Prophet 5 Midi Kit Installation

This installation is very easy to mess up. Luckily, messing up likely won't be completely catastrophic. However, extreme care should still be exercised as you are modifying a valuable instrument. This manual skips over rudimentary steps such as how to remove and reinstall PCB's. It assumes that if you cannot do that, you shouldn't install this kit, and should take it to somebody qualified instead. If you don't know who to take it to, ping us for a referral.

This kit is only compatible with rev 3.2 prophet 5's.

Tools needed:

- Soldering Iron
- Desoldering tools. We recommend a pump of vacuum. Wick should be avoided in our opinion.
- X-acto blade or similar for cutting traces
- Power drill
- Small drill bit for pilot holes
- Stepper bit that can reach 5/8" in diameter

What's in the kit?

- Assembled daughter board sans IC2 (this will come from the prophet)
- 1x 2732 EPROM Replacement board
- 28 pin IDC connector
- 2x 1/4" drive hex standoff's
- Molex wiring for Midi
- Midi Jacks + screws and nuts
- 3D Printed Drill Guide

Start by disassembling the prophet and work with the bottom chassis only. Removing the supply isn't necessary if you're careful.

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Drilling Holes

Grab the 3D printed drill guide. It hangs over the badge and rear panel. Position is as shown between the “voltage” and “audio out” jacks. Once positioned, tape it with some painters tape to keep it against the panel.



If you have a center punch tool, it should fit right through the holes so you can mark your pilots. Slowly drill a hole through each of the 6 holes. Use a drill bit that is close in diameter to the holes provided.



Once you have confirmed 6 straight holes, you need to enlarge the center 2nd and 5th hole with a stepper bit at 5/8 diameter.
Use a midi jack to check periodically to ensure you’re not making too big of a hole.

Once finished enlarging the holes, you can do a quick test fit to make sure the jacks are good and straight. Adjust as necessary. Don’t bolt them in, as wiring will be easier with them out.



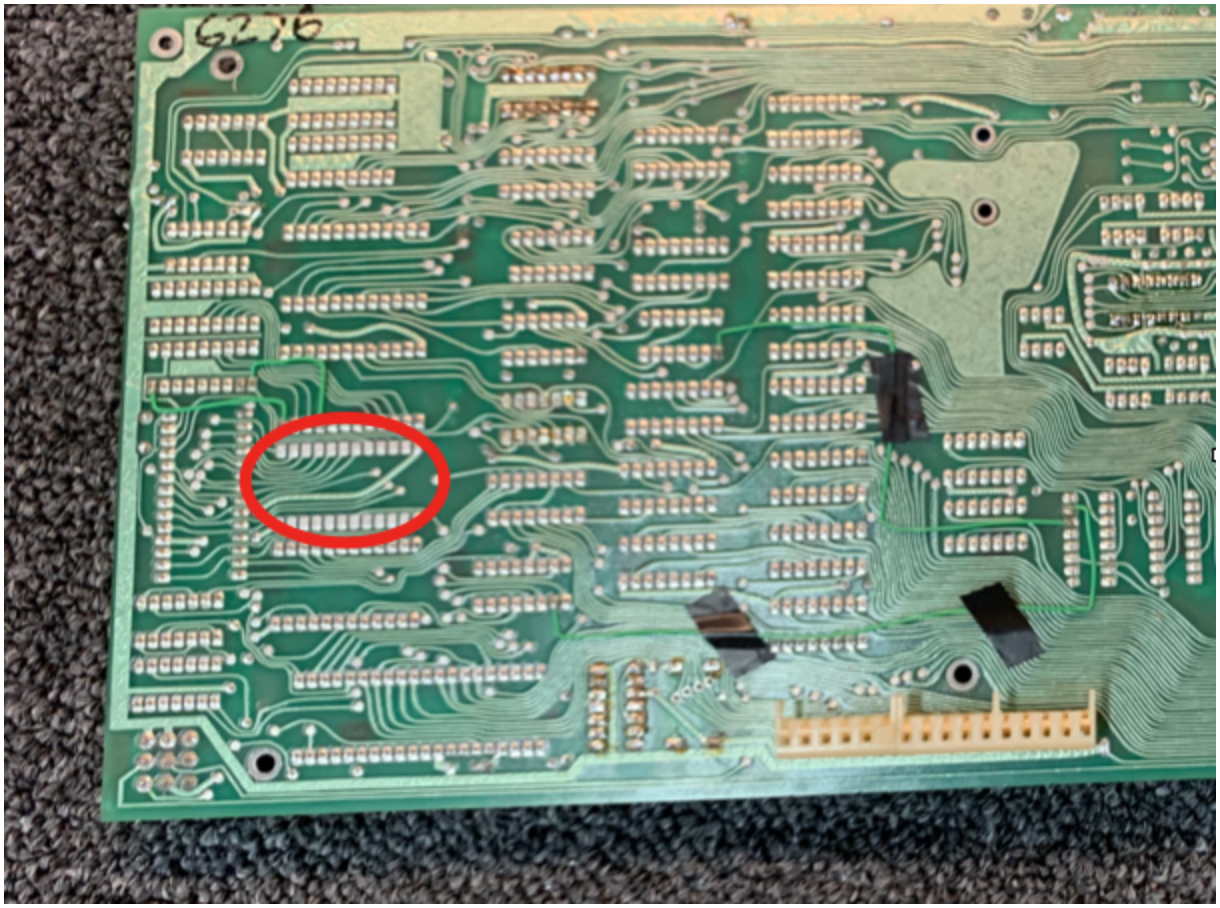
CPU Board Modifications

Note: If you are using our EEPROM board, you no longer need to add a 24P socket. However, you do need to do the rest of the cuts and jumpers.

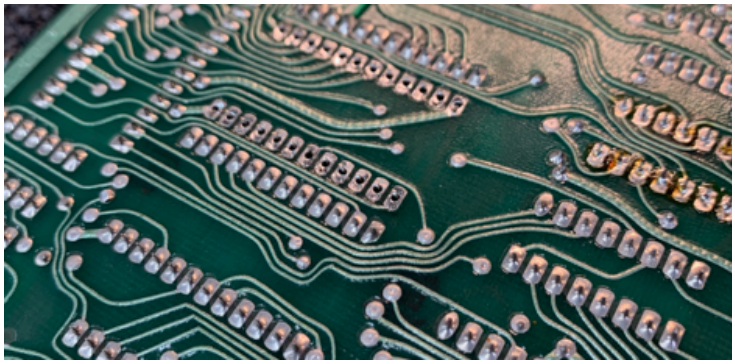
This is the most important part of the install! It's a bit easier to follow visually. This is a good time to refer to the factory document if these directions aren't clear enough.

Note that there are a number of jumpers already installed from the factory. These should remain.

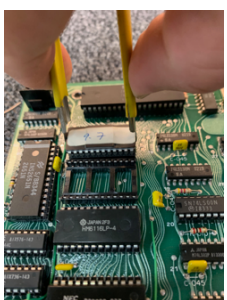
Remove solder from the solder pads circles below.



It should look like this:



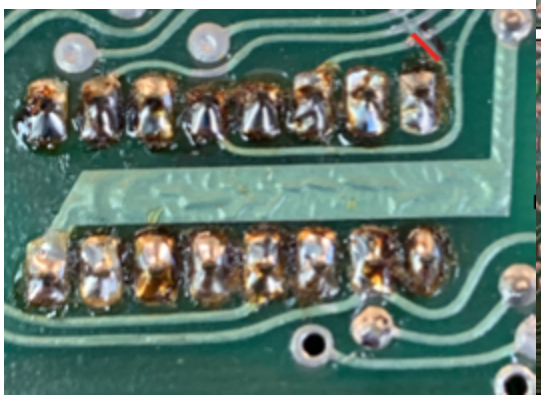
Install the 24 pin socket provided into the holes you just removed the solder from. The photo below shows us removing the original ROM with the new socket below it.

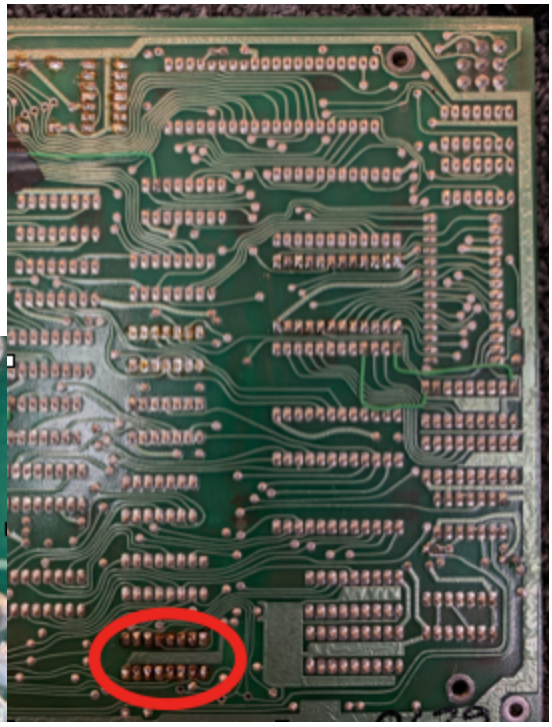


Cut the trace coming out of Pin 3 of IC 30 (CD4013) as shown. Use a meter to make sure the connection has been severed!



Using the layout on the right, find the chip circled. In the photo below it, cut the trace as shown. From our vantage point, its the 3rd pin from the “top right” of the chip. You may notice the other traces appear damaged. These were grazed by the x-acto, but they’re fine. You may have similar blunders! A red line is shown through the trace to be cut.

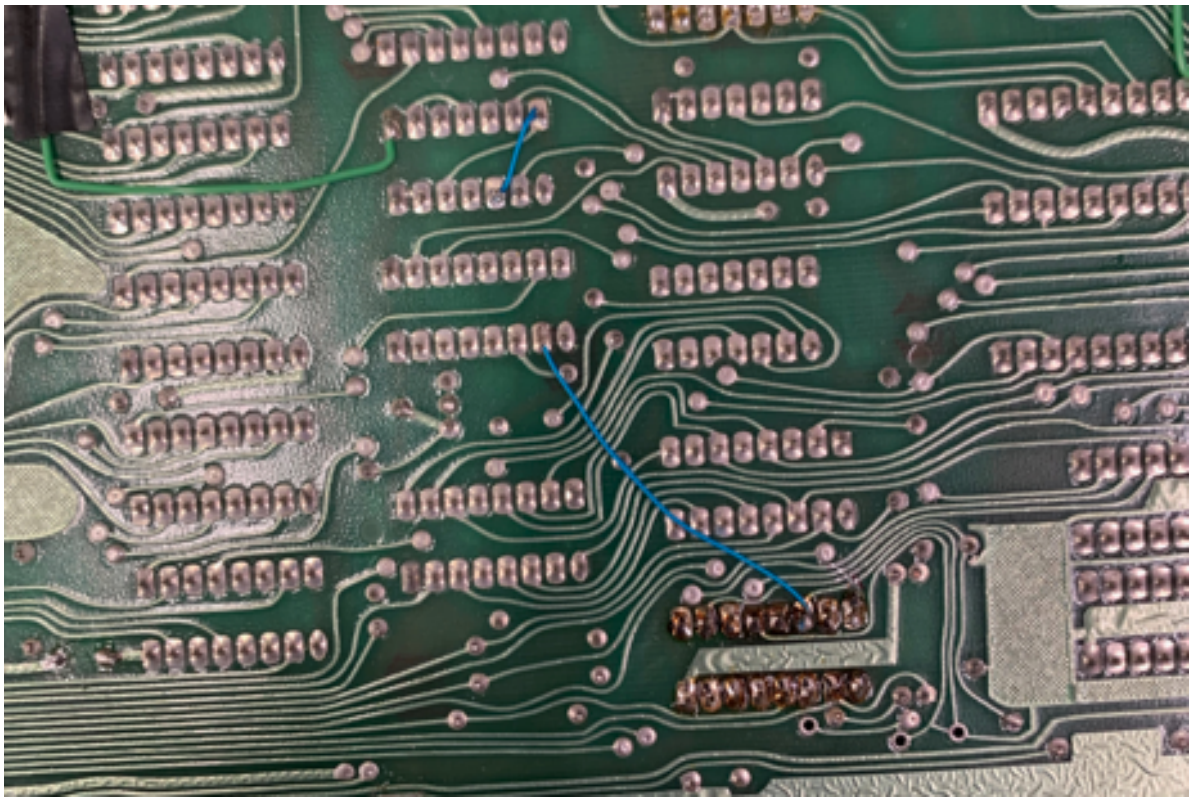


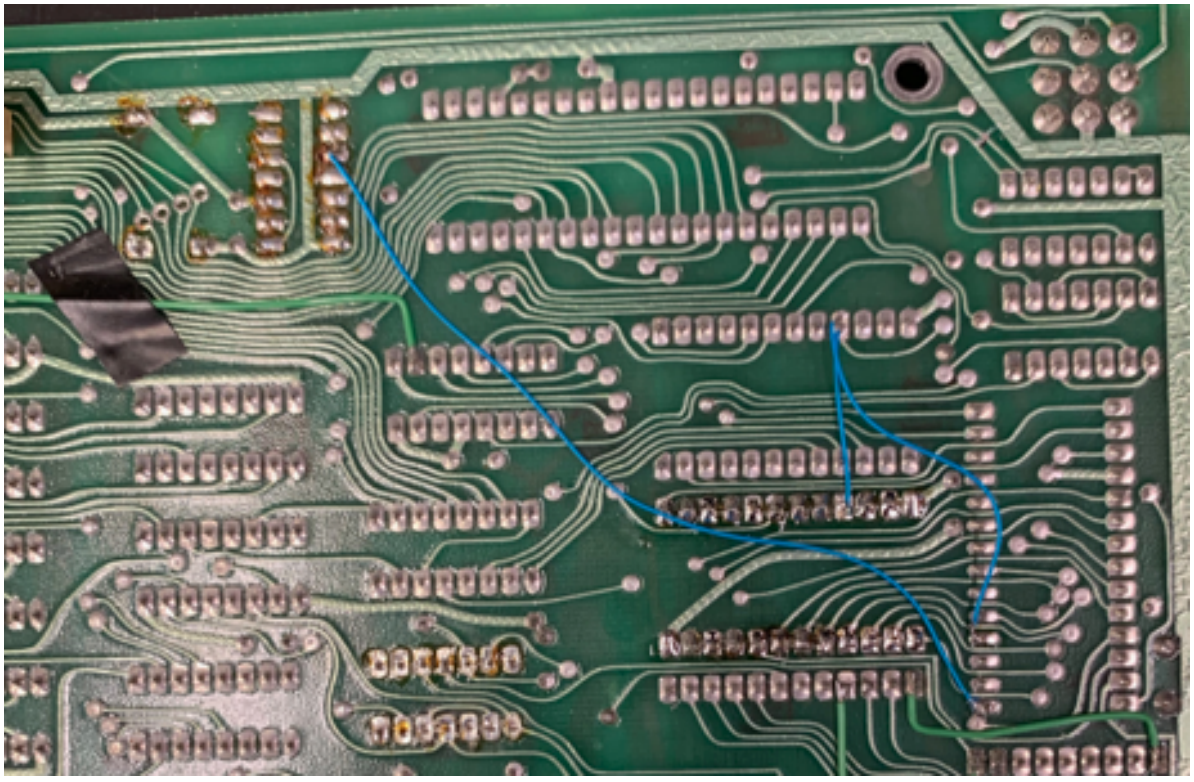


Cut the trace shown at the right. Mind you the 9 pins on the top right of this photo is the digital interface connector on the board. Use that to find this area on the board to cut this trace.



Next you need to make some jumpers. See below and look closely. We used blue kynar wire for our jumpers and to differentiate them from the factory jumpers.

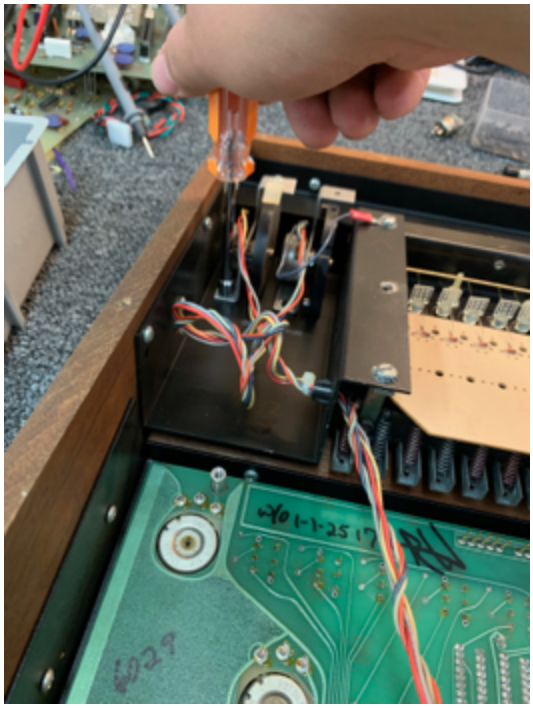




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Next you should install the midi board in the wheel cage. This is when you will be glad you bought our kit! The wheel cage is the safest place to mount this board and that's also how it was done from the factory.

Remove the two nuts holding the pitch and mod wheels closest to the cpu board.



Now, replace those nuts with the 1/4" hex standoffs provided and as shown below.Add the midi board as shown. Use the nuts you removed to secure it to the standoffs you just added. You can also use the ones we provided with the kit.

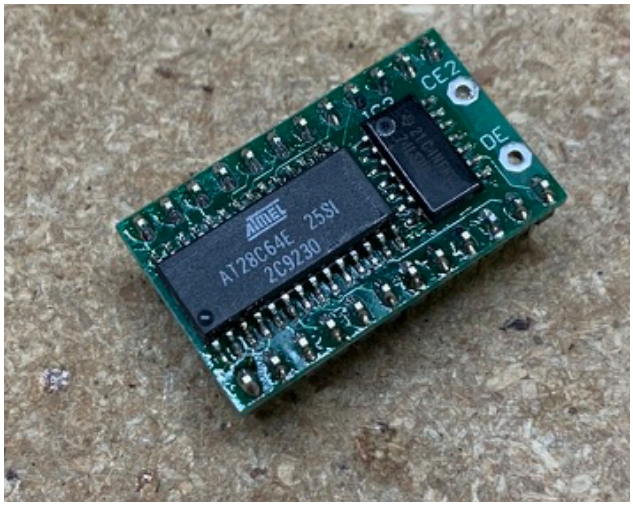




Remove IC 86 (UART) from it's socket and install it into the IC2 position on the midi board.

Add the EPROM provided to the Prophet 5 CPU board. 10-0 goes where the old ROM went, and 10-1 goes to the new socket you added. Both are oriented the same way, with the notch to the left.

Note: If you are installing our new EEPROM replacement board, simply install our board in the correct orientation (with the wires coming out to the right) and solder the wires as follows: CE2 to IC18 Pin 14, DE to IC 18 Pin 1



Now, do a quick reassembly of the prophet but leave the voice board out. Just connect the CPU board and power connector to the CPU board. Turn on the prophet and check that it boots. Now, press the same note 16 times. The prophet should crash. This indicates the lack of midi board connectivity, We will now hook up since we know the prophet "works" as expected.

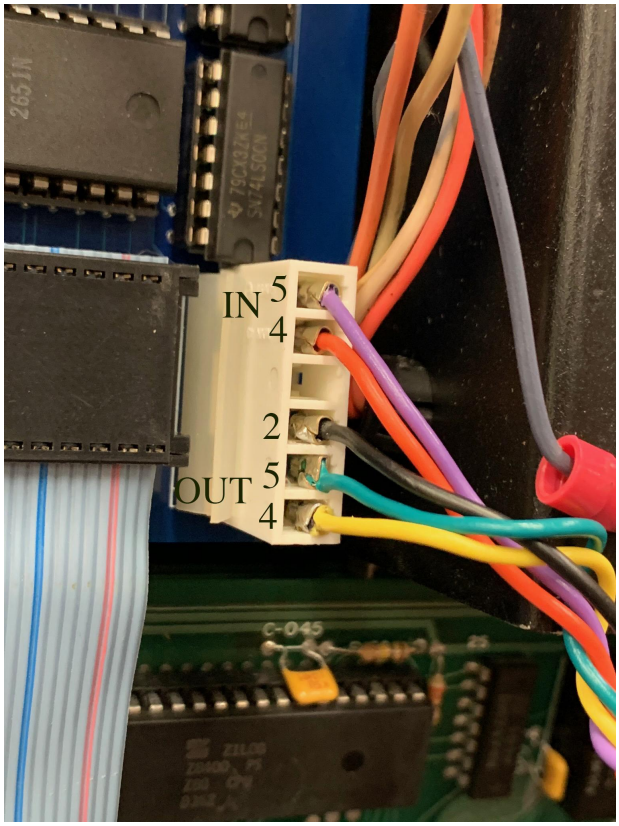
Add the 28 pin IDC cable to the midi board and then connect it to the socket for IC 86. Be sure to orient it correctly. The red wire denotes the side where pin 1 is.

Now boot the prophet again and check that it no longer crashes after 16 key presses.

If it wont crash, it's time to wire up the midi jacks and finish the installation.

Wiring the Midi jacks

Wire the jacks as shown. A MIDI jack with the pin numbers shows is provided.The cable assembly you received will likely not have the same wire colors as the one shown below, so its best to use the pin numbers as your guide.





Once done, simply connect it to the midi board as shown

Confirm midi operation

Done!