Prophet ’08 PE
Conversion Instructions

Converting a standard Prophet ’08 to a PE (potentiometer edition) is easy. The PE panel boards are a direct replacement for the standard panel boards. For serial numbers below 1680, the main board needs a minor modification, but anyone with basic soldering skills should be able to do it.

What is Supplied

- Left panel board
- Right panel board
- Multi-wire panel board connector
- 37 black, lined knobs
- Silicone grease

What You Will Need

- Phillips head screw driver (#2 recommended)

What You May Need

- Soldering iron with a fine tip for removing surface mount parts
- Solder
- Tweezers
- A short piece of bare (un-insulated), light gauge, solid core wire. Wire-wrap wire or a bit of component lead works fine. Less than .25” (6.5 mm) is required.
- Magnifying light (recommended)
- A computer with a MIDI interface and an application capable of opening and sending SysEx files

Update the Operating System

1. Go to http://www.davesmithinstruments.com/support/current_os.php and follow the instructions for checking the installed OS versions.
2. If necessary, download and install the latest version(s) using the instructions provided on the Web site. The Prophet ’08 PE requires Main OS version 1.8 or higher.

Open the Prophet ’08

3. Place some padding (for example, a towel, blanket, or bubblewrap) directly behind the Prophet.
4. Remove the knobs. They fit tightly, but just slide on and off.
5. Remove the four screws from the front panel and the eight screws across the back.
6. Lift the top panel and lay it face down on the padding.

Remove the Panel Boards

7. There are two ribbon cables that connect the main board to the front panel boards. (The main board is the smaller board to the left on the bottom panel.) Disconnect the ribbon cables from the panel boards and from the main board and set them aside for now.
8. Remove the board screws.
9. You can now lift out the panel boards.

Install the New Panel Boards

10. Put the new panel boards in place and secure them with the board screws. Check to make sure that none of the buttons are binding in their panel holes.
11. Install the multi-wire connector between the two panel boards.

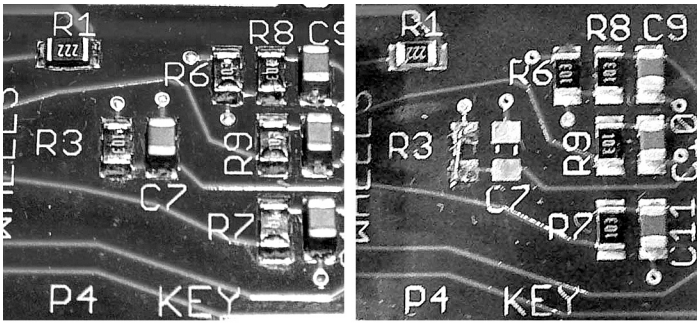
Remove the Main Board

12. Remove the remaining cables from the main board. There are five, not counting the two that were removed in step 7.
13. Remove the board screws anchoring the main board to the bottom panel.
14. Remove the main board.

Modify the Main Board

Please note: If the Prophet's serial number is 1680 or above, this modification should already have been made and you can skip to the next procedure. To verify, check that C7 is not installed. (R3 is replaced with a 0 ohm resistor.)

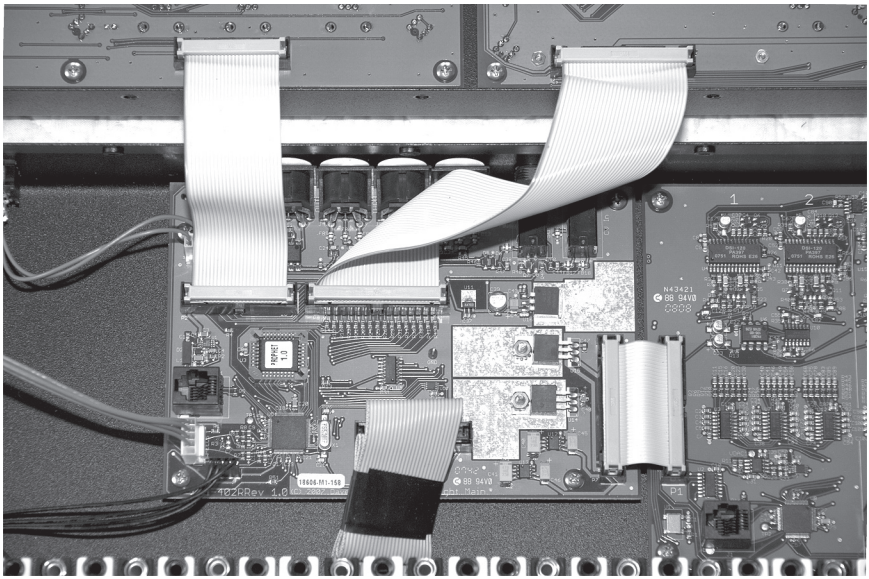
15. Using the soldering iron and tweezers, remove the two small, surface-mount components designated R3 and C7. They are located in the lower left corner of the main board. If you are having difficulty seeing the parts clearly, a magnifying light is recommended.
16. Cut a small piece of wire to replace R3.
17. Solder the wire between the pads previously occupied by R3.



Before After

Re-assemble the Prophet

18. Put the main board in place and secure it with the board screws.
19. Reinstall all of the cables.
20. Set the top panel in place and power up to make sure everything is functioning properly.
21. Screw the top panel in place.
22. Install the silver, lined knob on the Master Volume pot.
23. Install the lined, black knobs on the remaining pots. (The pots are the ones with the metal shafts.) The knobs fit tightly on the metal shafts, so you may need to use the supplied silicone grease to make it easier to install them. Smear a very small amount of the grease around the tip of the pot's shaft before sliding the knob on.
24. Install the unlined, black knobs in all the remaining locations.



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Manual Addendum

The latest version of the Prophet ’08 operating system adds an item, *PotMode*, to the Global parameters that is not documented in the manual. (See page 7 of the Operation Manual for more information about the Global parameters.)

PotMode: Relative (default), Passthru, Jump – On the Prophet ’08 Pot Edition, 38 of the 52 front panel controls are potentiometers or “pots.” The pots are identifiable by their lined knobs. There are three pot modes to determine how the synth reacts when the related parameters are edited.

When set to Relative, changes are relative to the stored setting. In Relative mode, the full value range is not available until either the minimum or maximum value *and* the respective lower or upper limit of the pot’s travel is reached.

For example, the Oscillator Mix parameter has a value range of 0 to 127. Let’s say the physical position of the Oscillator Mix pot is the equivalent of a value of 100. If you switch to a program that has a stored Oscillator Mix setting of 63 and turn the pot all the way up, it will only go to 90. To get to the maximum value of 127, you first have to turn down until the value is at the other extreme *and* the pot is at the limit of its travel (in this case, 0 and fully counter-clockwise, respectively).

In Passthru mode, turning the pot has no effect until after the edited value equals the preset value (that is, until the edited value “passes through” the stored value).

Jump mode uses an absolute value based upon the position of the pot when edited: turn a pot and the value jumps immediately from the stored value to the edited value.