



VARIAX STANDARD

PILOT'S GUIDE ►

Supplier's Declaration of Conformity
47 CFR § 2.1077 Compliance Information

Unique Identifiers: Line 6 Variax Standard

Responsible Party - U.S. Contact Information:

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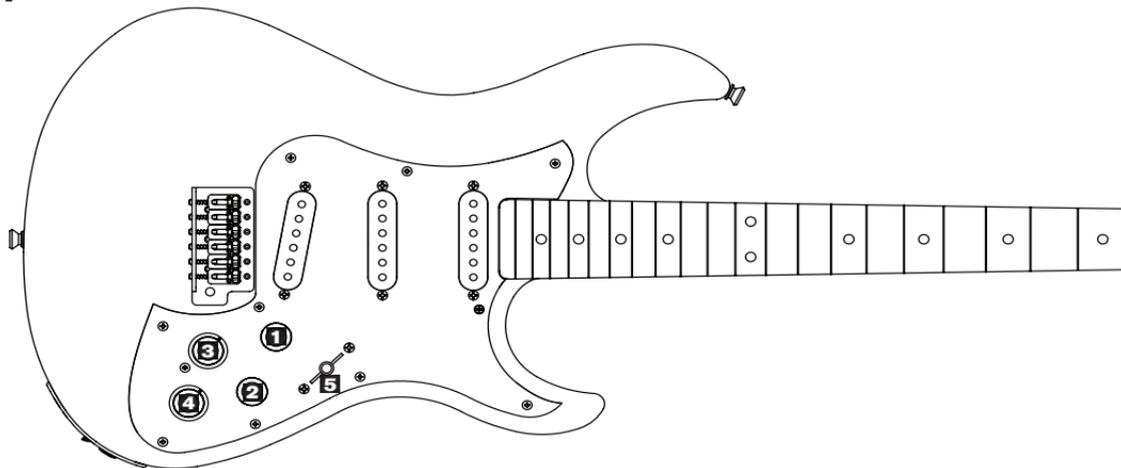
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Serial No.: _____

What's in the Box:

Variax® Standard Guitar, Variax VDI USB Interface, 1 Lithium Ion Battery, Charger, Bridge Saddle Wrench, Truss Rod Wrench, and Pilot's Guide

Basic Operation



1. **Volume** - Adjusts the signal level output of your guitar.
2. **Tone** - Adjusts the amount of high frequency pass-through.
3. **Guitar Model Selector** - Push in this knob (LED is lit) to access any of the ten Variax guitar model banks, or one of two user definable custom model banks.

When in Variax mode, the **Guitar Model Selector** LED illuminates the active guitar model bank. There are five models per bank, as defined by the **Pickup Selector Switch** position. Press the Guitar Model Selector knob again (LED is not lit) to use the magnetic pickups.

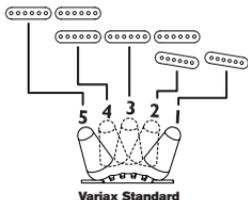
4. **Alternate Tuning** - When in Variax mode, you can use the **Alternate Tuning Knob** to instantly access ten pre-loaded alternate tunings on the fly. Missing your favorite tuning? No problem! You can store your own custom tunings here as well. More on that later. Be sure you amplify your signal enough to drown out the natural acoustics of your guitar or you might hear some odd modulations from it blending with the amplified sound.

When set to **MODEL**, your Variax guitar's tuning is determined by the current guitar model and **Selector Switch** position. To see this in action, enter Variax mode and select the **CUSTOM 2** model bank, which is the only bank pre-loaded with alternate tunings from the factory.

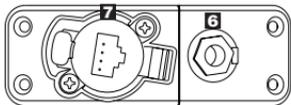
Toggle your selector switch to preview the tunings pre-loaded with each model. You can assign alternate tunings to any guitar in the **Guitar Model Selector** banks using the Line 6 **Variax Workbench HD** software (see the "[Variax Workbench HD Application](#)" section).

To bypass the Alternate Tuning feature, simply set the **Alternate Tuning Knob** to **STANDARD**. In Standard mode, every Variax model plays in standard tuning, including any alt-tuned models like the ones in the Custom 2 bank.

- 5. Pickup Selector Switch** - In analog mode, the selector enables your magnetic pickups as shown below (1=bridge / 5=neck).



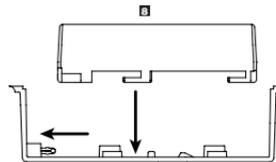
In Variax mode, this switch has unique properties for each model. Check out "[The Guitars of Variax](#)" section for details.



- 6. Analog Output** - Plug in a standard 1/4 inch guitar cable here.
- 7. VDI Digital Output** - For connecting to Line 6 hardware that offers a Variax Digital Interface (VDI). **Use only a Line 6 Variax digital cable.**

Note: If connecting to the included Line 6 Variax VDI USB interface, you need to have a charged battery within the guitar. Plug a 1/4 inch cable into the guitar to enable the Variax electronics to power on. If connecting to a Line 6 Helix®, POD® HD, or Firehawk® device, power is supplied via the VDI, thus, no battery is required.

Helix devices can also act as an interface for Workbench HD, but not as an interface for the Line 6 Monkey™ application. POD HD can act as an interface for both Workbench HD and Line 6 Monkey applications. Firehawk devices cannot be used to communicate over USB to a connected Variax.



- 8. Battery Compartment** - Installation as shown. Please fully charge the included lithium ion battery in its charger prior to your first use. A fully charged battery will give you a maximum of 12 hours of life. Press the **Battery Check button** for a quick reference of remaining battery life:

- 4 LEDs** = 9+ hours
- 3 LEDs** = 6+ hours
- 2 LEDs** = 3+ hours
- 1 LED** = less than 3 hours
- 1 LED blinking** = less than 1 hour, recharge battery

When using the supplied, external battery charger - The solid red LED on the charger unit indicates that the battery is charging. A blinking red LED means that either the battery is fully charged, or the battery was inserted improperly into the charger. If you know the battery needs charging and you are seeing a blinking red LED while in the charger, please re-seat the battery in the charger.

Note: It is also possible to supply power to your Variax without a battery. When connected to VDI digital input-equipped hardware, such as a Helix® or POD® HD device, power is supplied via this connection. You can also power the guitar through the 1/4 inch Analog Output jack using the Line 6 XPS A/B Power supply and 1/4 inch TRS cable in the Variax Cable Power Kit (P/N: 98-034-0105).

The Guitars of Variax

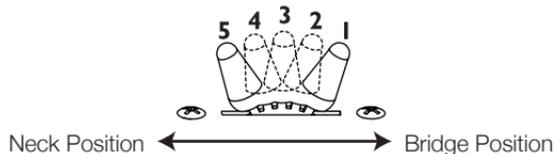
Each Variax model bank includes five different models—one at each position of the Pickup Selector Switch. These five models may all be based on the same guitar, two or three similar guitars or, for the **ACOUSTIC** and **RESO** banks, each model may be based on an entirely different instrument.

For electric models, the **Volume** and **Tone** controls work like the ones found on the instruments we modeled. Rolling off the volume, for instance, will typically result in a slightly darker sound. The output level of each model is based on the modeled instrument. Models with humbucking pickups, for example, tend to be louder than those with single-coils.

For acoustic models, the **Volume** control acts as a simple level control. Since acoustic guitars don't have tone controls, we decided to let you shape the tone of these models by changing the position of a modeled microphone using the **Tone** knob. Give it a spin to explore a varying range of tonal flavor for each model.

Pickup Position Numbering

We've numbered the **Pickup Selector** positions throughout this Guide starting with "bridge" (the position toward the bridge) as 1. Moving the pickup selector from there, you go through positions 2, 3 and 4 on your way to the "neck" position (the position toward the neck), which we label as number 5.



T-MODEL



Based on* 1960 Fender® Telecaster® Custom



Leo Fender's Telecaster, originally known as the Broadcaster, was the first commercially successful solidbody electric guitar and has been in continuous production for over fifty years.

Position 1: Bridge, **Position 2:** Widerange Humbucker Bridge, **Position 3:** Bridge + Neck, **Position 4:** Widerange Humbucker Neck, **Position 5:** Neck

SPANK



Based on* 1959 Fender® Stratocaster®



The curvaceous Stratocaster is further evidence of the genius of Leo Fender. Considered a radical departure at its introduction in 1954, the Stratocaster influenced electric guitar design more than any other single instrument, and its distinctive comfort-contoured body, bolt-on neck, and versatile electronics have become industry-standard features. Our model takes one slight liberty; unlike the modeled instrument, the tone control works on the Bridge pickup, too. We trust that Leo won't mind.

Position 1: Bridge, **Position 2:** Bridge+Middle, **Position 3:** Middle, **Position 4:** Neck+Middle, **Position 5:** Neck

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LESTER

5 4 3 2 1



Based on* 1959 Gibson® Les Paul® Standard

The first Gibson® solidbody electric design was a collaboration with popular guitarist and recording pioneer Les Paul. Unlike the easy-to-manufacture Fender designs, the Les Paul retains the carved top and set neck construction of their hollowbody models. The original series was a commercial failure, however, and was discontinued in 1961. The resulting resurgence of popular interest led to its reintroduction in 1968.

Position 1: Bridge, **Position 2:** P90 Bridge, **Position 3:** Bridge+Neck, **Position 4:** P90 Neck, **Position 5:** Neck

SPECIAL

5 3 1



Based on* 1955 Gibson® Les Paul® Special

The Special was added to the Les Paul line in 1955 as an intermediate step between the utilitarian Junior and more luxurious Standard. The greater tonal options made possible by the second P-90 helped make the Special a favorite of reggae legend Bob Marley. Our model is based on the original single cutaway version.

Position 1: Bridge, **Position 3:** Bridge+Neck, **Position 5:** Neck

4 2



Based on* 1976 Gibson Firebird V

The Firebird, introduced in 1963, was created with the help of Detroit automobile designer Ray Dietrich. Neck-through construction and Epiphone® style mini-humbuckers gave the Firebird a unique combination of good sustain and a biting, trebly sound—characteristics which made it a favorite of blues slide guitar legend Johnny Winter.

Position 2: Bridge, **Position 4:** Neck



R-BILLY

5 3 1



Based on* 1959 Gretsch® 6120

The 6120 was the first of several models that Gretsch developed with country guitar whiz Chet Atkins. The 6120 is usually associated with the “twangy” sounds of players like Duane Eddy, Eddie Cochran, and Brian Setzer. Our model is equipped with Filter™tron hum-canceling pickups.

Position 1: Bridge, **Position 3:** Bridge+Neck, **Position 5:** Neck

4 2



Based on* 1959 Gretsch® Duo Jet



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Gretsch introduced this series in 1955. Though called a solidbody by Gretsch, the Jet series actually has internal hollow chambers that contribute to its light weight and resonant tone. The black version (the Duo-Jet) was the favorite instrument of Cliff Gallup, original lead guitarist for Gene Vincent's Blue Caps. The guitar we modeled had DeArmond® pickups and a Melita bridge.

Position 2: Bridge, **Position 4:** Neck

CHIME



Based on* 1966 Rickenbacker® 370

Though overshadowed by the success of the 12-string, the stylish Rickenbacker 6-string version models continue to be popular with players looking for something a bit out of the ordinary, like Ed O'Brien of Radiohead.

Position 1: Bridge, **Position 3:** Bridge+Neck, **Position 5:** Neck



Based on* 1966 Rickenbacker® 360-12

Popularized by George Harrison in the Beatles and Roger McGuinn in the Byrds, the distinctive jangle of the 12-string Rickenbacker was a significant part of the 60's rock sound. Our model has the original "toaster" pickups.

Position 2: Bridge, **Position 4:** Neck

SEMI



Based on* 1961 Gibson® ES-335

The semi-hollow Gibson was conceived as a blend of the tone and sustain of a solidbody, with the balance and aesthetics of a hollowbody. These guitars' "woody" tone made them popular with Jazz artists like Larry Carlton and Blues greats like B. B. and Albert King. Our model is based on a 1961 dot neck, with P.A.F. pickups and a stop tailpiece.

Position 1: Bridge, **Position 3:** Bridge+Neck, **Position 5:** Neck



Based on* 1964 Epiphone® Casino

Gibson acquired former rival Epiphone in 1957 and began producing Epiphone guitars in its Kalamazoo factory. John Lennon was particularly fond of the Casino, and continued to record with it long after the breakup of the Beatles. The Casino features P-90 pickups.

Position 2: Bridge, **Position 4:** Neck

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JAZZBOX



Based on* 1954 Gibson® ES-175

Gibson added a sharp “Venetian” cutaway and a fancier fingerboard to the budget ES-125 model to create the ES-175. With the addition of a second P-90 pickup in 1953, this quickly became a popular and enduring choice for jazz guitarists.

Position 1: Bridge, **Position 3:** Bridge+Neck, **Position 5:** Neck



Based on* 1953 Gibson® Super 400

By the end of the 1940s, changing musical styles found premium archtops like the Super 400 to be lacking in volume. By simply adding the pickups and controls developed for its early electric guitars, Gibson created the electric version of the Super 400 in 1951. Our model is based on the version with P-90s. Check out Scotty Moore (and Elvis) playing the Super 400 in the '68 Comeback Special.

Position 2: Bridge, **Position 4:** Neck



ACOUSTIC



Based on* 1959 Martin® D-28

The D-28 is generally considered the definitive Martin flat-top. The Dreadnought (or “D”) body, combined with rosewood back and sides, produces a full sound, ideal for flat-picking.



Based on* 1970 Martin® D12-28

In 1970, Martin added six more strings to the successful D-28 to capitalize on the folk music trends popular at the time.



Based on* 1967 Martin® O-18

The smaller “parlor” sized body with mahogany back and sides has a balanced tone ideal for finger-style playing.



Based on* 1966 Guild® F212

Guild’s Jumbo-bodied 12-strings offered players the elusive combination of volume and clarity. We’ve modeled the F212 with mahogany back and rims.



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5



Based on* 1995 Gibson® J-200

Easily identified by its impressive size and ornamentation, the J-200 was often seen played by flashy country and western artists and was a later favorite of Elvis Presley.

RESO



Based on* 1935 Dobro® Model 32

Though the Dobro is generally a wood-body instrument, this model is based on an unusual specimen with an all-aluminum body that emphasizes midrange.



Inspired by* the Coral Sitar®

The Coral Sitar offered guitarists the ability to get the buzz and drone of a sitar without having to learn a new instrument. On this model, the tone control changes the level of the drone strings.

3



Based on* 1999 Jerry Jones Shorthorn®

In the 60s Danelectro managed to make great sounding guitars from Masonite and lipstick tubes. In the 90s Jerry Jones continued that tradition with the same materials as their 60s counterparts. Our model is with the bridge and neck pickups active.

4



Inspired by* the Gibson® Mastertone Banjo

The Mastertone series was introduced in 1925 and quickly became the definitive Bluegrass banjo.



5



Based on* 1928 National Tricone.

The Tricone uses three, 6-inch cones mechanically coupled to the bridge to amplify string vibrations. The Tricone has a smoother sound than later, single-cone resonators.



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Build A Custom Guitar

To really take advantage of the range and versatility of Variax mode, especially when performing, you'll want immediate access to your essential sounds. To get your ten favorite tones ready for instant recall, use the two custom banks on the **Guitar Model Selector** knob.

You've got **CUSTOM 1** at the beginning of the Model Select rotation, and **CUSTOM 2** at the end. Each can store a different set of five of your favorite guitar models, as well as tone and alternate tunings (with the **Alternate Tuning Knob** set to **MODEL**). You could, for instance, put acoustic sounds in **CUSTOM 1** and electric sounds in **CUSTOM 2**.

Let's say you found a sound that you know you'll be coming back to again and again. Here's what you do to store it in one of the custom banks:

1. Be sure your sound is exactly as you want it. This is going to store the guitar model and tone knob settings.
2. Press and hold the **Guitar Model Selector** knob for 2.5 seconds or until the LED begins to blink to enter customization mode.
3. Now turn the **Guitar Model Selector** to your choice of **CUSTOM 1** or **CUSTOM 2**. The Alternate Tuning LED is no longer lit.
4. Move the **Pickup Selector Switch** to the desired position where you want to store the current model.

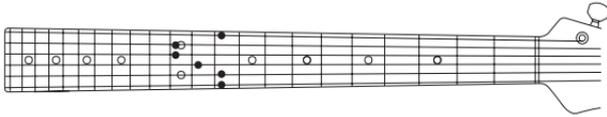
5. To save an alternate tuning to this position, select the desired tuning on the **Alternate Tuning Knob**. Skip this step if you do not want an alternate tuning.
6. Press and hold the **Guitar Model Selector** knob for 2.5 seconds. Presto! You just saved your first guitar model to a custom bank! Don't forget to set the **Alternate Tuning Knob** to **MODEL** if you want to recall the tunings exactly the way you've saved them.

Creating Custom Alternate Tunings

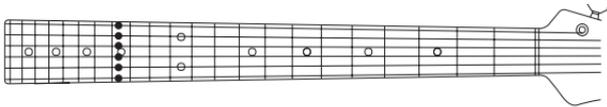
The Alternate Tuning feature of your Variax is a very powerful tool. While we've provided 10 common tunings to choose from on the **Alternate Tuning** knob, we know some of you will still wish for even more, such as using this feature to replace your capo. Have no fear, we've got you covered! You can replace all but the **MODEL** and **STANDARD** setting on the **Alternate Tuning** knob with your very own creations. Here is how you do it.

1. Make sure your guitar is tuned to a standard tuning (with a 440Hz reference) with the **Guitar Model Selector** set to any 6-string guitar model.
2. Press and hold the **Guitar Model Selector** knob for 2.5 seconds, or until the LEDs begins to blink, to enter customization mode.
3. Select the position you'd like to replace on the **Alternate Tuning** knob. **Note:** If it's already there, you need to move the knob away and back so that customization mode knows you want to modify a tuning. Only the **Alternate Tuning** LED will flash.
4. Create new alternate tunings by playing one note at a time on each string you wish to change. Customization mode sees the 12th fret as the 0 fret (or nut). For example, playing a note at the 10th fret will tune that string down a whole step, while playing a note at the 14th fret will tune it up a whole step from standard. Be sure to mute strings carefully as you assign tunings across the neck - any mishaps could reassign the tuning. You can also play all notes at once if you can fret them cleanly.

Here is an example of the notes you'd play for an open D tuning:



Here are the notes you'd play if you wanted a 'capo' on the 3rd fret (G).



5. Momentarily press and release the **Guitar Model Selector** knob to enter audition mode. Try out your tuning. If it sounds right, proceed to step 6. If you need to make an adjustment momentarily, press and release the **Guitar Model Selector** and return to step 3, or turn your **Alternate Tuning** knob to abort alternate tuning customization.
6. Press and hold the **Guitar Model Selector** knob for 2.5 seconds or until the **Alternate Tuning** LED stops blinking, to save your new tuning.

Variax Workbench HD Application

The Line 6 **Variax Workbench HD** application is available free from line6.com/software. Use the Workbench HD application with your Variax instrument to create custom model presets, including any combination of body, pickups, tunings, and other settings, and store them within any of the sixty Guitar Model preset locations. You can also create your own custom tunings to be saved within the ten Alternate Tuning preset locations.

Workbench HD can also be used as a librarian to backup and restore presets, banks, or entire guitar bundles, as well as export such files to share with other Variax users. For more information, please see the **Variax Workbench HD Pilot's Guide**, available at line6.com/support/manuals.

If you prefer video instruction, please see the following online video tutorials covering the Line 6 Variax and Shuriken™ guitars.

Line 6 Movies:

<http://www.youtube.com/Line6Movies>

Line 6 Support:

<http://www.youtube.com/Line6Support>

Shuriken Guitars:

<http://www.youtube.com/ShurikenGuitars>

Factory Reset Options

A factory reset on the Variax Standard guitar is not necessary under most circumstances. If you do need to perform a full firmware reset, it is important to note that this may result in the Variax guitar's model and alternate tuning knobs not reflecting the correct states. To correct this issue, you will need to run the Line 6 Workbench HD software and manually restore factory settings from the Variax Standard preset bundle.

To Reset Firmware Only

Using the supplied Variax VDI USB interface, connect your Variax guitar to your computer. Please ensure that the Variax battery is charged and inserted, and plug in a 1/4 inch, short patch cable or headphone adapter to engage the battery. Check that both lights are green on the VDI USB interface throughout the entire process.

Launch the **Line 6 Monkey** software (available free at www.line6.com/software). Within the Line 6 Monkey app, select **Flash Memory** for your Variax guitar and click on **Reinstall Latest** (or **Update Selection**, if an update is available). Line 6 Monkey will prompt you to keep existing patches. Clicking **Yes** will reset the Variax guitar's firmware, without altering the current model and tuning settings. Clicking **No** will restore the guitar to default settings. In order to restore the factory Guitar Model presets, please use the following steps.

To Reset Guitar Model and Alternate Tuning Selectors:

If you want to restore the Variax Standard defaults for model and alternate tuning selectors, you can do so via the Line 6 Workbench HD software.

Using the supplied VDI USB interface, connect your Variax guitar to your computer. Please ensure that the Variax battery is charged and inserted, and plug in a 1/4" short patch cable or headphone adapter to engage the battery. Check that both lights are green on the VDI USB interface throughout the entire process.

Download the Variax Standard preset bundle from <https://line6.com/vari-ax-modeling-guitars/resources/>. After launching the Workbench HD application, go to the File menu and click on **Open Bundle**. Select the Variax Standard bundle in the dialog box and click **OK**. Click on the **Upload All** button in the upper left-hand corner of the Workbench HD application. Once the upload is complete, both the model and alternate tuning settings will be reset to the factory settings.

In addition to the factory reset above, set the Alternate Tuning Knob to the factory tuning presets by performing the following steps in the Workbench HD app:

Select the **Strings** tab, click **Manage**, and load the appropriate **User Alt Tuning** preset that corresponds to the table, if available, onto the **Guitar Alt Tuning** preset by clicking each of the appropriate locations and clicking the double left arrow.

Alternatively, if the table's tunings are not listed in the User Alt Tuning Preset list, you can create them in Strings tab in accordance with the following table. Next, click **Save**, name the tuning, and follow the previous steps.

Factory Tunings

Here are the factory default alternate tunings loaded in your Variax Standard guitar (assuming the physical tuning is EADGBE).

Note: The STANDARD tuning location cannot be changed.

Variax Standard Factory Alternate Tunings	
Name	Tuning Description (from low to high string)
STANDARD	E A D G B E
DROP D	D A D G B E
1/2 DOWN	E ^b A ^b D ^b G ^b B ^b E ^b
DROP D ^b	D ^b A ^b D ^b G ^b B ^b E ^b
1 DOWN	D G C F A D
DADGAD	D A D G A D
OPEN D	D A D F [#] A D
BLUES G	D G D G B D
RESO G	G B D G B D
OPEN A	E A C [#] E A E
BARITONE	B E A D F [#] B