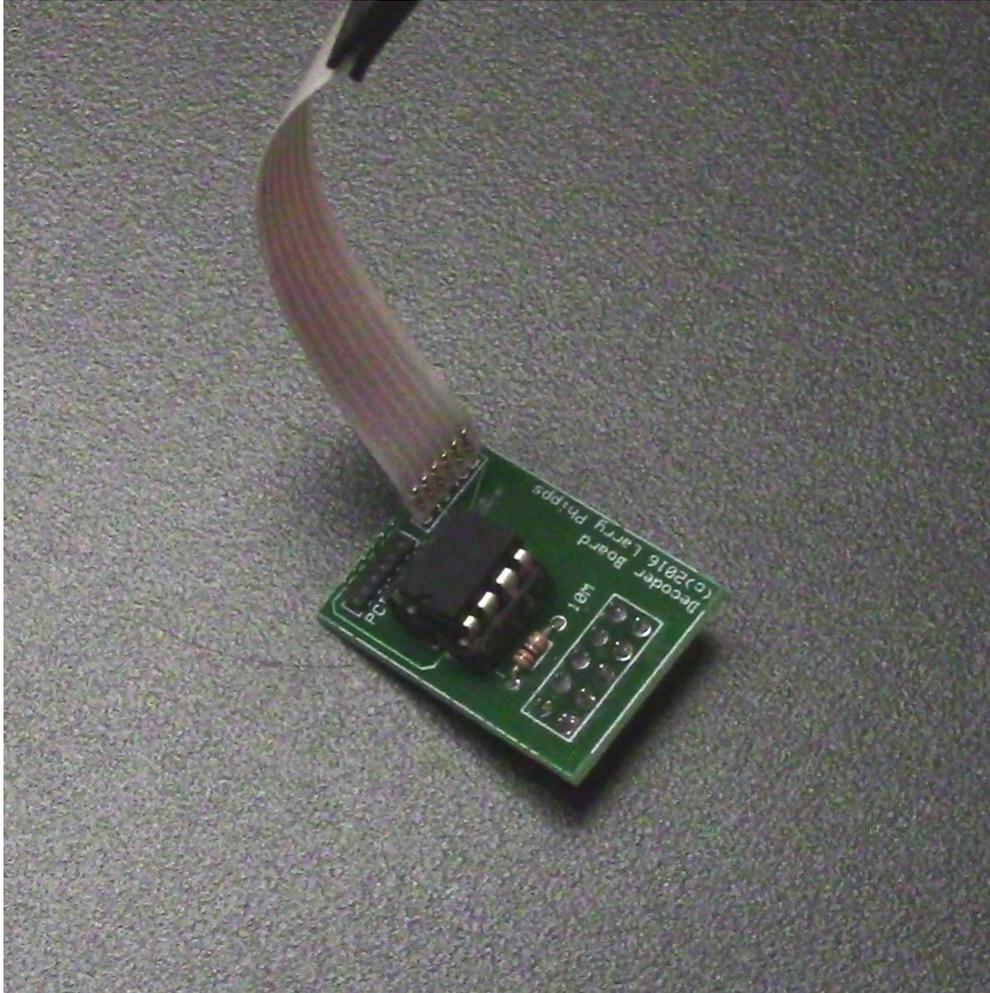


# LP-500 / LP-700 Encoder Mod Daughtercard Installation



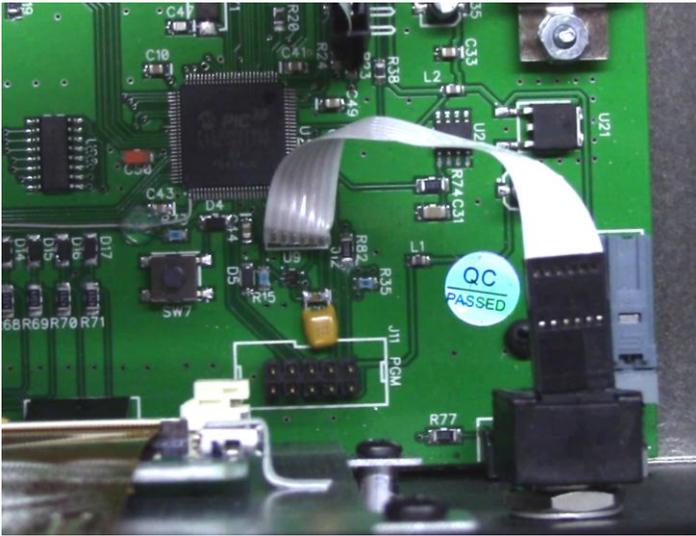
Encoder Daughtercard as provided

It is important to read all the instructions prior to performing the installation. This is a very simple installation procedure, but you should become familiar with the proper positioning of the daughtercard and flat cables. Before and after pictures, as well as a close-up picture are provided.

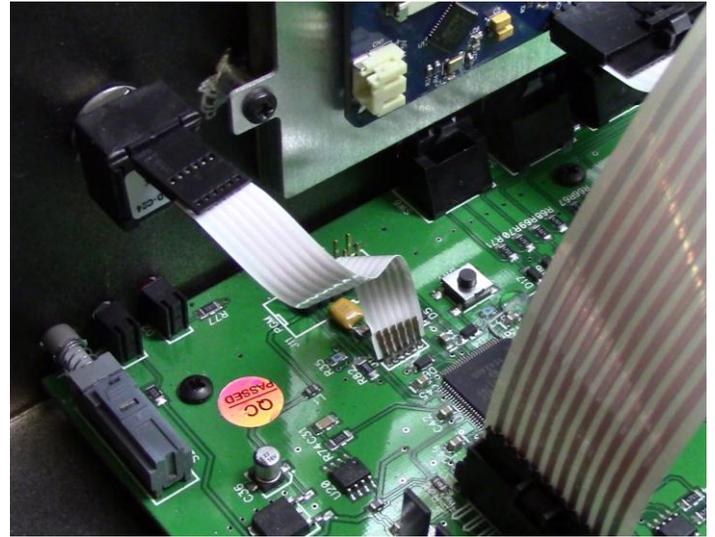
The first step is to remove power from the meter. Then, remove the screws holding the top in place. In the case of the LP-500, remember that when you reinstall the top, you must position the top so that the plastic plug is above the display on the left of the enclosure. The plug is used there because there is not enough clearance to install a screw above the displays that we ended up using.

Normal anti-static measures should be observed when handling the daughtercard.

## Before



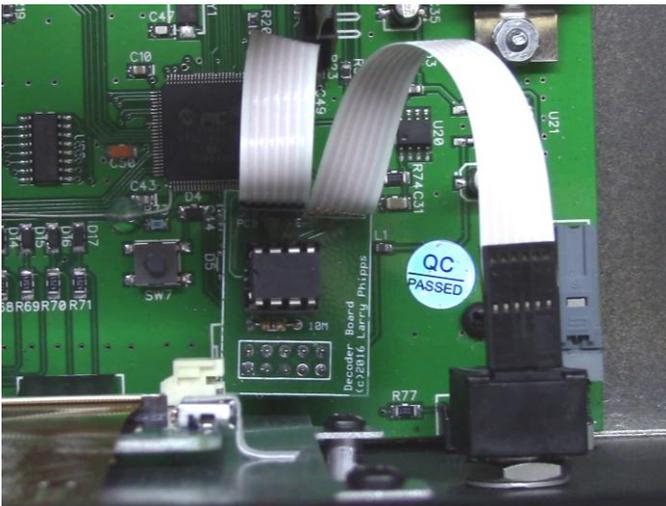
Top View



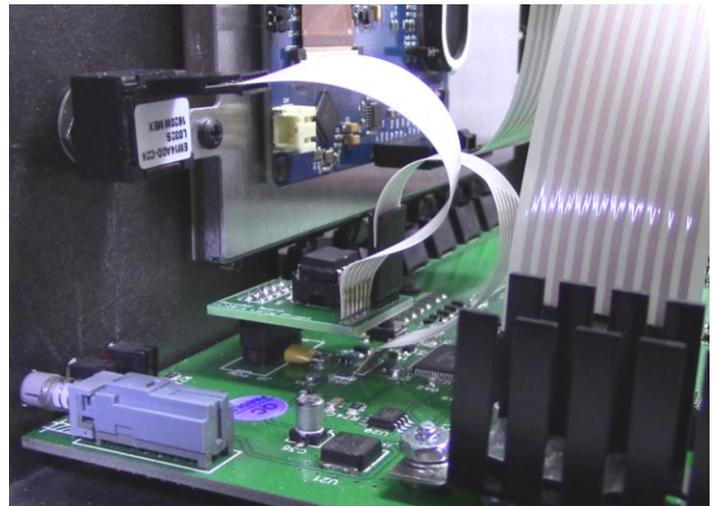
Rear View

The main PCB before mod, from two different meters and two different angles. Note the ribbon cable from the PCB connecting to the top of the optical encoder assembly. Pin 1 of the ribbon cable (darker lead) connects to the left side of the encoder as viewed from the back. The pins of the encoder are oriented at or near the top of the front panel. With this orientation, there is no twist in the flat cable, as shown. The length of the flat cable will vary based on your meter. It may be a short cable, a long cable or two short ones joined in the middle. If your meter has two short cables, you can remove the extension if you like.

## After



Top View



Rear View

The daughtercard is installed on the 10-pin header near the front of the board and below the display and encoder. The encoder board is in essence inserted between the main PCB and encoder. The 10-pin header gives it mechanical stability. The only electrical connections to the header are a pair of ground pins, but it is important that the socket on the daughtercard be properly aligned with the 10 pins on the header, both side to side and front to back. The picture on the right shows the proper alignment of the daughtercard on the header. There should be no header pins visible if the socket is properly placed on the header.