



MiTek
 301 Fountain Lakes Industrial Dr.
 St. Charles, MO 63301
 USA
 Fax (636) 328-9222
 Phone (800) 523-3380

MiTek Machinery SERVICE BULLETIN

Service Bulletin	126	Product	Cyber Saw
Date	9/26/01	Description	Replacement from flex conduit to robotic conduit for fiber optic cable
Revision Level			

Created	Reviewed	Approved
VDC	GEM	TBH

To improve the performance of the fiber optic cable protection on the **CyberSaw[®]** during normal operation, we are releasing a Service Bulletin for all **MiTek[®] CyberSaw[®]** owners who have already purchased the fiber optic upgrade kit, Mitek part number SB112 Kit or have factory installed fiber optic communication cable.

Part required: SB126KIT

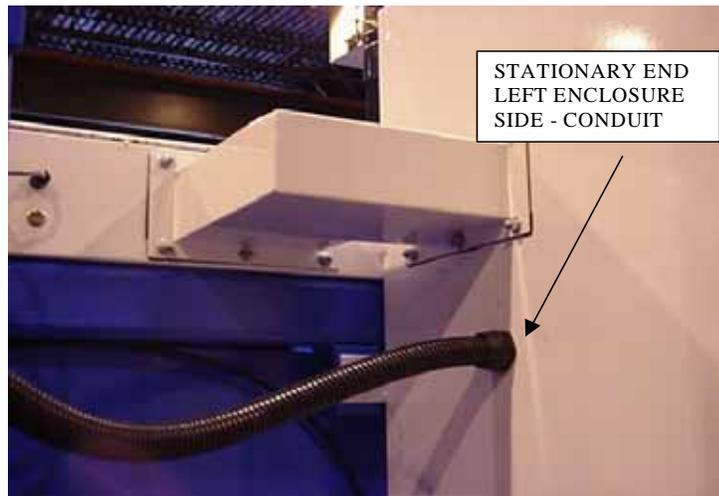
Kit contains: 50 ft. 510001
 CONDUIT,ROBOTIC,HIGHFLEX,3/4",(LIQUATITE)
 2 ea. 511512
 CONNECTOR,ROBOTIC,STRT,3/4",(LIQUATITE)
 4 ea. 511273
 CLAMP,EMT,(1)HL,155,1(JIFFY)

Tools Required:

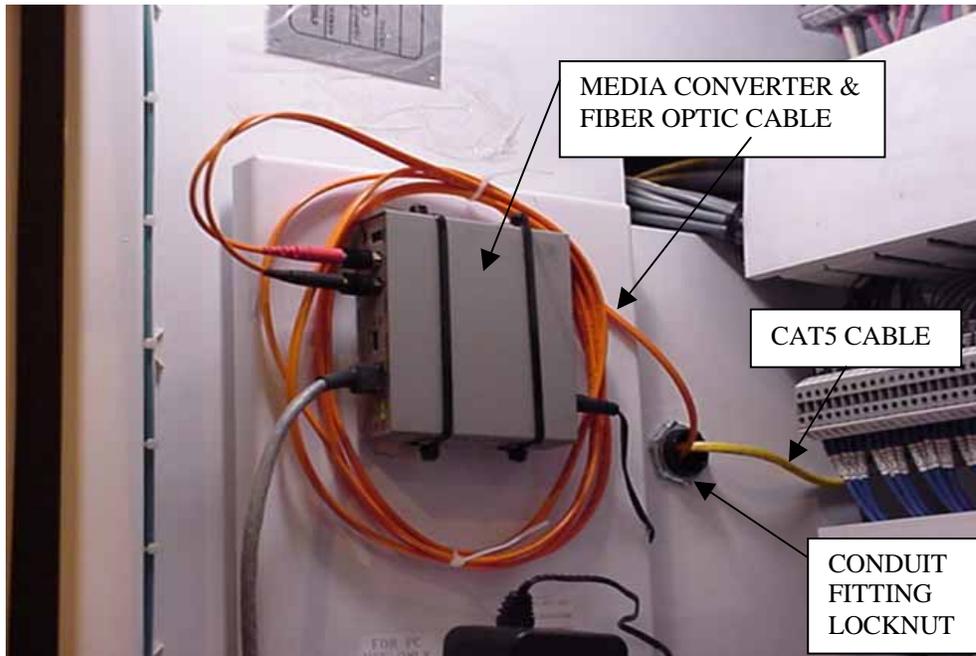
- Fish Tape (longer than 50Ft.)
- Channel Locks
- Wire Snips (small)
- Electrical Tape
- Flat Head Screwdriver
- Sharp Trim Knife

To change the existing flex conduit:

1. Activate an E-stop and disconnect all power from the **CyberSaw®**. Follow Lock-out procedures to ensure power is disconnected.
2. Locate the existing flex conduit that is located on the Stationary Enclosure. The grey flex conduit connects to the left side below the cable trough elbow. See picture below.



3. Open the Stationary enclosure panel and locate the orange fiber optic cable attached to the media converter and the conduit connector locknut. Refer to picture on the next page for details.



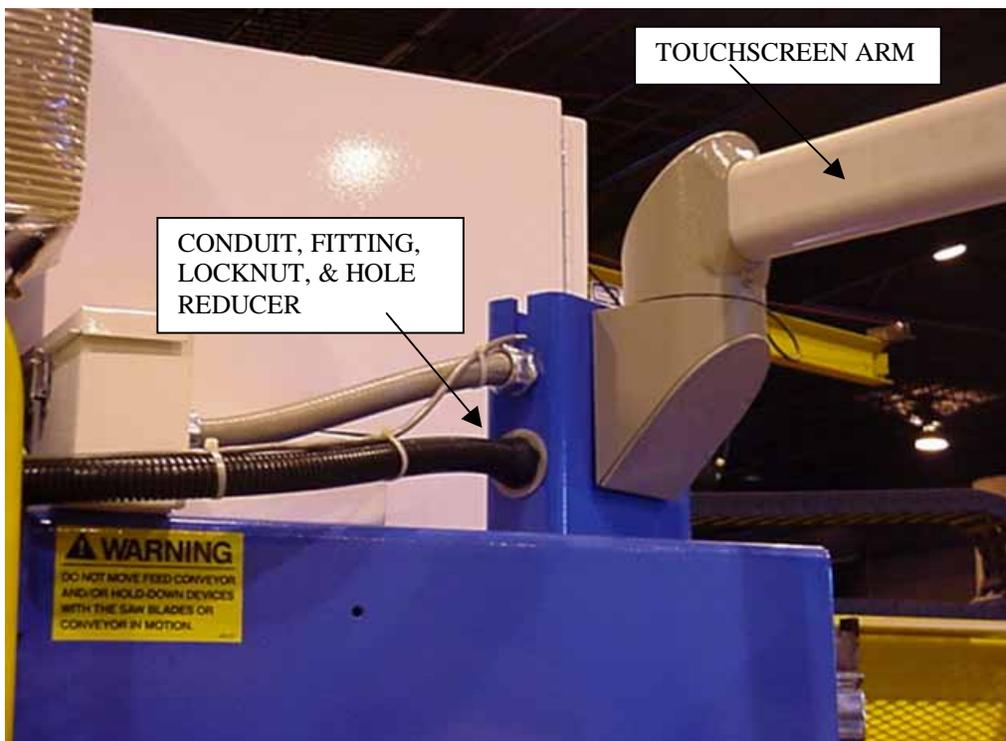
4. Write down the orientation of the Red & Black leads of the fiber optic connection to the media converter. (Replacing these in the correct order will ensure communication again between PLC and the touchscreen at power up.) Remove the cable ends from the media converter.

NOTE:

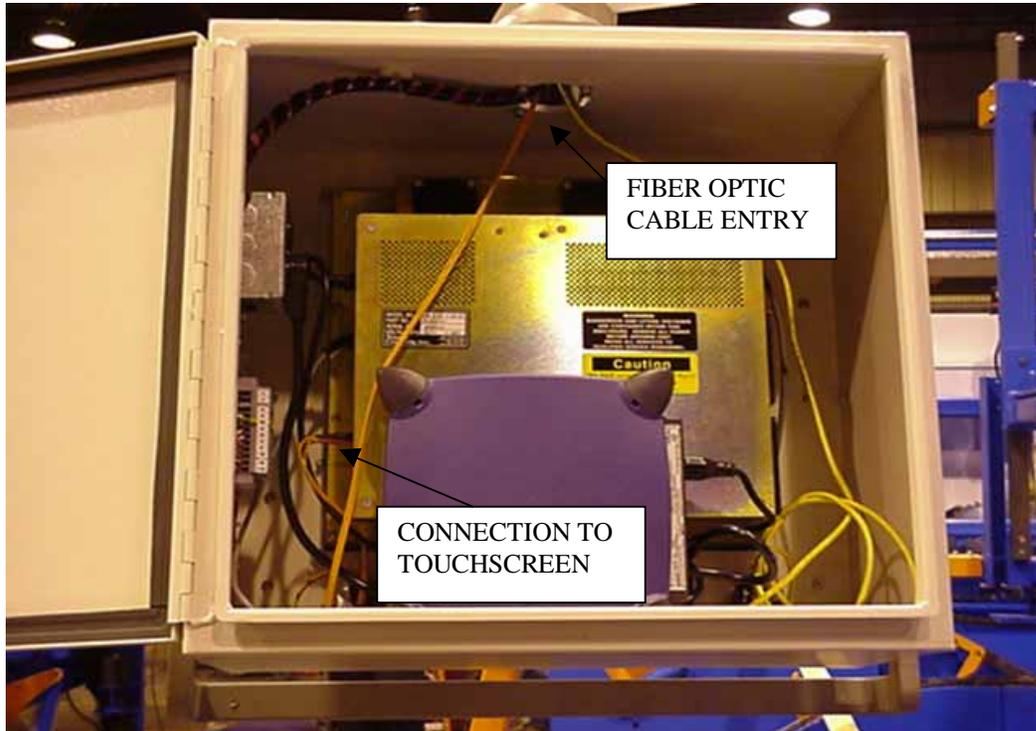
For customers who purchased the fiber optic upgrade after installation of the saw, only the fiber optic cable resides in the conduit. For those models installed at the factory, as shown above, there will also be a yellow CAT5 cable in the same conduit. This will also need to be disconnected from the enclosure's internal network connector before attempting to remove conduit.

5. Remove all cable ties that might be placed on the cable by cutting with wire snips. Be careful not to nick or cut fiber optic cable.

6. Straighten the fiber optic cable before attempting to pull back through enclosure hole.
7. Loosen and remove the conduit fitting locknut and gently pull the conduit and fitting away with the fiber optic cable (and CAT5 if necessary) coming through the fitting hole in the enclosure.
8. Locate the other end of the existing flex conduit that is located on the Carriage end of the saw. The grey flex conduit connects to the frame where the touchscreen extension arm is located. See picture below.



9. Open the back of the touchscreen enclosure. The fiber optic cable runs through the arm and into the touchscreen enclosure. Locate the connection of the fiber optic Red and Black leads as it connects to the fiber optic card on the touchscreen.



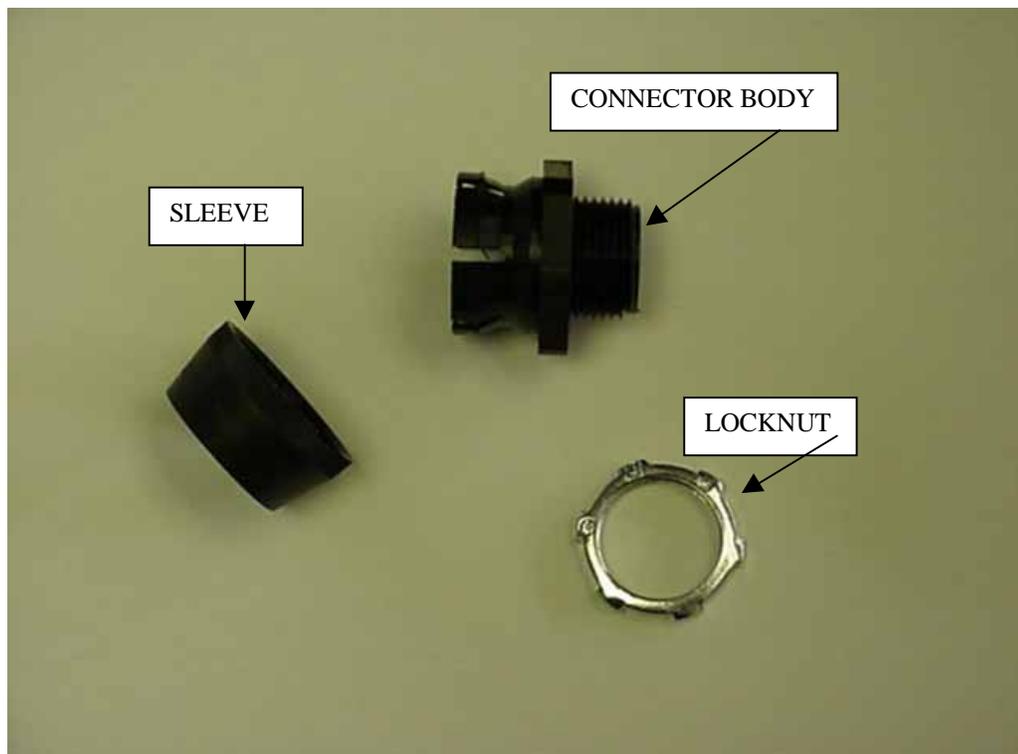
10. Write down the orientation of the Red & Black leads of the fiber optic connection to the touchscreen. (Replacing these in the correct order will ensure communication again between PLC and the touchscreen at power up.) Remove the cable ends from the touchscreen. (If you had to disconnect the yellow CAT5 cable previously in step #4, also disconnect this cable from the touchscreen.)



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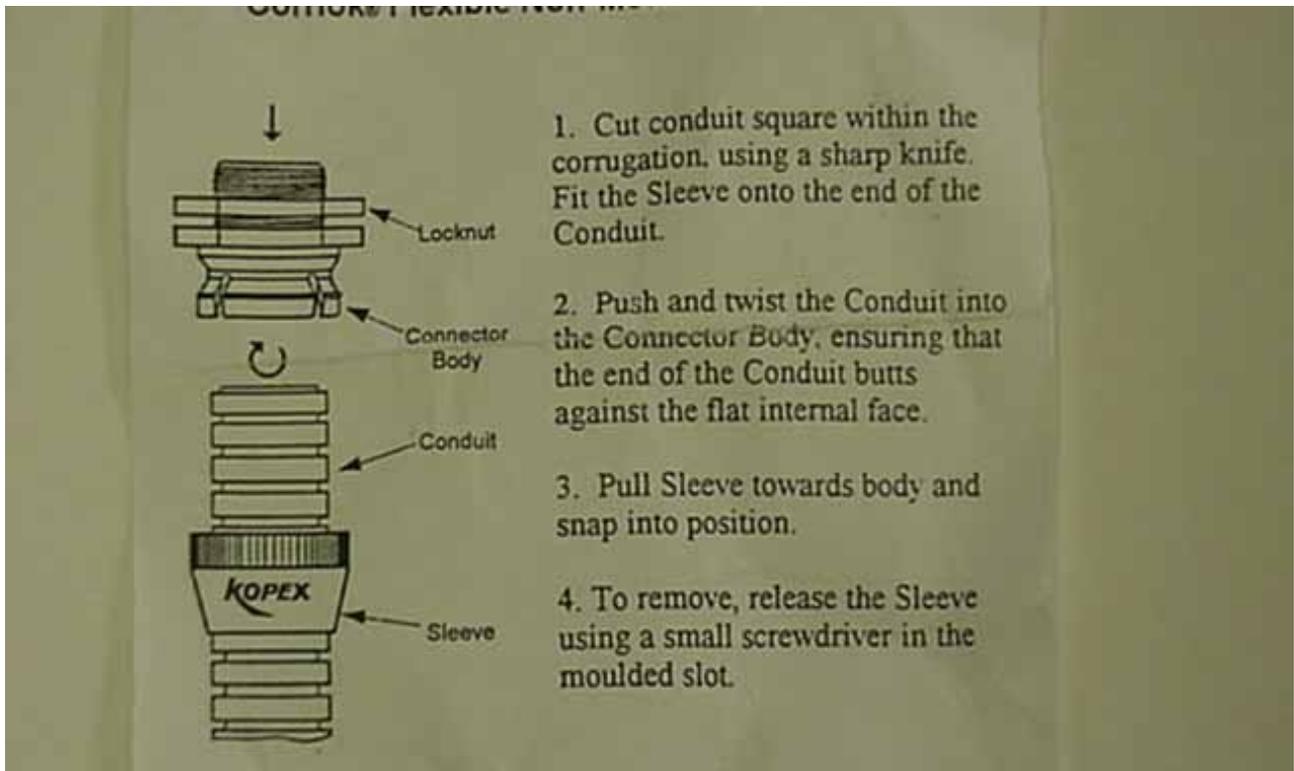
11. Loosen and remove the conduit locknut (as seen in previous photo on page 4) and gently pull fiber optic cable (and CAT5 cable, if necessary) from the touchscreen enclosure and arm assembly. Keep the hole reducing washer as it will be used with the new fitting.
12. Remove all conduit clamps and then remove the conduit from the cable track.
13. Lay the removed 50 ft. flex conduit straight on the ground so the communication cable(s) can be removed. Remove the existing conduit fittings being very careful not to nick or scratch the cable(s).
14. Wrap electrical tape around both ends of the conduit to cover the exposed metal edges. Be sure the tape covers both the inside and outside edges of the conduit ends. This will keep from damaging the cable(s) as they are being pulled from the conduit.
15. Tape one end of the fiber optic cable with electrical tape so that the cable connectors are offset from each other and protected. Include the CAT 5 cable connector, if necessary, so that all connectors will not pull through the conduit simultaneously.
16. Gently pull cable(s) through conduit from the other end.
17. Lay the new 50 ft. robotic conduit straight on the ground so the communication cable(s) can be re-installed. Insert into one end of the new conduit a fish tape (must be longer than 50Ft.) and extend to the opposite end.

18. Attach the previously taped end of the cable(s) to the end of the fish tape, using electrical tape to secure the connection. Gently pull the cable(s) back through the robotic conduit leaving at least 5-6 feet of cable beyond the end of the robotic conduit that will reroute through the touchscreen arm assembly.
19. Install the new robotic conduit into the cable track.



20. Remove sleeve and locknut from each of the connector's body, if necessary, and re-install the new connector body and locknut where the old connectors were removed. Be sure to tighten locknuts before connecting conduit and routing cable into fitting.

21. On Stationary enclosure side, slip sleeve cap onto end of conduit, route cable through connector body (installed in step #20), place conduit onto connector body, and slip sleeve back onto fitting until self-latched into place.



22. Reduce any slack of the conduit (not cable) by pulling through cable track and then route conduit over to frame area by the touchscreen arm assembly.
23. Replace the conduit clamps over new conduit along the wire trough.



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24. Trim any excessive conduit at this time (if needed), using wire snips or sharp trim knife so that the conduit may be trimmed without cutting the cable(s) inside the conduit.
25. On the arm assembly side, slip sleeve cap onto end of conduit, route cable(s) through connector body (installed in step #20) and through the arm assembly into touchscreen enclosure, place conduit onto connector body, and slip sleeve cap back onto connector body until self-latched into place.
26. Reconnect the fiber optic cable (and CAT5 if necessary) at both ends of the saw. Remember to follow the correct color orientation that was noted in steps 4 and 10.
27. Close all enclosures and unlock any power Lock-out and return power to saw. Continue to operate saw as normal.