NeoLoch   PSRAM Blade

Assembly Instructions
(10/10/2018)

Your kit should contain the following items. If you find a part missing, please contact NeoLoch for a replacement.

Kit contents:
- 1 – Printed circuit board
- 1 – 40 pin socket
- 1 – PIC18F47K40 microcontroller
- 3 – Reed Relays (Polarized)
- 1 – 390 Ohm Resistor (Orange, White, Brown)
- 1 – 2x5 rectangle green LED
- 2 – 0.1uF Ceramic Capacitors
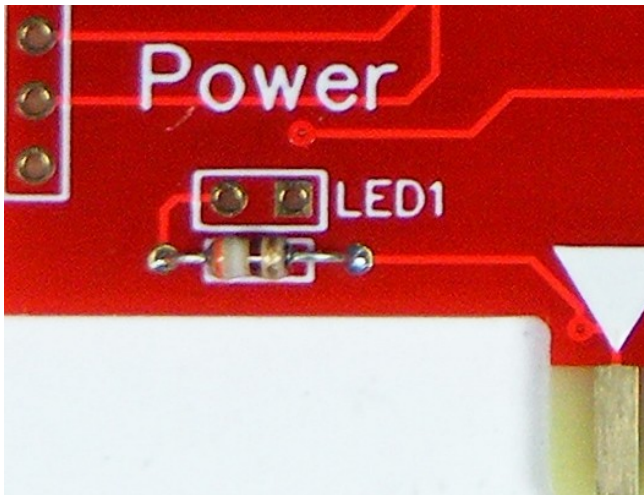- 1 – 2.2uF capacitor

When assembling the board you'll notice that some pads are square while the others are round. The square pad is a pin 1 indicator and will aid in the board's assembly.

Assembly Instructions

Most of the board will progress from the lowest profile parts to the highest.

Step 1

Solder the 390Ω (Orange, White, Brown) resistor into R3.
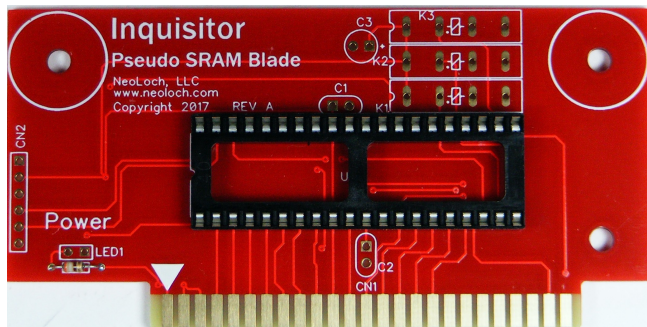

Step 2

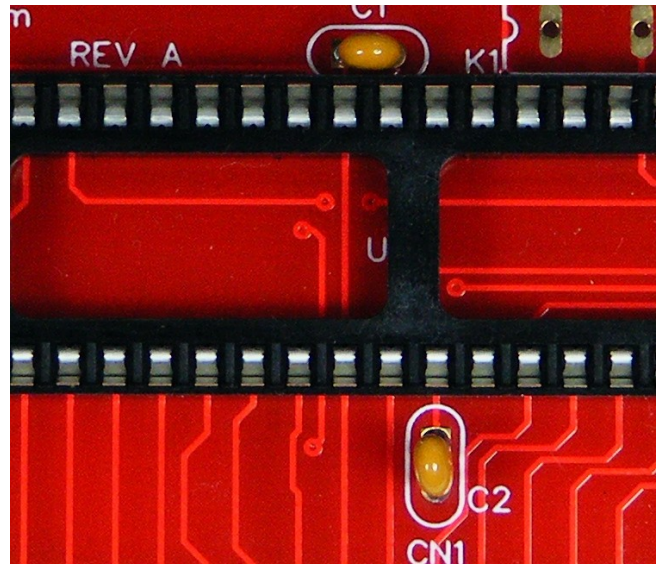
Solder the 40 pin socket into U1.
Step 4: Solder the 40 pin socket into U1 and the 18 pin socket into U2.

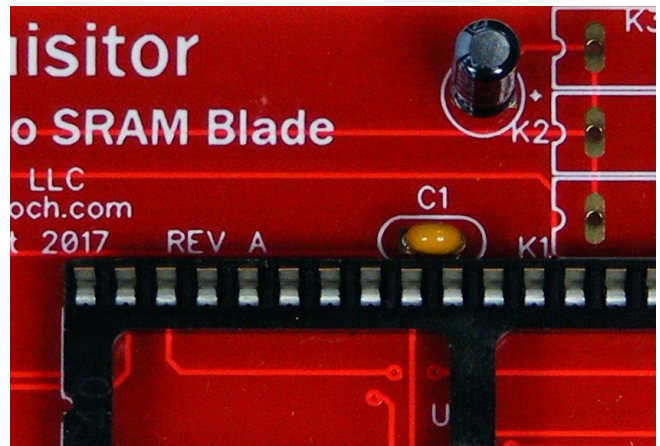**Note:** that pin 1 orientation is closest to LED1.

Step 3

Solder the .1uF capacitors into C1 and C2. These capacitors are not polarized.
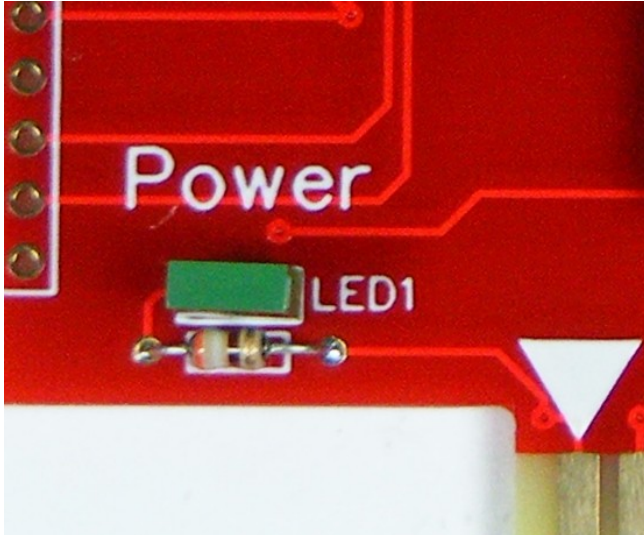.

Step 4

Solder the 2.2uF capacitor into C3. The longer lead is the positive side and goes in the hole with the square pad.
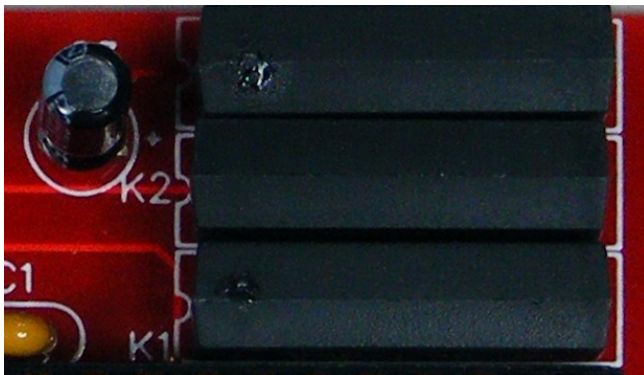
Step 5

Solder the LED into LED1, the short lead is the cathode (pin 1) and goes in the hole with the square pad.

Step 6

To Solder the reed relay into K1, K2 and K3, you'll need to take care as the relay has a built in suppression diode, so the relay is polarized.

There is a small notch on the side of the relay that indicates pin 1. Pin 1 of the relay goes into the hole that is closest to the silkscreen notch on the PC board.

The relays will make a low clicking sound when being turned off. If the tester isn't working as it should after assembly is complete, listening for this click can help troubleshoot the relays as a possible cause.

Step 7

Install the PIC18F47K40 into its' socket. Pin 1: is closest to LED1.

This completes the assembly of the PSRAM blade. Now you can insert the blade into the Inquisitor core module and test the blade to make sure everything is working as intended.

Please refer to the user manual for instructions on inserting the blade and testing PSRAMs.

Troubleshooting

If your board doesn't work, try these solutions before contacting NeoLoch for assistance.

LCD Screen is Blank:
- ○ Adjust the contrast using the potentiometer .
- ○ Check and make sure all the LCD connections are properly soldered to the main PCB.

Tester Fails to Test Correctly:

1. Check to make sure that the ground and power pin are being supplied correctly. Check for proper voltage supply.

2. Check all the solder joints to make sure nothing was missed. If even a single pin isn't soldered correctly on the ZIF socket or the MCU socket, the tester won't work correctly.

3. If the tester still doesn't work, it's possible your PIC isn't programmed. Though we make every effort to make sure the processor is programmed before leaving, a mistake does happen from time to time. Contact NeoLoch directly for further assistance.

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