Panel
4412356
Version: 2
Date Printed: 03/12/2013 13:44

Number:4412356	Rev:	Version:2	Approved:03/12/2013 13:38	Supersedes:

1 Notes

Version	Note	Approved By	Approved	Status
1	Initial release - One step per Op.	Sequence Admin	12/7/2012	Completed
1	'4412356 Panel' was approved by 'Sequence Admin'	Sequence Admin	12/7/2012	Completed
2	'4412356 Panel' was approved by 'Sequence Admin'	Sequence Admin	3/12/2013	Completed

2 References

Number	Revision	Title	Type	Version	Approved
4412356		4412356	Document	1	3/12/2013

3 Bill of Materials

Part Number	Revision	Name	Qty	Unit	Reference Designator
777888		Housing	1.000	Ea.	
456789		Cap Screw	12.000	Ea.	
323232		Flat Washer	10.000	Ea.	

Number:4412356	Rev:	Version:2	Approved:03/12/2013 13:38	Supersedes:

[323232] 3/8" flat washer

Number:4412356	Rev:	Version:2	Approved:03/12/2013 13:38	Supersedes:

4 Panel General Requirements

Work Center: Electrical Prep

4.1 Bill of Materials

Part Number	Revision	Name	Qty	Unit	Reference Designator
777888		Housing	1.000	Ea.	
456789		Cap Screw	4.000	Ea.	
323232		Flat Washer	2.000	Ea.	

[323232] 3/8" flat washer

4.2 General Requirements

- Use proper safety equipment
- Follow Req's as needed for Soldering and Welding
- Routings must be maintained

Verify you read all required information

Data Captured	Completed By	Date Completed

4.3 Specifications - Changed Specs 1-22-13

Refer to Specifications soldering. Reflect changes

4.4 Stage Shipping Locks

Use a flathead screwdriver to pry the bellows from the traveling crosshead on the linear stage. Look for a tab locking the two cross roller rails. Remove the two fasteners holding the tab to the rails. Remove the tab and reinstall the two fasteners.

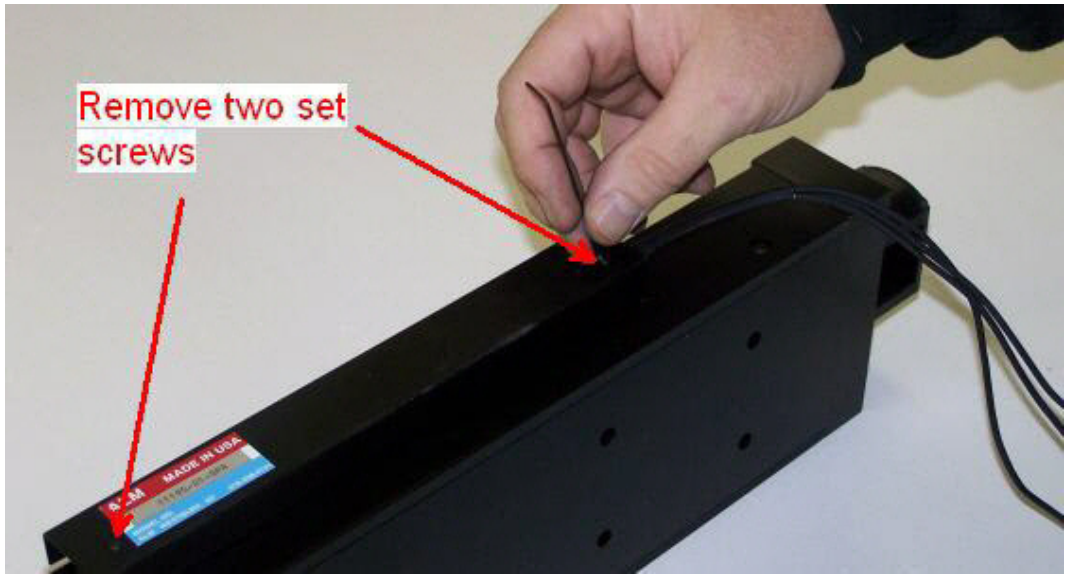
- Repeat on the other end of the traveling crosshead.

Record Serial Number

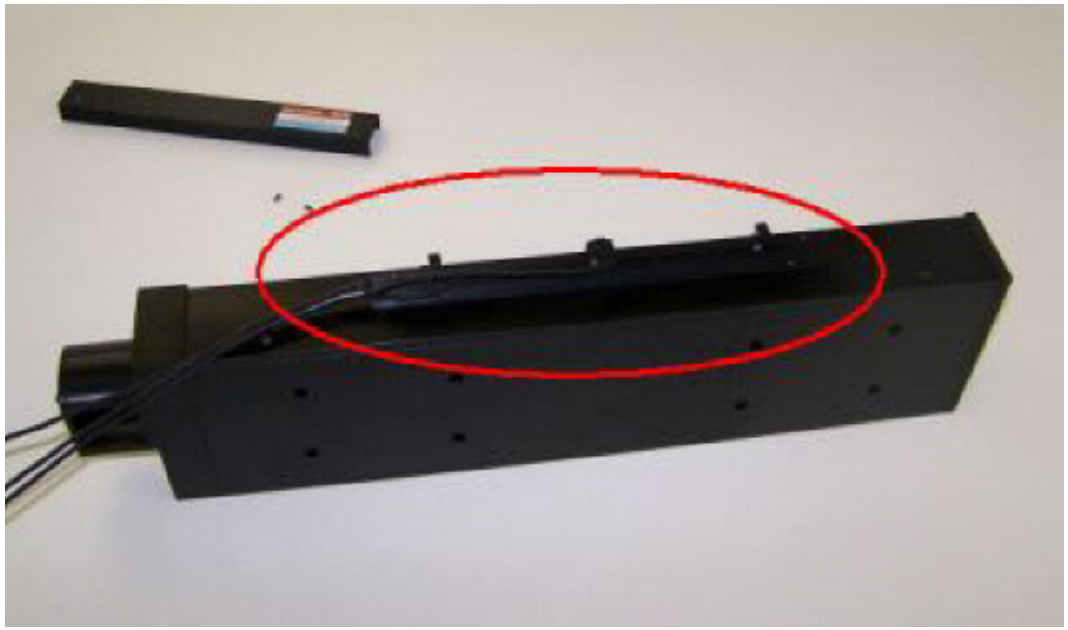
Data Captured	Completed By	Date Completed

4.5 Linear Stage Prep - Test Changes Made on a step in a work order 1-22-13 dew

Use a 0.05" Allen wrench to remove the two button head screws holding the cover over the limit switches of the 6" Travel Stage, as shown in the figure.



Remove Cover

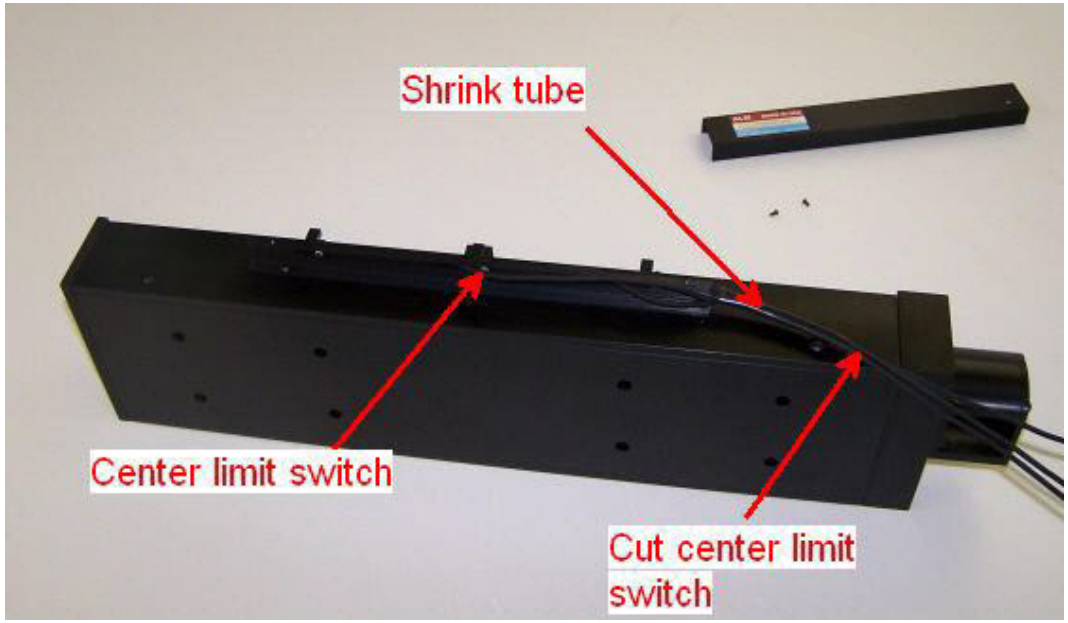


Limit Switch Cover Removed

4.6 Clip Center Limit - Version Note test 2:12 on 1-22

There are three cables going to the limit switches on the linear translation stage.

- Identify the cable going to the center limit switch (indicated in the figure).
- Use the wire cutters to cut the cable going to the center limit switch at the shrink tube where indicated in the figure.
- Pull the end of the cable under the shrink tube so it is not exposed.

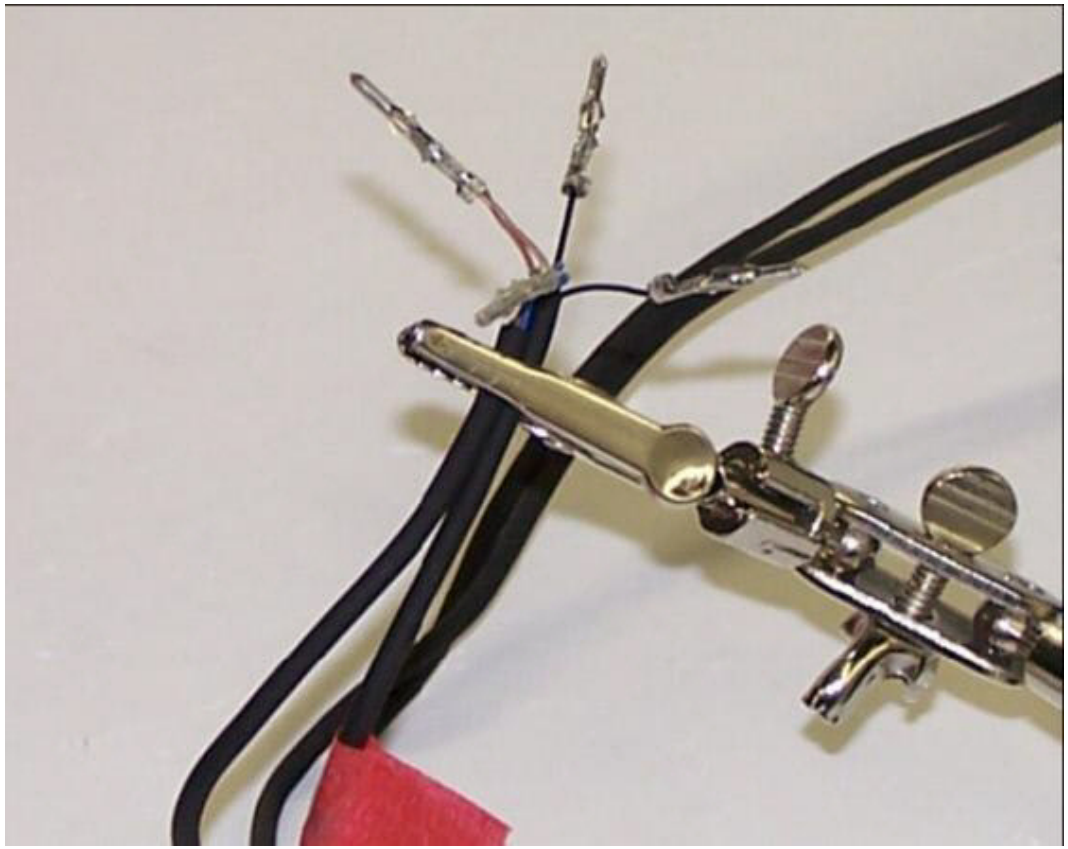


Center Limit Switch Cable

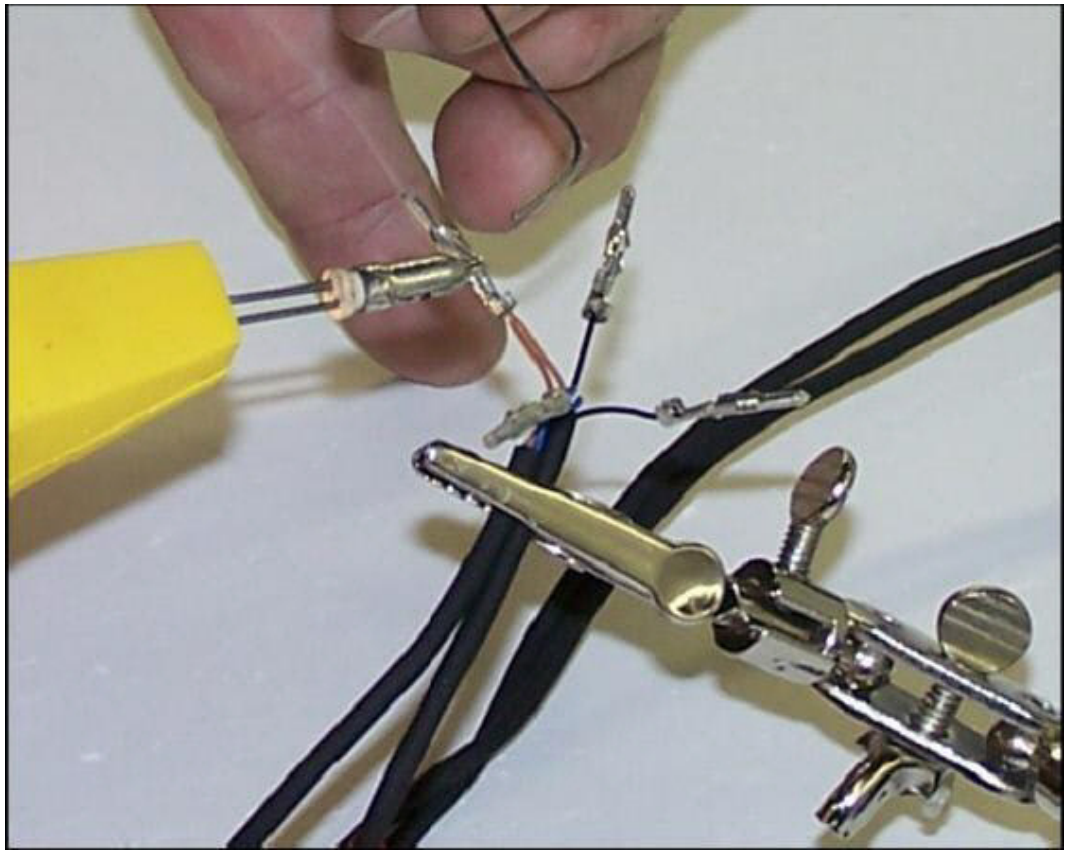
4.7 Solder pins

Obtain a jeweler's vise and hold the wires in place as shown in the first figure. Solder the pins to the conductors as demonstrated in the second figure.

Reference attached video for proper soldering technique.



Secure Pins w/Wires



Solder Crimp Pins

4.8 Center Limit Quality Check

Length of ram is 3 inches. Measure and sign off this is correct.

Number:4412356	Rev:	Version:2	Approved:03/12/2013 13:38	Supersedes:

5 Panel

Work Center: Electrical Prep

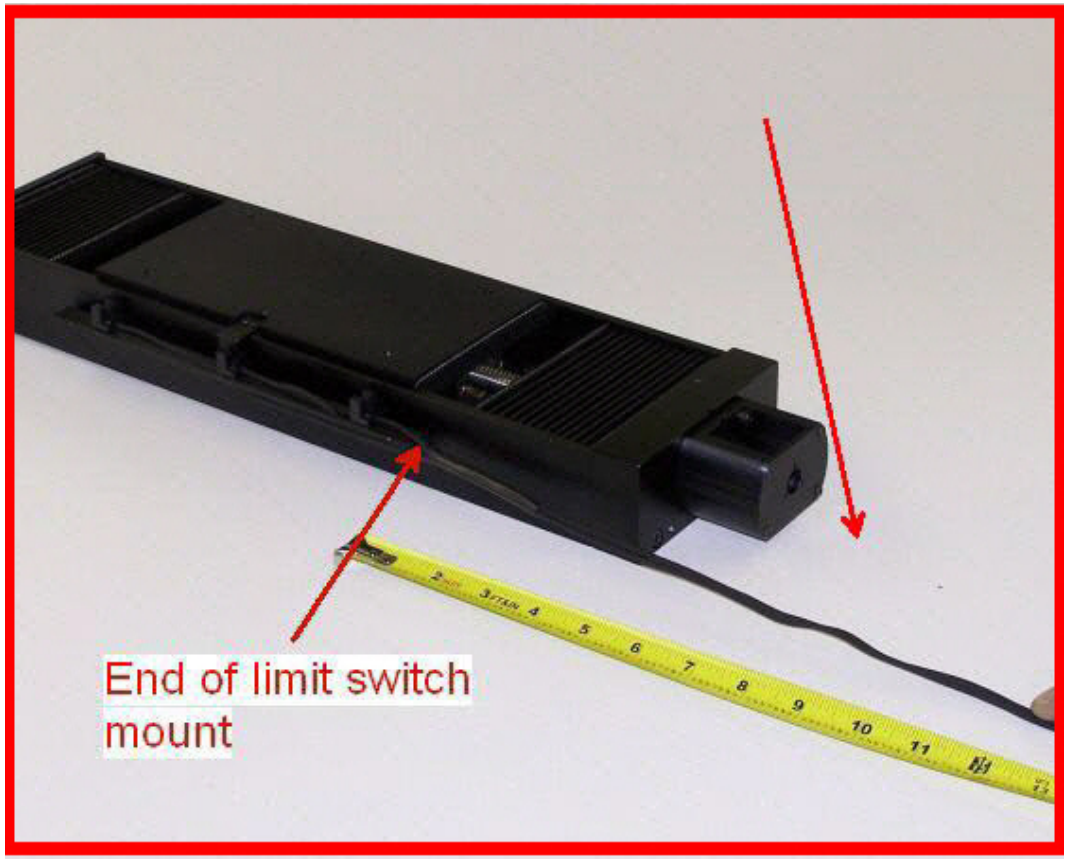
5.1 Bill of Materials

Part Number	Revision	Name	Qty	Unit	Reference Designator
456789		Cap Screw	8.000	Ea.	
323232		Flat Washer	8.000	Ea.	

[323232] 3/8" flat washer

5.2 Clip other two wires

Measure 14"along the remaining two cables from the Limit Switch Mount on the linear translation stage. Cut both wires 14"from the mount.

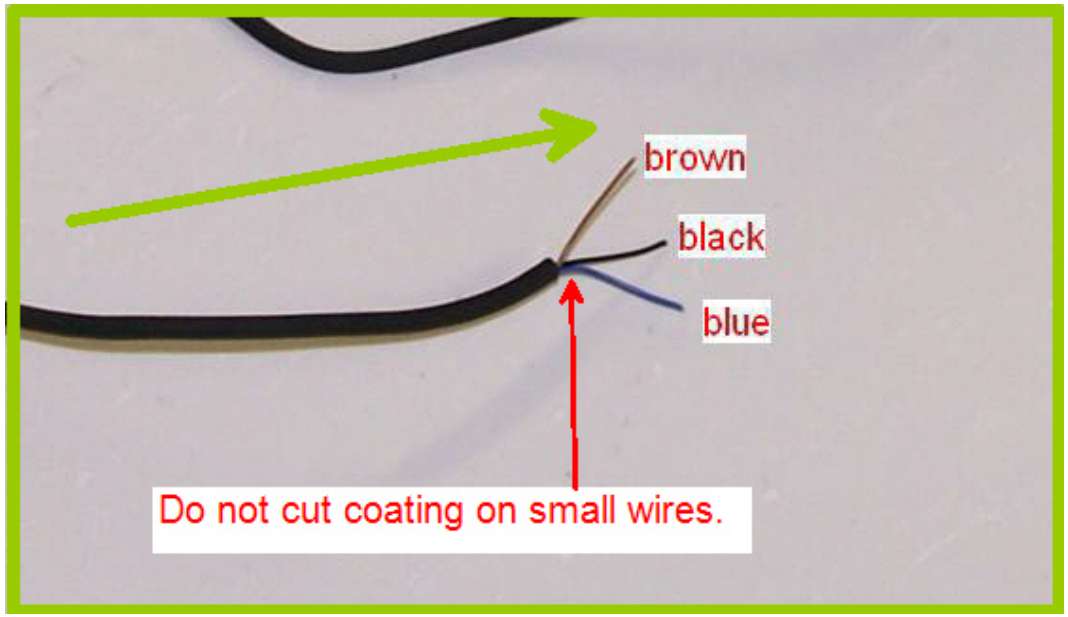


Cut Limit Switch Wires

5.3 Strip Insulation

Use the wire strippers to strip the outer insulation from the two limit switch cables approximately 3/4"from the end (as shown in the figure).

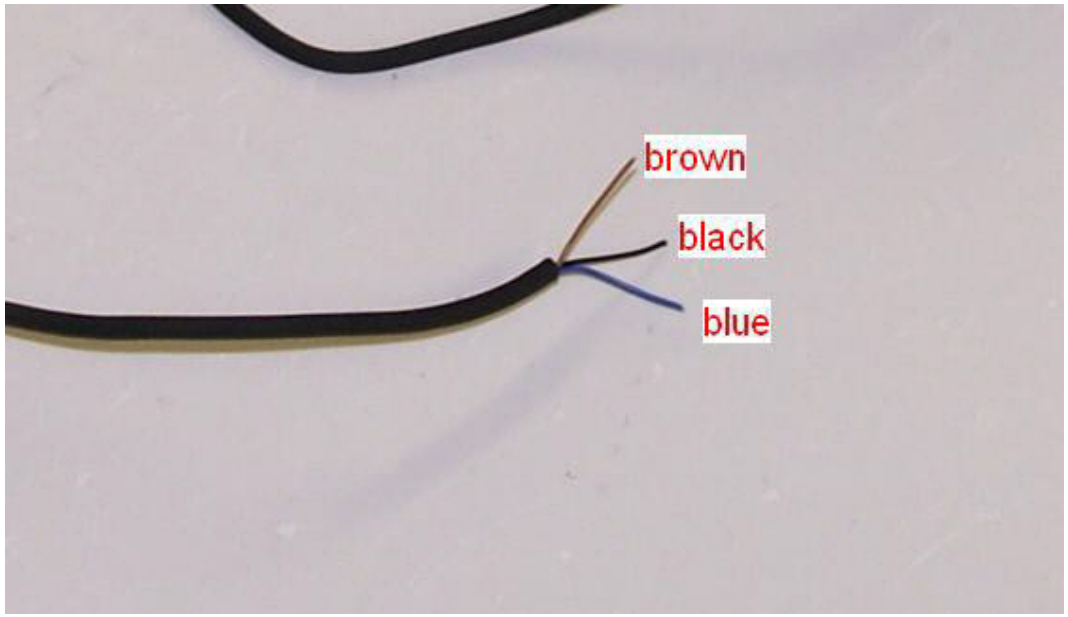
Be careful not to cut the four conductors inside the cable.



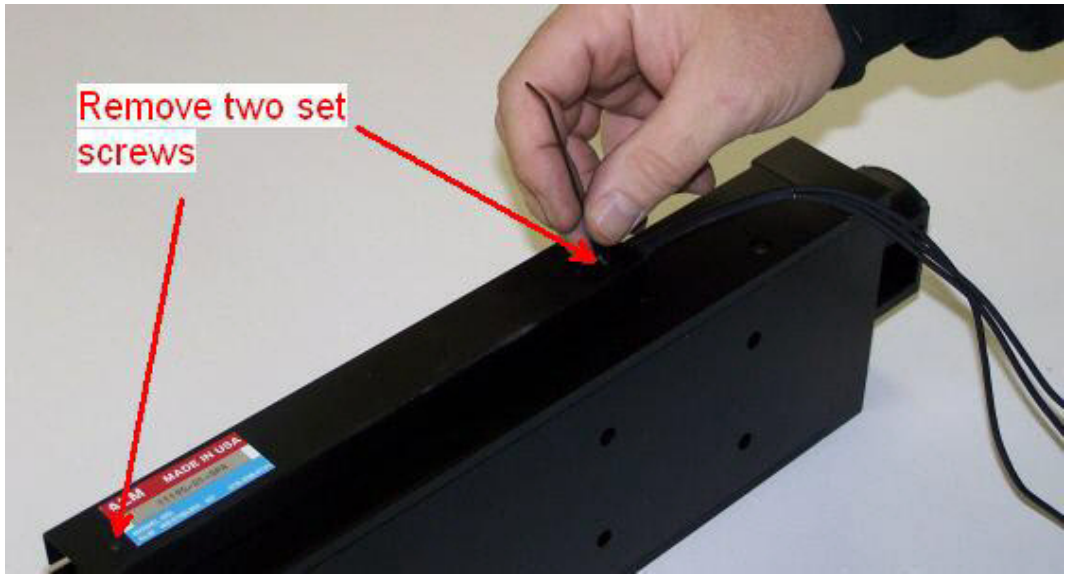
Strip Insulation exposing 3 wires

5.4 White Wires

Cut the white conductors on both cables, leaving the black, brown and blue wires.



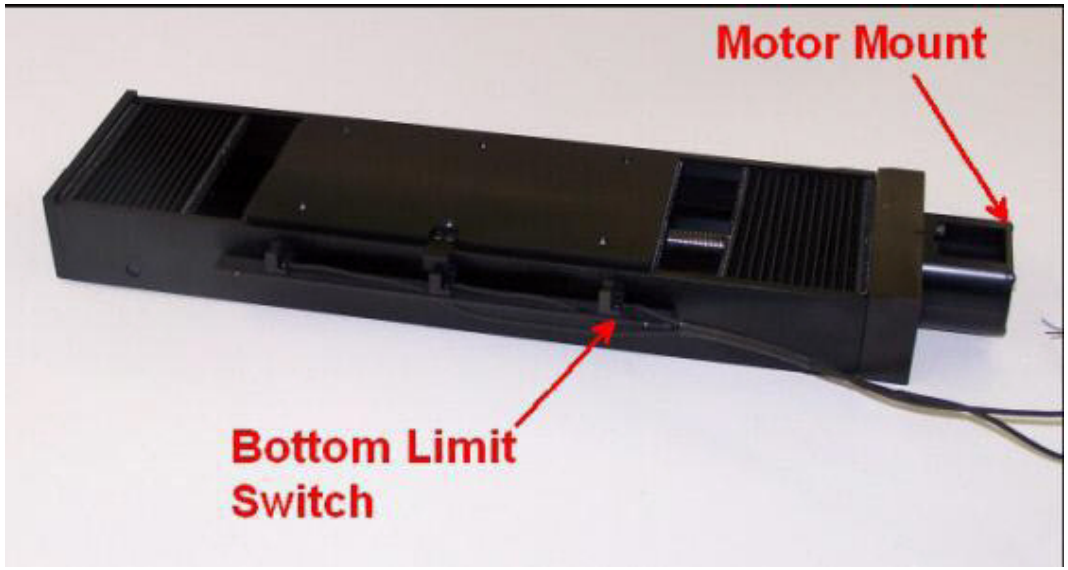
Cut off white wire



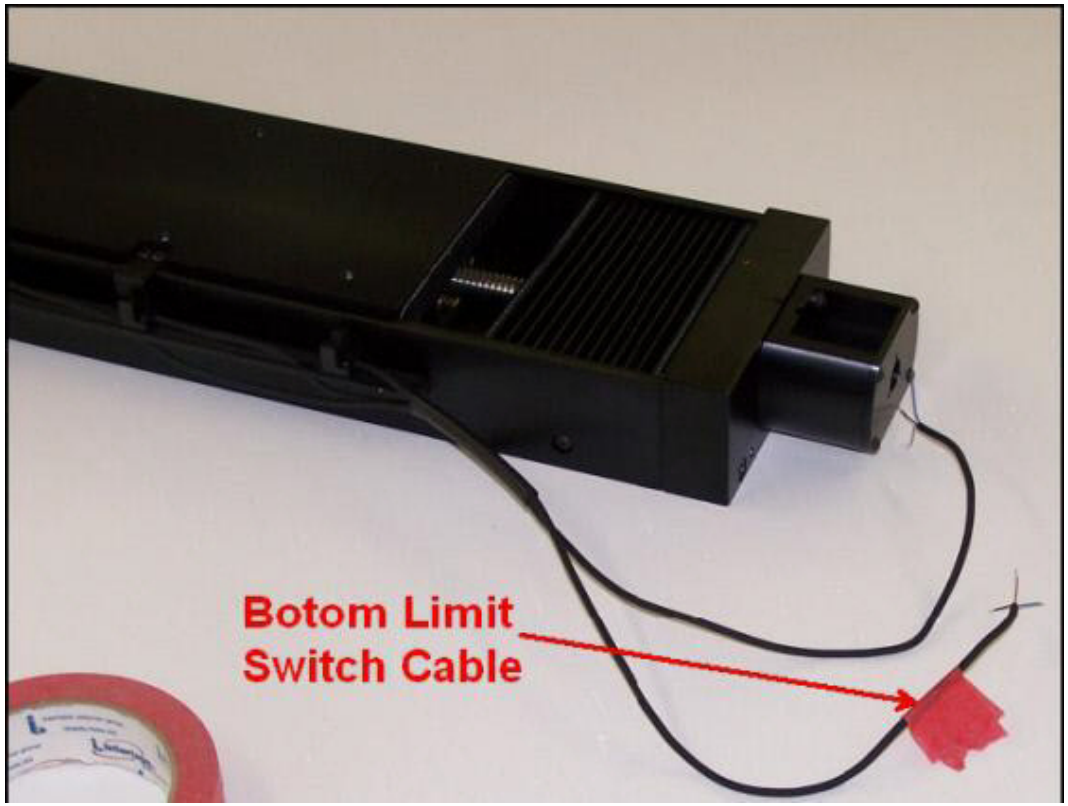
Remove Cover

5.5 Mark Bottom Cable

- Identify the "Bottom" limit switch using the first figure as a reference. The bottom limit switch is the one closest to the motor mount shown in the first figure.
- Place a piece of red tape on the "bottom" limit switch cable as shown in the second picture.



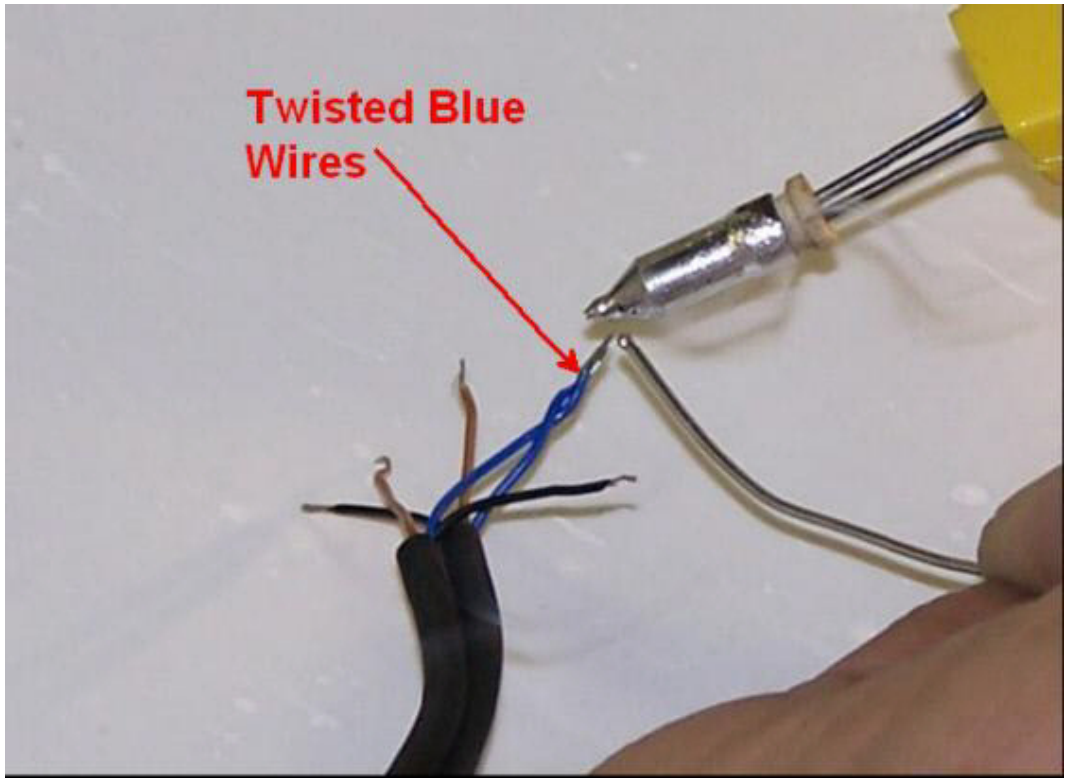
Identify Bottom Limit Switch



Mark Cable

5.6 Solder Wire Pairs

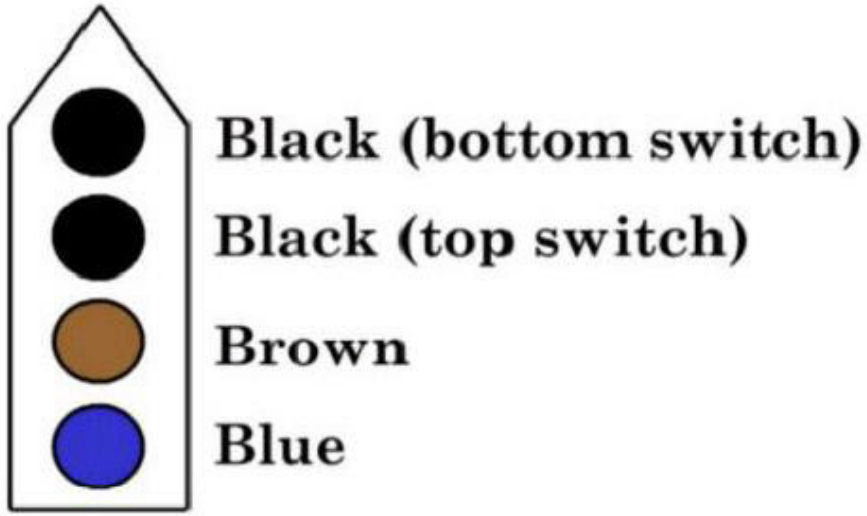
Strip the 6 conductors (three in each cable) 1/8". Twist the two blue wires together and solder the pair as shown in the first figure. Twist the two brown wires together and solder in a similar fashion.



Solder Twisted Blue Wires

5.7 Connector plug

Press the crimp pins into the Electrical Plug as indicated below.

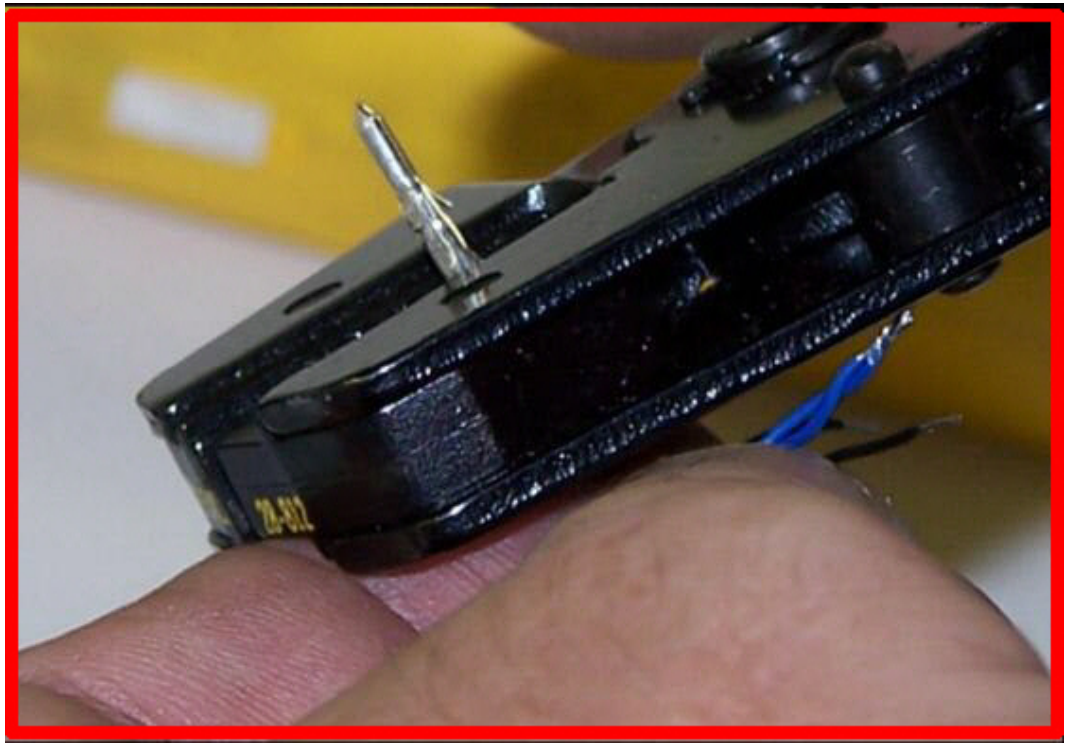


Molex

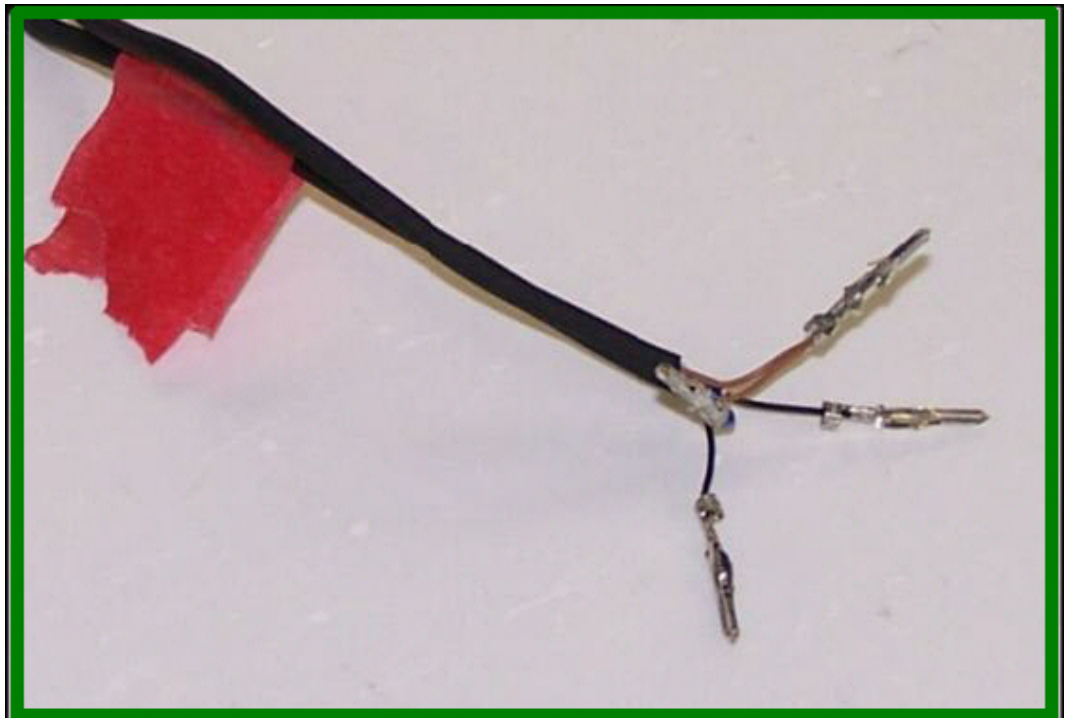
5.8 Crimp Pins - Needed to be ,....

Identify the crimp tool used for this step.

- Using the tool, install a crimp pin on the soldered brown wires.
- Install a crimp pin on the blue wire pair. Install a crimp pin on each of the black wires.
- The four crimp pins should look similar to those in the second figure.



Install Male Pins



Installed crimp Pins

5.9 Solder wires

Solder wires to sensor leads.

Refer to video if needed:

5.10 Motor Mount Plate

Use (3) M2x6 cap screws to attach the Motor Mount Plate to the MicroMotor as shown in the first picture. The three mounting holes in the center of the motor mount plate are recessed on one side of the plate. The recessed side goes away from the motor.

- Note also that the motor must be rotated relative to the plate as shown in the figure. If it does not look like the one in the picture, rotate the plate relative to the motor.

You will use a M1.5 allen wrench for this step.

Note: Only tighten to 45 in-lbs

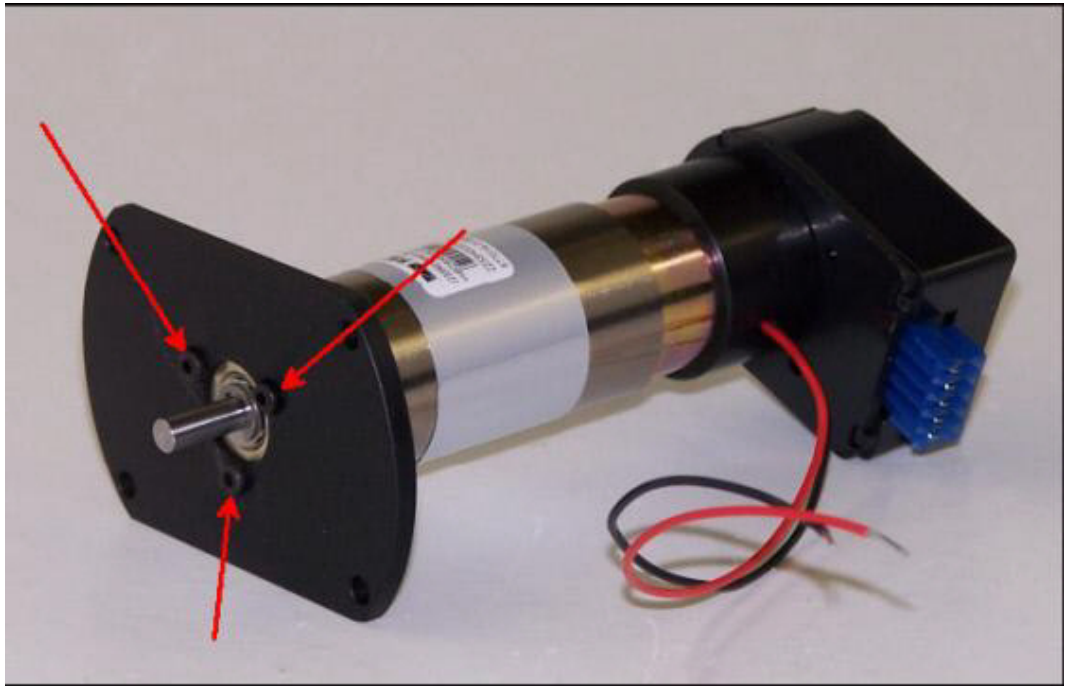


Plate Orientation