How to hardwire the Olympus D-425 Digital Camera

This document covers in detail how to modify the Olympus D-425 Digital Camera for remote shutter control from the PixController LE board with LE II camera controller chip. Please see http://www.pixcontroller.com or email support@pixcontroller.com for more information.

Please note that if you make this modification to your Olympus camera that you will void your camera's warranty. This modification can also result in damage to your digital camera if you do not follow the instructions properly.

Tools/Parts Needed

1. 2.4 mm #0 Philips Screwdriver & Small Flat Blade Screwdriver.
2. Fine tipped soldering iron with heat control.
3. 30 Gauge wire. Wire Wrap type wire can be purchased from your local Radio Shack store. Find one of the 3 part numbers: 278-501, 278-502, 278-503. They come in a spool of 50 feet of wire for $2.99
4. Small tweezers.
5. Flat blade screw driver or knife.
6. 5-wire servo cable from PixController, Inc. or purchase the PixController LE Olympus D-425 digital camera kit which will include the 4-wire servo cable. Note, you do not have to use the 4-wire servo cable and you can just solder 4 wires from the internal camera contacts to the PixController LE board.
7. PixController LE board with LE II PIC camera controller chip & PixController Opto Board.

Remove batteries and media card

Before starting your project be sure to remove the 2 AA internal batteries and the Media Card.

Remove the 2 AA batteries and Media Card

Remove the camera case screws

Remove all 9 screws from the camera case and interior. There are 6 screws holding the exterior case, and 3 interior. Be sure to place the screws in a safe place while modifying the camera.

Remove screws 1,2, and 3 from the bottom of the camera case.

Remove screw 4 from the left side of the case.

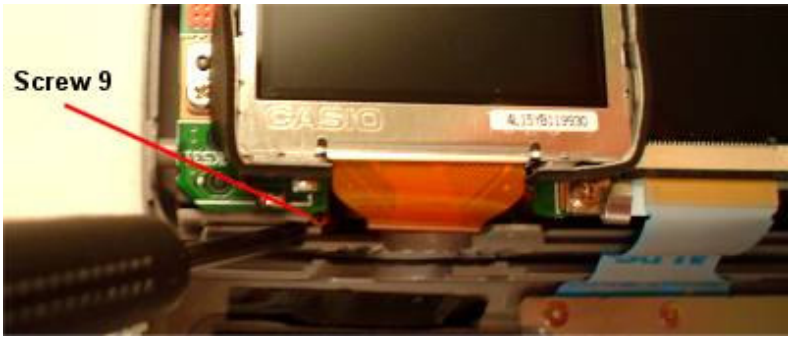
Remove screw 5 & 6 from the right side of the camera case.

Remove the case

Carefully remove the back of the camera case from the camera exposing the interior electronics. Be careful not to remove the ribbon cable connecting the keypad. Next remove the tripod connector as shown in the photo.

Remove the interior screws

Next remove the 3 interior screws, screws 7, 8, and 9. The first 2 are located at the top of the camera, and the last screw is located under the LCD display where the tripod connector was removed. Once these screws are removed it will let you remove the front of the camera case.



Remove the front of the case

Remove the front of the case so you can remove the lens cover slide.

Remove the lens cover slide

Using a small flat blade screw driver carefully lift the slide arm from the lens cover slide as shown in Figure 1. Next carefully remove the cover slide as shown in Figure 2.

We remove the cover slide so we can turn the camera off and power it up by the PixController LE board without having the cover lens block the lens from taking a photo.

When complete replace the front of the camera case.

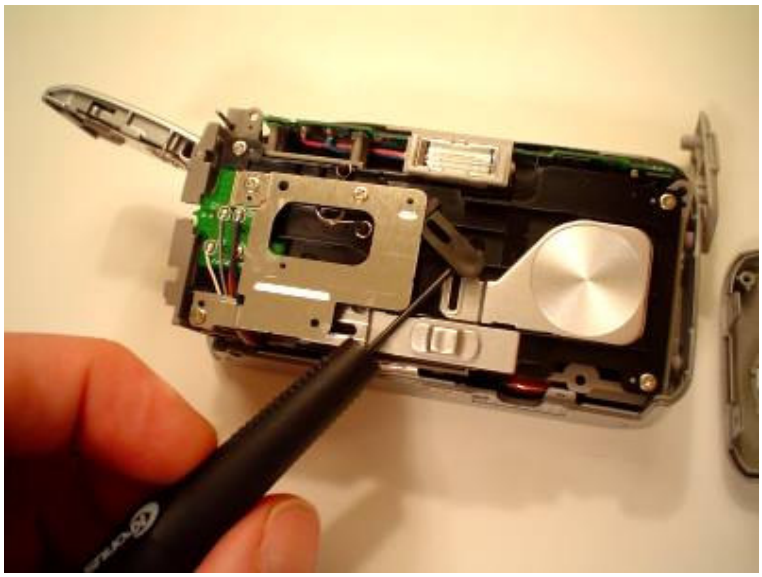


Figure 1

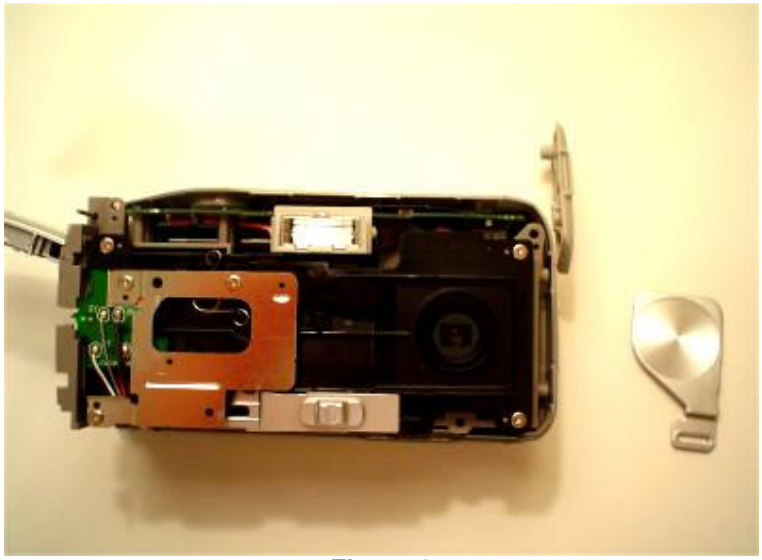
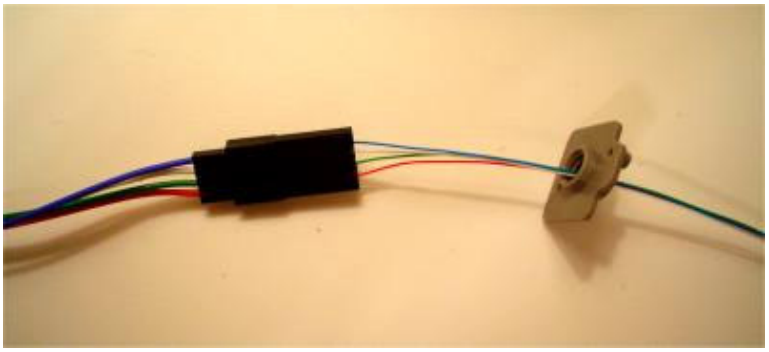


Figure 2

Insert the wires into the tripod connector

Drill a small hole in the bottom of the tripod connector and insert the smaller gauge wires of the 5-wire servo cable into the tripod connector hole as shown.



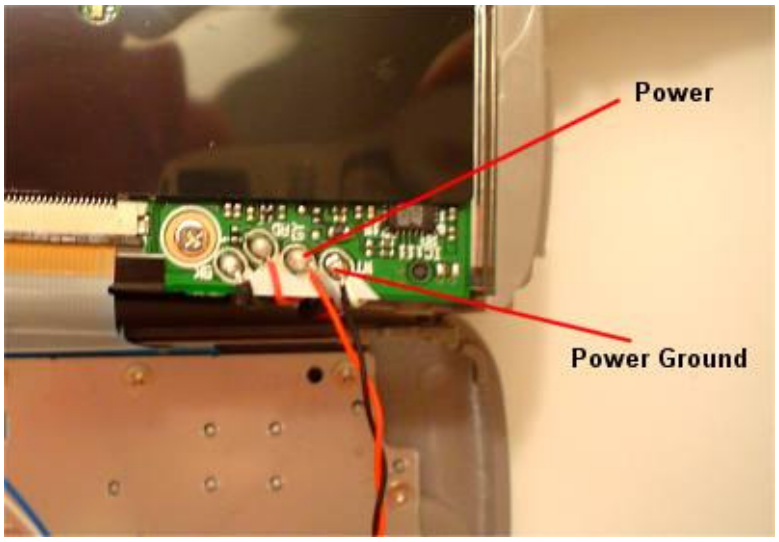
Wire the Power On/Off contacts

Attach the red and black twisted pair to the power on/off and power ground wires. Carefully solder these contacts as shown, and be careful not to unsolder the wires already present on these contacts.

Attach the wires from the 5-wire servo female end cable or small gauge wires.

If using the 5-wire servo cable wire the following colors:

Twisted Pair Red – Power
Twisted Pair Black – Power Ground

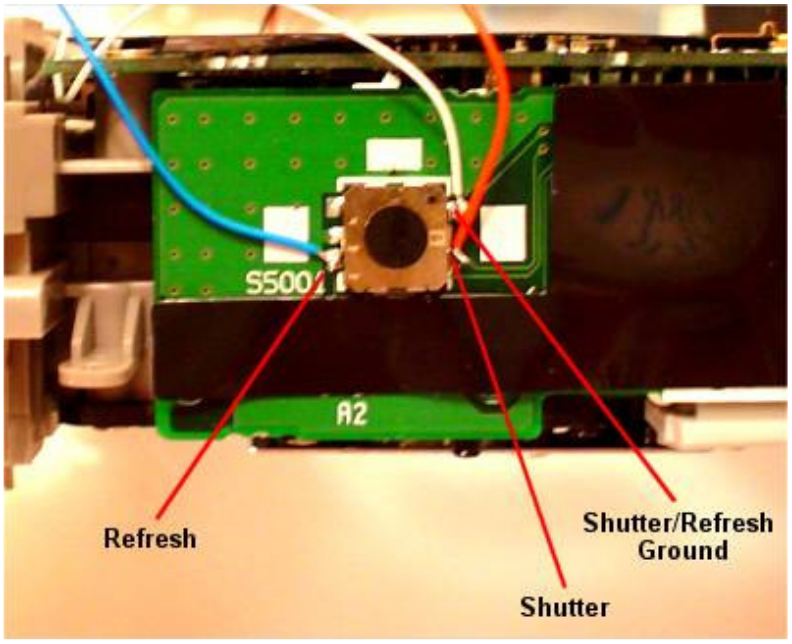


Wire the Shutter and Refresh contacts

Locate the shutter button at the top of the camera. Solder the remaining 3 wires from the 5-wire servo cable as shown in the photo to the right.

Solder the following colors:

Blue to Refresh
Red to Shutter
White to Shutter/Refresh Ground



Reattach case and replace the screws

Once you are complete with this process place the camera case back together and replace the camera case screws.

Wire to the PixController Opto & LE board

Before starting cut a small area out of 2 of the LE board kit mounting spacers and install the PixController Opto board between the spacers as shown to the right. (Figure 3)

Next wire the 5-wire male connector to the PixController Opto board as shown in (Figure 4).

If using the 5-wire servo cable wire the following colors to the PixController Opto board.

White – J2, Pin 1 (D-425 Shutter/Refresh Ground)
Red – J2, Pin 2 (D-425 Shutter)
Blue – J2,Pin 4 (D-425 Refresh)

Twisted Pair Red – LE PWR_OUT
Twisted Pair Black – LE GND

Next wire the PixController Opto board to the LE board:

LE Shutter – Opto J1 pin 3, Red
LE Ground – Opto J1 pin 2, White
LE Rec/RFSH – Opto j1 pin 1, Blue

Next, remove the R17 resistor from the LE board, see:
http://www.pixcontroller.com/PixLE/PixLE_ResistorRemoval.htm

Last, make the solder jumper on the PixController Opto board J3 as shown in Figure 4

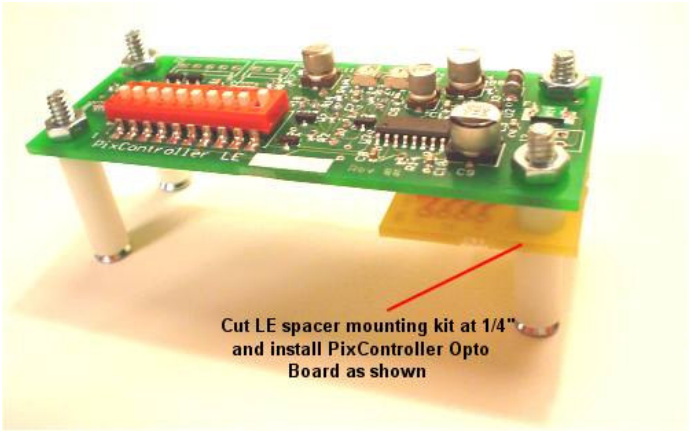


Figure 3

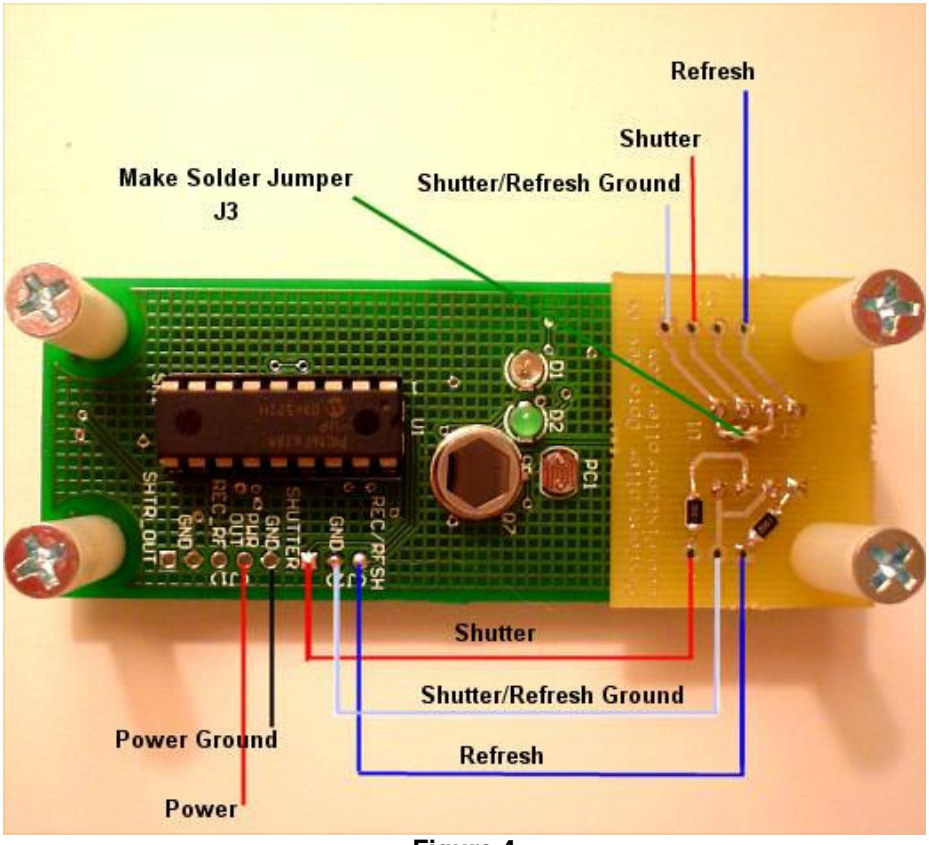


Figure 4

Setting up your D-425 PixController LE system

Once you are ready to put your D-425 camera and PixContorller LE (with LE II PIC chip) into a case you will need to make sure you put the on/off switch slide in the “Off” position. The PixContorller LE board will power on/off the camera when motion is sensed.

Completed Modification
This camera was wired using the 5-wire servo cable for the PixController LE and Opto boards.

8/20/05