MiTek®
Machinery Division

Service Bulletin

Machinery Affected:	**Auto Deck Conveyor**
Document:	**SB196**
Title:	**Moving Cable for Proper E-Stop Operation**
Distribution:	**Customers, All With *Miser II*™ and Auto Deck**

MiTek
Machinery Division
301 Fountain Lakes Industrial Drive
St. Charles, MO 63301
Phone: 800-523-3380
www.mii.com

Item # and Rev.	SB196
Date Created	31 Aug 2011
Created By	R. Tucker
Reviewed by	E. Segar
Approved by	G. Pritchett
Applicability	Auto Decks installed prior to Aug. 2011

Purpose and Scope

Lock and tag

Multimeter that measures ohms

This document describes how to rewire an Auto Deck attached to a *Miser II* ™ saw so the E-stop circuit functions properly. When pressing an E-stop on the *Miser II* saw, the Auto Deck motor should also stop. If it doesn't, follow this procedure to remove the 24 VDC power from the Auto Deck's motor contactor when an E-stop is activated.

This procedure should be completed by a qualified electrician.

If you have any questions, call MiTek Machinery Division Customer Service at 800-523-3380.

Procedure

Electrical Lockout/Tagout Procedures

	⚠ WARNING
	**ELECTROCUTION HAZARD!** **Verify that all power to the machine has been turned off and follow approved lockout/tagout safety procedures before performing any maintenance.** **All electrical work must performed by a qualified electrician.** **If it is absolutely necessary to troubleshoot an energized machine, follow NFPA 70E for proper procedures and personal protective equipment.**

When Working on a Machine Inside the Machine's Main Electrical Enclosure or in the Electrical Transmission Line to the Machine

Before opening the main electrical enclosure, or attempting to repair or replace an electrical transmission line to the machine, lockout/tagout the machine properly. Follow your company's approved lockout/tagout procedures which should include, but are not limited to the steps here.

1. Engage an E-stop on the machine.

2. Shut down the PC inside the *Miser* saw's operator control station.

3. Turn the machine's disconnect switch to the "off" position. This is usually required to open the main electrical enclosure's door.

4. Shut the power to the machine off at the machine's power source which is usually an electrical service entry panel on the facility wall. One example of a locked-out power source panel is shown in Figure 1.

5. Attach a lock and tag that meets OSHA requirements for lockout/tagout to the electrical service entry panel.

Figure 1: Sample of Lockout/Tagout on a Power Source Panel

6. Open the door to the enclosure in which you need access, and using a multimeter, verify that the power is off.

Pneumatic System Lockout/Tagout Procedure

	⚠ WARNING
	**MOVING PARTS CAN CRUSH AND CUT.** **Always verify that power to the machine has been turned off and follow approved lockout/tagout procedures.** **Turn off the air switch or shutoff valve before performing any maintenance on the equipment.**

	⚠ WARNING
	**HIGH PRESSURE HAZARD.** **Bleed pneumatic lines before performing any maintenance on the pneumatic system.**

Moving the Cable

	⚠ WARNING
	**ELECTROCUTION HAZARD.** **This work should be completed by a qualified electrician.**

The J1 Box is where the Auto Deck controls and 24 VDC cabling goes into.

1. Touch the meter probes together and note the reading.
2. In the A/C box, find the correct 16 AWG 2 conductor cable that goes to the J1 Box.

   Since there are multiple wires in the TB1 and TB2 terminal blocks, complete these steps to verify the correct wire is being used. Refer to Figure 2.

   a) Remove the two wires labeled PWR BOX from TB1 and TB2. They merge into one cable.

   b) Use a wire nut to short the black and white wires together.

Figure 2: TB1 and TB2 Terminal Blocks in the AC Power Box

c) In the J1 box, measure the resistance of those two wires.

d) Find the two-circuit Mate-N-Lok connector that supplies 24VDC to the Auto Deck, and do a resistance measurement as shown in Figure 3.

e) When the meter reading is approximately the same as noted in step 1 (typically about 0.5 ohms), remove the wire nut applied above and separate the two wires.

f) Re-measure the above points.

1) If the meter shows an open circuit, the correct cable was chosen. Proceed to step 3.
2) If the meter does not show an open circuit, repeat all of step 2 with the other set of cables in the A/C box, labeled AC BOX.
3) If neither set of cables show an open circuit, contact MiTek Customer Service.

Figure 3: Measure Resistance in the J1 Box

These connectors can be removed from the SICK module by pulling them up.

You may need to remove the front connector to make it easier to get to the back connector.

3. Move the cable:

    a) Completely remove the cable from the AC enclosure.

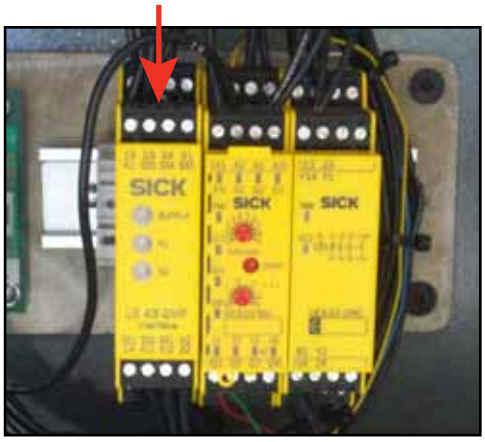
    b) Re-route the cable to the card cage.

    c) Place the white wire in position #24 of the UE 43-2MF SICK module (one of the back connectors). There is a wire already at this position, but the white wire also fits.

    d) Place the black wire in #A2 of the UE 43-2MF SICK module. There is a wire already at this position, but the black wire also fits.

Figure 4: UE 43-2MF SICK Module Scenarios on *Miser II* Saws

2-Module SICK System



3-Module SICK System

4. Perform this safety test to ensure E-stop are working properly:

    a) Remove lockout/tagout devices and restore the power to the machine.

    b) Verify the Auto Deck motor runs without an Emergency Stop condition.

    c) Activate an E-stop on the saw.

    d) Ensure that the Auto Deck motor stops immediately.

END OF SERVICE BULLETIN.