

## **36RPS1**

Replacement Switch for the OEM Line6® Variax™ 300/600 Model Select Switch (5-Way "Pickup" Selector)

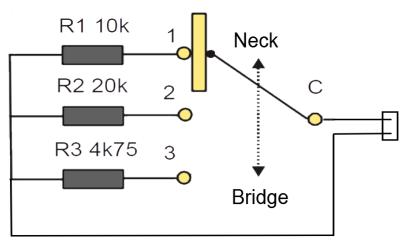
For the "Gen 1" Variax™ Models 300 and 600, individual models within any of the 12 Model Banks (10 default models and 2 custom banks) are selected using the 5-Way "pickup" switch (You can consult the appropriate models' "Pilot's Guide" for specific details). As with any other mechanical switch, the contacts can become worn, or the mechanism can malfunction, necessitating the replacement of the switch.

The **36RPS1** will replace the OEM Variax<sup>™</sup> switch with identical functionality (which is vastly different from other Industry-Standard configurations) and supply the necessary (programmed) voltages to the Main Printed-Circuit Board (MPCB) in the guitar. After installation the switch is easier to remove for cleaning, as it is converted to a "plug-In" configuration during replacement.

Replacement of this switch is not simple or particularly easy; reasonable soldering skills, along with disassembly and reassembly of the guitar, are required. It is, however, straightforward and does not require any reprogramming of the MPCB.

Detailed instructions for each step are included with the switch when purchased.





C to Pin-	Resistor	Voltage	Position
1	R1	1.60Vdc	1
1&2	R1&R2	1.96Vdc	2
2	R2	1.08Vdc	3
2&3	R2&R3	2.36Vdc	4
3	R3	2.20Vdc	5
Actual Voltages will vary, based on Resistor values and tolerances.			

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More detailed steps involved in replacement are:

- 1) Remove the electronics enclosure ("coffin") and switch (Method 1 or Method 2).
  - o Method 1 (Knobs and Pickguard Removal):
    - a) It is possible to remove the electronics enclosure from the guitar without completely removing the strings, but this involves pulling the pickguard (removing the knobs and separating the enclosure from the pickguard). While this isn't too difficult (usually), it does introduce several potential hazards. Sometimes the knobs are so securely fastened to the pots/encoder that the mechanical parts or the guitar finish are damaged while removing.
    - b) Start by loosening the strings.
    - c) Continue by removing all knobs. It can be very helpful to use a tool designed to accomplish this. Be careful not to scratch the guitar's finish and to offset the pulling force while using a puller.
    - d) Remove the pickguard screws.
    - e) Remove the pickguard while lifting it over the pot and switch shafts and pulling it from under the strings.
  - o Method 2 (Strings and Pickguard (and possibly, Neck) Removal):
    - f) If the strings are removed, it is possible to remove the pickguard with the enclosure still attached, and only the "Pickup" switch needs to be removed from the pickguard. It is mostly a matter of personal preference as to how to remove the enclosure to gain access. I sometimes remove the strings and the neck, leaving me with a much more manageable part on the workbench.
    - g) Start by removing the strings.
    - h) Remove the pickguard screws. Note: If the pickguard is trapped beneath the neck overhang, it may be advantageous to remove the neck. If so, check to see if there are any shims between the neck and body; you will need these to reinstall the neck.
  - o Remove the electronics carefully, unplugging each connector as you slowly lift the enclosure out of the guitar body. The connectors are:
    - A 12-pin connection to the VDI module (close to the Model Bank Encoder);

- II) An 8-pin connector to the bridge (middle/top of the enclosure);
- III) A 2-pin connector to the battery (usually between the first two connectors, but inside the metal enclosure), and;
- IV) A plug-on ground connector. Note: This is sometimes difficult to remove, and I've even found this connection soldered on in very early 300 models.
- o If you used <u>Method 2</u> to remove the electronics, now remove the pickup switch knob and screws, paying attention to the orientation of the switch.
- 2) Desolder and remove the old switch and associated wiring.
  - It is only necessary to desolder the wiring from the interface board; don't worry about removing it from the switch.
- 3) Resolder the new wiring to the Interface PCB.
  - Solder one wire (black or red) to one of the solder pads, and the other wire to the other solder pad. Be careful not to damage the Interface PCB with too much heat.
- 4) Plug the new switch onto the new wiring.
  - This plug is polarized and has a retention detent; make sure that it is plugged in securely and won't disconnect with minimal force (you should feel it snap into place).
- 5) Reassemble the guitar.
- 6) Check that everything functions correctly.
- 7) Play!



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