

Whitetail Supply & Feed, LLC

FLAT FLEX CABLE PREPERATION

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Stage 1: The first step was slicing the flat flex cable down the middle (in half). You now have (2) flat flex ribbons, each one has 3 contacts. Now cut the (2) across the middle, as shown in photo 3 below, this now leaves you with 4 flat flex cables, as shown in photo 4 below. Each one has a black tab this will be the backside of the flat flex cable.



Photo 1

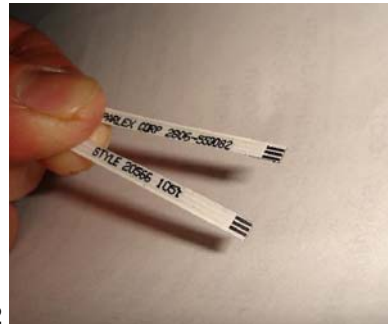


Photo 2

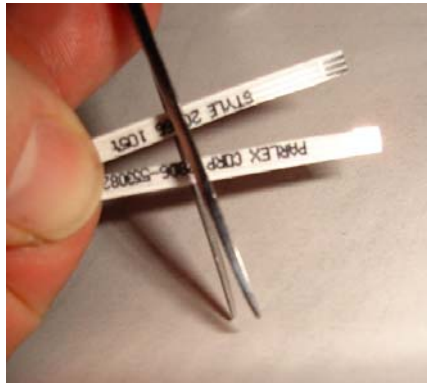


Photo 3

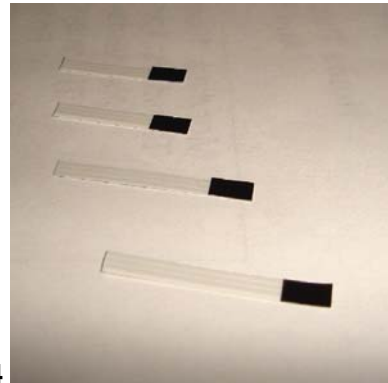
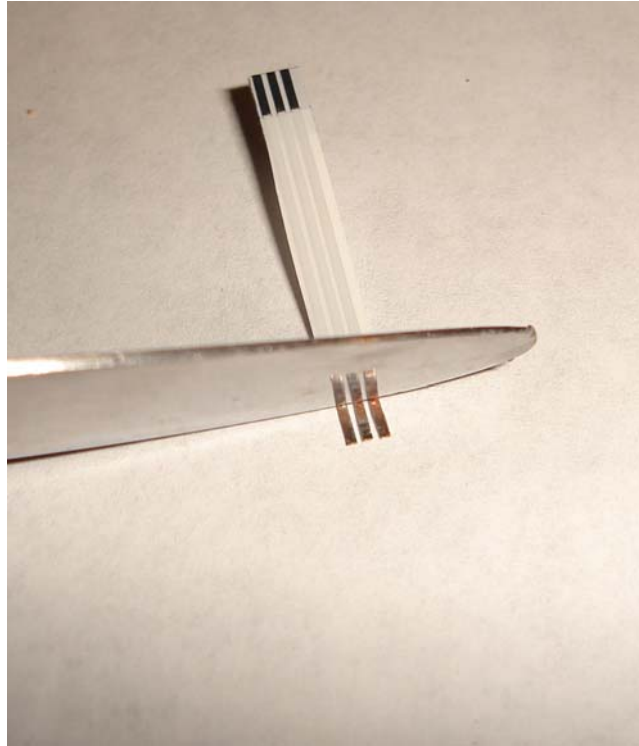


Photo 4

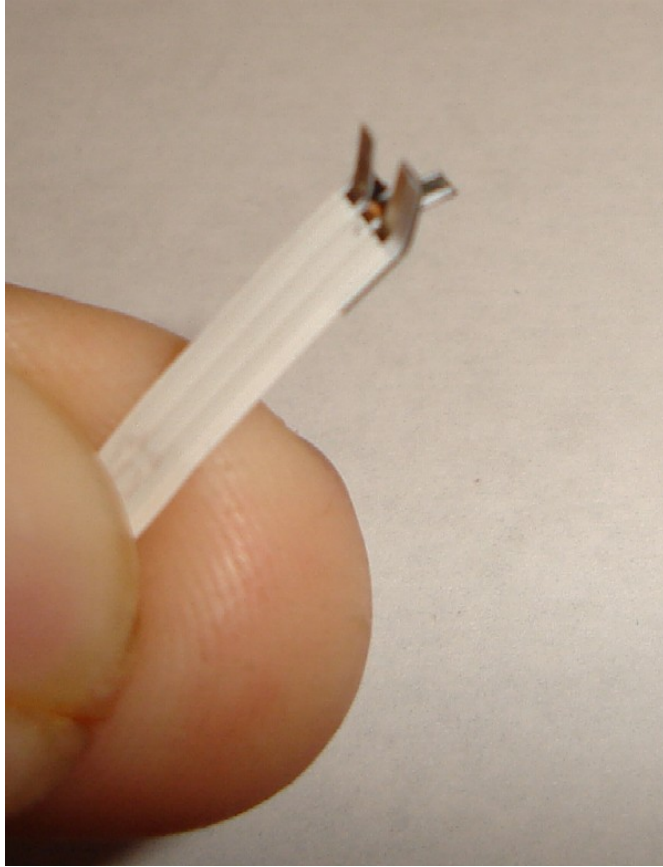
Stage 2: Removing the white coating from the flex cable. **Pure Acetone** (as shown in the photo below) was used to remove the outside white coating. The plain connector end (without the black tab, was immersed in the solvent for **30 minutes**. (TIP: **We basically poured just enough ¼" in the acetone cap and stood the flat flex cable in an upright position**) You may want to opt out of the following butter or stout knife method, and use a DREMEL with a soft wire brush.



(The residual coating can be removed by using a kitchen “butter knife” with the notches on the knife facing you, gently apply pressure onto the flex cable and scrape forward towards you, do this equally on both sides until the white film is removed, afterwards swiping a small toothbrush sized metal wire brush, inline with the 3 metal contacts ensure fully bare metal). After the white coating was successfully removed, the 3 metal contacts were wiped clean with isopropyl alcohol. You only want to remove approximately ¼” of the white film from both sides of the flat flex cable.



Stage 3: Once the coating was removed, the next step is to pre-solder (**the end with the BLACK tab on it**) the 3 flex terminal pins. Precision is needed to ensure fast and complete solder adhesion on each of the 3 pins. **At this time, I like to take my scissors and make 2 short clips in between each finger, and fold the center finger under, this separation resulting from making these 2 cuts, will eliminate the aggravation of too much solder flow from finger to finger.**

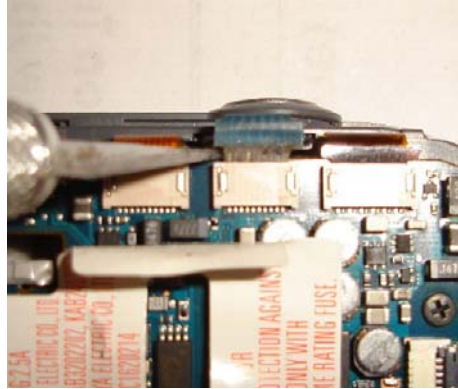


This completes the Flat Flex cable preparation.

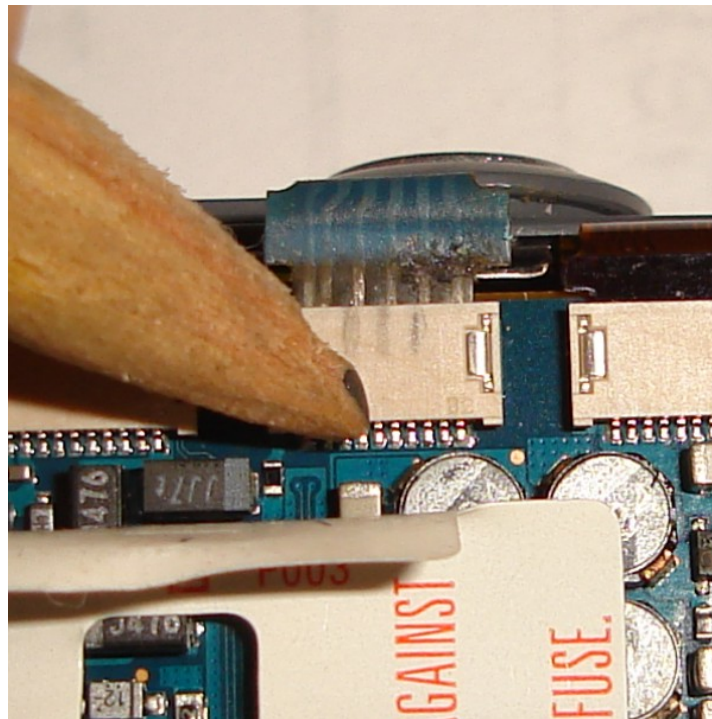
Next we mark the camera's shutter assembly pin location.

Stage 4: The flat flex cable was then inspected to be sure that, none of the 3 metal fingers are touching one another.

Stage 5: P41 example: P32 is similar; we wiggle out the original blue ribbon as shown in the photo. There are small tabs on each side of the ribbon. We actually used the backside of our exacta knife here, and applied upward pressure equally to each side to allow the blue ribbon to slide out of the white base. We only wiggle it out just enough to notate the traces inside the blue ribbon, (If you look directly at the ribbon you can see the metal traces inside)

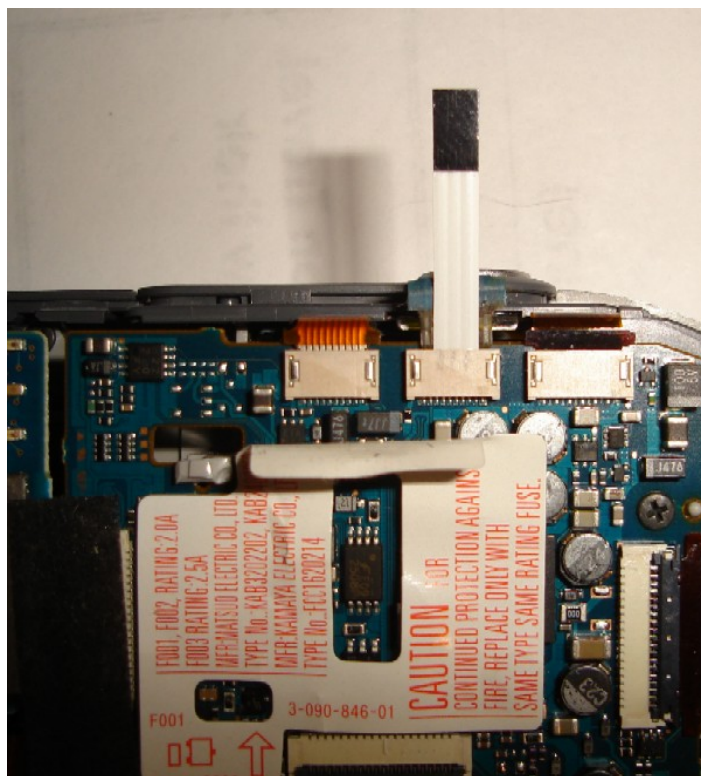


Pins 1 & 2 are alike and not used. **Pins 3, 4 & 5 are used.** Simply use a pencil or pen and make 3 lines on the top of the white block (*as shown in the photo below*), at pins 3, 4 & 5



Stage 6: Now that we have marked where we will slide the new flat flex ribbon into place, we completely remove the original blue shutter assembly ribbon from the white base

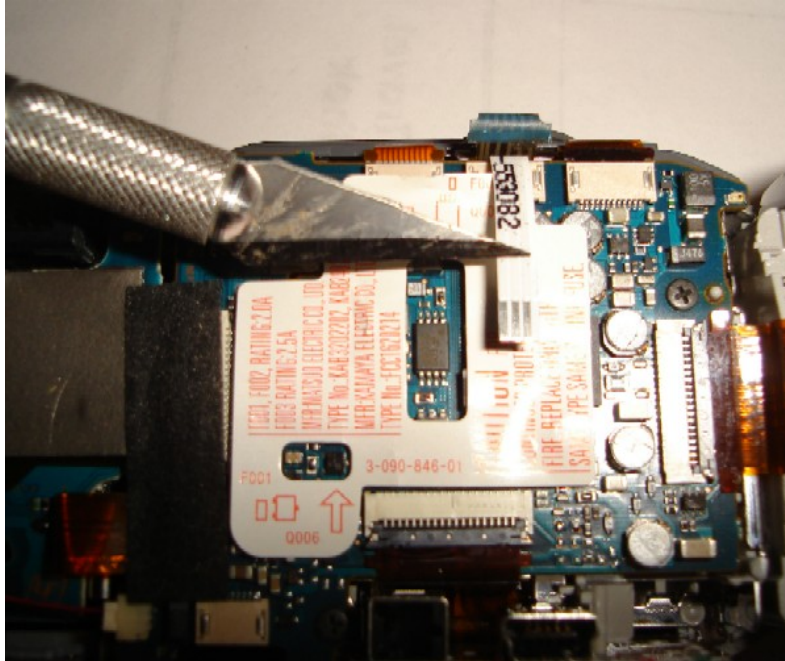
Once this is done, we take the new flat flex cable with the 3 fringe fingers (**Again be sure none of the fingers are touching**) and slide it into the white base on the camera making sure the 3 fingers align with the 3 marks you previously made on the white block as show in photo above & below:



Stage 7: Now that the new flat flex cable is installed, you need to take the original blue shutter assembly and slide it in **behind** the new white flat flex cable, with your fingers, **insert straight and push down straight** to ensure alignment.

Stage 8: Fold the new flat flex cable over, and route the servo wires in from where you choose to drill a hole in your camera housing, and solder these small 30awg servo wires to the pre tinned flat flex cable that just installed.

In the picture here, you can see the 3 metal finger tabs that you need to solder the 3 30awg wires to.



Once the wires are soldered to the flat flex cable, next take a piece of black electrical tape and lie a piece across the circuit board under the flex cable, now cut another small piece of electrical tape about 2" long and hold the flex cable down with your index finger and lie a piece of electrical tape over the solder contacts where you attached the 3 30awg wires to. This will eliminate any shorting out of electrical parts when you put the camera back together, and will drastically reduce the misalignment of the shutter assembly by having it stationary.

FROM LEFT TO RIGHT

P41 Camera:

- Pin1= Red /**Power**
- Pin 2= Common-Ground/**Black**
- Pin 3= Shutter/**White**

FROM LEFT TO RIGHT

P32 Camera:

- Pin1= Common-Ground/**Black**
- Pin 2= Power/**Red**
- Pin 3= Shutter/**White**

Before completely assembling the camera with the exterior screws, go ahead and put a memory card and batteries in your camera, plug your servo wire or stereo plug into the camera and short out Red & Black, AKA: Touch red & black together, this will power the camera on, now touch the white shutter wire to the ground wire, provided the camera is in picture taking mode the camera will now shutter a picture.

If your camera did not take a picture or did not power up, see if you can do it manually instead of from the servo wires. If so, then you most likely have a misaligned flat flex cable upon installation. It is necessary at this time to remove and realign the flat flex cable.

Flat Flex cable for your shutter assembly use, and the 3 wire servo cables can be found on our website: <http://www.whitetailsupply.com>