

Service Bulletin

Machinery Affected: *RoofTracker™ and AutoPress 14TL™ Presses*
Document: SB194
Title: Replacing Light Bar Receiver
Applies To: *Omron STI™ Light Bar PA4600*
Distribution: Customers, All With PA4600 Light Bars in Date Range



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

Item # and Rev.	SB194
Date Created	19 August 2011
Created By	R. Tucker
Reviewed by	M. Kanjee
Approved by	G. Pritchett
Applicability	Omron Light Bars series PA 4600 manufactured between 1 Jan. 2008 and 31 Dec. 2009

Purpose and Scope

OMRON STI™ has recently experienced a rare instance (only one) where a perimeter guard of the PA4600 series potentially failed in an unsafe condition.



While the possibility is very remote and the quantity to date is low (one), OMRON STI has decided to implement a firmware change that prevents this potential condition from happening. This condition is caused by a very specific failure mode of a voltage regulator in the receiver segment. This can result in a condition where the secondary detection beams are non-functional yet the PA4600 remains in a “run” state. The first beam is not affected and always functions properly.

Potential risk from an unsafe failure includes severe injury and possible death.

Above text is per STI OMRON notice dated 11 July 2011.

Overview

1. Determine if your light bars are affected (see page 3).
2. Request a replacement light bar receiver (see page 4).
3. Obtain the replacement (see page 5).
4. Install the replacement (see page 5).
5. Return the existing receiver (see page 8).

	 WARNING
	<p>Failure to complete this procedure could result in a perimeter guarding failure which could result in fatal injuries.</p>

Determine Applicability

The light bars affected were manufactured between 1 January 2008 and 31 December 2009 with the model numbers listed in Table 1.

If your model number and date code is within those listed below, continue reading this Service Bulletin. If not, no further action is required.

Table 1: Omron Model Numbers Affected

Omron STI Model Number	Date Codes
PA46-2-500-__ -__	0801 through 0952 *
PA46-2-600-__ -__	
PA46-3-400-__ -__	
PA46-3-500-__ -__	
PA46-4-300-__ -__	
PA46-5-300-__ -__	
PA46-6-300-__ -__	

* The first 2 digits of the Date Code represents the year of manufacture.
The last 2 digits of the Date Code represents the week.

Figure 1: Determining Your Model Number



Request a Replacement Receiver

1. Gather the following information:
 - Model number, date code, and serial number on existing light bar (see page 3)
 - Name of company making the request
 - Name and phone number of requester
 - Name, address, and phone number for contact where replacement receiver should be shipped

2. Request a new light bar receiver per **Product Recall PA4600** by contacting OMRON STI directly. Call or send an e-mail to:

Miguel Diaz
510-608-3511
miguel_diaz@sti.com

3. Document the following information that the OMRON STI representative should supply. If they don't supply this information, please ask for it.
 - An RMA number for returning the receiver—the RMA number will have a special prefix of REPL (REPLxxxx). Include this RMA # on your Purchase Order.
 - OMRON STI's UPS account number for the return shipping of the PA4600 receiver
 - The cost that the Purchase Order should reflect for the new receiver

4. Create a Purchase Order for the correct amount, as listed in Table 2-1.
 - Include the RMA # on the Purchase Order.
 - When OMRON STI receives the recalled product, they will process a credit which will cover the invoice, and the product will be free of charge.

Table 2-1: Invoice Cost of Receiver Units

Light Bar Receiver Description	Cost on PO
2-beam light bar receiver unit	\$200
3-beam light bar receiver unit	\$250

Because of the rarity of the risk scenario, you may continue operating your MiTek equipment until the replacement light bar receiver arrives, but please install the replacement immediately upon arrival.



Obtain the Replacement Receiver

OMRON STI will send the replacement light bar receiver directly to the address you provide. The OMRON STI point of contact can answer questions regarding when the shipment should arrive.

Install the Replacement Receiver



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.



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.



	 WARNING
	<p>ELECTROCUTION HAZARD.</p> <p>When the disconnect switch is off, there is still live power within the disconnect switch’s enclosure. Always turn off power at the building’s power source to the equipment before opening this electrical enclosure!</p>

3. Attach a lock and tag that meets OSHA requirements for lockout/tagout.

Pneumatic System Lockout/Tagout Procedure



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

	 WARNING
	<p>HIGH PRESSURE HAZARD.</p> <p>Bleed pneumatic lines before performing any maintenance on the pneumatic system.</p>



Replacing the Receiver Unit

A light bar set is made up of two units: a transmitter unit and a receiver unit. They look almost identical, but the transmitter transmits the beam and the receiver has a sensor that reads it. Replace the receiver unit only.





1. When the replacement receiver arrives, remove it from the box and keep the box and all related paperwork.
2. Lockout/tagout the *MiTek* equipment.
3. Locate the RECEIVER unit (not the transmitter unit). The receiver unit is typically on the top-chord side of the gantry. Look on the serial number tag for the word RECEIVER to verify.
4. Remove the existing receiver unit from the machine.
 - Remove the cable using the quick-disconnect.
 - Keep the receiver unit and hardware (see page 8).
5. Install the replacement receiver on the machine.
 - Use the same hardware removed in the previous step.
 - Use the quick-disconnect to reconnect the cable.

6. Set the DIP switches, located under the end cap access door. Use one of these methods to determine how they should be set:
 - Look at the receiver just removed and copy those settings.
 - Refer to the electrical drawings for your *MiTek* equipment for a diagram of the original DIP switch settings.
7. Remove the lockout/tagout devices.

	 WARNING
	<p>Only one person should be involved when aligning and testing the light bars. Use extreme caution while performing these steps and ensure all other personnel are out of the restricted zone area!</p>

8. Align the receiver unit with the transmitter unit. This can easily be accomplished using a laser alignment kit. The LED display on the receiver unit displays -1 when aligned. It displays -0 when not aligned properly.
9. Perform the safety tests outlined in the equipment manual for the MiTek machine. If safety tests are not documented, perform testing to ensure the replacement light bar works, and all emergency stops are functioning properly.

	 WARNING
	<p>Test that the light bar and all emergency stops are functioning before operating the equipment.</p>

Return the Existing Receiver

1. Package the recalled product in the same box that the new product was delivered in. Package it carefully to avoid damage.
2. Place the Purchase Order, with RMA number referenced, inside the box and secure the box shut.
3. Return the box to OMRON STI at the address below, using UPS Ground Service. Reference OMRON STI's account number that was given to you at the beginning of this process to cover shipping costs.

Omron STI
6550 Dumbarton Circle
Fremont, CA 94555-3605
USA

When OMRON STI receives the recalled product, they will process a credit which will cover the invoice for the replacements sent to you.

If you need any assistance, outside of the assistance OMRON STI is providing, please call MiTek Machinery Customer Service at 800-523-3380.

END OF SERVICE BULLETIN