!!	OD-2	on	17	10	2	-2	6	3	Bright crunch Rocks you all over the world
07	Angus-Ho	OD-2	on	17	14	0	-1	3	2	Mid '70s Marshall Tone
08	Filth	OD-2	on	17	20	2	-6	6	6	Bright, semi scooped Great for chords
09	Bloooz-O	OD-2	on	17	11	2	-2	3	2	Plexi 50 Watt Classic tone
10	Bloooz-O+	OD-2	on	17	19	2	-2	3	2	Plexi 100 Watt As above, more aggressive
14	More Gary	OD-2	on	17	4	3	0	3	3	JTM 45 on "6" Started it all
16	Sunshine	OD-2	on	15	10	1	6	-6	3	Cleaner than you think! Increase Treb. for dark guitars

Note: Tone settings don't necessarily match AXE FX Tone control settings

Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>N/A</i>
<i>Master Volume?</i>	<i>N/A</i>
<i>Negative Feedback?</i>	<i>N/A</i>
<i>Preamp Tubes</i>	<i>2x ECC83</i>
<i>Power Amp Tubes</i>	<i>N/A</i>
<i>Tonestack Location</i>	<i>N/A</i>

Brit Silver (Marshall Silver Jubilee)



Synopsis:	Marshall 100w 2555 Silver Jubilee amp. Similar to a JCM800 but sounds darker and thicker, and has more gain at lower levels
Tips:	Can set bass much higher than on Plexi models without flubbiness Bonamassa sets the controls on his Jubilee like this: Presence 5, Bass 10, Mid 7.5, Treble 4.5, Master 10, Gain 5.
Sound Clips:	Guitar World - Marshall JCM 25/50 2555X Silver Jubilee Reissue
Recommended Cab/Speakers:	Celestion V30s, ElectroVoice EV12-L
Manual:	JCM 25/50 2555X Silver Jubilee Re-issue Owner's Manual

1987 was Marshall's 25th anniversary. To celebrate they released the Silver Jubilee. Model 2555 was a 100 watts Jubilee, 2550 was 50 watts. It looks very classy with its chrome mirrored panel and silver tolex. The Jubilee is a valuable amp, listing 19th on [Vintage Guitar's list of most valuable amps](#). Marshall still has a recently released [Vintage Re-issue 2555X](#) and a [Mini Jubilee](#) in its product line review in [Premier Guitar](#).

The Jubilee is partly based on the JCM 800. Compared to the JCM 800, a Jubilee sounds darker and thicker, and has more gain at lower levels, partly thanks to the addition of a diode circuit. It runs on EL34 power tubes and has a single input. It has two channels: Clean and Lead. On the clean channel you can pull out Input Gain to activate the Rhythm Clip mode, for a crunchy sound. Marshall used the Jubilee to introduce Pentode/Triode switching, which halves power output. More info in the current re-issue's handbook.

Famous Jubilee players are Joe Bonamassa and Alex Lifeson (Rush). Slash used one in his live GnR rig and with Velvet Revolver. The "Slash Signature" amp (prior to the AFD) was a Jubilee.

The Jubilee has these controls: Presence, Bass, Mid, Treble, Output Master, Lead Master and Input Gain (pull-out: Rhythm Clip).

Bonamassa sets the controls on his Jubilee like this:

Presence 5, Bass 10, Mid 7.5, Treble 4.5, Master 10, Gain 5.

The Brit Silver model is based on the Jubilee. Select that amp model and you'll immediately notice the dark, fat tones, so much different from the Plexi and JCM 800 types.

Personal note: looking at Marshall's current catalogue, I'd much rather own the 2555 re-issue (Jubilee) than a JVM410. The 2555 reminds me of amps by Bogner, Friedman, Carol-Ann etc.

The Jubilee goes with a Marshall 4x12 cabinet with Vintage 30 speakers. Look them up on [the wiki](#). Or if you want to copy Joe Bonamassa, use EV-12L speakers.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>100 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>3x ECC83</i>
<i>Power Amp Tubes</i>	<i>4x EL84</i>
<i>Tonestack Location</i>	<i>POST</i>

Buttery (Budda Twinmaster)



Synopsis:	An “ear-tuned” version of a late 90s Budda Twinmaster. Actually not that close to a ‘real’ Budda but a good sounding amp nonetheless.
Tips:	It’s a great crunch amp model, like an overdriven Fender. And simple to dial in too: just crank the Master Volume, adjust Treble and turn down Input Drive.
Sound Clips:	Axe FX II Buttery preset demo
Recommended Cab/Speaker:	Alnico’s.
Manual:	Budda Twinmaster Manual

Cliff says:



"I did the Buttery model by ear. I listened to some clips of Buddas (Matchbox 20, remember them?) and tweaked the model until I thought it sounded like one. Screwed around a little with the tube bias points until it had the right balance of harmonics and called it a day."

"It's still the "ear tuned" version. I bought the amp but because it was so popular as-is I didn't dare change it."

According to the Fractal Audio manual: “Based loosely on a late 90s specimen Budda Twinmaster. Relies mostly on power amp distortion”. The Twinmaster was Budda’s first amp. Budda is now owned by Peavey.

It’s a hybrid model. Cliff created this model “by ear” only. It was never matched to the real Twinmaster.

The real Twinmaster has two inputs, and Bass, Treble and Volume controls. It’s a 18 watts Class AB amp that runs on EL84 power tubes. More info is available on the [Budda website](#).

But really, don't compare the model to the original Twinmaster. Just enjoy the model in its own right. Because it sounds great and is liked by many! Come on in, @simeon. :) Buttery was my edge-of-breakup amp choice for a long time.

“Buttery is a virtual amp model that was created by ear. There is no physical, real amp that exists upon which it was based. It's like the FAS models. They exist solely in the virtual world. They all still benefit from the Quantum stuff though as they use the same underlying algorithms for the tube modeling. The amp model, regardless of how accurate it is (and it's probably grossly inaccurate as I never compared it to any actual amp) is very popular and that's why it was never matched to any real amp.”



It's a great crunch amp model, like an overdriven Fender. And simple to dial in too: just crank the Master Volume, adjust Treble and turn down Input Drive.

Budda uses custom "Phat" speakers. There are none among the stock cabs. The Buttery model sounds fine with AlNiCo speakers and greenbacks.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>18 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>No</i>
<i>Preamp Tubes</i>	<i>2x 12AX7</i>
<i>Power Amp Tubes</i>	<i>2x EL84</i>
<i>Tonestack Location</i>	<i>POST</i>

CA OD-2 (Carol-Ann OD2)



Synopsis:	A model of a Carol-Ann OD2, a Dumble style amp but tonal characteristics more like a modified Marshall
Tips:	<p>Input Drive increases the gain amount as you rotate the knob clockwise. As the gain increases the tone is shifted from a treble and upper mid emphasis, which produces an upfront sparkling tone, to a lower mid and bass emphasis, which produces a thick meaty tone.</p> <p>Overdrive increases the gain amount as you rotate the knob clockwise but with no alteration of the tonal balance.</p> <p>Different combinations of Input Drive and Overdrive settings will have a dramatic effect on the response of the amplifier and the personality of your instrument. It is easy to get familiar with the action of these controls and you'll be amazed with your ability to make any guitar sound mellow, fat, soulful or aggressive.</p>
Sound Clips:	<p>Fender Eric Johnson Strat plus 2009 Carol-Ann OD-2 100W Combo Part 1</p> <p>2007 Gibson ES-335 Block Reissue plus 2009 Carol-Ann OD-2</p>
Recommended Cab/Speaker:	Celestion ClassicLead80, ElectroVoice EV12-L

This is the first model in our series which is based on an amp from amp builder Alan Phillips (Carol-Ann amps).

The various Carol-Ann amps have always received a lot of praise from Cliff. Alan Phillips collaborates with Cliff to get the best possible models of his amps. It's worthwhile because the models convinced some Axe-Fx users to buy the real thing too.

Joe Bonamassa plays a Carol-Ann amp, the JB-100.

[@Carol-AnnAmps](#) is sometimes active on the forum. **And he's isn't shy to state his opinions either.**

And did you know how he tests each of his amps before shipping them to the buyer? He plays them in his band at a gig.

So what's the OD2? The OD2 is a 50 watts, single input amp with 6L6 tubes. The OD2 (and the smaller OD2R designed for recording) are sometimes labeled "D-style" amps, in other words: sounding like a Dumble. But while the OD2's sound is indeed warm, dark and thick like a Dumble, its tonal characteristics aren't. It's more like a modded Marshall, leaning towards the bluesy side. All Carol-Ann amps have an exceptional smooth and creamy tone.

The OD2 has a Clean channel (ch.A) and Overdrive (ch.B) channel. Fractal Audio provides a model of the Overdrive channel. That channel is described on [Carol-Ann's website](#) as follows:

"The Overdrive Channel is simply incredible with a harmonic balance that gives the amplifier a three dimensional feel, rarely experienced with any standard design. The amount of overdrive is variable from slight crunch to all out sweetly compressed high gain tone. Note separation and response remain true throughout the full range of gain settings."

The OD2 has Bass, Middle, Treble and Presence controls, Master controls, Pre-Gain and Drive. Pre-Gain (model: Input Drive) sets the overall input gain for the amp (both channels), and Drive (model: Overdrive) sets the gain on the Overdrive channel.

Cliff says:



Input Drive increases the gain amount as you rotate the knob clockwise. As the gain increases the tone is shifted from a treble and upper mid emphasis, which produces an up front sparkling tone, to a lower mid and bass emphasis, which produces a thick meaty tone.

Overdrive increases the gain amount as you rotate the knob clockwise but with no alteration of the tonal balance.

Different combinations of Input Drive and Overdrive settings will have a dramatic effect on the response of the amplifier and the personality of your instrument. It is easy to get familiar with the action of these controls and you'll be amazed with your ability to make any guitar sound mellow, fat, soulful or aggressive."

Models with Input Drive and Overdrive controls always feel "elastic" and spongy, a real joy to play.

The OD2 is a Master Volume amp. This means that the amp's distortion is created in particular by the preamp tubes, not the power amp. The Master Volume, which works in the power amp section, is still very important to the tone and feel. You have to decide for yourself what setting in the model works for you best. The default setting is a good point to start of course.

The OD2 also has a Bright switch, which affects both channels, and a Shift switch, which changes the range and action of the Bass, Middle and Treble controls on the clean channel only.

The OD-2 model is rather dark at default settings. Don't hesitate to increase Presence, and/or Increase Treble, and/or engage the Bright switch.

Alan Phillips (about the model):

"It's a live demo of an OD2 as tweaked by me. Damn sight better than sound clips for auditioning to guys that haven't got the ability to get to a Dealer. Clearly it doesn't give you the full experience of the full amp, but is a good tonal taster. I repaired a Soldano SLO for him one day and when he came over my house to pick it up we just decided it would be a good idea to put a CA model in there. Having the actual builder involved kind of closes the

loop fully. I'm happy to endorse that model because I put a lot of hours testing it and putting together a ton of technical information, fourier analysis graphs, frequency response graphs, schematics etc that would make validation of a mathematical model much easier. In reality even though the power amp and the preamp are modeled the pre-amp got the most effort. As I said in another thread, I tuned that by putting the axe in to the actual power amp of an OD2 and running that side by side with a full OD2. The final tweaks were made like that using parametric eq blocks that were hard coded in to the model. You could call that the icing on the cake and basically put the same level of tuning into the model as I do with a actual OD2. The only difference was I was using a GUI, not resistors and capacitors."

Alan Phillips recommends using a cabinet with a EV-12L or Classic Lead speaker. Check out stock cabs #008 and #105 if you prefer that sound.

"In the real world the OD2 is very very fussy on speaker choice too. The real world speakers of choice are EVM12L in a 1x12 rear ported and 2x12 with Celestion Classic Lead 80's. I found the 12L emulation did a pretty good job. Some of the others sounded so artificial with that model. Like a Rockman. Coupled with the right cab the emulated model does a good job of representing the basic tonal signature of the amp".

There are more EV-12L IRs in **Cab Pack 17**. You'll find UltraRes Classic Lead 80 IRs in Cab Packs **4**, **14** and **17**

Yek's comments:

I use Cab #105 in my OD2 preset. Input Drive at 6.25 and Overdrive at 7.50. Bass at 3, Middle and Treble around 6, Presence at 7. With single coils this makes a thick cutting medium rock tone with a lot of hair on it, great for leads too.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>50 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>Unknown</i>
<i>Power Amp Tubes</i>	<i>6L6GC</i>
<i>Tonestack Location</i>	<i>POST</i>

CA Triptik (Carol-Ann Triptik)



Synopsis:	3 channels (Clean, Classic, Modern) of Carol-Ann Triptik amp. Aiming to reproduce Classic Rock to Modern tones. "Dumble meets Marshall with a sprinkle of 5150 power amp."
Tips:	"These amps share the same aggressive low-cut on the input and then add bass back in the power amp. This gives clear bass response without getting flubby." - Cliff
Sound Clips:	Carol Ann Triptik--Clean Channel Carol Ann Triptik Channel B (Classic)
Recommended Cab/Speaker:	Celestion Greenbacks, Celestion V30s Factory Cab #121 Triptik UltraRes

This is the second model in our series which is based on a tube amp from amp builder Alan Phillips (Carol-Ann amps).

Alan Phillips collaborates with Cliff to get the best possible models of his amps:

"He's welcome to model anything of mine. I love the guy and his work, he's a good friend. We are local to each other and also both classic car nuts too that frequent many of the same car shows and cruise nights, so that just seals the deal."

"Not everyone falls in to the hatred of tube amps and despising guys like me, who actually design the things you guys want to emulate, just because they own an AxeFX. While there might be a childish 'them and us' situation on forums, there truly isn't at a professional level. Most accomplished players don't fall in a strict category and will use both if they have a need."

What better way to get an amp in front of 1000's of players, amateur and pro alike than to ensure the model is as close as it can be. It sure beats clips on a website."

An AxeFX is a tool, so is a tube amp, they are not a political statements. They don't even compete."

Bottom line, it helps sell amps !! Now that probably pisses some of the closed minded idiots off, but hey, they win out in the next free software update with another new amp, at no cost to them. Get the designer on board and it naturally stands a much better chance of being closer. I'm compensated by more sales. Win-win."

Do you know why the amps are named Carol-Ann? Here's the story:

"Back in 2002, I had just moved to US from England and was waiting for all my worldly possessions to follow me, which would take up to 5 months to be shipped across the Atlantic as part of container ship cargo. Within 6 weeks of being in the US, I already found myself joining a local rock cover band. I had been playing in bands since 1985 and just couldn't stand not playing. While I had my guitar and a couple of effects, all my amplifiers and speaker cabinets were living in a container somewhere on Heysham dock in England. I could either buy an amp in the US or just build myself one. I had been repairing and building amps for many years in the UK, so it was no big deal to build one....apart from the fact I had no clue where to buy parts in the US and had very little in the way of tools or space to build it. I did still however manage to build one, although it cost way more than it should have done and took up precious space on the dining room table whilst under construction much to the dismay of my wife at the time. In order to try to offset the fact the project cost way more money than I had originally anticipated and the construction took up the dining table for a week or more I decided to name the amp after my wife, hence the name 'Carol-Ann'. I still got in trouble anyway....but maybe not as bad as it could have been. The business was formed in 2005 with the same name. However, even though Carol and I are no longer together, the name stuck and she insisted I kept the name."

The Triptik is a 50 watts 3-channel amp with EL34 power tubes. It was designed for rock. Channel 1 is for clean sounds. The second and third channel are identical; you can use their Classic/Modern voicing switches to change the character of each.

Carol-Ann website:

"This 3- Channel Amplifier is our idea for a true rock amp that is capable of reproducing both timeless classic rock tones to modern high gain tones with a super tight and crushing low end. The design of this amplifier is a true ground up design and has not been inspired by any other amplifier out there. It is an original back to the drawing board design.

The unique gain structure doesn't use high numbers of cascading gain stages compressing the life out of your tone, nor does it use any type of solid state clipping. The OD from this amp is generated by running each gain to their absolute extreme, just keeping them this side of instability. Like a fine tuned racing engine. This helps preserve the dynamic range, keeps noise to a minimum and emphasizes the harmonic overtones of each note without ever sounding bright or harsh.

The Clean Channel on this amp has been designed to redefine what is capable with EL34 power tubes. It has a shimmer that is never heard with this tube type and has incredible headroom. By pushing the pre-gain control a little, it is possible to get some slightly broken clean tones too from this channel. It also takes Overdrive pedals extremely well.

The amp features two identical overdrive channels that both have a switch that sets the particular channel to either 'Classic' or 'Modern' voicings. The 'classic' voicing has a little less gain and low end and will produce 70's and 80's British rock tones with a very wide and

complex sound stage with no buzz or brittle high frequencies. The 'Modern' setting has more gain and low end for those more modern heavy rhythm, dropped tunings. This channel also makes for a superb liquid lead channel with incredible sustain and harmonic bloom.

The tones controls on all channels are very effective and the center points of each one perfect for the exact frequency bands that will push the amp through any mix.

Basically, the concept was for me to produce an amp that would reproduce my favorite modded rock amp tones as well as up to date modern higher gain tones without mush and noise.

As with all our amplifiers, the Triptik is built entirely by hand and features a non-PCB main audio board, and hard wired chassis mounted controls and tube sockets."

Cliff says:



"This TripTik is badass. Dumble meets Marshall with a sprinkle of 5150 power amp."

"I think what people like about this amp is the same reason people like the BE/HBE. These amps share the same aggressive low-cut on the input and then add bass back in the power amp. This gives clear bass response without getting flubby."

Alan Phillips:

"In the Triptik, The initial bass cut happens after the first gain stage, but is incrementally brought back in through the next stages while also controlling and manipulating the high and the mid bands too. There are several filters at various points in the gain stages to manipulate these other bands.

One band is always relative to the other two. In other words if you want more bass, you don't necessarily have to increase that, you can attenuate the other two bands to create the same effect.

Keeping the bass out of earlier stages allows each stage to be set up for more gain, so you get more gain from less stages which keeps the S/N ratio down and the dynamic range up.

The feedback loop in the power amp is frequency dependent and allows more mid-highs to be passed back to the phase inverter on the inverted input out of phase with the normal input which flattens the response and lowers the power amp gain (closed loop gain) much more for just those two bands. The bass band is not attenuated anywhere near as much so is amplified at a level much closer to the open loop gain of the power amp."

The Triptik has tone controls (Bass, Middle, Treble) for the clean channel and another shared set for channels 2 and 3. There's a shared Input Level control (model: Input Drive), and separate Drive controls for channels 2 and 3. Each channel has a Master control. Presence is shared. Channels 2 and 3 have a Classic/Modern voicing switch. No Bright switch.

Models with Input Drive and Overdrive controls always feel "elastic" and spongy, a real joy to play.

Alan Phillips:

(about the Classic mode): "On the real amp, you would set the Input level at 2 O'clock and the Gain at 1 to 2 O'clock to get a great classic rock rhythm tone. It's not overly different in character to the modern setting, less gain and less low end essentially."

Yek's personal settings:

Stereo UR Cab with #27 and 54.

Classic:

Input Drive: 5
Overdrive: 7.50
Bass: 5
Mid: 6
Treble: 6
Presence: 7

Modern:

Input Drive: 5
Overdrive: 7.50
Bass: 4
Mid: 6
Treble: 6
Presence: 7

Everything else default.

The Triptik is a Master Volume amp. This means that the amp's distortion is created in particular by the preamp tubes, not the power amp. The Master Volume, which works in the power amp section, is still very important to the tone and feel. You have to decide for yourself what setting in the model works for you best. The default setting is a good point to start of course.

All three channels have been modeled. The models have received a lot of praise from Fractal Audio users over the years.

The models of the Triptik originally are based on a Triptik owned by forum member @jharpersj. IIRC Cliff later got a Triptik himself on which the models are based now.

We've got a 1x12 Triptik UltraRes cab model in our stock cabs: #121. It's a little special because it has the boutique Scholz Classic (aka Sugar

Cone) speaker. The Triptik actually is very forgiving regarding cabs. It will work with V30, greenbacks etc.

Yek' Comments:

Compared to the Tucana, I prefer the Triptik model. It's a little bolder and rough around the edges, where the Tucana is almost too smooth and perfect. For some reason I can't make the model of the Triptik clean channel work for me. That applies to the Tucana Clean model too. It must be me, because I know of several people which love the clean models. It's just too clean for me.

The stock 1x12 Triptik cab sounds somewhat boxy and small. I love the combo of stocks cabs #27 and #54 with the Triptik and Tucana. If you prefer V30s, try cab #126 (4x12 Citrus). Even though I'm not a fan of the Orange sound normally, IMHO this is one of the best stock cabs with V30s available.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>50 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>Unknown</i>
<i>Power Amp Tubes</i>	<i>EL34</i>
<i>Tonestack Location</i>	<i>POST</i>

CA Tucana (Carol-Ann Tucana 3)



Synopsis:	Clean and Overdrive channels of a Carol-Ann Tucana, a 75w amp with KT88's. According to Cliff, "one of the best amps in the world".
Tips:	"Input gain on 10 o clock, gain on 2 o clock is a 70s /80s lead tone, put the input level up to 2 o click and it's a very sustained lead tone or a very modern heavy rhythm tone."
Sound Clips:	Carol-Ann TUCANA 3 overview
Recommend Cab/Speaker:	Celestion Creambacks, Celestion T75s, Celestion Greenback, Celestion V30 Factory cab: #121 1x12 Triptik Mix

This is the third model in our series which is based on a tube amp from amp builder Alan Phillips (Carol-Ann amps).

The various Carol-Ann amps have always received a lot of praise from Cliff.

Cliff says:



"One of the best amps in the world IMO. I have a Dumble and a Trainwreck and various other boutique amps and the Tucana is better than all of them."

And did you know how he tests each of his amps before shipping them to the buyer? He plays them in his band at a gig.

The Tucana 3 is Carol-Ann's flagship amp. It's a 3-channel amp with KT88 power tubes which run at 75 watts. Channel 1 is for clean sounds. Channels 2 and 3 (Overdrive) are identical.

Carol-Ann website:

"Welcome to our flagship model! The Tucana 3 is our latest amp in the Tucana range.

Tonally these amps are designed to cover many styles and are very suited to session players and players who need a very wide palette of excellent tones. With the 3 channels, they can

stray into higher gain levels, yet still retain full note definition and separation even with complex chord passages and have an ultra-quiet noise floor.

The first new feature of this amp are the separate Input Level Controls for the Clean and OD channels. This gives much greater flexibility than any of the previous models. It is possible to set the Clean Channel for a little more crunch or for maximum clean headroom.

The overdrive range can be set very easily with the OD Input Level to suit the playing styles or musical genre from a range of blues through rock to modern high gain styles.

The power amp section runs the KT88s at a moderate 75W ensuring very long tube life. The transformer set has been designed to retain a ton of warmth, a tightness in the low end that has not been previously seen in the Tucana series.

The Tucana 3 is very forgiving on cabinet choice and works well with many speaker / cab combinations."

Alan Phillips:

"It's very very difficult for anyone to get a bad tone out of the real amp. It's designed that way, the range and limits on the controls, even the biasmon system makes it difficult for even a very inexperienced player to FU. The real amp has a more British overtone to it due to the fact I am British and I designed it. The gain staging, overdrive voicing and output stage are night and day to ANYTHING Mesa, any owner of the real amp would attest to that."

"The Tuc 3 is very very tolerant of most cabs and speakers, unlike say the OD2. I feel people need to approach this model very simply. Don't mess with extended parameters, basically don't try and redesign it. Use a reliable Celestion based cabinet model. I have a fantastic 4x12 with 2 old greenbacks and two old v30s that is the best cab I've played the real amp through. In actual levels of gain with the two adjustable gain controls, the amp has a maximum gain level very similar to the Triptik, the setting of these two controls with respect to each other is critical."

It has separate Input Level controls, Bass/Middle/Treble and Master controls for the Clean and for the Overdrive channels. Presence is shared. Channels B and C have separate Drive controls. There's also a gain boost through the foot controller.

Models with separate Input Drive and Overdrive controls always feel "elastic" and spongy, a real joy to play.

Alan Phillips:

"Real world, it has same amount of actual gain as the Triptik. Way more than most people would need for recording or live playing. Input gain on 10 o'clock, gain on 2 o'clock is a 70s /80s lead tone, put the input level up to 2 o'clock and it's a very sustained lead tone or a very modern heavy rhythm tone."

"You don't need to crank the real amp to get a ton of overdrive. I actually designed the original for myself and I play in a rock cover band. There's nowhere I would ever be able to get the amp to the point of pushing the power tubes in to overdrive. You gain stage a design based on its application. For a design that needs a lot of overdrive at a low volume, you do most of that and the harmonic makeup in the preamp. The Tucana falls in to this category. The master volumes in a 500 seat club rarely get above 10 O Clock on the real amp and at

that point there's still tons of clean headroom left. Of course the power amp adds to the harmonic content, but it adds very little overdrive. Another interesting point to note is that the Tucana has a high pass filter in the power amp feedback loop, which gives you a nice tight low end because the bass is subjected to more gain. For an amp designed to be pushed hard in to power tube overdrive, this should be omitted as all bets are off in the feedback loop when you hit the rails. In other words that filter requires headroom to function properly, as does the presence control of any amp where it's a component of the feedback loop."

The Tucana is a Master Volume amp. This means that the amp's distortion is created in particular by the preamp tubes, not the power amp. The Master Volume, which works in the power amp section, is still very important to the tone and feel. You have to decide for yourself what setting in the model works for you best. The default setting is a good point to start of course.

The clean channel and the overdrive channel have been modelled. The models have received a lot of praise from Fractal Audio users.

Cab #121 (1x12 Triptik UltraRes) works well with the Tucana. But many **stock cabs** do so.

Alan Phillips:

"Now I can only speak for the actual amp, but my preference of speaker is a Celestion Creamback 65, though I gig these regularly with a 2x12 with Celestion T75's. It's pretty forgiving on speakers compared with some models."

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>75 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>Unknown</i>
<i>Power Amp Tubes</i>	<i>Unknown</i>
<i>Tonestack Location</i>	<i>POST</i>

CA3+ (Custom Audio Amplifiers 3+ SE)



Synopsis:	Models of 3 channels (Clean, Lead and Rhythm) of Custom Audio Amplifiers 3+ SE Tube-based Preamp.
Tips:	The clean is like a blackface Fender.
Sound Clips:	Custom Audio Electronics 3+ Rig
Recommend Cab/Speaker:	N/A

CA3+: based on Custom Audio Amplifiers 3+ SE preamp

Another tube preamp, one that has left a mark in history. It's from the '90s when lots of guitar players used gigantic "refrigerator" racks, stuffed with preamps, mixers, effects devices etc., and the 3+ SE fitted right in there. You've probably heard it on lots of albums as it was a common studio device. It helped Bob Bradshaw (and John Suhr) establish Custom Audio Electronics (CAE) / Custom Audio Amplifiers (CAA). The number 3 denotes the number of channels on this preamp. It is famous for its clean tone (channel 1 sounds like a blackface Fender) as well as for its characteristic crunch and lead overdrive (channels 2 and 3). More background is available on the [CAE website](#).

Steve Lukather played this preamp a lot. Others were/are Peter Frampton, Eddie Van Halen (on the F.U.C.K. album), Green Day's Billie Joe Armstrong.

Custom Audio also builds the **OD-100 amplifier**, which is based on the 3+ SE preamp but also different in certain aspects. **John Suhr**, who worked at CAE/CAA and co-designed the 3+ SE and the OD-100 and who later started his own company, also sells the **OD-100**, under the CAA name.

Bob Bradshaw:

"From 1985 to 1990 I toured with Steve Lukather on all the Toto shows. We were taking a lot of equipment to Europe and it got to the point where we needed to scale down and change things a lot. I go well: here we are with this big rack full of amplifiers that we're basically using as preamps. It was a Mesa-Boogie for a clean sound, a Marshall for a crunch sound and a Soldano for a solo sound. We were just using the preamp section of those amps, so I thought, why can't we make a three channel preamp with clean, crunch and overdrive and we'll use power amps that were using anyway. So I went to Mike Soldano and explained him the situation that we needed to scale our rig down to take overseas. Hence the Soldano X-88 R. Which was my concept, Soldano came up with the circuitry and everything, but it was my thing. The amp came out and it was a big hit. \$1800 a piece. Soldano sells em to me for \$1700. I only make a \$100 for each amp I sell myself, it's like, com'on you now. But I own the prototype. In the meantime I start working with John Suhr. John is building great guitars at

the same time, he's interested in doing amp work. John was on the eastcoast. The Soldano preamp needed help, it always needed an extra EQ to breathe some life into it. It was a great basic thing, but it needed some top, some bottom. There were things about it that we wanted to change. Mike Soldano was kind of reluctant to make any of these big changes, he had something going and was happy the way things went. (...)

CAE:

"The Clean channel is extremely warm and punchy with tons of tight low end, smooth midrange and silky highs.

The Crunch channel in itself is capable of a high gain solo sound and can also clean up to a classic slightly overdriven clean sound by rolling off the guitar volume or turning down its gain control while still retaining its warm, round tone.

"The Lead channel, the highest gain channel, is not only able to clean up as well as Channel 2, but is also able to provide a rich, fat, searing overdrive with a quick attack while maintaining sensitivity to picking technique."

The preamp has separate Gain, Bass, Middle, Treble and Master controls and a Bright switch for each channel, plus shared post-EQ controls (Presence and Depth). The lower the Gain settings are, the more active the Bright switches will be.

I'm not sure which power amp model is used in the three CA3+ amp models. Mesa or Marshall?

Match the models with **any cab you like**.

Yek's comments:

TBH I ignored the CA3+ overdrive models for a long time. Didn't care for their fizzy sound with emphasis on the upper mids, lacking depth. When writing this article I tried them again, of course, and I like them better now. Maybe because of the Quantum improvements, I don't know. The models sound pretty fine at default settings.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>N/A</i>
<i>Master Volume?</i>	<i>N/A</i>
<i>Negative Feedback?</i>	<i>N/A</i>
<i>Preamp Tubes</i>	<i>7x 12AX7</i>
<i>Power Amp Tubes</i>	<i>N/A</i>
<i>Tonestack Location</i>	<i>N/A</i>

Cali Leggy (Carvin Legacy VL100)



Synopsis:	Model of the Lead channel of Steve Vai's signature amp, which uses a unique tone stack.
Tips:	Here's what I settled on: Drive 6.50, Bass 7.00, Middle and Treble 3.50, everything else default. For higher gain, engage the Boost switch and turn down Drive.
Sound Clips:	Steve Vai VL100 Carvin Legacy Interview
Recommend Cab/Speaker:	Celestion V30s. Cab #118 "2X12 SV Legend Mix" is a non-UltraRes IR of a 2x12 Legacy.
Manual:	VL100 Guitar Head Owner's Manual

This is a model of the first version of Steve Vai's signature amp. There are no Fractal Audio models of the Legacy 2 (which Steve Vai himself didn't really like) and **Legacy 3** guitar amps.

The VL100 is a two-channel EL34 100 watts head. It's a bit of a strange beast because of its tone stack (Bass, Middle, Treble).

Cliff says:



"The thing that makes a Legacy unique is the tone stack. It uses a "James" tone stack which is more like hi-fi tone controls."

The range of the tone controls is unlike other amps. For example, the difference between the outer positions of the Middle control is enormous.

The controls on the Lead channel are: Presence, Treble (11 kHz), Mid (650Hz), Bass (80Hz), Drive and Volume. The clean channel has not been modelled.

Here's what **Carvin says** about the controls:

“For mild tube saturation, set the DRIVE control between 1 & 2. For some of the best saturation, set the control around 3 & 6. For full blown overdrive, set the control between 8 and 10.

Drive settings above 8 are subject to over saturation depending on the output of the guitar pickups used. High-output pickups can over saturate causing sluggish distortion.

Play your guitar with its volume at 10 and decrease the amount of drive until the crisp highs come back.”

Yek’s comments:

Truth be told, the model has been the subject of lengthy discussions in the past. Some people thought it didn’t resemble the real amp enough or they couldn’t achieve Steve Vai’s tones. I didn’t touch the model for a long time because I simply didn’t bond with its sound. Well, I played it again when preparing this article and I found some great juicy tones after some tweaking. Surprisingly I later came across those same settings in a demo video of the real amp. So I guess the model does represent the real amp well enough.

Here’s what I settled on: Drive 6.50, Bass 7.00, Middle and Treble 3.50, everything else default. For higher gain, engage the Boost switch and turn down Drive.

And reproducing Steve Vai’s sound? Well, you would have to use those (terrible) Evolution pickups on his guitar, and add a Boss DS-1 or Ibanez Gemini pedal, and insert a chip into your head with his skills and creativity. Not everyone likes his extravaganza, but IMHO there isn’t a shredder today who is as creative and adventurous as Vai.

The Legacy is used with a matching 4x12 or 2x12 cabinet with V30s.

Stock cab #118 “2X12 SV Legend Mix” is a non-UltraRes IR of a 2x12 Legacy.

Personally I prefer another V30 cab such as #126 (“4x12 Citrus Mix”).

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>100 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>3x 12AX7</i>
<i>Power Amp Tubes</i>	<i>4x EL34</i>
<i>Tonestack Location</i>	<i>POST</i>

Cameron CCV



Synopsis:	6 models of a Cameron CCV amp with various channels/switch settings. Like a nasty JCM800. Models 1A and 1B – Clean channel Models 2A to 2D – Crunch channel
Tips:	Be careful! The output levels of the various models varies a lot.
Sound Clips:	Cameron CCV and Fractal FX8
Recommend Cab/Speaker:	Celestion G12H
Manual:	Cameron CCV Owner's Manual

The CCV is a 100 watts, two-channel head with EL34 power tubes, a single input and MIDI-support. Called by its controversial creator: "one pissed off amp". More details about about Mark Cameron are in the Cameron Atomica section.

As with the Atomica, the model of channel 1 doesn't really move me. But (the model of) channel 2: oh yeah baby!

It's nasty. It smolders, waiting to explode. It's the amp you would select if you were the guitar player who's tied to a car in **Mad Max: Fury Road**. If it was a car engine, it would be too hot to touch. It's in-your-face aggressiveness in musical form. It's Cameron Atomica's nephew who met wrong friends and succumbed to dealing drugs. It makes you play AC/DC till your fingers bleed. It's the amp you would associate with an actual highway to hell. It's, it's, it's ... so much fun to play.

And in case you're wondering: "Hey, doesn't this sound rather like a JCM 800 with **Saturation** turned on?" Yes, it does.

Cliff says:



"It's a bit of a quirky amp and kind of a one-trick pony but, man, what a trick."

"It's actually not a very high gain amp. The topology is very similar to a JCM800."

"The key to the CCV sound is the Sat Switch."

And indeed, the Cameron's 2nd channel doesn't have that much gain. It just explodes because of the engaged Saturation parameter which attributes to its mean sound. It sounds even nastier (and much brighter) than the Cameron Atomica. A side-product of these cutting tones is that you may not like them as much for single notes high on the neck; they can sound thin. All IMHO of course.

Channel 1 has these controls: Punch (= Resonance / Depth), Presence, Master, Bass, Middle, Treble and Gain, and a lot of 3-way switches:

- Voicing: affects resonance.
- Dark: affects presence.
- Gain Style: adjusts "Jose Master" gain/clipping.
- Bright: controls treble and therefore gain (less noticeable at higher gain settings).

Channel 2 has these controls: Solo Master, Master, Bass, Middle, Treble, two Gain controls (model: Input Drive and Overdrive) and these 3-way switches:

- 2x Gain Style.
- 2x Bright.
- Drive.

According to the **manual** the CCV has a lot of mids already so don't hesitate to turn Middle down.

Note that the Gain (model: Drive) taper control is peculiar. It goes from 0 to 100 at the very start, then hardly changes for the remainder.

So that's a lot of knobs and switches!

The manual says this about the two Gain controls on channel 2:

Cliff says:



"The amp has a dozen switches and, frankly, there isn't a lot of difference between some of the settings. The Drive switch sounds virtually identical whether left or right. I don't like it in the middle."

"The amp was modelled with the Voicing switch in the middle position."

*"The "Dark" switch is the **Negative feedback** control. Set Negative Feedback to 3.6 to reproduce the switch in the middle position. Set it to 9.8 to reproduce the switch in the right position. 5.0 for left position (default)."*

*"Bright-1 switch selects the Bright capacitor which you can alter via the **Advanced** menu."*

"Our reference amp has a linear taper pot so the behavior is very abrupt. The model matches the amp extremely accurately."

"Use Gain 1 and Gain 2 together to get a myriad of gain options. Set one high, one low, set one switch to the left, one to the right, both on, both off, etc. Remember that the higher the knob is turned up, the less noticeable the switches become. Keep this in mind when you set the amp for the most gain. When adding gain (via the gain/clipping switches above the masters), turn back the gain pots to get a more noticeable effect from the gain switches (for better cut and more articulation). You can roll them back to noon and the amp will still have a lot of gain. There is no right or wrong way to set these knobs or switches. If it sounds good, it is good. Have fun and experiment!!"

It's an amp with a Master Volume on both channels. This means that the amp's distortion is created in particular by the preamp tubes, not the power amp. The Master Volume, which works in the power amp section, is still very important to the tone and feel. You have to decide for yourself what setting in the model works for you best. The default setting is a good point to start of course.

Fractal Audio provides no less than 6 models of the CCV.



Models 1A and 1B capture channel 1. I assume that the difference between these two models is the Gain Style switch position.

Models 2A-to-2D capture channel 2 with the following switch settings:

2A: Bright-1 left, Bright-2 left, Gain Style left.

2B: Bright-1 left, Bright-2 right, Gain Style left.

2C: Bright-1 left, Bright-2 left, Gain Style right.

2D: Bright-1 left, Bright-2 right, Gain Style right.

Be careful! The output levels of the various models varies a lot.

This cab head is often used with 4x12 cabinets with G12H speakers. You'll find the list of stock G12H cabs on the [wiki](#). Alternatively you can use the EVH stock cabs with these amp models (try stock cab #124).

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	100 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	12AX7
<i>Power Amp Tubes</i>	EL34
<i>Tonestack Location</i>	POST

Car Roamer (Carr Rambler)



Synopsis:	Model of a Carr Rambler. A 'cleaner' version of a Fender Deluxe, with more chime and presence. Works well as a platform for pedals.
Tips:	Beware of the bass: the Roamer model has a lot of it.
Sound Clips:	Carr Amps website
Recommend Cab/Speaker:	The Rambler is a combo amp in various configurations: 1x12, 2x12, 2x10 or 1x15 with Eminence speakers. We've got two UltraRes "Roamer" stock cabs: #120 and #136. Alternatively select a Fender stock cab.
Manual:	Carr Rambler Manual

The Rambler is a boutique high-end amp which is often compared to the Fender Deluxe (which we haven't discussed yet). The original Deluxe has limited headroom, the Rambler has ample. As such it is primarily a clean amp. And a great platform for drive pedals.

On TGP and on similar boards the Rambler gets a lot of praise for its pristine clean tones. And it does sound great, as demonstrated in the clips below.

The Roamer model indeed sounds close to the Tweed Deluxe amp model, when the Tweed's Drive is set really low and its Treble is really high. The Roamer model has more chime and presence, and sounds more "modern".

Carr:

"The Rambler employs a pure and simple classic 60s American style preamp circuit combined with an output section owing more to the early 50s. This unique blending yields very open and rich clean tones with mild overdrive."

"The Rambler was one of my earliest signature designs, and today it is still one of our most popular models. Why? It's no accident that the Rambler succeeds in delivering classic American 'deluxe' tone with dramatically expanded clean headroom, solid bass response and the option of 28 watt pentode or 14 watt triode operation. The Rambler simply reflects my desire to improve and refine the original concept of an appropriately powered 1x12 club amp with reverb and tremolo. Rambler owners describe their amps as being warm, full and round, with a surprisingly high threshold of clean tone, (which also makes the Rambler uniquely suited to virtually any overdrive pedal ever built). The Rambler is considered by many to be the quintessential club amp, voiced to meet the needs of virtually any player, and all types of music."

(about comparing the Rambler to the Fender Deluxe) "Both amps more or less occupy the same place in the general range of amps out there, so it's easy to see why people compare them, but the Rambler and the Deluxe behave very differently in practical use. At 28 watts it makes more power and is cleaner than a Deluxe, and their pre-amp sections are similar. Having said that, the Rambler's power section is much more like a Tweed Pro and its phase inverter is based on a Princeton. So, the Rambler shares heritage with a few Fender classics."

Cliff says:



"It's basically a Deluxe Reverb preamp with a cathode bias 6L6 power amp and no negative feedback. Sort of a Fender-meets-Vox thing."

The Rambler is a 28 watts / single channel / cathode bias combo with 6L6 power tubes. It's switchable between Pentode (28 watts) and half-power Triode (14 watts) mode.

It has these controls: Volume, Treble, Middle, Bass, plus Reverb and Tremolo controls. No Master Volume. And a Pentode/Triode switch. According to the manual

the Pentode setting yields a punchy, full sound, while Triode is mellow and thick.



Description of the Middle control in the manual:

"Varies the mid frequencies and is very influential in taking the tone from a 60's blackface sound (minimum to 11 o'clock) to a pushed tweed mid sound (11 o'clock to full)."

Beware of the bass: the Roamer model has a lot of it.

Regarding Volume (Drive): you can get the Roamer model to distort. But overdrive isn't the selling point of this amp / model: its clean tone is.

If you need recommended settings, **check out the manual**.

The Rambler is a combo amp in various configurations: 1x12, 2x12, 2x10 or 1x15 with Eminence speakers. We've got two UltraRes "Roamer" stock cabs: #120 and #136. Alternatively select a Fender stock cab.

Cab Pack 4 offers more choice in "Roamer" IRs.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>28 / 14 watts</i>
<i>Master Volume?</i>	<i>No</i>
<i>Negative Feedback?</i>	<i>No</i>
<i>Preamp Tubes</i>	<i>3x 12AX7</i>
	<i>1x 12AT7</i>
<i>Power Amp Tubes</i>	<i>2x 6L6</i>
<i>Tonestack Location</i>	<i>PRE</i>

Citrus A30 (Orange AD30HTC)



Synopsis:	Models of Channel 1 and 2 of Orange A30 HTC, an EL84 powered Class A amp.
Tips:	N/A
Sound Clips:	ProGuitarShop - Orange AD30 Head
Recommend Cab/Speaker:	#126 4x12 Citrus Mix
Manual:	AD Series Owner's Manual

The English company **Orange** has been around since 1968. More company background is on [Wikipedia](#). You can't miss the bright orange amps on stage, and they are found on many stages.

In 1998 Orange launched the AD series, an EL84 powered Class A tube amp with a single input and two channels. The modelled amp (named Citrus A30) is the 2-channel head ("H"). "TC" = Twin Channel.

Orange:

"Essentially two vintage British-style amps in one, the valve rectified twin channel AD Series recaptures the warm, time-honoured EL84 sound that defined an era. These amps have gained deserved reputation among Country pickers, Bluesmen, Pop, Funk and Indie artists for their classy, bell-like cleans, breaky crunch and controlled natural compression. This amp has proved to be so popular worldwide that its specification remains unchanged, and is fast becoming the new standard in 30 watt Class A amplification.

With two completely separate signal paths, each with two stages of gain and master volume controls, both channels can be set clean or coaxed into varying degrees of crunch. Channel One has a slightly mellower character, with a thick, creamy, classic voice. Channel Two

produces a tighter bass response and a faster attack with more gain and a more prominent upper midrange.

However you set the controls, the AD30HTC remains wonderfully receptive to various guitars and playing styles, whilst the GZ34 valve rectifier imparts its own distinct vibe for players seeking a more vintage feel and responsiveness. Pair with our PPC212OB for glassy highs and spacious cleans or expose the AD30HTC's heavier nature with our PPC212 or PPC412 for more low end projection."

Yek's comments:

I'll be honest: I'm not a fan of the characteristic distorted Orange sound myself. I find it one-dimensional (lacking depth) and buzzy. *ducking beneath the table...* But the list of Orange players is long and includes Oasis and other British bands, Jimmy Page, Fun Lovin' Criminals, The Mars Volta, etc. etc. so ignore me.

We have a "clean" and a "dirty" model of the AD30. But the AD30 does not have a clean and a dirty channel, read the description above.

Here's a [link](#) to the manual.

Typical for Orange amps are the symbols describing the panel controls, instead of names. The AD30 has these

controls (per channel): Master, Treble, Middle, Bass and Gain. The tone controls also affect the amount of gain, turn them up for more gain. However, the AD30 is not really a high-gain amp.

Orange cabs are equipped with V30 speakers. There are **several Orange ("Citrus")** stock cabs. I like #126 best.

Cab Pack 14 and **Cab Pack 19** contain more Citrus IRs.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>30 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>No</i>
<i>Preamp Tubes</i>	<i>4x ECC83</i>
<i>Power Amp Tubes</i>	<i>4x EL84</i>
<i>Tonestack Location</i>	<i>POST</i>

Citrus Bass 200 (Orange AD200B)



Synopsis:	Model of an Orange AD200B bass amp
Tips:	N/A
Sound Clips:	N/A
Recommend Cab/Speaker:	#032: 4x10 Bassguy cab
Manual:	AD200B MkIII Owner's Manual

The English company **Orange** has been around since 1968. More company background. You can't miss the bright orange amps on stage, and they are found on many stages. That includes bass amps, used by Geddy Lee (Rush), Deftones and Mastodon.

The AD200B isn't a "bells and whistles" kind of bass amp. It's incredibly simple. Three tone knobs, gain and master volume. Oh yeah, you can choose between a passive or active input. That's it. It runs on 6550 tubes (valves, as they call them in the U.K.), four of them, making it a 200 watts amp. The Gain control enables you to dial in an overdriven bass tone.

Orange:

"The AD200B MK 3 is quite simply one of the purest valve bass amplifiers ever produced, designed on the premise that the best tone often comes from the shortest signal path from guitar to speaker. The classic, uncomplicated design features inputs for both active and passive instruments, with a simple but effective EQ.

With four 6550 output valves pushing 200 Watts of power, the AD200B has a creamy, dynamic low-end with a focused mid-range. The rounded gain structure reveals a wide spectrum of vintage and modern tones, from mellow hues perfect for flatwound strings,

through to heavy percussive grind. Whatever the situation, there is no shortage of punch, which is just one of the reasons why the AD200B has appeared on some of the world's biggest stages."

It's a head. It's unknown whether the Fractal Audio model is based on the latest MK 3 version of the amp, or an earlier one.

As always with Orange, the simple tone controls, Gain and Master are indicated by symbols on the front of the head.

Here's the manual.

If you're really a boss, you bring the 8x10 1200 watts cabinet! It's so big that yo' mama could live in it. The 10" speakers are from Eminence. We haven't those IRs among our stock cabs. Take your pick from the other stock bass cabs. Or try the 4x10 Fender Bassguy cab for another flavor.

Orange has a number of [audio clips on its site](#).



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	200 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	No
<i>Preamp Tubes</i>	2x ECC83 1x ECC81
<i>Power Amp Tubes</i>	4x 6550
<i>Tonestack Location</i>	POST

Citrus RV50 (Orange Rockerverb 50 MK II)



Synopsis:	Model of an Orange Rockerverb Mk II
Tips:	N/A
Sound Clips:	2010 Orange Rockerverb MKII Orange Rockerverb 50 Combo
Recommend Cab/Speaker:	#126 4x12 Citrus Mix
Manual:	Rockerverb 50/100 MKII Owner' Manual

The English company **Orange** has been around since 1968. More company background is on [Wikipedia](#). You can't miss the bright orange amps on stage, and they are found on many stages.

The Rockerverb is an EL34-driven tube amp with a clean channel and a dirty channel, and a single input. It was introduced in 2003. The MK II model was introduced in 2010. Slipknot's Jim Root is a well-known Rockerverb user. The modelled amp is the 50 watts version.

People often think that a 50 watts amp is half as loud as the 100 watts version. But that's not the case. The difference often is just a few decibels.

Orange:

"All Valve, channel-switching amplifier with ultra-transparent effects loop and valve-driven reverb. This amplifier utilises a two stage clean channel with a four stage dirty channel.

The Clean Channel delivers a super rich clean tone with beautiful harmonic overtones. It is a non-master channel, much like vintage Orange amps, and when cranked the power section breaks up faster, delivering the most classic British crunch imaginable.

The Dirty Channel is four stages of unadulterated filth, but it is NOT a one-trick pony. Move the Gain knob from 0 to 10, and as you do you'll find a variety of Orange tones, from metal to fusion, rock to blues...there's even some country in there.

All 50 watt Rockerverb Mark II amps offer switchable output valves. This means you can swap the factory fitted EL34 output valves to 6L6s, KT88s, or 6550s. Just make sure you take your amp to a tech for rebiasing!”

By the way, here's what Orange write in their **manual**:

The warmth, tonal quality and rich harmonics generated by a valve amplifier cannot be reproduced by ‘artificial’ means. Many guitarists have reached the same conclusion: neither the transistor nor microchip is a suitable alternative to valve technology.

Typical for Orange amps are the symbols describing the panel controls, instead of names. The amp has a global Reverb control, and per channel: Treble, Middle, Bass and Gain. The Dirty channel also has a Master. The tone controls also affect the amount of gain, turn them up for more gain.

I'll admit again: as with the AD30, I can't get a tone from this amp model that I really like, until I turn up bass, middle and treble. But I've always been more of an Apple than an Orange man.

Orange cabs are equipped with V30 speakers. There are several **Orange (“Citrus”) stock cabs**. I like #126 best.

Cab Pack 14 and **Cab Pack 19** contain more Citrus IRs.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	50 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	4x ECC83
<i>Power Amp Tubes</i>	2x EL34
<i>Tonestack Location</i>	POST

Citrus Terrier (Orange Tiny Terror)



Synopsis:	Model of an Orange Tiny Terror amp in 15w mode. 1 channel Class A amp (with EL84s)
Tips:	The amp only does dirty tones – it's inaudible when clean. The tone control is actually a high cut control in the power amp and is therefore replicated by the Hi Cut parameter. The Hi Cut set fully CCW is equivalent to the amp's tone knob fully CW. The model uses a neutral tone stack. Set T/M/B to noon for authentic sounds or adjust to taste
Sound Clips:	Orange Amplifiers - Tiny Terror
Recommend Cab/Speaker:	#126 4x12 Citrus Mix
Manual:	Tiny Terror Manual (online)

The English company Orange has been around since 1968. More company background. You can't miss the bright orange amps on stage, and they are found on many stages.

The Tiny Terror is a simple and portable amp. Single channel, EL84, and switchable between 7 and 15 watts. At 15 watts it is still loud enough to keep up with a drummer and fill a room, when combined with an appropriate cabinet. The Tiny Terror was modelled in 15 watts mode.

Orange:

"Often imitated, but never equalled, the iconic Tiny Terror quite literally turned the guitar world upside down upon its launch. Heralded by Guitarist Magazine as 'the most important guitar product in the last 30 years', Tiny Terror ownership now stretches to well over 30.000 players worldwide. This is the original 'lunchbox' amp head, and continues to set the standard by which all other low wattage valve amplifiers must be judged.

Combining ultra-portability with an outstanding array of valve tones, Tiny Terror head delivers an exceptional range of British valve tones made possible by a single channel with just three controls. A unique preamp section and gain structure goes from clean/bluesy crunch to Punk and Classic Rock, all controllable by your guitar's volume knob.

The intuitive tone circuit acts as a roll off for the upper frequencies whilst always retaining the character of the instrument, even when driving the amp to its absolute limits.

Whilst the philosophy behind the Terror series began with the gigging musician on the move, their huge sonic range, supreme usability and switchable output options has made them the 'go-to' amps for studio engineers and producers alike."

Cliff says:



"It's inaudible when clean."

"The tone control is actually a high cut control in the power amp and is therefore replicated by the Hi Cut parameter. The Hi Cut set fully CCW is equivalent to the amp's tone knob fully CW. The model uses a neutral tone stack. Set T/M/B to noon for authentic sounds or adjust to taste."

Typical for Orange amps are the symbols describing the panel controls, instead of names. The controls are very simple: Gain, Volume, and a single Tone control.

It really is an amp for dirty tones only, useless for clean tones.

Of the Citrus amps, I like this one the best. Gain around 7, Hi-Cut at 2.50, and control the gain with the guitar's volume knob. That's all.



Here's the

manual.

The Tiny Terror combo comes with the G12H speaker. But it works well with the larger Orange cabs with V30 speakers as well. There are **several Orange ("Citrus") stock cabs** with V30s of which I like #126 best.

Cab Pack 14 and **Cab Pack 19** contain more Citrus IRs.

Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	15 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	No
<i>Preamp Tubes</i>	2x ECC83
<i>Power Amp Tubes</i>	2x EL34
<i>Tonestack Location</i>	PRE

Class-A 15W TB (Vox AC-15)



Synopsis:	A model of a Vox AC-15 Top Boost.
Tips:	<i>"Personally I prefer the AC-15 model just a tiny bit over the AC-30 Top Boost model, although I can't really explain why" - Yek</i>
Sound Clips:	Vox AC15 Amplifier Guitar World Review
Recommend Cab/Speaker	Celestion Alnico Blue, Celestion Greenbacks
Manual:	AC15HW and AC30HW Owner's Manual

From Beatles to nowadays rock stars, everybody plays Vox amps. Brian May, The Edge, Rory Gallagher, Radiohead, Kings of Leon, Ritchie Blackmore etc. And etc. And etc. Did you know that the famous James Bond theme was recorded on an AC-15? And for some reason unknown to me, Vox is the tone of choice in P&W.

Vox is owned by Korg. While the original Vox company (Jennings) now builds the original amps again, under the name of **JMI**.

The AC-15 existed before the AC-30. The AC-15 was not loud enough, so Vox made a louder version: AC-30. The AC-15 is still being made by Korg, eh sorry, Vox. A '60-'65 Vox AC15 Twin occupies spot #21 on [Vintage Guitar's list of most valuable amps](#):

“The Vox AC30 garnered more attention for years, but in this age of reduced stage volumes and project-studio recording practices, the smaller AC15 has become even more desirable in some players’ estimation. Dick Denney’s creation benefited from several design elements that were specifically intended to flatter the voice of the electric guitar, rather than merely amplify it, and these babies achieve that in spades. Plug into the stout EF86 pentode preamp channel for creamy, milkshake-thick tones or the ECC83 channel for more jangle and sparkle, and you quickly hear what all the fuss is about.”

The AC-15 and AC-30 originally were rather dark amps, with a single tone control. The “Brian May” tone. The Top Boost circuit was added later, adding gain and Bass and Treble controls, and the well-known Vox “chime”.

The Vox is often cited to be a Class A amp. I’m not an engineer so I’ll just [quote Korg/Vox](#) about the difference between Class A and Class A/B amps:

“In order to understand the difference between these two types of amplifier designs (there are others) you must first understand a little about tubes.

The most basic tube used as an amplifier consists of three elements: Cathode, Plate and Grid. The Cathode is heated (by the heater, another element in all tubes except in very old designs where the cathode is the heater) and forms a cloud of negatively charged electrons. The Plate has a positive charge that attracts the electrons. The Grid is the audio input to the tube and usually controls the flow of electrons.

Amplification happens when a signal is applied to the grid that allows for and controls how much current flows through to the plate. Because the signal voltage is relatively low and the plate voltage is relatively high (as supplied by the power supply), the small changes produced by the audio signal at the Grid appear much larger at the Plate, hence amplification.

In a Class A circuit, a positive voltage is applied to the Grid, which controls the flow of electrons. In this circuit design current is flowing at all times through the tube.

In a Class “AB” design a negative “bias” voltage is applied to the grid, which will cause the tube to “shut off” when the audio waveform is below a certain point. Meanwhile there is another tube and associated circuit that is turning on before the first one turns off and is reproducing the rest of the waveform. In short these two tubes share the job of reproducing the full audio waveform.

Each type of design has its advantages and disadvantages.”

Class “A” advantages:

- The tube is ready to amplify the signal at all times.
- The signal is instantaneously amplified because the tube does not have to “wake up: from a less than full operational state.
- A 30 watt Class “A” amp will sound louder than a 30 watt Class “AB” amp.
- Because current is maximum at all times, the amp will have a smooth compression.
- There is not a lot of headroom because of the lower plate voltages used in Class “A” amps.

- Instantaneous amplification and smooth compression make for an amp that is responsive to the touch: the amp feels good and playing it is a satisfying experience.
- Combined with EL84's in push-pull operation, the amp will emphasize high order harmonics and the amp will "sing".

Class A disadvantages:

- Maximum current at all times means that the tubes are being strained even without playing.
- Shorter tube life.
- Lower power rating than a Class "AB" amp with the same tube configuration.
- Power transformer needs to be upgraded in order to handle the high current demands.

Class "AB" advantages:

- Longer tube life because the tubes are "idling" with lower Plate Current.
- Higher power ratings with the same tube configuration.
- More headroom.
- Tighter bass response.
- Less continuous demand on the power transformer.

Class "A/B" disadvantages:

- Not as "responsive" as a Class "A" amp.

Let's carry on with [Wikipedia](#):

"The Vox isn't really a Class amp. It's a Class A push-pull amp with cathode bias. The high bias condition is believed by some to be the source of the amplifier's famous immediate response and "jangly" high-end, though the lack of negative feedback, minimal preamp circuit, simple low loss tone stack, and the use of cathode biasing on the output stage play at least as large a role, if not larger. It's the Celestion "Blue" speakers that are integral to the AC30, and also contribute much to the sound of the unit."

The AC-15 runs on EL84 power tubes. Originally the AC-15 had an EF86 preamp tube in one channel and ECC83 (currently: ECC83/12AX7) in the other one. There's no EF86 in the current AC-15 and AC-30 models, you have to resort to boutique alternatives for that (Matchless, Morgan). Our AC-15 virtual model defaults to 12AX7 preamp tubes.

It has High and Low inputs per channel. If the original amp has High and Low inputs, the model is always based on the High input. To get the equivalent of the Low input, decrease Input Trim.

Vox amps are "no negative feedback" amps. This means that the Damping parameter in the model is set to zero. When Damping is 0, the model's Presence becomes a Hi-Cut control.

So what does "negative feedback" mean? Negative feedback sends a bit of the signal coming out of the amplifier back to the input of the power amp. This cleans up tube distortion, but also causes loss of harmonics.



The original AC-15 had two channels. The first channel provided the "Vibravox" effect, a combination of tremolo and vibrato, plus Volume and Brilliance. Channel 2 had a Volume and a Cut control (represented by the Hi-Cut parameter in the model). Later models with Top Boost added Bass and Treble controls. **More recent models** offer Normal and Top Boost channels with additional options (Bright, Master Volume etc.).

I do not know on which particular AC-15 our model is based, other than that it has the Top Boost circuit.

A Vox typically feeds AlNiCo Blue speakers or greenbacks. Blue refers to the color of the speaker's metal. AlNiCo speakers are often used when bright tones are needed. The wiki has a [list of AlNiCo stock cabs](#).

Several Cab Packs offer additional Vox / Class-A / AlNiCo IRs. "Tom's Mix" in Cab Pack 4 is a pair of Vox IRs, liked by many.

Yek's personal comments:

Personally I prefer the AC-15 model just a tiny bit over the AC-30 Top Boost model, although I can't really explain why.

I like the AC-15 with stock cab 011: Buddy's 1x12 Bludo Mix.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	15 watts
<i>Master Volume?</i>	No (on originals)
<i>Negative Feedback?</i>	No
<i>Preamp Tubes</i>	3x ECC83
<i>Power Amp Tubes</i>	2x EL84
<i>Tonestack Location</i>	POST

Class-A 30W (Vox AC-30)



Synopsis:	4 models of a Vox AC30 Amp: <ul style="list-style-type: none"> • Class-A 30W: Normal channel of a non-Top Boost AC-30 • Class-A 30W BRT: Bright channel of a non-Top Boost AC-30 • Class-A 30W TB: Top Boost channel of the AC-30 Handwired • Class-A 30W HOT: Hot mode of the AC-30 Handwired
Tips:	N/A
Sound Clips:	ProGuitarShop - 2010 Vox AC30 Hand-Wired Head
Recommend Cab/Speaker:	Celestion Blues, Greenbacks
Manual:	AC15HW and AC30HW Owner's Manual

From Beatles to nowadays rock stars, everybody plays Vox amps. Brian May, The Edge, Rory Gallagher, Radiohead, R.E.M., Status Quo, Kings of Leon, Ritchie Blackmore etc. And etc. And for some reason unknown to me, Vox is the tone of choice in P&W.

Vox is owned by Korg. The original Vox company (Jennings) also builds the original amps, under the name of **JMI**.

The Vox AC-30 flagship amplifier came to life in '59 because the existing AC-15 simply wasn't loud enough. The AC-30 doubled the number of power tubes.

The Edge's famous amp is a '64 Top Boost AC-30/6 model. A '60-'63 Vox AC30 occupies spot #18 on [Vintage Guitar's list of most valuable amps](#):

"The hallowed AC30 is a seminal tone template for the ages."

The AC-30 originally was a rather dark two-channel amp, with a single tone control. The "Brian May" tone. People used treble boosters to, duh, boost treble, which also added gain. The Top Boost circuit, aka "Brilliance", was added later, adding Bass and Treble controls, creating the well-known Vox "chime". [Wikipedia](#) has more background information (see also the comments in the Class-A 15W write-up).

The Vox is often cited to be a Class A amp. Read the Class-A 15W write-up for an explanation of Class A and Class A/B amps.

The AC-30 runs on EL84 power tubes. Originally the AC-30 had an EF86 preamp tube in one channel and ECC83 (currently: ECC83/12AX7) in the other one. Vox dropped the EF86 because of reliability issues. There's no EF86 in the current AC-30, although you can order it (custom). Our AC-30 model defaults to 12AX7 preamp tubes.



The AC-30 has High and Low inputs per channel. If the original amp has High and Low inputs, the model is always based on the High input. To get the equivalent of the Low input, decrease Input Trim.

Vox amps are "no negative feedback" amps. This means that the Damping parameter in the model is set to zero. When Damping is 0, the model's Presence becomes a Hi-Cut control.

Some of Fractal Audio's AC-30 models are based on an AC-30 Handwired. This amp has ECC83/12AX7 preamp tubes, Normal and Top Boost channels, a Bright switch on the Normal channel, and a Hot/Cool switch on the Top Boost channel, and a Master volume control with the option to bypass it. The amp was modelled with Master Volume bypassed, IIRC. The "Hot" mode bypasses the amp's EQ for more gain.

It seems (but I don't know for sure) that the other two models are based on a non-Top Boost AC-30.

[Class-A 30W](#): Normal channel of a non-Top Boost AC-30

[Class-A 30W BRT](#): Bright channel of a non-Top Boost AC-30

[Class-A 30W TB](#): Top Boost channel of the AC-30 Handwired

[Class-A 30W HOT](#): Hot mode of the AC-30 Handwired

The controls: Volume, Tone (model: Hi-Cut), Bass/Treble on the Top Boost channel, Bright switch on the Normal channel of a non-Top Boost AC-30.

Since the “Hot” mode of the Handwired amp bypasses the amp’s EQ, you should leave all tone controls at default in that model for authenticity.

To increase gain you can of course turn up Input Drive.

What also works well with

Vox amps is boosting the signal at the input stage. For example, by increasing Input Trim, or by adding a Drive such as FET Boost or SDD.

Cliff says:



[talking about the Handwired amp]

"Note that the particular AC-30 used for the model has this scratchy high end. This is reflected in the high Dyn Pres value. It's a hand-wired version and that can lead to this type of sound as the parasitics cause boosting of the very high frequencies when the amp is driven hard. The obvious solution is to turn Dyn Pres down."

"I intentionally limited the midrange notch since, IMO, it's a design flaw in that tone stack. But you can recover that behavior by setting the Mid control fully CCW. Modern AC30's don't have this flaw. They use a Fender-style tone stack with a fixed mid resistor."



Older Top Boost AC-30s have a design flaw. When Bass control is maxed, there’s a very noticeable midrange notch (see sidebar)

A Vox combo comes with two 12” AlNiCo Blue speakers or Celestion G12M greenbacks. Blue refers to the color of the speaker’s metal. AlNiCo speakers are often used when bright tones are needed. The wiki has a [list of AlNiCo stock cabs](#).

Several Cab Packs offer additional Vox / Class-A / AlNiCo IRs. “Tom’s Mix” in Cab Pack 4 is a pair of Vox IRs, liked by many.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	30 watts
<i>Master Volume?</i>	No (on originals)
<i>Negative Feedback?</i>	No
<i>Preamp Tubes</i>	3x ECC83
<i>Power Amp Tubes</i>	4x EL84
<i>Tonestack Location</i>	POST

Comet 60 (Komet 60)



Synopsis:	A Komet 60, an amplifier designed by Ken Fischer, designer of the Trainwreck amplifier. It is a single channel amp without Master Volume
Tips:	The amp has a Touch Response switch that lets you choose between Fast and Gradual response. The model is based on the switch in the “Fast” position. You can replicate the “Gradual” position by decreasing Input Trim to .250.
Sound Clips:	Komet 60 - Demo by Simon Gotthelf Komet 60 Part 2 clean/dirty Lead - Demo by Simon Gotthelf
Recommend Cab/Speaker:	Celestion Blues, Greenbacks

After Dumble the most expensive guitar amplifiers are **Trainwrecks**. Those boutique amps in their remarkable housings were created by (the late) Ken Fischer. He designed amps for Komet too, which are held in high esteem and are similar to the Trainwreck amps.

Let's check out Komet's **cool statements**:

“The Komet is a 100% new design, but is built along traditional Trainwreck methodologies. Like all “Wrecks”, the Komet is a single channel amp. It has NO reverb, master volume, effects loop, foot switches, pull pots, transistors or chips ANYWHERE.”

“The amp should produce about 50 to 60 Trainwreck watts of power. The amp must have plenty of headroom. The amp must use a 5AR4/GZ34 tube rectifier for the feel and sound this tube creates without the mushy sag usually associated with tube rectification. The amp's bass response must be big, bold, clear and tight. The amp's touch response must be adjustable from gradual, like a fifties or sixties amp, to fast, like a Trainwreck amp. The amp's workmanship is to be second to none”

The Komet 60 is **Komet's flagship amp model**: It comes stock with EL34 power tubes but you can swap these for other tubes. It delivers 50-60 watts.

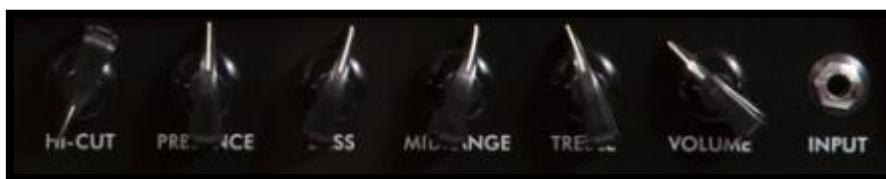
“The Komet 60. Our first amplifier and our flagship model. Sleek and streamlined. In many ways - the ultimate tonal chameleon. Designed by Ken Fischer in 1999. This multifaceted amplifier has the ability to operate on several different tube types. Each tube selection allows the player to travel into a different tonal universe.

The EL34 stock factory setup immediately dials you into the benchmark English era of rock and roll. Switch to 6L6s and you're in the 1960's American rock zone. EL34s, KT77s, 6L6s, 5881s, KT66s, KT88s, 6550s, - your tube choice ultimately decides where you wish the sound to take you. You can expect complex harmonics, bold & clean focused clarity and aggressive when pushed. Pedal friendly? - you bet! The Komet 60 will always have an immediate, balanced full tonal range, no matter which power and pre amp tube selection you choose.

The front control panel is simple and intuitive. Volume followed by a standard 3-band EQ, a presence control as well as a high cut control. The high cut control operates within the power section of the amplifier and thus allows the user to darken and shape the overall tone of the amplifier without affecting the equalization of the preamp section. This solves the common problem of the loss of gain and clarity when turning the treble control down in the preamp.

On the back control panel you will find The Touch Response switch. This Trainwreck Engineered circuit enables the musician to alter the amplifier's touch response characteristics to suit their playing style. A simple flip of the switch allows the player to choose between a fast, or a gradual response to one's picking dynamics and guitar's volume control settings. The Touch Response circuit is not an extra gain stage or gain boost circuit. Instead it works by magnifying subtle changes in pick or finger attack along with subtle changes in guitar volume. This circuit allows those players who prefer clean tones to run the full range of dynamics without breaking into unwanted distortion. A blues player can play on the edge of distortion easily going from clean to blues overdrive using pick attack as the controlling factor. An over the top player can go from clean to scorch using the fast setting. The slightest change in pick attack or guitar volume setting will translate into huge changes in dynamics and power. To sum up, the Touch Response circuit lets you choose the response and feel you want and makes your amplifier capable of playing every style of music.”

So the Komet 60 is a single channel amp, without Master volume, with a single input.



The controls are Hi Cut, Presence, Bass, Middle, Treble, Volume. The Hi Cut control isn't available in Fractal Audio's model.

The amp has a Touch Response switch that lets you choose between Fast and Gradual response. The model is based on the switch in the "Fast" position. You can replicate the "Gradual" position by decreasing Input Trim to .250.

This amp doesn't need a lot of EQ-ing. I have everything at default, except for Input Trim (see above) and Input Drive at around 4.

Komet builds 4x12 cabinets with a choice of the following speakers: G12H, G12M (greenbacks), AlNiCo Blue or Gold, or G12-65. Take your pick from the **stock cabs**.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	50 watts
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	3x 12AX7
<i>Power Amp Tubes</i>	2x EL34
<i>Tonestack Location</i>	PRE

Comet Concourse (Komet Concorde)



Synopsis:	A model of a Komet 60 amp. Very similar to the Komet Concorde but positioned more as a rock amp. In real life the Concorde has a bit more gain, more low end and is tighter and more modern than the K60, but the Concorde model appears to have slightly more gain.
Tips:	Like the Comet 60 model, this model doesn't need a lot of EQ-ing. I have everything at default, except for Input Trim (see above) and Input Drive at around 4.
Sound Clips:	Komet Concorde - Demo by Simon Gotthelf
Recommend Cab/Speaker:	Komet builds 4x12 cabinets with a choice of the following speakers: G12H, G12M (greenbacks), AlNiCo Blue or Gold, or G12-65. Take your pick from the stock cabs

After Dumble the most expensive guitar amplifiers are **Trainwrecks**. That boutique amp with its eye-catching looks was created by (the late) Ken Fischer. He was designed amps for Komet, which are held in high esteem and sound similar to the Trainwreck amps.

Komet's **design statements:**

"The Komet is a 100% new design, but is built along traditional Trainwreck methodologies. Like all "Wrecks", the Komet is a single channel amp. It has NO reverb, master volume, effects loop, foot switches, pull pots, transistors or chips ANYWHERE."

"The amp should produce about 50 to 60 Trainwreck watts of power. The amp must have plenty of headroom. The amp must use a 5AR4/GZ34 tube rectifier for the feel and sound this tube creates without the mushy sag usually associated with tube rectification. The amp's bass response must be big, bold, clear and tight. The amp's touch response must be adjustable from gradual, like a fifties or sixties amp, to fast, like a Trainwreck amp. The amp's workmanship is to be second to none"

We already discussed the Komet 60. This edition is about the Concorde. Its specs are quite similar: EL34s (not swappable), 50/60 watts, etc. More than the 60, the Concorde is positioned as a rock amp.

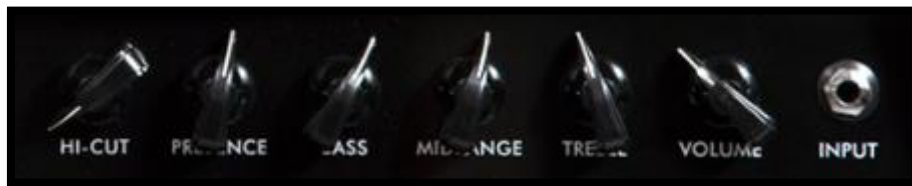
Komet:

“Traditional Trainwreck principles are followed in the design and construction. The Concorde is a single channel amp and does not have reverb, a master volume, an effects loop, foot switches, pull pots, transistors, chips or anything else that would degrade tone, harmonic complexity or touch sensitivity.

The head box is constructed with top quality Baltic Birch covered in vintage style black levant tolex. The front panel is made of solid Padauk hardwood, hand finished and centered by a 1/8th-inch stainless steel etched plaque which displays our traditional Komet "V". A simple, yet efficient Padauk back panel allows for optimum tube protection with plenty of ventilation to spare for the amplifier. Like all Komet amplifiers, our chassis is laser cut, solid 1/8" welded aircraft grade aluminium. It features completely sealed military-grade 2 Watt potentiometers and ceramic tube sockets with gold plated contacts. It is hand built with only the best sounding and most reliable parts, and as with all of our amplifiers, is completely hand wired.

This Trainwreck circuit, which includes Ken Fischer's specially designed power and output transformers, offers an exceptional sound. The Concorde is designed to operate exclusively on EL 34 power tubes. Ken has achieved the very best from this tube compliment without any compromises. The Concorde has more gain than Ken Fischer's other designs for Komet and incorporates a solid state rectifier. A new circuit in conjunction with new transformers and the careful selection of only the finest components allow the Concorde to offer benchmark EL 34 tone with rich complex harmonics, creamy rhythms and singing leads - all reinforced with a strong, bold, tight, low-end response. The Concorde follows the Komet / Trainwreck tradition of creating an amplifier with rich, balanced sound and unmatched musicality including superb touch sensitivity, note articulation, string to string separation and dynamic response.”

The controls: Hi Cut, Presence, Bass, Middle, Treble, Volume. The relationship between Presence and Hi Cut isn't clear to me but that doesn't matter because the Hi Cut hasn't been modeled.



The amp has a Touch Response switch that lets you choose between Fast and Gradual response. The model is based on the switch in the “Fast” position. You can replicate the “Gradual” position by decreasing Input Trim to .25 (source: firmware 10.06 release notes).

The Comet 60 and Comet Concourse amp models sound VERY similar.

But while Komet writes that the Concorde has more gain than the 60, it's the other way around with the amp models; the “60” model has (slightly) more gain than the Concourse. IMHO.

Like the Comet 60 model, this model doesn't need a lot of EQ-ing. I have everything at default, except for Input Trim (see above) and Input Drive at around 4.

Personally I prefer the Concourse model slightly over the "60" model.

Komet builds 4x12 cabinets with a choice of the following speakers: G12H, G12M (greenbacks), AlNiCo Blue or Gold, or G12-65. Take your pick from the stock cabs.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>50W</i>
<i>Master Volume?</i>	<i>No</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>3x 12AX7</i>
<i>Power Amp Tubes</i>	<i>2x EL34</i>
<i>Tonestack Location</i>	<i>PRE</i>

Corncob M50 (Cornford MK50 II)



Synopsis:	Model of the overdrive channel of a Cornford MK50H II. “Plexi-meets-Modern tone with big cojones”.
Tips:	Works great with a Drive in front of it. The T808 with Drive at zero and Level at 7. This tames the bass of the amp mode and makes the tone even better. Yek’s simple settings: Input Drive 4.5, Overdrive 8, Bass 3.50. With the T808 OD (Drive at 0, Level at 7).
Sound Clips:	Cornford MK50 MKII Demo (Clean, Rock and Metal tones)
Recommend Cab/Speaker:	Celestion V30 speakers. Try Factory cab: #060 4x12 Fractal Gb M160 and #061 4x12 Fractal V30 AT4047
Manual:	The MK50II 2 Channel 50 Watt Head

I first heard and saw a Cornford amp when Dweezil Zappa played one at a Zappa Plays Zappa gig in The Netherlands. That was before he started using Fractal gear. His sound blew me away. As a matter of fact it blew Steve Vai’s tone away too, who was playing his usual gear. Richie Kotzen and Guthrie Govan were other well-known Cornford players.

Yes, “were”, because Cornford amplifiers in Britain no longer exists. The designer went on to found **Victory amplifiers** (not to be confused with Victoria amps in the USA). Guthrie Govan plays Victory amps.

In the Axe-Fx Standard / Ultra the Corncob RK100 was an established popular amp model. That was based on Richie Kotzen’s signature amp. The model in the Axe-Fx II and AX8 is based on another amp: MK50 II, Cornford’s flagship.

The MK50 II is a two-channel amp, with either EL34 or 6L6 tubes, and a solid-state rectifier.

Output is 50 watts. I think that the model is based on the version with EL34 tubes. It’s a hand-built amp with PTP wiring.

Cliff says:



“Plexi-meets-Modern tone with big cojones.”

The model is based on the Overdrive channel. To be honest the M50 model in the Axe-Fx II didn’t work for me at first. At least not in the same way the old RK100 model did. It came alive when Quantum firmware was released.

The model incorporates a lot from other brands, such as Marshall, Mesa and Soldano, and still has its own vibe. It sounds big and brutal and bold. It combines the best of those.

I always play the model when writing these write-ups. This is one of the models I enjoyed playing most so far. It’s very different from the other high gain amps we’ve discussed till now. It isn’t the amount of gain. It’s that “Bam! In your face!” abrasive type of tone. If I was playing in a hard rock band, this would be a top candidate.

And you know what works great with this model: put a Drive in front of it. The T808 with Drive at zero and Level at 7. This tames the bass of the amp mode and makes the tone even better.

The amp’s Clean channel isn’t modelled so we’ll skip that.



Controls on the Overdrive channel are: Gain (model: Input Drive), Overdrive (Model: Overdrive), Bass, Middle, Treble, Volume. There are two Master controls, Presence and Resonance (Model: Depth).

The Overdrive provides two gain controls (model: Input Drive and Overdrive). On all amps like this, including those by Dumble, Fryette, Carol-Ann and Mesa, the first control sets the “sensitivity” and the second one sets the amount of distortion. Cliff:

“Input Drive increases the gain amount as you rotate the knob clockwise. As the gain increases the tone is shifted from a treble and upper mid emphasis, which produces an up front sparkling tone, to a lower mid and bass emphasis, which produces a thick meaty tone.

Overdrive increases the gain amount as you rotate the knob clockwise but with no alteration of the tonal balance.

Different combinations of Input Drive and Overdrive settings will have a dramatic effect on the response of the amplifier and the personality of your instrument. It is easy to get familiar with the action of these controls and you’ll be amazed with your ability to make any guitar sound mellow, fat, soulful or aggressive.”

Models with Input Drive and Overdrive controls always feel “elastic” and spongy, a real joy to play.

The amp has Master controls. This means that the amp’s distortion is created in particular by the preamp tubes, not the power amp. The Master Volume, which works in the power amp section, is

still very important to the tone and feel. You have to decide for yourself what setting in the model works for you best. The default setting is a good point to start of course.

My simple settings: Input Drive 4.5, Overdrive 8, Bass 3.50.

With the T808 OD (Drive at 0, Level at 7).

Here's the manual.

Cornford cabinets have V30 speakers. Take your pick from the stock cabs. In this case I like the combination of the 4x12 Fractal cabs: #60 and #61.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	50 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	4x ECC83
<i>Power Amp Tubes</i>	2x 6L6
<i>Tonestack Location</i>	POST

Das Metall and Dizzy V4 (Diezel VH4)



Synopsis:	<p>Many models of a Diezel VH4 amp, a multi-channel amp capable of many different styles, not just metal. The models are:</p> <ul style="list-style-type: none"> • Das Metall – ear tuned but not matched model from the Standard/Ultra • DIZZY V4 BLUE 2 - Diezel VH4 Blue (Crunch Channel) • DIZZY V4 BLUE 3 - Diezel VH4 Blue (Distortion Channel) • DIZZY V4 BLUE 4 - Diezel VH4 Blue (Solo Channel) • DIZZY V4 SLVR 2 - Diezel VH4 Silver (Crunch Channel) • DIZZY V4 SLVR 3 - Diezel VH4 Silver (Distortion Channel) • DIZZY V4 SLVR 4 - Diezel VH4 Silver (Solo Channel) <p>The Blue model is an older, darker version with a blue faceplate</p>
Tips:	Blue Diezels sound darker (crank Presence!) than the later Silver ones
Sound Clips:	Premier Guitar - Monsters of High Gain - Diezel VH4
Recommend Cab/Speaker:	Celestion V30 or G12K-100
Manual:	Diezel VH4/VH4S Owner's Manual

One write-up, but it covers a lot of models. This is Peter Diezel's VH4, the amp that really launched his company. Although the VH4 is mostly associated with high-gain, it really is a versatile rock amp with its many channels and sounds. But yes, it excels at aggressive high-gain. The amp has 4 channels and puts out 100+ watts through 6550 power tubes. Famous Diezel users: Metallica, Mark Tremonti, Muse and Adam Jones from Tool. The VH4S is a stereo model.

Diezel:

“Launched in 1994 the VH4 was a milestone in guitar amplification. The head has a powerful 100 Watt section, 4 individual preamps, each with individual equalization and volume/gain controls and is fully midi switchable. At that time that was unique - a head which replaced refridgerator sized racks. Additionally the VH4 has serial and parallel loops and the so called

channel inserts to add pedals specifically for each channel, like a analogue chorus just for clean or a compressor for crunch.

The four preamps are: clean, crunch, mega and lead. The clean channel (additional bright switch) has the Diezel-typical HiFi-clean, but with its gain pot is able to reproduce the powerful and warmer Hiwatt territory as well.

The crunch channel (also with bright switch) starts where the clean ends: warm, powerful clean sounds. Variation of the controls (volume, gain) will open the amp to sonic dimensions of semi-crunch and full crunch sounds.

The mega channel is the typical Diezel trademark sound. Nuff said. Try it, love it.

The lead channel starts, where the mega ends: more compression, more smoothness - a singing/screaming lead at its best.

The VH4 is the ultimate sound machine for numerous styles. With its deep section also suitable for many heavier styles, but also the perfect central for Top 40 guitarists looking for the whole spectrum of guitar sounds from yesterday to today. Still a masterpiece - the VH4."

We have a lot of VH4 models at our disposal. The oldest one is DAS METALL, from the Standard/Ultra days. It is based on a schematic and modeled by ear, and hasn't been matched to a real VH4. It still is a very popular amp model.

The other models are based on a real VH4, with either a blue or a silver faceplate. Blue Diezels are the early ones. They sound darker (crank Presence!) than the later Silver ones. You can decide for yourself which one you prefer. I go for silver (which is why I never became an Olympic athlete).

Diezel's VH4 manual:

"Channel 1 Clean: for clean, undistorted sound with high power and good harmonics. With its gain control to the upper third, it sounds soft and warm, gain at lower settings produce more percussive and penetrating clean sounds. Full gain setting makes crunch sounds possible. The tone reminds of a cross between a twin and a Hiwatt 100, but with better overall dynamic response.

Channel 2 Crunch: is a blues guitarist's closest friend. Its dynamic spectrum is especially beautiful in the lower frequency range. Its gain range goes from clean to distorted. Due to its different voicing the 2nd channel will sound a little softer than channel one in clean mode (gain 2:00-3:00, and approaches channel 3's tone in high gain mode (gain 3:00-4:00, but with softer midrange and less compression. "Raw" probably best describes this channel.

Channel 3 Distortion: its concept is heavy rhythm guitar. The distortion is noticeably tighter than in channel 2. The side effect of this added compression is that the signal gets somewhat limited in its dynamic range. This limitation hits mostly the lower frequencies. This loss is corrected by a negative feedback loop to the power amps, which adds fat low end to this tone without muddling up the tone. The control for this low end is in the master section and

Cliff says:

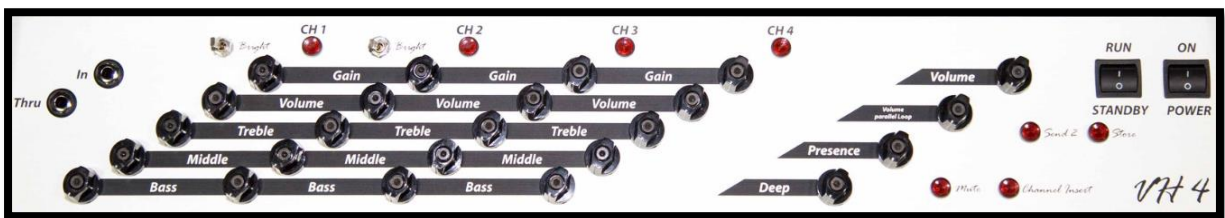


"People think the VH4 is a metal amp which it most definitely is not. It's a mid-gain amp. If you try to use it for detuned death-metal it won't sound good because that's not its intended usage."

"The Dizzy and Herbie models were completely redone [for the Quantum Firmware] as I figured out the secret to the Diezel sound."

bears the “Deep” designation. The gain structure of channel 3 is designed to deliver great distorted sound even with guitars that have relatively low output, like many vintage guitars. The side effect here is that guitars with very high output (active EMG etc.) might overdrive this channel too much and become too compressed. The guitar loses its punch in the band sound and becomes very undefined. In this case, a radical gain reduction is the cure. The guitar sound will clean up a little bit, and the overtones and harmonics will once again sparkle. It is best to start with a 12:00 o'clock gain setting and start to feel your way to the point of perfection and very little compression. This works best while the band is playing with you. Remember - less is often more.

Channel 4 Solo: a little more mid heavy than channel 3, therefore punches through the band sound quite well. See channel 3 description for gain control setting. Often a gain setting near 1:00 o'clock is sufficient for absolute high gain distortion. Use the volume control here and for all other channels to match the individual channel volumes.”



The amp has these controls: Gain, Volume, Bass, Mid, Treble, Presence, Deep, Bright switch on channels 1 and 2. In the model of channel 2, the Bright switch has a noticeable impact.

Diezel:

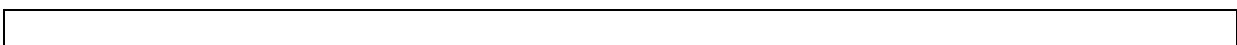
“Master Volume: controls the final volume of the Power amplifier(s). The layout of the controls is such that full volume is achieved at the 1:00 o'clock knob setting. Turning the knob further will overdrive the power amp(s) to create power amp distortion for those of you that prefer this sort of thing. We added this feature to round out the distortion sound palette on the extreme end. So you friends of all things vintage can get colorations and distortion textures that only power amp tubes can deliver. Bring your ear plugs, please. “

“Presence: This knob controls the treble part of the power amps tone spectrum. Its frequency centers at about 4kHz. Treble is produced and dispersed in a very small beam from the speaker, so be sure to position yourself in the projection area of the speaker when making adjustments.”

“Deep: the Deep control is an active bass control for the power amp that adds low end punch to the power amp centered at 80Hz. It does not alter the dynamic behavior of the power amp. Diezel Co. is not responsible for cabinet handles popping out etc.”

Combine the amp with V30 or G12-K100 speakers. Take your pick from the stock cabs.

Fractal Audio and **OwnHammer** have IR libraries with Diezel cabinets.



Das Metall and Dizzy V4 (Diezel VH4)

Setting Name	Guitar/Pickup	Channel #	Bright SW	Gain and EQ Section					Master Section		
				Gain	Volume	Treble	Mid	Bass	Presence	Deep	MV
Clean	Strat/LP/335/Neck pup	1	Off	12:00	12:00	12:00	12:00	12:00	12:00	12:00	9:00
Rhythm	Strat/LP/Neck pup	1	Off	11:00	2:00	2:00	11:00	2:00	1:00	1:00	9:00
Country Picking	Strat/Tele/Neck SC	1	On	11:00	12:00	1:00	12:00	2:00	1:00	12:00	10:00
Funk	Strat/Bridge SC	1	On	11:00	12:00	2:00	11:00	2:00	1:00	12:00	10:00
Clean Picking	Strat/Hollow body/Bridge SC	1	On	11:00	1:00	2:00	11:00	12:00	2:00	11:00	9:00
Funk 2	Strat/Bridge and Neck SC's	1	On	11:00	12:00	2:00	11:00	2:00	1:00	12:00	10:00
Jazzy	Strat/LP/Neck pup	1	Off	10:00	1:00	12:00	2:00	2:00	12:00	1:00	9:00
Clean Rhythm	Strat/Neck SC	1	Off	11:00	1:00	11:00	12:00	1:00	12:00	1:00	9:00
Clean Rhythm 2	Strat/Neck and Middle SC's	1	Off	11:00	1:30	11:00	12:00	2:00	1:00	1:00	9:00
Clean Rhythm 3	Strat/Neck and Middle SC's	1	Off	11:00	12:00	12:00	1:00	2:00	1:00	1:00	9:00
Blues Shuffle	Strat/Middle SC	2	Off	12:00	2:00	12:00	12:00	12:00	12:00	1:00	9:00
Swampy	Strat/Middle SC	2	Off	2:00	1:00	12:00	2:00	2:00	12:00	1:00	9:00
Bluesy Lead	Strat/Neck SC	2	Off	3:00	1:00	12:00	2:00	2:00	12:00	1:00	9:30
Bluesy Lead 2	Strat/Neck SC	2	Off	3:00	2:00	12:00	2:00	2:00	12:00	1:00	9:00
Crunch Rhythm	Strat/LP/Neck pup	2	On	4:00	3:00	1:00	3:00	3:00	11:00	12:00	9:00
Classic Rock	Strat/LP/Neck or Bridge pup	2	On	4:00	3:30	1:00	3:00	3:00	12:00	12:00	10:00
Dumble Rock	Strat/Middle SC	3	~	12:00	1:00	10:00	4:00	10:00	11:00	12:00	9:00
Fusion Lead	Strat/Hollow body/Neck pup	3	~	2:00	1:00	12:00	3:00	11:00	12:00	1:00	9:00
Jimi	Strat/Bridge SC	3	~	2:00	2:30	2:00	2:00	1:00	12:00	1:00	10:00
Zep Power	LP/Bridge HB	3	~	11:00	3:00	2:00	2:00	2:00	12:00	1:00	10:00
Hard Riffing	LP/Bridge HB	3	~	1:00	3:00	1:00	1:00	1:00	12:00	1:00	9:00
VH-ish	Strat/LP/Bridge HB	3	~	5:00	3:00	3:00	5:00	5:00	11:00	1:00	9:30
VH-ish 2	Strat/LP/Bridge HB	3	~	5:00	2:00	3:00	5:00	5:00	12:00	1:00	10:00
Yngwie	Strat/Bridge pup	3	~	5:00	2:00	5:00	5:00	5:00	11:00	12:00	9:00
Hard Rock	LP/Strat Bridge HB	4	~	11:00	3:00	2:00	12:00	12:00	12:00	12:00	9:30
Legato	LP/Strat Bridge HB	4	~	2:00	2:00	12:00	2:00	1:00	12:00	12:00	9:00
Heavy Rhythm	LP/Strat Bridge HB	4	~	2:00	3:00	2:00	12:00	2:00	12:00	1:00	9:30
Drop D Rhythm	LP Bridge HB	4	~	3:00	3:00	3:00	11:00	3:00	1:00	2:00	9:00
Alterna Rock	LP/Strat Bridge HB	4	~	1:00	2:30	2:00	2:00	12:00	1:00	1:00	9:00
Alterna Rock 2	LP/Strat Bridge HB	4	~	2:00	3:00	2:00	2:00	12:00	1:00	1:00	9:30
Lead Improv	Strat/LP Bridge HB	4	~	3:00	3:00	3:00	2:00	1:00	12:00	12:00	9:00
Riff 'N Shred	Strat/LP Bridge HB	4	~	3:00	3:00	3:00	2:00	1:00	11:00	1:00	9:30

Amplifier Specifications	Diezel VH4
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	100 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	12AX7
<i>Power Amp Tubes</i>	4x 6L6
<i>Tonestack Location</i>	POST

Deluxe Tweed (Fender Deluxe, 5E3)



Synopsis:	A model of a 5E3 circuit Fender Deluxe Tweed. Tweed amplifiers typically break up earlier than later "cleaner" models and are known for their warm-sounding overdrive
Tips:	Note that this amp only has a single tone control. This is modelled by the Treble control in the Axe-Fx II. The Bass and Mid controls are functional and recreate the amp when set to noon Try Treble:9, Input Drive anywhere between 2 and 5, everything else at default.
Sound Clips:	J.D. Simo - 1957 Les Paul Custom and a 1959 Fender Deluxe 1955 Fender Tweed Deluxe 5E3
Recommend Cab/Speaker:	Stock cabs #13, #14 and #81 are authentic IRs to use with this amp model. Or try an alternative stock AlNiCo cab, such as #11

This guitar amplifier was produced by Fender from early 1948 to 1966. Not to be confused with the Deluxe Reverb, the difference is more than reverb.

The modelled amp is a "narrow panel" Tweed (the Standard/Ultra model was matched to a Victoria "clone"). This refers to the panels around the speaker grill which are narrower than earlier "wide panel" models such as the Fender Tweed Champ, which looked like old televisions. The Deluxe was the most popular of all Tweed amps at the time.

The Tweed era is the earliest period of Fender amplification (late '40s - early '60s), before the Blonde, Brownface, Blackface and Silverface models. Very collectible amplifiers. "Tweed" is based on the cloth covering used at that time, as seen in the picture above. Tweed amplifiers typically break up earlier than later "cleaner" models and are known for their warm-sounding overdrive. **More information.**

The modelled amp has the famous "5E3" circuit. While it's a sought-after amp, it's also relatively easy to copy, err, reproduce. There are lots of clones and DIY kits on the market. The Carr Rambler (Car Roamer model) is based partly on the Deluxe. And **Fender's The Edge Deluxe amp** is a Deluxe re-issue.

About the circuit numbers: in general the first number indicates the decennium (5 is '50s). The letter indicates the circuit revision, and the last number indicates the amp model (3 = Deluxe).

Guitar Player:

"Plenty. Rich and sweet clean tones at low volume, toothsome overdrive at decibels that won't make the soundman apoplectic, and compact dimensions that'll let it ride in the front seat of your Fiat 500. In short, the tweed Deluxe is the original "ideal studio and club amp"."

Fenderguru:

"The 5e3 Deluxe is desirable among players within all kinds of music styles. The tone of the 5e3 Deluxe is fat and rich with strong mids and a decent bass response given the relatively small cabinet size, approximately the same size as the Princeton Reverb. The construction of the pine baffle and cabinet sounds to us tighter and more closed than the blackface open cabinets, with the possibility of more low end response given the right speaker. A 12" speaker contributes to a full and warm tone and the pure and simple tone stack of the 5e3 Circuit delivers a natural and uncolored tone of your guitar.

The 5e3 Tweed Deluxe is known for its distorted and cranked tones which comes easily when setting the volume and tone above 12 o'clock. The early distortion is partly explained by the lack of a negative feedback loop and the 6V6 cathode bias design which offers more sag and compression and less clean headroom than fixed bias (typically the ab763 blackface amps and a few tweed amps). Besides the fact that the 5e3 Deluxe distorts easily, what fascinates us the most are the golden tone secrets that exist within this amp. If you experiment with the tone knob and the other channel's volume knob (the channel you're not plugged into), you'll find one of the most beautiful clean tones of all times that once and for all confirms that Leo is a God of tone and that he loves us all. The clean sound is not as loud, cold and terrifying as of the silverface or blackface era amps. They will require much more experience and effort to dial in sweet tones, but once you know how you'll be rewarded greatly. With the 5e3 Deluxe it is easier to quickly dial in a nice clean tone, especially at practice volume levels. Given the early distortion and mellow clean sound we find the 5e3 Deluxe great for single coil guitars, especially the bright bridge pickup of the Strat and, of course, the Tele. It is just fabulous for a Telecaster on bridge pickup.

By looking at the control panel the 5e3 Deluxe appears to be very simple. The few controls provide a quick and small selection of tones. It is practically impossible to not find a good tone with this amp. All you need to do is turn up the volume and set the tone. We believe the world would be a better place if the 5e3 Deluxe was the only amp around. All guitar players deserve to play this amp and learn how to create music with a natural and

transparent guitar tone. But the amp is really not as simple as one might think... The two interactive volume channels and the mysterious, non-linear tone control provides a big spectrum of tones, everything from Fender clean to Marshall grit. Many players find the two volume controls confusing. We at fenderguru.com agree. What the heck was Leo and his engineers really thinking when they designed the two volume controls? When you plug into the normal channel any normal person, even a drummer :), would expect that the other channel's setting is not affecting the tone. But no. As you gradually turn the other volume knob, both tone and volume changes, also drastically at the very end between 10 and 12 where you'd expect nuthin more to come. It works likewise the other way around if you play the bright channel. Even more confusing is the tone control. You'd might expect a treble or mid control. Nope, the tone control affects volume, gain, EQ/tone, everything! And worst of all, it does not behave consequently at different volume levels of the two channels. In total you have 4 inputs to choose from, two volume knobs and a tone knob that you can spend years trying to figure out."

Each of the two channels (Normal and Bright) has two inputs. The model is based on the Bright channel.

Fractal Audio models of Fender amps are always based on the input with the highest input level. To get the equivalent of using the lower input, set Input Trim to 0.500.

The amp only has a Volume control for each channel and a shared Tone control. In the model the Tone control is mapped to Treble. Usually you will want to turn up Treble a lot (8 or higher). No Bright switch.




Firmware release notes:

"Note that this amp only has a single tone control. This is modeled by the Treble control in the Axe-Fx II. The Bass and Mid controls are functional and recreate the amp when set to noon."

It's a low output amp. Its 6V6 tubes generate 12 to 15 watts. Tis means that it starts to distort early. This attributed to its popularity, and is why players such as Neil Young and Billy Gibbons use it. When you really crank the volume, the distortion gets crazy and uncontrollable, and sounds like a fuzz.

Firmware release notes:

"Also note that this amp suffers from extreme blocking distortion at or near maximum gain. This is common in very old designs. As it is virtually unplayable like this, the model uses a somewhat reduced level of grid conduction to lower the amount of blocking distortion and make the amp more playable at high Drive settings."

Cliff: 

"Yup, that's the key. Crank the treble almost all the way up."

More background information on the Fender Deluxe is available on [Wikipedia](#).

The Deluxe came with a single Jensen P12 AlNiCo speaker. Stock cabs #13, #14 and #81 are authentic IRs to use with this amp model. Or try an alternative stock AlNiCo cab, such as #11.

OwnHammer and Fractal Audio have IR libraries featuring the Deluxe amp.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>5E3</i>
<i>Power</i>	15 watts
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	No
<i>Preamp Tubes</i>	1x 12AX7
<i>Power Amp Tubes</i>	2x 6V6GT
<i>Tonestack Location</i>	PRE

Deluxe Verb ('65 Fender Deluxe Reverb, AB763)



Synopsis:	Models of Vibrato and Normal channels of a 1965 blackface Fender Deluxe Reverb with an AB763 circuit. Has a nice chimy tone that breaks up nicely when pushed.
Tips:	Break-up starts around 2.2.
Sound Clips:	Fender Deluxe Reverb-Amp 1965 (Original) Johan Segeborn – '65 Deluxe Reverb (Reissue)
Recommend Cab/Speaker:	Jensen C12, JBL 120, EV-12L Factory cab: #006 1x12 Black SM57, #080 1x12 Deluxe Verb Mix

The Fender Deluxe Reverb, aka DR, isn't the Deluxe with reverb added. Well, it is, but it does sound different, it's more scooped.

The Deluxe Reverb was introduced in '63. The modelled amp is a '65 blackface edition. It delivers a great, chimey tone and breaks up nicely when you push its volume. This amp has the AB763 circuit, delivering 22 watts through 6V6 tubes. More info is available on [Wikipedia](#).

Fenderguru:

"The Deluxe Reverb 1x12" has for decades been one of the most popular amps among all Fender amps, and its popularity is still growing as the demand for low wattage tube amps increases. The combination of size, weight and performance makes the Deluxe Reverb a true road warrior on gigs and practice. Both the Deluxe Reverb (DR) and Princeton Reverb (PR) "survived" the CBS silverface periods with minor changes. Many people consider the silverface amps just as sonically good as the blackface models. Being almost a blackface amp with a new faceplate (wrong for collectors), the silverface models became popular value-for-the-money amps. Collectors hunt the blackface models and players hunt the silverface for its quality and price. The DR is a small/medium-sized amp with an ability to deliver both sparkling clean tones and low wattage breakup at 22W with 6V6 tubes and relatively small transformers (power and output). It has found its way in to more recording studios, clubs and bars than any other Fender amp. It has met many players' expectations. It is just powerful enough to cut through in practice in a band with a drummer and, unlike some bigger amps, it will reach its sweet spot at a reasonable volume. It has the typical blackface 60's sparkle with a scooped clean sound just like the bigger Fender brothers, just with more smooth breakup, sag and compression."

ToneQuest:

"An equally fine choice for a versatile small club amp is the Vibrolux Reverb's little brother, the Blackface Deluxe Reverb (1964 through 1967). It is rated at just 24 watts or so (with two 6V6 power tubes), but the overall circuitry in the amp is virtually the same as the Vibrolux Reverb. It has two channels, but I only use the second channel, again, due to the extra stage of gain. It drives a single 12" speaker. Most of the Deluxe Reverbs that Fender built have a very inefficient Oxford 12" in them. The first thing you should do to make this amp really worthy is to install a much larger ceramic magnet speaker. A better 12" is essential to having a Deluxe sound as good as it possibly can (and that is very good indeed.) The Deluxe Reverb will not have as much bottom as a Vibrolux Reverb, due to its smaller power tubes, but anyone who's heard a Deluxe Reverb set at about "6" for leads knows how sweet the 6V6 power tubes sound. Again, you need to run this amp at "6" or above in terms of volume to really bring out the classic overdriven Fender tone. I find that setting my guitar's volume knob on "10" for leads works wonderfully, then when I back it off to say "7" or so for rhythm, the amp naturally cleans up. That's a neat trick to use. If you are hesitant to change your original speaker, consider acquiring a second speaker cabinet for your new and improved speaker. But remember, amps are tone machines, not museum pieces, so if you are torn between swapping out the speaker, keep in mind that you can always store it away and reinstall it if you decide to sell the amp later. I have an extension cabinet with a 15" Electrovoice SRO speaker in it, and I sometimes run my own Deluxe Reverb through that setup. It dramatically improves the tone—huge fat bottom, low mids, and much more overall volume."

Fender still manufactures Deluxe Reverb reissues:

"The 22-watt '65 Deluxe Reverb amp is for rock, country or blues players who want a moderately powered amp they can crank up at the gig or in the studio. The full, snappy guitar tones heard on many famous recordings from Memphis to Abbey Road were made using the Deluxe amp. Features include dual 6V6 Groove Tubes output tubes, one 5AR4 rectifier tube, four 12AX7 preamp tubes, two 12AT7 tubes, one 12" 8-ohm Jensen C-12K speaker, dual channels (normal and vibrato), tube-driven Fender reverb, tube vibrato, two button footswitch for reverb and vibrato on-off, black textured vinyl covering and silver grille cloth."

The Deluxe Reverb has Normal and Vibrato channels, which both have been modelled because of their different characteristics. Most people will use the Vibrato channel and model, but the Normal channel is pretty cool too, especially for single note runs and jazzy tunes, IMHO.

Each of the channels has two inputs. Fractal Audio models are always based on the input with the highest input level. To get the equivalent of using the lower input, set Input Trim to 0.500.

Note that the range of most Fender models is 1 to 10, while the model controls range from 0 to 10. For the OCD-crowd, the References section has a translation table created by forum member Barhrecords.

Each channel has Volume, Bass and Treble controls (plus Reverb and Vibrato controls on the Vibrato channel). No Bright switch.

If you like the DR sound, also try the Car Roamer model.

The Deluxe Reverb is usually equipped with a Jensen 1x12" (Jensen C12). Check out stock cabs #006 and #80. Alternatives include 2x10" Jensen speakers, an EV-12L or JBL 120. Or use a Tweed Deluxe IR.

Fractal Audio's **Cab Pack 10** offers a variety of Deluxe Reverb IRs.

Cliff says:



"We got our reference Deluxe Reverb out of storage today, hooked it up and measured and compared. Gain measures spot-on and A/B testing sounds identical. With a Suhr Modern guitar with stock pickups both the amp and the model were starting to break up around 3 (which equals 2.2 on the Axe-Fx since the knobs start at zero not one). A Deluxe Reverb breaks up easily since it has 6V6 power tubes. The preamp is virtually identical to a Twin Reverb but 6V6s break up earlier than 6L6s. For a given voltage into the power amp a 6V6 has about 70% of the headroom compared to a 6L6."

"The values for the Deluxe Reverb model are based on measurements of an actual '65 Deluxe Reverb, not some hypothetical values on some spec sheet."



Amplifier Specifications

<i>Year of Manufacture</i>	1965
<i>Circuit</i>	AB763
<i>Power</i>	22 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	7025
<i>Power Amp Tubes</i>	2x 6V6GT
<i>Tonestack Location</i>	PRE

Dirty Shirley (Friedman Dirty Shirley)



Synopsis:	A model of a Friedman Dirty Shirley amp, based on a modified JTM45
Tips:	We recommend starting the amp with the Bass on 6, the mids at around 7 or 8 and the treble and presence at 5. Set the gain around 6 and then bring the master to taste What also works well with this model: engage Boost or Saturation
Sound Clips:	Friedman Dirty Shirley Demo (with V30s)
Recommend Cab/Speaker:	Celestion G12M, G12-65, G12H, V30 Factory Cabs: #060 4x12 Fractal Gb M160 and #061 4x12 Fractal V30 AT4047 (IR's of Mark Day's 4x12 Friedman Cabinet)
Manual:	Dirty Shirley Instruction Manual

Dave Friedman modded amps for famous guitar players. He now designs and builds his own hand-wired amps, and does so very successfully. Friedman amps are medium-to-high gain amps with really fat tones. He has built signature amps for Steve Stevens and Jerry Cantrell. The Dirty Shirley is the first Friedman amp model in our thread series.

Friedman:

“Dave Friedman’s Dirty Shirley 40 Watt Head was designed for guitarists that want a Vintage Classic Rock tone inspired by British tube amps from the 60’s and 70’s.

It is based on a modified JTM 45 but still delivers the signature high gain tone for which Friedman is best known. The Dirty Shirley is a 40-watt, 5881 powered, single channel amp that will give you that vintage crunch and also cleans up nicely by merely backing off the guitar’s volume knob. Extremely versatile, it is capable of producing many styles of music from blues to rock and country by just adjusting the gain and master controls.”

Yek's personal note:

This is my current main amp model. I use it for everything, from clean to higher gain. I play funky and rhythm stuff with it at low drive settings (1.50), light crunch with drive around 4, and drive at 7 and higher gets me into rawk territory and searing leads. I love that's it so basic and simple. I don't turn a lot of knobs. I dial back Bass or Depth to decrease the bass frequencies and turn up Presence in clean parts. Eat that, Mesa.

The IR I use is from @ownhammer (OH 412 MAR-CB M75+H75 OH1F-04).

Maybe this amp's heritage is why I like the model so much. It's based on the JTM 45 (another excellent amp model), which in turn is based on the Fender Bassman.

My previous #1 model was the BE which is great too. But Dirty Shirley has more a vibe of its own, it's vintage, it's not as smooth and polished and modern as the BE. The Dirty Shirley also cleans up far better than the BE. And it cuts better through my guitar cab as well as through my FR monitors.

These days I'm more and more attracted to guitar tones which are a little filthy (get it: Dirty Shirley) and raw. I hear too many clips demonstrating perfectly EQ'd tones, and TBH, they don't stick, I find them boring and don't remember them, they have no personality. The Dirty Shirley does!

If I ever were to return to traditional amps and cabs ("Blasphemy!"), this amp with a 2x12 would be my choice.

So: based on the Marshall JTM 45, 40 watts, single channel, high and low sensitivity inputs, 5881 (6L6) power tubes. Its sound is more classic and vintage than Friedman's flagship, the BE. There's a **Mini Dirty Shirley** amp too.

Compared to the **Brit JM45** model, the Friedman is less bright, much fatter, has more gain and a Master Volume.

It's a no frills amp. The amp's controls are very simple: Gain, Master Volume, Bass, Middle, Treble and Presence. (There have been revisions so the controls and number of inputs vary in the clips you see.)

Manual:

"We recommend starting the amp with the Bass on 6, the mids at around 7 or 8 and the treble and presence at 5. Set the gain around 6 and then bring the master to taste."

The amp has a Master Volume control. This means that the amp's distortion is created in particular by the preamp tubes, not the power amp. The Master Volume, which works in the power amp section, is still very important to the tone and feel. You have to decide for yourself what setting in the model

works for you best (Friedman amps still sound good at low Master Volume settings). The default setting is a good point to start of course.



What also works well with this model: engage Boost or Saturation.

This amp works with a lot of speakers, including G12M, G12-65, G12H and V30. You can also combine different speakers. If you want the sound of @Mark Day's cabinet which he uses with his Friedman BE amp, use stock cabs 60 and 61 (4x12 V30s + greenbacks).

Cab Pack 10 offers more IRs of Mark Day's 4x12 cabinet.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	40 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	3x 12AX7
<i>Power Amp Tubes</i>	2x 5881
<i>Tonestack Location</i>	POST

Div/13 CJ11 (Divided By 13 CJ 11)



Synopsis:	Normal and Boost modes of a Divided by 13 CJ 11 amp, a Class A amp with 6V6 tubes. It is similar to a Fender Tweed Deluxe with more clean headroom.
Tips:	It's a bassy amp. Works best with single coils.
Sound Clips:	Divided By 13 CJ11 Demo
Recommend Cab/Speaker	Celestion G12M Factory Cab: #084 1x12 Division 13 Mix

Fred Taccone of Divided By 13 manufactures each of his amps by hand. They're easily recognized by their exquisite looks and the triangle at the top. These amps look awesome.

The CJ 11 is a Class A amp with 6V6 power tubes and a Master Volume. It's only 11 watts. It's a single channel amp but its boost (pull Volume knob) makes it more versatile. Two inputs.

The controls are simple: Volume (pull: Boost), Treble, Bass, Master. While the amp does offer an adjustable Master Volume, I prefer to just crank that and leave it there.



Divided by 13:

"When asked, by Corky James, amongst others, "Can you take my favorite 1959 tweed amp from Fullerton and instead of the controls being Volume Tone make it Volume Treble Bass, give it more clean headroom, a wider range of usable overdrive (throw in a little EL 34), make it a little louder with fuller, tighter low end, and put a master volume in it so i can play at all levels and dial in and hit the sweet spot of whatever speaker i am using at the time, mostly a G12M Celestion."

Cliff says:



"It is a bassy amp. Works best with single coils.

"You increase the LOW CUT FREQ to reduce the fuzziness on bass notes but then it won't sound like the real thing."

The combo contains a single G12M speaker. There's an IR among the stocks cabs: 1x12 Division 13 Mix. **Cab Pack 1** (free!) provides more IRs of that cab.

The "1959 tweed amp from Fullerton" in the quote is a **Fender Tweed Deluxe**. To speak with Shania Twain: that don't impress me much, because there are lots of Deluxe clones. So what does the CJ 11 bring to the table as extras: more headroom and flexibility? Well, its clean sound is nice (crank the master!), but IMHO not that special and very scooped. I don't like the overdriven tone

of this amp. And it's tricky to get around the bass overload. I'd choose the clean tones of the Deluxe and Carr over the CJ 11 any time. I do however like the extra punch that the model of the boosted CJ 11 delivers. So while this amp and model don't appeal to me much, the FTR 37 is a whole different story!

Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	11 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	No
<i>Preamp Tubes</i>	12AX7
<i>Power Amp Tubes</i>	2x 6V6GT
<i>Tonestack Location</i>	PRE

Div/13 FT37 (Divided By 13 FTR 37)



Synopsis:	2 models (Normal and Boost mode) of Channel 1 of a Divided By 13 FTR37. Channel 1 is voiced to sound like a big clean Fender.
Tips:	N/A
Sound Clips:	Divided by 13 FTR 37 by Guitars Rebellion
Recommend Cab/Speaker	Celestion G12H

Fred Taccone of Divided By 13 manufactures each of his amps by hand. They're easily recognized by their exquisite looks and the triangle at the top. These amps look awesome.

The FTR 37 is a 37 watts amp running on 6V6 power tubes. The amp can be switched to Half Power. It has built-in reverb.

Two channels with two inputs per channel. The first channel is voiced like a big, clear Fender. I like it much better than the CJ 11. The second channel is Divided by 13's impression of a Marshall. The channels can be blended. This makes it a versatile amp.

Divided by 13:

"Capturing and exceeding some of the best tones offered by our favorite amp from Fullerton and our favorite amp from England, the FTR 37 from 1 to 10 can produce the most pure and bodied clean tones, to varying degrees of medium and over-the-top types of complex and full-bodied overdrive. Coupled with the exterior switching/boost device, the Switchazel, the flexibility available in both channels, either separate or blended, offer an infinite array of guitar tones rarely thought possible for the music maker of today."

The amp controls are simple: Volume, Treble, Bass on the first channel. Pull out Volume and you get a mid/gain boost. On the 2nd channel: Volume and a Tone knob (referred to as Click because it switches between settings). No Master Volume.

Now onto the models in our Axe-Fx II and AX8 devices.

The “LO” model captures the first channel with the Volume knob pushed (gain boost off).

The ‘HI’ represents the first channel with the Volume knob pushed (gain boost on).

Both sound wonderful, whether it’s the LO or HI channel, Input Drive at 5 or at 9. I especially like the HI channel with a high drive setting.

The second channel is not modelled, fuggedaboutit.

The FTR cabinet has AlNiCO and a G12H speakers. Select those from the **stocks cabs**. I like the combination of cabs 11 and 84.

Cab Pack 6 has IRs of a Division By 13 2x12" cabinet, containing an Alnico Blue and G12H. Too bad there's none of these are available as a stock cab!

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	37 watts
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	No
<i>Preamp Tubes</i>	5879 12AX7
<i>Power Amp Tubes</i>	4x 6V6
<i>Tonestack Location</i>	PRE

Double Verb (Fender Twin Reverb)



Synopsis:

Models of the Normal and Vibrato channels of a 1966 blackface Fender Twin Reverb that has been modified to break up earlier than a normal Twin, which typically has high clean headroom.

Also a second model based on a 1971 silverface Fender Twin Reverb.

Tips:

People who want squeaky clean usually turn the Bright Switch off on these amps.

Sound Clips:

[1968 blackface Fender Twin demo](#)

["Manic Depression" demo on 1968 Silverface Twin Reverb](#)

Recommend Cab/Speaker

Jensen 12"

I haven't done proper market research but the Twin Reverb may be Fender's most famous / popular amp, up to this day. It's big, it's loud, it takes pedals well. And it's ultra clean. To get this amp into overdrive requires a volume level that hardly anyone can handle. Unless you're got your hands on a modded one. Also, the Twin can handle humbuckers well, which is not the case with some other Fender amps.

The **5F8 TWEED** model is also a Twin (no reverb), but with a totally different vibe.

The NRM and VIB models are based on a '66 blackface 85 watts Twin Reverb, with the common AB763 circuit (just like the Band-Commander and Deluxe Reverb models). Blackface Twins were produced between '63 and '67. This

Cliff says:



"The Twin Reverb that the model is based on breaks up like that [earlier than stock Twins]. The model is MIMIC'd and is extremely accurate. It's a Blackface Twin which breaks up easy compared to later Twins. Furthermore, as with all models, it is modeled on the "Hi" input. If you don't want it to break up as easy turn Input Trim to 0.5 to simulate using the "Low" input, reduce Input Drive and MV as necessary. You may want to turn the Bright Switch off as well. People who want squeaky clean usually turn the Bright Switch off on these amps. However, you'd be surprised that a Twin isn't nearly as clean as you think. It's just so damn loud that you get the sensation that it's clean because a light touch on the strings creates a lot of volume."

particular amp was modded by Andy Fuchs of Fuchs Audio and breaks up earlier than stock Twins.



The SF model is based on a different Twin Reverb, the Vibrato channel of a 100 watts '71 silverface (circuit unknown, no Master Volume). When I select a Twin Reverb model, I usually choose the Silverface.

Twin Reverbs use 6L6 power tubes. [More Twin Reverb information](#) is available on Wikipedia.

Fenderguru.com:

"If an alien came to earth and wanted to hear an American guitar sound, I'd play him my Twin with a set of Jensens. This was stated by a happy Twin Reverb owner on [Harmonycentral.com](#). It could have been our

own words. The Twin Reverb is the king of Fender blackface amps. Having two pairs of 6L6, the popular and traditional two-channel AB763 circuit design, a diode rectifier and enormous transformers (power & output), it offers tons of clean headroom and volume for unmiked gigs and really big stages. Where the other Fender amps break up at around 4 on the volume knob, the Twin stays clean up to almost 6 and will hold up against heavy drummers and bass players with clean notes sharp as a knife edge. This is exactly what the amp is made for, being played unmiked in in a gospel band in a 300-seat church every Sunday. It is designed not break up like the other Fender amps. You need to have your expectations set correctly to be able to appreciate the evil Twin. Warning nr 1) The big transformers and speakers makes this amp weigh around 40kgs, a burden too big for many gigging players who cannot (yet) afford a crew of roadies. Warning nr 2) Volume and clean headroom. If you want tube amp breakup and smoking tones with no pedals you will experience many fights with your band mates and club owners. Just as the other Fender amps the Twin needs to operate in its sweet spot up to sound sweet. After carrying a Twin Reverb on to the stage, the least you should deserve is to crank the bastard. Sadly, we are seldom offered the

opportunity to turn the volume above 3 on a Twin Reverb. Instead we have played many nights with a thin and unpleasant tone, even worse with a sparkling, clean sounding strat.”

The Twin Reverb has two channels: Normal and Vibrato. Both channels have Volume, Bass, Middle and Treble controls and a Bright switch. The Vibrato channel has additional vibrato and reverb controls. Because of its Reverb circuit the Vibrato channel breaks up earlier than the Normal channel.

Each of the channels has two inputs. Fractal Audio models are always based on the input with the highest input level. To get the equivalent of using the lower input, set Input Trim to 0.500.

The Twin Reverb can be a –painfully- bright amp and model. I always turn off the Bright switch, and increase Treble slightly to compensate.

It also can generate a lot of bass, so don’t hesitate to turn that down a lot.

Note that the range of most Fender models is 1 to 10, while the model controls range from 0 to 10.

The Twin Reverb is usually equipped with two Jensen C12 speakers, JBM 120s and even EV-12Ls. I usually use **stock cab 21** but there are more Twin Reverb IRs among the stock cabs.

Cab Pack 15 and **21** provide a variety of recent Twin IRs.

Amplifier Specifications	Blackface	Silverface
<i>Year of Manufacture</i>	1966	1971
<i>Circuit</i>	AB763	AC568
<i>Power</i>	85 watts	100 watts
<i>Master Volume?</i>	No	No
<i>Negative Feedback?</i>	Yes	Yes
<i>Preamp Tubes</i>	1x 12AX7 2x 7025	2x 7025
<i>Power Amp Tubes</i>	4x 6L6	4x 6L6
<i>Tonestack Location</i>	PRE	PRE

Energyball (Engl Powerball)



Synopsis:

A model of the Lead channel of an Engl Powerball. It's a high gain amp with lots of bass, great for aggressive, drop-tuned riff work. 100 watts, 6L6 tubes.

Tips:

The Energyball can be a little difficult to dial in. To make it work for me, I have to turn down Bass a lot, turn up Gain to at least 6 and turn down the Master Volume to, say, 2.50.

Sound Clips:

[Guitar World - Engl Powerball Head](#)

Recommend Cab/Speaker:

Celestion V30s
Factory Cab: #047 4x12 German V30 (RW)

Manual:

[Powerball Full Tube Guitar Amplifier Operator's Manual](#)

The Powerball is another amp from the German company Engl. It's a high gain amp with lots of bass, great for aggressive, drop-tuned riff work. 100 watts, 6L6 tubes.

Engl manual:

"A four-channel, all-tube powered head, the Powerball offers sound-shaping options unrivalled by any other amp. Designed to satisfy the exacting demands of discerning players, it delivers all the tonal hues and colors you need to paint the most vivid musical pictures imaginable. Housed inside this newly designed enclosure is a powerhouse 100-watt amp boasting 6L6GC tubes. It delivers the sonic goods you need to dial in everything from contemporary ultra-high gain lead tone to crystal-clear clean and punchy crunch sounds. An astonishing amount of gain reserves, remarkable tonal versatility, and bone-rattling bottom end have crowned the Powerball king of the heap among modern-day guitar amps. Courtesy of its ability to crank out tight, focused low end, glossy top end and jaw-dropping sound pressure levels, this amp provides the contemporary guitarist with richly detailed tone and the kind of cut-thru-the-din assertiveness that sets standards for amps of this class. And in keeping with the ENGL tradition of engineering excellence, it sports a host of hip features: a second master volume, electronic power amp monitoring, an adjustable FX loop, and a Depth Punch knob that shapes the power amp's response by beefing up the low end. But that's not the last word on this ENGL head's innovative features: You also get two different sound voicings, Open and Focused. We created these voicings to extend the range of lead sounds

you have at your disposal by tweaking mid-range response to suit different playing styles and applications.”

It’s a two-channel amp, with two modes per channel. Channel 1 offers Clean and Crunch. Channel 2 offers two lead modes.

The model is based on the Lead channel, so we’ll skip the first channel.

Channel 2’s controls are: Gain (input sensitivity), Bass, Mid-Open, Mid-Focused, Treble, Lo Lead Volume, Hi Lead Volume, Open/Focused switch, Lo Lead Bottom switch, Hi Lead Bottom switch, Gain Lo/Hi, Master. The Bottom switches alter the EQ by boosting the low end range. The Open/Focused switches between two mid-range (300-500 Hz) voicings. Open: looser. Focused: tighter.

Global controls: Presence, Depth Punch. And it has Master Volume controls. This means that the amp’s distortion is created in particular by the preamp tubes, not the power amp. The Master Volume, which works in the power amp section, is very important to the tone and feel. You have to decide for yourself what setting in the model works for you best. I think the default setting is a little high, so I decrease that.

The Energyball can be a little difficult to dial in. To make it work for me, I have to turn down Bass a lot, turn up Gain to at least 6 and turn down the Master Volume to, say, 2.50.

Engl uses Celestion V30 and V60 speakers. You’ll find many V30s among the **stock cabs**. Cab #047 is an IR of an Engl 4x12 PRO cabinet with V30s, created by **Red Wirez**. Note: the Red Wirez IRs in the Axe-Fx II and AX8 have been captured using a neutral microphone, so you may want to add a mic model in the Cab block.

Cab Pack 19 by ML Sound contains a full library of that were captured of an Engl 4x12 Pro Straight Cabinet with Chinese Celestion Vintage 30 speakers.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	100 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	4x ECC83
<i>Power Amp Tubes</i>	4x 6L6
<i>Tonestack Location</i>	POST

Euro Blue and Red (Bogner Ecstasy)



Synopsis:	4 models of a 20 th Anniversary Bogner Ecstasy. The amp has 3 channels, covering clean (Green), Crunch (Blue) and Lead (Red) tones (the clean channel is not modelled). The Ecstasy covers Plexi-type tones in the Blue channel and higher gain tones in Red channel. The amp is generally considered 'dark' with the tone knobs at noon, but this can be changed by turning the treble up. The models are <ul style="list-style-type: none"> • Blue (Vintage mode) • Blue (Modern mode) • Red (Vintage mode) • Red (Modern mode)
Tips:	"I love this amp for its low-mid growl and fat tones" - Yek
Sound Clips:	<p>Bogner Ecstasy Amp – A Sonic Journey</p> <p>Tone Merchants Presents: Bogner 20th Anniversary Ecstasy feat. JMR</p>
Recommend Cab/Speaker:	Celestion Vintage 30, G12M, G12H
Manual:	Ecstasy User Manual

The Bogner Ecstasy (often abbreviated to XTC) dates from the early '90s but still is their flagship amplifier. There have been several Ecstasy models (read the history on the Bogner site). The current model (since 2009) is the 20th Ann. model with 6L6 tubes (100 watts). And that's the amp on which the four models in the Axe-Fx II and AX8 are based. And it's fantastic amp. But I'm biased, because I was a "Bogner guy". I owned various Ecstasy models (Classic and 20th Ann.). It was my mainstay amplifier before I got the Axe-Fx Ultra. I love this amp for its low-mid growl and fat tones.

Bogner:

"The features allow the "DNA" of the 3 distinctly voiced channels to be radically morphed into sounds of the past, present and future. Imagine going from our notorious barking Plexi

mode, to the greasiest, harmonically chewy overdrive and then washing it all down with the lushest most decadent clean tone.

The Ecstasy comes standard with an amazing array of controls: 1/2 power switch, new/old style switch, dual assignable presence controls with 3-way Excursion switches to control speaker cabinet dampening, gain boost and individual pre-eq switches for each channel, plexi-mode, gain structure, tube buffered series/parallel FX loop with mix and master volume control.

Cliff says:



"People think Bogners are dark but they really aren't. The reason they seem that way is the pot tapers. Most people assume knobs should be set somewhere around noon. If you do this on a Bogner it's like turning the treble way down on a Marshall. Close your eyes and adjust the tone controls with your ears. Don't be afraid to turn them way up or way down."

"Human nature is to put the knobs near noon. We are reticent to deviate much from noon. Amp designers exploit this and use different tapers to change the sound of their amps WITH THE KNOBS AT NOON. A prime example are Bogner amps. Everyone says "Bogner amps are dark". No they aren't. But he uses a Log10A taper for the treble pot. It's a standard Marshall tone stack. Usually a linear taper pot is used for the treble. The treble knob at 5.0 (noon) on a Bogner is equivalent to the treble knob at 1.0 on a Marshall. People put the knob at 5.0 and go "wow, this amp is dark". No it isn't. If you turned the treble up to 8 or 9 it would sound a lot like a Plexi but humans are reticent to turn the knobs to extremes. Amp designers know this and exploit it to give their amps a "signature sound"."

"Our reference amp is a 20th anniversary and N is Bright Off, B1 is 150 pF and B2 is 1000 pF for both channels. The models default to B1. Change the Bright Cap value to 1 nF to emulate B2. Or better yet use your ears to select a value that sounds best."

In 2009 we celebrated our 20th year of Bogner USA and wanted to create something special for our amplifier line; enter the 20th Anniversary Ecstasy. We consider this model to be the new "Flagship" in the Ecstasy line with the most organic and open sound yet.

The 20th Anniversary Ecstasy has a real plexi panel with gold background and a different pre-amp circuit as well as a foot control able boost feature in the plexi mode. Up until late 2015 the amp was housed in a slightly larger head shell for an iconic and classic vintage vibe.

The 20th Anniversary is our finest evolution of the Ecstasy line that started with the 100B, 101B and Classic. However, the 20th Anniversary model features its own unique circuit and many refinements never before seen.

In the past few years many new boutique capacitors have come on the market such as the Sozo and Jupiter brand which focus on replicating the vintage capacitors from the 60's. These new capacitors are very expensive and mostly hand made in their construction so we were intrigued to hear how they sound. We purchased all the available brands and meticulously went through the entire signal chain of our Ecstasy circuit incorporating these vintage style capacitors into the design. However, once this process started, we quickly realized that

replacing the capacitors was only the beginning, additional adjustments and refinements were implemented to maximize the vintage tonal character of these new capacitors which all together give the 20th Anniversary its iconic Golden-Era of Ecstasy tone.

Additional refinements have been made including:

The pre EQ's 2 and 3 have been shifted and a vintage modern style switch lets you decide the overall flavor of Channel 2 and 3, bypassed when in the plexi mode. The plexi channel has slightly more gain and a foot controllable boost was added which expands the amp to have 6 sounds on tap via your foot. Boost is engaged with the same switch as for Channel 2 and 3. The clean channel has been changed; special emphasis was taken to the boosted mode which gives you more gain with nicely balanced frequencies and compression. Power amp dampening was adjusted to compliment the new pre amp design, the Excursion switches so to speak. The 20th Anniversary amp was designed and features 6L6 power amp tubes standard but can be custom order with EL34's."

The Ecstasy was one of the first 3-channel amps to hit the market, with plenty additional modes and options. Channel 1 (Green) is the clean channel, which isn't modeled. Channel 2 (Blue) is the very famous crunch channel. Channel 3 (Red) is the high-gain channel, meant for leads.

The Structure switches on the amp allow the player to choose between Vintage mode (less gain) and Modern mode (more gain).

Fractal Audio has modelled the Blue and Red channels, in Vintage and Modern modes. The models represent the original amp really well. For my own use I prefer the non-Modern models.

The controls on these channels are: Gain, Master, Bass, Middle, Treble, Presence, 3-way Bright switch, Structure switch, Old/New Style switch, Excursion switch (model: Depth), Gain switch, Plexi Mode.

I kept the tone controls on my real Ecstasy amps pretty much around noon. I set the Bright switch to B1, and turned up Presence.

The Bright switch (Normal / B1 / B2) not only adds treble, it adds gain too. But at high Gain settings (model: Input Drive), its effect gets less noticeable.

The tone of the Blue and Red channels are also available as standalone Bogner pedals. You can also **turn the Amp block into a pedal**, by disabling the power amp section of the amp model (turn down Supply Sag until it says: "P.A. off").

Bogner cabinets range from the small 1x12 Cube to the large 4x12 Uberkab with V30 and T75 speakers. So the **Bogner stock cabs** are a logical choice. You'll often hear the Ecstasy with V30s, but G12M, G12H or whatever speakers work well too.

More IRs of Bogner cabs are available in **Cab Pack 9** and **Cab Pack 14** (which includes Cab Pack 5). **OwnHammer** also has a large collection of Bogner IR libraries.

Yek: Turning an Amp into a Drive Pedal

The new Bogner pedals (Ecstasy Blue, Ecstasy Red, Uberschall) are awesome. But what do you know, you've got these in your Axe-Fx already

How? Turn the equivalent Amp block type into a preamp pedal:

- Insert an additional Amp block before the main Amp block in your preset. In that block:
- Select Euro Blue, Euro Red or Euro Uber.
- Turn off poweramp simulation by setting SAG to 0 ("p.a. off").
- Set Presence/HiCut to "5" for a neutral setting.
- The main (last) Amp block in the preset should be set to a rather clean tone for best results, just like when using a distortion pedal with a real amp.
- Assign a switch on your footcontroller to the 2nd amp's CC.

Should work in 4CM setups too. Another good thing: this method requires way less CPU usage than a Drive block.

Amplifier Specifications

<i>Year of Manufacture</i>	2009-
<i>Circuit</i>	N/A
<i>Power</i>	100 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	Unknown
<i>Power Amp Tubes</i>	6L6
<i>Tonestack Location</i>	POST

Euro Uber (Bogner Uberschall)



Synopsis:	A model of the Bogner Uberschall (or “Supersonic”) that Bogner calls “Armageddon in a box” due to the ultra-high gain.
Tips:	The Uberschall has an enormous amount of bass, which can be overpowering. Try the Cut switch in the model if the bass is too booming. Also very important: the Middle control. Turn it to hear the impact on the tone.
Sound Clips:	Bogner Uberschall Metal Clip
Recommend Cab/Speaker:	Factory cabs: #050 4x12 Uber T75 (RW) #051 4x12 Uber V30 (RW) #052 4x12 Uber T75+V30 (RW)

The Uberschall was one of the early really, really high-gain amps. Reinhold Bogner himself calls it “Armageddon in a box”. The amp has got a clean channel but that’s not what we’re here for. The ultra high-gain channel is the unique selling point of this amp. And that’s what we have access to as a model.

The Uberschall is around 100 watts (EL34, KT88 or 6L6 power tubes) and it specializes in heavy grinding lows and insane gain. It has a single input. I believe that the modeled Uberschall is the original amp (with EL34s), not the later “Twinjet” version, **but that really doesn’t make much of a difference.**

Bogner:

“Uberschall is the German word for Super Sonic and we designed this amp primarily for extreme, heavy and aggressive styles of music. Detuned or baritone guitars crave this amp.

We unleash mayhem with the super aggressive high gain channel with gain, bass, middle, treble, volume and presence controls. You think you’ve heard BASS before, no way, the UBERSCHALL can crush on demand. Even with extreme gain and volume this channel stays massively focused and resists mushing out from the heaviest right-hand attack. Have some

crazy effects? Put them through the tube buffered effects loop. Power comes from a throaty EL34 output section.

Our UBERKAB is perfectly matched for the thunderous UBERSCHALL. This 4x12" straight front speaker cabinet features a black front speaker grill with silver piping and a combination of front loaded Celestion Vintage 30's and G12T75's wired at 16 ohms. This combination unleashes the aggressiveness of the UBERSCHALL amp, plus helps to maximize the low end and give great cutting power to the mids and highs. Our standard Bogner 4x12" cabinet, with Vintage 30's, also sounds great with the UBERSCHALL but we wanted to offer a cabinet that was fine tuned for the flame-throwing UBERSCHALL."

The controls on the high-gain channel are: Gain, Bass, Middle, Treble, Presence, Master.

Cliff says:



"The feedback circuit is responsible for the behavior of the Presence and Depth controls. Certain Bogners and Diezels have a unique type of feedback circuit. There are no new parameters and nothing to do except twist the Presence and Depth knobs to your desired tone. Note that an Uberschall doesn't have a Depth knob. The default Depth value when you select the Euro Uber model is equivalent to the amp's fixed depth circuit."

(See the Euro Blue and Red for discussion of why people think Bogners are 'dark')

The Uberschall has an enormous amount of bass, which can be overpowering. Try the Cut switch in the model if the bass is too booming.

Also very important: the Middle control. Turn it to hear the impact on the tone.

Manual:

"The "Midrange" control is very interactive with all the other tone controls; you can go from a hollow scooped-mid setting to an aggressive in your face and on your throat kind of intensity."

The tone of the Uberschall is also available as a standalone Bogner pedal. In a similar fashion you can turn the Amp block into a pedal, by disabling the power amp section of the amp model (turn down Supply Sag until it says: "P.A. off").

The accompanying cabinet is Bogner's Uberkab, a 4x12 with V30 and T75 speakers. These are available as stock cabs.

More IRs of Bogner cabs are available in **Cab Pack 9** and **Cab Pack 14** (which includes Cab Pack 5). **OwnHammer** also has a large collection of Bogner IR libraries.



Amplifier Specifications

<i>Year of Manufacture</i>	Unknown
<i>Circuit</i>	N/A
<i>Power</i>	120 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	Unknown
<i>Power Amp Tubes</i>	6L6
<i>Tonestack Location</i>	POST

FAS models



We already discussed some “custom” amp models. These virtual amps have no real-life equivalents. They solely exist within Axe-Fx II and AX8, surpassing limitations of traditional amps. Some are based on real amps, containing Cliff’s ideas and improvements. And some were just born by accident.

There are no “rules” when it comes to cab choices.

FAS 6160

Based on Peavey 5150. We did discuss the EVH 5150-III but not yet the original Peavey 5150, on which this model is based. According to Fractal Audio, this model is less fizzy than the original, with a bouncier feel.

FAS Bass

Added in firmware 13. Fractal Audio’s implementation of a great bass amp. This model features active controls.

FAS Brootalz

Added in firmware 14. brings teh brootalz! Great aggressive high gain amp. If you hear some resemblance to the Savage, you’re right.

Cliff: “This amp was an accident. I was working on the Savage model and accidentally used the input stage from an SLO100. So it’s the front end of an SLO100 with the back end of a Savage. It’s probably an SLO100 power amp too but I’d have to check.”

FAS Brown

already discussed here.

FAS Class-A

Added in firmware 12. Another amp model that was born by accident.

“A “Blackface” preamp into a cathode-biased 6L6 power amp with no negative feedback. This was a happy accident when originally modeling the Carr Rambler in the beta version of this release. Several mistakes were made in the model prior to MIMIC’ing the amp but the model was so well liked that we decided to make it into its own custom amp model.”

FAS Crunch

Added in firmware 9. Fractal Audio’s take on the ultimate British-sounding amp (read: Plexi). More dynamic/open plus more gain.

FAS Hot Rod

Added in Quantum 1. Cliff’s idea of the ideal modded Marshall.

“FAS Hot Rod is my version of what a modded Marshall should be. I find the BE/HBE a little too boomy and scooped. Bogners are too dark. Splawns don't have enough compression. Etc. So it's my take on a hot-rodded Marshall tone.”

FAS Lead 1

A neutral high-gain lead tone, with a tight midrange.

FAS Lead 2

A hot-rodded British lead sound with a tonestack by Custom Audio Electronics.

FAS Modern

A high gain hybrid tone that's equally suited to modern rhythm and lead work. This is a very popular model, used by among others Periphery and Andee Blacksugar.

“This model is my interpretation of the ideal modern metal tone. In the digital realm we are not constrained by the limitations that face tube amp designers so we are free to implement designs that would be nearly impossible with a tube amp. The Axe-Fx II modeling includes a variety of general purpose filters that I can place anywhere in the signal path. So I put some second-order filters in there to tighten up the tone. Implementing second-order filters in a real tube amp is difficult and costly so is rarely seen.”

FAS Modern II

Added in firmware 10. Tighter version of the popular FAS Modern model with a 5150-style bass boost in the tone stack.

FAS Modern III

Added in firmware 17. Similar to a Recto but with tighter bass and a cathode-biased power amp. Watch out if you select this, it is LOUD!

FAS Rhythm

Combines the best features of the British (Marshall) and USA (Mesa) crunch models.

FAS Wreck

This is original WRECKER 1 model from the Axe-Fx Standard/Ultra

Fox ODS (Fuchs Overdrive Supreme)



Synopsis:	2 models of the Overdrive channel of a Fuchs Overdrive Supreme (Deep on and off). The amp is based on the Dumble Overdrive Special but has more gain.
Tips:	Because the model has so much gain, I turn down Input Drive to around 3.0.
Sound Clips:	FUCHS Overdrive Supreme Amp Overview
Recommend Cab/Speaker:	Eminence Speakers or ElectroVoice: #008 1x12 E12L (RW) #105 4x12 Rumble EV12L RNR
Manual:	Overdrive Supreme (ODS) Instrument Amplifiers Operations Manual

The Fuchs Overdrive Supreme is based on the Dumble Overdrive Special amp. Artists playing Fuchs amps include Al Di Meola, Joe Bonamassa (of course) and Dweezil Zappa.

A Dumble is THE most expensive amplifier available, no.1 on [Vintage Guitar's list of most valuable guitar amps](#).

Famous Dumble players include Robben Ford, Larry Carlton, John Mayer, Carlos Santana, Keith Urban, SRV, Eric Johnson, Joe Bonamassa.

There's always a lot of talk on the forums about Robben Ford's Dumble tone. It's an elusive tone, worshipped by a lot of jazz / blues / fusion players. It's a thick, mid-heavy, smooth lead tone, very touch-sensitive.

Replicating an original Dumble amp is hard. The amp's circuit often has goop all over it, hiding the electronics.

Fuchs:

"The Overdrive Supreme excels at everything it does. From crystal clear and detailed clean sounds to its harmonically complex and articulate overdrive, the amp holds its sonic integrity at any volume level. If you've ever heard Larry Carlton or Robben Ford live, that's the tone! "The Overdrive Supreme nails the Dumble sound to a tee, and then some!" (20th Century Guitar).

"The Overdrive Supreme has received glowing reviews in BOTH domestic and foreign publications. We recently received a very favorable review in Japan's "Guitar Magazine," as well as Guitar Player Magazine (February 2005). The Overdrive Supreme is available in power ranges from 20 through 150 watts. Available in heads or 112, 210 or 212 combos. A spacious Accutronics 3-spring long decay reverb pan is used for a natural warm, yet detailed reverb.

The clean channel has brite and deep switches, as well as a rock/jazz switch, which changes the way the tone controls operate. Rock is a more aggressive and punchy bright tone, which jazz is lean and audiophile-like, being more balanced and smooth. There are passive high mid and low controls. The high control pulls for a mid boost, the mid control pulls for gain boost (which bypasses the tone controls). The clean channel acts as a preamp to the overdrive channel, and the tone controls and EQ switches are all active during overdrive use, including all boosts.

The overdrive channel features separate OD in and OD out controls. OD-in sets the level of saturation in overdrive, while the OD out control sets the final balance between clean and dirty channels. There is a global master volume, master reverb and accent control, which adds presence and edge to the output stage.

The entire audio signal path is fully tube (except reverb). The ODS features a regulated high voltage DC supply for lowest noise, consistent tone despite line voltage variations, and also features regulated DC preamp tube heaters for additional noise reduction. These techniques are used in the finest audiophile and tube studio equipment, and are unique to guitar amps."

Of all D-style amp models in our Fractal devices, the Fox models provide the most gain. Apart from that, it sounds familiar to the Bludojai model.

It's a 50 watts amp, running on 6L6 tubes. It sports the same channels and controls as the Dumble ODS. The clean channel, apart from being the clean channel on its own, also acts as a preamp to the Overdrive channel.

Cliff says:



"Supposedly a Dumble ODS clone but our reference amp has way more gain than our Dumble."

Original controls: Clean Gain, Brite switch, Deep switch, Rock/Jazz switch, High (pull: mid boost), Mid (pull: gain boost), Low, Input (model: Input Drive), Output (model: Overdrive), Master, Accent (reduces negative feedback at higher frequencies) and Reverb. **More information in the manual.**



Our models are based on the Overdrive channel. In the "Fox ODS" model the amp's Deep switch is turned off, in the "Deep" model it's turned on. The deep switch shifts the overall tonality of the amplifier, slightly increasing the low frequencies. This is often useful for single-coil guitars, which

sometimes need a low-frequency boost. Both models are modeled with the Preamp Bypass (PAB) active.

There are two gain controls for the OD channel, available as Input Drive and Overdrive. On all amps like this, including those by Engl, Fryette, Carol-Ann and Mesa, the first control sets the “sensitivity” and the second one sets the amount of distortion.

Cliff:

“Input Drive increases the gain amount as you rotate the knob clockwise. As the gain increases the tone is shifted from a treble and upper mid emphasis, which produces an up front sparkling tone, to a lower mid and bass emphasis, which produces a thick meaty tone.

Overdrive increases the gain amount as you rotate the knob clockwise but with no alteration of the tonal balance.

Different combinations of Input Drive and Overdrive settings will have a dramatic effect on the response of the amplifier and the personality of your instrument. It is easy to get familiar with the action of these controls and you’ll be amazed with your ability to make any guitar sound mellow, fat, soulful or aggressive.”

Models with Input Drive and Overdrive controls always feel “elastic” and spongy, a real joy to play.

Because the model has so much gain, I turn down Input Drive to around 3.0.

It’s a Master Volume amp. This means that the amp’s distortion is created in particular by the preamp tubes, not the power amp. The Master Volume, which works in the power amp section, is still very important to the tone and feel. You have to decide for yourself what setting in the model works for you best. The default setting is a good point to start of course.

About the cabs: Fuchs uses mainly Eminence speakers. We haven’t got those in our stock cabs.

If you want the G12-65 sound, get **Cab Pack 17: Buddy's Boutique**. Cab Pack 16 ML Suhr also has G12-65 IRs. OwnHammer has some too.

Dumble himself liked the EV-12L. Check out stock cabs #008 and #105 if you prefer that sound. There are more EV-12L IRs in Cab Pack 17.

Alternatively try stock cab #011. It's the IR of Buddy's dual-ported 1x12 closed-back cab. While Larry Carlton uses an old EV-12L in his, this one uses a modern replacement for an EVL-SRO, a Blackhawk AlNiCo WGS. There are more IRs of this cab in Cab Pack 17.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	50 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	Unknown
<i>Power Amp Tubes</i>	6L6
<i>Tonestack Location</i>	POST

Friedman BE and HBE (Friedman BE-100)



Synopsis:	Models of 2 different Friedman BE-100 amps. The first amp is an original Friedman Marsha which is very dark sounding. The second amp is Mark Day's newer version. Both amps have the normal/BE channel and HBE channel modelled.
Tips:	It is called by some the "ultimate modded Plexi". The SAT switch is also available in our models. It was designed to be used in the BE or C45 mode to add gain, compression and saturation. Don't overlook this, it's a treat! (What also works well with the BE/HBE models: engage Boost.)
Sound Clips:	Friedman BE-100 with Phil X
Recommend Cab/Speaker:	Factory cabs #060 and #061 (4x12 V30s + greenbacks).
Manual:	Friedman BE100 "The Brown Eye" Manual

Dave Friedman modded amps for famous guitar players. He now designs and builds his own hand-wired amps, and does so very successfully. Friedman amps are medium-to-high gain amps with really fat tones. He has built signature amps for Steve Stevens and Jerry Cantrell.

The Marsha was Friedman Amplification's first amplifier. He had to rename it after some pressure from Marshall. It was named BE-100 (Brown Eye, don't ask ...). The BE is what many call "the ultimate modded Plexi", delivering a very fat and tight rock tone. The amp's HBE mode (Hairy Brown Eye, don't ask) switches to an alternate voicing with a preamp triode gain boost.

The amp has a single input, runs on EL34 tubes, and puts out 100 watts. At NAMM 2016, it was announced that the amp's tone will become available in a pedal too.

Friedman:

"The Friedman BE100 is a hand-wired, 100-watt, EL34 powered, multi-channel British-style amp. By merely adjusting the gain and master volume controls, the BE100 can produce a variety of tones, seamlessly transitioning from blues to classic rock or hard rock to metal. To say it is British-styled is just the start of describing this inspiring tone machine.

The BE100 is a critically acclaimed amplifier created for the many musicians who have longed for the Friedman sound in a 100-watt format, as seen on the stages of superstars like Alice in Chains, Pink, Bon Jovi, The Cult, and Foo Fighters.

Plug into to the BE100 and you will instantly notice the huge, tight low-end and rich harmonically detailed chords at any volume, made possible by Friedman's superior Master Volume control.

Single notes take on that Holy Grail singing quality all guitarists strive to attain but rarely can through most amps. The BE100 cleans up remarkably well with the guitar's volume control, even with the amp on higher gain settings. For a more dramatic clean sound, switch over to the clean channel and dial in the bass, treble and three-way bright switch tone shaping controls.

All 3 modes (BE, HBE, CLEAN) can be accessed from the amp's front panel or from the included 2-button footswitch. The BE100 was designed to take pedals and loves boosts, OD's, phasers, flangers, tremolos and wahs, while the brand new ultra-transparent series effects loop handles your time-based effects pedals and rack units.

Play through the BE100 and you'll see why this amp has received the prestigious Editor's Pick Award from Guitar Player Magazine (Nov, 2013)."

Premier Guitar:

"Compared to its companion, the Hairy input has a slight gain boost, yet when I plugged a 1978 Gibson Les Paul Custom into this input, I noticed more of a difference in feel than tone. The added saturation made it a little more difficult to coax dynamics out of the amp, but it was still possible to drastically change its response by rolling back the guitar's volume knob.

First in line is a Fat switch, which thickens up the low end to help fill out rhythm parts. I liked this because it didn't increase the gain at all.

Cliff says:



"The old model is an original, hand-built "Marsha". It's MUCH darker than Mark's newer BE/HBE. In fact it's so dark and boomy I emailed Dave to make sure the amp was built correctly. Turns out the snubber cap is the wrong value. But even with the snubber cap corrected it's still very dark and boomy which made me question as to whether there are other components that are incorrect (the guy who built the amp smoked about a pound of pot a day). So we decided to redo the model based on Mark's amp which is the amp that was the demo model at Tone Merchants."

"The BE/HBE has a fixed depth circuit that gives a lot of bass boost. The model defaults the Depth to match this."

"These amps share the same aggressive low-cut on the input and then add bass back in the power amp. This gives clear bass response without getting flubby."

Engaging the Fat switch livened up the tone from a Tele without adding grit to its spanky sound. This simply helped the Tele project better across the room.

Adjacent to the Fat switch is another switch that controls Friedman's Custom 45 response mod. Flipping this switch smoothed out the tone a bit more, while adding a bit of chime and openness to the highs.

When I was ready to hear what sorts of gain this monster could muster, the next control, Sat (saturation boost), helped me do so—in spades. Throwing the Sat switch, I immediately understood why Steve Stevens and Jerry Cantrell are using the Brown Eye in their rigs. The pure, raw aggression lunging from the amp was staggering, to say the least. Low notes were super tight and punchy, and the highs carried a really nice sting.

As far as midrange voicing, I think you'd be hard-pressed to best the Brown Eye's overdrive.

With all the versatility and power it offers, what really sets it apart is its Presence control. The knob doesn't simply boost highs and add shimmer, it adds more girth, dimension, gain, and perceptible volume. Taming the Brown Eye's high-gain settings only required lowering the Presence knob, which softened the high-end response and eased off the screaming gain a bit. It's as if you have a retractable muzzle, with the higher settings pulling back the mask to let the razor-sharp mids and highs bite through.

With the Brown Eye, Dave Friedman has packed decades of circuit design and modification know-how into a head that represents the finest Marshall-inspired tones he can muster. Players who gravitate toward amps with a strong upper-midrange spike and immediate attack should really take a look at the Brown Eye. If you love the pure aggression of a healthy, late-'60s plexi, yet demand modern features like channel switching, the Brown Eye is extremely hard to beat."

We've got models of the BE and HBE modes. Those have these controls: Presence, Bass, Middle, Treble, Master, Gain, Voice switch, C45 switch, FAT switch, SAT switch.

The C45 switch is a treble boost on the input. It isn't included in the models. To replicate this: put a Filter block before the amp as follows: Type: Tilt EQ, Freq: 700 Hz, Gain: 4.5 dB.

The FAT switch is replicated in our models (switch under the Middle control).

The SAT switch is also available in our models. It was designed to be used in the BE or C45 mode to add gain, compression and saturation. Don't overlook this, it's a treat! (What also works well with the BE/HBE models: engage Boost.)

The Voice switch on the amp changes the tone slightly. In the right position the amp sounds slightly brighter with a bigger bass. In the left position the amp sounds slightly darker with more mids.

The non-V1/V2 models are based on the original Marsha amp. These models are rather dark and can be very bassy. Reduce Depth and/or Negative Feedback to handle this, or use one of the EQs.

There's not a lot of tweaking required. The models sound pretty awesome at default settings. Like the Dirty Shirley model, the range of the gain control (Input Drive), together with the Master, enables you to cover everything from a mild crunch tone to very high gain. You can use a Scene Controller to vary gain across scenes, in the AX8 or Axe-Fx. And don't forget to try the SAT switch. The BE won't let you clean up the gain entirely, you need to use the Dirty Shirley model for that. Dirty Shirley (5881/6L6) is more vintage, BE (EL34) sounds more modern.

The V1/V2 models are based on Mark Day's BE-100 which has all the options. The V1 models are based on the amp with its Voice switch in the right position (brighter and more bass). The V2 models are based on the amp with its Voice switch in the left position (darker and more mids).

Manual:

"We recommend starting the amp on the BE channel with the Bass on 10, the Mids at around 6 , the Treble at 5 and the Presence at 5. Set the Gain around 8 and then bring the master up to taste. After plugging in, you will notice instantly, the tight bottom end and rich harmonically detailed chords and single notes, that's the Friedman sound. This amp cleans up remarkably well with the guitar's volume control even with the amp on higher gain settings. For even more gain switch to HBE mode."

The amp has a Master Volume control. This means that the amp's distortion is created in particular by the preamp tubes, not the power amp. The Master Volume, which works in the power amp section, is still very important to the tone and feel. Friedman amps sound great at low-to-high Master Volume settings. The default setting is a good point to start of course.



The BE and HBE work with a lot of speakers, including G12M, G12H and V30. You can also combine different speakers. If you want the sound of Mark Day's cabinet which he uses with his Friedman BE amp, use stock cabs 60 and 61 (4x12 V30s + greenbacks).

Cab Pack 10 offers more IRs of Mark Day's 4x12 cabinet.

If you want hear the sound of Fractal's BE and HBE models, just search for Mark Day's famous clips and videos.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	100 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	4x 12AX7
<i>Power Amp Tubes</i>	4x EL34
<i>Tonestack Location</i>	POST

Friedman SM Box (Friedman Small Box)



Synopsis:	A model of the high-gain channel (Channel 2) of the Friedman Small Box amplifier. It is based on the BE-100 but is 'grittier'
Tips:	The model is very bassy
Sound Clips:	Getting Deep with the Friedman Small Box - with Dave Weiner Friedman Small Box Tube Amp Demo by Sweetwater Sound
Recommend Cab/Speaker:	Celestion G12M
Manual:	Smallbox Instruction Manual

Dave Friedman modded amps for famous guitar players. He now designs and builds his own hand-wired amps, and does so very successfully. Friedman amps are medium-to-high gain amps with really fat tones. He has built signature amps for Steve Stevens and Jerry Cantrell.

Yek's comments:

I like the models of Friedman's amps. I really do. I'm hooked on the Dirty Shirley model now. Before that it was the BE. And for a while I preferred the Smallbox. They certainly share common ground.

The Smallbox is often thought of as the BE-100 in a small enclosure. But that's not the full story. The Smallbox certainly has its own identity. It's grittier.

50 watts, EL34 tubes and two channels. Channel 1's tones range from clean to Plexi. Channel 2 has a slightly different

voicing on the Brown Eye sound, slightly more vintage sounding, with more pronounced midrange.

Friedman:

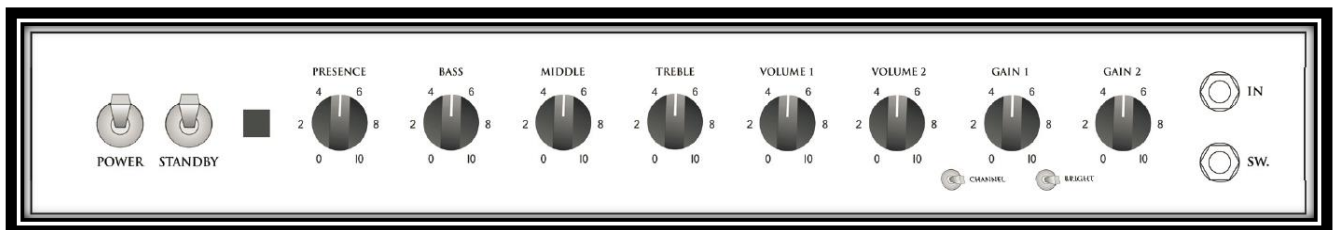
"Dave Friedman's Smallbox, 50 Watt Head was designed for guitarists that want the classic tones reminiscent of great vintage plexis as well as Friedman's more modern high gain offerings.

The Smallbox features two channels, the first giving you those classic plexi tones that clean up nicely with just a twist of the guitar's volume knob. It goes from clean to crunch to that full-blown plexi roar. The second channel features the modern high gain tone on which Friedman has built his reputation.

The Smalbox was designed to take pedals and loves boosts, OD's, phasers, flangers, tremolos and wahs, while the brand new ultra-transparent series effects loop handles your time-based effects pedals and rack units. The handcrafted in the USA head features beautiful Tolex encasing tongue and groove Baltic Birch construction and built to withstand the rigors of the road.

The Friedman Smallbox has delivers all of these remarkable features into a mind-blowing 50-watt package."

The amp's controls: Presence, Bass, Middle, Treble, Volume 1, Volume 2, Gain 1, Gain 2, Bright switch on channel 1.



We've got a model of channel 2. No need to miss channel 1, because we already got lots of Plexi models.

Cliff says:



"The schematic shows a 2.2 nF coupling cap off the first stage but the actual amp has a 4.7 nF. 2.2 nF would mean less bass. I can only assume the amp was built to the latest specs. If an amp model is "G3'd" it is deadly accurate. I go through the amps and check the values of each component, measure the voltages, compare the frequency response to the model, etc., etc., etc. If the model is too bassy for you then you would find the real amp too bassy, or at least our particular reference model."

Manual:

"For Channel 2 we recommend starting with the Bass on 8, the mids at around 6 or 7 and the treble at 5. Set the gain around 8 and then bring the master to taste. After plugging in, you will notice instantly, the tight bottom end and rich harmonically detailed chords and single notes, that's the Friedman sound. This amp cleans up remarkably well with the guitar's volume control even with the amp on higher gain settings."

Note that the model is very bassy, in the sub-region.

The amp has a Master Volume control. This means that the amp's distortion is created in particular by the preamp tubes, not the power amp. The Master Volume, which works in the power amp section, is still very important to the tone and feel. Friedman amps sound great at low-to-high Master Volume settings. The default setting is a good point to start of course.

The Smallbox combo comes with a G12M speaker. If you want the sound of Mark Day's cabinet which he uses with his Friedman BE amp, use stock cabs 60 and/or 61.

Cab Pack 10 offers more IRs of Mark Day's 4x12 cabinet.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	50 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	3x 12AX7
<i>Power Amp Tubes</i>	2x EL34
<i>Tonestack Location</i>	POST

Fryette D60 (Fryette Deliverance 60)



Synopsis:

2 models of a Fryette Deliverance 60H amp, a high-gain amp popular with metal players. The models are the 'Less' and 'More' modes.

Tips:

"I got a tone I like by setting both gain controls around 7, and then auditioning cabs" – Yek

Sound Clips:

VHT - Fryette Deliverance 60

Recommend Cab/Speaker

Eminence P50 and Fane F70G speakers

Steven Fryette founded VHT Amplification, a well-known amplifier brand (guitar amps and power amps). He sold the brand name in 2009 and continues to design and sell products under his own name. The famous VHT power amplifiers are now Fryette power amplifiers.

The D60 models are based on the VHT, eh, Fryette Deliverance 60H amp (Mk I). It's a 60 watts head, running on KT88 tubes. The Deliverance is capable of delivering (bad um tss...) tight, dry, aggressive high-gain tones, especially popular with metal players.

Back in the Axe-Fx Standard/Ultra days, the Fryette model was one of the really high-gain models, and quite popular too. In those days it also was a very bass-heavy model, which is no longer the case.

Fryette:

"As with all Fryette amplifiers, the Deliverance Sixty amplifier beautifully accentuates the inherent qualities of any instrument. It breathes and dynamically responds to your playing technique exactly the way a great guitar amp should. And as stomp boxes have gained more widespread appeal, you will find Deliverance amps to be pedal friendly and ultra-responsive to the many colors pedal effects produce.

The Deliverance preamp section has a broad dynamic range, which accounts for its extra touch-sensitivity and excellent guitar volume response. In addition, clean and overdriven

voicings can easily be dialed up on the Deliverance Sixty using the unique GAIN I / GAIN II structure, tone controls, presence and depth. From there, just a little tweaking on your guitar volume and tone controls will yield a surprising amount of control.

The D60H power amp section is designed for big round tone and dynamic response at low to medium guitar volumes and a rapid but smooth transition into saturation, turning rich and thick at full guitar volume. This combination of preamp voicing and power amp response enhances the unique character of any guitar and pick-up type.

Specially designed, precision wound power and output transformers produce optimum performance, reliability and stability, delivering excellent power tube response and just the right amount of natural output transformer saturation and compression."

The amp has these controls: Gain I (voicing), Gain II (overdrive), More/Less switch, Master, Treble, Middle, Bass, Presence, Depth,

Fryette:

"The Input Sensitivity of an amplifier, commonly referred to as GAIN, determines how much overdrive and sustain your guitar will produce. Tonal balance, which we refer to as VOICING determines how the amp will respond to your playing style and sound with a particular guitar. Like all amplifiers, the D60 has tone and gain controls, but unlike any other amplifier the D60 gives you total control over VOICING and GAIN. This GAIN I / GAIN II / MASTER VOLUME configuration is the key to dialling in the Deliverance sound and volume to your specific requirements.

GAIN I increases the gain amount as you rotate the knob clockwise. As the gain increases, the tonal balance is shifted from a treble and upper mid emphasis, which produces an up front sparkling tone, to a lower mid and bass emphasis, which produces a thick meaty tone.

GAIN I / VOICING – Sets the amount of overdrive in the second gain stage. This first gain control also serves as a tone shaping control, counter-clockwise for crisp and articulate, clockwise for thick and saturated

GAIN II increases the gain amount as you rotate the knob clockwise but with no alteration of the tonal balance. Different combinations of GAIN I and GAIN II settings, will have a dramatic effect on the response of the amplifier and the personality of your instrument. It is easy to get familiar with the action of these controls and you'll be amazed with your ability to make any guitar sound mellow, fat, soulful or aggressive."

GAIN II / OVERDRIVE – Full frequency gain boost or cut. Sets the amount of overdrive in the third gain stage. Works in conjunction with Gain I to dial in the perfect overdrive/sustain amount for your guitar and pick-up combination."

We've got two models of this amp, based on the Less (3 gain stages) resp. More (4 gain stages) modes of the amp.

Fryette:

"This switch selects three stages or four stages of tube preamp gain depending on the amount of overdrive required. LESS = 3 stages, MORE = 4 stages. When using stomp boxes or active pick-ups, four stages of gain are often unnecessary and generate undesirable levels of background noise, so the ability to defeat the additional stage is a real plus."

Yek's comments:

Personally I'm not particularly fond of the Less model. The More model rocks, although it's easy to make it too saturated, and it has a slightly sterile sound to my ears.

I got a tone I like by setting both gain controls around 7, and then auditioning cabs



The MORE / LESS switch activates or defeats a tube gain stage. The interesting and often overlooked benefit of this switch is that you can use it in conjunction with the gain controls to tailor your tone as well as distortion amount. For example, set GAIN I, GAIN II, MORE/LESS and MASTER VOLUME as shown in the photo above and play for a few minutes. Now set these controls as shown in the photo below.



Notice that the overall amount of overdrive is approximately the same as it was but the tonal balance has shifted markedly from full and warm to crisp and spanking."

Fryette uses custom speakers: Eminence P50 and Fane F70G speakers. We haven't got those among our stock cabs, so make your own choice. You might like the Uber IRs (#50, #51, #52), or Mesa (#73).



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	60 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	Unknown
<i>Power Amp Tubes</i>	4x KT88
<i>Tonestack Location</i>	POST

Gibtone Scout (Gibson Scout)



Synopsis:	A model of a 1964 Gibson Scout, a simple 17 watt amplifier.
Tips:	The Scout's only control is Volume, just like a Fender Champ. So if authenticity matters to you, stick to Input Drive.
Sound Clips:	1965 Gibson Scout GA-17RVT Tube Combo Amp Demo
Recommend Cab/Speaker	Gibson 10" Factory Cab #115: 1x12 Nuclear Tone Mix

This Gibson GA17RVT Scout amp dates back to 1964. It's a great little industrial-looking amp for vintage clean tones. It's only 17 watts. It has two inputs and runs on 6AQ5 tubes (EL84). Reverb and tremolo are built-in.

It's so simple and yet it sounds so nice.

If you prefer an evolved version of the Scout, try the Nuclear-Tone model. That one is based on the Swart Atomic Space Tone (AST). It provides a great bias-controlled tremolo too.

The Scout's only control is Volume, just like a Fender Champ. So if authenticity matters to you, stick to Input Drive.



The original (crappy) speaker is a Gibson 10" speaker. That isn't captured so choose a 10" from the stock cabs, or try #115: 1x12 Nuclear-Tone Mix.

More Nuclear-Tone IRs are in [Cab Pack 10](#)

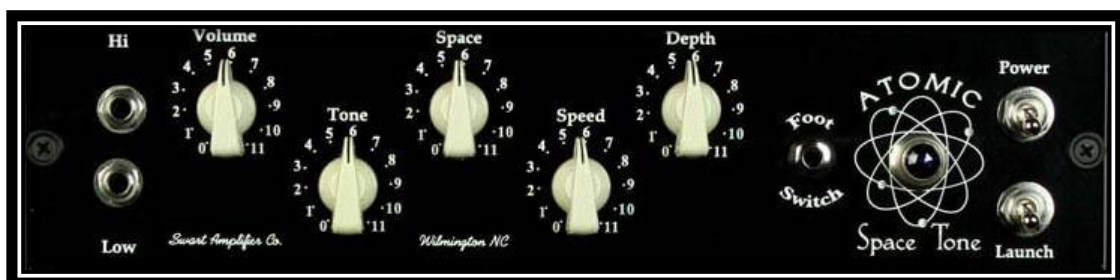
Amplifier Specifications	
<i>Year of Manufacture</i>	1964
<i>Circuit</i>	N/A
<i>Power</i>	17 watts
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	No
<i>Preamp Tubes</i>	Unknown
<i>Power Amp Tubes</i>	6AQ5 (EL84)
<i>Tonestack Location</i>	PRE

Nuclear-Tone (Swart Atomic Space Tone)



Synopsis:	A model of the Swart Atomic Space Tone amp, based on the Gibson Scout
Tips:	Tone is mapped to Treble on the model
Sound Clips:	Swart Atomic Space Tone Swart Space Tone Reverb - Fat Sound Guitars
Recommend Cab/Speaker	Factory Cab #115: 1x12 Nuclear Tone Mix
Manual:	Atomic Space Tone Manual & Tech

The Swart Atomic Space Tone is an extremely cool little boutique combo. It's inspired by the Gibson Scout. The AST puts out 18 to 22 watts, using 6V6 tubes and has low and high inputs.



The amp has a wonderful bias-regulated tube tremolo and tube reverb. Other controls are Volume and Tone. Tone is mapped to Treble in the model.

Swart:

"In just a handful of years, the Swart Atomic Space Tone has received some of the most glowing raves of ANY amplifier in recent memory. This amplifier has 20w of twin 6V6 power in high Class A biased AB and brings some of the most soulful, rich, near three-dimensional tone you have ever heard. This has to be one of the most expressive amplifiers made to our knowledge, and we've tried more than a few. TUBE REVERB and TUBE TREMOLO, something virtually nonexistent in today's marketplace, is just part of the picture. Includes a 12" Custom British Vintage Series BV-25m that screams TONE with body and soul; This amp has excellent breakup (wait till you hear the samples). This all new circuit is housed in a lacquered TWEED pine cab with dark Tweed panels. This amp is in its own league.

The idea of the Atomic Space Tone hit me when I was working on a vintage Gibson Scout guitar amp. It had Reverb, Tremolo, and 15 watts of pure rocking vintage tone power but only three preamp tubes and two EL-84 output tubes. I thought to my self - I have never seen an amp that could do so much with so little and sound surprisingly good. But I knew it could be even better. I knew something could be built revolving around my favorite little tone generator, the 6V6. I sent a note of thanks to my cohort for the inspiration for one of the best amplifiers I have ever built and the only thing I have found to equal the soul and amazing tone of the ST-6V6se but with MORE power.

I call it the ATOMIC SPACE TONE. And damn if it's not a winner - this beast sounds amazing.

This amp brings more tube soul than I thought possible, even compared to some of my favorite vintage amps. We are talking ALL TUBE circuitry, even the Tremolo and Reverb, all leading into the excellent 12" Mojotone BV-25m speaker.

I am actually so excited by this amp both aurally and visually. It's the second in our Tweed Series which takes our excellent finger jointed pine cabinet and covers it with top quality tweed, adding a lacquer to give it durability and that vintage, timeless look. We then add a rich, dark lacquer tweed on the sides which gives this amp a totally distinctive appearance. When we play out with this beast, everyone that "knows" comes up to inquire about the AST, this on the sound AND looks. Just like the original ST-6V6se, there is nothing out there like it.

The AC is cleaned and rectified by the reliable JJ 5AR4, this a very robust tube providing excellent sonics due to the total lack of solid-state circuits in the rectification stage (SS rectification leads to a more hard/harsh tone and slams the tubes on power-up causing excess tube wear). A heavy duty, JJ 500V Surface mount capacitor is the mains filtering device."

The amp looks gorgeous too. This is an amp that fits right into your living room.

Reviews can be found at [Electric Guitar Review](#) and [Guitar Player](#).

Cliff says:



"It's unique character comes from the PI. It's a cathodyne phase inverter so it doesn't drive the grids as hard."

Yek's comments:

IMHO the Nuclear-Tone model (and the Gibtone Scout) is a real gem in the amp model collection. It combines characteristics of a Fender Tweed and a Vox. You'll find yourself playing endless "solo" sessions and drifting away. Don't forget to turn on that Tremolo in the AMP block (set Depth at 100%). I set Input Drive around 4.00 for a clean tone with body, and bump it up to around 7.00 for more drive. Treble is around 4.25.

There's an IR of the combo in the stock cabs: #115 (1x12 Nuclear Tone Mix).



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>20 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>No</i>
<i>Preamp Tubes</i>	<i>12AX7</i>
<i>Power Amp Tubes</i>	<i>2x 6V6</i>
<i>Tonestack Location</i>	<i>PRE</i>

Herbie (Diezel Herbert)



Synopsis:	3 models of a Diezel Herbert, a rock to metal amp that covers similar territory to the VH4 but is voiced differently
Tips:	N/A
Sound Clips:	Diezel Herbert MK1 Demo by Josh W Part 1 Diezel Herbert MK1 Demo by Josh W Part 2
Recommend Cab/Speaker:	Celestion V30, Celestion G12-K100
Manual:	User Manual for the Diezel Herbert Amplifier

The Herbert is younger than the VH4. It covers the same territory as the VH4 (rock to metal) but feels and sounds differently. It's immensely powerful with its 180 watts! It uses KT66 or KT77 tubes and has a single input. It supports MIDI.

Diezel:

"Its main difference from the VH4 models are in voicing, circuit design, and general layout. Overall the Herbert has a more familiar, slightly looser feel than the VH4, without losing much of the Diezel signature definition and tightness. Simply put, the amp is a player's amp, forgiving and ready for whatever one's soul and mood desires."

The amp has three channels: 1 Clean – 2 Crunch/Heavy – 3 Lead. The voicing of the channels is very different. Channel 1 (Clean) hasn't been modelled so we'll focus on channels 2 and 3 and their models.

Diezel:

Channel 2:

"Channel two is a dual purpose channel, its two voicings can be selected with a toggle switch. The (-) mode of this channel has dynamics to range from a vintage type clean sound to a

broad crunch. The (+) mode of this channel offers similar voice, but much more gain. Both modes provide ample pick sensitivity."

"Channel 2 offers the whole spectrum of crunch sounds (or even lead) you can think of. In the minus position and the gain around 35% you'll get typical cranked Plexi sounds, setting the gain a bit higher to say 60% (keeping all other pots noon) - voilà: 800s territory. Now flip the switch to the + mode and get the typical Diezel trademark crunch (gain around 40%). Tight, punchy, fast attack. A dream for those who prefer the harder stuff. Rotate the gain to 60% and play leads."

"This channel's main objective is to cover soft and heavy overdrive and distortion sounds. It features a voicing switch, with -/+ settings. With the (-) setting selected, blues and classic rock sounds can easily be realized. The (+) setting kicks everything up a few notches and offers crunch with a good bite, allowing you to dial in punchy heavy rhythm and searing solo tones."

Channel 3:

"Channel three offers a high gain structure, but again with very good pick sensitivity and easy control. The distortion structure is transparent, but yet percussive and brutal."

"With the gain around 30% you'll get your metal rhythm channel - use the mid cut to land in Recto territory. Without the mid cut engaged, gain @ 50% and the mids a bit cranked you'll get a screaming or creamy lead - just depends on your style/axe/fingers. Crank the mids a bit above noon to add some bite. If you want to use it for both, rhythm AND lead - find your ideal setting and simply engage the second master to get your personal volume boost."

"This channel is voiced for highly articulate single note lines or for very heavy and massive rhythm guitar. Due to its slight midrange accent and very high gain structure, it possesses good punch and will, with ease and authority, rule any stage or studio. The "less is often more" rule applies here also."

We've got models of the "+" and "-" modes of channel 2, and channel 3.

The amp controls are: Gain, Volume, Treble, Mid, Bass, Deep (120 Hz), Presence (> 3 kHz) and the +/- Gain Boost switch on channel 2.

Manual:

"The tone controls work in an unusually wide range, so a little adjustment goes a long way. As with so many other things - less is often more. We suggest you start exploring the channels with all controls set to 12:00 o'clock, and the master volume just slightly cracked open."

The Herbert also features a Mid Cut switch on every channel. This hasn't been modelled. You can replicate it if you want. Cliff:

"Use a Peak EQ filter at 400 Hz with a Q of 1.4. Decrease its Gain until the desired scoop is achieved. Play with the Q to set the width of the scoop."

Combine the amp with V30 or G12-K100 speakers. Take your pick from the stock cabs.

Fractal Audio / ML Sound and OwnHammer have IR libraries of Diezel cabinets.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	180 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	Unknown
<i>Power Amp Tubes</i>	6x KT66
<i>Tonestack Location</i>	POST

Hipower (Hiwatt DR103)



Synopsis:	Models of the Normal and Jumpered channels of a HiWatt DR103 amp. It's a 'clean' amp that has a unique tone stack and a brilliant chimey tone.
Tips:	If you need it to roar, crank the Master as well as the channel volume. Don't expect this amp and models to distort a lot though
Sound Clips:	1972 Hiwatt DR103 CRANKED through 1978 Hiwatt 4x12 with Fane Speakers (Tyler Grund) The David Gilmour Amp: Hiwatt Dr-103 - built in 1972
Recommend Cab/Speaker:	Fane 4x12
Manual:	HiWatt Owner's Manual

People often talk about the British guitar amp tone. But is there really just "one" british sound? Nope. There's Marshall. There's Vox. And there's Hiwatt. Hiwatt amps have a sound of their own, especially in combination with the famous Fane speakers. Fractal Audio's HIPOWER models are based on Hiwatt's flagship product: the DR103. According to Fractal Audio: "an amp with an unique tone-stack and a brilliant chimey tone".

The DR103 has a raw tone, slightly glassy and hollow, in a good way. Crank it up, and enjoy pure British power amp distortion. You want to hear a Hiwatt in its full glory? Listen to The Who's **Live At Leeds**, quoted by some as the best live rock recording of all time (**Pete Townsend used a CP103**, based on the DR103 but a different design). And then there's David Gilmour, the master of tone, who has played Hiwatt amps all his life.

Hiwatt (current **DR103** model):

"This is the amp that started it all. The dr103 has proved itself as the cornerstone of such a huge variety of acts that has provided them all with the platform on which to build their own, unique sounds. Check out the Hiwatt users on this website for the evidence of that. The

reason for that variety is that on the one hand, the amp kicks out such a pure, powerful tone that it really compliments the pedals put through it rather than competes with them like some other amps, yet on the other hand has the rich, classic 'British' tone which stands out so distinctively, particularly when the amp is cranked up. Dual channel pre-amp with high and low sensitivity inputs and normal and bright options on each. Volume controls for each channel and master volume control. 3 band EQ; bass, middle and treble. 4xEL34s at power stage, and either 4xECC83s or 3xECC83s and 1xECC81 (giving a tighter sound) at the preamp stage."

Legendary Tones:

"Hiwatt amplifiers were marketed as high-end amplifiers, and indeed their quality in construction, from use of premier Partridge transformers to exquisite attention to detail being made in the electronic wiring and assembly, quickly further enhanced Hiwatt's reputation. Even die-hard and loyal Marshall enthusiasts would have to admit that the construction quality of early Hiwatt amplifiers was vastly superior to Marshalls. The person responsible for this was Hiwatt's Chief Technician Harry Joyce, who oversaw the construction of these amplifiers and built and signed many of them himself. Harry Joyce was a military-certified wiring technician, and as a result, all Hiwatts produced during the Harry Joyce era were produced at military-spec levels. Military specifications required that products being made be wired in such a way that components would be easily accessible and that the wiring itself would remain "clean". This was to allow for quick and efficient repairs of military equipment while "in the field". Looking inside a Hiwatt chassis, this attention to "Mil-Spec" is plainly evident. This attention to detail was also the primary reason why Hiwatt production was limited to only 40 amplifiers per month.

The most famous Hiwatt within the line was the Custom 100 DR103 amplifier. Its 100 watts of output compared to a Marshall Super Lead is quite different to say the least. The Hiwatt DR103 is notably louder and can also run much cleaner than 100 watt Marshalls when needed and they also have tremendous headroom available. Playing a Hiwatt at a loud volume is well... an experience. When I played through one for the first time (a DR103 made in 1972), all of a sudden, my Marshalls felt very "thin" in tone in comparison. Hiwatts are loud, punchy, and rich with even-ordered harmonics and I should add the politically incorrect term, "ballsy as all hell!". I can think of no better example of the epitome of clean and lush tube tone. Overdrive is certainly available when the Hiwatt is pushed, but it must be acquired by use of the higher-gain "brilliant" channel (more on this momentarily) and certainly a high-output pickup helps further. The "normal" channel is voiced to stay clean and powerful at all levels. An additional benefit to the Hiwatt DR103's tone and design was its inclusion of tone controls that actually seemed to respond with a much wider range than other amplifiers of the time. Bass response could be bassy, mids added strong punch and a wide range of the treble and presence controls would deliver all the upper frequencies and sibilants desired."

Cliff says:



"I have a 1974 Hiwatt DR-103. The model is based on that. It is one of the Harry Joyce, Hylight era models. Still has the original tubes. Closet find and sounds glorious."

It's a 100 watts amp with EL34 tubes, with Normal and Brilliant channels and four inputs. We've got models of each channel on its own, plus one of jumpered inputs, which means that both channels are being used at the same time.

A Hiwatt can create a great clean tone. Glassy but different from a Vox. Just listen Pink Floyd. Years ago I used the HIPOWER model for my main clean tones for some time.



If you need it to roar, crank the Master as well as the channel volume. With the real amp you'd need an attenuator, or strictly play arenas, but luckily we don't have that problem with the models. Don't expect this amp and models to distort a lot though.

The amp controls are: Volume, Master, Bass, Middle, Treble, Presence. Presence doesn't do a lot but it opens up the amp a little.

For clean tones I use the Jumpered model, with Treb Drive around 8, Norm Drive around 5, Presence at 3.5, Bass at 4. For dirty tones I also use the Jumpered model, with Treb Drive at 9, Norm Drive around 5, Bass at 3, Presence at 3.5 and Master at 9.

Here's [the manual](#) (and amp schematic).

Hiwatt amps and Fane speakers go hand in hand. Click here to see which ones are available as stock cabs. OwnHammer has more of them.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	100 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	4x ECC83
<i>Power Amp Tubes</i>	4x EL34
<i>Tonestack Location</i>	MID

Hot Kitty (Bad Cat Hot Cat 30)



Synopsis:	Model of Channel 2 of a Bad Cat Hot Cat 30 voted by Guitar Player as the “second best combo of all time”. Channel 2 is pure Class A EL34 High Gain.
Tips:	Note that the tone controls on the amp are pretty radical and interactive. Turning them fully up or down can make mute the amp.
Sound Clips:	HotCat30 Demo BadCat Hot Cat 30
Recommend Cab/Speaker:	Factory Cab: #085
Manual:	Hot Cat 30 Operating Manual

Luckily we’re not limited to Marshall / Fender / Vox / Mesa etc. models. Bad Cat amplifiers became really famous when Mark Sampson of Matchless became their chief amp designer (he left later).

This is their Hot Cat 30 model. Mind you: not the current Hot Cat 30r, which has different controls.

It’s a 30 watts cathode bias head or combo with EL34 tubes, voted by Guitar Player as “the second best combo of all time”.

It’s a different kind of amp, unlike all other amps, IMHO. It can do clean-to-crunch stuff as well as high gain tones.

Bad Cat (current Hot Cat 30r model):

"We started with one of the nicest most touch responsive clean channel ever designed enabling the ability to tailor the amp to bright single coils or thick warm double coils. We've added a K Master volume that can be utilized to drive channel one into all shades from clean to soft pushed overdrive and beyond. The little secret that loyal users of the Hot Cat have known for years is that the clean channel crunches like the sounds found on vintage 70's vinyl. Channel two is a pure Class A EL34 high gain. The same sweet harmonically rich gain only now with an added mid-range knob to help you dial into a rich scooped thump. This amp covers everything from clean sparkle to harmonically rich saturation."

Our Hot Kitty model is based on the amp's 2nd channel. The controls on that channel are: Gain, Edge (model: Bright), Level, Bass, Mid, Treble, Brilliance (model: Hi-Cut), and Master. Note that the tone controls on the amp are pretty radical and interactive. Turning them fully up or down can make mute the amp.

Vintage Guitar has [a review of the Hot Cat](#) on their website.

Some players say that you have crank the Master and HiCut to make it work.

Here's the original manual.

Bad Cat uses proprietary Celestion speakers. We have a Hot Kitty stock cab: #85.

More Hot Kitty IRs in Cab Pack 1, which can be downloaded for free.

Cliff says:



"Brilliance is their name for Hi-Cut. I set the Edge control to where I thought it sounded best. It essentially does the same thing as the Bright knob though less precise."

"The amp has a Hi Cut but it's labeled Brilliance. It's wired backwards so turning it CW gets brighter."

Yek's comments:

I owned a Hot Cat 30. I played one in a shop and was so impressed that I took it home with me. But from there were disappointments. The first one became apparent when I lifted it. It was the heaviest 1x12 combo I ever came across. The second one was that it got extremely hot. The third and most serious one: I never got it to sound as good as in that store again, for reasons unknown.

I know that some people love this amp and model. But sorry, not me, it's "not my thing". To my ears, it sounds hifi-ish, lacks low mids and reminds me of cardboard. Just like the real amp. ;-) So prove me wrong, please!



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>30 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>No</i>
<i>Preamp Tubes</i>	<i>12AX7</i>
<i>Power Amp Tubes</i>	<i>2x EL34</i>
<i>Tonestack Location</i>	<i>POST</i>

Jazz 120 (Roland Jazz Chorus 120)



Synopsis:	A model of Channel 2 of a Roland Jazz Chorus, a solid-state amp famed for its clean sound.
Tips:	The chorus isn't a part of the amp model. To replicate it in our Fractal devices, use the CHORUS block, set it to CE-2 and place it after the AMP block to keep it stereo.
Sound Clips:	The Roland JC-120 Amp - GearWire
Recommend Cab/Speaker	12" Roland speakers (silver Alnico)
Manual:	Roland Jazz Chorus 120

Welcome to the only current Fractal Audio model that's based on a solid-state amp: the venerable Roland Jazz Chorus JC-120. Famous JC-120 players include Andy Summers, Alex Lifeson, and many more.

The JC-120 enjoyed a revival in the metal and nu-metal era. Bands such as Metallica and Limp Bizkit used them to for clean parts in their songs.

These amps are associated with ultra-clean tones and its famous built-in chorus/vibrato. It's a true stereo-chorus. Roland calls it their Dimensional Space Chorus. This seems to refer to Roland's Dimension chorus, but the JC-120's built-in chorus circuit is identical to the famous vintage CE-1. As a matter of fact, the JC's chorus predates the CE-1.

The chorus isn't a part of the amp model. To replicate it in our Fractal devices, use the CHORUS block, set it to CE-2 and place it after the AMP block to keep it stereo.

Javajunkie replicates the famous CE-1 chorus.

Roland (current JC-120):

"First introduced way back in 1975, the JC-120 Jazz Chorus is one of the few guitar amps that can truly be called a legend. Roland's long-standing flagship is universally recognized by pros as the benchmark in clean guitar sound, and its rich tone and famous built-in stereo chorus effect have been heard on countless popular songs over its long history. Now celebrating 40 years of continuous production and counting, the JC-120 remains the undisputed "king of clean," and the enduring choice of serious guitarists everywhere."

The 120 stands for 120 watts, which is 60 watts per side. The amp has two channels. The Normal channel 1 doesn't have any effects, while the Effect channel provides chorus, reverb and drive. Because of the chorus everybody uses the Effect channel. It has two inputs per channel.

The JC-120 does provide a Distortion control. But the distortion created by that control on channel 2 sounds so terrible, so laughable bad, that it should be forbidden by law to use it.

The amp's controls: Volume, Bass, Mid, Treble, Bright switch. Not modelled: Distortion, Chorus, and Reverb.



AFAIK the real amp has no Master Volume control. But the model's Master doesn't default to 10, which accounts for the model's very low output. I believe this may be an oversight, so I always turn up the Master control to 10. I also engage the Bright switch. It's been a while since I tested this model, and with these settings it delivers a very nice clean tone with body.

Yek's comments:

Back in the 80s I owned one, even though I didn't play jazz. There were a lot of these amps around, especially in the jazz and jazz-rock scene. I remember seeing Billy Cobham's guitar player using one. Although it's an ultra-clean amp by itself, it handles drive pedals well. I achieved great overdriven tones with my JC-120 using an original H&K Tube Factor pedal or a Tubescreamer

For its stereo output the JC-120 relies on two 12" Roland speakers (silver Alnico). We used to have these available as stock cabs before firmware 18, but they were replaced. Try other Alnico speakers, such as stock cab #94.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	120 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	N/A
<i>Preamp Tubes</i>	N/A
<i>Power Amp Tubes</i>	N/A
<i>Tonestack Location</i>	POST

Jr Blues (Fender Blues Junior)



Synopsis:	Models of a Fender Blue Junior with Fat switch On/Off, a different kind of Fender amp. It is not as clean
Tips:	Use the FAT model and turn up Master to get the typical Blues Junior sound.
Sound Clips:	FENDER® BLUES JUNIOR™ III & STRAT®: "Late Night Blues" Blues Junior Demo - Original Ballad
Recommend Cab/Speaker:	Factory Cab: #079 1x12 Junior Blues M160 Eminence Legend or Jensen C12N/P12R
Manual:	Blues Junior Operating Instructions

Based on: Fender Blues Junior. This is a portable 15 watts amplifier, with dual EL84s, a solid state rectifier and a single input. It's a different kind of Fender, not as clean. Some love 'em, some hate 'em.

Fender (current model III):

"The Blues Junior is a 15-watt warm-toned, longtime favorite - the perfect grab-and-go tube amp for stage and studio. It is known for the fat mid tones characteristic of EL-84 output tubes, warm 12AX7 preamp tube overdrive, real spring reverb, simple control layout, footswitchable FAT boost and external speaker capability."

Wikipedia:

"The Blues Junior is a professional tube guitar amplifier introduced in 1995 by the Fender company. It is aimed at achieving the warm, tube-driven tone common in many styles of American blues and blues rock dating back to the 1950s, while remaining both portable and affordable. Fender frequently releases limited editions of the Blues Junior. All have the same electronic components and specifications but have cosmetic changes and often a different speaker, at varying prices. The Fender Blues Junior is most similar to the Fender Blues Deluxe, which adds a "drive" channel, an effects loop, and uses 6L6GC output tubes for 40 watts of rated output. The Fender Blues Junior was introduced after the Fender Pro Junior, but has entirely different circuitry other than EL84 output tubes rated at 15 watts."

This amp is one of the few Fender amps with a Master control. Other controls: Gain, Bass, Middle, Treble, FAT push-button, Reverb. The Blues Jr. amp has a fixed presence circuit. No Bright switch.



We have models of this amp with and without the FAT switch engaged.

The FAT switch boosts gain and midrange frequencies in the preamp stage.

Use the FAT model and turn up Master to get the typical Blues Junior sound.

Manual:

"Your new Fender Blues Junior is a professional tube amplifier with that classic, late night blues tone found nowhere else but in a Fender. Its compact size makes it ideal for rehearsal, backstage warm-up, and studio work. The control panel on the Blues Junior is located on the top side for easy access and the "chicken-head" knobs indicate all your settings at a glance. Volume, Treble, Bass, Middle, Master, "FAT," and Reverb are all that's needed to get every sound from "vintage clean" to "expressive growl" from this versatile amplifier. The Fender vintage Special Design 12" speaker is connected through a standard 1/4" jack allowing your choice of connecting to either the internal speaker or an external 8W speaker cabinet.

The "FAT" switch provides additional preamplifier boost adding warm, "Fender American Tube" distortion and may be controlled from the top panel or with the optional footswitch. The quality built into Fender amplifiers is the result of over 50 years of dedication and experience that our engineers and countless musicians have gained both in recording studios and performing on stages around the world."

Use this model with no Damping (no Negative Feedback) to make it sound like an Egnater Rebel 20.

Cliff: "The Eggie is very similar to a Blues Jr. Basically the same preamp with some minor tweaks."

The combo has a 1x12" Eminence Legend or Jensen (C12N or P12R) speaker. Cab #79 is an IR of this speaker. Cab Packs 2 and 10 provide more Blues Junior IRs.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	15 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	1.5 x 12AX7
<i>Power Amp Tubes</i>	2x EL84
<i>Tonestack Location</i>	MID

JS410 (Marshall JVM410HJS)



Synopsis:	4 models of Joe Satriani's signature amp, the Marshall JVM410HJS. The channels are the Crunch and OD channels in both Orange and Red modes. The Crunch channel is based on a JCM800 and the OD channel is for high gain
Tips:	<i>"Joe said he puts all the tone controls at around 10:00."</i> – Cliff
Sound Clips:	Marshall JVM410HJS review with Danny Gill Monsters of High Gain '13 - Marshall JVM410HJS Joe Satriani Signature
Recommend Cab/Speaker:	Marshall's JVM cabinet uses a combination of the G12 Heritage (G12H) and Vintage 30 (V30) speakers
Manual:	JVM410HJS Signature Head Owners Manual

The JVM410HJS is based on the JVM410H amp. We already discussed the regular JVM410H amp and models. It's a 100 watts EL34-channel amp, with 3 three modes per channel. This article adds specific information about the Joe Satriani version of that amp.

Yek's Comments:

IMHO this model totally rules when compared to the regular 410H amp/model. More liquid, thicker, less harsh, more usable gain range.

JVM410HJS (what a name ...) is Joe Satriani's signature amp, after he left Peavey. The following changes were applied to the regular 410H. The reverb was dropped. Noise gates were added. A Mid-Shift button was added which centers the mids around 650hz when

OFF, and around 500hz when ON. The Clean channel's Green mode is based on the 30th Ann. Marshall 6100 (Satriani's favorite clean tone). Some of the Marshall AFD circuitry has been included in the Crunch channel. The OD1 and OD2 channels are Identical (voice matched for smoother transition between modes) and re-voiced.

Marshall:

"The Joe Satriani JVM head looks very similar to the stock JVM410H, but look and listen a little closer. You'll realise just how different this amp is. The reverb pots have been replaced by four independent, studio-quality noise gates, one for each channel and, as specified by

Joe, a footswitchable Mid-Shift button has been added (around 650hz off and around 500hz on). Tonally, this amp is very different from the stock JVMs. The clean channel is based on the 30th anniversary 6100 when in green mode, with the orange and red modes being hotter variations of that. The crunch channel includes some of the popular AFD circuitry, and the overdrive channels are voice matched for smoother transition between modes. The channels and modes have been re-voiced to Joe's exact specifications after experimenting with prototypes on tour and during recording sessions. This awesome amp also features individual channel EQ, two master volumes and a switch memory that can recall your reverb, FX loop and master settings. There is also an emulated output that can be used for recording or, as Joe does, used to monitor on stage."

Satriani's comments in the **manual**:

"(...) start recording what would become "The Extremist" album, and Marshall had sent over this new head – the 30th Anniversary 6100. The first thing I did was go in to the clean channel and seeing how my box sounded and it was like: Wow – that's amazing.. And that was really the beginning of me just depending on that head. I've got 5 of them & I even have a full stack with the polished brass chassis and logo that's very cool. (...) Marshall set us up with some JVM and some (...) Vintage Modern heads and we just loved them. They literally transformed the sound of the band. I was using a JVM and the end of that touring cycle I'd realized exactly what it was I was looking to get out of the amp. Then came the offer to work with Marshall on a signature head... I was not only flattered by this gesture but also very excited because I had real, practical experience with the JVM and I had some things I wanted to change about it – specifically, make an already great amp even bigger, bolder, more punchy and more dynamic. To me the JVM410H's four channels were amazing but what was even more mind-blowing was that it had three switchable modes per channel. So it wasn't merely a 4 channel amp, it was 4 by 3. It was fascinating just to sit there and play through it. I felt that the designer, Santiago Alvarez, had really made a huge step forward in amplifier design by being able to pack so much into a head while making it so elegantly designed and functional. This amp gets you in and out of all the different eras of rock music, no questions asked. So that's how myself and Santiago started working on the JVM410HJS. I think you can hear a good example of how Chickenfoot's sound blossomed as a result of the JVM on the "Get Your Buzz On" live DVD [filmed on one night in 2009]. It's a very fat, rich tone which we've since taken several steps further to make it even more of an organic rock and roll sound - which is the hallmark of my signature amp. Thanks to a really long and fruitful R&D period, I've been able to record, rehearse and play live with all the prototypes while Santiago and I fine tuned the amp...not just with Chickenfoot but on my solo stuff too. I've really put all the prototypes through their paces in "the real world" – well, in "my real world" anyway. To my mind, the original JVM410H has a sizeable chunk of Marshall History encapsulated within its 12 modes. I feel that Santiago and myself have capitalized and expanded upon that firm sonic foundation and, as a result, the JVM410HJS contains a lot of classic Marshall tones as well as a few fresh ones that people will regard as new classics."

Fractal Audio has modeled the Orange and Red modes of the Crunch and OD channels.

Satriani's comments in the manual:

Crunch channel:

"I love this channel because, to me, it's as if a very important period of Marshall History is sitting there. It also represents three of my alltime favourite amps that I've used to record all the time. I'm not going to go too crazy trying to over-describe these because anyone who knows and loves Marshall will know the classic amps and sounds upon which they're based... (...)

ORANGE MODE: *Based on a JCM800 2203 which, like the JMP, is such a standard in rock music.*

RED MODE: *That telling, modded JCM800 sound that so defined the '80s era, and is still a "go to sound" for any rock band. This channel is so useful. For me to be able to make two albums using this channel – a solo record and "Chickenfoot III" - and to tour, using all three modes during the show is a true testament to just how good the JVM410HJS's Crunch channel is and how many different tones it can give you."*

OD channels:

"It's a crazy idea I know, but these two channels are identical. Generally, logic and intuition would tell you that the rational thing to do if you've got four channels is to make them all different. That said, I've realized, particularly from the experience of playing live, that once you get your tone dialed in, you wish that you could also get it a little bit louder and with a slightly different EQ once you get it louder. I've found this to be the case more often than not, and no-one wants to walk around with two heads if they don't have to – they'd much rather have one head with the sounds in it. Hence the reason for OD1 and OD2 being the same. So working with Santiago, we made the two channels essentially the same as OD1 on the original JVM410H but then, at the click of a programmable button – the added Mid-Shift – you can make either one, or both of them be identical to the original JVM OD2 channel too, in terms of the EQ curve. So on the JVM410HJS you can dial in that big, full, organic "Get Your Buzz On" CF guitar tone. Or, you can activate that switch and there's a bit of a scoop which I found while still being a really fat tone, makes more room for Sammy's vocal in the overall shape of the sounds that make up Chickenfoot. But then, by the same token, I find that on my solo work that space needs to be filled by my guitar so I need that extra midrange to do so properly. I've now got the ability to have both those sounds and as the gain structures are identical and the way two channels behave are also the same, you can successfully use the channels back to back. (...)

Cliff says:



"Joe said he puts all the tone controls at around 10:00."

ORANGE MODE: *Even more Gain.*

RED MODE: *None more Gain ©Nigel Tufnel! In conclusion: I don't want to say that "I'm as happy as a peach" because that's a horrible analogy! Let's just say that I'm spoiled for choice because there are just so many options for how wild you want your guitar to sound within the 12 Modes of the JVM410HJS. I love it, I really do."*

The amp's controls are: Volume, Gain, Bass, Middle, Treble, Mid-Shift, Master, noise gate, Presence, Resonance (model: Depth). The Mid-Shift button has not been modelled.



Marshall's JVM cabinet uses a combination of the G12 Heritage (G12H) and Vintage 30 (V30) speakers.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	100 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	4x ECC83
<i>Power Amp Tubes</i>	1x ECC83 4x EL34
<i>Tonestack Location</i>	POST

Matchbox D-30 (Matchless DC-30)



Synopsis:	A model of Channel 1 of a Matchless DC30, a Vox AC30-like amp that stated the boutique amp craze.
Tips:	N/A
Sound Clips:	Matchless DC 30 ('92) Complete Test Matchless DC 30 vs Bad Cat Wild Cat Matchless HC30 Sound Demo
Recommend Cab/Speaker:	Matchless amplifiers commonly use a combo of custom 30 watts G12-H and 25 watts G12-M speakers
Manual:	Matchless C-30 Manual

Matchless initiated the boutique amplifier craze in the '90s. One of its founders was Mark Sampson. The amplifiers that were made during the time that he worked at Matchless are considered the best ("Sampson-era"). Matchless amps are often associated with country music (Nashville) but they are also used by rock bands. [More information about Matchless](#)

Matchless takes the Class-A tone to a higher level. We already discussed the Chieftain. The C-30 is their most famous and even legendary amp. The DC-30 is a 2-channel, Class A, 30 watts combo version with EL84 tubes and two inputs. The HC-30 is the head -only version.

A '95 – '99 C-30 ranks #20 on Vintage Guitars list of most valuable amplifiers:

"In achieving Matchless founder and designer Mark Sampson's goal of being "...an AC30 that wouldn't break down," the DC30 also became one of the best-loved and most-used amps of

hard-working players in the studio and on the touring circuit. These EL84-based class-A beauties are entirely hand-wired in the lauded point-to-point style, and deliver classic British chime, shimmer, and crunch, but with a certain modern clarity and fidelity and a bulletproof robustness relied on by countless pros. Bolted into one of Matchless' rare exotic-wood cabs, they look awful sweet, too."

More info about the DC-30 is available on the Vintage Guitar website

Matchless:

"This is what changed the amp world. The DC-30 was the company's first design and still leads the lineup.

Thirty very conservatively rated watts from a quartet of EL-84's, through two channels, each with unique voicing and tone control layouts, produce a world of tone choices. True "Class A" configuration gives rich, complex harmonics whether played clean, mildly overdriven, or with all out power tube saturation. This means you should sound great in any situation, in any music style.

A long list of musician designed features includes: highly interactive tone controls and circuitries unique to each channel, bypassable master volume, individual channel effects loops, cut control for high frequency shaping, high and low (30 or 15 watt) power settings, selectable output impedance and phase inverter switches allow the use of additional speaker cabinets or amps in-phase with the DC-30.

The preamp sections are based on a layout of two 12AX7's in Channel 1 and one EF86 in Channel 2. The two 12AX7's in Channel 1 create a parallel-triode circuit with interactive bass and treble. The one EF86 in Channel 2 consists of a high-gain pentode coupled to a six-position tone switch. Outright benefits include quick dial-in of new tones and an easy return to the settings you prefer. Also "high treble" cut control, master volume, with a bypass feature that offers flexible control of the power amp section. The power amp is fed by a 12AX7 phase inverter, which drives four EL84 power tubes. The rectifier circuit gives you the flexibility of using one 5AR4 for a quick attack or you can use two 5V4's for a smooth, round response. Other professional features include an effects loop, half power-mode switch (a conservative 30 watts switching to 15 watts), output impedance selector (4, 8, 16 ohms) and a speaker phase-reverse switch.

Sound on the 212 Combo is delivered through two dissimilar Celestion speakers: a G12H30 and a Greenback 25, each specially modified through a proprietary MATCHLESS formula. All of this is encased in an extremely sturdy hand-made 11-ply, 3/4" Baltic birch cabinet, wrapped in richly textured black vinyl. The finishing touch is our signature backlit nameplate and control panel, which lets you (and the audience) know when the power is on."

Manual:

"MATCHLESS amplifiers are cathode biased and operate mostly in a Class "A" mode. This means that current flows continuously through the output tubes whether a signal is present or not. Most amplifier designs employ the more popular "AB" or "AB1" biasing technique, which although capable of producing more power for a given tube configuration and transformer size, produces crossover distortion and more odd order harmonics. This is why MATCHLESS amplifiers are described as having a smooth tone that won't fatigue ears even at

a high volume. The MATCHLESS design also does away with controlled or corrective negative feedback, allowing the amplifier to run "open loop" or wide band. This is why your amplifiers sound full and rich at low or high volume levels."

Channel 1 has a 12AX7 preamp tube, while channel 2 has an EF86. The two channels are very different in sound.

Manual:

"Channel 1 has three controls, VOLUME, BASS, and TREBLE. This is the "triode" channel. This channel offers a two stage active tone circuit employing a second pair of triode amplifiers. This circuitry is popularly referred to as a "tone-boost" or "treble-boost" circuit. The Bass and Treble controls are highly interactive and capable of a wide variety of textures. Channel 1 may be preferred for that early British sound that we have become so endeared to. If you play a RICKENBACKER or GRETSCHE guitar through this channel, you will recognize this familiar sound instantly.

Cliff says:



"The DC-30 is basically an AC-30 copy. The voltages are a bit different but the topology is nearly identical. However, IMO, it does sound better. Not sure why. Perhaps the better quality components. AC-30's have kind of crappy OTs."

Channel 2 utilizes a "pentode" vacuum tube as the first preamplifier stage and is followed with a six position rotary switch to control the tone envelope. This preamplifier tube is capable of more gain than channel one and is capable of being overdriven harder. The tone control for this channel is passive. This may become the channel of choice for a "heavier" sound, especially when overdriven and used in conjunction with the MASTER volume control option. The multi-position rotary tone switch varies the dimension or width of the tone envelope. The minimum position (counter clockwise) will procedure a thinner sound that will become thicker and thicker with each clockwise click of the switch. This switch has a total of six tonal textures."

Our model is based on channel 1 with Master bypassed.

The amp controls on channel 1 are simple: Volume (model: Input Drive), Bass, Treble, Cut (model: Hi Cut), Master (bypassable).

Manual:

"The CUT control varies the bandwidth, or high frequency response of the power amplifier. This is characterized by fewer heights or less top end. The CUT control is used to soften or take the edge off a harsh instrument or tone setting. The effect is subtle before the halfway point on the control and increases the amount of cut from midpoint to full. The CUT control is most effective when the Master volume is bypassed or set for maximum gain."

Sample amp settings

The Matchbox model in our Fractal Audio devices is a favorite of many players, for clean tones with chime as well as crunchy work.



Matchless amplifiers commonly use a combo of custom 30 watts G12-H and 25 watts G12-M speakers. We've got them in our devices: look for the Boutique stock cabs.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	30 watts
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	No
<i>Preamp Tubes</i>	3x 12AX7 (Ch 1) 1x EF86 (Ch 2)
<i>Power Amp Tubes</i>	1x EL84
<i>Tonestack Location</i>	POST

MR Z HWY 66 (Dr. Z Route 66)



Synopsis:	A model of a Dr. Z Route 66, a simple amp based around the KT-66 tube.
Tips:	To put the amp into overdrive, crank all three controls (Volume, Treble, Bass).
Sound Clips:	DR Z Route 66 amplifier demo with Kingbee Tele and Z Best 212 Cabinet Dr Z Route 66 amplifier demo with Fender Stratocaster and Z Best 212 Cabinet
Recommend Cab/Speaker	Celestion Vintage 30, Celestion G12H30
Manual:	Route 66 Owner's Manual

Dr. Z is Mike Zaitz. He builds simple amplifiers that sound pure and are appreciated widely.

This model is based on the Route 66 amp . It's a 32 watts single-channel amp head with KT66 power tubes and utilizing an EF preamp tube.

Dr Z:

"The Route 66 is an all original Dr. Z design based on the incredible KT-66 tube originally built by Genelex. This tube generates the "Milkshake Thick" tones, as heard on John Mayall's "Bluesbreaker" album featuring Eric Clapton (the "Beano Album" as it is known to many). This is not a duplicate of the Marshall JTM-45, but completely original spin with new tonal end results. The Route 66 has an EF-86 front-end. For those not familiar with this tube, it is a 9 pin pentode that offers incredible gain and input dynamics. It is normally used in high-end stereos, most often for its accurate transfer of input signal, balance, and headroom. The Route 66 features a deceptively simple tone stack, consisting of Volume, Bass, and Treble, which feeds a non-negative feedback Phase Inverter, for true harmonic content and full output tube dynamics. It has a GZ-34 Tube Rectifier to complete the round enveloped tone.

The amp has piano-like clarity with endless sustain, even at low volumes. Its 32 watts truly sing when driven hard in a focused, thick distortion, with the tightest bass response you've ever heard."

Manual:

"The Route 66 is a completely original design based around the classic KT-66 output tube. The Route 66 is the first ever winner of the Editor's Pick Award from Guitar Player Magazine. The EF86 front end coupled to the big bottled KT-66 output tubes let's loose a thick bottom end with a clear singing top. This amp delivers plenty of classic rock and roll crunch as well as sweet blues sustain. The Route 66 makes any pedal you plug in sound like it was built into the amp."

Guitar Buyer review

The controls are very simple: Volume, Bass, Treble. On the amp Treble and Bass operate regularly until 12:00, and dial in gain once turned past noon. To put the amp into overdrive, crank all three controls (Volume, Treble, Bass).

Yek's Comments:

I prefer the other Dr. Z models we have a lot ("Maz"). I couldn't get a tone I liked from this model. Too "grainy" and loose for my taste. But the model seems to benefit from recent firmware upgrades. I actually start to like it. Bass at 7, Treble maxed, Volume around 5, and I use the Ultra-Res 2x12 Boutique cab

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	32 watts
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	1x EF86 1x 12AX7
<i>Power Amp Tubes</i>	2x KT66
<i>Tonestack Location</i>	POST

Mr Z MZ-8 (Dr. Z Maz 8)



Synopsis:	A model of a Dr. Z Maz 8, an 8 watt, Class A amp with an EL84 tube. It is the “quintessential country amp”
Tips:	N/A
Sound Clips:	Dr Z Maz 8 1x12 Studio Demo DR Z Maz 8 – Rig Rig Rig Gear Demo
Recommend Cab/Speaker:	Celestion G12H, Celestion Blue
Manual:	Maz 8 Manual

Dr. Z is Mike Zaitz. He builds simple amplifiers that sound pure and are appreciated widely. Famous Dr. Z amp players include Brad Paisley and Joe Walsh.

Cliff says:



"Dr. Z is the quintessential country amp."

The Dr. Z's Maz amps are popular low-wattage, single-ended amps. These amps have no negative feedback (model: Damping is 0).

The Maz 8 is an 8 watts amp (head or combo) with a single EL84. Controls: Volume, Treble, Middle, Bass, Reverb, Cut (model: Hi Cut), Master Volume and

Pentode/Triode switch (not modeled). The tone controls can be bypassed on the real amp. It has two inputs: Hi and Lo (3 dB less gain).

Dr. Z:

“Based on the modern day classic Maz 18 platform, the Maz 8 is set to become the new standard in single ended class A amps. If you are tired of thinking of ways to win the volume wars with sound guys, club owners, and recording engineers the Maz 8 is the solution. The

Maz 8 is a full featured 8 watt amp that will give you an incredible range of shimmering cleans to full on rock action at reasonable volume levels.



The Maz 8 gives you the true class A experience. The single EL84 output section can be run in Pentode or Triode mode. In Pentode mode you get the sonic signature of the Maz 18. The chimey top end and sweet low end bloom are all there, but at a significantly lower volume. The pentode setting gives you plenty of dynamic range for clean country picking to grinding riff rock bliss. You can even take it a step beyond with the footswitchable EQ bypass function. This gives you a great gain boost for effortless leads that will sustain for days. The Maz 8 takes on a much different dialect in triode mode with more of a vintage feel and sound. In triode, the volume level

drops back and the tone fattens up making you think you plugged into a lost gem from the 1950s. Kicking on the EQ bypass in triode mode will have you reaching for your slide in no time.

Premier Guitar has [a review of the Maz 8](#)

Yek's Comments:

I really like these amp models, the Maz 8 even more than the 38. Not limited to country. They are capable of putting out vintage medium rock tones too. But they excel at clean tones at the verge of breakup. Loose and bold power amp sound. The ratio Input Drive / Master is important if you to keep the sound tight.

I have KTS-70 speakers (by Austin Speaker Works) in my cabinets, which is a high powered version of the G12H, and these models sound awesome through it.

Pick a G12H IR to use with these models.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	8 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	No
<i>Preamp Tubes</i>	4x 12AX7 1x 12AT7
<i>Power Amp Tubes</i>	1x EL84
<i>Tonestack Location</i>	POST

Mr Z MZ-38 (Maz 38 SR)



Synopsis:	A model of a Dr. Z Maz 38 SR, an 38 watt, Class A amp with four EL84 tube. It is the “quintessential country amp”
Tips:	N/A
Sound Clips:	Dr Z Amps Maz 38 vs. Maz 38 NR Demo DR.Z MAZ 38 DEMO
Recommend Cab/Speaker:	Celestion G12H, Celestion Blue
Manual:	MAZ 18NR/MAZ 38NR Manual

The Maz 38 Sr is an 38 watts amp (head or combo) with four EL84s. Controls: Volume, Treble, Middle, Bass, Cut (model: Hi Cut), Master Volume. The tone controls can be bypassed on the real amp. It has two inputs: Hi and Lo (3 dB less gain). The regular version has Reverb built-in, the NR version doesn't.

Dr. Z:

“Big rockin’ amp with that undeniable Dr. Z sound!”

“The Maz 38 is one of Dr Z’s most enduring designs. It is the perfect combination of sound and power. 4 EL84s with no negative feedback give you a wide pallet to work from. The 38 has enough clean headroom to make for a great pedal platform and gives up the goods for a great drive sound at reasonable levels. The 38 can satisfy many different styles and playing approaches. You are able to dial in mid 60s blackface sounds as well as UK flavored chime. The Dr. Z MAZ-38 is a truly versatile amp for the working or studio musician. Whether your forte’ is Blues, Country, Roots, or Rock, The MAZ 38 Senior will fit the bill.”

Pick a G12H IR to use with these models.



Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>38 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>No</i>
<i>Preamp Tubes</i>	<i>4x 12AX7</i>
	<i>1x 12AT7</i>
<i>Power Amp Tubes</i>	<i>1x EL84</i>
<i>Tonestack Location</i>	<i>POST</i>

ODS-100 (Dumble Overdrive Special)



Synopsis:

6 models of a Dumble Overdrive Special, the most expensive amplifier available. It has a thick, mid-heavy, smooth lead tone and is very touch-sensitive.

Tips:

[1983 100-watt Dumble Overdrive Special Demo](#)

Sound Clips:

[Robben Ford - Live Rockpalast 2007](#)

Recommend Cab/Speaker

Factory Cab: #105 4x12 Rumble EV12L RNR1, #106 4x12 Rumble EV12S M160

A Dumble is THE most expensive amplifier available, no.1 of [Vintage Guitar's list of most valuable guitar amps](#). They were built by Howard "Alexander" Dumble, in L.A. Every Dumble is unique because they were built on special order, specifically designed for the buyer. He retired in the 90s. They say there are less than 300 Dumble amps. [More info about Dumble](#) is available on Wikipedia.

Famous Dumble players include Robben Ford, Larry Carlton, John Mayer, [Carlos Santana](#), Keith Urban, SRV, Eric Johnson, [Joe Bonamassa](#).

There's always a lot of talk on the forums about Robben Ford's Dumble tone. It's an elusive tone, worshipped by a lot of jazz / blues / fusion players. It's a thick, mid-heavy, smooth lead tone, very touch-sensitive. The "note flip" is a certain tonal characteristic attributed to the Dumble and some of its clones. So what's the note flip? Quote: "It sounds KIND of like its starting to feed back, but its not. It flips the note up so that a different harmonic order is heard, or something like that".

That trademark tone is not for everybody: hit a power chord and it may be terrible to your ears. But there's more to Dumble than the Robben Ford sound. We've got several models of Dumble-like amps in our Fractal devices, such as the Bludojai and Fox models.

Cliff owns an actual Dumble, serial #213, with EL34 tubes. It has a HRM circuit. The "ODS-100 HRM" models are based on this amp.

Cliff says:



"They call HRM "Hot Rubber Monkey" but what it really means is "Hot Rod Marshall". The HRM Dumbles have a fixed Marshall tone stack at the output of the lead channel. This gives a little scoop to the mids."

"The ODS-100 Ford 2 model is not based on the HRM model with the HRM tonestack removed. Whether or not the model matches any particular Dumble is unknown as we have not been able to procure a non-HRM Dumble yet. The model is based on schematics that were given to us that supposedly accurately represent Robben Ford's Dumble. Whether or not the schematics are accurate I do not know. The voltage divider at the output of V1B is set to 0.078 which is based on the values that are indicated on the schematic for the set-point of the trimmer. As no two Dumbles are identical it stands to reason that one person's interpretation of the ideal Dumble voicing may not agree with another's. Since V1 is running clean you can get more gain by simply increasing Input Trim. It will have basically the same effect as increasing the trimmer."

The "ODS-100 Ford" models are based on on schematics which supposedly represent Robben Ford's Tan Dumble, serial #102.

Pictures of Ford's settings:



The amp has two inputs: FET and Normal. The FET input has a different impedance. The models are based on the Normal input.

The amp has a Preamp section and an Overdrive section.

The controls on the original amp are: preamp Volume (model: Input Drive), Treble/Middle/Bass (shared preamp tone controls), Overdrive Level and Ratio, Master/Presence (power amp). The clean channel has a bright cap on the Master Volume. This causes the tone to get brighter as the MV is reduced and vice-versa.

There are three switches: "Bright" (adds spark). "Mid" (boosts the mids), "Rock/Jazz". Cliff:

"The Mid switch, sometimes labeled "Deep", shorts out the 390 pF cap in the tone stack (which is in series with a 2 nF cap). All that is left then is the 2 nF cap. With PAB active this lowers the lowcut frequency."

There's also a footswitchable Preamp Bypass (PAB) which bypasses the input tone stack.

The “Ford 1” model is based on the PAB engaged. “Ford 2” model is based on the PAB bypassed. “Ford Md” is based on PAB engaged and Mid-switch engaged. “HRM Mid” is based on the Mid-switch engaged.

The OD’s gain is set through Volume and OD Level, modeled in Input Drive and Overdrive. On all amps like this the first control sets the “sensitivity” and the second one sets the amount of distortion. Cliff:

“Input Drive increases the gain amount as you rotate the knob clockwise. As the gain increases the tone is shifted from a treble and upper mid emphasis, which produces an up front sparkling tone, to a lower mid and bass emphasis, which produces a thick meaty tone.

Overdrive increases the gain amount as you rotate the knob clockwise but with no alteration of the tonal balance.

Different combinations of Input Drive and Overdrive settings will have a dramatic effect on the response of the amplifier and the personality of your instrument. It is easy to get familiar with the action of these controls and you’ll be amazed with your ability to make any guitar sound mellow, fat, soulful or aggressive.”

Models with Input Drive and Overdrive controls always feel “elastic” and spongy, a real joy to play.

It’s a Master Volume amp. This means that the amp’s distortion is created in particular by the preamp tubes, not the power amp. The Master Volume, which works in the power amp section, is still very important to the tone and feel. You have to decide for yourself what setting in the model works for you best. The default setting is a good point to start of course.

The Zendrive is one of the pedals that tries to recreate the Dumble tone. Rooben Ford uses it himself through Fender amps. We’ve got a model of this pedal: Zendrive.

Cliff’s Dumble cabinet with EV speakers has been captured in IRs. Look up the 4x12 Rumble stock cabs.

Cab Pack 17 provides more IRs of this cabinet.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	100 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	Unknown
<i>Power Amp Tubes</i>	EL34
<i>Tonestack Location</i>	PRE (FORD 2) MID (CLEAN) POST (others)

Plexi models (Marshall Plexi)



Synopsis:	Models of 5 different Marshall Plexi amps – “the world’s greatest rock amp”. The amps are: <ul style="list-style-type: none"> • 1969 Super Lead 100w (Model No: 1959)– 3 models (<i>PLEXI 100W HIGH/JUMP/NRML</i>) • 1970 Super Lead 100w (Model No: 1959)– 1 model (<i>PLEXI 100W 1970</i>) • 1972 Lead 50w (Model No: 1987) – 3 models (<i>PLEXI 50W HI1/JUMP/NRML</i>) • 1972 Lead 50w (with 6550 tubes) (Model No: 1987)– 1 model (<i>PLEXI 50W 6550</i>) • 1970’s Lead 50w (modified) (Model No:1987)– 1 model (<i>PLEXI 50W HI 2</i>)
Tips:	<i>“My settings for a "typical" Plexi tone are Bass: 2, Mid: 8, Treble 7.5. Adjust Presence to taste” - Cliff</i>
Sound Clips:	15 Marshall Plexi Amps Comparison – Shootout – Johan Segeborn
Recommend Cab/Speaker:	Celestion G12M Greenback, Celestion G12H Also, Factory Cabs: <ul style="list-style-type: none"> • #054 4x12 PRE-ROLA 55 M160 (ML) • #055 4x12 PRE-ROLA 75 M160 (ML) • #058 4x12 TV Mix C1 • #059 4x12 TV Mix C4 • #103 4x12 Basketweave TV Mix • #131 4x12 TV Mix #1 • #132 4x12 TV Mix #2

The world’s greatest rock amp is a Marshall “Plexi”. These came to the market in the mid ‘60s, when Marshall and Fender started to make loud amps. These amps are referred to as “Plexi” because of the gold Plexiglass front panel, later: gold aluminum. Plexis with 4x12 cabinets gave rise to the "Marshall stack". The Plexi was built for almost 20 years, and was then replaced by the JCM 800. Even today's amp builders still design amps based on the Plexi, such as the Bogner Helios, Friedman Smallbox etc. Its looks are still being copied for all kinds of guitar amps.

Why has the Plexi become such a popular amp? According to **Legendary Tones**:

“Many things. First and most important perhaps is the sense of dynamics and rich harmonics. No large-production amp created before or since the early Marshall plexi series has been able to capture the feel of the player through varying degrees of dynamics and coloration from the (mostly) EL34-based tube circuits of these Marshalls. Call it a lucky accident with the folks at Marshall, but they were able to create amplifiers that really responded well to the guitars that played through them. A wide palette of distortion color that is rich and full and just powerful and timeless in tone is what these amps deliver. It takes some time to really get used to playing a basic amp such as a Marshall plexi. No multi channels or reverb or effects and no master volume controls. Turn up the amp and play – play hard and the amp rewards you with fullness of tone and smooth distortion. Back off your playing and the amp will respond, and move into lighter shades of overdrive. Roll down your guitar volume a touch and you’ve got a warmed up clean sound. There just isn’t anything like the ability to feel a set of power and preamp tubes overdriving together musically.”

The ‘60s Marshall Super Lead was one of the original 100w Plexis, a very desirable amp (#9 on Vintage Guitar's list of valuable amps). It's raw, unrefined, honest and touch sensitive. Hit a chord and feel that explosion of sound in your face and body.

Numerous guitar heroes played them: Pete Townsend, Jimi Hendrix, Jimmy Page, Angus Young, Yngwie Malmsteen, Jeff Beck, Eddie Van Halen.

The Plexi came in various incarnations. Many (but not all) have a JMP logo. We already discussed the reissues: 1959SLP (Super Lead Plexi) and 1987X. But we’ve also got models of the originals:

[PLEXI 100W 1970](#): ‘70 100w SLP, jumpered inputs. Darker, smoother sound than earlier Plexis. **(This is Yek’s favorite...)**

[PLEXI 100W HIGH/JUMP/NRML](#): ‘69 100w. Models: Normal, High (Treble), 4 inputs jumpered

[PLEXI 50W 6550](#): ‘72 50w SLP with 6550 tubes, jumpered inputs.

[PLEXI 50W HI 1/JUMP/NRML](#): ‘72 50w. Models: Normal, High (Treble), 4 inputs jumpered.

[PLEXI 50W HI 2](#): High (Treble) channel of another 50w from the ‘70s. Its second triode stage has a 0.68uF cathode bypass capacitor, added in the early 70’s, for a slightly brighter tone.

In what aspect is a 50w different from 100w? Not a lot in volume (50w is also very loud, the difference is just a couple of dB) and not a lot in gain. The 50w Plexi is a little more aggressive and compressed, while a 100w Plexi sounds more open and bigger (more headroom) with more “kerrang”.

100w have four EL34 tubes (except the 6550), 50w have two. Traditionally they are used with 4x12 cabinets.

They have 4 inputs into 2 channels. Each channel has a high and a low gain input; the low gain input is attenuated by 6 dB.

The rhythm (Normal) channel has a flat response. It's dark and has loads of bass

The lead (Treble) channel has a boosted bright tone, even bordering on painful. A popular “amp mod” of the real Plexi was to clip the bright cap. In the models that’s easy: you turn off Bright (not possible on the Normal models). Or you can adjust the Bright Cap value on the Adv page. Note: turning off Bright will result in noticeable loss of amp gain.

Controls: Volume, Bass, Middle, Treble and Presence controls



Eddie Van Halen had all the controls dimed. And to emulate his VARIAC: set the parameter “AC Voltage (Variac)” on the model’s Advanced page to 75 or so. Legendary Tones:

“A VARIAC (“Variable A/C”) is an unit that changes the voltage coming out of the wall to a lower amount. Like a light dimmer. When a VARIAC is used in conjunction with a SLP, it can act loosely as a Master Volume. You can crank the volume controls up to 10 on the Marshall and then bring down the overall sound using a VARIAC so it can be controlled. There is debate about whether damage can be caused when reducing the amplifier’s voltage. Undoubtedly, the tone will change somewhat as the bias of the power tubes will change corresponding with the reduction of voltage.”

Some people complain that a Plexi can sound fizzy (see Cliff’s notes).

Some players of a real Plexi use patch cables to “jumper” them. This enables them to have the benefits of both channels at once. This is modeled in the “Jumpered” models. These have two Drive controls. Set them at the same position, or keep Normal Drive lower than Treble Drive.

Like the originals, the models don’t have a Master Volume, so keep the Master control in the model dimed. Without a Master Volume control, Plexi amps rely on power amp distortion. To achieve a nice overdriven rock tone, you need to turn up Input Drive a lot. This makes it a very loud amp in real life.

If you like to experiment, turn up Supply Sag in the model for more compression. Note that high Sag settings may cause “ghosts notes”. Exactly like on the real amp at high volume: check the interview with J.D. Simo below. If you don’t want ghosts notes, switch Supply Type to “DC”.

Another tweak is to turn on Boost on the Advanced page, to slam the model’s input stage for more gain.

You can’t discuss Marshall amps and leave out speakers, in particular: greenbacks. Early Marshall amps were used with 4x12” cabinets with Celestion G12M speakers. Greenbacks have a sweet midrange and good bass reproduction. The rear of those speakers was green, and the nickname “greenbacks” was born. They are the reason that 4x12 cabinets were designed: the G12M was only 20 of 25 watts, so you needed four of them to prevent blowing them up.

Another popular speaker in those days (and it still is): the G12H. A 30w Celestion speaker that compresses less than a greenback and has a flatter response. It’s the “Jimi Hendrix” speaker.

You check this page for the stock "greenbacks" cabs, suitable for the Marshall models. Personal favorites among the stock cabs are: 54 and 55 (Cab Pack 20), 58 and 59 (Cab Pack 8), 103 (Cab Pack 2), 131 and 132 (Cab Pack 14, I think...).

Cliff says:



[About the 1970 model]

"Try the Plexi 100W 1970 with Factory Cab 54. Be sure to dial it in like you would in 1970, i.e. turn the Mid, Treble and Presence way up; turn Norm Drive and Bass down a bit."

[About the Normal Channel]

"Don't be afraid to turn the bass all the way down or the treble all the way up. Just like with the actual amp. For example, on the normal channel of a Plexi most people turn the bass way down. Otherwise it's too flubby."

[about the Bright Cap Mod]

"One of the first mods people make to real 'Plexi' Marshalls is to "clip the bright cap". The bright cap varied over the years, supposedly depending on what was lying around in the shop. The model defaults to the bright cap in the circuit. If you turn off Bright you're effectively clipping the bright cap. The bright cap in Marshalls can be very bright and harsh. However, if you crank the Master you might find the extra brightness helps compensate for the power amp getting darker."

"My settings for a "typical" Plexi tone are Bass: 2, Mid: 8, Treble 7.5. Adjust Presence to taste."

[about the fizzy sound]

"It's the way a Plexi is supposed to sound. That's due to the cathode follower. That raspiness helps it cut through in a mix. I own three of them and they are that fizzy."





Amplifier Specifications	1969 Super Lead	1970 Super Lead	1972 Lead	1972 Lead (6550)	1970's Lead
<i>Year of Manufacture</i>	1969	1970	1972	1972	1970's
<i>Circuit</i>	N/A	N/A	N/A	N/A	N/A
<i>Power</i>	100 watts	100 watts	50 watts	50 watts	50 watts
<i>Master Volume?</i>	No	No	No	No	No
<i>Negative Feedback?</i>	Yes	Yes	Yes	Yes	Yes
<i>Preamp Tubes</i>	ECC83	ECC83	ECC83	ECC83	ECC83
<i>Power Amp Tubes</i>	EL34	EL34	EL34	6550	EL34
<i>Tonestack Location</i>	POST	POST	POST	POST	POST

Prince Tone (Fender Princeton)

Prince Tone (Fender Princeton Tweed)



Synopsis:

Model of a Fender Princeton Tweed with an 5F2-A circuit (built from 1955 to 1960)

Tips:

The Tweed Princeton just has Volume and Tone (mapped to Treble) controls

Sound Clips:

[1959 Fender Princeton Tweed - 5F2-A](#)

Recommend Cab/Speaker

1x8 Jensen P8T, Oxford 8EV, Cleveland 8

Prince Tone NR (Fender Princeton Silverface w/o Reverb)



Synopsis:	Model of a Fender Princeton Silverface (without Reverb), AA964 circuit (modelled after early CBS "Silverface" model, pre-CBS design and components).
Tips:	N/A
Sound Clips:	N/A
Recommend Cab/Speaker	1x10 Prince Tone Silver (Cab Pack 1) Factory Cab: #003 1x10 Prince Tone AT4047, #004 1x10 Prince Tone M160

Prince Tone Reverb (Fender Princeton Reverb Blackface)



Synopsis:	A model of a 1966 Princeton Reverb Blackface, AA964 circuit.
Tips:	A Princeton Reverb has an extra gain stage due to the reverb recovery. Hence it has more gain Princeton Reverb, Baja Tele and ES335 – fenderguru.com
Sound Clips:	Princeton Reverb shootout – fenderguru.com
Recommend Cab/Speaker	1x10 Prince Tone Black (Cab Pack 1) Factory Cab: #003 1x10 Prince Tone AT4047, #004 1x10 Prince Tone M160

This article covers the three models based on the following Fender Princeton amps:

- Prince Tone: Tweed Princeton with 5F2 circuit.
- Prince Tone Reverb: '66 Blackface Reverb, AA964 circuit.
- Prince Tone NR: Silverface without reverb, AA964 circuit (modeled after early CBS "Silverface" model, pre-CBS design and components).

The "Reverb" model is my favorite.

The small Princeton amps run on two 6V6 power tubes and are low wattage. They were intended as practice amps for students, but they are also great recording amps. Ryan Adams uses Princeton amps only. Many people play them on the verge on breakup. Interesting fact: the Princeton was the basis for Mesa's Mark I amp.

Cliff says:



"A Princeton Reverb has an extra gain stage due to the reverb recovery. Hence it has more gain."

The Princeton has Volume, Bass and Treble controls, Reverb (on models with reverb), Tremolo controls and two inputs. The Tweed Princeton possibly just has Volume and Tone (mapped to Treble) controls.

Note that the range of most Fender models is 1 to 10, while the model controls range from 0 to 10.

There's a High and a Low input to plug the guitar into. Axe-Fx II models of Fender amps are always based on the High input. To get the equivalent of using the Low input, set Input Trim to 0.500.

Wikipedia:

"The Fender Princeton was a guitar amplifier made by Fender. It was introduced in 1947 and discontinued in 1979. After Fender introduced the Champ Amp in 1948, the Princeton occupied the next to the bottom spot in the Fender line. Fender Princetons (as well as their sister amp the Princeton Reverb) from the early models into the 1970s models are highly valued particularly as recording amplifiers.

The first Princeton, the "Woody" (so called for its uncovered wooden cabinet), was the smallest of the original Fender line of three amplifiers, an incredibly basic 3-watt practice amp with no controls at all, not even a power switch. The first widely-produced Princeton, the 1948 tweed-covered "TV front," used one 6SL7 or 6SC7 dual-triode tube to provide two stages of RC-coupled voltage amplification in the preamplifier section; the power amplifier section used a single cathode-biased 6V6 beam power tetrode configured for Class A operation. The amplifier had a single volume control and a simple low-pass tone control to control treble response. The Princeton circuits up through 5C2 differed from the Fender Champ in having two vice one preamp stage (6SC7 dual-triode vs 6SJ7 pentode) and added the tone control that was absent in the Champs; the 12AX7-based Princeton models 5D2 through 5F2-A were essentially the Champ circuits 5D1 through 5F1 with a tone control and a somewhat larger output transformer. In 1956 the Princeton received a new cabinet roughly half again as tall and wide as the previous Champ-sized "small box."

In 1961, a new Princeton of fundamentally different design was introduced, which instead of being essentially an upgraded Champ was more like a junior Deluxe. This "brownface"

version used a single 7025 dual triode in the preamplifier; a 12AX7 dual triode, one half of which operated a tremolo oscillator and the other half of which served as a split-load phase inverter; and two 6V6GT tubes, which were fixed-biased in Class AB push-pull configuration in the power section. In 1963, the single tone control was replaced with individual bass and treble control knobs, and the base Princeton was joined by the Princeton Reverb. A pull-out "boost" switch was added to the volume pot in 1978.

The Princeton is particularly famous as the basis for Mesa Boogie's Mark I, which is a heavily hotrodded Princeton equipped with modified preamp and a Bassman transformer, allowing it a higher gain output of 60 watts.

In 2006, Fender revived the Princeton name, under "Princeton Recording-Amp" (Pro-tube series) and "Princeton 650" (under Dyna-touch III series). The Princeton recording amplifier is basically a blackface Princeton with built-in overdrive, compressor and power attenuator. Fender also reissued the Princeton Reverb."

Fenderguru.com:

"The Princeton Amp is often misinterpreted as a Princeton Reverb without reverb. Just by looking at the front panel and the knob functions it might seem so. A closer study of the circuit design will reveal that the Princeton Reverb has an extra gain stage (one half of the 12AX7 V3 tube) just after the dry and the wet reverb signals are mixed. This means that there is one extra tube stage that can cause preamp gain and contribute to the tone with sustaining harmonics, compression and sag. Hence, the Princeton-Amp is cleaner than the Princeton-Reverb when the volume is pushed beyond 3-4. The volume knob is less sensitive on the Princeton Amp, and you can play them on volume 7-8 still sounding clean.

"The Princeton Reverb is the smallest blackface/silverface Fender amp with both tremolo and reverb. With a 10 inch speaker run by a 12-15W dual 6V6 amp, it delivers a true "American" Fender tone with punchy, responsive lows together with chimy highs. When it is cranked it tends to sound a bit "brownier" than the bigger two-channel amps, meaning more breakup in the lower frequencies and mid-focused tone. Much of this is due to an unefficient phase inverter circuit design.

Compared to many bigger Fender amps the Princeton Reverb (PR) went through the CBS/silverface periods with very little changes. The rectifier tube was one of the tube and circuit changes where the 5U4GB was replaced by a GZ34. In build quality and component selection (brands of caps, resistors, pots) the silverfaces are not as robust as the blackface models. The glued and stapled baffles on the silverface amps is to us one of the bigger differences between the blackface and silverface amps, or should we say, the cabinets. Still, many people consider the tone of the silverface Princeton Reverb just as good as the blackface. Being almost a blackface amp with a "wrong" faceplate, the large number of silverface models became popular player's amps. Lot of value-for-the-money."

We've got several IRs of 10" Princeton speakers as **stock cabs**.



Amplifier Specifications	Tweed	Blackface	Silverface
<i>Year of Manufacture</i>	1955-60	1966	1968-70
<i>Circuit</i>	5F2-A	AA964	AA964
<i>Power</i>	4 ½ watts	12 watts	12 watts
<i>Master Volume?</i>	No	No	No
<i>Negative Feedback?</i>	Yes	Yes	Yes
<i>Preamp Tubes</i>	1x 12AX7	1x 7025	1x 7025
<i>Power Amp Tubes</i>	1x 6V6	2x 6V6	2x 6V6
<i>Tonestack Location</i>	PRE	MID	MID

PVH 6160 Block (“block letter” EVH 5150 / Peavey 6505)



Synopsis:	Models of the Lead channel of a Peavey EVH 5150, Eddie Van Halen’s first signature amp.
Tips:	N/A
Sound Clips:	Peavey 6505MH vs 5150 Block Letter
Recommend Cab/Speaker	Factory Cab: #049 4x12 PVH6160 (RW) – Sheffield speakers Celestion Vintage 30’s.
Manual	6505 Tube Guitar Amplifier Owner’s Manual

Peavey is a large international manufacturer and supplier of musical equipment, since 1957. It owns Budda and Trace Elliot.

The EVH 5150 was Eddie Van Halen’s first signature amplifier, made in collaboration with Peavey. After the endorsement ended, this amplifier was continued as Peavey’s 6505, which is exactly the same to the EVH 5150.

Why the name? It’s the police code for a crazy person on the loose.

EVH’s signature amps are well presented in Fractal Audio’s model collection:

- 5153: EVH 5150-III
- FAS 6160: modified model of the EVH 5150, less fizzy, with a bouncier feel
- PVH 6160 Block: original “block letter” EVH 5150 (now: Peavey 6505)
- PVH 6160+: Peavey 6505+ (previously: EVH 5150-II)

“Block” refers to the first run of the EVH 5150 which had “EVH” on the right side of the face plate written in block letters. After Electro-Voice complained this was replaced with Eddie’s signature. Around the same time the original Sylvania tubes were replaced with other tubes, supposedly of lesser quality. That’s why “block letter” 5150 amps are held in higher esteem than the later signature ones. There are no other differences between “block letter” and “signature” models. More info is available on [The Wolfgang Registry](#).

Peavey:

"These amplifiers (collectively the 5150 series) and speaker cabinets were the result of a collaboration with Eddie Van Halen. The 5150 has gained popularity with modern hard rock, hardcore punk and metal bands and guitarists due to its large amount of distortion. Jerry Cantrell of Alice in Chains uses this amplifier. While touring with Van Halen, Cantrell asked Eddie Van Halen, "if I could buy [one] off him at the end of the tour with them, and when I got home there were three full stacks and two guitars waiting for me." In 2004, Peavey and Eddie Van Halen parted ways, with Eddie taking the 5150 brand name with him. This resulted in the renaming of the amplifier as the 'Peavey 6505', with slightly updated styling but original circuitry. The 5150 II, which contains an extra preamp tube for more headroom and gain on the Rhythm channel, is the old equivalent to the new 6505+. In 2010, Peavey released a new amplifier for the 6505 line, the 6534+. It is much like the 6505+, but the 6534 has EL34 power tubes instead of the 6L6 power tubes on the standard 6505 amplifiers."

"Primed by up to six 12AX7 preamp tubes and driven by four 6L6GC power tubes, the 6505 delivers the tone and high gain power that modern players demand. Plugging into the high gain input doubles the input gain for devastating overdriven tones. On top of that, you can create a second "lead" tone by engaging the Crunch option on the rhythm channel. In the master section you will find the patented Resonance and Presence controls. Resonance acts as a low-frequency boost, while Presence acts as a high-frequency boost, both allowing you to sculpt your tone. All of this tonal power is housed in an exterior that is built for the rigors of the road."

"Peavey designed and released the Peavey 6505 amplifier as the original 5150, for one specific artist. But in the hands of many other musicians and producers, it quickly took on a life of its own and redefined the sound of modern metal music. Renamed the 6505 in honor of Peavey's fortieth anniversary (1965-2005), that legacy continues today. This is the story of how the 6505 changed the sound of metal forever."

Nineteen ninety-two was a crucial year for guitar-based rock music. Thrash metal had peaked. Hair metal evaporated. Grunge went Platinum. And the guitar amplifier that would soon eviscerate them all was about to inspire a new generation of players and producers to remake metal in its image."

At the headquarters of Peavey Electronics, a team of engineers was putting the finishing touches on the 5150, a new breed of high-gain guitar amplifier outfitted with nine tubes, a hyper-responsive tone stack, and the soon-to-be patented Resonance control—the lynchpin to its groundbreaking tone."

When it finally hit stores that year, the 5150 turned a lot of influential ears around the world, especially hard rock and metal guitarists who were looking for a new sound to complement the extreme new music coming from the underground. Guitarist and budding metal producer Andy Sneap was working in a Nottingham, U.K., guitar store when the first 5150 hit the street."

"I first heard the 5150 when I was actually selling them in a guitar store in my hometown," said Sneap. "I was also working as the 'metal guy' at a local 24-track studio, so that was around the same time I started using the amp in the studio."

"The Peavey 5150 was a huge step forward for high-gain amps to me. Previously we had tried to mod amps or do little tricks with pedals before the preamp. This was the first amp you could plug straight into for that heavier, thrashier tone." [The story continues on the Peavey website.](#)

"Positioned in the amp's master section, Resonance alters the "damping factor" around the speaker's resonant peak—in effect, the amp controls the transient response of the loudspeaker. The higher an amp's damping factor, the more control the amp exerts over the speaker. Resonance reduces the damping factor at lower frequencies, causing dramatic changes to the low-end response and allowing the speaker to recreate the low frequencies with clarity and punch. The patented Peavey Resonance circuit was key to bringing metal's new lows to the masses."

Wikipedia:

"A defining attribute largely responsible for the 5150 sound is the fixed bias. Commonly described analog a car engine and its respective idle, the 5150 bias was set to a lower value (lower engine "idle") which resulted in the Power Tubes running at a lower energy commonly known as "cold-biased." While the electrical theory behind this can easily be examined and theoreticized, the 5150 and its configuration resulted in a more controllable gain setting (ie. having a more forgiving sonic range than similarly "hot-biased" configurations. This engineering choice set the 5150 up to intrinsically sound its best with minimal augmentation. Since tube-amps are still uncontested in music amplification as far as tonal quality is concerned, (see hard-clipping) the optimal setting for tubes are when they are pushed to natural distortion (ie. Increases in "volume" or Bells(dB).) Thus, by allowing such a heavy amount of gain to be applied without sacrificing tonal definition, the amplifier could then be pushed due to the "colder" biasing requiring more current, versus a "hotter" setting from the beginning (volume knob or potentiometer knob "value of 1".)"

MXR has released a "5150" pedal.

The original 5150 head puts out 120 watts through 6L6 tubes. It has two inputs: Normal Gain and High Gain (twice the gain). The model is based on the High Gain input.

Cliff says:



"I have a "holy grail" Block Letter 5150 (supposedly). It sounds way better than most 5150s for some reason which is a good thing for you guys. I think it's partly due to the fact that it has a bias mod so it's biased a bit warmer than a stock version."

The amp has two channels: Rhythm and Lead. The model is based on the Lead channel.

The amp's controls are: Pre Gain (model: Input Drive), Post Gain (model: Master), Low, Mid, High, Resonance (model: Depth), Presence.

[Here's the 5150 manual.](#)

The original 4x12 cabinet came with Sheffield speakers, similar to Celestion G12-H. We've got these as **stock cabs**

from Red Wirez. These days Peavey uses V30 speakers in the 6505 4x12 cabinet.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>120 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>8x 12AX7</i>
<i>Power Amp Tubes</i>	<i>4x 6L6</i>
<i>Tonestack Location</i>	<i>POST</i>

Recto1 and Recto2 (Mesa Dual Rectifier, 2-ch and 3-ch)



Synopsis:	Models of Mesa Dual Rectifier 2 Channel and 3 Channel amplifiers, famous for their 'Nu Metal' tone.
Tips:	<i>Read text for tips</i>
Sound Clips:	<p>MESA/Boogie Multi-Watt Rectifier Ch. 2 VINTAGE – Rock</p> <p>MESA/Boogie Multi-Watt Rectifier Ch. 2 MODERN – Alt Rock</p> <p>MESA/Boogie Multi-Watt Rectifier Ch. 3 MODERN – Punk</p>
Recommend Cab/Speaker:	<p>Celestion Vintage 30</p> <p>Factory Cabs:</p> <ul style="list-style-type: none"> • #043 4x12 Recto SM57 • #044 4x12 Recto M160 • #073 4x12 USA Trad 57-121 (ML) • #074 4x12 USA Trad 906-421 (ML) • #129 4x12 Recto Mix • #130 4x12 Recto New Mix
Manual:	<p>2-channel Dual Recto Manual</p> <p>3-channel Dual Recto Manual</p>

MESA is a very famous amp manufacturer, founded by Randall Smith in '71 in California. Smith started off with the "snakeskin" Mark amp, a modded Fender Princeton with increased gain and sustain, which made Santana famous (or was it the other way around). More.

In the 90s MESA released its Rectifier line of amps ("Recto"). This amp's crushing tone defines an era of rock music, especially Nu metal. Limp Bizkit, Linkin Park, Incubus, Korn, Metallica all played Rectifiers at one time. Now they are not as popular as back then, but bands like Foo Fighters still use them.

"Dual" refers to the possibility to choose between 2 forms of electrical rectification (conversion of power from AC to DC): silicon diodes or vacuum tubes.

(The abundance of features on MESA amps can make them a little difficult to dial in for those who suffer from Option Anxiety, Parameter Paralysis or Agony of Choice.)

“SILICON DIODE: (Hi Power) calls up the silicone diode rectifiers offering more punch, a tighter attack with added brightness and substantially more headroom. This would be the preferred position for loud clean playing or tight rhythmic playing with a high front end Volume setting (high gain.)

VACUUM TUBE: (Normal) position takes a power section walk down memory lane, paying tribute to those vintage gems of yesteryear. In those early days of amplification, the only rectifiers available were tubes. Unbeknownst to their creators, these sweet sounding amplifiers would someday become relics as the demand for higher volumes and more power per package led to the abandonment of the tube rectifier in favor

of the five cent silicone diode's greater efficiency. With this decision went much of the sweetness and soul, and by the mid 70's, many amps were bold, loud, and efficient, and unfortunately...sometimes lacking some of that earlier soul.

The Vacuum Tube position gives you a sweetness of sound and a liquid feel that simply cannot be duplicated in any other way. This position shines for single note lead work in either channel and delivers a warm, breathing clean sound in the Rhythm channel that was previously unavailable in all but the best vintage amps. If you are like most of the players we know, you'll probably end up leaving your RECTIFIER Solo Head, DUAL or TRIPLE set to the Vacuum Tube position all the time.”

There’s also a “Triple Rectifier”, which is identical to the Dual, just louder (150 watts). The name of this model probably indicates the number of channels on this amp. While the original Dual Rectifier had 2 channels, later Dual Rectos also feature 3 channels. Confusing...

- **RECTO1** models: based on MESA “2-channel” Dual Rectifier
- **RECTO2** models: based on MESA “3-channel” Dual Rectifier

The Recto1 model is based on an early 2-channel Dual Recto, revision F, with 6L6 tubes (100 watts).

The Recto2 model is based on a 3-channel Recto, with 6L6 tubes (100 watts). It’s not clear if the original amp is an early 3-channel Recto or the current Multi-Watt Dual Rectifier.

Many guitar players seem to prefer the older 2-channel model to the newer 3-channel one.

We have 3 models of the 2-channel Recto.

- **RECTO1 ORANGE NORMAL:** based on the Orange Vintage channel, set to Variable high gain.
- **RECTO1 ORANGE MODERN:** based on the Orange channel, with Channel Cloning / Channel Style Select set to Modern.
- **RECTO1 RED MODERN:** based on the Red channel, in its regular Modern mode.

Cliff says:



"Real Rectos are bassy/fizzy beasts but that tone works great for certain genres."

“The Recto1 models are based on our Rev. F (IIRC, whatever the desirable ones are). The Recto2 models are based on the latest version.”

On the original amp channel 1 is the Orange Vintage channel, which is softer and sweeter than the other channel. It's switchable between two gain modes: Clean Rhythm (not modeled) and Variable High Gain. It also has an alternate voicing: Modern, which copies (or clones) the Red channel's "modern" voicing. The 2nd channel is the Red Modern channel. It also has an alternate voicing: Vintage (or "Blues"), based on the Orange Vintage channel. This "mode/cloning" business is explained in an extremely confusing way in MESA's manual, with inconsistent terminology and conflicting diagrams.

MESA added a channel 1 to the 3-channel Recto, designed for rhythm tones, from clean to rock. This channel has not been modeled. MESA also added a low-gain "Raw" mode to the Orange and Red channels in the 3-channel Recto, so these channels now have three modes: Vintage, Modern and Raw. The Raw mode has not been modeled. Basically channels 2 and 3 are identical, but the controls on them work differently.

We have 4 models of the 3-channel Recto.

- **RECTO2 ORANGE VINTAGE:** based on Channel 2 Orange, mode: Vintage
- **RECTO2 ORANGE MODERN:** based on Channel 2 Orange, mode: Modern.
- **RECTO2 RED MODERN:** based on Channel 3 Red, mode: Modern.
- **RECTO2 RED VINTAGE:** based Channel 3 Red, mode: Vintage.

Review of the 3-channel Dual Rectifier on Music Radar.

Both amps have these gain and tone controls: Gain (model: Input Drive), Treble, Mid, Bass, Presence, Master. Some of the controls operate differently per channel, in particular Presence.

It's worth the effort to read the tips in the manuals about these controls. There are also suggested settings in there, and entertaining explanations of diodes, triodes and pentodes (which indicate the number of elements within a vacuum tube: 2, 3 or 5), wiring speaker cabinets etc.

- [2-channel Dual Recto Manual](#)
- [3-channel Dual Recto Manual](#)

Cliff says:



"If you are using the Modern modes be very careful with the MV. If you turn it up too high it will flub out really quick. If in doubt reduce the MV. Compensate with the Level control."

The Modern mode in Rectos has no negative feedback so there's a huge bass boost from the speaker impedance. Fortunately you can reduce this by reducing the LF Resonance on the Spkr tab which is something you can't do with the real amp without trying different speakers or cabinet.

If you are using the Modern mode then it's all about the Spkr page. Since that mode has no negative feedback the speaker resonance has a tremendous effect on the sound. Adjust LF Res, Freq and Q to get desired response.

Depth works by varying the negative feedback at low frequencies. There is no NFB in the Modern Red mode so the Depth knob won't do anything. NFB is set to 0.01 just to fool the GUI into displaying Presence instead of HiCut below the left knob.

When you put a Recto into Modern Red mode it opens a relay which removes the NFB.

All passive tone controls interact and all the Axe-Fx tone stacks replicate this behavior. The unique thing about a Dual Recto tone stack is that the Presence control is part of the tone stack. So the Recto tone controls also interact with the presence control.

Another thing with the Modern modes is that the power amp distorts early (again since there is no negative feedback and, therefore, the power amp has a lot more gain). At 9:00 on the Master the power amp is distorting (it's probably a linear taper pot for the ol' "Wow, this amp is loud bro!"). The taper of the Axe-Fx Master Volume is not the same and you have to turn it up higher to get the same amount of virtual power amp distortion.

Another thing is that if you put ANYTHING in the loop of a Recto it changes the tone significantly. Even just a short cable. All the models were made with the loop off. And another thing is that Rectos changed a lot. I have three of them and they all sound completely different. One of them has a different value Gain pot than the others. One of them has a different value bright cap than the one with the same Gain pot. Since the gain pot and bright cap interact this makes a HUGE difference. Experiment with the Bright Cap value."



Some players deal with the bass overload in the Modern modes by adding a Drive pedal before the amp, such as a TS. This has a similar effect as engaging the Cut switch or increasing Low Cut on the Adv page.

Other amp switches: Rectifier Select, Channel Style Select/Channel Cloning, Bias Select, Power: Spongy or Bold.

Alternatives to the Recto tones: try the SLO model. Also, the **FAS Modern III** is similar to a Recto but with tighter bass and a cathode-biased power amp.

MESA's Rectifier speaker cabinet has V30 speakers. Search the stock cabs for 4x12 Recto cabs.

Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>100 watt</i>
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes (Except Modern Mode)
<i>Preamp Tubes</i>	5x 12AX7
<i>Power Amp Tubes</i>	4x 6L6GC
<i>Tonestack Location</i>	POST

Ruby Rocket (Paul Ruby Rocket)



Synopsis:	2 models of a Ruby Rocket amp, a Trainwreck Rocket clone which itself is a 'better' Vox AC30
Tips:	<i>"I especially like the slightly overdriven tone of the models. Volume around 3.50, Bass at 3.50, Treble around 6.50 and Hi Cut up to 5 (applies to both models)" - Yek</i>
Sound Clips:	N/A
Recommend Cab/Speaker:	Celestion G12M Greenback

Trainwreck Circuits amps are the most expensive and sought-after guitar amplifiers, after Dumble. These boutique amps with their remarkable wooden enclosures were designed by (the late) Ken Fischer.

Paul Ruby hand-builds amplifiers which resemble these Trainwreck amps. He is – in his own words - an amp hobbist, a weekend warrior. He builds just a small number of amps each year.

His Rocket amp is based on the Trainwreck Rocket, the top Trainwreck model. Some say that the Trainwreck Rocket is the best-sounding (Trainwreck) amp ever made.

Powered by EL84 tubes, the Trainwreck Rocket and Ruby Rocket sound like a Vox AC-30 Top Boost. And like the Morgan and Matchless amps, many people think that the Ruby is a "better" version of that British amp.

The Ruby Rocket is a simple amp: Volume

Cliff says:



"The Ruby Rocket is not the same as an actual Trainwreck Rocket. There are topology differences and the amps don't sound the same."

(model: Input Drive), Bass, Treble, Cut (model: Hi Cut). Unlike the Trainwreck Rocket, there's also a Bright switch which adds gain.

Because there's no Master the Volume control not only sets the volume level but gain as well.

We have two models, one with Bright engaged, and one without.

Yek's comments

I especially like the slightly overdriven tone of the models. Volume around 3.50, Bass at 3.50, Treble around 6.50 and Hi Cut up to 5 (applies to both models).

I prefer to use the model with IRs of G12M (greenback) speakers, just like old Vox amps. The amp is bright enough by itself, no AlNiCo needed.

Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>Unknown</i>
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	No
<i>Preamp Tubes</i>	Unknown
<i>Power Amp Tubes</i>	EL84
<i>Tonestack Location</i>	POST

Shiver (Bogner Shiva 20th Ann.)



Synopsis:	Models of the Clean and Lead channels of a Bogner Shiver 20 th Anniversary amp, known for its warm clean tone and woody, thick Bogner gain sound.
Tips:	<i>See Yek's comments</i>
Sound Clips:	<p>Tom Anderson Drop Top Guitar with Bogner Shiva 20th Anniversary Amplifier Shiva 20th Anniversary Head – BadAxe Boutique</p>
Recommend Cab/Speaker:	Celestion Classic Lead 80's Factory Cab: #012 1x12 Shiver 121 (BG)
Manual:	Shiva User Manual

Bogner is a guitar amplifier manufacturing company, founded by the very entertaining and eccentric Reinhold Bogner.

Like the **Ecstasy**, the two-channel Shiva has been a very popular part of Bogner's line-up for a long time, in various incarnations. The Shiva is known for its warm clean tone, combined with the signature "woody" and thick Bogner gain sound. It's simply a wonderful amp, once again one of my favorites.

Note: it'd be rather logical to rename this model into Euro Shiver, in line with the other models based on Bogner amps.

We've got models of the 20th Anniversary edition of the Shiva, which has KT88 tubes, rated at 90 watts. The KT88-version has less gain than the EL34-equipped Shiva model.

Wikipedia:

"Historically, the KT88 has been far more popular with high fidelity stereo manufacturers than guitar amplifier builders, given its characteristics of high-power and low-distortion. Due to these characteristics, it is regularly used to replace 6550 tubes by end users seeking a guitar amplifier tone with less distortion."

Bogner:

"Years of Bogner designs distilled down to its purest form, is the SHIVA. Featuring two highly evolved channels, capable of clean tones that shimmer like icicles in the deep of winter moonlight and tube saturation that is so rich and powerful it should be illegal in the free world. The Shiva is a masterful study of refined elegance, providing the synergy of one's heart and hands.

20th Anniversary Shiva - comes with a pair of KT88's and the amp is rated at 90 watts. The clean channel has an entire new boost circuit. Unlike the tone stack bypass boost on the other Shiva model this boost has a separate gain stage which brings this channel into Plexi territory when boost is engaged. The tone controls stay in the circuit and affect the sound.

The gain channel features higher gain and a slightly more refined type of gain. Two push button switches have been added to further shape the tone. The Shift button will as it is labeled shift the EQ., pushed in you will have a more Fender or type tone, less mids softer feel. One could say it will please the Dumble favoring players. The Mode button if pushed in will give a more aggressive in your face feel.

A power amp dampening control was added located on the back panel. This control labeled Excursion is great to dial in a full sound at low volumes or adjust the right balanced bass to a cabinet. Be careful as this can add massive bottom to your sound which might overpower other frequencies and cover up an overall balanced sound. Best to keep low at higher volumes."

Cliff says:



"The original Shiva models were based on a borrowed amp. We now have a 20th Anniversary Shiva (with KT88s) and the new models are based on that amp. We did notice that this amp has less gain than the one used originally but the model is faithful to the amp."

"People think Bogners are dark but they really aren't. The reason they seem that way is the pot tapers. Most people assume knobs should be set somewhere around noon. If you do this on a Bogner it's like turning the treble way down on a Marshall. Close your eyes and adjust the tone controls with your ears. Don't be afraid to turn them way up or way down."

"Human nature is to put the knobs near noon. We are reticent to deviate much from noon. Amp designers exploit this and use different tapers to change the sound of their amps WITH THE KNOBS AT NOON. A prime example are Bogner amps. Everyone says "Bogner amps are dark". No they aren't. But he uses a Log10A taper for the treble pot. It's a standard Marshall tone stack. Usually a linear taper pot is used for the treble. The treble knob at 5.0 (noon) on a Bogner is equivalent to the treble knob at 1.0 on a Marshall. People put the knob at 5.0 and go "wow, this amp is dark". No it isn't. If you turned the treble up to 8 or 9 it would sound a lot like a Plexi but humans are reticent to turn the knobs to extremes. Amp designers know this and exploit it to give their amps a "signature sound"."

Fractal Audio has modelled the Clean and the Lead channels.

There are Volume, Bass and Treble controls on the Clean channel. The Lead channel has Gain, Bass, Middle and Treble controls. Both channels have a Bright switch, which is less effective the higher Volume/Drive is set. Shared controls are: Presence, Master, Excursion (model: Depth). The "Boost" and "Shift" controls on the original amp are not modeled (use Input Trim as Boost).



Yek's comments:

The Clean channel stays clean until very high Volume settings. It's a beefy clean tone, especially when turning up the Master (which I always do).

Although quite dark at default settings, the right combination of Treble, Bright and Presence results in shimmering cleans.

To achieve a crunchy overdrive on the clean channel, turn up Volume to 8 or higher. It sounds really good when overdriven. This applies to the model too.

The Lead channel offers the trademark Bogner thick tone, with less gain than the Ecstasy. Saturation only happens in the upper region of the gain control. This makes it a great amp for classic rock tones. Metal ain't its thing. At default settings the Lead channel is also dark, but it works well in a band context. Don't hesitate to turn up Presence to add bite and clarity to the sound.

Audio clips of the Shiva are available on the Bogner website.

Premier guitar has a **review of the Shiva..**

The Shiva's accompanying cabinets are a 1x12, 2x10 or 2x12 with Classic 80 speakers. We've IRs of @austinbuddy 's Shiva cabinet: stock cab 12. And it's a great IR. In fact, I also like this cab a lot with the Euro (Ecstasy) models.

More IRs of this cab are available in **Cab Pack 17**.

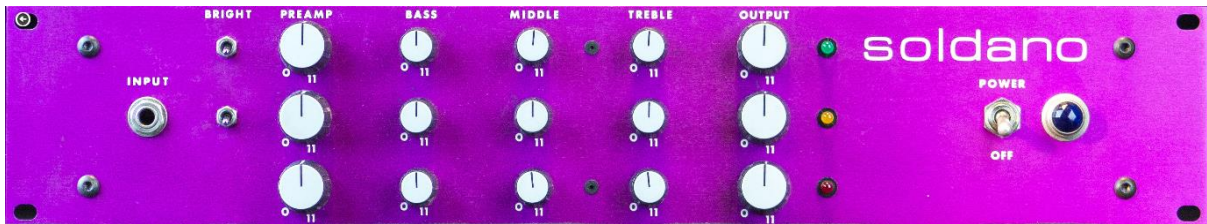


Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>90 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>12AX7</i>
<i>Power Amp Tubes</i>	<i>2x KT88</i>
<i>Tonestack Location</i>	<i>MID (Clean) POST (Lead)</i>

SOLO 88 and SOLO X99 (Soldano X88R and X99)

X88R:



X99:



Synopsis:

Models of the Clean, Lead and Rhythm channels of a Soldano X88R preamp, and the Clean and Lead channels of a Soldano X99 preamp.

Tips:

N/A

Sound Clips:

[Soldano Preamp x88 Fender Telecaster](#)

[Soldano X88R Guitar Preamp with Celestion G12t-75, G12H-30, Vintage 30](#)

Recommend Cab/Speaker

12" Eminence V12

Factory Cabs: #045 4x12 Solo V12 (RW) and #046 4x12 Solo S12X (RW)

Mike Soldano doesn't lack self-confidence: "We make the best guitar amplifiers in the world." He also believes that tube rectifiers are no good, and that Class A/B is the only way to design any amp.

Famous Soldano players include Eric Clapton, EVH, Steve Vai, Warren Hayes, Ian Thornley (Big Wreck), Prince, Steve Lukather, Gary Moore and Mark Knopfler.

The most famous Soldano amp is the SLO-100 head (described in the previous write-up). The X88R and X99 are preamps which provide part of the SLO-100 sound but are different at the same time. The models use the SLO-100's power amp model.

The X88R and X99 are easily recognizable by their purple colour. The preamps have Clean, Rhythm and Lead channels, which all have been modelled, except the Rhythm channel on the X99.

The controls are Preamp (gain), Bass, Middle, Treble, Volume, and a Bright switch on the Clean and Rhythm channels.

According to Bob Bradshaw, the X88R was the result of collaboration between Soldano and Bob Bradshaw, and this was the basis for the CAA 3+.

Bob Bradshaw:

"From 1985 to 1990 I toured with Steve Lukather on all the Toto shows. We were taking a lot of equipment to Europe and it got to the point where we needed to scale down and change

things a lot. I go well: here we are with this big rack full of amplifiers that we're basically using as preamps. It was a Mesa-Boogie for a clean sound, a Marshall for a crunch sound and a Soldano for a solo sound. We were just using the preamp section of those amps, so I thought, why can't we make a three channel preamp with clean, crunch and overdrive and we'll use power amps that were using anyway. So I went to Mike Soldano and explained him the situation that we needed to scale our rig down to take overseas. Hence the Soldano X-88 R. Which was my concept, Soldano came up with the circuitry and everything, but it was my thing. The amp came out and it was a big hit. \$1800 a piece. Soldano sells em to me for \$1700. I only make a \$100 for each amp I sell myself, it's like, com'on you now. But I own the prototype. In the meantime I start working with John Suhr. John is building great guitars at the same time, he's interested in doing amp work. John was on the eastcoast. The Soldano preamp needed help, it always needed an extra EQ to breathe some life into it. It was a great basic thing, but it needed some top, some bottom. There were things about it that we wanted to change. Mike Soldano was kind of reluctant to make any of these big changes, he had something going and was happy the way things went. (...)"

The X99 is similar to the X88R, with the addition of MIDI-controlled motorized pots, designed by Caswell.

Caswell Amplificaton:

"Tim teamed up with Soldano Custom Amplification - a California-based amp

manufacturer - to design and produce a preamp: the Soldano/Caswell X99 MIDI Motorized Preamp, featuring Tim's innovative system of real-time-controllable motorized knobs."

I wasn't able to find any of the manuals online.

Soldano uses 12" Eminence V12 speakers in its cabinets. We've got those as stock cabs: 4x12 Solo V12 (RW).

Cliff says:



"Solo 88 RHY is based on an X88R since the rhythm channel of an X99 is identical to an SLO 100. FWIW, I have two X88Rs and the model agrees with both."

"Power amp [in the models]: same as SLO100."

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>N/A</i>
<i>Master Volume?</i>	<i>N/A</i>
<i>Negative Feedback?</i>	<i>N/A</i>
<i>Preamp Tubes</i>	<i>Unknown</i>
<i>Power Amp Tubes</i>	<i>N/A</i>
<i>Tonestack Location</i>	<i>N/A</i>

SOLO 100 (Soldano SLO-100)



Synopsis:	Models of the Clean, Lead and Rhythm channels of a Soldano SLO-100 amplifier, famously used by Gary Moore, Eric Clapton and Mark Knopfler.
Tips:	<i>“Personally I like to run the Master high (7) on the Lead model, keep Input Drive real low (2) and increase the mids. This results in a very meaty solid rock tone, that makes high push-ups really thick and come through.” - Yek</i> Soldano SLO 100 Crunch and Lead
Sound Clips:	Soldano SLO 100 amp demo
Recommend Cab/Speaker	12" Eminence V12 Factory Cabs: #045 4x12 Solo V12 (RW) and #046 4x12 Solo S12X (RW)
Manual:	SUPER LEAD OVERDRIVE 100-WATT GUITAR (SLO-100) AMPLIFIER MANUAL

Mike Soldano doesn't lack self-confidence: "We make the best guitar amplifiers in the world." He also believes that tube rectifiers are no good, and that Class A/B is the only way to design any amp.

Famous Soldano players include Eric Clapton, EVH, Steve Vai, Warren Hayes, Ian Thornley (Big Wreck), Prince, Steve Lukather, Gary Moore and Mark Knopfler.

The most famous Soldano amp is the SLO-100 head (Super Lead Overdrive). A SLO has a black metal grill at the front. It comes with 6L6 tubes, has a single input and is rated 100 watts.

Although often linked to hard rock and metal, it's also being used as a blues amp.

Soldano:

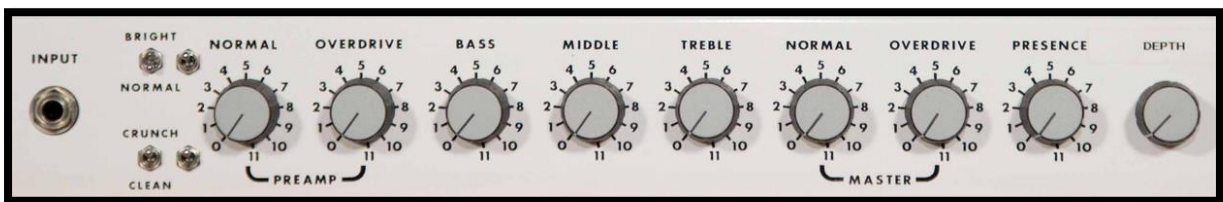
“The 100 Watt SUPER LEAD OVERDRIVE sets not only the standard, but the benchmark, for high-gain tube amp overdrive & distortion.

While setting that standard (we've been told) we created a modern classic. Unchanged in over twenty years, the SLO's remarkable sound, award-winning innovative design, and flawless construction make it simply the finest amplifier money can buy. And the SLO's tone, construction, and reliability have made it the heart and soul of many of Rock, Metal, and Electric Blues' most creative and celebrated players. It's because of this that you've been

hearing the SLO 100 on your favorite records since 1987. From Clapton to Van Halen, from Warren DeMartini to Lou Reed – and from you to Mike Soldano himself, the SLO is simply the player's choice.

The SLO-100 offers two channels, Normal and Overdrive, each with independent Preamp gain and Master Volume controls. A footswitch is also provided for effortless noise-free switching between the two channels. The Normal channel has a Bright switch and a Clean / Crunch gain selector switch. Standard features include a tube-buffered effects loop and a slave output. Bass, Middle, Treble, and Presence controls provide the tone shaping."

It's a two-channel head: Normal and Overdrive. The Normal channel can be switched between Clean and Crunch. All three sounds have all been modelled. To be honest, I never bothered much with the clean and crunch sounds from the Normal channel.



The controls are Preamp Normal and Preamp Overdrive (gain), Bass, Middle, Treble, Master Normal, Master Overdrive, Presence and a Bright switch on the Normal channel.

Yek's comments:

Personally I like to run the Master high (7) on the Lead model, keep Input Drive real low (2) and increase the mids. This results in a very meaty solid rock tone, that makes high push-ups really thick and come through.

There are some popular mods of the real amp. The "Depth" mod increases depth for low-tuned guitars. You can emulate this by increasing Depth in the model. The "Warren Hayes Mod" prevents the amp from getting too bright and harsh at low gain levels. You can emulate this by disabling the Bright switch in the model, but at high MV levels you don't even have to do this.

Cliff says:



"Many people find SLOs too bright. The "Warren Haynes" mod is a popular mod to reduce the brightness."

(talking about the Depth control):

"Mine doesn't have the depth mod but I used the values from the schematic I have and I believe the schematic is correct."

Carol-AnnAmps: "The secret of the SLO is the arch enemy of most you guys, volume. It has to be run hard with less preamp gain. It transforms into a gorgeous amp like that. It was designed as a large stage/stadium amp. Cue Warren Haynes. Running one at your local pub is going to give results that are very thin and buzzy. I would imagine the best tones from the axe model will probably be achieved by increasing the master and backing off the preamp, just like the real deal."

Cliff: "Yup, this is why the MV defaults to a higher setting than other MV amps."

"The SLO-100 is the loudest amp I've ever used. It feels like there's a small nuclear explosion going

off inside when ever you hit a power chord. It's a wicked amp but not something I would recommend for anything but large gigs. If you like the SLO-100 model you might want to try the Recto models too. It's not widely known but the Rectifier preamp is a derivative of the SLO-100. Some minor changes but the basic topology is identical."

"I have a really good SLO-100. An original black faceplate version. Pristine condition. That amp was one of the primary amps used in the G2 modeling development. It was by studying that and a really nice JCM-800 that I finally figured out the secret to cathode follower."

"Those amps are all designed to get their character from power amp distortion. If you don't push the power amp all you are hearing is the preamp which is voiced to be trebly. The power amp then compresses the highs and the sound gets fatter."

"SLOs are brittle at low volumes. When you crank them up it smooths out. The problems is at cranked volumes they can kill small animals."

"The key to an SLO100 is to run the MV high so that the mids thicken up. Otherwise it's a shrill mess. In certain contexts with the right IR it can be a cool sound."

"Note that the knobs on '5' on the Axe-Fx correspond to '6' on an SLO because they go to 11. 'Noon' on an SLO isn't actually the knobs at half-way. The range of the knobs is like 8:00 to 6:00 as opposed to 7:00 to 5:00. They're biased clockwise."

"Another caveat when comparing amps: many times the knobs aren't "centered". IOW if you put the Treble knob at noon it isn't actually at 50%. You can see this by turning the knob all the way down and all the way up. It may not be symmetrical. This happens when the pots don't have a flat spot and/or the pot is rotated within the mounting hole. Or in the case of an SLO100 it is intentional. On an SLO100 all the way down is around 8:00 and all the way up is 6:00 so 50% is around 1:00 not noon."

Soldano uses 12" Eminence V12 speakers in its cabinets. We've got those as stock cabs: 4x12 Solo V12 (RW).

Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>100 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>5x 12AX7</i>
<i>Power Amp Tubes</i>	<i>4x 6L6GC</i>
<i>Tonestack Location</i>	<i>POST</i>

Spawn Nitrous (Splawn Nitro)



Synopsis:	Models of the Rhythm and Lead channels of a Splawn Nitro with KT88 tubes, and amp voiced for a bigger low end and low mids
Tips:	Generally speaking, the tone of Splawn amps is somewhat scooped (thin), which is what some players like and some don't.
Sound Clips:	Splawn Amplifier Nitro EL34 Head at SoundsGreatMusic.com Splawn Nitro HD demo (with KT88's)
Recommend Cab/Speaker	Celestion G12M, Celestion G12-65 or Celestion V30
Manual:	Nitro & Super Comp Owners Manual

Splawn is into the Marshall-modding business and builds their own hot-rodded versions of those. The Quickrod is probably their most famous amp. Compared to the Quickrod, the Nitro has more saturation and is voiced for a bigger low end and low mids, according to **Splawn**. Think Recto, EVH, Peavey etc.

The Nitro is a 100 watts amp. They usually come with EL34 or 6L6 power tubes, but the modelled amp is equipped with KT88 tubes.

The Nitro has two channels: Clean (not modelled) and Overdrive. The Overdrive channel has two modes: OD1 (rhythm) and OD2 (Lead), which both have been modelled.

The models used to suffer from an overload of bass, but they are much more manageable in their Quantum-incarnations. Generally speaking, the tone of Splawn amps is somewhat scooped (thin), which is what some players like and some don't.



Controls on the amp: Resonance (model: Depth), Presence, Bass, Middle, Treble, Master, Gain.

Splawn cabinets have G12M, G12-65 or V30 speakers. Take your pick from the stock cabs.

Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>100 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>Unknown</i>
<i>Power Amp Tubes</i>	<i>KT88</i>
<i>Tonestack Location</i>	<i>POST</i>

Spawn Rod (Splawn Quickrod)



Synopsis:	6 models of the Overdrive channel of a Splawn Quickrod, a modded Marshall sounding amp.
Tips:	N/A
Sound Clips:	Splawn Quick Rod EL34 Head review at Soundsgreatmusic.com Splawn Quickrod
Recommend Cab/Speaker	Celestion G12-65 Creambacks, Celestion Vintage 30, Celestion G12M
Manual:	Quick Rod & Pro Mod Owners Manual

Splawn is into the Marshall-modding business and builds its own hot-rodded versions of those. The Quickrod is probably their most famous model, considered by some as a "brown sound" amp.

Splawn:

"Signature Splawn tone with lots of bite, strong mids and 3 gear versatility."

Some people find the tone of Splawn amps in general to be somewhat scooped (thin), which can be compensated by choosing an appropriate cabinet / IR (see below). I think the sound of the models is okay (and leave the controls pretty much at default), but they don't stand out and lack some character of their own IMHO.

The Quickrod is a 100 watts amp with EL34 tubes. It has two channels: Clean (not modeled) and Overdrive.

The Overdrive channel has three modes or "gears". The 1st gear is designed to sound like a Plexi, the 2nd gear is a hot-rodded JCM 800 and the 3rd gear is a super hot-rodded JCM 800). All three gears have been modeled: the OD1 models. The OD2 models are the same, with an additional gain boost.

Controls on the amp: Presence, Bass, Middle, Treble, Master, Gain, (...).



Splawn cabinets have G12M, V30, or G12-65 Creamback speakers. The G12-65 speakers are said to be the best-sounding ones. Possibly because they're more mid-focused than the others.

Cliff says:



"The reason Splawn's sound weird is because the tone stack is plate driven. You lose the cathode follower compression and the high source resistance of the plate alters the tone stack frequency response. The plate driven tone stack in the Splawn reduces the highs considerably. You can see this is you run Tone Stack Calculator for the Marshall tone stack and increase the source resistance."

"OD2 switches in a cathode bypass cap which increases the gain of that stage."

"The Quick Rod is a bit odd in that the Drive pot is linear taper. Most amps use an audio taper pot. This means that at noon the amp is nearly at full gain. Not sure why they did it that way but it is what it is."

Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>100 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>Unknown</i>
<i>Power Amp Tubes</i>	<i>EL34</i>
<i>Tonestack Location</i>	<i>POST</i>

Suhr Badger 18 and 30

Suhr Badger 18



Synopsis:

Model of a Suhr Badger 18, an 18 watt EL84 powered amp that is versatile, capable of achieving clear cleans to saturated leads.

Tips:

The Badger 18 has more 'character' than the Badger 30

Sound Clips:

[Suhr Badger 18 amplifier \(Pete Thorn\)](#)
[Suhr Badger 18 Tube Amp Head demo](#)

Recommend Cab/Speaker

WGS Veteran 30, Celestion Vintage 30

Manual:

[Badger 18 User Manual](#)

Suhr Badger 30



Synopsis:	Model of a Suhr Badger 30, a 30 watt EL34 powered amp that is versatile, capable of achieving clear cleans to saturated leads.
Tips:	The 30 watt has more clean headroom and is more 'versatile'. Suhr Badger 30 amp (Pete Thorn)
Sound Clips:	SUHR BADGER 30™ - MELODIC RHYTHM SUHR BADGER 30™ - FEATURING CLASSIC ANTIQUE
Recommend Cab/Speaker	WGS Veteran 30, Celestion Vintage 30

John Suhr, after working with Bob Bradshaw and for Fender, started his own company JS Technologies. Suhr builds high-end guitars, amps, pedals, pickups etc. He also sells his version of the OD-100, designed when he worked with Bradshaw. **More information about Suhr.**

Suhr builds a line of portable amps under the name of Badger. Used by Pete Thorn, Guthrie Govan and others. Two of these have been modelled by Fractal Audio: the 18 watts and the 30 watts versions.

Suhr:

“This 18-watt, all-tube amplifier offers a wide range of classic guitar sounds. Driven by a cathode biased EL-84 power section and features a 5Y3GT tube rectifier, the Badger 18 delivers a variety of warm, sparkling cleans and rich, dynamic overdrive tones.”

“This 30-watt, all-tube amplifier offers a wide range of classic guitar sounds. Driven by a cathode biased EL-34 power section and features a solid state rectifier, the Badger 30 delivers a variety of full, punchy cleans and rich, tight dynamic overdrive tones.”

These are wonderful and versatile amps, capable of achieving clear cleans to saturated leads. The 18 watts version has the most character going on IMHO. The 30 watts model is more versatile.

Cliff says:



"The Badgers were MIMIC'd with power scaling at full. The knobs are a bit confusing on a Badger. The knob closest to the input jack is labeled "Gain". It is equivalent to the Drive knob in the Axe. The knob labeled Drive is the Master Volume."

18 watts amps are mostly used for crunchy tones at low volume levels. If you want a clean tone from it, crank the Master and use little gain. The 30 watts model has much more clean headroom.

Review in Premier Guitar

Controls on both amps: Gain (Input Drive), Drive (Master), Bass, Middle, Treble, and Power Scaling (not modelled).

Suhr manual:

“Bass, Middle and Treble tone controls for each channel are post-gain and passive cut-style. We recommend starting around 5 and dialing to taste. As you increase Gain and/or Drive we recommend dialing back the Bass to retain clarity and definition in the low-end.”

These amps/models, especially the 18 watts one, have a lot of bass, because of the lack of negative feedback. Dial down Bass, or use the Cut switch. The Hi-Cut control in the model is non-functional.

Go to the [website](#) for sample settings.

The Badger combos have a single WGS Veteran 30 speaker, similar to a Celestion V30. I use the 2x12 SV Legend. Alt. try something like the Scumtone cab, or the Fuzzbomb.



Amplifier Specifications	Badger 18	Badger 30
Year of Manufacture	Unknown	Unknown
Circuit	N/A	N/A
Power	18 watts	30 watts
Master Volume?	Yes (marked Drive)	Yes (marked Drive)
Negative Feedback?	No	No
Preamp Tubes	3x 12AX7	3x 12AX7
Power Amp Tubes	2x EL84	2x EL34
Tonestack Location	POST	POST

Super Verb ('64 Fender blackface Super Reverb, AB763)



Synopsis:	Models of the normal and vibrato channel of a 1964 Fender Super Reverb amp, popular for the SRV sound
Tips:	The Vibrato channel has a 'Diaz' mod to give it more gain.
Sound Clips:	Fender Super Reverb (Full Volume) fenderguru.com's tricks to the holy grail of Fender tone
Recommend Cab/Speaker	Factory cab: #100 4x10 Super Verb Mix, #089 2x10 Super Tweed Mix Also Cab Pack 1: 4x10 Super Verb (1967 Super Reverb)

Another legendary Fender amp, with the famous AB763 circuit (same as Bandmaster and Deluxe Reverb). This time it's a '64 blackface Fender Super Reverb. We already discussed a Fender Super, the brownface 6G4. The Super Reverb has its own thing going. It sounds big, with lots of bass and treble. Super Reverbs are sought-after to achieve the SRV sound.

The Blackface Fenders were produced between 1964 and 1967. Pre-CBS blackface Fenders are in high demand, and not as expensive as the Tweed and Brownfaces. The blackface name originates from the black tolex and controls panel. [More information.](#)

Fender's description of their reissues of the '65 Super Reverb:

This faithful recreation of the legendary Blackface Super Reverb of 1963-1968 is a must-have for vintage enthusiasts and Stratocaster guitar slingers, but players of all styles enjoy its shimmering tone. The 45-watt Super Reverb's medium output and stage-filling sound make it the perfect amp to crank up for club gigs or the concert stage. Features include dual 6L6 Groove Tubes output tubes, one 5AR4 rectifier tube, four 12AX7 preamp tubes, two 12AT7 tubes, four 10" 8-ohm Jensen P10R speakers with alnico magnets, dual channels (normal and vibrato), tube-driven Fender reverb, tube vibrato, two-button footswitch for reverb and vibrato on-off, black textured vinyl covering with silver grille cloth, and tilt-back leg."

Fenderguru.com:

The AB763 Super Reverb is a very popular Fender amp due to the huge tone, robustness and the pure tone from the traditional blackface AB763 amp design. The AB763 design is also to be found in some silverface amps between 1967 and 1969. The later silverface circuits were changed further by CBS to become cleaner, harder and thinner sounding, specially if one compares amps at the same volume and EQ setting. If you're into sparkling clean tones, a silverface can do the job just as well as a blackface amp. The blackfaces have more growl and a distorted, cranked tone. It is heavy to carry with the 4x10" speakers and massive iron transformers. The height also makes it difficult to carry, making you sweat when hauling it between gigs. It's a big sounding amp with a potential for being very loud and bassy given the right (wrong) speakers. The nature of the 4x10" speaker configuration is a directional tone with screaming treble right forwards and backwards and unfortunately little spread. A lot of deep bass is produced by the big cabinet while the important mids are fairly low, a scooped tone. Many players are stupid and increase the volume to compensate for the lack of spread and mids. This will introduce even more bass and sharp treble. Playing the Super Reverb is not supposed to be easy... Despite all the difficulty with this amp there will occasionally be gigs, perhaps outdoors or at a big stage, where the amp won't hurt anyone in a radius of 3 meters. You are allowed to turn the volume beyond 4 where the amp comes alive. We remember these occasions as our happiest musical moments. The notes bounce off our strings and we are musically and physically connected with the amp just using the pick attack and guitar volume to roll back and switch between rhythm and solo. Perhaps a transparent boost pedal to take us into David Gilmour land with sustain, harmonics and a creamy tone. You can physically feel the dynamic response from one of the best vintage Fender amps of them all. But only if you know how to tame this beast.

Fender sold these amps with several speakers. The first AA763 models in 1964-65 had Jensen C10r. Then there were CTS ceramics and alnicos as well as Oxford 10L6 in the blackface AB763 amps. In the silverface amps Fender continued with Oxford and CTS but also used Utah, Rola and Eminence. This is one important reason why two Super Reverbs can sound very different. In our opinion the Super Reverbs with Jensen and CTS are valuable as both collectors and players' amps today. These speakers perform very well and one does not need to upgrade to modern, efficient speakers like for many other vintage speakers. The CTS

alnicos are also very popular speakers even if they are little efficient. During the years the Alnico magnets get weaker too. The CTS Alnico require you to increase the volume a lot and you'll see players that dial in their amps at 6 or 7 on the volume knob. With ceramic speakers this is enormously loud. With vintage Alnico speakers you will get more breakup from the amp due to their low efficiency. On the other hand, the CTS ceramics are known for their power, efficiency and full low end. They also have lots of sparkle and treble and are very good speakers in our opinion."

Wikipedia:

"The Super Reverb is commonly used by blues guitarists due to its ability to deliver loud, warm tube distortion through its four 10" speakers.[3] It is also known as having a scooped mids tonality, meaning that there is less midrange and an emphasis of sparkly treble and full, round bass frequencies."



Cliff says:



"A Pro Reverb is basically identical to a Super Reverb except for the speakers (and faceplate)."

"The Blackface Pro Reverb, model AA165, was virtually identical to the AB763 Super Reverb except for the speakers and tone stacks. If you use the Super Verb model and set the Tone Stack type to Blackface you'll basically have a Pro Reverb. Set the Mid control fairly high to emulate the fixed 6.8K mid resistor. I'd say around 7 or 8."

"I modeled the Super with V1 pulled as most people pull V1 so the amp has more grunt. Turn down the MV to make it cleaner."

"The Super Reverb model is "Diaz Modded". IOW, I pulled V1 (see below). This gives the amp a lot more gain so it's not surprising you're getting breakup at around 1.5. You can un-mod the model by turning down the MV Trim to around 0.5."

By the way, the Super Reverb is very similar to a Pro Reverb.

The amp has 6L6 tubes, is 40 watts, has low and high inputs and a Normal and a Vibrato channel. We've got models of both channels.

Fractal Audio models of Fender amps are always based on the input with the highest input level. To get the equivalent of using the lower input, set Input Trim to 0.500.

It has Volume, Bass, Middle (not on Normal channel) and Treble controls, a Bright switch, and controls for reverb and vibrato. This is an amp on which the **"Magic Six"** settings work well: Volume 6, Bass 2, Middle 3, Treble 6 (6, 2x3, 6). And Bright switched on.

Note that the range of the controls on this amp is 1 to 10, while the model's controls range 0 to 10.

Super Verb ('64 Fender blackface Super Reverb, AB763)



The amp came with 4 10" speakers, just like a Bassman or Concert. We've got stock cabs of Super 2x10 and 4x10 cabs. You can also use the 4x10 Bassguy cab.

Fenderguru.com:

Pulling out the V1 normal channel preamp tube = More preamp gain in vibrato channel

We'll start with saying that this is a mod we personally do to all dual channel blackface, silverface and reissue amps. It is so easy to enable and disable that it can hardly be called a mod. If you are like most players and only use the Vibrato channel (reverb, tremolo, the bright cap and the extra gain stage), you should pull out the V1 tube. This is the preamp tube for the normal channel which you are not using when playing the Vibrato channel. Vice versa; If you're using the Normal channel, you can pull out the V2 tube. All AB763-similar circuits (Deluxe Reverb, Super Reverb, Pro Reverb, Twin Reverb, Vibroverb, Vibrolux) are designed so that they share the cathode cap and resistor (25 uF/1500 ohm) and pulling one of the tubes will change the effective value of the resistor they both share. If you pull one tube the other channel's tube will be hotter biased and offers more gain. The amp will play louder than before given the same volume knob setting. The stronger signal will push the second gain stage (V4 tube) harder and give you increased sustain, compression and harmonics. This mod does not change the amp's clean headroom but increases the preamp gain and preamp distortion.

This mod is one of Cesar Diaz' tricks in the Fender Custom Shop Vibroverb 64 which he always did to Stevie's amps. This mod is safe. It has stood the test of time and been done by players in 50 years in blackface Fender amps.

Amplifier Specifications

<i>Year of Manufacture</i>	1964
<i>Circuit</i>	AB763
<i>Power</i>	40 watts
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	3x 12AX7
<i>Power Amp Tubes</i>	2x 6L6
<i>Tonestack Location</i>	POST

Supertweed (Fractal Custom Model)



Synopsis:	A FAS model, based on a Tweed Deluxe, recommended for 'vintage' tone.
Tips:	The model starts to distort at low volume levels already. Don't hesitate to set Input Drive really low, i.e. 0.75. No need to tweak the other controls a lot.
Sound Clips:	Haiko Heinz - SoloKidCharlemagne Steadystate - Heartbreaker solo using the Fractal Audio Axe FX Ultra
Recommend Cab/Speaker	Tweed Deluxe stock cab

Fractal Audio has added a considerable number of custom amp models to the collection. These virtual amps have no real-life equivalents. They solely exist within Axe-Fx II and AX8, surpassing the electrical limitations of traditional amps.

The Supertweed is such a custom model. It was ported from the Standard/Ultra, after Axe-Fx II users asked for it. It's been called a "Tweed on steroids", probably a Tweed Deluxe.

The model starts to distort at low volume levels already. Don't hesitate to set Input Drive really low, i.e. 0.75. No need to tweak the other controls a lot.

You can use the Tweed Deluxe stock cab but other ones, such as a greenback or AlNiCo, also work well.

Yek's comments:

It's an awesome model if you're looking for a vintage tone.

Supremo Trem (Supro 1964T Dual-Tone)



Synopsis:

Note: The v8 firmware release notes call this amp a Supro 1964T but no such amp exists. The amp is assumed to be a 1964 reissue series 1624T, a mid-heavy and dirty amp that was used by Jimmy Page for early Led Zep albums.

Tips:

J.D. Simo Supro 1624T Dual-Tone Slide Guitar Demo with 1960 Gibson Les Paul

Sound Clips:

J.D. Simo - FUNKY jive guitar on a vintage 1960 Gibson Les Paul and 1624T Supro Dual-Tone Reissue

Recommend Cab/Speaker

Factory Cabs: #001 1x6 Oval, #018 1x15 Thunderbolt (RW), #095 2x12 Supremo Mix

Supro is a legendary amp manufacturer. Supposedly Jimmy Page used the Supro 1964T (with a single 12") to record a couple of Zep albums. Supro was bought by **Valco**, that's why you sometimes see the old amps mentioned as "Valco" instead of Supro. In 2013 the Supro brand was brought back to life by Absara Audio. Users of the current models: Snarky Puppy, JD Simo, Steve Stevens.

Supro:

"The legendary Supro logo with signature lightning bolt stirs several images simultaneously for most guitarists. Sum these up as unique looks, individual tone, and a near-mythic cool

factor that is unmatched in the world of vintage tube guitar amplifiers; but the most common reactions to all of these sensations are best rendered simply as, "I want one!" Jimi Hendrix, Jimmy Page, Albert Lee and countless other stars wanted one too—and got 'em, using Supro amps to lay down the foundations of blues and rock. But the roots of the Supro brand go way back to a time well before the period for which we best know them now, to the very birth of the electric guitar.

Supro's origins date to the pre-electric guitar days and the formation of the National Resophonic guitar company around 1926, with roots in the resonator guitars that became a blues tone standard prior to amplification. National and Dobro merged in the early '30s to form Valco, and Supro. Soon, Valco-made Supro amps were tearing it up on Chicago's south-side scene, establishing a tone that has been synonymous with gritty blues ever since. By the mid 60's, Jimi Hendrix was playing a Supro Thunderbolt amp on tour with Little Richard and the Isley Brothers. A few years later, Jimmy Page, inspired by the raw tones of the Chicago blues scene, cut seminal Led Zeppelin tracks on a Supro Model 24... and so the chain of influence goes, full circle from Chicago blues, to London blues-rock, with Supro the hip tone to beat.

Player upon player has since discovered the sonic splendor of Supro's extremely original circuits and unique build style, as well as the surprising versatility hidden within the appealing simplicity of these amps. Plug into one of these beauties, and you know you are striding out onto original and inspiring sonic ground. There's a girth, depth, and dimension to the tone of these old circuits that is simply unattainable from the other brands, and a dynamic playing feel that definitely puts a smile on my face every time. Keep them clean, and they are sweet and rich; crank them up, and even the smaller Supro models issue a bold, furious roar that retains its edge and cutting power amid heavy overdrive.

From authentic Chicago blues to all-out rock'n'roll, the Supro brand has distinguished itself as a sound for players who want to make their own mark on music, rather than merely chasing some tired standard that has gone before. Players who know Supro amps and understand what they can do have always appreciated them for their ability to help you sound like you. Supro has always presented a great alternative way to get your music made, and to get it noticed. For years, the only way to achieve that legendary Supro tone was to track down an original amp, get it running well, and hope it stayed that way. Not any more. Supro is back—and the lore, the legend, the tone, and the total attitude is back with it. Check out Supro's growing lineup of American-made amplifiers that honor the original circuits, while presenting value and performance unparalleled in today's market, and a tone that is truly all your own."

We've got a model of the 1964T Dual-Tone, Supro's flagship amp. The "T" stands for tremolo.

Supro:

"The "Dual-Tone" 1×12 combo amplifier is the undeniable rock star of the mid 60's Supro amplifier lineup. Vintage 1624T amps have been sought-after for decades because they embody the most desirable aspects of the Supro sound. As the Dual-Tone's volume knob is turned beyond noon, a fat and compressed clean tone evolves into an immediately recognizable grind that remains articulate and listenable even when turned up to full blast.

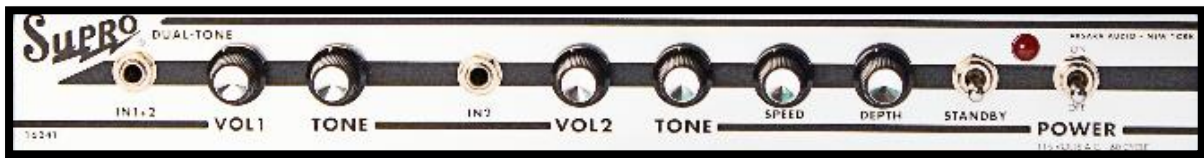
This 24-Watt, 1×12 tube combo can easily be driven to glorious saturation at a manageable gigging volume while retaining exceptional clarity and bandwidth, at any level of gain. This

amp's unique mojo is largely defined by the use of 6973 power tubes in the amplifier's output stage. These robust 9-pin tubes were employed extensively in the mid- and low-power Supro amps made 50 years ago. 6973 tubes look like EL84s but they deliver a distinctly American voice that has been missing from the world of tube amplifiers for far too long.

The Dual-Tone's linkable channels each sport volume and tone controls as well as a shared tremolo circuit. Plugging into IN 1+2 links both preamp channels in parallel for double the input signal and double the gain. This clever topology lets you hit the power amp as hard as necessary and even allows "channel switching" in its purest form, using a simple A/B switch.

The 1964 reissue Supro Dual-Tone's vintage-correct, lightweight cabinet—combined with our breathtaking custom 12" Supro speaker—kicks out surprisingly plump low end with all the detailed midrange and high end articulation that defines the Supro tone players have been chasing for decades. Loud enough to gig with a band, yet easy to haul around town, the Supro Dual-Tone is the perfect small club and recording amplifier."

It has two channels, which AFAIK are identical. On the real amp the channels can be linked for more gain.



Old and current versions of the 1964T offer just a Volume and Tone control on each channel, plus shared tremolo controls. The tone control is mapped to Treble in the model.

Review of the current model in Guitar World.

The speakers in Supro amps range from very small to very large. We've got a couple of them (6", 12", 15") in the stock cab collection.

Yek's comments:

I love this model. It's vintage and simple. Has lots of mids. Sounds edgy and dirty, recognizable and has its own character. I could -easily- do an entire gig with just this model.

Amplifier Specifications	
Year of Manufacture	Unknown
Circuit	N/A
Power	24 watts
Master Volume?	No
Negative Feedback?	No
Preamp Tubes	2x 12AX7
Power Amp Tubes	2x 6973
Tonestack Location	PRE

SV Bass (Ampeg SVT)



Synopsis:	A model of an Ampeg SVT Bass amp, a 300 watt amp used by many bass players and the Rolling Stones guitarists on their 1969 tour
Tips:	N/A
Sound Clips:	AMPEG SVT
Recommend Cab/Speaker	<p>Factory Cabs:</p> <ul style="list-style-type: none"> 068 8x10 SV Bass (RW) 109 1x15 SV Bass M88 Mix 110 1x15 SV Bass Subkick Mix 111 4x10 SV Bass M88 Mix 112 4x10 SV Bass Subkick Mix 113 4x10 Tweeter SV Bass M88 Mix
Manual:	Manuals of current models

Ampeg is a big name in the world of amplification. While their guitar amps are praised (used by Josh Homme and others), they are not nearly as popular as their bass rigs. Sometimes it seems that every bass player on large stages uses an Ampeg SVT rig. [The list of Ampeg artists](#) is mindblowing.

Ampeg:

"In 1946, Everette Hull, an accomplished pianist and bass player, organized a partnership with Stanley Michaels under the name "Michaels-Hull Electronic Labs." Their mission was to produce a new microphone pickup that Hull designed. The pickup was fitted on the end of an upright bass and was dubbed the Amplified Peg or "Ampeg" for short.

In 1949, Hull became the sole proprietor and changed the name of the company to the Ampeg Bassamp Company. Since that time, Ampeg has produced some of the music industry's most innovative and memorable products, satisfying the needs of musicians all

over the world. Many of these products feature incredibly unique features and performance capabilities resulting in six U.S. patents under the Ampeg brand name.

*Also in the early 60's, Ampeg was the first company to incorporate reverb in an amplifier. The Reverbrocket preceded Fender's Vibroverb (often thought of as the original) by nearly 2 years. In 1969, Ampeg set out to design the most powerful amplifier ever made. At that time, 50-watt amps were considered more than adequate. 100-watt amps were considered "plenty loud." Ampeg, however, not only harnessed 300 watts of pure tube power but actually created a new valve (tube) technology - Super Valve Technology, or the SVT. Now the most sought after stage amplifier, the SVT has proven its road worthiness on stages around the world." **More Ampeg history.***

The SVT bass rig still is Ampeg's flagship product. SVT stands for Super Valve Tube or Super Vacuum Tube, even Ampeg itself isn't consistent.

The sheer size of a SVT rig (head plus accompanying 8x10 cabinet) made people refer to it as "the fridge".

Ampeg:

"1969 was a year giants rocked the earth, and they wanted big amps. By that point in history, rock music was the baddest man in the whole damn town. Stadiums and outdoor festivals was where the action was—Madison Square Garden for chrissakes. Fifty watts just wasn't enough to move that chick in the 61st row in her hand-embroidered bellbottoms. It wasn't as if nobody was filling the void—witness the stacks of Marshalls, mountains of Hiwatts, and truckloads of Dual Showmans doing more to promote tinnitus in a single generation since WWII.

Ampeg needed to compete. The team of amp designer Bill Hughes and Roger Cox—with input from Bob Rufkahr and Dan Armstrong—set about to create what Cox referred to as "the biggest, nastiest bass amplifier the world had ever seen." Using the same sort of madness that drove Dr. Frankenstein, the team came up with a 300-watt all-tube phantasmagoria they called the Super Vacuum Tube—or SVT, to save on vowels. To fully grasp the monstrosity of their creation, the SVT's 300-watt output stomped the deafening 200-watt Marshall Major by a full 100-watts!

Unveiled at the 1969 NAMM show in Chicago, the SVT head alone weighed 95 lbs and contained fourteen tubes, six of which were massive 6146 power tubes. To heat all those tubes, massive transformers with magnetic fields powerful enough to cause genetic mutations were necessary. And what kind of speakers were able to handle all that power? Nothing less than two cabinets sporting eight ten-inch speakers and weighing 105 lbs. each.

After surveying his creation, Cox was actually concerned about potential liability—when your engineers warn of the possible harm their designs could cause, you'd better listen. Ampeg's management did and devised a warning label which read: "THIS AMP IS CAPABLE OF DELIVERING SOUND PRESSURE LEVELS THAT MAY CAUSE PERMANENT HEARING DAMAGE."

Some say we make our own luck, but they're usually the people with all the luck. Luck came to Ampeg, not from their own doing, but by the lack of knowledge concerning international voltages on the part of the Rolling Stones. It seems the Stones shipped their Fender amps over to the States to rehearse for their soon-to-be-legendary '69 world tour, plugged them in,

switched them on, and the resulting smoke and burn first made the roadies think Keith had nodded out again, until they remembered that the amps were set up for UK voltage.

The Stones may have been "The Greatest Rock n' Roll Band In The World," but like all bands, they liked to get free gear. In a panic, now deceased Stones keyboard player and road manager Ian Stewart contacted Rich Mandella, Ampeg's Hollywood liaison, desperately begging for amps for the tour that was now only weeks away.

Mandella, knowing a good thing when he saw it, loaded up all the SVT prototypes and some old 4x12 cabs into his pickup and headed down to the Warner Brothers lot where the Stones were rehearsing in an unused soundstage. Keith, Mick Taylor and Bill Wyman plugged in to the SVT prototypes and proceeded to turn them up to a level that reduced the un-hip to flaming piles of goo. The Stones may have had sympathy for the devil, but they gave no such kindness to the SVT prototypes. Mandella began to notice that the prototypes were getting close to meltdown under Keith's relentless bashing. According to Mandella, "Everything he was doing in rehearsal just kept getting louder and bigger and crazier, with two or three heads per person. I'd watch the amps, and when I could see one was about to explode, I'd just switch heads."

Since those prototype SVT heads were the only ones in existence—production was still a ways away—it was decided in a very smokey room that Mandella would accompany the Stones on the tour as their personal Ampeg technician. While the Stones rocked, and the audience grooved, and the Hell's Angels kicked the living crap out of everybody within a pool cue's length, Rich Mandella was behind the backline making sure everything was sorted. If you want a sample of the mayhem, check out Gimme Shelter, the Stones' own documentary of the 1969 world tour. But if you wanna hear those early SVTs blasting for all they're worth, rush right down and pick up Get Yer Ya Ya's Out, the best live album ever made.

Since then, the SVT has become the bass amp that all rock bassists dream of, whether they're famous or completely unknown. Ampeg has modified the SVT concept for a wider variety of sounds, but fortunately, they still make the SVT-VR, which are virtually identical to the ones the Stones used to put their Jack Daniels bottles on top of. (The SVT-Classic is also available, and is very similar to the original.)

Former Bass Player editor Scott Malandrone put the SVT in perspective this way: "The SVT has done for the sound of electric bass what the Marshall Super Lead had done for the electric guitar—it would give the instrument an identity." We couldn't say it better ourselves."

We don't know which specific SVT amp has been modeled by Fractal Audio. A vintage one, or maybe a current **SVT-CL** or **SVT-VR** version. Either way, the SVT is a 300 watts rig, powered by six 6550 tubes. It has inputs for passive (0 dB) and active (-15 dB) instruments. Controls are Volume, Bass, Mid and Treble (the tone controls are flat at noon). Some models have a Master control, a Mid-Frequency selector and Ultra Lo / Hi switches to emphasize low or high frequencies.

The manuals of the **current SVT-models** provides sample settings.

We've got IRs of various Ampeg bass cabs as stock cab(s): 1x15 SV, 4x10 SV, 8x10 SV.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	300 watts
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	No
<i>Preamp Tubes</i>	1x 12AX7
<i>Power Amp Tubes</i>	6x 6550
<i>Tonestack Location</i>	PRE

Thordendal (pre-G3 Recto models)



Synopsis:	Model of Mesa Boogie Dual Rectifier, pre-G3 modelling.
Tips:	N/A
Sound Clips:	Fredrik Thordendal - Axe-Fx II rhythmsound
Recommend Cab/Speaker	N/A

Fredrik Thordendal is the guitar player of the metal band Meshuggah. Not only known for djent-style metal, but he's also an accomplished fusion-type lead player.

Originally the Fractal Audio's Thordendal models were custom virtual-only models, based on Thordendal's own specifications.

Then this happened, according to Cliff:

"The old Recto models weren't terribly accurate. When G3 came out the models were accurate but Fredrik contacted me and said something like "ahhhhh, I loved the old Recto model". So I took the old Recto models and made them "Thordendal" models."

So there you have it, the Thordendal models are Recto models (Modern and Vintage modes) from the pre-G3 era.

For more information on the Dual Rectifier and the modelled versions, see "Recto 1 and Recto 2".

Tremolo Lux (Fender blackface Tremolux, AA763)



Synopsis:	A model of a 1960's Fender Tremolux, a smaller version of the Bandmaster (but sounds more like the '59 Bassman).
Tips:	N/A 1964 Fender Tremolux
Sound Clips:	1965 Fender Tremolux Amp Demo 1965 Fender Tremolux Amp Demo Part 2
Recommend Cab/Speaker	Fender 2x10 e.g. #089 2x10 Super Tweed Mix, #090 — 2x10 Vibrato Lux Mix

According to Fenderguru.com the Tremolux is a smaller version of the Bandmaster. However, the model we have in our Axe-Fx II and AX8 devices sounds more like the '59 Bassman, IMHO.

Fenderguru:

"The blackface Fender Tremolux was produced just a few years between 1963 and 1966 and had one circuit model; the blackface Tremolux AA763. In terms of power and clean headroom it is the smallest of all the Fender piggy back amps. Its history is much less complex than the bigger Bassman and Bandmaster amps who experienced a rapid development in terms of different circuit models and tube configurations.

The blackface Tremolux and Bandmaster (AB763) are almost identical amps, just that the Tremolux is sized for smaller events and gigs. The Tremolux had tube rectifier, while the blackface Bandmaster had diode. Both amps had tremolo but no reverb. The Tremolux speaker cabinet was 2x10" and not 2x12". The Tremolux had smaller transformers (power and output) than the Bassman and Bandmaster. All these things add up to an amp with less volume, less clean headroom and more sag/compression; a more forgiving tone. What does the blackface Tremolux sound like? It feels very much like the blackface Bandmaster, the normal channel of the Vibrolux Reverb and Pro Reverb or the normal channel of the earliest blackface Bassman (AA864). The sound is nice and clean and the tone remains relatively clean when one turns the volume knob. One does not reach the sweet spot as early as with the Reverb-amps with an additional gain stage in the preamp section. The Tremolux uses

only one 12ax7 tube in the preamp section in both channels before the signal enters the phase inverter. The Tremolux is appreciated for its simple and basic circuit. A less complicated circuit means fewer things that can go wrong, less component drift issues, it's easier to service and has less potential for noise problems. The Tremolux is rarer than the other blackface piggy back amps since it was produced over a shorter period of time. It was discontinued in 1966 and had no silverface models to follow. All the narrow-panel tweed, blonde and blackface Tremoluxes are very valuable today with a well-deserved collector status. The 2x10" closed cabinet that came with the Tremolux is practically sized and performs well on most stages. Oxfords or CTS speakers were delivered with these cabinets in the blackface years. A 2x10" cabinet is easier to carry around than a 2x12" cabinet, and with the right (wrong) speakers it can almost get as loud as the twelves just with less spread, lower bass and mids. Jumping channels in the AA763 Tremolux can give you a wider spectrum of tones than by using just one channel. You may for example use the normal channel to deliver the bass tones and the vibrato channel for sparkling clean sound with bright switch on and zero bass. This will give you an full and meaty tone which you won't get using just one channel. The Tremolux came without a mid pot."

According to [Wikipedia](#) it was Fender's first amp with built-in tremolo.

Fender released a signature re-issue around 2011: the EC (Eric Clapton) Tremolux, which is not available anymore. [Here's a clip](#).

Review in Vintage Guitar.

This head puts out around 35 watts through two 6L6 power tubes. It has two channels: "Normal" and "Vibrato". The model is based on the Vibrato channel.

The Bandmaster provides two inputs per channel. Fractal Audio models of Fender amps are always based on the input with the highest input level. To get the equivalent of using the lower input, set Input Trim to 0.500.



The original amp controls are: Treble, Bass, Volume Bright and Volume Normal, and a Bright switch. There's no Middle tone control, so keep this at "5" in the model for authenticity. No Master Volume either, so keep the Master control in the model dimed.

Note that the range of the controls on this amp is 1 to 10, while the model's controls range 0 to 10.

Yek's comments:

Even though we already have an excellent collection of models of legendary Fender amplifiers, the Tremolux deserves your attention. It's a great model IMHO. It stays rather clean (with single coils) for the most part part of the volume control.

The Tremolux came as a "piggy-back": a head and a horizontal 2x10" cabinet. Find 2x10" [Fender stock cabs on the wiki page](#). I like the 2x12 Vibrato Lux Mix stock cab.



Amplifier Specifications

<i>Year of Manufacture</i>	1963-66
<i>Circuit</i>	AA763
<i>Power</i>	35 watts
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	2x 7025
<i>Power Amp Tubes</i>	2x 6L6
<i>Tonestack Location</i>	PRE

Tube Pre



This is not the model of a guitar amplifier. It's a generic model of a preamp tube (model: Ideal Tetrode), completely neutral and low-gain.

You can use this model to "warm up" a source, such as an acoustic guitar or a synth.

You can also use it to operate as a power amp-only model. For example if you want to use a physical preamp pedal with your AX8 or Axe-Fx II.

Cliff says:



"The Tube Pre model is neutral. The "Vintage" tone stack is flat. The Tube Pre model uses the Vintage tone stack. The Vintage tone stack is a passive EQ model but it has a flat response when the controls are at noon. If you want "active" EQ you need to set the type to Active."

"If you only need power amp modeling, for example when using an external pre-amp through the Axe-Fx, use the Tube Pre model. It uses the Vintage tonestack which is flat when the tone controls are at noon."

Two Stone J35 (Two-Rock Jet 35)


Synopsis:

2 models of the Two-Rock Jet 35 amp, a Dumble-style amp with a unique 'chirp' on the pick attack and is said by Cliff to be one of the most unique amps he has modelled.

Tips:

N/A

Sound Clips:

[Two Rock Jet 35 Clean Jazzy Cat Pickups](#)

[Two Rock Jet 35 Lead Channel w/Jazzy Cat Pickups](#)

Recommend Cab/Speaker

Celestion G12-65, Celestion Classic Lead, EV-12L

Manual:

[Jet 22/35 Owner's Manual](#)

Two-Rock is most famous for being the manufacturer of amps used by John Mayer. Their Jet 35 is a Dumble-style amp.

Two-Rock:

"A peerless small venue or studio amp, specifically designed to deliver killer Two-Rock tone at a lower volume than any other series in the line. It can produce 22W through 2 6v6's or 35W through 2 6L6's. The Jet 22 and 35 have a Custom Reverb-type circuit but are more basic in their features. The Jet does not include the EQ1/EQ2 switch and has a simpler feature layout than the CR V3. It offers the basic EQ settings - bass, mid & treble - and it is closer to the EQ2 or the CR Sig in voicing. Same serial effects loop as the Custom Reverb, and same all-tube spring reverb. The Jet 35 has a pull bright, mid and deep boost, as well as the bypass and lead switches available by a "pull" pot on the front of the amp."

The Jet 35 is a 35 watts head with 6L6 power tubes. It has a single input and two channels: clean and lead.

We've got two models of the Jet 35, both covering its Lead mode. "1" is based on the amp with Bypass engaged, which cuts the EQ section out of the signal path, allowing more input signal to hit the gain stage. In the "2" model the Bypass is off.

Cliff says:



"It's very smooth but there's this unique chirp or something that I've never heard in an amp before. When you hit the note there's this blast of high end that rapidly decays so it has an almost vocal quality. The frequency shaping is very different than most other amps."

"The Two Rock is the most unique amp I've ever modeled. Almost like a violin but with this really cool chirp on the pick attack."

Controls on the Jet 35: Treble (pulled: Bright), Mid (pulled: boost), Bass (pulled: Deep), Gain (pulled: Bypass), Master (pulled: Lead mode), Lead Gain (input gain), Lead Master, and Reverb.

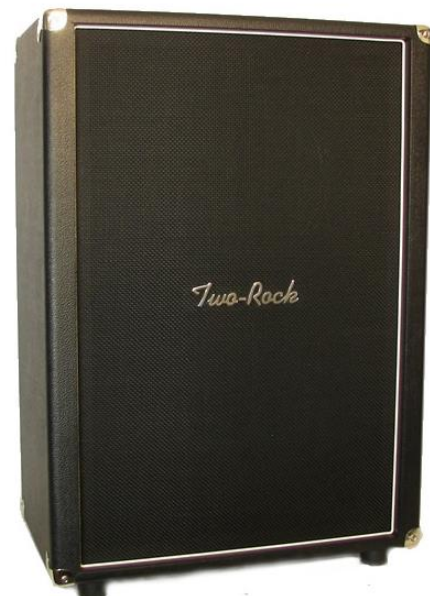
Even though the J35 model is supposed to be a D-style amp model, I've used it successfully for rock leads. It cuts through the mix nicely and it's easy to generate musical feedback.

Two-Rocks cabinets are usually equipped with G12-65 speakers. These are not represented well in the stocks cabs, but you can use stock cab #020, which is an IR of Two-Rock TR-1265 speakers (similar to G12-65) in a Fender Tweed Twin cabinet.

This amp model also works well with Classic Lead or EV-12L speakers.

Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>35 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>12AX7</i>
<i>Power Amp Tubes</i>	<i>2x 6L6</i>
<i>Tonestack Location</i>	<i>PRE</i>



TX Star (MESA Lone Star)



Synopsis:	Models of the Clean and Drive channels/settings of a Mesa Lone Star amp, famous for its use by Andy Timmons.
Tips:	N/A
Sound Clips:	Andy Timmons w/his Mesa Boogie Lone Star Rig Part 1 Andy Timmons w/his Mesa Boogie Lone Star Rig Part 2
Recommend Cab/Speaker:	Celestion C90 (Mesa-specific speaker) Cab Pack 10
Manual:	Mesa/Boogie Lonestar Owner's Manual

MESA is a very famous amp manufacturer, founded by Randall Smith in '71 in California. Smith started off with the "snakeskin" Mark amp, a modded Fender Princeton with increased gain and sustain, which made Santana famous (or was it the other way around). More information is available on the [Mesa website](#).

The MESA Lone Star is famous by its long-time use by [Andy Timmons](#).

MESA is rather proud of this amp:

"THE MOST RIDICULOUSLY AMAZING CLEANS, CLASSIC BREAKUP AND HIGH GAIN TONES WE HAVE EVER OFFERED IN A SINGLE AMPLIFIER"

From its conception, the Lone Star was targeted directly at exceeding players' expectations of both tone AND versatility from a vintage and/or modern boutique amp, without accepting compromise. Tonally it must be experienced to believe, as there are not enough adjectives and expletives to remotely do it justice. Simply put, the Lone Star is a sonic flood of Texas-sized proportions! The most ridiculously amazing cleans, classic breakup and high gain tones we have ever offered in a single amplifier! It is "stranded island" good and if you only try one

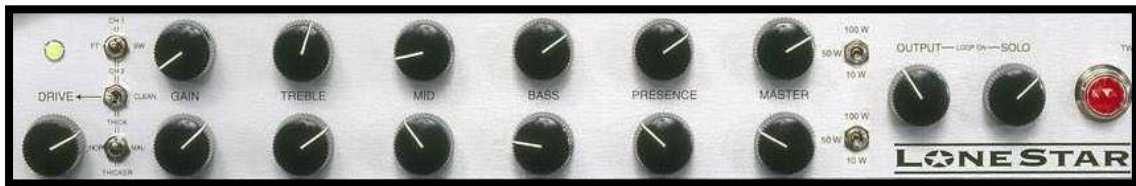
amplifier, make sure it's the Lone Star – But be forewarned, prepare yourself for a new vice because it's not just an amp – IT'S AN ADDICTION! The Lone Star will change the standard by which you measure all other amps!"

As far as I know, Fractal Audio modeled the original Lone Star ("Classic"), not the Special edition.

The Lone Star is a two-channel amp. Channel 1 is similar to a blackface Fender. It's also capable of blues-like distortion. Channel 2 has two faces. It can be a clone of channel 1, with slightly more gain. Or extra gain stages can be added (high-gain Drive mode) by flipping a switch, in which case an additional gain control comes into play. A Voicing switch (Normal / Thick / Thicker) lets you finetune the Drive mode.

Fractal Audio modeled the Lone Star's clean tone as well as channel 2's Drive mode. The clean tone is featured extensively in the first video below.

The current version of the Lone Star amp is driven by 6L6 (modeled) or EL34 tubes, and lets the player choose between 10 watts (Class A), 50 or 100 watts (Class A/B) power, per channel. And just like with the Rectifier, the player can also choose between Tube and Diode Rectifier Tracking (see the [Recto](#) thread for more information). The amp has a single input. The Lone Star has a built-in Variac ("Tweed" setting) and Reverb.



Each channel has Gain, Treble, Mid, Bass, Presence and Master controls. There's a separate Drive control for channel 2's Drive mode.

Looking for Andy Timmons' clean and dirty amp settings? Check the videos below.

Here's the [manual](#), with in-depth information and sample settings.

Review in Guitar Player

MESA delivers the Lone Star with Celestion Custom 90 (C90) speakers, just like its Boogie series. We've got a couple of those as stock cabs: #19 and #150.

[Cab Pack 10](#) provides more IRs of a Lone Star cabinet.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>10/50/100 watts</i>
<i>Master Volume?</i>	<i>Yes</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>Unknown</i>
<i>Power Amp Tubes</i>	<i>4x 6L6</i>
<i>Tonestack Location</i>	<i>PRE</i>

USA Bass 400 (MESA Bass 400)



Synopsis:	2 models of a Mesa Boogie Bass 400 amp, with Bass Shift disabled/enabled
Tips:	N/A
Sound Clips:	Mesa Boogie Bass 400 Mic vs DI
Recommend Cab/Speaker:	See the wiki for available bass cabinets.
Manual:	Bass 400 Plus Operating Instructions

MESA, the famous guitar amp manufacturer, also builds bass amps. The Bass 400 and 400+ models are tube-based rack amps. There's sparse information about the 400 model and the differences between the 400 and 400+. The information below is mainly based on the 400+ model.

MESA:

“Artists often call to rave about the Bass 400+ after switching from bi- or tri- amped rigs of up to a thousand watts—exclaiming the joy of stepping forward in the mix, even to the point of leading the band. String definition so articulate that the rhythm section locks together to become one machine of unstoppable momentum.

Traditional style rotary tone controls, which shape the Bass 400’s all-tube character are fed from dual inputs, one for modern active basses and the other for classic passive instruments. Each of these has its own separate tube input stage and volume control. A seven-band Graphic Equalizer further details the amp’s inherent musicality, making subtle or radical tonal changes possible and footswitchable.

No less than twelve fan-cooled 6L6 output tubes deliver 500 watts of transient power peaks with cool reliability. And this is no dirty dozen: this is a four-rack, twelve-pack of pure mean punch. You’ll be happy to know that tube life is commonly reported to range from three to five years, and often longer.”

This amp has separate inputs for passive and active instruments and two channels.

Manual:

“CHANNEL ONE: Input 1 and Volume 1 offer a high-headroom preamp that you might find preferable for active type basses. The gain is slightly lower than Channel 2 and the tonal personality is slightly different. The Pull Bright switch built into Volume 1 can be great for funk bass, as it accentuates the harmonics above the Treble control region.

CHANNEL TWO: Input 2 and Volume 2 recreate the classic sounds of the D-180, predecessor to your Bass 400. The gain is slightly higher and may be better suited for traditional basses than Channel One.”



Controls on the original amp: Volume (pull: Bright, on channel 1), Master, Bass (pull: Shift) , Middle, Treble (pull: Shift), 7-band GEQ.

Manual:

“The Bass 400 Plus uses traditional type tone controls which have been especially tailored for bass, and whose ranges can be extended by use of the “Pull Shift” switches.

The Treble control, when set high, becomes the most powerful of the three. At settings of 7 and above it will minimize the effect of the Bass and Middle, but they will become the stronger controls when the Treble is below 5. Most players find a “sweet spot” between 2 and 5 where the tonal balance is just right for them. Pulling out the Treble Shift alters its frequency center-point downward, toward the upper mid-range. (And since there is more musical energy at these frequencies, your amp will seem to get a little louder as well.) Using either Bright switch injects an extra dose of high treble.

The Bass control is wide-ranging and using the Pull Shift can boost its power. Your Bass 400 Plus (especially when used with our speaker cabinets) can produce more true fundamental tone than just about anything else. Its bottom-end response is truly “profound” and yet it avoids boominess and muddiness.

The Middle control is the subtlest of the three. Its purpose is filling the gap between the treble and bass frequencies.”

We have two models of this bass amp. Model "1" has Bass Shift disabled, model "2" has Bass Shift engaged.

We have no MESA bass cabinets among our stock cabs. Find another one on the [wiki](#).



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	500 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	4x 12AX7
<i>Power Amp Tubes</i>	12x 6L6
<i>Tonestack Location</i>	POST

USA Clean / USA Lead / USA Rhythm (MESA/Boogie Mark IV)



Synopsis:	Multiple models of the Mesa Boogie Mark IV amp, famous for its smooth high-gain tones and endorsement by John Petrucci
Tips:	<i>See threads listed below</i>
Sound Clips:	<p>Mesa Boogie Mark IV - Playthrough</p> <p>Mesa Boogie Mark IV vs. Fender Twin Amp</p>
Recommend Cab/Speaker	<p>Celestion Custom C90</p> <p>Factory cabs: #019 2x12 TX Star M160</p>
Manual:	Mesa/Boogie Mark IV Owner's Manual

MESA (or: MESA/Boogie) is a very famous amp manufacturer, founded by Randall Smith in '71 in California. More company information is available on the [Mesa website](#)

Some of the amps carry the MESA name (Rectifiers, Lone Star), while others have a MESA/Boogie label (Bass 400+, Mark series, Triaxis).

Randal Smith started off with the "snakeskin" Boogie amp, a modded Fender Princeton with increased gain and sustain, which made Santana famous (or was it the other way around?). Nowadays this amp is referred to as the Mark I. It was recently **re-issued**.

Since those early days the series has evolved. No longer called Boogie, they're now referred to as the Mark series. Mainly known for their smooth high-gain tones, loved by metalheads as well as fusion guitar players. John Petrucci (Dream Theater) is probably the most famous endorser of the Mark series nowadays. Add Santana, Metallica, Keith Richards etc. The current Mark model is the Mark Five, plus various low-powered versions and John Petrucci's signature model: JP-2C. More information in is available on [Wikipedia](#)

We've got models of the legendary Mark IIC+ ("USA IIC+") and the Mark IV ("USA Clean, USA Lead, USA Rhythm") in our Fractal Audio devices. This post is about the Mark IV. The USA models are high on the list of favorite models of many owners of Fractal Audio gear.

MESA:

"Their compact size, stunning power and ultimate versatility have served legions of proud owners who see the Mark IV as the culmination of guitar amp evolution. The fifty thousand, II, III and IVs still in active duty are testament to this heritage.

Three Big Sounds ...with individual control and total conviction: Rhythm 1 feels bouncy and shimmers with freshness. The Lead Mode is blistering high-gain focus. And Rhythm 2 covers that elusive middle ground. This mode alone can produce an alternate Clean, a purring Blues or a grinding Crunch."

Like all MESA amps, the Mark amps feature a LOT of knobs and switches. As MESA states in the manual: "Every possible useful feature is included". This can make them difficult to dial in for those who suffer from Option Anxiety, Parameter Paralysis or Agony of Choice. Also, this is why modelling this amp requires a number of separate models.

The Mark IV is a 85 watts amp (or less, depending on its settings) with a single input, 6L6 power tubes and reverb. It has 3 channels: Rhythm 1 (clean), Rhythm 2 (crunch) and Lead.



The main controls are Gain, Bass, Mid, Treble, Presence and Master.

Additional "pull" controls:

- Rhythm I: Bright.
- Rhythm II: Fat (more gain) and Shift Presence (higher frequency area).
- Lead: Fat (more gain), Bright (adds sizzle and gain) and Shift Presence (higher frequency area).

The Lead channel also has a Voicing Switch, where Mid Gain delivers more gain (low volume levels), and Harmonics is more balanced (high volume levels). And it has an additional gain control (Lead Drive).

Cliff says:



"The MK V is basically a compendium of previous Mesa amps. There may be minor differences in tone due to circuit layout but nothing a few tweaks to the EQ can't fix."

"I have a Mark IIC+, a Mark IV, a Mark V and a Triaxis. They're all completely different. Mesa always says things like "sounds the same as a IIC+" but the circuits are different and, probably most important, the knob tapers are completely different."

"With the presence control at noon it's roughly neutral. Turn it down and you are actually boosting bass and reducing treble."

"The key to a good Boogie sound, IMO, is the Fat Switch. This is the Treble Pull Shift on the IIC+ and the Pull Fat on the Mark IV. Mesa knew this and the Lead 2 modes on the Triaxis all had the treble shift engaged by default."

"Input Drive increases the gain amount as you rotate the knob clockwise. As the gain increases the tone is shifted from a treble and upper mid emphasis, which produces an up front sparkling tone, to a lower mid and bass emphasis, which produces a thick meaty tone."

Overdrive increases the gain amount as you rotate the knob clockwise but with no alteration of the tonal balance.

Different combinations of Input Drive and Overdrive settings will have a dramatic effect on the response of the amplifier and the personality of your instrument. It is easy to get familiar with the action of these controls and you'll be amazed with your ability to make any guitar sound mellow, fat, soulful or aggressive."

"Having owned multiple Mark IV's, multiple Triaxis's and a variety of other Boogie products, I can tell that the Mark series in general are a bitch to dial in. Once you figure them out though they are great amps. IMO, the key to a MKIV is to use the TMB to get the feel and the EQ to get the tone."

Models with two gain controls (Input Drive and Overdrive), such as USA Lead, always feel "elastic" and spongy, a real joy to play.

Most amps in the Mark series also feature a graphic EQ (GEQ). This is an important part of the magic. While the regular tone controls are used to dial in the "feel", the GEQ is used to shape the tone. On many MESA amps, including the Mark series, you'll want to keep Bass really, really low to prevent flubbiness and then boost the low frequencies in the GEQ to compensate. That's why many users set the GEQ in a V-shape, mostly on the Lead channel only. In the models of the Mark IV make sure that the location of the GEQ is Pre Power Amp, to correctly simulate the real amp.

The Mark IV also has a built-in "Variac" Switch ("Tweed Power"), just like the Lone Star. It can be switched between Pentode (increases power and punch, clips harder) and Triode (softer and smoother, less headroom) mode. It can run in Class-A (2 power tubes, 30-50 watts) or in Simul-Class (simultaneous Class A and Class A/B, 70-85 watts).

MESA:

"The elusive magic of Simul-Class ...our patented way of enriching a power section. Think of it as two different power amps working simultaneously. One extracts the juice of Class A sweetness while the other delivers the high power punch of Pentode Class AB."

The **manual** provides in-depth information about each control and sample settings.

Let's check out our models of the Mark IV.

USA Clean: Rhythm 1 channel, which is the clean tone. It stays really clean for the most part of its Gain range. Use the Bright switch for Pull Bright.

USA LEAD: Lead channel, with Voicing set to Harmonics, and Pull Bright off. Use the FAT switch for Pull Fat. Presence Shift is available as a switch under Presence. Note: IMHO this is the model you may want to select when playing loud.

USA LEAD+: Lead channel, with Voicing set to Mid Gain, and Pull Bright off. Use the FAT switch for Pull Fat. Presence Shift is available as a switch under Presence.

USA LEAD BRT: Lead channel, with Voicing set to Harmonics, and Pull Bright on. Use the FAT switch for Pull Fat. Presence Shift is available as a switch under Presence.

USA LEAD BRT+: Lead channel, with Voicing set to Mid Gain, and Pull Bright on. Use the FAT switch for Pull Fat. Presence Shift is available as a switch under Presence. Note: IMHO this is the model you may want to select when playing at low volume levels.

USA RHYTHM: Rhythm 2 channel. Use the FAT switch for Pull Fat. Presence Shift is available as a switch under Presence.

A large portion of the bandwidth of the internet these days is occupied by guitar players looking for ways to either replicate Van Halen's Brown Sound, or John Petrucci's saturated high-gain tones. You'll find many Petrucci-oriented threads and clips here and on Axe-Change.

- **Petrucci's Mark IV settings**
- **Mikko's "Petrucci" presets for Axe-Fx II and AX8**
- **Cooper Carter's Petrucci "Astonishing" preset**

MESA equips Mark cabinets with Celestion Custom 90 speakers (C90). Cabs #19 and #150 are MESA (Lone Star) cabinets with C90s. Or you can try the Rectifier cabinets with V30s, which you'll find here. Cab #108 is an IR of Petrucci's own cab with V30s.

Alternatively, try an EV-12L ("Rumble") or Classic Lead 80 "Cali") cab.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	85 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	5x 12AX7
<i>Power Amp Tubes</i>	4x 6L6
<i>Tonestack Location</i>	PRE

USA IIC+ (MESA/Boogie Mark IIC+)


Synopsis:

Models of Mesa Boogie Mark IIC+, the amp that introduced guitar players to liquid and smooth lead tones and scooped high gain. The model amp is without EQ. The '+' model features a more sensitive lead channel.

Tips:

See Cliff's Guidelines

Sound Clips:

Mesa Boogie Mark IIC+ vs Mark III vs Mark IV
John Petrucci Mark Five vs Mark IIC+ Comparison

Recommend Cab/Speaker

EV-12L
 Factory Cab: #105 4x12 Rumble EV12L RNR1

Manual:

MESA/Boogie Mark II-C Operating Manual

MESA (MESA/Boogie) is a famous amp manufacturer, founded by Randall Smith in '71 in California. Company information.

Some of the amps carry the MESA name while others have a MESA/Boogie label.

Randal Smith started off with the "snakeskin" Boogie amp, a modded Fender Princeton with increased gain and sustain, which made Santana famous (or was it the other way around?), now known as Mark I. It was recently re-issued.

The series has evolved. No longer called Boogie, they're now referred to as the Mark series. Mainly known for their smooth high-gain tones, loved by metalheads as well as fusion guitar players. John Petrucci (Dream Theater) is probably their most famous endorser. Metallica are also known for their use of the IIC+. The current Mark model is the Mark Five.

We've got models of the legendary Mark IIC+ and the Mark IV. This post is about the Mark IIC+, the amp that introduced guitar players to liquid and smooth lead tones, and scooped high-gain.

MESA:

"And YES... it's a MARK IIC+! A next generation Re-Issue of the legendary amp so many Recording Artists, MESA enthusiasts and Tone Freaks the world over covet, often searching high and low to find."

The quote above refers to the JP-2C, John Petrucci's signature amp, demonstrating that the Mark IIC+ still is king of the hill.

Wikipedia:

"The Mark IIC also featured a new Pull Bass shift on the front panel, which slightly extended the low frequencies in the preamp.

The Mark IIC+ was the last of the Mark II series and featured a more sensitive lead channel, because it features a dual cascading drive stage, whereas the IIA and IIB had a single stage drive circuit.

Some owners/dealers/sellers say the "+" refers to an amp having an EQ, but they are mistaken. The mistake may have originated in the mid 1980s, when Mesa/Boogie issued their Studio .22 model and then changed the name to Studio .22+, which featured improved wiring, etc. All the Mark II models could be made with EQ as an option, but not all of them did. A Mark IIC+ could, for example, refer to a 100 watt amp without EQ or reverb.

One can tell if a particular amp is a "+" by looking for a hand-written black "+" mark directly above where the power cord attaches to the back of the amp. Many dealers increase the price on a Mark IIC+ but often don't know anything about what the "+" means--they often don't even know where to find the "+" mark. Indeed, the mark itself can be forged. An owner can call Mesa/Boogie and ask them to check his or her serial number against their records. Mesa/Boogie only made about 1,400 Mark IIC amps before going to the Mark IIC+. Another cosmetic way of distinguishing a IIC from a IIC+ is the front panel. A IIC has the traditional "Gain Boost" pull switch integrated into the master volume, while a IIC+ replaced the switch with a Pull Deep bass booster.

The Mark IIC+ is currently the most coveted vintage Boogie, selling for twice its original price on average, because of its much praised "Liquid Lead" mode, and also, its warm, clean rhythm mode."

Review in Vintage Guitar.

The modelled IIC+ is a version WITHOUT a graphic EQ. Unlike the original amp, you can use the GEQ in the models.

Background on the IIC+ without graphic EQ:

"Back when I was testing II C+'s every day in the burn-in room, I always thought the non-graphic amps had a certain attack and purity to the sound that the amps that had Graphic EQ on them just didn't have. There was an urgency and bold punch to the sound...they seemed tighter and more cohesive. Now granted, we made far more amps with the on-board EQ than without...probably 70% had the EQ, but not many people had the opportunity to compare day-in and day-out as I did. The EQ model had the shaping advantage...no doubt about it, and certainly all the sounds that II C+ are famous for were created with the EQ being an integral part of that sound, but when it came to the straight sound – no EQ – the non-graph model always got to me with it's speed and authority. So it was that I came to be the obsessive/compulsive owner of no less than 8 of the II C+ Simul-Class, Reverb (non-graphic) heads. I hand picked these as being the best sounding amps - for me - out of the thousands of II C+ we made. Out of these eight amps I immediately found my favorite - which I dubbed "His Highness the C-ness" and which I used as a reference model to have our Chief Tech and Archival Guru Michael Bendinelli, copy exactly on the other 7 amps. Everything was measured and scrutinized (pot values, resistors, caps, transformers swapped, etc.) and duplicated, and in the end... all 8 sounded alike. (...) In our endless comparisons of many original II C+'s - both EQ and non-EQ samples - alongside this golden reference, we discovered that I wasn't just Tone-dreaming. There was actually a difference between the EQ model and those non-EQ models. It all came down to a coupling capacitor at the end of the EQ circuit that feeds the driver. In the EQ model, it was a great big cap that let a lot of sub-low pass, slowing down the sound and making it fatter. In my amp - a non-EQ version - this cap was smaller and didn't let as much sub-low through - which speeds up the sound and makes everything tighter and more urgent. There it was, a simple part...but it made all the difference in the time domain. Yet there were so many more of these slower, fatter sounding EQ versions out in the world... that many more people were used to hearing as their reference. It would not do well to set the MARK V permanently to this faster, tighter way. Too many players would have a tough time adjusting and when they compared the two amps side by side, the V would sound faster and tighter yes, but also stripped of sub-low and therefore maybe not as fat in comparison to their trusty II C+ Graphic model or MARK IV - which also had the bigger coupling cap." (Douglas West)

The original amp operates in Class-A (2 power tubes) or Simul-Class (2 power tubes in Class-A and the other two in Class A/B). It has been modelled in Simul-Class mode.

Cliff says:



"I have a Mark IIC+, a Mark IV, a Mark V and a Triaxis. They're all completely different. Mesa always says things like "sounds the same as a IIC+" but the circuits are different and, probably most important, the knob tapers are completely different."

"If you want the sound of the non-SimulClass version set Triode 1 Plate Freq to 1350 Hz."

"The Pull Bright on the Volume knob is the classic "Bright Cap" which engages a capacitor across the potentiometer. This is already modeled in the Axe-Fx via the Bright Switch. The Pull Bright on the Lead Master knob engages a 0.22uF cap on the cathode of the last triode in the overdrive circuit. As there is no switch for this in the Axe-Fx it requires a separate model. Cathode caps are very common in tube amps. If the value is large the stage has more gain and the response is relatively flat. If the value is small the stage has more gain at higher frequencies. Amp designers use cathode caps to shape the frequency response. Caps in the range of 0.1 to 1.0 uF are

commonly used to reduce bass response. A cathode cap works by decreasing the amount of negative feedback through shunting higher frequencies to ground. This reduced negative feedback increases the gain (and reduces linearity). FWIW the Axe-Fx is the only modeler of which I'm aware that actually models triodes using a feedback technique. Other modelers use static waveshapers. The Axe-Fx triode models incorporate feedback so if there is a virtual cathode cap the stage is less linear in addition to having more gain."

"The key to a good Boogie sound, IMO, is the Fat Switch. This is the Treble Pull Shift on the IIC+ and the Pull Fat on the Mark IV. Mesa knew this and the Lead 2 modes on the Triaxis all had the treble shift engaged by default."

"The IIC+ does not have a gain boost and doesn't need one. There is plenty of gain. The Pull Deep switch engages a large cathode cap on the final triode stage. With Pull Deep off there is actually a shelving response into the power amp (bass is reduced)."

"To emulate Pull Shift on the Bass control: "Put a Tilt EQ before the amp block with a frequency of 320 Hz and a gain of -3 dB. Set the Level to +3 dB".

It has a single input, 6L6 power tubes, reverb and 2 channels: Rhythm and Lead.

The main controls are Volume (pull: Bright), Treble (pull: Shift = Fat), Bass (pull: Shift), Middle, Presence, Master rhythm (pull: Deep), Lead Drive and Master Lead (pull: Bright).

The Rhythm (clean) channel hasn't been modeled, so the models all refer to the Lead channel.

[USA IIC+](#): Lead Master Pull Bright off, Pull Deep off

[USA IIC+ Bright](#): Lead Master Pull Bright on, Pull Deep off

[USA IIC+ Deep](#): Lead Master Pull Bright off, Pull Deep on

[USA IIC+ BRT/DP](#): Lead Master Pull Bright on, Pull Deep on

Quantum firmware 3.03 brought us the "Metallica's IIC++" model. The details are sparse. We don't now if the modeled amp actually is owned by Metallica. But it's one of the very few IIC+ models that have been modded by MESA for more gain in the clean and lead channels.

The IIC+ doesn't have features as the Mark IV or V. Still, it isn't easy to dial in.

Cliff's guidelines to dial in the IIC+:



"The old version of the model incorrectly referenced the Mark IV tone stack. These tone stacks are identical except for the taper of the mid pot. The IIC+ has a linear pot and the Mark IV has a Log10 pot. I had it backwards in my earlier comments. My guess is that Mesa found that turning the midrange down sounds best (and it does) so they changed the pot taper to do this automatically since noon on a Log10 pot is equal to a 1.0 on a linear pot.

Commensurate with (1) I found myself turning the midrange down as well as the bass and turning the treble up.

I think the default Master Volume value is a bit high so you may want to turn that down. I've reduced the default for Quantum 2.03.

Turn the bright switch on. Every bit of information I've found says that people typically used the Pull Bright on the Volume knob. This is equivalent to the Bright switch under the Treble control on the model. I always turn it on and I've set it on by default for Q2.03.

USE THE EQ. The tone stack is pre-distortion which is atypical for a high-gain amp. Tone stacks are almost always post-distortion. Since the tone stack is pre-distortion you need to do your post distortion tone shaping using the EQ. The tone controls set the feel and the distortion texture, the EQ shapes the final tone. I like to do a gentle V-curve.

These were my settings for a killer high-gain tone: Model: USA IIC+ / Input Drive: 8.1 / Overdrive: 9-10 / Bass: 1.0 / Midrange: 1.8 / Treble: 8.9 / Presence: 4.5 / MV: 4.0 / Level: -20 dB / Bright Switch ON / 80 Hz: 4.8 / 240 Hz: 2.6 / 750 Hz: -4.5 / 2200: -0.2 / 6600: 0."

For another take on the IIC+ sound, try the USA PRE Yellow model. This is the IIC+ mode of MESA's Triaxis preamp. It has Pull Shift and Pull Bright enabled by default. Some players find this model easier to dial in (and some actually prefer its sound to the IIC+).

Quantum firmware 3.03 brought us the "Metallica's IIC++" model. The details are sparse. It's the model used by Metallica for their live sound. Whether this model is based on one of the rare real IIC++ amps, has not been disclosed

MESA equipped the IIC+ with EV-12L speakers. Try stock cab #105. Red Wire sells IRs of original IIC+ cabinets. Alt. try stocks cabs #19 and #150, Rectifier/V30 cabinets or cab #108 (Petrucchi's own cab with V30s).

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	100 watts
<i>Master Volume?</i>	Yes
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	5x 12AX7
<i>Power Amp Tubes</i>	2x 6L6 2x EL34
<i>Tonestack Location</i>	PRE

USA Pre (MESA/Boogie TriAxis)



Synopsis:	5 models of a Mesa Boogie TriAxis pre-amp, said to cover tones from Mark I, Mark IIC+ and Mark IV.
Tips:	See text
Sound Clips:	John Petrucci Dream Theater Triaxis™ / 2:90™ / 2014 Rig Tour Demo
Recommend Cab/Speaker	Factory Cab: #108 4x12 Petrucci V30 Mix

The TriAxis is the preamp-only rackmount version of the Mark series, with tubes and an analog path and digital controls and MIDI-programmable. According to MESA it covers tones from the Mark I, Mark IIC+ and Mark IV.

MESA:

“Digital disbelievers scoffed at the very idea of packing five 12AX7’s and 25 years of tube tone heritage into one rack space of pure magic...but there they are...five little tone bottles, glowing quietly-all too ready to rock the house. Eight separate modes deliver the elusive creamy gain of the Mark I, the heralded focus of the Mark IIC+, the scooped Rhythm of the Mark IV, and a modified British lead mode. But these are just a few of the classic sounds at your fingertips.”

For a long time John Petrucci has relied on a couple of TriAxis units to get his favorite “IIC+” tones on the road, as did Metallica. The TriAxis also was the amp in the live rig of an unknown guitar player, named Cliff Chase.

The TriAxis features these modes:

- Rhythm/Green: vintage fat clean (Mark I, Blackface)
- Rhythm/Yellow: modern hyper-clean (Mark IV)
- Lead 1/Green: vintage Mark I Lead
- Lead 1/Yellow: vintage Mark 1 gain boost
- Lead 1/Red: classic British lead
- Lead 2/Green: medium Mark IV Lead gain
- Lead 2/Yellow: classic Mark IIC+ Lead
- Lead 2/Red: “shred”

Its digital controls are: Gain (model: Input Drive), Treble, Middle, Bass, Master, Presence. The Lead modes have another gain control: Lead Drive 1 / 2 (model: Overdrive).

Here’s what the **manual** states about the Presence control:

“This control usually regulates either brightness or negative feedback in the power section of an amplifier. In the TriAxis a whole new approach to this traditional circuit was taken. An

actual dynamic feedback loop that compresses the highs and upper treble frequencies makes this PRESENCE control the first of its kind.

As the PRESENCE control is increased, more highs are allowed to pass. The lower the signal strength at the input of this control, the more highs pass through it. The lower region of the PRESENCE control dampens these high harmonics. The greater the signal strength at the circuit input becomes, the darker the sound becomes. So...if you set the PRESENCE control high and pick softly (sending a small signal through the PRESENCE control circuit) the highs will be very prominent in the mix.

If you decrease the PRESENCE control and pick harder (increasing the signal strength at the PRESENCE control circuit input) the high harmonics will be very subtle. In other words, the PRESENCE control helps enhance whichever direction you're trying to go in with your sound and it does so dynamically! Most players love the way tube circuits react to subtle nuances in style...This PRESENCE control circuit takes that idea a few steps further. When you're "going off" on the treble strings in a solo and you go for an expressive bend and lay hard into the note...TriAxis works with you! If you picked the note hard with the PRESENCE control set low, that note would become bigger, rounder and more compressed.

Likewise, if you were doing some low growling work on the bass strings and the PRESENCE control was set high...you could relax into this segment and let the PRESENCE control make the edge. Most everyone that we know always wishes their high notes could be fatter and their low notes to be more discernible and articulate...highs where you need them, lack of highs where you don't. Make sense...? If not on paper, then you need to plug in and experience the way this dynamic PRESENCE control can enhance your playing, especially when you are soloing."

Personal note: while Reading the above quote, it dawned on me that the Presence circuit in the TriAxis may have been the inspiration for Fractal Audio to add Dynamic Presence (and Dynamic Depth) to the Axe-Fx II.

The TriAxis was the reason for Fractal Audio to add a Bright knob (not the Bright switch under treble) to the models.

The TriAxis also features Dynamic Voice, which is a preset EQ curve. This is not modeled. You can use the graphic EQ in the Amp block to simulate the 5-band "pre power amp" graphic EQ, present on Mark amps.

Let's get to the models.



USA Pre Clean: Rhythm/Green mode. It's a vintage fat clean (Mark I, Blackface).

“More vintage, “old Black Face” style circuit. A beyond-vintage clean sound with bubbly, elastic highs and big breathy lows. This mode also shines at many other settings as well. As the GAIN and MIDRANGE controls are increased, 5.5 - 7.5 a whole new flavor appears. This hotter region performs as a killer driving, yet still clean, rhythm sound. Bold and pushed, this dynamic range of tones works great for Blues rhythm grooves or more aggressive “alternative” clean parts or lines. This is probably the most powerful and widest of possible rhythm sounds aboard TriAxis, perfect for when it's your turn in the spotlight. Go ahead...Crank it! Rhythm Green loves to rock.

With the GAIN Control at 10 and the Midrange also high, this mode is one of the coolest solo sounds around. Reduce the Bass a little and dial in the Treble to set your pick attack, and you have a touch-sensitive lead mode that won't completely saturate your guitars' natural sound.

This is the sound that helped put Boogies in the hands of widely acclaimed guitar heroes of the 70's and early 80's, when Blues/Fusion changed and revoiced rock with tasty medium gain sounds. This circuit was sired by the classic 4x10 Fender Bassman and later redefined in Mark 1 Boogies. Classic, bare-bones, roots players will love how well this setting responds to pickup output. These virtuosos of the volume knob can take or leave footswitching in favor of a circuit that lets them ride the gain from their guitar. Rhythm Green works extremely well for this and will surprise even the most hardcore vintage heads.

NOTE: With a very high GAIN control setting in Rhythm Green, it will probably be necessary to reduce the MASTER Control substantially. The dynamic response of this mode makes it the hottest, output-wise, of the eight modes.

NOTE: The GAIN control has a Dynamic “Bright” circuit built into it. At low Gain settings the upper harmonics will pass freely through this control, producing the sweetest, brightest sounds. The more the GAIN control is increased, the less of these upper harmonics pass through this control and the warmer the sound becomes. All the way up on the GAIN control

virtually removes these frequencies from the mix. You may want to use the PRESENCE control to put some of them back at the highest Gain settings. Use the MIDRANGE control in conjunction with the BASS control to balance the warmth with the upper harmonics at low Gain settings and possibly reduce the PRESENCE control until you achieve the desired blend.”

USA Pre LD1 RED: classic Britishlead, based on the Triaxis "TX-4 board"

“(..) pre-tone-control gain circuits. This means the boosting of gain by progressively “slamming” the 12AX7 tubes occurs before the tone controls. This method of squeezing gain through the tone controls tends to lend itself to a larger, yet slightly less focused sound. Many players rely on this looser, more spread out sound to be able to get emotional with their soloing style. This circuit also delivers large amounts of bass very well. As opposed to a “rear end” style circuit, this type of circuit lets you pump larger quantities of bass through the tone controls without increased flub or cloudiness. Players that lean toward extremely high gain metal or hard rock sounds will find the LEAD 1 modes much more suited to the maxed out regions of gain required to produce over the top, believable crunch and grind.

We especially recommend the Lead1 Red mode for this application. (...) This aggressive mode shares much of the circuitry with both Lead 1 Green and Yellow and then adds extra focus and punch in the upper midrange. This mid-forward voicing lends a more urgent, tight character to the mix and is perfect for showcasing Lead 1’s heavier side. Because of this added midrange, the Red mode slices through a mix in the sonic region where the rock snare lives and is especially great for crunch rhythm in either classic or modern gain realms. Another attribute of this EQ’ing is that higher settings of the Bass control remain tighter and track better at higher gain settings than in the other two Lead 1 modes. This additional bump in the mid frequencies also allows more Treble to be dialed in which increases the gain without sounding thin. Try setting the GAIN to 8.0, BASS on 6.5, the TREBLE on 7.0 and LEAD 1 DRIVE on 6.0 to audition this scheme.”

USA Pre LD2 GRN: medium Mark IV Lead

“(...) post-tone control gain circuit. (...) With heralded veterans of this design the Mark II-B, II-C+, Mark III, and Mark IV...the rear-end lead legacy lives on...stronger than ever! It is in LEAD 2 that we celebrate these classic lead sounds and offer up a couple variations on the theme. Again, these are the more articulate and focused lead sounds. Some players that grew up playing non-MESA amplifiers may find these dry and stiff at first, but have patience, and you will come to enjoy these modes. There is simply less “slop around the note” in these modes making them a sort of magnifying glass for inaccurate playing. Though at times they are more revealing, you will find that they hold up better in a mix and are much more behaved on a stage full of live microphones. Usually they are also much better for any kind of rhythmic high gain playing where you need urgent attack and tight cut-off points.

The Green circuit is taken directly from a Mark IV Lead channel. Green is focused gain. It uses the concept of the Mark IV’s Mid Gain, a feature added in 1989, to enhance the attack and to lower the medium midrange “meat” of the sound. By enhancing this part of the spectrum a rich, bold, yet singing quality is produced. Thick would be the best way to describe its’ character, while Punchy would accurately describe its’ attack. It does saturate the note fairly completely, especially at high gain settings, but the attack envelope is so right at lower gain settings, that roots players usually love this Green mode. Its’ thicker midrange

punch really helps melody lines played on the high strings, particularly high on the neck. With higher Gain and Drive settings the high notes soar and sing, yet don't get too soupy to be heard in a big mix. Green is especially helpful in getting rid of unwanted fret buzz or other annoying idiosyncrasies of an instrument that may be set up wrong. It tends to cover up buzz leaving just the note with greater purity. This is most apparent when a weak single coil is used for soloing. LEAD 2 Green is the cure for this dilemma. It adds the needed frequencies and its' gain is the steroid habit these weaklings need to deliver a bold lead voice. Green is the mode of choice anytime you need to deliver a statement and you don't have the luxury of several tracks. It is single note authority at its' expressive best.

NOTE: As we mentioned earlier in the Lead 1 Red description, the setting of the GAIN control in all modes is crucial to achieving the sound you are looking for. Each mode has its' magical optimum setting for this control and we can only give you our view and a few factory settings to demonstrate our thinking on this. Ultimately, it may vary for each mode, guitar, player, and environment and it's on you to discover what fits your situation. In Lead 2 we have come to a simple "rule of thumb" you might say as to where we prefer the GAIN control to achieve the best blend of attack and quality of tone. Try this first, then deviate from there in all three Lead 2 modes. We like to see the Gain at either 7.0 or 7.5 (depending on your instruments output) for lower gain blues sounds or very articulate medium gain solo sounds. When higher gain or straight up radical rock sounds are in demand, a GAIN control setting of 7.5 or 8.0 again depending on pickup output) should be more than enough.

With higher than recommended Gain settings a flubby, indistinct attack will occur that the BASS control will have difficulty in removing. Lower than optimum Gain settings will produce excessive high harmonic content, thin the notes out and even add a buzzy quality to the sound."

USA Pre LD2 YLW: Mark IIC+ Lead

"This is Boogie. This mode is the sound that started the craze that became what is slanged as the "California" sound or the "L.A." guitar tone. Lukather, Landau, Keaggy, Lynch, Gillis, Prince, and Metallica catapulted this sound into the forefront of hit making guitar sounds throughout the eighties. Metallica continues to search high and low for pristine C+ Heads to add to their amplifier collection - deeming them essential for recording, but you don't have to! The Yellow mode is the reincarnation of the fabled Mark II-C+ Lead mode. Its blend of bold punch and evenly stacked liquid harmonics produces a lead voice that transforms any player who spends enough time to let it...into a virtuoso of feeling, soul, and statement. It growls with ferocity in the low range, staying tight and urgent. A "thunk and chirp" is experienced traveling through the midrange frequencies. Then suddenly, as if someone redialed for the highs, an explosive, yet liquid, top end comes ripping out as you squeeze every luscious note out of the treble strings. Sound almost sexual? Primal? Well many a II-C+ junkie...(there are roughly 4500 of them,) will confess...broken hearts are often cured from a couple weeks rocking with a C+. Seriously, the blend of this mode is so amazing that most players are finding new great sounds 2 and 3 years after their first ear to ear grin.

While the Yellow mode excels at medium to high gain settings because of these nicely stacked harmonics, don't underestimate Yellow for the rootsier low gain sounds. Sure as you can make high gain sounds chirp and squeal on command, low gain sounds possess the sting essential to tortured blues soloing. Yellow doesn't get as saturated as the Green mode in

LEAD 2 making it the choice for skinnier, more cutting and clean blues lines. The PRESENCE control works extremely well in the Yellow mode dialing in and out the harmonic content of a given preset. At low PRESENCE and TREBLE control settings the sound is more horn or voice like. With higher settings of the Presence and possibly Treble the character becomes much more searing and harmonic.”

USA Pre LD2 RED: “shred”

“This mode is made for shred. In fact, it might be better named LEAD 2 Shred. It is much more aggressive in the top end than its’ yellow counterpart, boasting much enhanced upper harmonics. Though it shares almost identical basic architecture...additional parts switch in when Red is chosen that give this once balanced, well behaved mode a downright ugly attitude. Harmonics are boosted and a bit of lower treble is dipped to give this Red a sizzling edge that is unique to this mode only. The harmonic edge not only benefits high notes...It does wonders for the grinding “Z’s” needed for bodacious low end crunch. This enhances the growl on the low strings as well as it adds cut and sizzle to the higher strings. The frequencies enhanced by this circuit are slightly higher than those found in conventional power section PRESENCE controls.They are also higher, more rebellious and defined than those adjusted by the action of TriAxis’ PRESENCE control. These highs have that out-of-control-vibe to them, that falling-apart-yet-loosely-held-together quality that is often associated with modified early British heads using Euro-style EL34 power tubes for their ponies. This elusive sound affects the feel of the strings and players accustomed to such sounds have difficulty feeling at home on an amp that doesn’t deliver these loose highs.“

Yek’s comments:

LD2 Yellow is my absolute favorite. It’s the IIC+ mode. It has Pull Shift and Pull Bright enabled by default. I find this model easier to dial in than the IIC+ models, and it sounds awesome.

Cliff says:



"I have a Mark IIC+, a Mark IV, a Mark V and a Triaxis. They're all completely different. Mesa always says things like "sounds the same as a IIC+" but the circuits are different and, probably most important, the knob tapers are completely different."

"The key to a good Boogie sound, IMO, is the Fat Switch. This is the treble Pull Shift on the IIC+ and the Pull Fat on the Mark IV. Mesa knew this and the Lead 2 modes on the Triaxis all had the treble shift engaged by default."

“Added the “Bright” control to the Amp block. This high treble control is a shelving filter between the preamp and power amp and may be used to darken or brighten the output of the preamp. This control also accurately replicates the “Presence” control found in the Mesa Triaxis preamp when set to negative values (the Presence control in the Triaxis is actually a high frequency cut shelving filter).“

"I can nail the sound of my Triaxis now by setting it (Bright) around 9:00 - 10:00."

"10 on the Triaxis would be 0 dB on the Bright parameter. Anything below 10 is equivalent to less than noon on the Bright parameter. The "Presence" control on a Triaxis is always a hi cut, it

never boosts. The Bright parameter is not an exact match to the Triaxis Presence control though. It is a fixed shelving filter. The Triaxis Presence control is passive so the center frequency changes with the amount of cut. It also changes the load on the plate which distorts the frequency response a bit too. The Presence parameter should be set to 5.00, which is neutral (see the manual for details)."

"I used a Triaxis for, shoot, I dunno, over a decade before designing the Axe-Fx. I have two of them. So I'd say I'm pretty familiar with the tones. To my ears (and my measurement equipment), the Axe-Fx models are spot-on."

"Note that these were modeled with the Triaxis Presence control at maximum as this control is actually a hi-cut control. Also note that the mid control in the model has far more range than the preamp. At a value of 5.0 the responses will match but the amount of mid cut on the Axe-Fx is greater."

"Mesa claims it's based on the IIC+ but it's different. The bright cap is different, the mid resistor is much greater, the source impedance of the drive "pot" is different, etc."

The original TriAxis is a preamp without a power amp. The models however do have a poweramp section.

"I did NOT use a Boogie power amp model with these as I always preferred using my Triaxis (I have two of them) with a more typical tube power amp. My favorite power amp with the Triaxis was a VHT 2502 so the power amp model is very similar to that."

Stock cabs: use the typical MESA cabinets such as 4x12 USA, 4x12 Recto, TX Star etc. Or try the 4x12 Rumble or Petrucci's cab: #108.

Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>N/A</i>
<i>Master Volume?</i>	<i>N/A</i>
<i>Negative Feedback?</i>	<i>N/A</i>
<i>Preamp Tubes</i>	5x 12AX7
<i>Power Amp Tubes</i>	N/A
<i>Tonestack Location</i>	N/A

USA Sub Blues (MESA/Boogie Subway Blues)



Synopsis:	A model of a Mesa Boogie Subway Blues, a simple EL84 power amp.
Tips:	A nice clean amp but boxy overdrive.
Sound Clips:	MESA BOOGIE SUBWAY BLUES Subway Blues Tinkering
Recommend Cab/Speaker:	Eminence Black Shadow 10"
Manual:	Mesa/Boogie Subway Blues

MESA is known for its amplifiers with loads of features. The Subway Blues is something else. It's part of the Subway series by MESA: portable, simple amps. Targeted at the blues and therefore often compared to amps such as the Fender Blues Junior.

MESA:

"New York City. Here are a few combos so compact, you can carry one on your right shoulder, your guitar on the left, your subway change in one hand and still have one hand free...for

your weapon of choice. And if you get where you're going, you'll be amazed at how huge it sounds."

It uses two EL84 tubes to generate 20 watts of power and has built-in reverb.

The controls are Volume, Bass, Middle, Treble and Reverb.

It has a Bright and a FAT voicing, through separate inputs or (in later models) a switch. I'm not sure whether the FAT voicing can be obtained by engaging the FAT switch in the model.

Yek's comments:

It's nice amp for clean tones IMHO. When turned up in overdrive, it gets boxy though.

The Subway Blues combo comes with a 10" Eminence Black Shadow speaker. Try the stock 10" Princeton cabs, or the Blues Junior cab.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	20 watts
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	4x 12AX7
<i>Power Amp Tubes</i>	2x EL84
<i>Tonestack Location</i>	PRE

Vibra-King (custom Fender Vibro-King)



Synopsis:	Models of a Fender Vibro-King, “The King of Fender Amps”, used by Gary Clark Jr. It has 3x10 speakers and no negative feedback.
Tips:	N/A
Sound Clips:	Review Demo - Fender Vibro-King 20th Anniversary Edition Guthrie Trapp Demos the Fender Vibro-King
Recommend Cab/Speaker	Factory Cab: #098 3x10 Vibrato King Mix

Fender:

“Fender introduced the Vibro-King in 1993 to great acclaim, marking a return to a great hand-wired amp tradition while including a previously unavailable selection of sought-after

features. In the two decades since, guitarists and amp aficionados everywhere have prized the enduringly classic Vibro-King as one of the most touch-sensitive amps ever, with sparkling-clean shimmer at lower volumes and powerfully thick overdrive when cranked up."

The Vibro-King is called the "King of Fender amps" by some. It's a "modern" take on classic Fender tones. Vibro-King players include Gary Clark Jr., Eric Clapton, Pete Townsend and Robert Cray. Fender made an expensive 20th Anniversary edition

Fenderguru:

"Players seem to either love or hate the Vibro-King. If you're not into reverb or tremolo you can steer away from this amp. 56% of the controls on the faceplate is about reverb and tremolo. The reverb has the same controls as a Fender standalone reverb unit offering a wide selection of reverb tones. Personally we like to reduce the tone and mix and go for a longer dwell. The tremolo can go really deep and slow, more than you might be used to with the blackface and silverface Fenders."

The modelled one is a custom version.

Cliff says:



"The model is based on the custom version which has higher plate voltages which causes more overdrive on the power tubes."

The amp has two 6L6 tubes for 60 watts power, a solid-state rectifier and built-in reverb and vibrato. It's said to be an incredible heavy amp.

As usual this amp has two inputs. Fractal Audio models are always based on the input with the highest input level. To get the equivalent of using the lower input, set Input Trim to 0.500.

Note that the range of most Fender models is 1 to 10, while the model controls range from 0 to 10.



The controls are: Volume, Treble, Bass, Middle and a Fat switch. The amp also has vibrato and reverb controls.

It's a bright amp. There's no Bright switch to turn off, so turn down treble to tame the highs.

The Fat switch switches the amp from clean into a cranked mode for soloing. We've have models of this amp with the Fat switch engaged and one with the Fat switch disengaged. As mentioned in this [Premier Guitar](#) article, some players only play with Fat engaged.

The Vibro-King comes with three 10" speakers. We have got these as a stock cab: 3x10 Vibrato Mix.

Fenderguru:

"This amp came originally in 1993 with the vintage style blue Eminence Alnicos, and after that Jensen P10r followed by different sorts of speakers from Celestion. Changing the speakers is an easy move for Fender to attract new and old customers again by altering the tone a little bit and calling the new model for "Anniversary model" etc. We find that the original blue frame Eminence give you more of a brownface tone while modern and louder

speakers, (like the Weber 10a125/f125) points you into a more scooped blackface direction. We have found some of the best modern Jimmie Vaughan and Robert Cray tones with the blue frame Eminence Alnicos in this amp (maybe also with the Jensen P10r). The tone is very direct, snappy, responsive and you will hear all the trebly details from your fingers and strings. This tone is not for beginners but for those with a serious attitude for tone. If you are into more rock'n roll, or a fat, chunky clean sound, you should go for other speakers with more low end.



Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>60 watts</i>
<i>Master Volume?</i>	<i>No</i>
<i>Negative Feedback?</i>	<i>No</i>
<i>Preamp Tubes</i>	<i>12AX7</i>
<i>Power Amp Tubes</i>	<i>2x 6L6</i>
<i>Tonestack Location</i>	<i>POST</i>

Vibrato Lux (Fender Vibrolux, 6G11)



Synopsis:	A model of a 1963 Fender Vibrolux, the amp used on Dire Straits' first album.
Tips:	I turn down Bass a little, increase Treble a little and that's it: a great vintage Fender tone - Yek
Sound Clips:	1961 Fender Vibrolux Demo & Teardown 1963 Vibrolux
Recommend Cab/Speaker:	Factory Cabs: #005 1x12 Brown M160, #082 1x12 Vibrato Lux Mix, #090 2x10 Vibrato Lux Mix

This model is based on a rare brownface Fender Vibrolux (not the Vibrolux Reverb), which were produced between 1961 and 1963 only.

It's the period between the Tweed and Blackface models: '59 - '63. Brown Fenders sound cleaner than the Tweed amp, but still warmer and dirtier than the blackface models. Like the Tweed amps, brownface amps are very collectible. More information is on Fender amps is on [Wikipedia](#).

The Vibrolux is famous because Mark Knopfler used one to record Sultans of Swing. More info is on [Ingo Raven's](#) site.

It is rated at 35 watts and has 6L6 power tubes, two inputs and a Normal and a Bright channel. The Bright channel has been modeled.

Fractal Audio models are always based on the input with the highest input level. To get the equivalent of using the lower input, set Input Trim to 0.500.

The controls on the Bright channel are: Volume, Bass and Treble, plus vibrato controls. There's no Bright switch.

Note that the range of most Fender models is 1 to 10, while the model controls range from 0 to 10.

Cliff says:



"Early Dire Straits tone is a Vibrolux (Vibrato Lux model). The Vibrato Lux model is based on the same model and year amp used on the eponymous album. There's a cab in there too."



I turn down Bass a little, increase Treble a little and that's it: a great vintage Fender tone.

The Vibrolux was available as a 1x12 combo or with a single or dual 10" speakers. We've got these as stocks cabs: #005, #082 and #90.

Here is a picture of Mark Knopfler's Vibrolux, and some of his other amps (Vibrolux is far right):





(Rory Gallagher's Vibrolux)

Amplifier Specifications

<i>Year of Manufacture</i>	1963
<i>Circuit</i>	6G11
<i>Power</i>	35 watts
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	4x 7025
<i>Power Amp Tubes</i>	2x 6L6
<i>Tonestack Location</i>	PRE

Vibrato Verb (Fender Vibroverb)



Synopsis:	4 models of different Fender Vibroverb amps, famous for its use by Stevie Ray Vaughan.
Tips:	N/A
Sound Clips:	SRV '64 Fender Vibroverb "Cesar Diaz" Modded Amplifier fenderguru.com - Vibroverb and Super Reverb
Recommend Cab/Speaker:	Jensen C15N, JBL D130 or Eminence Factory Cab: #087 1x15 Tweed Pro Mix

The Vibroverb is possibly the most sought-after vintage Fender amp. Mainly because Stevie Ray Vaughan (SRV) used to play two of them.. **Mark Knopfler** played a '63 brownface model.

Fenderguru.com:

"Stevie Ray Vaughan's musical influence has made the Fender Vibroverb the most sought after and hyped of all Fender amps. He played many other amps too, Super Reverb, Dumble and Marshalls. In studio he used dozens of amps that were thrown at him. For some reason the Vibroverb has become the most famous and is now widely associated with his signature tone (though you can reproduce his tone with most Fender amps with the right speakers). On

the vintage amp market the blackface Vibroverb sells for three to four times as much as the price for other 6L6 Fender amps, sometimes even more than the legendary 4x10" narrow panel tweed Bassman. Since Fender did not continue the Vibroverb after the CBS takeover in 1965, most likely because players didn't desire 1x15" amps at that time, there are only a few blackface Vibroverb amps out there. Given the hype and popularity, these few Vibroverbs are extremely valuable and collectible. So, what is so special with the Vibroverb? First, the 15" speaker sets it apart from most guitar amps. While most guitar amps have multiple 10" and 12" speakers the Vibroverb came with one big Jensen C15n or JBLd130f, the last one with a aluminium dust cap that can be hard to tame. Otherwise the blackface Vibroverb is very similar to the other blackface and silverface AB763 Fender amps. In fact, there aren't any different features or technical improvements in the Vibroverb that justifies its popularity. It's all about emotions. But that's what music is all about; emotions.

The Vibroverb belongs to the 6L6 Fender family. It is powerful and loud, but in a different way than the 10" and 12"-amps. The Vibroverb did not sell very well in 64 and 65. Players probably thought the amp was suited for bass amps, we're not sure. The Vibroverb did score among steel guitar players at the time. The 15" speakers are firm in the bass and have lots of sparkle but most importantly, they have an enormous spread carrying the lower mids to anyone on stage. Mid frequencies is exactly what you need on stage in an electrical band. The mids will blend in nicely with the bass, drums, piano and horns. It will not interfere with the bass like a 4x10" setup does. Of course this is a matter of taste, but a guitar tone with strong mids will contribute to a rich overall melodic footprint in an electrical band."

Wikipedia:

"The Fender Vibroverb was a 40-watt combo guitar amplifier originally manufactured in 1963 and 1964. It was the first Fender amplifier to incorporate on-board reverb which became a standard feature on many high-end Fender tube amps during the 1960s and 1970s.

(Blackface era) The Vibroverb, likewise, was given the new blackface cosmetics and somewhat different circuitry (AA763). Still rated at 40 watts, the new design possessed the new blackface "optical coupler" vibrato circuit (in place of the tweed-style vibrato found in its immediate predecessor), and a bright switch. Gone also were the two ten-inch Oxford speakers; in their place was a single fifteen-inch speaker. Both JBL and Jensen speakers were used, depending what was on hand at the time of production.

Production on the blackface Vibroverb was discontinued in late 1964.

Due to low production numbers and their use by Stevie Ray Vaughan, 1964 (blackface) Vibroverbs have become highly collectable. Vaughan acquired two 1964 blackface Vibroverbs in the late 1970s or early 1980s at two different times and locations, with sequential serial numbers. The Vibroverbs used by Vaughan were also modified by Cesar Diaz in a number of ways."

The blackface Vibroverb has 6L6 power tubes, low and high inputs, and a Normal and a Bright channel (model: Bright channels). It has Volume, Bass and Treble controls and a Bright switch, plus reverb and vibrato controls.

Fractal Audio models are always based on the input with the highest input level. To get the equivalent of using the lower input, set Input Trim to 0.500.

The range of most Fender models is 1 to 10, while the model controls range from 0 to 10.

We have 4 models of various Vibroverb amps:

Vibrato Verb: the Axe-Fx Ultra model.

Vibrato Verb AA: based on Cliff's '64 blackface Vibroverb with the AA763 circuit.

Vibrato Verb AB: based on AB763 circuit.

Vibrato Verb CS: based on the '64 Vibroverb Custom, which was produced between 2003-2008, with the Mod switch on.

About the Custom re-issue: Fender produced a Vibroverb Custom re-issue, in collaboration with Cesar Diaz, between 2003 and 2008. This was a modified version of the SRV's blackface Vibroverb. It was switchable between tube (original) and solid-state (diode) rectification, and the Normal channel and Vibrato effect could be disabled for more preamp gain.

Blackface Vibroverbs and re-issues were paired to a 15" speaker (Jensen C15N, JBL D130 or Eminence. Try 1x15 Tweed Pro.

(The picture below is Cliff's own original '64 Vibroverb)



Cliff says:



"The Transformer Matching value for the CS model is based on the output transformer in the actual amp. Legend has it that SRV used a Bassman transformer which would lead to significant overmatching. To replicate this increase Xfrmr Match to around 1.8."

Amplifier Specifications	1964 BF AA	AB763	'64 Custom Shop Re-issue
<i>Year of Manufacture</i>	1964	1963-64	2003-08
<i>Circuit</i>	AA763	AB763	N/A
<i>Power</i>	40 watts	40 watts	50 watts
<i>Master Volume?</i>	No	No	No
<i>Negative Feedback?</i>	Yes	Yes	Yes
<i>Preamp Tubes</i>	7025	7025	4x 12AX7 2x 12AT7
<i>Power Amp Tubes</i>	2x 6L6	2x 6L6	2x 6L6
<i>Tonestack Location</i>	PRE	PRE	PRE

Wrecker Express (Trainwreck Express)



Synopsis:	A model of a Trainwreck Express amp, which sounds similar to a Marshall Plexi
Tips:	<i>"The secret to a Trainwreck is the output transformer...[which] causes the power tubes to clip much sooner" – Cliff</i>
Sound Clips:	Trainwreck Express & Liverpool Demos 1959 Les Paul & Trainwreck Amp 65amps Lunch with Dan - A real Trainwreck Express
Recommend Cab/Speaker:	Celestion G12M (Greenback)

Trainwreck Circuits amps are the most expensive guitar amplifiers, after Dumble. These boutique amps (heads only) with their remarkable wooden enclosures were designed by (the late) **Ken Fischer**.

Trainwreck.com:

"What makes Trainwreck amps so good?"

To start, they are so responsive. You can set up a Trainwreck so that you can control the amount of distortion in your sound with the volume knob but, depending on how much overdrive you like, you can go from gorgeous clean to gorgeous crunch by merely altering your touch.

The tone of these amps is incredible but if you don't have tone in your fingers, don't expect a 'wreck to make you sound good. Remember, they are totally responsive. If you have a bad sounding guitar or you put bad sounding tubes in the amp, don't expect it to sound great.

The unprecedented clarity of these amps makes it possible to hear the tonal differences created by your guitar cable, your speaker cable, removing your pick-guard, or whatever. A

Trainwreck head will allow you to distinguish the quality of every link in your signal chain. Clarity also means that when the amp is distorting, you can still hear all the nuances of your playing. That Ken made amps with this degree of clarity that still sounded beautiful, even under distortion, was his unique genius. As a result of the incredibly nuanced high-end of a Trainwreck head, the guitar tends to cut through the overall mix of the band.

Trainwreck amps are also built incredibly well, built to last. They very rarely need servicing."

Cliff owns a Trainwreck. AFAIK the exact model is unknown.

The Wrecker Express model is based on the Trainwreck Express, which sounds similar to a Marshall Plexi. Check out [The Amp Garage](#) for more Trainwreck info and discussion.

There is a great article on Premier Guitar website: [The Last Trainwreck](#).

The Express has either EL34 or 6V6 tubes. The model is based on EL34s.

Like all Trainwreck amps, the Express is a simple amp. Its controls are: Volume, Treble, Mid, Bass, Presence and Bright switch. Because there's no Master the Volume control not only sets the volume level but gain as well.

I prefer to use the model with IRs of G12M (greenback) speakers.

Cliff says:



"The secret to a Trainwreck is the output transformer. The impedance ratio is about twice that of other amps. I.e. typical 50W Marshall has a primary impedance of about 3200 ohms. A Trainwreck is about 6500 ohms. The causes the power tubes to clip much sooner."

Amplifier Specifications

<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>Unknown</i>
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	Yes
<i>Preamp Tubes</i>	Unknown
<i>Power Amp Tubes</i>	2x EL34
<i>Tonestack Location</i>	PRE

Wrecker Liverpool (Trainwreck Liverpool)



Synopsis:	A model of a Trainwreck Liverpool, a fusion between the Express (preamp) and Rocket (poweramp), making it a Marshall meets Vox.
Tips:	N/A
Sound Clips:	Trainwreck Express & Liverpool Demos Trainwreck Liverpool - Daisy '91 with '59 Les Paul & '62 Stratocaster Carter Vintage Guitars - J.D. Simo on a '62 Strat through a Trainwreck Liverpool
Recommend Cab/Speaker:	Celestion G12M Greenback, Celestion Alnico

Trainwreck Circuits amps are the most expensive guitar amplifiers, after Dumble. These boutique amps (heads only) with their remarkable wooden enclosures were designed by (the late) **Ken Fischer**.

See the Wrecker Express model for more details on Trainwreck amplifiers.

This model is a fusion between the Express (preamp) and Rocket (poweramp), discussed previously. In other words: Marshall meets Vox. **The Amp Garage** has more Trainwreck info and discussion.

The Liverpool has EL84 power tubes.

Cliff owns a Trainwreck. AFAIK the exact model is unknown.

Like all Trainwreck amps, the Liverpool is a simple amp. Its controls are: Volume, Treble, Mid, Bass, Presence and Bright switch. Because there's no Master the Volume control not only sets the volume level but gain as well.

I prefer to use the model with IRs of G12M (greenback) and/or AlNiCo speakers.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>Unknown</i>
<i>Master Volume?</i>	<i>No</i>
<i>Negative Feedback?</i>	<i>Yes</i>
<i>Preamp Tubes</i>	<i>Unknown</i>
<i>Power Amp Tubes</i>	<i>2x EL34</i>
<i>Tonestack Location</i>	<i>PRE</i>

Wrecker Rocket (Trainwreck Rocket)



Synopsis:	A model of a Trainwreck Rocket, a boutique amp based on a Vox AC30 Top Boost, with a tube rectifier.
Tips:	<i>Note that the model is quite bass-heavy, I have to turn Bass down. But other than that, I can pretty much leave all controls at default - Yek</i>
Sound Clips:	Trainwreck Rocket VS Express Amp Builds Trainwreck Rocket - with Les Paul
Recommend Cab/Speaker:	Celestion G12M Greenback

Trainwreck Circuits amps are the most expensive guitar amplifiers, after Dumble. These boutique amps (heads only) with their remarkable wooden enclosures were designed by (the late) **Ken Fischer**.

The model is based on the Trainwreck Rocket. Only a few Rockets exist. Some say that it's the best-sounding Trainwreck amp ever made. Go here for more Trainwreck info and discussion.

Cliff owns a Trainwreck. AFAIK the exact model is unknown.

Powered by EL84 tubes, the Trainwreck Rocket is based on and sounds like a Vox AC-30 Top Boost with a rectifier.

Ultra Sound:

"While all Trainwreck models are quite rare, the Rocket is by far the rarest with only about 8 ever made. The Rocket was the 3rd and last official Trainwreck model built by Ken and his increasing illness prevented him from building very many. This is a real shame because she is truly the finest, most magical sounding British style EL84 amp ever made. The clean tones are rich and gorgeous with a crystal airiness enveloping the chime that no other EL84 amp

possesses. The overdrive is warm and creamy with singing sustain and magnificent harmonic complexity. Ken often referred to his personal Rocket amp as Reality Check because once you played her all the other great amps sounded less special. "Marcy" sets the tonal benchmark and is deservedly one of the most valuable guitar amps in the world.

Trainwrecks are very responsive amps with rich harmonic complexity and beautifully balance tone. The amp's gorgeous clean and benchmark overdrive tones can be controlled with the guitar's volume control or by merely altering your touch. Trainwrecks set the standard for warmth, fullness, responsiveness, note articulation, touch sensitivity, string to string separation, fret board feel, clarity, dynamics and singing sustain. Most people feel a Trainwreck Rocket is the finest sounding, tube rectified British style EL84 amp ever built and finding one has become next to impossible."

We also have a Ruby Rocket model, which is also based on the Trainwreck Rocket. The models sound different though, and need different tone settings.

The Rocket is a simple amp: Volume (model: Input Drive), Bass, Treble, Cut (model: Hi Cut). Cut is a passive tone control in the output stage of the amplifier, to adjust the contour of treble frequencies. Because there's no Master the Volume control not only sets the volume level but gain as well.

Note that the model is quite bass-heavy, I have to turn Bass down. But other than that, I can pretty much leave all controls at default.

I prefer to use the model with IRs of G12M (greenback) speakers, just like old Vox amps.

Amplifier Specifications	
<i>Year of Manufacture</i>	<i>Unknown</i>
<i>Circuit</i>	<i>N/A</i>
<i>Power</i>	<i>Unknown</i>
<i>Master Volume?</i>	No
<i>Negative Feedback?</i>	No
<i>Preamp Tubes</i>	Unknown
<i>Power Amp Tubes</i>	4x EL84
<i>Tonestack Location</i>	PRE

Amp Categories

Fender Circuits

Circuit	Amp	Model
5E3	Deluxe	DELUXE TWEED
5F1	Champ	5F1 TWEED
5F2-A	Princeton (Tweed)	PRINCE TONE
5F6-A	Bassman 1959	59 BASSGUY
5F8	Twin 1959 High Power	5F8 TWEED
6G11	Vibrolux 1963	VIBRATO LUX
6G12	Concert 1960	6G12 CONCERT
6G4	Super 1960	6G4 SUPER
AA763	Tremolux	TREMOLO LUX
	Vibroverb (Blackface)	VIBRATO VERB AA
AA964	Princeton (Non-Reverb)	PRINCE TONE NR
	Princeton Reverb 1966	PRINCE TONE REV
AB165	Bassman 1965	65 BASSGUY BASS
		65 BASSGUY NRML
	Band Master 1968	BAND-COMMANDER
AB763	Deluxe Reverb	DELUXE VERB NRM
		DELUXE VERB VIB
	Super Reverb	SUPER VERB NRM
		SUPER VERB VIB
	Twin Reverb 1966	DOUBLE VERB NRM
Vibroverb (AB763 circuit)	DOUBLE VERB VIB	
AC561	Twin Reverb 1971	DOUBLE VERB SF

Vox-type Amps

If the definition of a 'Vox-type' amp is:

- No negative feedback
- EL84 power tubes

then the following amps can be consider Vox-type.

Manufacturer	Amp	Model
Morgan	AC20 Deluxe	AC-20 12AX7 B
Morgan	AC20 Deluxe	AC-20 12AX7 T
Morgan	AC20 Deluxe	AC-20 EF86 B
Morgan	AC20 Deluxe	AC-20 EF86 T
Blankenship	Leeds 21	BLANKNSHP LEEDS
Budda	Twinmaster	BUTTERY
Orange	AD30HTC	CITRUS A30 CLEAN
Orange	AD30HTC	CITRUS A30 DRTY
Vox	AC15 Top Boost	CLASS-A 15W TB
Vox	AC30	CLASS-A 30W
Vox	AC30	CLASS-A 30W BRT
Vox	AC30	CLASS-A 30W HOT
Vox	AC30 Top Boost	CLASS-A 30W TB
Matchless	DC30	MATCHBOX D-30
Dr Z	Maz 38 SR	MR Z MZ-38
Dr Z	Maz 8	MR Z MZ-8
Paul Ruby	Rocket	RUBY ROCKET
Paul Ruby	Rocket	RUBY ROCKET BRT
Suhr	Badger 18w	SUHR BADGER 18
Trainwreck	Rocket	WRECKER ROCKET

Note: The Leeds 21 is generally referred to as a small Marshall-type amp. See the [article](#) on the Gibson website for more details of the small 18 watt Marshall amps.

Dumble-type Amps

Manufacturer	Amp	Model
Bludotone	Ojai	BLUDOJAI
Carol-Ann	OD2	CA OD-2
Carol-Ann	Triptik	CA TRIPTIK
Fuchs	Overdrive Supreme	FOX ODS
Dumble	Overdrive Special	ODS-100
Two-Rock	Jet 35	TWO STONE J35

Note: The Carol-Ann Triptik is described as “Dumble meets Marshall with a sprinkle of 5150 power amp”

Preamps

The following are the preamp models i.e. the model is of a preamp with a generic or matched power amp model.

Manufacturer	Preamp	Model
Bogner	Fish	BOGFISH BROWN
Bogner	Fish	BOGFISH STRATO
Marshall	JMP-1	BRIT PRE
Marshall	JMP-1	JMPRE-1 OD1 BS
Marshall	JMP-1	JMPRE-1 OD1
Marshall	JMP-1	JMPRE-1 OD2 BS
Marshall	JMP-1	JMPRE-1 OD2
CAE	3+ SE	CA3+ CLEAN
CAE	3+ SE	CA3+ LEAD
CAE	3+ SE	CA3+ RHY
Soldano	X88R	SOLO 88 CLEAN
Soldano	X88R	SOLO 88 LEAD
Soldano	X88R	SOLO 88 RHYTHM
Soldano	X99	SOLO 99 CLEAN
Soldano	X99	SOLO 99 LEAD
FAS	Tube Pre	TUBE PRE
Mesa/Boogie	Triaxis	USA PRE CLEAN
Mesa/Boogie	Triaxis	USA PRE LD1 RED
Mesa/Boogie	Triaxis	USA PRE LD2 GREEN
Mesa/Boogie	Triaxis	USA PRE LD2 RED
Mesa/Boogie	Triaxis	USA PRE LD2 YLW

References

Manufacturer Websites

- Ampeg: <http://www.ampeg.com/>
- Bad Cat: <http://www.badcatamps.com/>
- Blankenship: <http://www.blankenshipamprepair.com/>
- Bludotone: <http://www.bludotone.com/>
- Bogner: <http://www.bogneramplification.com/>
- Budda: <http://www.budda.com/>
- CAE: <http://www.customaudioelectronics.com/home>
- Cameron: N/A. An (older) Facebook site exists: <https://www.facebook.com/cameronamps/>
- Carol-Ann: <http://www.carolannamps.com/>
- Carr: <http://carramps.com/>
- Carvin: <http://carvinaudio.com/>
- Cornford: <http://www.cornfordamps.com/>
- Diezel: <http://diezel.typo3.inpublica.de/>
- Divided By 13: <http://www.dividedby13.com/>
- Dr Z: <http://drzamps.com/>
- Dumble: N/A
- Engl: <http://www.englamps.de/>
- EVH: <http://www.evhgear.com/>
- Fender: <http://www.fender.com/guitar-amplifiers/>
- Friedman: <http://friedmanamplification.com/>
- Fryette: <http://www.fryette.com/>
- Fuchs: <http://www.fuchsaudiotechnology.com/>
- Gibson: <http://www.gibson.com/> (guitars only)
- HiWatt: <http://www.hiwatt.co.uk/>
- Komet: <http://www.kometamps.com/>
- Marshall: <https://marshallamps.com/>
- Matchless: <http://matchlessamplifiers.com/>
- Mesa/Boogie: <http://www.mesaboogie.com/>
- Morgan: <http://morganamps.com/>
- Orange: <https://orangeamps.com/>
- Paul Ruby: <http://www.paulrubyamplifiers.com/>
- Peavey: <https://peavey.com/>
- Roland: <http://www.roland.com/categories/amplifiers/>
- Soldano: <http://www.soldano.com/>
- Splawn: <http://www.splawnguitars.com/>
- Suhr: <http://www.suhr.com/>
- Supro: <http://suprousa.com/>
- Swart: <http://www.swartamps.com/>
- Trainwreck: <http://www.trainwreck.com/>
- Two-Rock: <http://www.two-rock.com/>
- Vox: <http://www.voxamps.com/>

Amplifier Information

- Amp Garage Forum: <http://ampgarage.com/forum/>
- Ampwares: <http://ampwares.com/>
- Fenderguru: <http://fenderguru.com/>
- Legendary Tones: <http://www.legendarytones.com/>
- Premier Guitar: <http://www.premierguitar.com/>
- Vintage Guitar: <http://www.vintageguitar.com/>

YouTube Channels

- Johan Segeborn: <https://www.youtube.com/user/JohanSegeborn>

Other Fansites

- Rory Gallagher's Official Site: <http://www.rorygallagher.com/> (source for pictures of the '59 Bassman, Concert and Vibrolux amps – because I'm a fan)
- Ingo Raven's Mark Knopfler Site: <http://www.mk-guitar.com/>

Fractal Forum Content

- Bahrecords Real Amp Settings to Fractal Settings Translation Table:
 - <http://wiki.fractalaudio.com/axefx2/images/e/e3/Fendercontrols.png>