

Pilot's Handbook

40-00-0080 Electroponic Limited Edition available @ www.line6.com Rev J

Fender, Marshall, Vox, Mesa Boogie, Bogner, Dumble, Roland other amplifier models are all trademarks of their respective owners, which are in no way associated or affiliated with Line 6. These trademarks of other manufacturers are used solely for the purpose of describing certain amplifier tones modeled after some of the most popular sounds of these classic amps.

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.

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



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

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.



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

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Guitar Input Impedance	1 MegOhm
Spider 112 Power	50 Watt @ 16 Ohm
Spider 210 Power	2 x 25 Watts @ 8 Ohm
Spider 212 Power	2 x 50 Watts @ 8 Ohm
Maximum Power Consumption	112/210:200 Watt 212:250 Watt



You should read these Important Safety Instructions. Keep these instructions in a safe place.



Before using your Spider, carefully read the applicable items of these operating instructions and the safety suggestions.

1. Obey all warnings on the amp and in the Spider Manual.
2. Connect only to AC power outlets rated 100-120V or 200-240V 47-63Hz (depending on voltage range of the unit; refer to back panel).

CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE REPLACE ONLY WITH SAME TYPE FUSE.

Spider 212: 100/120V Units: T4.0A/125V time-lag fuse. 230V Units: T2.0A/250V time-lag fuse.

Spider 112/210: 100V Units: T2.0A/250V time-lag fuse. 120V Units: T1.6A/250V time-lag fuse. 230V Units: T0.63A/250V time-lag fuse.

3. Do not perform service operations beyond those described in the Spider Manual. Service is required when the apparatus has been damaged in any way, such as:
 - power-supply cord or plug is damaged
 - liquid has been spilled or objects have fallen into the apparatus
 - the unit has been exposed to rain or moisture
 - the unit does not operate normally or changes in performance in a significant way
 - the unit is dropped or the enclosure is damaged.
4. The bottom of the metal chassis can get hot during operation. Do not touch during operation or shortly after.
5. Do not place near heat sources, such as radiators, heat registers, or appliances which produce heat. Keep the rear of the unit at least three inches from walls or other items that might block heat radiation.
6. Do not block any of the ventilation openings or use in an enclosed space.
7. Guard against objects or liquids entering the enclosure. Do not use or place unit near water.
8. 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.
9. Unplug the amp when not in use for extended periods of time. Unplug the amp during lightning storms.
10. Clean only with a damp cloth.
11. Do not defeat the safety purpose of the grounding type plug. A grounding type plug has two blades and a third grounding prong. The third prong is provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
12. Only use attachments/accessories specified by the manufacturer.
13. Prolonged listening at high volume levels may cause irreparable hearing loss and/or damage. Always be sure to practice "safe listening."

Introduction

Welcome The Spider...

Thank you for inviting Spider home with you. Spider mines the tonal heritage of the past forty years of guitar amplifier design and matches it up with the kind of digital signal processing magic that will still be ahead of its time ten years from now – the same kind of technology as Line 6's POD, and the FlexTone and AX2 amplifiers.

How does Spider help you create a guitar tone that is out of this world? Easy! It's...

Amp Modeling

Well, just what is it, and why is it so important? (By the way, you filled out the registration card at the back of this handbook, or did it on the web, right? Great. Back to our regular program....)

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 quite 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.

The Line 6 crew also assembled a dream collection of amplifiers recognized by guitarists the world over as true "tone classics." With a guitar in one hand,

and modern computer measuring gear in the other, they put these amps through their paces and got them to give up their secrets.

These engineers distilled forty years of guitar tone heritage into a revolutionary DSP (digital signal processing) software-based modeling technology, which now gives Line 6 the power to create super silicon-based life forms like Spider: a tonally mind-blowing, multi-FX packed, shiny red wonder with ultimate flexibility for creating awesome guitar tone. Spin through Spider's six Amp Models to experience a complete range of classic and cutting edge guitar tone that only Line 6 technology can deliver.

Now, then– here are a couple of things we want to be completely crystal clear on:

1. The Line 6 modeling process is a patented, 100% digital software-based technology exclusive to Line 6.

2. Line 6 Modeling is not sampling, nor is it solid state; no special guitar, pickup, or cabling is needed.

Smart Control FX

Great amp tone is only part of a great guitar sound. Effect processing – whether stomp boxes or rack gear – are also a big part of the story. Your Spider packs in the power of several of these tone shapers as well, in its Smart Control FX section.

The delay knob gives you a trio of delay effect choices: a standard delay, ping pong, and a classic tape echo emulation. The modulation effect knob lets you choose between flange, chorus, and tremolo, and for each of these effects you can choose anything from a subtle edge of processing to total tone-mangling overkill. All with one quick spin of the knob. As you spin, Spider adjusts all the individual aspects of the effect automatically to give you the range of sounds you're looking for, without having to mess with multiple knobs and switches to get your tone. So you can spend your time making music instead.

And Away We Go

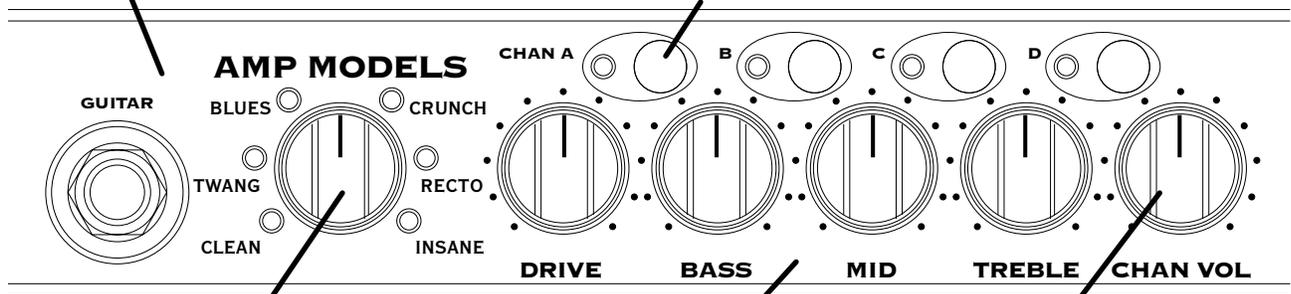
So, now that you know the tonal wonders that lurk within Spider, it's time to grab your favorite axe, plug in, and flip to the handy Quick Start Guide on the next page....

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Channel Memories

Four programmable channels come pre-loaded with great factory presets. Press one of these buttons to hear them. To store your own “snapshot” of all knob positions (except Master Volume), press and hold one of these four buttons for three seconds. The light blinks when the save is complete. To copy from one channel to another, press the button for the channel you want to copy *from*; now press and hold the button of the channel you want to copy *to* until the light blinks. Now *that’s* some easy to use technology in action.

1 Plug In Here



2

Amp Models

Spin this knob to select one of six Amp Models. All the other Spider controls will automatically be set to sound great with that Amp Model, so you can just play!

4

Channel Volume

Generally, set this on max. It lets you balance the volumes of different amp-and-effect setups that you store in your Spider’s channels. See 9 for the low-down on channels.

3

Tone Controls

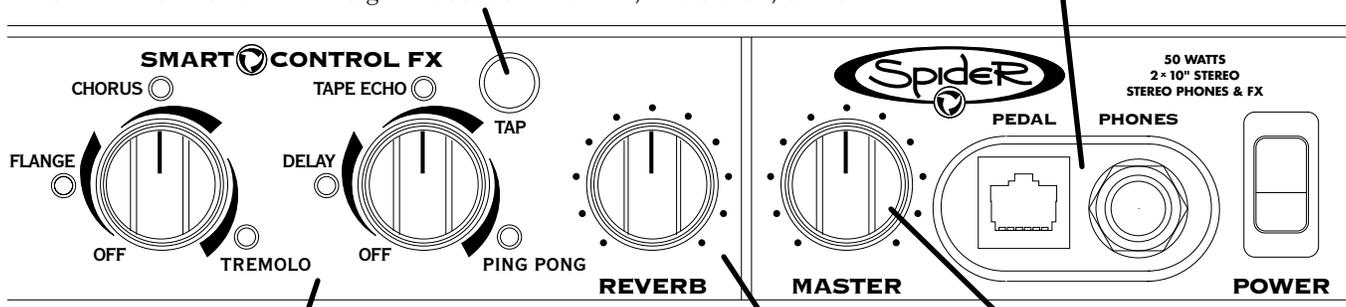
Drive is like the volume or gain knob on other amps; controls how much “dirt” you get in your sound. Bass, Mid, and Treble controls are customized for each Amp Model to give you optimal tonal control.

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Foot Control & Headphone/Line Out

Plug in a Line 6 Floor Board for channel switching, effects on/off control, wah & volume pedals, 8 more channel memories, a chromatic tuner, and tap tempo for delays. Or an FB4 for channel switching and tap only. Listen in stereo with headphones, or use this as a direct out for recording! (If you need a mono out, use a stereo-to-dual mono Y-adaptor rather than plugging mono straight in here, to avoid shorting your Spider’s power amps).

TAP to set delay time (see 5). See Tap “Extra” Functions (later in this handbook) to learn how to use TAP to get a boost of Presence, Distortion, or Volume.



5

Smart Control FX

Spin one of these knobs to get great FX, fast and easy:

Knob 1 picks flange, chorus or tremolo, with a range of settings – from subtle to overpowering – for each effect.

Knob 2 picks delay, ping pong or a virtual tape echo, with the same concept of a range of settings – in this case from low volume to high. Tap the TAP button to set the delay time.

6

Reverb

Dial up more or less virtual room.

7

Master Volume

You can choose the overall volume of the amplifier, without affecting your tone.

Amp Model Details

Clean. Select this Amp Model and adjust the tone controls to get classic Fender-style clean tones, great jazz tones, and all the high end shimmer you need. This Amp Model incorporates some of the rich tonal character of a very high end amp – the Dumble. This Amp Model provides a much wider range of tone control than these other amps, with a generous bottom end. Dial up a little chorus and delay and you've got the ultimate clean sound!

Twang. This model draws on our analysis of the '60s Fender blackface Deluxe amps and the '50s Fender Bassman (it includes the classic Fender glassy high end, plus the snap and bite of these vintage amps). Things don't really get too crunchy until you get to the top range of the Drive knob. The tone controls provide more range than the blackface Deluxe or Bassman.

Blues. This tone is based on the '65 Marshall JTM-45 Bluesbreaker but incorporates wider range tone controls. Once you get into higher Drive settings, this Amp Model begins to transition into a variant of the Budda Twinmaster (another high end boutique amp) for sweeter overdrive tonality.

Crunch. This sound was crafted during our studies of the '68 50 Watt Marshall Plexi. But unlike the Plexi, Spider's Crunch provides more wide-ranging tone controls. With the Plexi, once you're overdriven, the tone controls really don't do much, but the Spider will allow you to scoop out the mids even at the highest Drive settings.

Recto. This began as our version of the Mesa Boogie Dual Rectifier. For Spider, we made careful enhancements to this classic tone. The resulting Amp Model has a definite modern Boogie flavor, but it's more warm and "fat." Listen for the big, resonant large cabinet punch that's another important part of this sound's massive impact. Sort of like a 4x12" that'll fit in a Volkswagen. Fahrvegnügen™!

Insane. Our goal here was to provide you with as much input gain distortion as possible short of complete meltdown. You get ridiculous, rich tube drive to shame the distortion of pretty much any other amp on the planet (sort of like the Rectifier with a distortion pedal), while still retaining tonal definition and character. As a result, you get way more bottom end and cabinet character than other small amps, and, just like the other Spider Amp Models, tons of wide-ranging tone shaping. Crank up the Drive control and take no prisoners!

Optional Foot Control for Spider

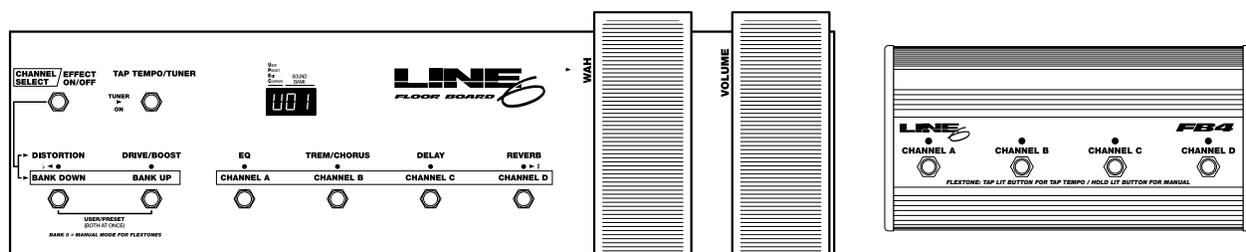
Floor Board. This foot controller lets you channel switch between Spider's four channels, plus gives you two more banks of four channels for a total of 12 memory locations when used with your Spider. A wah pedal with Crybaby-style toe down on/off switch, and a volume pedal are also built in. There are also effect on/off switches for turning on and off your flange/chorus/tremolo, delay, and reverb, plus the same "extra" functions that you can get to by holding down the Tap button on the Spider's front panel (distortion, volume boost, and presence boost). And a chromatic digital tuner to complete the package.

While the tuner is active, turn Spider's mid knob to set the tuning reference from A=436 to A=445Hz.

With the Floor Board connected, Spider stores channels into the currently selected bank. So, if you have bank 2 selected and press Spider's B button to store, you store into bank 2, channel B. Bank 1 is the same as the 4 channels accessible directly from Spider without the Floor Board.

FB4. This simple controller lets you switch between Spider's 4 channels, and tap your delay speeds.

Either the Floor Board or the FB4 can be connected to the Pedal input jack, on the right side of the Spider's front panel, with a special cable that also carries power from the amp to the pedal, so no separate power supply is required for the pedal. Lights on the pedals let you know what's happening, and the steel stomp switches and sturdy chassis are built to take the punishment of life on the road with your Spider.



Tap Button “Extra” Functions

The Tap Tempo button, in addition to setting the speed of your delay effects, also lets you access a few extra Spider features: a Presence Boost, a Volume Boost, a Drive Boost, and a built-in Noise Gate (the first three are also all accessible via the optional Floor Board foot controller). When you hold down the Tap Tempo button, you can use some of Spider’s knobs to access these extra features. These settings are remembered if you store the sound in a channel.

Here’s the detail:

Boost - A

Hold down, and keep holding down, the Tap button as you turn the **Channel Volume** knob up past twelve o’clock, and a Volume Boost kicks in. This boosts volume without extra ‘dirt’ – like for a lead boost. This is the same as kicking on Drive/Boost at the Floor Board. As you do this, the Channel B light comes on if you turn the Drive Boost on.

Distortion - B

Hold down, and keep holding down, the Tap button as you turn the **Drive** knob up past twelve o’clock,

and you get the kind of extra ‘dirt’ that you’d expect from a Distortion pedal with the distortion control set low and the output control set high. It boosts your guitar signal before it reaches the Amp Model, so that you hit the model harder and get a more distorted sound. This is just the same as kicking on Distortion at the optional Floor Board foot controller. As you do this, Spider’s Channel A light comes on if you turn the Distortion on.

Presence - C

Hold down, and keep holding down, Tap 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. As you do this, the Channel C light comes on if you turn the Presence “circuit” on.

Noise Gate - D

Hold down, and keep holding down, Tap as you turn the **Reverb** knob up past twelve o’clock, and you turn on a built-in Noise Gate, which helps to cut down on hiss and noise. As you do this, the Channel D light comes on if you turn the Gate on.

Special Hidden Functions

- When you select an Amp Model, Spider automatically sets its tone controls and effects to match that Amp Model. You can disable the auto-FX selection (but not tone control auto-selection) by powering up Spider with the Channel D button held. The auto-selection is re-enabled next time you power up.
- Want to know where your Spider’s controls are set in the programmed channels? Hold – and keep holding – the Tap button. Now, *before you do anything else*, turn the **Amp Models** knob. This activates Spider’s “Compare” mode. Now turn any knob other than Amp Model and Master Volume, and the channel lights will tell you whether you need to turn that knob up (Channel A lights) or down (Channel D lights) to match the stored setting. The Channel B & C lights will be lit at the same time once the knob position matches the stored setting exactly.
- You can reset your Spider’s programmable channels to their factory-programmed states by holding down the Channel A button as you turn on the power.

Warning: This will erase ALL custom sounds you might have created. Ask yourself, “Do I really want to do this?” If your answer is yes, then go on ahead with your bad self.

Customer Service

If you have a question about your Spider and you are in the USA or Canada, you can contact Line 6 at (805) 379-8900, 8AM to 5:30 PM Monday through Friday (Pacific Time) and request the Product Support department (or email them at support@line6.com). You may also find helpful information on the Support page of the Line 6 web site (www.line6.com).

Before contacting Product Support, please take the time to read through this publication to see if it can answer your questions. If you do need to contact Product Support, you will need to tell them your serial number (which is on a sticker on the back of the amp). It might also help to take some notes for yourself before you call, to insure that you remember everything you want to ask about.

Details of your Spider’s warranty are at the end of this handbook. If you are outside the USA and Canada, please contact your distributor directly to arrange service for your Spider. The list of Line 6 distributors is available on the Internet at www.line6.com.

Programmer's Sheet - Draw lines in knob circles to note your favorite settings.

NOTES:

NOTES:

NOTES:

NOTES:

NOTES:

Photocopy this page, so you can assemble a whole library of your own settings.

Presets - These are the factory settings for your Spider Amp Models:

250ms

100ms

350ms

150ms

150ms

450ms

The factory settings for the Channel memories are the same as these Amp Model presets as follows:

A - Clean B - Twang C - Recto D - Insane

LINE 6 LIMITED WARRANTY INFORMATION

Sending in your registration card allows us to register key information so that we may handle problems faster and inform you of advance information, upgrades, and other news. Thanks in advance for filling out your registration card and sending it to us. And good luck in your music!

Line 6, Inc., warrants this product when purchased at an Authorized Line 6 Dealer in the United States of America or Canada, to be free of defects in materials and workmanship for a period of one year from the date of original purchase only upon completion and return of the Line 6 Warranty Registration form within 30 days from date of purchase. Please contact your for information on warranty and service outside the USA and Canada.

During the warranty period Line 6 shall, at its option, either repair or replace any product that proves to be defective upon inspection by Line 6 .

Line 6 reserves the right to update any unit returned for repair, and reserves the right to change or improve the design of the product at any time without notice.

This warranty is extended to the original retail purchaser. This warranty can be transferred to anyone who may subsequently purchase this product within the applicable warranty period by providing Line 6 with all Warranty Registration information for the new owner and proof of transfer within 30 days of the purchase. Final determination of warranty coverage lies solely with Line 6.

This is your sole warranty. Line 6 does not authorize any third party, including any dealer or sales representative, to assume any liability on behalf of Line 6 or to make any warranty for Line 6.

Line 6 may, at its option, require proof of the original date of purchase in the form of a dated copy of the original authorized dealer's invoice or sales receipt.

Service and repairs of Line 6 products are to be performed only at the factory (see below) unless otherwise authorized in advance by the Line 6 Service Department. Unauthorized service, repair or modification will void this warranty.

To obtain factory service:

Contact Line 6 at (805) 379-8900, 8AM to 5:30 PM Monday through Friday (Pacific Time) and request the Product Support department (or email support@line6.com). If necessary, you will be given a return authorization (RA) number: **Products returned without an RA number will be returned to you at your sole expense.** Pack the product in its original shipping carton and attach a description of the problem along with your name and a phone number where Line 6 can contact you if necessary. Ship the product insured and freight prepaid to:

**Line 6 Product Support
6033 De Soto Avenue
Woodland Hills, CA 91367**

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