

Service Bulletin

Machinery Affected: **MiTek[®] and Tee-Lok[®] Finish Roller Presses**

Document: **SB185**

Title: **Installing a Beacon on the Enclosure and
Installing a Remote Beacon/Horn Assembly**

Applies To: Kit A (beacon) applies to MiTek Finish Rollers without a beacon, but can be adapted to other Finish Rollers with schematics.
Kit B (remote beacon/horn) applies to all MiTek and Tee-Lok Finish Rollers.
Referred to in SB183.

Distribution: As ordered.



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Applicability	Kit A: All <i>MiTek</i> FRs wo beacon Kit B: All <i>MiTek</i> and <i>Tee-Lok</i> FRs
Effectivity	68300, 68400, 68425

Purpose and Scope

This document covers two procedures. The first describes how to install a new light beacon (referred to as “beacon”) on a *MiTek*[®] Finish Roller electrical enclosure. The second procedure addresses how to install an additional horn and beacon assembly at a remote location off a *MiTek* Finish Roller or *Tee-Lok*[®] Pinch Press. For simplicity, both sets of machines will be referred to as a Finish Roller in this document. The beacon used in these procedures is a flashing amber LED light.

All personnel working with or near a Finish Roller should be able to see a flashing beacon and hear a horn indicating the status of the Finish Roller. If your Finish Roller does not have a beacon, add one to the Finish Roller enclosure using SB185KIT-A. If there is a wall, a barrier, or a turn preventing people working in or near the conveyor line from seeing the beacon and hearing the horn, add additional beacons and horns using SB185KIT-B.

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

Parts and Supplies

Before beginning the procedure, gather the supplies listed in Table 1.

The parts in each kit are listed in Table 2 or Table 3, depending on which kit you need. Verify that all parts are present before starting the procedure.

Table 1: Customer-Supplied Items Required for All Kits

- | | |
|-------------------------------------|--|
| • Tape measure | • Lock and lockout tag |
| • Marker | • Multimeter or voltmeter |
| • Small Phillips screw driver | • Wire strippers/cutters |
| • Small straight blade screw driver | • Pliers or a means to tighten locknut |
| • Drill motor and drill bits for: | |
| • 1-1/8" hole OR 3/4" knockout | |
| • 7/8" hole OR 1/2" knockout | |

Figure 1: Beacon Added to Existing Finish Roller Enclosure



Parts for Adding Beacon to Existing Enclosure

Refer to Figure 1 and Table 2 to ensure all of the parts are present for adding a beacon to an existing Finish Roller enclosure.

Table 2: Items Included in SB185KIT-A

Qty.	Part Description	Part #
1	3/4" EMT str connector	511427
1	3/4" EMT 90 degree conn	511472
1 ft	3/4" EMT	510108
1	3/4" locknut	511193
1	3/4" gasket	477183
1	Pipe mount base	513521
1	Lens kit	513522
1	Beacon LED	513523
1	Service Bulletin 185, Dwg 90535, 90535-501	SB185

Parts for Adding Remote Horn and Beacon Assembly

Refer to Figure 2 and Table 3 to ensure all of the parts are present for installing an additional horn and beacon assembly at a remote location off the Finish Roller.

Figure 2: Remote Horn and Beacon

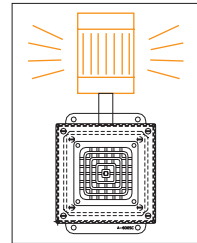



Table 3: Items Included in SB185KIT-B

Qty 1 of 90535-501, which include the following parts:

Qty.	Part Description	Part #
1	Horn and light assembly	90537-501
30 ft ea color	Wire: white, red, black, green	508006
2	Gasket 1/2"	477182
20 ft	Flexible conduit 1/2"	510032
1	Straight connector, flex, 1/2"	511092
1	90-deg. connector, flex, 1/2"	511112
1	Terminal jumper bar	518143
1	Terminal block	518223
2	Terminal end section	518234
1	Service Bulletin 185, Dwg 90535, 90535-501	SB185

Electrical Lockout/Tagout Procedures

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

Before performing maintenance on any machine with electrical power, lockout/tagout the machine properly. When working on a machine outside of the machine’s main electrical enclosure, not including work on the electrical transmission line to the machine, follow your company’s approved lockout/tagout procedures which should include, but are not limited to the steps here.



Always engage an E-stop when you see the symbol shown in the margin

1. Engage an E-stop on the machine.
2. Turn the disconnect switch handle on the machine’s main electrical enclosure to the “off” position. See Figure 3.
3. Attach a lock and tag that meets OSHA requirements for lockout/tagout.
4. Repeat the lockout/tagout steps for equipment near the conveyors, presses, and other equipment near the Finish Roller that could cause harm to personnel performing this procedure.

Figure 3: Lockout/Tagout on the Main Electrical Enclosure



Lock prevents power from being restored.

Tag identifies who is holding the key.



Installing a Beacon on an Existing Finish Roller Enclosure

SB185KIT-A

Use this procedure when adding a beacon to an existing Finish Roller enclosure. This procedure applies to *MiTek* Finish Rollers only, but it can be modified for other finish rollers using your schematic.

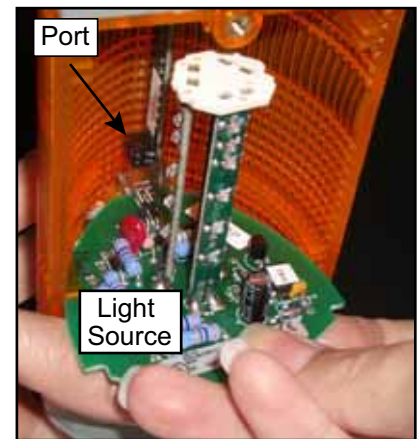
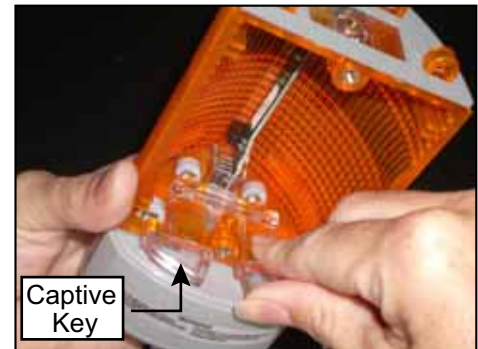
Assembling the Beacon Light Assembly



Refer to Figure 4

1. Unscrew the two sections of the lens module.
2. Place the pins on the bottom of the lens into the sockets located on the beacon tower base.
3. Push in the captive key until all 4 pins on the captive key slide completely into the 4 plastic loops showing through the bottom of the lens. You will hear it snap in place.
4. Slide the light source into the lens so that the 4 pins on the back side of the light source slide into the port mounted inside the lens.
5. Put the lens cover over the open side of the lens and tighten the screws. Note the label marking the top.
6. Place the lens top on top of the lens cover and tighten the screw.

Figure 4: Assembling the Light



Installing the Beacon on the Finish Roller Enclosure

1. Assemble the beacon assembly with the conduit and connectors as shown in Figure 5. Part number 513521 represents the beacon assembly that was assembled in the previous section.

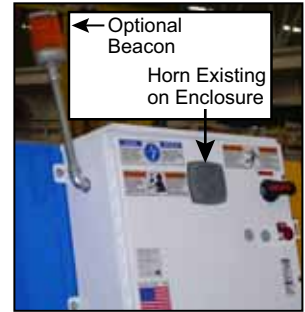


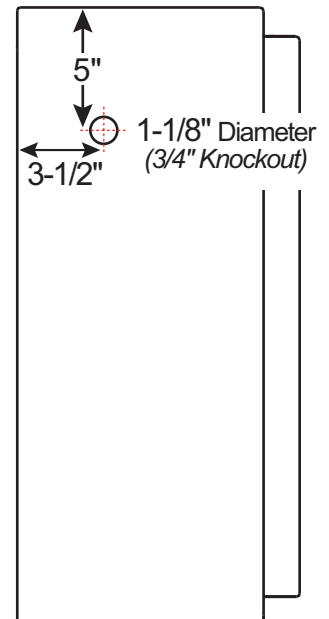
Figure 5: Assembling the Beacon Assembly for the Finish Roller Enclosure



2. Lockout/tagout per the instructions on page 3.
3. Drill a hole in the left side of the electrical enclosure using the following steps:

- a) Cover the components inside the enclosure with a clean cloth to protect them from shavings.
- b) Mark the hole location as shown in Figure 6.
- c) Check inside the enclosure to make sure all components are located a safe distance from where the drill bit will penetrate the enclosure. Move the hole slightly if needed.
- d) Knockout or drill a 1-1/8" diameter hole.

Figure 6: Drill Hole in Enclosure



4. Place a gasket on the 90-degree fitting that is on the beacon and conduit assembly.



Refer to your schematic to locate terminal numbers.

5. Feed the wires through the hole, into the enclosure, and through the locknut.
6. Tighten the locknut with the beacon vertically straight.
7. Locate the wire marked BOTTOM and connect it to a common voltage point. The point should show 120 volts when running the machine in forward or reverse.



Early versions of the MiTek Finish Roller may not have a common voltage point. In this instance, the beacon will be lit any time power is going to the Finish Roller.

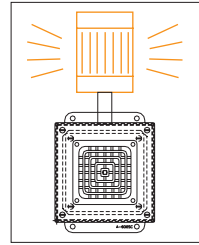
8. Locate the wire marked “neutral” and connect it to one of the terminals marked 2.
9. If wires are not able to reach terminals use an acceptable means to splice wires together to reach terminals.
10. Roll up and cap remaining wires. They are not needed.
11. Remove lock/tagout devices.
12. Test that the beacon, horn, and all stop or safety devices are working properly before resuming operation.

Installing Additional Horn and Beacon Assembly at a Remote Location

SB185KIT-B

Use this procedure when installing additional horns and beacons at a remote location off the Finish Roller. This procedure and the drawings supplied refer to *MiTek* and *Tee-Lok* Finish Rollers.

Figure 7: Remote Horn and Beacon



Getting Started



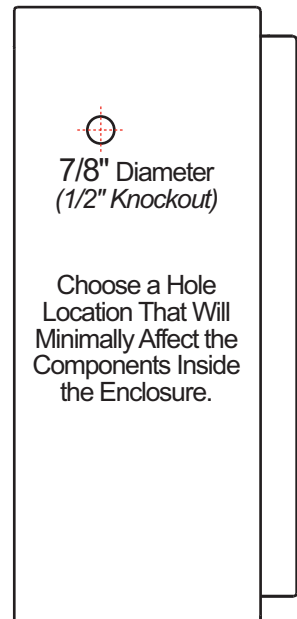
- SB185KIT-B may arrive already assembled. If it is not, refer to page 4 to assemble the beacon and Drawing 90535 to assemble with the conduit.
- Use the drawings provided to assist with the SB185KIT-B procedure.
- If this kit was purchased as part of a new machine purchase, begin the procedure with step 8.
- If this kit was purchased to be added to a machine in the field, complete this entire procedure.

Procedure



1. Lockout/tagout per the instructions starting on page 3.
2. Create a hole in the electrical enclosure using the following steps:
 - a) Cover the components inside the enclosure with a clean cloth to protect them from shavings.
 - b) Mark the hole location as shown in Figure 8.
 - c) Check inside the enclosure to make sure all components are located a safe distance from where the drill bit will penetrate the enclosure.
 - d) Knockout or drill a 7/8" diameter hole.

Figure 8: Drill Hole Anywhere in Enclosure





Refer to your schematics to verify terminal numbers.



Refer to Drawing 90535-501 and 90535

3. Position the supplied terminal block in the main enclosure between the horn and timer. It should be placed next to the existing terminal block. In most instance, the terminal block will be labeled as listed here, but verify these terminal block numbers with your own schematics.
 - For *MiTek* Finish Roller, terminal block 16.
 - For *Tee-Lok* Finish Roller, terminal block 10.
4. Install the terminal end sections. For *MiTek* Finish Roller, you will have 1 extra.
5. Connect the new terminal block and the terminal block listed in step 3.
6. Break off the supplied jumper bar at the correct length for 2 terminal blocks.
7. Install the jumper bar.
8. Verify that proper lockout/tagout procedures have been followed before continuing.
9. Mount the horn and beacon assembly at desired location.
10. Run the wires and conduit using a method deemed safe by your manager to reach the main enclosure on the Finish Roller.
11. Feed the wires through the hole, into the enclosure, and through the locknut.
12. Terminate the wires from the horn/beacon assembly at the correct terminal blocks inside the main enclosure per Drawing 90535. Note the separate pages for *MiTek* Finish Rollers versus *Tee-Lok* finish rollers.

END OF SERVICE BULLETIN