



User Manual

for the full line of Flexitone Series Digital Guitar Amplifier Systems, including:

Flexitone - 60 Watt Mono 1 x 12" Combo

Flexitone XL - 100 Watt Stereo 2 x 12" Combo

Flexitone Duo - 100 Watt Stereo 2 x 10" Combo

Flexitone Plus - 100 Watt Stereo 1 x 12" Combo

Flexitone Cab - 1 x 12" Satellite Cabinet for Flexitone Plus

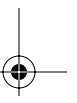
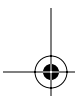
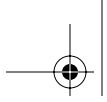
Flexitone HD - 300 Watt Stereo Head

Flexitone Cab 212S - 2 x 12" Cabinet for Flexitone HD

and the optional foot controllers:

Floor Board and **FB4**

printed in the USA by Line 6 - part number 40-00-0030
Electronic version also available at <http://www.line6.com>
Rev F



The serial number can be found on the Flextone back panel. Please note it here for future reference:

SERIAL NO: _____



This equipment is UL listed (file no. E174693) for UL 6500 and CAN/CSA-E65-94 safety standards.

WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

CAUTION: To reduce the risk of fire or electric shock, do not remove screws. No user-serviceable parts inside. Refer servicing to qualified service personnel.

CAUTION: This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



The lightning symbol within a triangle means "electrical caution!" It indicates the presence of information about operating voltage and potential risks of electrical shock.



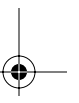
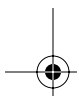
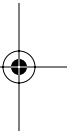
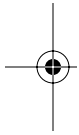
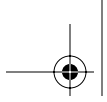
The exclamation point within a triangle means "caution!" Please read the information next to all caution signs.

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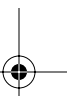
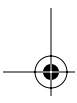
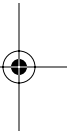
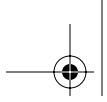
YOU SHOULD READ THESE IMPORTANT SAFETY INSTRUCTIONS KEEP THESE INSTRUCTIONS IN A SAFE PLACE

Before using your Flextone, be sure to carefully read the applicable items of these operating instructions and the safety suggestions.

1. Obey all warnings on the amp and in the Flextone Manual.
2. The heat sinks on the back of the Flextone HD can get hot! Do not touch during operation or shortly after.
2. Do not place near heat sources, such as radiators, heat registers, or appliances which produce heat. Keep the rear of the unit at least 3 inches from walls or other items that might block heat radiation.
3. Do not block any of the ventilation openings or use in an enclosed space.
4. Guard against objects or liquids entering the enclosure.
5. Connect only to AC power outlets rated 100-120V or 200-240V 47-63Hz (depending on the voltage range of the unit; refer to the back panel). Current ratings should be a minimum of 5A for the 120V range and 2.5A for the 240V range.
6. Do not step on power cords. Do not place items on top of power cords so that they are pinched or leaned on. Pay particular attention to the cord at the plug end and the point where it connects to the amp.
7. Unplug the amp when not in use for extended periods of time.
8. Do not perform service operations beyond those described in the Flextone Manual. In the following circumstances, repairs should be performed only by qualified service personnel:
 - liquid is spilled into the unit
 - an object falls into the unit
 - the unit does not operate normally or changes in performance in a significant way
 - the fuse is blown
 - the unit is dropped or the enclosure is damaged
9. Prolonged listening at high volume levels may cause irreparable hearing loss and/or damage. Always be sure to practice "safe listening."



CHAPTER 1: QUICK START GUIDE	
“Manual? I don’t need no stinking manual!”	1•1
INTRODUCTION	
Register And Get Great Free Stuff!	1•1
Get On-line	1•2
Flexitone! Meet the Flexitone	1•3
TubeTone™ Modeling	1•3
Amp Models	1•4
CHAPTER 2: GRAND TOUR	
Front Panel Controls	2•1
Rear Panel	2•4
Flexitone Flavors	2•6
CHAPTER 3: MODELED AMPS	
Which Amps Are Modeled?	3•1
Flexitone Signature Sounds	3•5
CHAPTER 4: FLEXTONE EFFECTS	
Onboard Effects	4•1
Combined Effects	4•4
CHAPTER 5: CREATING & STORING SOUNDS	
Using the Manual Channel Features	5•1
Using the Channel Memories	5•1
Edit Mode	5•2
The Preset Reset Button	5•3
CHAPTER 6: THAT’S USING YOUR FEET	
USING THE FLOOR BOARD WITH THE FLEXTONE	
Getting Connected	6•1
TWO MODES:	
I. CHANNEL SELECT MODE	
Banks	6•2
Channel Select	6•3
Manual Mode	6•3
Editing & Saving Setups with the Floor Board	6•3
Tap Tempo	6•4
Tuner	6•4
Wah Pedal	6•4
Volume Pedal	6•5
2. EFFECT ON/OFF MODE	
Distortion	6•6
Drive/Boost	6•6
EQ	6•6
Trem/Chorus	6•6
Delay	6•7
Reverb	6•7
Effect On/Off Settings Stored With Programmed Sounds	6•7
USING THE FB4 WITH THE FLEXTONE	6•8
CHAPTER 7: INSIDE YOUR HEAD: DETAILS FOR THE FLEXTONE HD	7•1
APPENDIX A: AMP MODELS	A1
APPENDIX B: EFFECT PARAMETERS	A2
WHO’S RESPONSIBLE?	A3



QUICK START GUIDE: "MANUAL? I DON'T NEED NO STINKING MANUAL!"

QUICK START GUIDE

1 • 1

or:

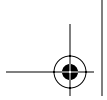
"MANUAL? I DON'T NEED NO STINKING MANUAL!"

1. Turn the **CHANNEL VOLUME** and **MASTER VOLUME** controls all the way down to zero.
2. If you've got an HD, hook up your cabinets, following the directions in the **HD Cabinet Hook-ups** chapter.
3. Plug the power cord into the rear **POWER CONNECTOR**, then plug the other end into an **AC** wall socket.
4. Connect your guitar to the **INPUT JACK**.
5. Turn on the Flexitone by pressing the **POWER** button on the rear panel (front panel if it's an HD).
6. Select an **AMP MODEL**.
7. Set the **CHANNEL VOLUME** anywhere from 3 to 5 o'clock, adjust the **MASTER VOLUME** to a comfortable level, and set the **BASS**, **MID**, and **TREBLE** to your heart's desire.
8. Select your desired **EFFECTS** setting and adjust the **REVERB LEVEL** and **EFFECTS TWEAK** so you're happy with the sound.
9. **What number 8? You're ready to go!**

But wait, before you go any further, flip to the inside back cover of this manual and notice that it folds out. The idea is to have this handy pictorial reference always opened out while you're thumbing through the manual. And then you can photocopy the back of it, and you'll have a handy template for making a note of your favorite settings.

REGISTER AND GET GREAT FREE STUFF!

Included with your Flexitone is a handy, postage-paid card for you to send back to us to register your purchase, and let us know a little about yourself. It is very



QUICK START GUIDE: GET ON-LINE

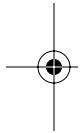
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important that you fill that registration card out **right now**, and send it to us in the mail.

How come? Well, for one thing, it gets you all set up for warranty service should you ever have a problem with your Line 6 product. It also insures that we will be able to contact you if new software versions or other enhancements are offered – not the kind of thing you normally have to worry about with a guitar amplifier, but way important in this case. Cutting edge technology and all that.

Registering also gets you access to special resources available only to Line 6 registered users. Things like periodic free newsletters with tips & tricks, Flexitone and Line 6 news, and special accessories like Line 6 wear will all be made available to the registered owners of the LUP.

GET ON-LINE

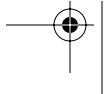


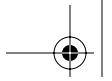
Here at Line 6, our mission is to bring powerful new technologies to musicians. As part of that mission, we are going to be focusing great effort on making the internet a valuable resource for every one of our customers. You may have already visited the Line 6 web site at <http://www.line6.com> when you were considering your purchase, and found all the information already there on Line 6 products and technologies.



The Line 6 web site is going to grow, because it is one of the most effective ways for us to bring you what you need. Through the internet, we can give you instant access to all kinds of great, free stuff to make your Flexitone ever more powerful. Like easy email access to our product support experts, handy tips & tricks, electronic versions of this and other documentation, and the latest news of what's happening with Line 6 and the Flexitone Series systems.

Already on the internet? Great! Visit us and check out the latest news and the other resources there. Not on the internet yet? This may be the time to make the big jump, and thereby insure that you will get all the great resources we can offer for you and your Flexitone.





INTRODUCTION

FLEXTONE! MEET THE FLEXTONE....

Thanks for buying a Flexitone, the flexible Digital Guitar Amplifier System with the killer tone (and you were wondering how we came up with the name). There's a bunch of stuff we have to talk about and only a few pages to do it in, so let's jump right in and get started.

What makes the Flexitone so different from every other guitar amp? It's...

TUBETONE™ MODELING

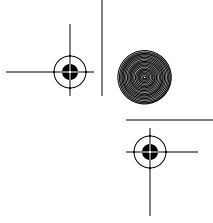
Well, just what is it, and why is it so important? (By the way, you sent in that registration card, right? OK, just checking.)

Tubes, we can all agree, are the heart and soul of every legendary guitar amp and are responsible for the warm, harmonic-rich tone quality of those amps. Solid state devices (transistors) are simply unable to duplicate tube warmth and performance. And "hybrids" – a tube in a circuit along with a bunch of transistors – are really a vain attempt at warming up a transistor-based tone. They fall short in any comparison to a 100% tube circuit. So that's it – tubes or nothin', right? Well, not any more....

You see, the engineers at Line 6, being an adventurous lot, and totally pumped about this whole guitar tone thing as well, decided to stock up on the coffee, bust out the engineering equipment, and get down to learning everything there is to know about tubes. Riding high on the caffeine wave, they began a three-year project to analyze and map out exactly how different types of tubes respond under various conditions typical of guitar amplifier design. How tubes process an input signal, how the signal is colored and shaped, at what point it begins to distort, the quality and characteristic of the distortion – complicated stuff, but all analyzable as electronic data. A guitar pickup output, after all, is an electronic signal, and tubes are really just a complex form of signal processing.

Having sussed it all out, the Line 6 engineers were then able to apply their digital expertise to develop *software* which simulates the tube and other circuitry's signal processing entirely within the digital domain. Cool, huh?

This revolutionary software-based modeling technology, called **TubeTone**, gives Line 6 the power to create butt-kickin' Digital Guitar Amplifier Systems like the



INTRODUCTION: FLEXTONE! MEET THE FLEXTONE....

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Flexitone Series: value-packed amps with a whole new kind of tonal flexibility.

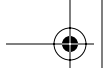
AMP MODELS

The TubeTone process allowed Line 6 to create software *Amp Models* modeled after a collection of amplifiers recognized by guitarists the world over as true “tone classics.” We got these amps together, cranked ’em up, and had a look at the electronic data generated by the tubes, transformers, capacitors, plate and grid voltages, tone control curves – and the whole mess of components and elements unique to each amplifier design. This research led to the creation of TubeTone software Amp Models. These Amp Models were tweaked up through careful A/B listening comparisons to the amps that inspired them, with an ear open for the effects of different volume levels and settings of the originals’ tone and gain controls. The gain and equalization characteristics of the modeled amps were carefully measured so that changes to amp knobs on the models would mirror the effects of these changes on the originals as closely as possible. We’re talkin’ major attention to detail here. Tone control center frequencies, slopes, and cut/boost range were painstakingly analyzed, and we also carefully attended to the effect of presence switches, “bright” channels, and other model-specific factors. Not only that, but since these old amps had highly interactive circuits, we paid careful attention to the way that the setting of one knob will change the way that another knob on the amp will behave. All in an effort to make our Amp Models as much like the amps we modeled as possible.

The resulting TubeTone Amp Models are the foundation of the Flexitone guitar amp. Now, then. Here are a couple of things we want to be crystal clear on:

1. **The TubeTone modeling process is a 100% digital software-based technology exclusive to Line 6.**
2. **TubeTone is not sampling, nor is it solid state; no special guitar, pickup, or cabling is needed.**

So, now that you know what’s in store, it’s time to experience the TubeTone Amp Models for yourself. Grab your favorite axe, plug in to the Flexitone, and flip back to the handy **Quick Start Guide** on Page 1 • 1 if you haven’t already been through that. Then, press ahead with us to the **Flexitone Grand Tour**....



GRAND TOUR: FRONT PANEL CONTROLS

GRAND TOUR

FRONT PANEL CONTROLS

2 • 1

If you haven't already done so, turn to the inside back cover of this manual and notice that it folds out. Ooh, pretty pictures! The idea is to have this essential pictorial reference always opened out while you're thumbing through the manual. And then you can photocopy the back of it, and you'll have a handy template for making a note of your favorite settings. The boxed numbers that pop up throughout the manual correspond to the numbers on the foldout's illustrations.

Most of the Flexitone controls operate exactly the way you'd expect them to:

1 Input - You plug your guitar in here. (Well, we want the manual to be complete, don't we?).

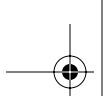
2 Master Volume - Controls the overall output level of the amp. Also sets the headphone level. This setting is *not* saved when you store a setup into one of the Flexitone's memory locations. Unlike many conventional amps, changing the Master Volume level does *not* change your tone. So you can get the tone you want at *any* volume level.

3 Model Select - When you spin this knob, it's essentially like changing what electronic "circuitry" is running inside the Flexitone to make your amp sound (see also **Modeled Amps** on page 3•1). We've arranged the Amp Models around the knob so that they go clockwise from "cleanest" (Jazz Clean) to "dirtiest" (Modern High Gain). Then the four unique Flexitone sounds come next, followed by the Fuzz model.

4 Drive - This knob controls how hard you're driving the chosen amp model. Think of it like the input volume control on a non-master volume amp; the higher the setting, the more "dirt."

5 Tone Controls - Bass, Mid, and Treble. Just like a regular guitar amp, only when you change Amp Models, the response and interactivity of the controls changes too – to act like the tone controls of the original amp that inspired the Amp Model you've selected. The Flexitone also has a Presence bump that can be





GRAND TOUR: FRONT PANEL CONTROLS

2 • 2

switched on and off when you hold the Tap Tempo button. The detail is in the **Tap Tempo** section that begins on the opposite page....

6 Channel Volume - This knob controls the relative volume level of the channel you are playing through. Use this to balance levels between the setups you store in two different channels (say between your rhythm and lead setups).

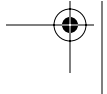
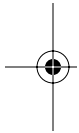
7 Reverb Level - Pretty much says it all, doesn't it? How much reverb do you want today? There are two flavors of reverb that live inside your Flexitone; a TubeTone-created model of a spring reverb, and a standard digital room reverb tone. Which one you get depends on which Amp Model you select. Generally speaking, if the amp that inspired a given Amp Model had a spring reverb, that's what you'll get. If the amp didn't have a reverb (like the 1968 Marshall "Plexi" which inspired the Brit Classic model), you'll hear the room reverb. The back cover foldout, **Chapter 4**, and **Appendix A** run down the details.

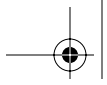
8 Effect Tweak - This knob will always change something, but exactly what it changes will vary depending on which effect you have chosen. Turn it up and something will go deeper or louder or just plain more. The speed of the effects (delay, tremolo, chorus, flanger, rotary speaker simulation) is set by the **Tap Tempo** switch (see below). For all the inside poop, look at the back cover foldout, see **Appendix B** for Effect Parameters, and read the **Effects** chapter.

9 Effects - Selects which effect or combination of effects you get. Once again, all the details will be in the **Effects** chapter.

10 Manual Select Switch - Selects Manual mode of the amplifier. This is the basic "where the knobs are is how it sounds" amplifier mode - all the knobs are "live," so whatever they're set to is just what you're getting out of the Flexitone.

11 Channel Select Switches (A, B, C, D) - You use these buttons to save and recall complete amp-and-effects setups in your Flexitone. By using the four programmable channels, you can save all the details of a complete Flexitone setup for easy, instant recall any time. Thanks to these programmable channels, you won't ever have to waste any time when you want to change from one setup to another, and you'll never have to lose your "perfect" setups. The





GRAND TOUR: FRONT PANEL CONTROLS

2 • 3

position of every Flexitone knob (except the Master Volume) is stored into the channel memory when you save a channel. You can also save and recall your Flexitone channels hands-free when you use the optional Floor Board or FB4 foot controllers (see **That's Using Your Feet** in **Chapter 6** for more details). Once you get used to the Flexitone's programmable channels, you'll wonder how you could ever stand to play an amp without them!

12 Save - This button saves a complete "snapshot" of all the knob positions into one of the Channel memories. **Chapter 5** explains exactly how it works.

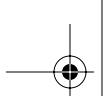
13 Tap Tempo - This control sets and displays the current tempo or speed of delay or tremolo/chorus/flange/rotary speaker. This is also called the *LFO* (Low Frequency Oscillator) speed. For Chorus, Flange, and Tremolo effects, the LFO speed is actually displayed and set at *twice the speed of the oscillator* so you don't have to count to 23 between taps if you want to set up a really slow chorus. To use the Tap Tempo control, just tap the button at the tempo you want. Hmmmm... Tap... Tempo... Tap... Tempo... Pretty clever naming there, huh?

You can also simply hold the **Tap Tempo** button and turn the **Effect Tweak** knob to change the speed or tempo of your effects. This is especially useful if you are trying to nudge your Tap Tempo setting to just the right value. See the **Effects** chapter, the back cover foldout, and **Appendix B** for Effect Parameters to learn exactly what Tap Tempo controls for each of the Effect settings.

The Tap Tempo button also lets you access a few extra Flexitone features: a Presence Boost, a Volume Boost, and a Drive Boost. You can think of the Tap Tempo button as a sort of BOOST switch for these controls. Here's the detail:

Hold down, and **keep holding down**, the Tap Tempo button as you turn the **Drive** knob up past twelve o'clock, and you get the kind of extra 'dirt' that you'd get from a Distortion pedal. This is just the same as turning on the **Distortion** from the Floor Board (details in **Chapter 6**). As you do this, the Channel A light comes on if you turn the Distortion on.

Hold down, and **keep holding down**, the Tap Tempo button as you turn the **Channel Volume** knob up past twelve o'clock, and a Volume Boost kicks in. This



GRAND TOUR: REAR PANEL

2 • 4

is just the same as turning on the **Drive Boost** from the Floor Board (details in **Chapter 6**). As you do this, the Channel B light comes on if you turn the Drive Boost on.

Hold down, and **keep holding down**, the Tap Tempo button as you turn the **Treble** knob up past twelve o'clock, and you get a Presence boost, brightening your tone. Same as the **EQ** boost on the Floor Board (details in **Chapter 6**). As you do this, the Channel C light comes on if you turn the Presence "circuit" on.

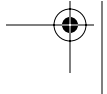
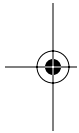
REAR PANEL

FLEXTONE HD OWNERS, LISTEN UP: *After reading these chapters, be sure to also spend a bit of time with **Chapter 7**, which covers all the important differences between the HD and the Flexitone combo amps.*

14 Power Connector - This is where you plug the end of the power cord that doesn't connect to the wall socket.

15 Power Switch - The ultimate digital control; On or Off. Choice is everything. The HD has a front panel power switch.

16 Headphone/Direct Out - If you have a Flexitone HD, please see **Chapter 7** for details on direct out setup. If you have a Flexitone combo, plug your headphones or a 1/4" cable into this jack and it will silence the internal speakers, providing you with private listening or a direct connection to your mixing board or recorder. Plugging into this output turns on a built-in speaker cabinet simulator to emulate a miked speaker cabinet. That means no direct box is needed for recording or feeding to a live PA setup; just plug into this Direct Out for great sound right out of the box! This output is stereo on the Flexitone Duo, Plus, and XL, and mono on the Flexitone. **Note:** *The Master Volume controls the output level here, too, so be sure your level isn't cranked up too high when using the Headphone/Direct Out.*



GRAND TOUR: REAR PANEL

17 Extension Cabinet (on the Flexitone Plus only) - This connection is for the Flexitone Cab or other 8Ω speaker cabinet *only*.

18 Foot Pedal Connector - This jack that looks like a telephone connector on steroids is where you connect the Floor Board or FB4 foot controller. If you have a Flexitone HD, be sure to see **Chapter 7** for more details on foot control capabilities.

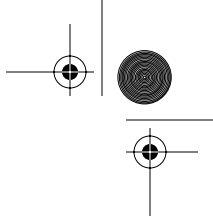
19 Effects Send and Return - HD folks, see **Chapter 7**. For all Flexitones, effect send and return are pre-Master Volume. The send can also be used for a line out connection in live situations where you want to use the amp for an onstage monitor, and feed the sound system for the main room sound. When using the send as an output (instead of the Headphone/Direct Out) the cabinet simulator will be bypassed, so you may want to use a direct box. On the Flexitone Duo, Plus, or XL, the send and return are stereo. On the 1-12" Flexitone, they are mono.

USE THE RIGHT CABLE!

When hooking up your effect send/return, be sure to use the right kind of cable. With a regular Flexitone, the effect send and return are mono, so you should use a mono cable. With the Flexitone Plus, Flexitone Duo, or XL, the effect send and return are stereo, and you should be sure to use a stereo cable to connect them to other devices. If you are connecting the Flexitone Plus, Duo, or XL to a device with separate left and right inputs or outputs, you'll want to use a standard "insert" cable, which gives you a single stereo quarter inch connector for the Flexitone end, and two mono quarter inch connectors for the two ins or outs of your other device. HD people, see **Chapter 7**.

Note: *If you use a mono cable with a Plus, Duo, or XL, you will only get one side of the signal on the send, and when using a mono cable for the return, the returned signal will only be fed to one of your Flexitone's speakers.*

And note: *You probably won't want to use stomp box-type effects in this loop, as they aren't usually designed to take line level signals. Most likely you'll want to plug your guitar straight into the stomp box, and then go from the stomp box to the Flexitone's input.*



GRAND TOUR: FLEXTONE FLAVORS

FLEXTONE FLAVORS

2 • 6

In case you haven't noticed, the Flexitone actually comes in several different flavors. Here's what each one's got, starting with the compact combos:

The Flexitone - Mono, 60 watt setup with a single 12-inch speaker. The **Headphone/Direct Out** and **Effect Send** and **Effect Return** are mono.

The Flexitone Duo - This is the stereo, 100 watt setup (50 watts per side) with a pair of 10-inch speakers. The **Headphone/Direct Out** and **Effect Send/Effect Return** are stereo, and the onboard effects are stereo, too.

The Flexitone XL - This is the stereo, 100 watt setup (50 watts per side) with a pair of 12-inch speakers. The **Headphone/Direct Out** and **Effect Send/Effect Return** are stereo, and the onboard effects are stereo, too.

The Flexitone Plus - This is the stereo, single 12-inch speaker setup. The **Headphone/Direct Out**, **Effect Send/Effect Return**, and the onboard effects are all stereo. With no extension speaker you get 60 watts of power. Plug in a Flexitone Cab, and you've got 100 watts – 50 watts per side.

The Flexitone Cab - The Flexitone Cab is an 8 ohm open-back cabinet loaded with a custom 12-inch speaker, designed by Line 6 for use with the **Flexitone Plus**. Connect it to the Plus's satellite speaker output for 100 Watt, stereo amplification.

The Flexitone HD - This is the stereo, 300 Watt Stereo head Flexitone. The **Headphone, Direct Outs, Effect Send, Effect Return**, and the onboard effects are all stereo. The HD can drive 4, 8, and 16 ohm cabinet setups. Be sure to read Chapter 7 for all the info on the specifics that differentiate it from the Flexitone combo amplifiers, including it Direct Outs, MIDI out, and recommended cabinet configurations.

The Flexitone Cab 212S - The Flexitone Cab 212S is a stereo/mono 2x12" closed-back cabinet loaded with a pair of custom 12-inch speakers, specially designed by Line 6 for use with the **Flexitone HD**. Connect one or more Flexitone Cab 212S cabinets to the HD as described in the oft-promised **Chapter 7**.

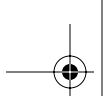
MODELED AMPS

WHICH AMPS ARE MODELED?

Note: For the following description of the TubeTone Amp Models, and other references that you will find throughout this manual, please be aware that Fender, Marshall, Vox, Boogie, Soldano, Peavey, Roland, Matchless, Arbiter, ADA, Leslie, and other amplifier model designations, and the names of musical artists and groups, and effects, are all trademarks of their respective owners, which are in no way associated or affiliated with Line 6. These marks and names are used solely for the purpose of describing certain amplifier tones produced using Line 6's TubeTone modeling technology. The TubeTone modeling technology provides the Flexitone Series of Digital Guitar Amplifier Systems with a wide variety of sounds and effects modeled after some of the most popular sounds of the classic amps, effects, and artists mentioned here.

Jazz Clean - This Amp Model is modeled after the classic Roland JC-120. This transistor amp was known for a strident clean sound and built-in stereo chorus. When using the Jazz Clean Amp Model, try cranking up the treble for a shimmering clean sound that'll cut through just about any mix. It's also perfect for that 80's "new wave" sound. Alternatively, try backing off on the treble and turn up the bass and mids for a darker jazz tone. It'll give you an essentially flat response, providing a balanced tone across the fretboard for jazz chord melodies or single-line phrasing.

Small Tweed - Modeled after a 1952 "wide panel" Fender Tweed Deluxe, this Amp Model will snarl with the best of them. The original amp had only a single tone control, essentially a Treble roll off. We set up the Treble knob to give you this Treble roll off when using this Amp Model. Which left us with the Bass and Mid knobs just sitting there. That just didn't seem right, so we figured out a way to put those knobs to work without mucking about with the authenticity of this Amp Model's Treble tone control. We set up the Bass and Mid as post-TubeTone controls, which essentially lets you EQ up your tone as you would do on a mixing console after recording your amp. Set the Bass and Mid knobs at halfway to put them in "neutral," and try the Treble knob somewhere above halfway for a classic Tweed sound.



MODELED AMPS: WHICH AMPS ARE MODELED?

3 • 2

Tweed Blues - The classic Fender Bassman 4x10 combo was the amp that started it all – instant rock and roll tone. Originally a bass guitar amp, the Bassman became a Blues staple for 6-string guitarists. It has the fat bottom end you'd expect from a bass amp but also has the Fender twang on the top. The Bassman was the “blueprint” for the Flextone's Tweed Blues. Incidentally, when Jim Marshall built his first amps with Ken Bran they were heavily influenced by the early Bassman. One of the interesting things about the Bassman is just how interactive the Mid and Treble controls are. The Mid control isn't a bandpass, as in most tone control setups. Instead, it's almost like a second treble control. The two are additive, so if you're running the Mid knob higher than halfway up, you'll find that the Treble Control might give you more bright than you really want. On the other hand, when you turn the Mid knob down, you'll probably want to boost the Treble.

The Bassman, like many of the amps modeled for the Flextone, didn't have a master volume. So to get the kind of tone that the Bassman can deliver at higher gain settings, you had to crank it up loud enough to do some serious damage to anyone who might be standing close by. With the Flextone, you can get that kind of tone at a bedroom or studio level – or through your headphones even! Try a drive setting of about 4 or 5 – it's guaranteed to dredge up the best R&B licks you know.

Black Panel - The Holy Grail for many blues, country, and “roots” players has been a blackface Fender Deluxe Reverb (Of course, now that the Flextone's here, that may all change). After listening to quite a few candidates for modeling, we stumbled upon an extremely cool '64 Deluxe. Most players love a Deluxe when it's turned up to about 7 for a nice gritty sound that cleans up when you back off your guitar's volume knob just a little. Notice how the tone control response changes as this Amp Model's Drive is changed; clean settings are crisp and present, while more driven settings will mellow the high end. This is typical of what you get from a Deluxe, and is nicely captured here.

The Deluxe itself has only Bass and Treble controls. Leaving us, once again, with the prospect of a knob with nothing to say for itself. But fear not; in this case, we've set up the Mid knob so you can add some post-Tubetone Midrange contouring for a little more flexibility. Once again, set the Mid knob to its “neutral” 12 o'clock position for the classic Deluxe sound. Tweaked up right, this tone will cut through and sing.



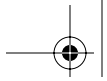
MODELED AMPS: WHICH AMPS ARE MODELED?

Modern Class A - The Matchless Chieftain, which was studied for the Modern Class A selection, is a very expensive handmade amp. Originally designed to sound like a top-boost Vox AC 30, the Matchless doesn't exactly have a Vox sound, but something unique (largely due to the complicated EQ scheme); the sound is sort of "future retro." Its soft clipping is typical of Class A amplifiers; almost a "hi-fi" sound in a great rock n' roll amplifier.

Brit Class A - Modeled after a 1960 Vox AC 15. Vox amps owe much of their unique tone quality to a Class A power amp and were standard issue for English bands in the 60's. They were actually one of the first amplifiers designed specifically for electric guitar; the other companies essentially got their designs straight from the RCA Radio book. This particular sound is based on Channel 1 of the best AC 15 we could find. Once again, the original amp had only a single tone control – a treble cut. We faithfully modeled that and then slipped in some post-Tubetone Bass and Mid contouring. Set the Bass and Mid in neutral (12 o'clock, or halfway up) and play with the Treble control to get yourself some of those classic British invasion sounds.

Brit Blues - This Amp Model is based on a JTM-45 head with block logo (predates the "scrolled" Marshall logo), complete with a gold Plexiglas (Plexi) front panel, although the sound normally associated with Plexi amps comes from the late 60's, 50-watt version that was the inspiration for the next in the Flexitone's line up of TubeTone Amp Models. The JTM-45 marked the beginning of Marshall's transition from a mellower Fender-like tone to the distinctive bright "crunchy" sound of the later Marshalls.

Brit Classic - Modeled after the infamous Marshall Plexi – coveted by tone connoisseurs the world over. By this time (ca. 1968) Marshall had completely changed the circuitry away from the Fender 6L6 power tube heritage and moved to an EL34 tube; another major tone difference was due to the necessary output & power supply transformer changes. (See, we told you we spent some time looking into all this stuff.) All this mucking about added up to create a tone forever linked with Rock Guitar. Amps of this era didn't have any sort of master volume control, so to get this sound you'd have to crank your "Mark III Super Amp" to max – just the thing to help you really make friends with the neighbors. Hendrix used Marshalls of this era; 20 years later Van Halen's first two records owed their "brown sound" to an unmodified 100-watt Plexi. In order to get a crunch sound out of a Plexi you would likely crank up the input volume and the tone controls (to 10!). You'll find that the Brit Classic, in keeping with our basic "make-it-



MODELED AMPS: WHICH AMPS ARE MODELED?

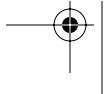
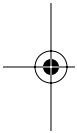
sound-a-whole-lot-like-the-original” concept, is set up to do pretty darned near the same thing. Max out the Mid and Treble knobs and turn Bass to about 9 or 10 o'clock on the Flexitone when using this Plexi-inspired Amp Model and you can treat those nice neighbors to a tasty slice of fat rock tone.

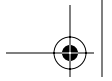
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Brit Hi Gain - Turn to this Amp Model to conjure up tones of the coveted JCM 800, one of Marshall's most universally-acclaimed modern amps. This updated version of the Plexi continued Marshall's heritage with added gain and edge for a new generation of rock guitarists. One of the biggest differences here is that the tone controls are located after the preamp tubes. We worked with a 1990 JCM 800 with Master Volume to develop this model. This is the metal sound Marshall made famous. Although not many people play Marshalls clean, it's a great tone, so you should also be sure to check out this model with a low drive setting, too. Of course, you can always pump up the drive and rage....

Rectified - This model is modeled after a 1994 Mesa Boogie Dual Rectifier Tremoverb. Boogie made their mark in the late 70's and early 80's by adding master volumes and more gain stages to amps with Fender-style circuitry. You can hear the Fender heritage but with more “punch” in the mids. The Boogie Dual Rectifier's tone controls are post-distortion, and as with the tone sections of most of the amps we based our models on, the individual controls interact with each other and with the drive. When used at its highest drive setting, the Dual Rectifier gives you a lead sound reminiscent of the early Boogies with the characteristic nasal midrange push, but with even more drive and presence than the early Mark I Boogies. Cranking the Rectifier Amp Model's drive knob will get you into this neighborhood. Try your Santana licks here. With high drive settings, you can scoop the mids and crank the bottom end for some great Seattle grunge sounds.

Modern Hi Gain - We obtained one of the early amp heads Mike Soldano produced when he was based in Los Angeles in order to create the Flexitone's Modern Hi Gain setting. The Soldano sound is intensely overdriven, and also has EQ after the preamp distortion. This oversaturated tone is well-suited to thrash metal and grunge bands, but has also been used more subtly by artists like Eric Clapton. The Soldano amps are very similar to a Peavey 5150; this is a good Amp Model to use if you want to get a current Van Halen or Joe Satriani sound. With the Drive control cranked way up, you'll get sustain for days.... Go out'n'ave a bite – when you come back it'll still be sustaining!





MODELED AMPS: FLEXTONE SIGNATURE SOUNDS

FLEXTONE SIGNATURE SOUNDS

While TubeTone modeling was first developed to allow Line 6 to capture classic tones for our Digital Guitar Amplifier Systems, it also has opened the door for us to create unique new tones not possible with conventional hardware – that’s where this whole software-based thing really comes in handy. Informed by the forty years of classic guitar amplifier design that we’ve studied to develop TubeTone, we’ve selected the best elements of various amplifiers and brought them together in the four Flexitone Signature Sounds: Flexitone Clean, Flexitone Crunch, Flexitone Drive, and Flexitone Layer.

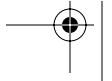
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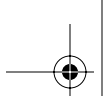
Flexitone Clean - To create this Amp Model, we essentially grafted the top end of a JC-120 onto the bottom end of a JTM-45 to give you you the crisp and clear top end of a solid state amp, but with a rich, satisfying tube amp-style bottom.

Flexitone Crunch - Our “boutique” sound. Not too clean, but not too raging. We spent some time with a rare Dumble combo, and picked up a few tricks from it to put together this tone. Great for modern blues or jazz, this sound should be like a fine cognac, smooth and warm going down, but with a nice kick. The **Mid** control is located before the TubeTone **Drive**, but the **Bass** and **Treble** controls are placed after the Drive for maximum range.

Flexitone Drive - Our version of the modern, super-saturated, high gain, lead amp; smooth, yet biting. All the tone controls here are post-Tubetone for maximum control with minimum muddiness. Again, this unique overdrive tone was created by merging different tone-shaping elements from different high-gain amps. It’s like playing through a collection of amps simultaneously – a studio technique that has made possible some of the greatest guitar tones of modern recordings (Flexitone Layer builds on this idea with even more versatility). With the Flexitone, you can get this same kind of rich, multi-amp tone out of one combo, a feat that wouldn’t be possible with traditional guitar amps.

Flexitone Layer - Flexitone Clean meets Flexitone Drive. As we’ve already mentioned, many guitarists and producers have experimented with running multiple amps simultaneously, with each amp making a contribution to the overall tone. Stevie Ray Vaughn, for example, would split his guitar signal to drive a Marshall, Fender Vibroflex, and Dumble Steel String Singer simultaneously to get some of the great sounds on his records. This Amp Model was produced by superimposing a “traditional” clean guitar tone and a particularly tweaked-up



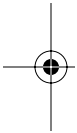


MODELED AMPS: FLEXTONE SIGNATURE SOUNDS

variant of the Flexitone Drive. The Drive knob acts as a blender control – fully left you’ve got big bottom 21st Century Clean, and fully right you’ve got paint-peeling Ultra-drive. Set it anywhere in between, and you get to have your cake and smear it all over your audience, too.

3 • 6

Fuzz - Although not technically an amp, we felt that the unique tonal qualities of the classic 1960’s Arbiter Fuzz Face earned it a place among the amps modeled to create the Flexitone’s TubeTone Amp Models. This fuzz box used broad frequency transistor-based clipping. The result is a buzzing kind of distortion that has become popular again with the alternative and grunge set. Jimi Hendrix was among the first guitarists to popularize the Fuzz Face in the States, but our model is considerably dirtier than the tones found on “Are You Experienced.” Try playing “Satisfaction” by the Stones, or the lead from “American Woman” by The Guess Who. Liberal use of the Bass, Mid, and Treble controls will let you go beyond the tones that the Fuzz Face could deliver, enabling you to discover your own unique recipe for those elusive fuzz tones in your head.



FLEXTONE EFFECTS

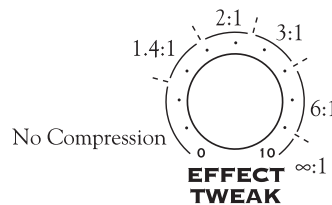
ONBOARD EFFECTS

In addition to all the great Amp Models built into the Flexitone, there are some great sounding effects. To pick which effect you want to hear, turn the **Effect Knob (9)**. Then, you can control the character of the effect you've chosen by tapping on the **Tap Tempo (13)** control, and turning the **Effect Tweak (8)** knob. Here's how it all shakes down:

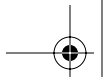
4 • 1

Reverbs - Reverb is the effect that makes it sound like something is in a room. It's basically a whole bunch of echoes smeared together to give you a sense of sound in an ambient space. With the Flexitone, Reverb is always available. You control how much with the Reverb Level knob. There are two basic reverbs in the Flexitone; a TubeTone-created model of a spring reverb, and a standard digital room reverb tone. Which one you get depends on which Amp Model you select. Generally speaking, if the amp that inspired a given Amp Model had a spring reverb, that's what you'll get. If the amp didn't have a reverb (like the 1968 Marshall "Plexi" which inspired the Brit Classic model), you'll hear the room reverb. The back cover foldout and **Appendix A** run down the details.

Compressor - A compressor "squeezes" your sound so that the softer sounds are louder and the louder sounds won't be as loud. It helps to even out your playing, and can also be used to give increased sustain. Compression is often expressed in ratios, like 2:1 or 5:1. The higher the ratio, the less difference there is between your softest and loudest playing. The **Tweak** knob will control the compression ratio. There are 5 settings: 1.4:1, 2:1, 3:1, 6:1, and ∞:1.



Tremolo - Modeled after the classic Fender tremolo. The **Tweak** knob controls the depth; **Tap Tempo** controls the speed.



FLEXTONE EFFECTS: ONBOARD EFFECTS

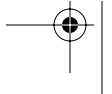
4 • 2

Chorus - You'll find two different chorus sounds in the Flexitone. Chorus 1 is modulated by a square wave, so it sounds more like a "rack" type chorus. Chorus 2 is modulated by a sine wave with more feedback, so it has a richer harmonic content with more movement. Chorus 2 was massaged to closely approximate the classic tone of an old Roland CE-1 box. The **Tweak** knob controls the depth; **Tap Tempo** controls the speed. By the way, if you want to get a really slow chorus, you have to tap really slow - try about 6 or 7 seconds between taps. And if you don't like that, remember that you can always set your Tap Tempo speed by holding down the **Tap Tempo** switch and then twisting the **Effect Tweak** knob to wherever you want to go.

Flanger - Flanging is that familiar "jet-plane" whoosh you remember from recordings of the 70's. Originally the effect was used rarely, mostly because engineers had to set up two tape decks and use finger pressure on one of the tape reels so they could slow down and speed up the tape in tiny increments to get this effect. Since the part of the tape reel they pressed on is called the flange, you can see how the effect got its name. As soon as someone figured out how to get this effect electronically, it was no longer rare and was probably used a little too much for the next several years. We've got two flavors of flanging available on the Flexitone, both of which closely model the tone of an old ADA flanger stomp box. Flanger 1 is a light flange with no pre-delay, and is subtler than Flanger 2, which is inverted, and has a deeper range (depth). The **Effect Tweak** knob sets the amount of feedback. **Tap Tempo** controls the speed.

Rotary Speaker - This effect simulates the effect of a miked, rotating high frequency speaker horn, like on a Leslie. Caution for Flexitone Duo and Plus owners: listening to this effect in stereo through headphones could cause motion sickness. Rotary speakers have two speeds: slow and fast. We've set up the Flexitone's Rotary Speaker emulation to select a fixed slow speed if you tap slowly, and a fixed fast speed if you tap quickly. When you switch from one speed to the other, you'll notice that the speed doesn't change immediately, but gradually changes from one speed to the other, just as a real rotating speaker's speed would ramp from one setting to the other. The **Tweak** knob controls the amount of Doppler effect (pitch modulation); **Tap Tempo** controls the speed.

Delay - Otherwise known as echo or slapback. The **Tweak** knob controls the level; **Tap Tempo** controls the delay length - in other words, how far apart the echoes are spaced from each other. When you are using quicker delay times, we cut down the number of repeats so you can get those rockabilly and surf slapback





FLEXTONE EFFECTS: ONBOARD EFFECTS

sounds. Most times that you use Delay, the **Effect Tweak** knob controls the Delay level.

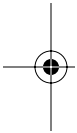
In a final moment of brilliance before finalizing the Flexitone software's final details, we realized it would be really handy to let you set the maximum delay level high enough that your Delay's echoes can be louder than your direct signal. You may find this handy for getting delay effect setups like U2's *The Edge* is known for.

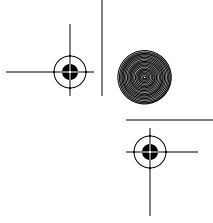
Incidentally, we wanted to point out one of the nice little details about the Flexitone that might otherwise escape your notice. The Flexitone actually has two entirely independent delays built into it, with a full 3 seconds of delay time for each. Try setting up two channels with different long delay setups and then switch from one channel to another. Notice how the delay tails smoothly across the change from one channel to another? That's thanks to the double delay line setup. It's the kind of detail that we feel sets the Flexitone apart from many effects devices, and helps you to make the best-sounding music possible.

4 • 3

Noise Gate - The Flexitone includes a built-in noise gate, intended to reduce the hiss and noise guitar amplifiers tend to put out when you're not playing, especially at high gain settings (since high gain means that noise is turned up along with your guitar sound). Any time you want to disable the noise gate, you can turn it off by holding down the **Tap Tempo** button, and turning the **Effects** knob to the Bypass position. To turn it back on, hold down Tap Tempo and turn the **Effects** knob to anything *but* bypass.

The **Channel D** indicator light, by the way, will show you the status of the Noise Gate as you are turning the **Effects** knob. Hold down the **Tap Tempo** button and turn the **Effects** knob and the **Channel D** indicator light will turn on to show that the noise gate is on. It will then switch off when you turn the **Effects** knob to the Bypass position, thereby turning the Noise Gate off.





FLEXTONE EFFECTS: COMBINED EFFECTS

COMBINED EFFECTS

The rest of the effects are combinations of **DELAY** and one other effect. They should be fairly self-explanatory. You'll note that the **Tap Tempo** control generally sets the delay speed - Delay/Tremolo is the one exception to this rule.

Delay/Compressor - Tweak controls Compression Ratio.

Delay/Tremolo - **Tap Tempo** will control the Tremolo Speed with this setup; Tweak controls Delay Level. Delay time is set at 100 milliseconds.

Delay/Chorus 1 - Tweak controls Delay Level.

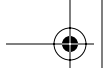
Delay/Chorus 2 - Tweak controls Delay Level.

Delay/Flanger 1 - Tweak controls Delay Level.

Delay/Flanger 2 - Tweak controls Delay Level.

Delay/Swell - Well, here's one we haven't explained before. Swell is like an automatic volume pedal that will give you a very even volume swell with each note or chord you play. The **Effect Tweak** controls the attack speed of the volume swell.

4 • 4



CREATING & STORING SOUNDS

USING THE MANUAL CHANNEL FEATURES

When you are in the Manual Channel of the Flextone, all of the controls are active and the sound of the amp always reflects the knob settings. Sounds just like any ordinary guitar amp, doesn't it? Who says technology is threatening? You know you're in Manual Mode, by the way, whenever the Manual button is lit (but you probably already figured out that part). Play with the knobs until you get a sound that you really like. At this point, you can either follow tradition and put tiny little pieces of tape on the amp or mess it all up with grease pencil to mark your favorite settings, or you can take a bold step into new technology and save your sound to one of the Flextone's memory locations. Which we're about to tell you how to do in the next section of the manual, appropriately titled...

5 • 1

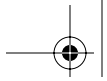
USING THE CHANNEL MEMORIES

So, there you are with a sound that you really like – wouldn't it be nice to be able to call it up any time you want it? That's simple once you have it stored into one of the Flextone channel memories. How do you do it? Just press the **Save** button (12). It will start to flash. Press the **Channel Select** (11) button (A, B, C, or D) for the location where you want to store the sound. It will start to flash. Once you're finished staring at the flashing lights, press the **Save** button a second time. The lights will stop flashing, and the sound is stored at the location you chose. Doesn't get much simpler than that. After the sound is stored, you can bring it back any old time by simply pressing the button for the location where you stored it. (See **Chapter 6** to learn how to do all this with your feet on the Floor Board).

Note: If you decide that you don't want to store the sound after you've got all the lights blinking, pressing either the **Tap Tempo** or **Manual** buttons will exit the Save mode (Save mode will also be canceled if you don't press any buttons for 5 seconds after having pressed Save).

OK, so you go over to a friend's house who also had the good taste and intelligence to buy a Flextone. He's created this awesome sound that's stored in the Channel A location. You've got to have this sound so you can write the song that's going to make you rich, but your friend forgot to make a copy of the Sound Programmer's





CREATING & STORING SOUNDS: EDIT MODE

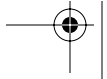
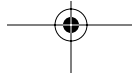
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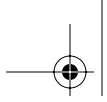
Sheet on the back of the Flexitone manual and write down his settings. (Perhaps we can learn a valuable lesson from this: always back up your work!) Do you have to give up your dreams of rock and roll success and spend the rest of your life flipping burgers? Luckily, we thought this one through in advance. We provided you with a way to get those settings. Just press and hold the **Save** button on your friend's amp and turn one of the amp's knobs. You'll notice the Manual LED lights up. Don't worry, holding down the **Save** button won't cause your settings to be altered or cause Save mode to be entered. Instead, when the knob position exactly matches the stored setting, the Manual LED will turn off. After you've done this for every knob and noted the **Tap Tempo** speed, you can write down the settings on the Programmer's sheet, take it home, enter it in your own amp, and write the anthem for a future (or past) generation. And be sure to thank us in the album's liner notes. To check that you've got everything just right, once the knobs are set, you can also switch to Manual mode to see if the sound changes (it shouldn't, unless the Tap Tempo speed is different).

LED, by the way, means *Light Emitting Diode*. That's what all those things are that light up on the Flexitone and the optional Floor Board and FB4 foot controllers. See? This whole guitar playing thing is educational.

EDIT MODE

Alright, so let's say you've got that sound you saved in one of the Flexitone's handy channel memories, and you want to add some more Bass. No problem. If the channel's not already selected with its button lit, press that button to recall the sound. Now, grab the Bass knob and crank it up. The **Save** button lights up, letting you know that you've made a change to your stored setup, and (if you like it better that way) you should use the **Save** button to save it. This is what's called **Edit Mode** since you've done just that: edited a stored channel. To commit your edit to the Flexitone's memory, press Save and then the button corresponding to the channel you want to save to. But, if you don't want to save your edit, that's OK, too – just ignore the Save button. If you decide *not* to save after pressing Save, you can touch the **Manual** or **Tap Tempo** switch to abandon saving. Keep in mind that if you switch to another channel without saving your edit, all your sound changes made during that edit will be forgotten.





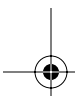
CREATING & STORING SOUNDS: THE PRESET RESET BUTTON

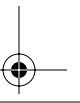
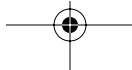
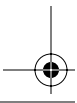
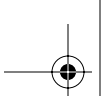
THE PRESET RESET BUTTON

If, for any reason, or just for the sheer mad joy of it, you decide you need to reset the Flexitone to the factory channel memories, hold down all 4 channel buttons (A, B, C, and D) and power up the amp.

Warning: *This will erase ALL user sounds you might have created.* So be sure and ask yourself "Do I really want to do this?" If the answer is yes, go on ahead with your bad self.

5 • 3





THAT'S USING YOUR FEET: USING THE FLOOR BOARD WITH THE FLEXTONE

THAT'S USING YOUR FEET

You really get the most out of your Flexitone with a foot controller. Two different foot controllers can be used with your amp: Line 6's **Floor Board** and **FB4**.

FLEXTONE HD OWNERS, LISTEN UP: *After reading this chapter, be sure to also spend a bit of time with **Chapter 7**, which covers all the important differences between the HD and the Flexitone combo amps, including foot control features.*

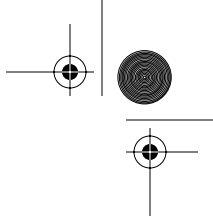
USING THE FLOOR BOARD WITH THE FLEXTONE

Using the Floor Board with the Flexitone lets you access many features of the amp that are not available otherwise. This all-steel chassis, oh-so-stylish foot control wonder gives you plenty of stuff: A volume pedal. A wah pedal with a Crybaby-style toe-down on/off switch so you can kick the wah effect in and out. A built-in chromatic digital guitar tuner. Stomp box-style on/off control of your Flexitone's effects. Extra banks of channel storage, so you can store more of your own custom setups in your Flexitone. Plus, 16 additional preset channels already loaded with monstrous tones programmed by the incredible tone maven at Line 6 right after they finished writing this manual.

If you haven't already discovered the back panel foldout, get set for a surprise. If you have, go ahead and jump to the next paragraph. Still here? Alright – flip to the inside back cover of this manual. Hmm, looks like the cover is all folded up. Unfold it, and hey, presto! It's your very own Flexitone road map. The idea is to have this handy pictorial reference always opened out while you're breezing through this manual and becoming an expert on all things Flexitone. The boxed numbers throughout the following text refer to the fold out illustration.

Getting Connected

So, how's that Floor Board work, exactly? Well, the very first thing is to plug it into your Flexitone with the handy cable that came with your Floor Board. We recommend you turn the Flexitone off first, but you do whatever you feel like – it's your amp! Then, plug in your guitar, turn on the Flexitone (scared you, didn't we?) and just press that Volume Pedal on the far right side of the Floor Board (**25**) all the way forward so you can hear something.



THAT'S USING YOUR FEET: USING THE FLOOR BOARD WITH THE FLEXTONE

TWO MODES

The first thing to know is that the Floor Board has two Modes of operation: Channel Select Mode, and Effect On/Off Mode. The **Mode Select** switch (20) chooses which mode you're in.

Mine Looks Funny: *Your Floor Board may look a little different than the one illustrated on the Flexitone manual's fold out back cover. Older Floor Boards have the label Select Sound instead of Channel Select. We decided to change the name to Channel Select for this mode, since that's, in fact, what you do with it. We changed Sound A, B, C, D to Channel A, B, C, and D, too. However the Floor Board's decorated, it works the same.*

I. CHANNEL SELECT MODE

6 • 2

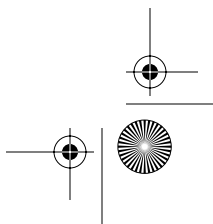
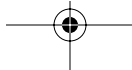
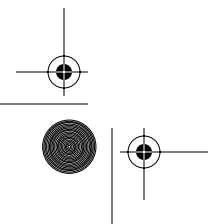
Let's start with Channel Select Mode. Note the line that traces from the **Mode Select** switch (20) and points to the two LED arrows below. The top LED lights if you've selected **Effect On/Off**, and the bottom LED lights if you've chosen **Channel Select** mode. Give that **Mode Select** switch a kick if necessary, and get that lower LED (**Channel Select**) lit.

Banks

HD OWNERS: *Chapter 7 has additional important info on the HD user banks.*

The two left-most stomp switches on the bottom row (21 on your handy back cover foldout Floor Board diagram) are labeled **Bank Down** and **Bank Up**. A Bank is a section of the Flexitone's memory that holds four channel settings. The Flexitone combos have seven memory banks total: three User Banks, and four Preset Banks. The User banks are where you store setups you make. These memory locations come pre-loaded with some tasty little tones created at Line 6, but you can change them into whatever you want, and store those changes back into one of the User memory bank locations. In other words, User means, "use these locations for whatever you want." The Preset Banks are a more hard-wired kinda thing. You can't overwrite these setups – hopefully, they're so good that you'll always want to have them handy as your standard tone reference.

When you're using a Flexitone without a Floor Board, by the way, you're always in User Bank 1. With the Floor Board, you've got a choice of User 1, 2, & 3, and Preset 1, 2, 3, & 4. You know which Bank you've got because the Floor Board's



THAT'S USING YOUR FEET: USING THE FLOOR BOARD WITH THE FLEXTONE

display (**22**) will show you. To switch between your Preset and User Banks bring your foot around to step on both of the Bank Select switches at the same time and you'll be transported instantly from one region of time-space to the other. Trippy, huh?

Channel Select

So, now that we've got this whole Bank thing down, let's move onto the other four switches on the bottom row. These let you pick which of the four channels – A, B, C, or D – you want to use in the bank you've selected. Pick your **Bank** (**21**), hit one of the **Channel Select** switches (**23**), and you're ready to roll.

Manual Mode

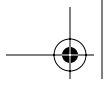
Hey, what about Manual Mode? Don't worry – you can get there any time. Let's say you're into a User *or* Preset Bank, and have a particular Channel selected. The channel's corresponding LED is lit above its Floor Board **Channel Select** switch, right? OK, step on this switch a second time and hold it for at least a second. Boom! You'll find yourself transported directly to Manual Mode. To get back out of Manual Mode, use the **Bank Up** or **Bank Down** foot switches to go to a User Bank, and then you can do that “both switches at once” dance to get into the realm of the Preset Banks.

6 • 3

Editing and Saving Setups with the Floor Board

The basic story on editing setups is on Page 5•2 of this manual. With a Floor Board you'll find that the display (**22**) will show an **E** (for “Edited”) whenever you've edited a channel, as opposed to **U** (User) or **P** (Preset). It will display an **S** (Save) if you press the **Save** button on the Flextone in preparation for saving a channel. When you decide you want to save an edited channel, you can select any of the User Bank locations via the Floor Board as your destination. Here's how:

1. **EDIT A CHANNEL'S SETUP TO YOUR LIKING.**
2. **PRESS THE SAVE BUTTON ON THE FLEXTONE.**
3. **PICK THE USER BANK YOU WANT TO STORE THE SETUP IN WITH THE BANK UP AND BANK DOWN SWITCHES ON THE FLOOR BOARD.**
- 4A. **ON THE FLEXTONE, PICK THE CHANNEL MEMORY LOCATION (A, B, C, OR D) YOU WANT TO SAVE THE SETUP TO WITHIN THE SELECTED BANK, AND**
5. **PRESS THE SAVE BUTTON TO COMMIT THE SETUP TO THE FLEXTONE'S MEMORY. OR,**
- 4B. **SKIP 4A AND 5, AND JUST KICK YOUR CHOSEN FLOOR BOARD CHANNEL SELECT SWITCH TWICE TO SAVE THE SETUP INTO THAT CHANNEL.**



THAT'S USING YOUR FEET: USING THE FLOOR BOARD WITH THE FLEXTONE

Tap Tempo

Now, then, how about that handy Tap Tempo thing on your Flexitone? Sure would be nice to be able to change the speed of your effects without taking your hands off your guitar, wouldn't it? That's what the **Tap Tempo (24)** foot switch is for. The LED to the left of it (you've already probably been entranced by it as it pulses away), flashes just like the Tap Tempo button on your Flexitone to let you know the speed of your effect. To change this speed, all you've got to do is tap on this Tap Tempo switch.

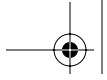
Tuner

Well, **Tap Tempo/Tuner** switch, really (**24**). Hold that puppy down for a second or more and – shazam! Instant digital chromatic tuner. All TubeTone and effects processing are bypassed so you can hear those questionably-tuned strings clearly, should you choose to do so. If you'd rather appear more professional, don't worry; the volume pedal still works. Play a note on your guitar and the Floor Board will show you what it is in that handy display (**22**). Play that string again, give its tuning key a spin, and the six LEDs above the bottom row of Floor Board switches give you a light show. The idea is that the LEDs to the left light if you're flat. The LEDs to the right light if you're sharp. And the two LEDs in the center will light at the same time when you've got it *just right*. Give any one of the Floor Board's switches a stomp and the tuner disappears just as swiftly as it came and you're right back to Channel Select Mode. What if you want to tune to a different reference than A=440Hz? When you're in the tuner mode, turn the **Mid** knob on the Flexitone while watching the display on the Floor Board. Hey, it changes! You can set the reference frequency anywhere from 435-445Hz. This setting is stored so you don't have to reset it every time you turn on the amp if you decide you want to be different (or if that piano in your rehearsal room has decided to be different).

6 • 4

Wah Pedal

So how about that **Wah** pedal? It's the one on the left (**25**). Get yourself planted with your foot on there nice and comfortable. Now, press down with your toes, let go, and do it again. You should see a little light turning on and off to the left of the Wah pedal. When the light's on, the wah's on. When the light's off, the wah's off. Neat. Incidentally, the Flexitone Wah is modeled after a late 60's Vox wah, with plenty of "growl" in the heel back position. Now then, turn the wah light on, switch to the Black Panel Amp Model, set your Drive to about 5, and do a little fast rhythm playing while you rock back and forth to the beat on that wah pedal. Hang a disco ball, unbutton your shirt to your navel (assuming you don't have it



THAT'S USING YOUR FEET: USING THE FLOOR BOARD WITH THE FLEXTONE

that way all the time), hang some gold chains around your neck, and get ready to party! You can do subtle things with the wah pedal too, like turning it on just a tiny bit and leaving it there, just barely caressing your sound. But then, that's not as much fun as playing the theme to "Shaft," is it?

Volume Pedal

Not nearly as fun as the wah pedal, but arguably more useful (and it doesn't require you to have Very Large Hair to use it convincingly). Put your foot up on that thing (25). It's the one on the far right. Press the volume pedal forward with your toes for loud, and back with your heel for quiet. The volume pedal is tapered for a very musical swell. It starts out slow and then gets faster as you move your toe down, very much like an Ernie Ball volume pedal.

Many guitarists used to switch potentiometers in their volume pedal if they wanted to gradually swell an extremely overdriven tone. The Flextone is hip enough to know about this. When you select a low gain Amp Type (to the left-hand side of the 16-position switch) the Flextone automatically chooses the normal volume pedal taper and sets up the volume pedal to control the guitar's volume *before* the preamp. Then, when you select a high-gain amp type, the Flextone changes the taper and re-patches the volume pedal location to be *post*-preamp, as this is the more valuable position for a volume pedal with this kind of amplifier tone.

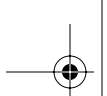
6 • 5

2. EFFECT ON/OFF MODE

Alright. So that wah pedal was pretty fun, but now you want to get down to some business with the rest of your Flextone effects. This is where we get to light up that top LED of the pair that the **Mode Select** switch points to. Press the **Mode Select** switch (20) to get that LED lit.

Now, notice that the six stomp switches that we were using for the Channel Select Mode also have an alternative set of labels. This top row reads **Distortion, Drive, EQ, Trem/Chorus, Delay, and Reverb** (but you're already seeing that on the handy fold out illustration and on the Floor Board itself, right? OK, just checking.... And you sent in your registration card, right? It always makes us really happy to get those things).

The light above a stomp switch will be on if the Effect that it controls is on. The light will be off if the effect it controls is off. There goes that easy to use technology again.



THAT'S USING YOUR FEET: USING THE FLOOR BOARD WITH THE FLEXTONE

Distortion

The **Distortion** on/off switch works kinda like a distortion pedal. With a distortion pedal, you kick the Distortion on, and your sound is more distorted. You kick it off, and your sound is less distorted. Same thing here. What this does in actuality is increase the Drive of your Flextone. Distortion always can add more Drive to your sound, even if the **Drive** (4) knob is already crammed up to max. Thus, finally, you can get everything turned up louder than everything else.

Drive/Boost

Depending on when you buy your Floor Board, you may find that the **Drive/Boost** switch is just labeled **Drive** instead. What gives? While the switch does control Drive on our other Digital Guitar Amplification Systems, on the Flextone it is actually setup to give you a Volume Boost. Our users asked us to put in this kind of capability – an easy to use volume boost/cut control – so here it is. The idea is that you can use this for a “lead boost” when you want to get a bit of extra volume and jump out over the band, or a “rhythm cut” when you want to drop your volume back a bit – like when you switch from lead to rhythm parts. With **Drive/Boost** on, you're getting the full, boosted volume. With **Drive/Boost** off, your volume is backed off a bit. In light of all this good stuff, newer Floor Boards label this control **Drive/Boost**. Of course, we fully expect that those “vintage” Floor Boards will be highly prized in the future because of this.

6 • 6

EQ

The **EQ** on/off switch will kick in a presence boost of 3-6 dB, depending on which amp model is chosen. The abbreviation “dB” stands for *decibels*, a measure of sound volume. A “presence boost of 3-6 dB” is just a fancy way of saying your sound gets a bit brighter. In keeping with our attention to amp tone detail, the frequency range covered by the presence boost varies according to how the original amp that we modeled had its presence circuitry set up.

Trem/Chorus

The **Trem/Chorus** on/off switch lets you kick your tremolo and pitch mangling effects (it says chorus, but it's really chorus, flanger, tremolo or rotary speaker) on and off. Light on, effect on. Light off, effect off.





THAT'S USING YOUR FEET: USING THE FLOOR BOARD WITH THE FLEXTONE

Delay

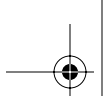
The **Delay** on/off switch turns your Delay effects on – light on. Or off – light off.

Reverb

Bet you can guess this one already. Light on – reverb-o-rama. Light off – bone dry.

Effect On/Off Settings Stored With Programmed Channels

OK, this part's mostly for the people who fret about all the little details that make other people think, "Wow, you're way too concerned about all the little details!" What happens if you turn some of these handy effects off and on and then you save your setup into one of your User Channel memories? The effect on/off status gets stored, too. Cool. Now, what happens when you decide to head over to your friends' house to show them how cool your Flextone is, and you jump on your bike, and decide taking the Floor Board along is too much hassle, so you leave it behind, pump the pedals while holding the Flextone on the handlebars with your chin, strut into your friends' place trying not to look like you're out of breath, plug in your Flextone, recall your FAVORITE setup from the handy channel select buttons, go to play that incredibly classic-sounding Ultimate Tremolo setup that you know is going to have your friends turning pale and quivery with envy, even if they do think you're too concerned about all the little details, and then it hits you – you turned the tremolo off from the Floor Board and stored the setup like that. Feel foolish, don't you? Let that be a lesson – never leave your Floor Board behind. Especially when there are friends to impress. But we hate to see you suffer. So here's how to save your bacon: just grab the **Effect Tweak** (**8**) knob and give it a spin. Magically, your tremolo is back to make you a hero once again. That's because a particular effect's on/off status is overridden if you tweak that effect's setting. So tremolo/chorus on/off comes on when you move the Effect Tweak knob to change your Tremolo, Chorus, Flanger, or Rotary Speaker setting. Ditto if it's Drive or Delay or Reverb. And the opposite is true for Distortion and the EQ bump – these are automatically switched off if you tweak something related to them. So if you move the **Drive** knob (**4**), the Distortion turns off. Or if you move the **Bass, Mid, or Treble** knob (**5**), the EQ bump turns off. But only if the Floor Board's *not* connected. See? A bunch of little details. Getting a headache, aren't you? The important thing is, if you save channels with effects on or off and then you don't have your Floor Board, no worries – we've made sure it doesn't cause you problems. That's it for the Floor Board section. Fun, wasn't it?



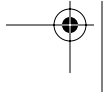
THAT'S USING YOUR FEET: USING THE FB4 WITH THE FLEXTONE

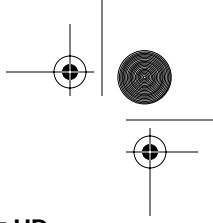
USING THE FB4 WITH THE FLEXTONE

The **FB4** gives you basic control over channel switching on the Flexitone. We tried to make it as simple as possible. Turn off the Flexitone. Connect the FB4 to the Flexitone with the thoughtfully-included connection cable. Turn on the Flexitone. Select Sound A, B, C, or D by pressing the appropriate button on the FB4. The LED will light to indicate that the channel is selected. If you press and hold down the button at the lit LED for about a second, your Flexitone will switch to Manual Mode. If you tap the button at the lit LED two (or more) times, it will set the Tap Tempo speed. And finally, if you unplug the FB4 from your amp and tap on one of its switches, nothing will happen.

Note: For those aware of the extra banks of sounds accessible via the Floor Board, you'll want to know that the FB4 is always selecting sounds from User Bank 1 – the same four channels that are accessible from the Flexitone itself.

6 • 8





INSIDE YOUR HEAD

THE FLEXTONE HD

If you're the proud owner of a Flexitone HD, this chapter's just for you. While the Flexitone HD is much like its combo amplifier brethren, there are important features and functions that set the HD apart. They are detailed herein:

FRONT PANEL

If you look closely, you'll notice that the illustration on the fold-out back cover of this User Manual is basically exactly the same as the front panel of your Flexitone HD. The only difference is that the HD has a big light-up power switch on the front panel (the combos have their power switches rear-mounted).

HEAT SINKS AND FANS

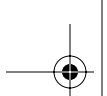
The rear panel of the Flexitone HD is where you see the real difference between the Flexitone combos and your Flexitone head. Because of the much higher power capabilities of the HD, it includes large heat sinks and fans that are not found on the Flexitone combos.



THE HEAT SINKS CAN BE HOT (THAT'S THE WHOLE IDEA OF THEM – THEY DISSIPATE THE HEAT THAT THE FLEXTONE HD GENERATES). BE CAREFUL TO KEEP AT LEAST 3 INCHES OF CLEARANCE BETWEEN THE BACK OF THE FLEXTONE HD AND WHATEVER IS BEHIND IT. DO NOT TOUCH THE HEAT SINKS WHILE THE FLEXTONE HD IS OPERATING OR WHILE IT IS COOLING AFTER OPERATION.

FANS AND WHAT MAKES THEM GO

The Flexitone HD's back panel fans protect it from overheating when you are driving the unit to its maximum power output levels, or using it in high temperature

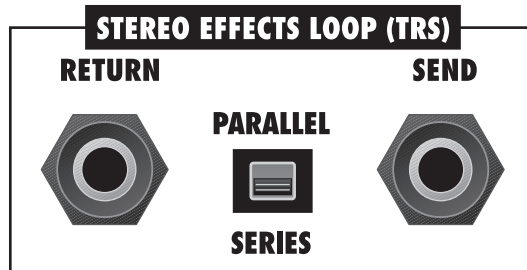
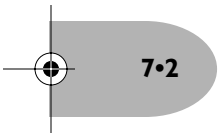


Inside Your Head: EFFECTS LOOP

environments (like that MTV Live gig you're booked for in the Gobi Desert).

THE FLEXTONE HD COOLING FANS WILL NOT TURN ON UNTIL THE AMPLIFIER GETS HOT – THIS IS NORMAL.

Excessive heat that turns on the fans can occur because of high output volume settings, intense stage lighting, outdoor weather conditions, and other high-performance factors. The cooling fans in the Flexitone HD are specially designed to turn on only when the temperature inside the amplifier rises above a predetermined point. This insures that the fans do not produce unnecessary noise during recording situations, or times when you're playing at low volumes. Handy, huh?



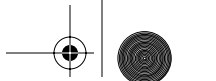
EFFECTS LOOP

The Flexitone HD Effects Loop allows you to hook up external effects and processors to the HD. Send and Return are both stereo, on tip-ring-sleeve jacks, and you can choose between Series and Parallel operation.

In case any of that sounds like a foreign language to you, we'll take a second here to hip you to some "effect loop application theory," and details of hooking everything up.

Effects loops let you send sound out of a device (like the HD) to another device (like a rack mount effects processor), and then *loop* it back again, feeding the now-processed sound back into the thing that the unprocessed sound came from. Like when you want to add an echo to your guitar sound, or maybe you want to compress it.





Inside Your Head: EFFECTS LOOP

So, your HD creates the basic tone, and then that tone is sent out to the effects loop for further “seasoning,” and finally the seasoned sound is returned back to the amp for final output. In the HD, that seasoning can be applied in two ways: *series* or *parallel*...

SERIES VS. PARALLEL

In a **series** effects loop, all of your guitar signal goes out the “effect send” and into whatever effect you may be using. The signal is processed by the effect, and then the signal comes back into the “effect return” for final amplification and output. The effect is “in series” (comes after) the sound generator (your amp). If you turn the output volume of your effect to zero, you hear nothing, because all the sound is leaving the amp and then the effect processor is giving nothing back.

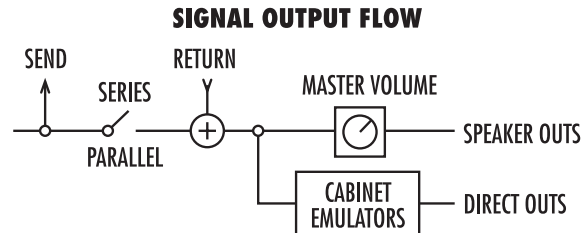
Now, in a **parallel** effects loop, only a *part* of your tone goes out the “effect send” and into whatever effect you may be using. It’s sort of like you’ve tapped a bit of the signal off from the main flow, to send it elsewhere (just like a typical effect send on a mixing board). But in the meantime, the main flow is still going, too, passing through the amp unaffected. The effect unit processes its *parallel* signal, and returns it to the amp, where it gets mixed back in with the unaffected signal.

Why have both? Some effects have to be in **series** to be effective. Compressors, for instance, work by taking *all* of your signal and adjusting its volume as you play. Similarly, noise reducers need to work on all the signal. Generally, you’d also use EQ or “exciter” in a series loop.

Other effects can work with only a portion of the guitar signal – in **parallel**. Reverb, for instance, or delay, can be driven with just a portion of the guitar signal. Same goes for chorus.

One reason some people like to use parallel effect loops is that not all of their guitar tone has to go through the effect box. This can be especially important if you are using an old, low-resolution piece of gear that tends to suck out the warm details of your tone. By using a parallel effect loop, you get to keep plenty of your pure, unadulterated tone right inside the amp where it’s safe, and then just mix a bit of the processed sound in on top for extra flavor.



Inside Your Head: USING THE EFFECTS LOOP**USING THE EFFECTS LOOP**

The back panel of the HD shows an illustration of part of the HD signal flow, including the Effects Loop. As you can see, the series/parallel switch controls whether (1) some sound flows directly through the amp, bypassing the effect loop (this would be parallel), or (2) the direct path through the amp is interrupted, so *all* the guitar signal flows through the effect (this would be series).

Note that the Master Volume control comes *after* the effects loop; you get the same signal level flowing to your effect, no matter what Master Volume level you set.

7-4

MAKING CONNECTIONS

Run a cable from the HD effect **send** to the **inputs** of your effect unit. This HD's effect send gives you a stereo, TRS (tip, ring, sleeve) connection. You can use a mono cable to connect to a mono input effect (in this case, the HD's left signal will flow to the effect). For a stereo effect device that has separate left and right input jacks, use an "insert" cable – it'll have a TRS connector on one end (that plugs into the HD effect send), and will fan out to two mono connectors on the other end, (those plug into your effect unit's two inputs).

For the return, do the same thing. Generally, you'll want to use another "insert" cable, with the two mono connectors plugged into your effect's left and right outputs, and the TRS connector plugged into the HD's effect return. If you use a mono cable for the return, you will get the looped signal on only one side. If the effect loop is set for series operation, that means only the left channel of your HD will be heard. In that case, you'll need to use a mono-to-stereo adapter on the mono cable from the effect, to feed both the effect return channels of the HD.

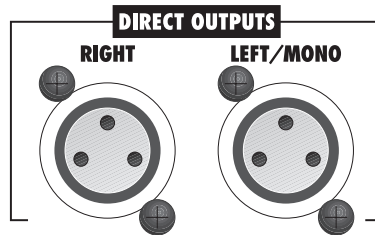
SETTING EFFECT LEVELS

The amount of effect you hear is controlled by the output volume of your effect. You want to turn it up enough to get a good healthy signal into the HD for amplification, but not so much that it distorts.



If you're using the effect loop in parallel, be sure to set the mix of your processor to 100% wet (so that it puts out only effected sound, with no uneffected "direct" signal mixed in), and then use the processor's output level (not the mix control) to set just how much of the effect you want to hear along with your un-effected guitar signal. **Running in parallel with the mix at less than 100% will cause what engineers call "comb filtering" and most other people would call "lame tone."**

BALANCED MIC LEVEL WITH SPEAKER EMULATION

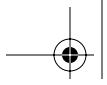


DIRECT OUTPUTS

Also located on the rear panel are the Direct Outputs on balanced XLR connections. These are specially designed outputs that feature a built-in speaker cabinet simulator to emulate the sound of mic'd speaker cabinets, so you can record "direct" without sacrificing the great tone of a mic'd cabinet moving air. These outputs can be used with or without speaker cabinets connected to the amp, and sound great for both recording and live applications. For live setups, these direct outs save you from having to mic your cabinet. Just plug in here and go!

DIRECT OUTPUT LEVEL

The Direct Outputs are located pre-master volume control – you get the same output level, no matter what Master Volume level you set. **The outputs are not line level.** Think of them as outputs from two "virtual microphones" in front of your amp – only



Inside Your Head: DIRECT OUTPUTS

if you crank up the HD's Master Volume you don't blow Mr. Sound Man away since the direct outs are independent of Master Volume. Do whatever you would do with a microphone output in your recording or live setup – run into your preamp and then to tape. Or plug into the mic snake at the club to feed a couple of the house PA's mic inputs. You'll get the sound of microphones in front of your cabinet, but with the added advantage of no feedback, perfect tone at any cabinet volume (including silence), and a simple setup that sounds great no matter what sound disasters the room you're playing or recording in might have. **When the Flexitone HD is turned on, the direct outs can put out a load pop; be sure to lower your monitor levels – and tell the person running the sound board to lower theirs!**

TAKE A LOAD OFF



Running the Flexitone HD without a load (that means without speakers attached) is no problem (this is something you don't want to do with a tube-based amplifier). You do not need to have speakers connected to the amplifier in order to use the balanced Direct Outputs. So, for instance, you can run without speakers for recording situations when you don't need to drive a cabinet, or live direct-to-the-house setups where you don't need the HD to drive any speaker cabinets on-stage.

7-6

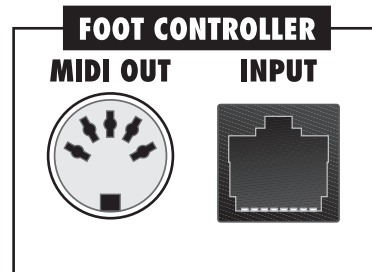
MONO/STEREO DETAIL

When using only the Left/Mono speaker output, the effects will be switched to mono. This also effects the Direct Outputs – they switch to mono, too (meaning the exact same thing comes out both jacks). If both left and right speaker outputs are in use, or neither are connected, the effects and direct outputs will be in stereo. Which leads us to a handy tip: to get stereo direct outputs or effect send while running a mono cabinet setup, plug an extra 1/4" 'dummy cable' (it doesn't have to plug into anything else) into the right speaker output from the HD to force the HD to run stereo.

FEELING UNBALANCED?

When running the Flexitone HD's Direct Outputs into *un*balanced line inputs, use a cable that has a female XLR connector on the HD side, and a 1/4" mono (tip-sleeve, but no ring) connector on the line input side. For the XLR connector, leave pin 3 *not* connected, and wire pin 2 of the XLR connector to the tip of the 1/4" connector, with pin 1 of the XLR connector wired to the sleeve (fortunately, this is the standard wiring configuration for off-the-shelf XLR to 1/4" adapters).

Inside Your Head:



FLOOR BOARD, MORE MEMORIES, & MIDI

The Floor Board is the powerful, customized foot controller from Line 6 designed to be the perfect companion for your Flexitone HD. You can read all about it, and its little brother the FB4, in the main Flexitone User Manual. In comparison to the Flexitone combos, here are a couple of new capabilities the HD brings you in foot control land.

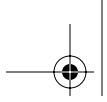
MORE MEMORY

While the Flexitone combos have three user banks for storing your custom setups, your Flexitone HD has an expanded memory that lets you save 9 User banks. You also still get the same four Preset banks as the Flexitone combos. The Preset memory Banks and User Banks 1-3 have the same programmed sounds as the Flexitone combos. User Banks 4-6, and 7-9, just repeat the same programmed sounds at Banks 1-3, and you can replace any of these User channel memories with your own custom sounds that you program. Check the Floor Board section (**Chapter 6**) of the main Flexitone Manual for the scoop on memory, banks, and all that.

MIDI OUT

MIDI out on a guitar amp? What gives?

We've included a simple MIDI output in case you would like to send MIDI program changes to your external effect devices when you change channels on the HD. That way, when you stomp on the Floor Board, or press one of the Channel switches on the HD, your MIDI effect device can follow along with the changes without your even having to think about it. They key to it all is the MIDI Program Change message....



Inside Your Head: FLOOR BOARD, MORE MEMORIES, & MIDI

MIDI PROGRAM CHANGE & FLEXTONE CHANNELS

A MIDI program change command is sent on MIDI Channel 1 when you select a channel from the HD front panel, the FB4 foot controller, or the Floor Board foot controller. Store effect setups into your effect processor at specific memory locations that match up with the Flexitone HD's channel memories, and then you can switch both the HD's channels and your MIDI effect setups at the same time with just one button or foot switch press. The table on the following page shows you which program change numbers are sent, and how they correspond to the Flexitone HD memory locations.

So, here's what you do: connect a MIDI cable from the HD's MIDI Out to your MIDI gear's MIDI In. For now, don't plug in a foot controller at all, or if you do have one connected, *make sure you have User Bank 1 selected* (User Bank 1 is the four channels that you can access from the Flexitone HD front panel with no foot controller attached). Now, let's say you want to have a certain effect always come up on your effect processor every time you choose channel A on your Flexitone HD. Just program that effect setup into your MIDI gear's memory location 01, and now every time you call up channel A, your MIDI gear will pull up the right effect for you.

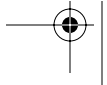
7•8

THINGS TO REMEMBER WITH MIDI

If you're having trouble, make sure your MIDI gear is set to receive program changes on MIDI channel 1, and that the Flexitone HD MIDI Out is connected to your other gear's MIDI In. Also, check to see if your gear treats the first memory location as zero or one. If your gear treats the first memory as zero, you may have to add one to the program number listed in the table.

MIDI CONTINUOUS CONTROL

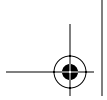
Two MIDI controllers are sent when the Flexitone HD is used with the Floor Board. Controller 4 (Wah) and Controller 7 (Volume) messages are sent when the pedals on the Floor Board are moved. Note that Controller 4 is sent even when the WAH pedal is switched to OFF, so you can use this pedal as a controller for other settings on your effects if you like.



Inside Your Head: FLOOR BOARD, MORE MEMORIES, & MIDI

MIDI Program Changes & Flexitone Channels – Visual Aid

HD Channel	MIDI Program	HD Channel	MIDI Program	HD Channel	MIDI Program
User Bank 1		User Bank 6		Preset Bank 1	
Channel A	01	Channel A	21	Channel A	37
Channel B	02	Channel B	22	Channel B	38
Channel C	03	Channel C	23	Channel C	39
Channel D	04	Channel D	24	Channel D	40
User Bank 2		User Bank 7		Preset Bank 2	
Channel A	05	Channel A	25	Channel A	41
Channel B	06	Channel B	26	Channel B	42
Channel C	07	Channel C	27	Channel C	43
Channel D	08	Channel D	28	Channel D	44
User Bank 3		User Bank 8		Preset Bank 3	
Channel A	09	Channel A	29	Channel A	45
Channel B	10	Channel B	30	Channel B	46
Channel C	11	Channel C	31	Channel C	47
Channel D	12	Channel D	32	Channel D	48
User Bank 4		User Bank 9		Preset Bank 4	
Channel A	13	Channel A	33	Channel A	49
Channel B	14	Channel B	34	Channel B	50
Channel C	15	Channel C	35	Channel C	51
Channel D	16	Channel D	36	Channel D	52
User Bank 5					
Channel A	17			Manual	53
Channel B	18				
Channel C	19				
Channel D	20				



Inside Your Head: CABINET HOOK-UPS

CABINET HOOK-UPS

In addition to all of the cool stuff like TubeTone modeling, awesome Direct Outs, and great effects, the Flexitone HD offers unmatched versatility and flexibility for powering almost any type of speaker cabinet(s). The type and number of speaker cabs you choose is up to you. Most likely, the cabinets you choose will depend on the situations you play in – some gigs require more of the closed back grind and thump, while other gigs will work better with the classic sound of open back speaker cabinets. Either way, the Flexitone HD has got you covered.

First, some speaker cabinet basics:

- **Be sure to turn the amplifier off when connecting or disconnecting speaker cables and cabinets. (This protects both the amplifier and the speakers.)**
- **Only use heavy gauge, unshielded cables for hooking up speaker cabinets. (Do not use standard guitar cables to connect your speaker cabinets, as they will degrade your sound.)**

7•10

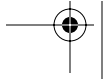
VOLUME LEVELS

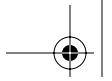


When using your Flexitone guitar amplification system, be sure to exercise some common sense about volume levels. The Flexitone HD is a high-powered head designed to drive up to four 4x12" cabinets per side. So obviously it's got enough juice to spare that you could fry the speakers of most setups if you really tried.

WARNING SIGNS

If you see the speakers practically jump out through the speaker grille, and they're making rude noises, back off on the Flexitone HD's Master Volume a wee bit to get things back into the realm of reasonable operational levels (note that, for Line 6 speaker cabinets, we've included some recommended maximum volume settings with the hook-up diagrams that follow in this manual). Also understand that Line 6 can not be liable for replacement of speakers damaged by abuse. So, feel free to crank it up, but do it with a bit of sense.





Inside Your Head: CABINET HOOK-UPS

FLEXTONE HD POWER OUTPUT:

The Flexitone HD power output varies according to the ohm rating of the speaker cabinet combinations you hook up to it.

- 4 ohm cabinet = 150 watts per side / 300 watts total stereo**
- 8 ohm cabinet = 100 watts per side / 200 watts total stereo**
- 16 ohm cabinet = 60 watts per side / 120 watts total stereo**

As you can see from the list above, the lower the ohms (load), the more power produced by the amplifier. That's because speaker setups with lower ohm ratings allow more power to flow. So, in general, lower ohms = more volume available to rock your world with. The total surface area of the speakers involved makes a big difference, too. More surface area (in other words, bigger speakers, or more speakers) means more air can be moved, and, once again, that means more volume to do your voodoo with.

Unlike a tube amp, whose tone changes with different ohm loads, the Flexitone HD retains the same great tone at any power level or load. This gives you the maximum versatility in choosing cabinet setups, and switching amongst different cabinet setups for different situations, without having your tone suffer.

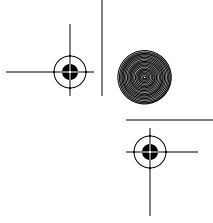
The illustrations at the end of this booklet illustrate a number of common speaker cabinet configurations you might use with your Flexitone HD. The two parallel outputs on each HD channel give it lots of versatility for driving most any type of guitar speaker cabinet setup you're likely to come across.

7•11

CARRYING A LOAD



Operating the Flexitone HD without a load (that means without speakers attached) is OK! You do not need to have speakers connected to the amplifier in order to use the balanced Direct Outputs (you wouldn't want to run a tube amplifier without a load).



Inside Your Head: CABINET HOOK-UPS

MONO/STEREO DETAIL

Remember that when you use only the Left/Mono speaker output, the effects switch to mono. This also effects the Direct Outputs – they switch to mono, too (ya get the exact same thing on both jacks). If both left and right speaker outputs are in use, or neither are connected, the effects and direct outputs will be in stereo. Leading us to repeat our handy tip: to get stereo direct outputs or effect send while running a mono cabinet setup, plug an extra 1/4" 'dummy cable' (it doesn't have to plug into anything else) into the right speaker output from the HD to force it to run stereo.

CABINET CHOICES

When it comes to cabinet setups, there are of course plenty of options, but we've tried to focus in on the most likely ones. If what you need is extreme portability, or you don't need much volume, you may use one or two of Line 6's 1-12" speaker cabinets, the Flexitone Cab. More typically, you'll probably choose one or more of Line 6's 2-12" stereo speaker cabinets, the Flexitone Cab 212S. Or, you may go with a 4x12" setup.

The drawings on the following pages show you how to make the hookups, and the power ratings of each setup. We've shown a typical 4x12" stereo speaker cabinet; your equipment may differ slightly, but these illustrations should give you most of the detail you need to figure out how to make things work.

7-12

OPEN-BACK / CLOSED-BACK EMULATION

Being one of these modern day technological wonders and all that, we've tried to put a few little refinements into the Flexitone Series amplifiers to make them more flexible than the old technology amps that came before them. One of the things we've included in your HD is a closed-back emulator for open-back cabinets. This lets you get the sound of a closed-back cabinet even when using open-back cabinets. So, if you use a big multi-stack closed-back cabinet setup on stage, but then you want to use a little open-back cabinet (like the 1-12" Flexitone Cab) for monitoring when you're recording in the studio with the Flexitone HD's direct outputs, you can get the same cabinet tone with both setups.

By default, the Closed-back emulator is switched off. You activate it by holding down the Channel B button on the Flexitone HD front panel as you power up. Now your open-back cabinet will be driven with an extra-beefy sound to duplicate the closed-back experience. To turn off the closed-back emulator, power up again, but this time

Inside Your Head: CABINET HOOK-UPS

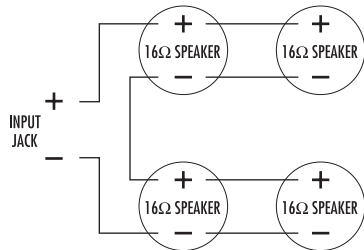
hold down the Channel A button on the HD, and the emulator is switched off. Once you've turned it on, the emulator will stay on until you clear it with another power up while holding the button, so don't forget to switch it off when you get back to the mondo stack stage setup again!

When you first turn on the Flexitone HD, it will flash the Channel A or Channel B light briefly to let you know which kind of cabinet it's expecting to get plugged into: Channel A will flash briefly for closed-back, Channel B flashes briefly for open-back.

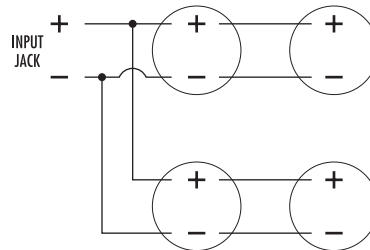
REWIRING 16 OHM CABINETS

If you've got a 4x12", 16 ohm cabinet that you'd like to use with the HD, you'll find that most setups will work better – giving you more volume – with a 4 ohm cabinet. You can convert your 16 ohm cabinet to 4 ohm by rewiring the speaker connections inside the cabinet. The two illustrations below show the signal flow between the four speakers and the cabinet's input jack in each setup. Line 6 doesn't recommend that you do this yourself, unless you're an experienced soldering iron jockey, but if you've got the know how – or you know someone who does – here's a drawing you may need:

Typical 16 Ohm Wiring Setup



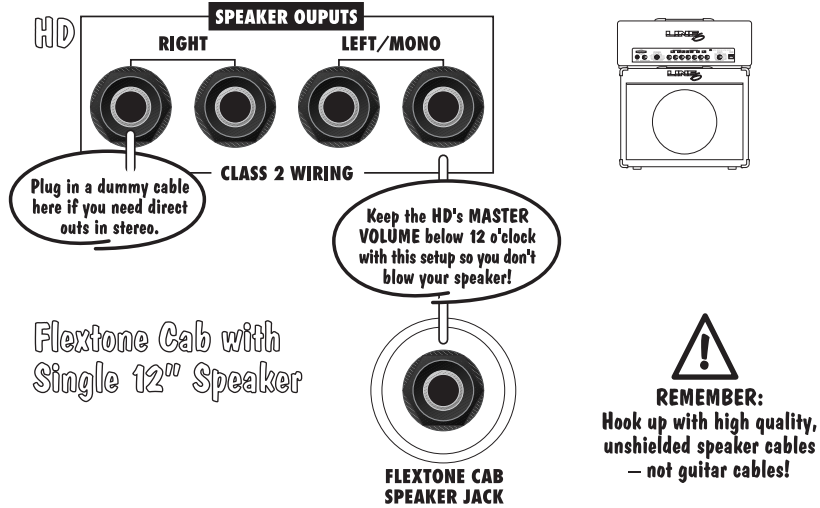
4 Ohm Wiring Setup



HD: CABINET HOOK-UP DRAWINGS

MONO HD with Single 12" Cab

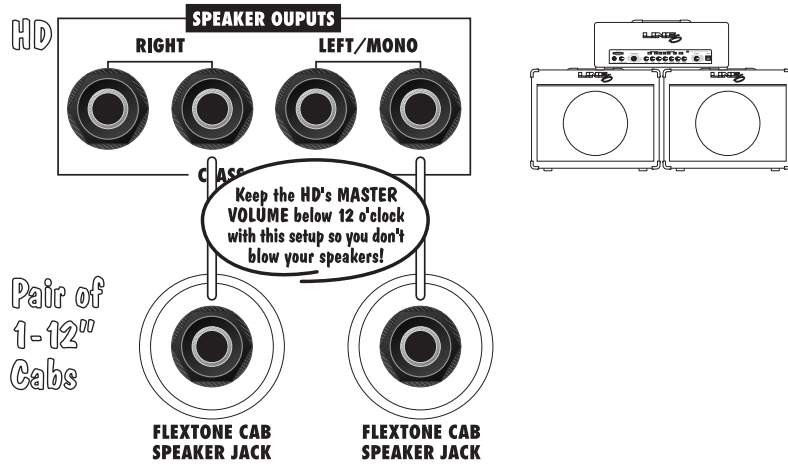
For the ultra-small setup, you can pair a Flexitone HD with a single Flexitone Cab with its one 12" speaker. This could be a great low volume (50 Watts max) monitoring setup for recording with the HD's direct outs in the studio.



7 • 14

STEREO HD & Pair of Single 12" Cabs

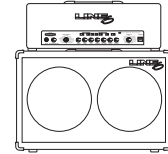
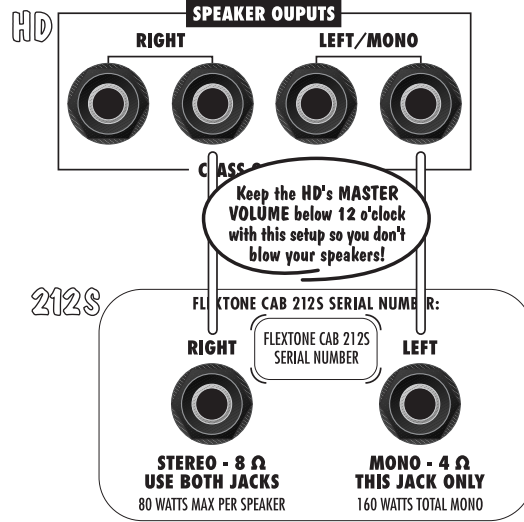
You can use your Flexitone HD with a pair of 1-12" Flexitone Cabs, for a compact, easy-to-transport setup with a maximum of 100 (50x2) Watts Stereo power.



HD: CABINET HOOK-UP DRAWINGS

STEREO HD with Single 212S

This setup gives 200 (2x100) Watts Stereo power – louder than the setup below.

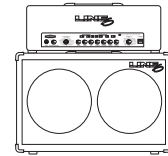
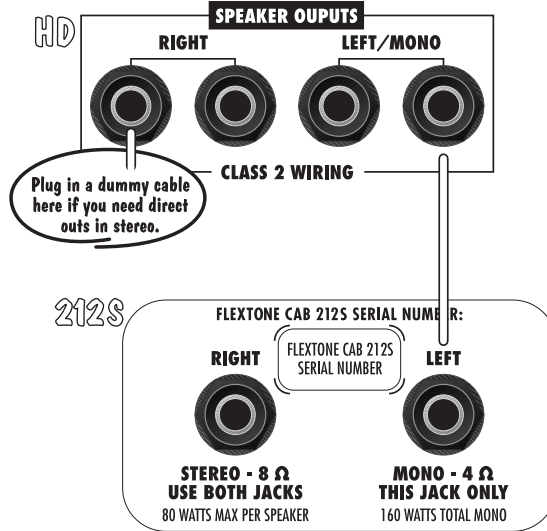


REMEMBER:
Hook up with high quality, unshielded speaker cables – not guitar cables!

7-15

MONO HD with Single 212S

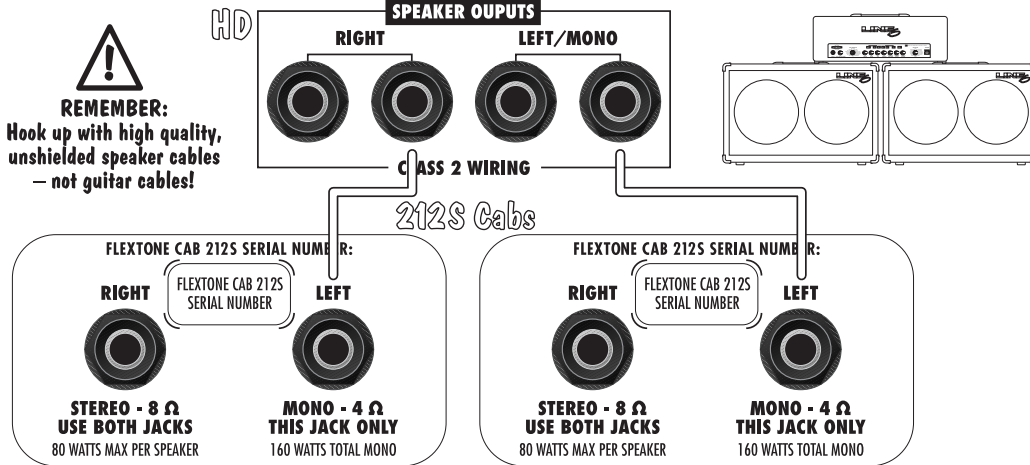
This setup gives 150 Watts Mono power – less volume than the stereo setup above.



HD: CABINET HOOK-UP DRAWINGS

SIDE by SIDE STEREO HD with Pair of 212S

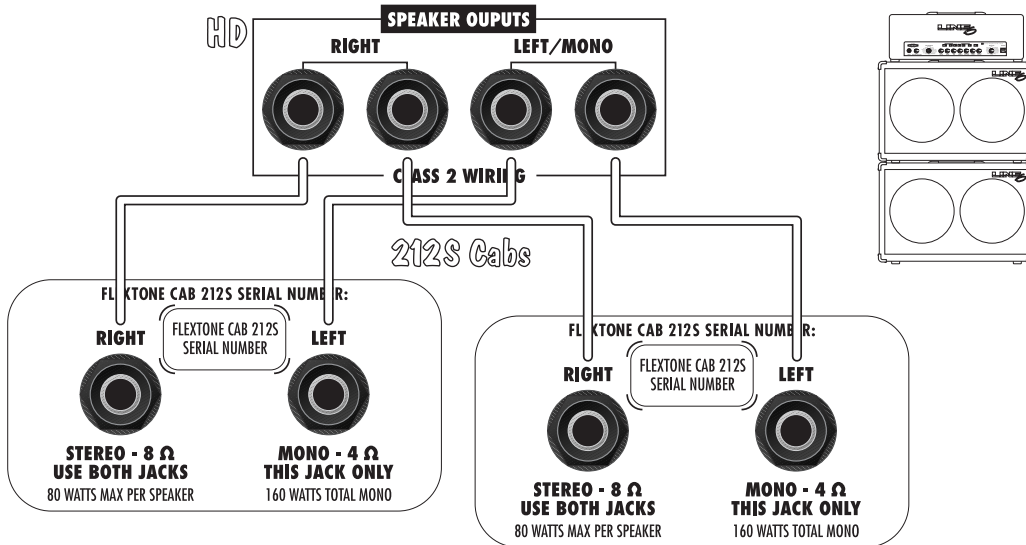
This setup gives you 300 (2x150) Watts Stereo. Be sure to use the Left/Mono inputs on both of the Flexitone Cab 212S cabinets!



7 • 16

STACKED STEREO HD with Pair of 212S

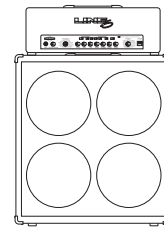
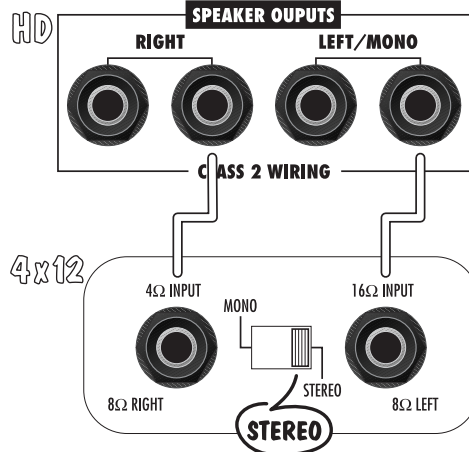
This setup gives you 300 (2x150) Watts Stereo. You may get less bass than the setup above, which "couples" the cabinets to the floor, as well as spreading the stereo wider.



HD: CABINET HOOK-UP DRAWINGS

STEREO HD with Single Stereo 4x12

Set the 4x12's switch to Stereo. This setup gives up to 200 (2x100) Watts Stereo power.

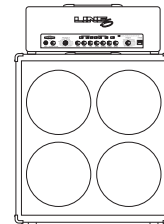
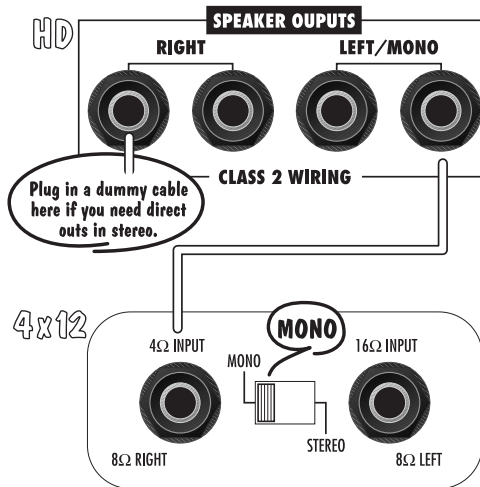


REMEMBER:
Hook up with high quality,
unshielded speaker cables
— not guitar cables!

7-17

MONO HD with Single Mono 4x12

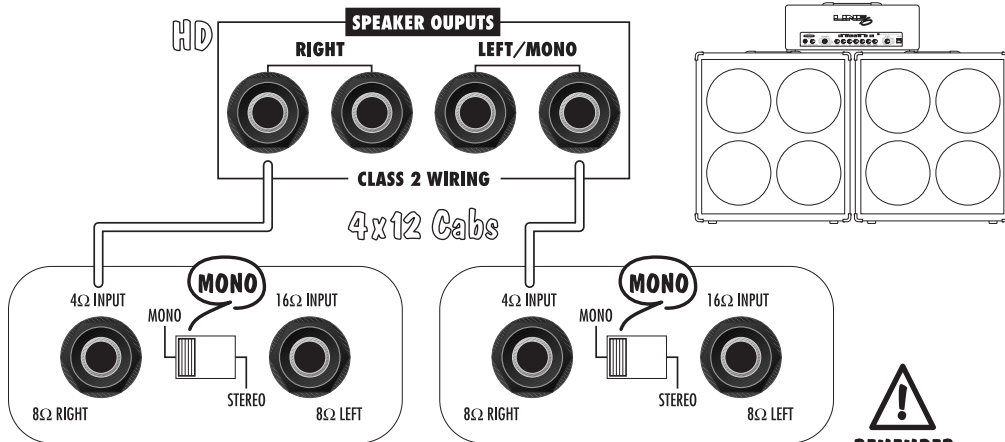
Use the 4 Ω input on your cabinet, and set the 4x12's switch to Mono. This setup gives you a maximum of 150 Watts Mono power — less volume than the stereo setup above. If you used the 16 Ω input, you'd get only 60 Watts, which gives you lower max volume.



HD: CABINET HOOK-UP DRAWINGS

SIDE by SIDE STEREO HD with Pair of 4x12s

Use the 4 Ω input on your cabinets. Be sure to set the 4x12s switches to Mono. This setup gives you 300 (2x150) Watts Stereo, as does the Stereo setup below.

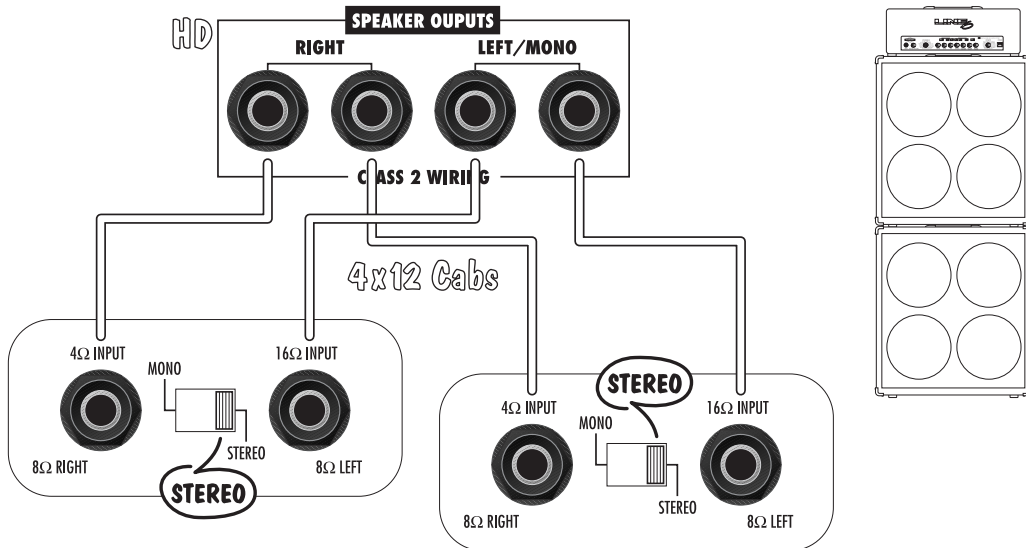


REMEMBER:
Hook up with high quality,
unshielded speaker cables
— not guitar cables!

7 • 18

STACKED STEREO HD with Pair of 4x12s

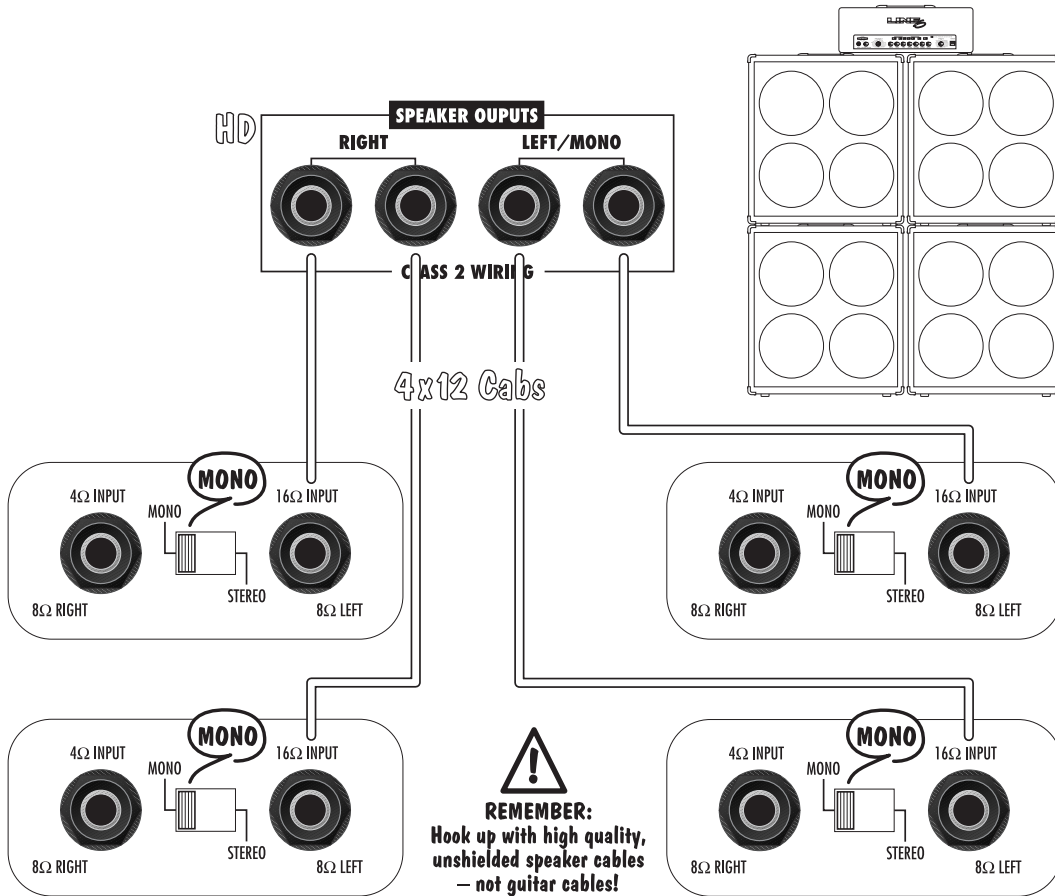
Be sure to set the 4x12s' switches to Stereo. This setup is 300 (2x150) Watts Stereo.



HD: CABINET HOOK-UP DRAWINGS

DOUBLE STACK STEREO HD with Four 4x12s

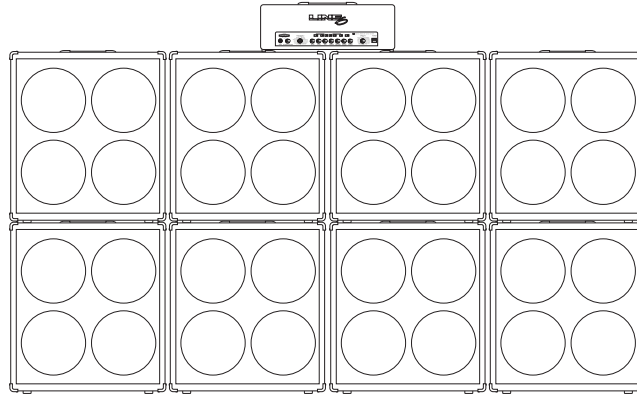
Be sure to use the 16 Ω inputs on your cabinets – not the 4 Ω ones! This setup will give you 200 (2x100) Watts of Stereo power. Also, don't forget to set each of the 4x12 switches to Mono.



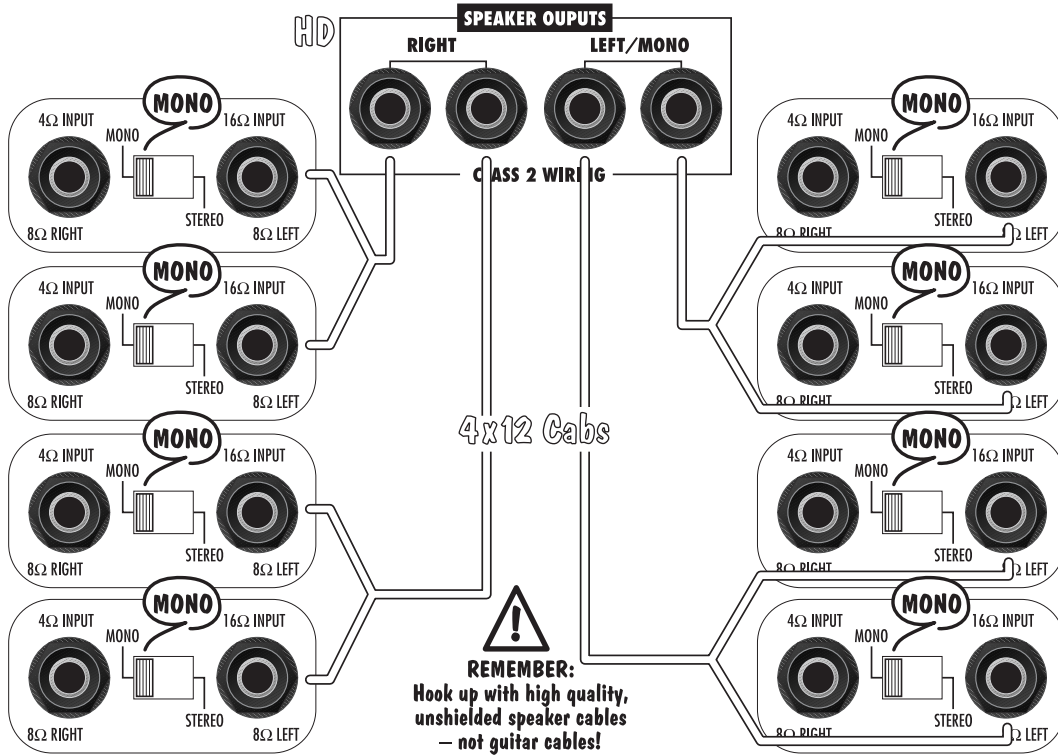
HD: CABINET HOOK-UP DRAWINGS

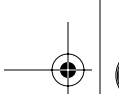
MONDO MULTI-STACK STEREO HD with Eight 4x12s

For the truly crazed ear-shattering multi-stack ultra stage setup of doom, you can hook up 8 4x12" cabinets with your HD. Use Y cables to plug into the 16Ω inputs on the cabinets, or if you have cabinets with parallel jacks, you can use those instead of Y cables. This setup gives you a maximum of 300 (2x150) Watts Stereo.

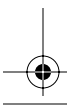


7 • 20





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A1

APPENDIX A: AMP MODELS

Please note that Fender, Marshall, Vox, Boogie, Soldano, Peavey, Roland, Matchless, Arbiter, ADA, Leslie, and other amplifier model designations, and effects, are all trademarks of their respective owners, which are in no way associated or affiliated with Line 6. These marks and names are used solely for the purpose of describing certain amplifier tones produced using Line 6's TubeTone modeling technology. The TubeTone modeling technology provides the Flexitone Series of Digital Guitar Systems with a wide variety of sounds and effects modeled after some of the most popular sounds of the classic amps and effects mentioned here.

Tube Tone Amp Model Name	Based On	Volume Pedal	Reverb
Jazz Clean	'87 Roland JC-120	Pre	Spring
Small Tweed	'52 Fender Deluxe	Pre	Room
Tweed Blues	'59 Fender Bassman	Pre	Spring
Black Panel	'65 Fender Deluxe	Pre	Spring
Modern Class A	'96 Matchless Chieftain	Pre	Spring
Brit Blues	'65 Marshall JTM-45	Pre	Room
Brit Classic	'68 Marshall Plexi 50 watt	Pre	Room
Brit Hi Gain	'90 Marshall JCM-800	Post	Room
Rectified	'94 Mesa Boogie Dual Rectifier Tremoverb	Post	Room
Modern Hi Gain	'89 Soldano SLO	Post	Room
Flexitone Clean	21st Century Clean	Pre	Room
Flexitone Crunch	Thick Grindage	Pre	Spring
Flexitone Drive	Industrial Strength OD	Post	Room
Flexitone Layer	Mondo Clean meets Psychotic Drive	Post	Room
Fuzz	'60's Dallas Arbiter Fuzz Face	Post	Room

A2

APPENDIX B: EFFECT PARAMETERS

Effect	Tap	Tweak	Notes
Bypass	n/a	n/a	Turns off the effects.
Compressor	n/a	Ratio	There are 5 Compressor ratios: 1.4:1, 2:1, 3:1, 6:1, and ∞ :1. Higher settings "squeeze" your volume more.
Tremolo	Tremolo Speed	Depth	The tremolo was designed with the characteristic Fender tremolo shape.
Chorus 1	Chorus Speed	Depth	Square wave LFO, "rack" type chorus setup; subtler than Chorus 2.
Chorus 2	Chorus Speed	Depth	Sine wave LFO, approximately 10% feedback; emulates an old Roland CE-1 for classic stomp box-type sound.
Flanger 1	Flanger Speed	Feedback	Light flange.
Flanger 2	Flanger Speed	Feedback	Heavier flange; inverted, and with deeper range.
Rotary Speaker	Rotary Speed	Depth	This emulates a classic spinning speaker, a la the Leslie.
Delay	Delay Length	Delay Level	Very quick delays will have no repeats for better slapback.
Delay/Compressor	Delay Speed	Compression Ratio	There are 5 Compressor ratios: 1.4:1, 2:1, 3:1, 6:1, and ∞ :1. Higher settings "squeeze" your volume more.
Delay/Tremolo	Tremolo Speed	Delay Level	The delay speed is set for a short slapback (100 ms).
Delay/Chorus 1	Delay Speed	Delay Level	Chorus 1 uses a Square wave LFO, no feedback. This is the "rack" type chorus setup.
Delay/Chorus 2	Delay Speed	Delay Level	Chorus 2 uses a Sine wave LFO, approximately 10% feedback. This emulates an old Roland CE-1 for classic stomp box chorus sound.
Delay/Flanger 1	Delay Speed	Delay Level	Light flange.
Delay/Flanger 2	Delay Speed	Delay Level	Heavier flange; inverted, and with deeper range.
Delay/Swell	Delay Speed	Swell Attack Speed	Automatic volume pedal swells... Swell is a slow ramp-up, or swell of volume when you play each note.

A3

WHO'S RESPONSIBLE?

The Flexitone Design Team:

While it's true that the whole staff at Line 6 ends up making an important contribution to most every project that we do here, the following folks were most responsible for the main design effort on the Flexitone:

ENGINEERING

Michel Doidic	Curtis Senffner
Erik Von Ploennies	Kevin Duca
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Curtis Taylor	George Van Wagner	Eric Brooking

BETA TEST*

Brian Swerdfeger	Zeke Zirngiebel
------------------	-----------------

** You must have an odd last name to be a Beta tester for Line 6. And it helps if you really want to be an engineer when you grow up as well...*

Plus, we all took turns making the coffee and riffing.

Any similarities to other amplifiers is, of course, intended.

The Flexitone Manual was brought to you by:

Writing, Drawing & General Mucking About
Patrick O'Connor

Writing of More Words & Brewing of More Coffee
George Van Wagner

Manual Design & Graphical Tweezing
Curtis Taylor

And Yet More Text & Much Guitar Riffing
Greg Westall

Fact-Checking & Being Helpful
Marcus Ryle

Thanks for buying your Flexitone. Hope you enjoy it. If you have any questions or comments, our diligent support staff can be contacted at (310) 390-5956 (weekdays, 8am-6pm Pacific Time), via our website: <http://www.line6.com>, or via email: support@line6.com. To ensure that your support experience is a pleasant one, we recommend taking some notes for yourself before you call. That way, you'll remember to ask everything you want to ask the first time, and be able to get back to Flexitone-ing ASAP.

INDEX

- #
16 Ohm Cabinets with HD7•13
- A**
Amp Models1•4, 3•1, A•1
- B**
Bank Down Switch.6•2
Bank Up Switch6•2
Banks.6•2
 with HD.7•7
Bass2•1
Black Panel.3•2, A•1
Brit Blues3•3, A•1
Brit Class A.3•3, A•1
Brit Classic3•3, A•1
Brit Hi Gain3•4, A•1
BypassA•2
- C**
Cabinet Hookup for HD.7•10
 Illustrations7•14
 Closed-back cabinet
 tone emulation with HD7•12
Channel2•2, 5•1, 6•2, 6•8
Channel Select2•3, 5•1, 6•2
Channel Volume Control2•2
Chorus.4•2, A•2
Chorus 1A•2
Chorus 2A•2
Closed-back cabinet
 tone emulation with HD7•12
Combined Effects4•4
- Compressor4•1, A•2
Creating & Storing Sounds5•1, 6•3
- D**
Delay.4•2, 4•4, 6•5, A•2
Delay/Chorus 14•4
Delay/Chorus 24•4
Delay/Compressor.4•4
Delay on/off switch.6•7
Delay/Flanger 14•4
Delay/Flanger 24•4
Delay/Swell.4•4
Delay/Tremolo4•4
Direct Output for combos.2•4
 Direct Outputs for HD.7•5
Distortion6•6
Drive/Boost switch6•6
Drive Control2•1
- E**
Edit Mode5•2
Editing and Saving Sounds With
 The Floor Board.6•3
Effect On/Off Mode6•5
Effect On/Off Settings Stored
 With Programmed Sounds.6•7
Effect ParametersA•2
Effects Select Knob.2•2
Effects Send/Return2•4
 Effect Send/Return for HD7•2
Effect Tweak2•2, A•2
EQ on/off switch.6•6
Extension Cabinet (for Plus)2•4

F

Fans (Flexitone HD).....7•1
 FB4.....6•8
 Flanger.....4•2, A•2
 Flanger 1.....A•2
 Flanger 2.....A•2
 Flexitone Cab (1-12").....2•6
 Cab (1-12") for HD.. 7•11, 7•12
 Flexitone Cab 212S (2-12").....2•6
 Cab 212S hookup
 to HD.....7•12, 7•15 & 16
 Flexitone Clean.....3•5, A•1
 Flexitone Crunch.....3•5, A•1
 Flexitone Duo.....2•5
 Flexitone Drive.....3•5, A•1
 Flexitone Flavors.....2•6
 Flexitone Layer.....3•5, A•1
 Flexitone Plus.....2•5
 Foot Pedal Connector.....2•4
 Flexitone Signature Sounds.....3•5
 Floor Board.....6•1
 Foot Pedal Connector.....2•4
 Fuzz.....3•6, A•1

H

Headphone/Direct Out.....2•4
 Heat Sinks.....7•1

I

Input.....2•1

J

Jazz Clean.....3•1, A•1

M

Manual Mode...2•3, 5•1, 5•2, 6•3
 Master Volume.....2•1
 Memory for all Flextones.....5•1
 Details for HD.....7•7
 Mid.....2•1
 MIDI (for Flexitone HD).....7•7
 Program Changes Chart.....7•9
 Mode Select (Floor Board)..6•2, 6•5
 Model Select Knob.....2•1
 Modeled Amps.....3•1, A•1
 Modern Class A.....3•2, A•1
 Modern Hi Gain.....3•4, A•1

N

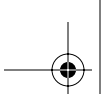
Noise Gate.....4•3

P

Power Connector.....2•4
 Power Switch.....2•4
 Presence.....2•2, 6•6
 Preset Reset Button.....5•3

R

Rectified.....3•4, A•1
 Remote Connector.....2•4
 Return for Combos.....2•4
 Return for HD.....7•2
 Reverb Level.....2•2
 Reverbs.....4•1, A•1
 Rotary Speaker.....4•2, A•2



S

- Save Button 2•3, 5•1
- Send for combos 2•4
 - Send for HD. 7•2
- Series/Parallel for HD. 7•2
- 16 Ohm Cabinets 7•13
- Small Tweed. 3•1, A•1
- Speaker cabinet hookup for HD. . . 7•10
 - Illustrations 7•14
 - Closed-back cabinet
tone emulation with HD 7•12

T

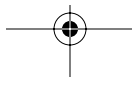
- Tap Tempo 2•3, 5•2, 6•4
- Tap Tempo/Tuner switch. 6•4
- Tone Controls 2•1
- Treble 2•1
- Tremolo 4•1, A•2
- TubeTone Modeling. 1•3
- Tuner 6•4
- Tweed Blues 3•2, A•1

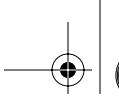
V

- Volume Pedal 6•5
 - MIDI Control of Volume 7•8

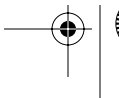
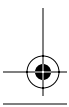
W

- Wah Pedal 6•4
 - MIDI Control of Volume 7•8





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