

Trendsetter Autoloader and NEWS (TSM)

Upgrading Status Lights (ECO CA04944)

Document Number
719-00305A-EN-A-PR01

2004-08-19

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Revision History

Revision	Date	Author	Comments
A	19 Aug 2004	Carl Rueck	New document

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1. SCOPE

This procedure is for upgrading the status lights from incandescent to tri-color LED displays on any MCE-based autoloading TS8 output devices (ECO CA04944).

Note: ECO CA04944 is not an FCO. The status lights upgrade is an optional feature that customers must purchase if they want it.

2. TIME REQUIRED

This procedure typically requires 2–3 hours for one person to perform.

3. PARTS REQUIRED

ECO Kit 518-00810A

Creo Part Number	Qty	Item Description
719-00305A	1	DOC,PROC,UPGRADE,STATUS LIGHTS, AL,NWP
10-4871B-A	1	CAB,ASSY,ALE-SOLENOID DRIVE,TSM
220-00733A	1	CAB,ASSY,STATUS LED,AL,NWP
220-00737A	1	CAB,ASSY,ALE-LAMP/LOCK,TSM
503-00186A	1	BRD,ASSY,STATUS LIGHTS,AL,NEWS
59-3715	2	HPLUG,1.0”DIA,BLACK NYLON
404-00057	1.4 m	TAPE,REFLECTIVE,SILVER,2”,1 SIDED
252-05560A	1	STATUS LIGHT COVER, MYLAR, RIGHT, AL
252-06229A	1	STATUS LIGHT COVER, MYLAR, LEFT, AL
252-06230A	2	STATUS LIGHT COVER, MYLAR, BACK, AL
252-06113A	2	BRKT, STATUS LIGHT, AL, NEWS
52-4261	2	WASH,M4,BEL,HDS,4.3*9*1,S-PLATED
52-4918	8	WASH,M3,BEL,SERRATED,S-PLT
52-4153	8	SCRW,M3*12,OCK-CAP,SS
52-4042	2	NUT,M4,NYLOCK
18-3017	10	CAB,TIE,10CM,BLACK
18-3049	10	CAB,TIE,7.5",BLACK
59-3107	2	HPLUG,1.375"DIA,NYLON

4. PROCEDURE

1. Turn off the power and disconnect the main power cord from the output device.
2. Remove the top covers and side post covers from both sides of the load table.
3. Remove the back cover and remove the tray next to the flex track.
4. Remove the two black plugs (part number 59-3107) at the rear of the load table, as shown in Figure 1. Use a flat tip screwdriver on both sides of the plug. It is okay to damage the plug, but *do not* scratch the black surface around the plug. These plugs cannot be reused. New plugs are supplied in the kit for reassembly.



Figure 1: Removing button plug 59-3107 (home side shown)

5. Remove the existing incandescent status light holders (part number 10-3742A) from both the home and away side light compartments. Leave the holes in the top open.

6. Remove the metal reflectors from both the home and away light compartments as shown in Figure 2. Use a flat tip screwdriver and a utility knife to pry them loose from the double-sided tape. Remove as much of the double-sided tape from each compartment as possible.

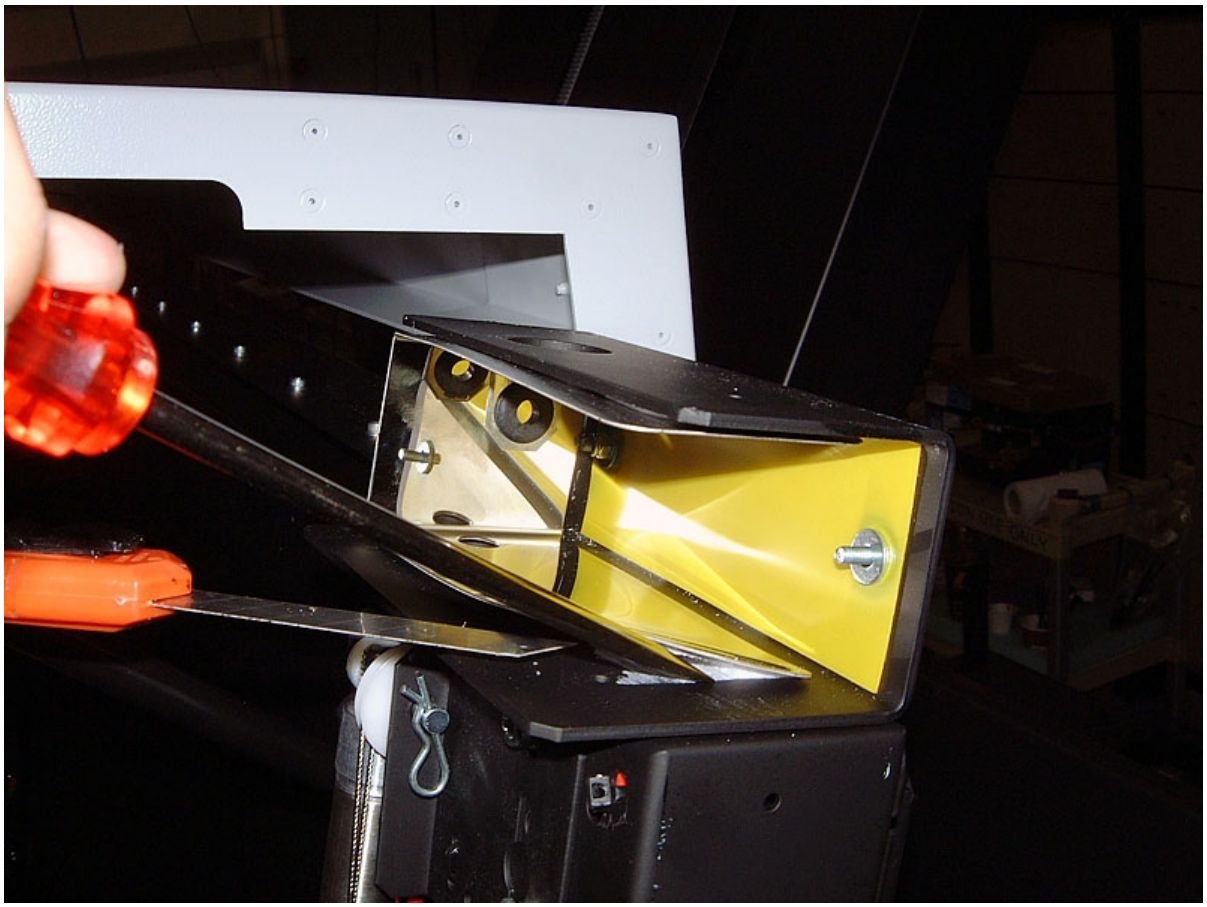


Figure 2: Removing the metallic chrome reflectors (home side shown)

7. Remove the yellow lens from the back of the compartment by removing the two M4 Nylock nuts and washers. Save them for later. See Figure 2. Remove the rubber grommet from the bottom of each compartment and save them for later.

8. Cut the reflective tape (part number 404-00057) into eight 175 mm (3 in.) strips. When installing each piece of tape, you must remove the paper backing to expose the adhesive.

9. Affix one strip of the tape on the bottom of each light compartment (home and away sides), and affix another to the top. Make sure that the strips of tape lay flat and smooth, as shown in Figure 3 and Figure 4.

   When affixing the tape to the top of the light compartment, mold the tape around the plug, installed in step 12, to make it as smooth as possible.

   When affixing the tape to the bottom of the light compartment, do not concern yourself about covering the cable entry hole. You will trim it later.



Figure 3: Applying tape to the bottom of the status light compartment (home side shown)

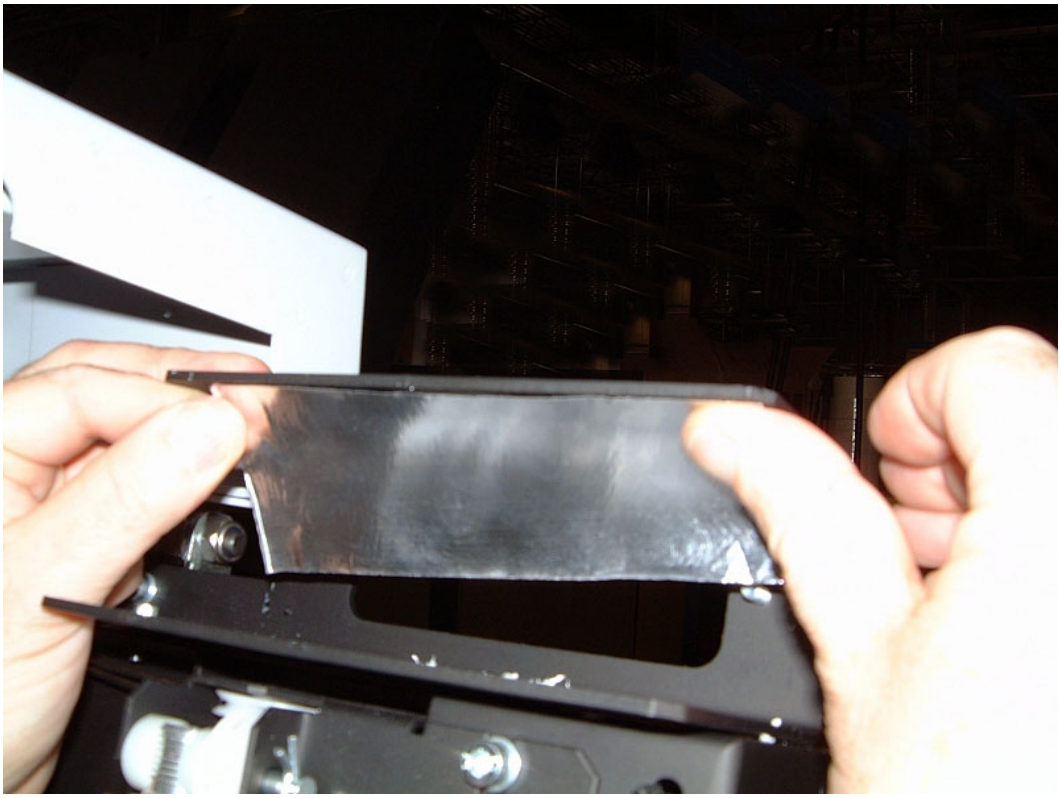


Figure 4: Applying tape to the top side of the status light compartment (home side shown)

10. Affix two pieces of reflective tape to the rear of each status light compartment (home and away sides), such that half of one piece covers the bottom half of the rectangular hole, and half of the other piece covers the top half of the rectangular hole. (See Figure 5.)



Figure 5: Trimming excess reflective tape with a utility knife

11. Trim away the excess tape using a utility knife, as shown in Figure 5. Trim the entry hole for the cable and around the outside of the compartment, so that no tape will show when the covers are in place.

12. Install the button plugs (part number 59-3715) from the outside of the status light compartments to fill the holes in both the home and away side status light compartments. These plugs snap into position.

13. Remove the yellow 90-degree angle lenses from each of the home and away dress panels, and install the new white lenses (part numbers 252-05560A and 252-06229A), as shown in Figure 6 and Figure 7. Use existing nuts and washers.



Figure 6: New white lens replaces the old yellow lens

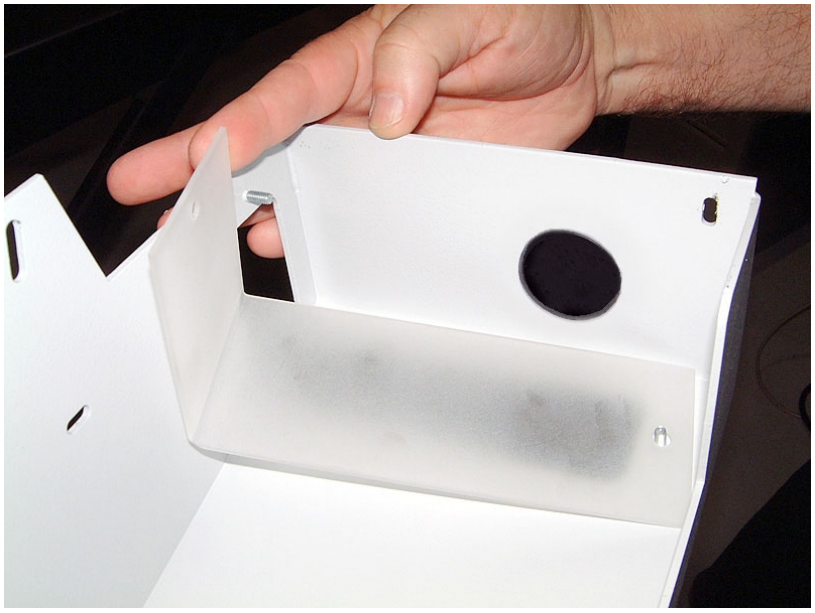


Figure 7: Installing the white lens in the side covers

14. Remove the existing status light cable (part number 10-3741A) from both the home and away side status light compartments.

15. Wearing an antistatic wrist strap, disconnect cable 10-4853A the from J23 connector on the GENINE board. Disconnect the other end from the cover-lock cable at the bottom of the away side of the load table.

16. Remove cable 10-4871A from J21 on the GENINE board. Then remove it from the cable harness that runs from the power box under the flex track to the solenoid block manifold in the engine compartment.

17. Install cable 10-4871B to the solenoid block (see Figure 8) and route the cable under the flex track and into the power box on the left rear side.

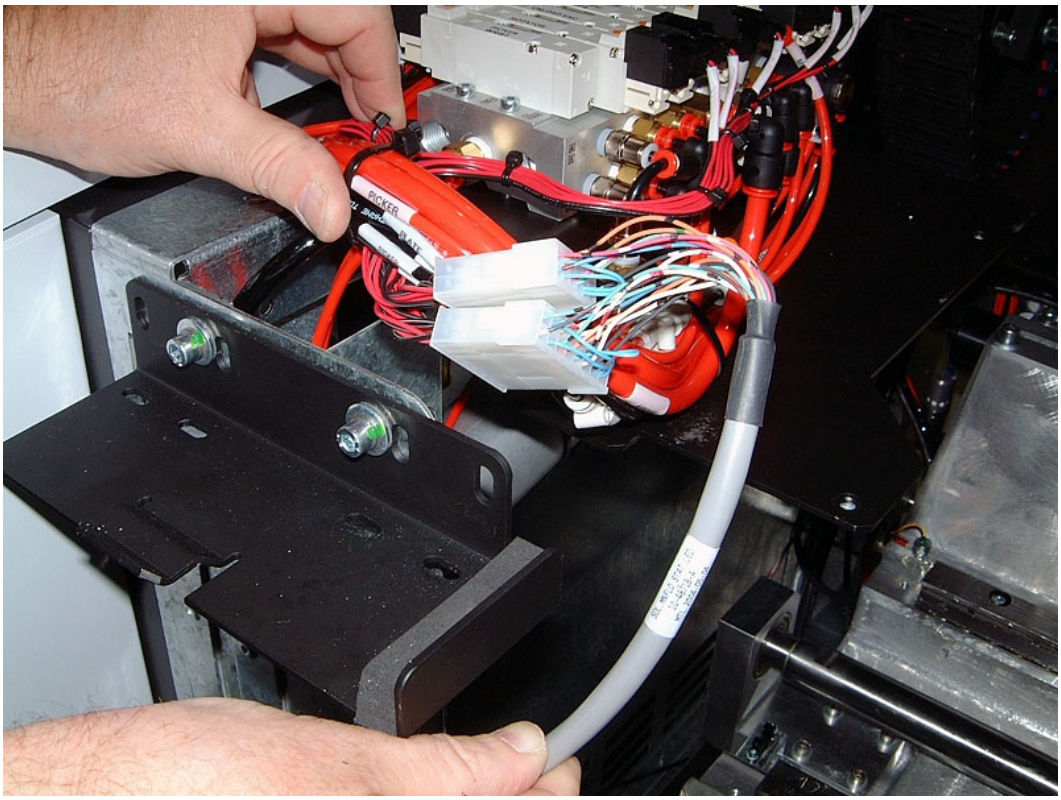


Figure 8: Connecting cable 10-4871B to the solenoid block manifold

18. Attach the other end of cable 10-4871B to connector J21 on the GENINE board. See Figure 9.

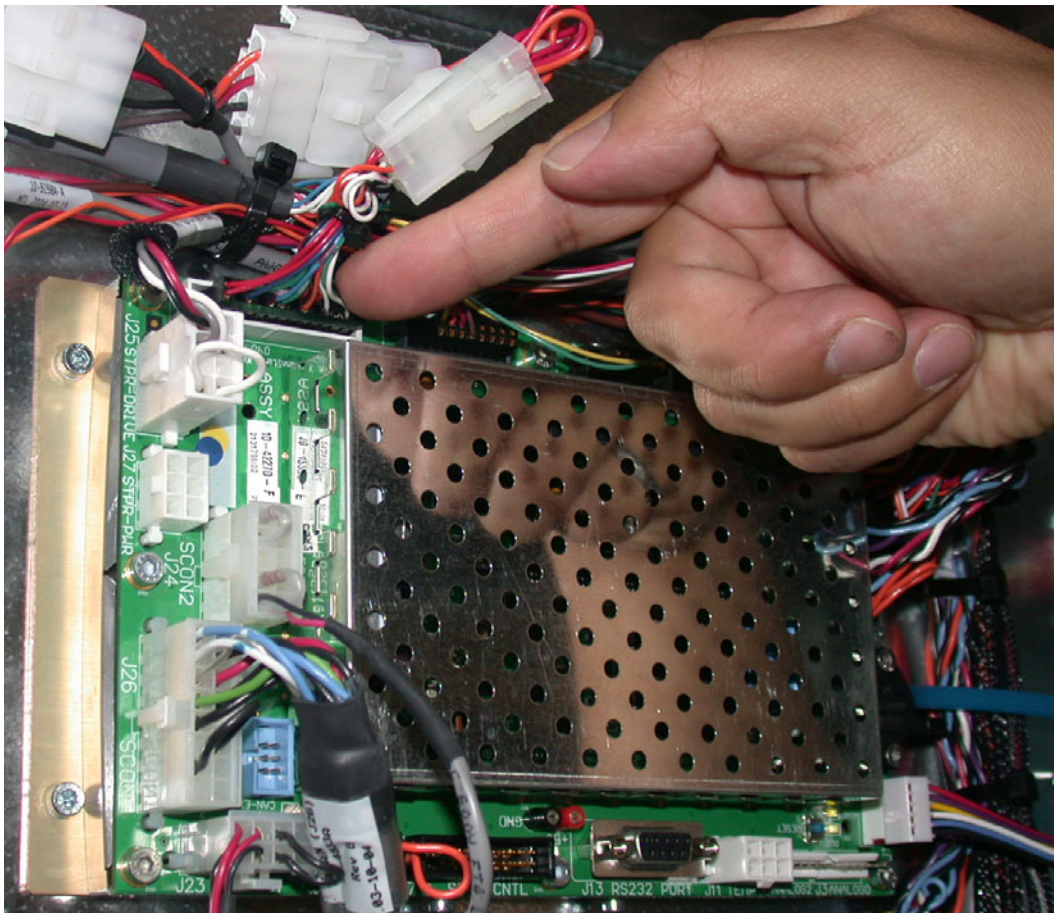


Figure 9: Connecting cable 10-4871B to GENINE board J21 connector

19. Route cable 220-00737A from the engine compartment into the cable entry point on the right side (front side) of the power box, and connect it to connector J23 on the GENINE board. See Figure 10.

20. Connect the 2-pin Molex® plug on cable 220-00737A to the 2-pin Molex receptacle on cable 10-4871B. See Figure 10.

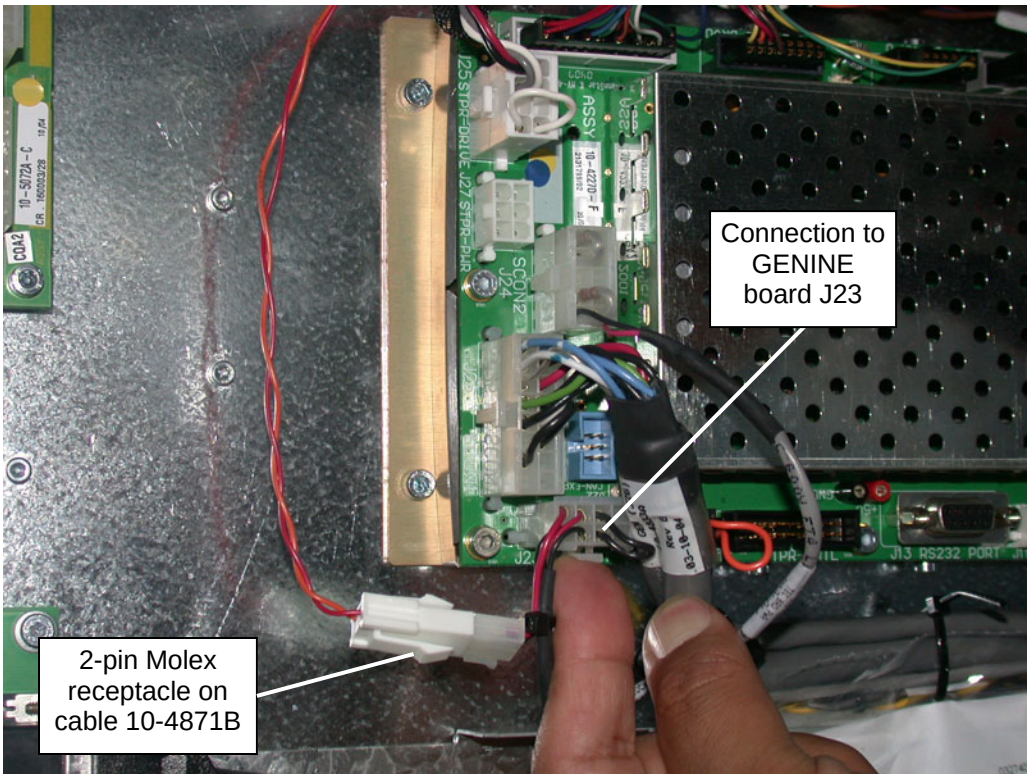


Figure 10: Connecting cable 220-00737A to GENINE board J23 connector and 2-pin Molex receptacle on cable 10-4871B

21. Connect the 6-pin Molex® plug on cable 10-4872A to the 6-pin Molex receptacle on cable 10-4871B. See Figure 11.

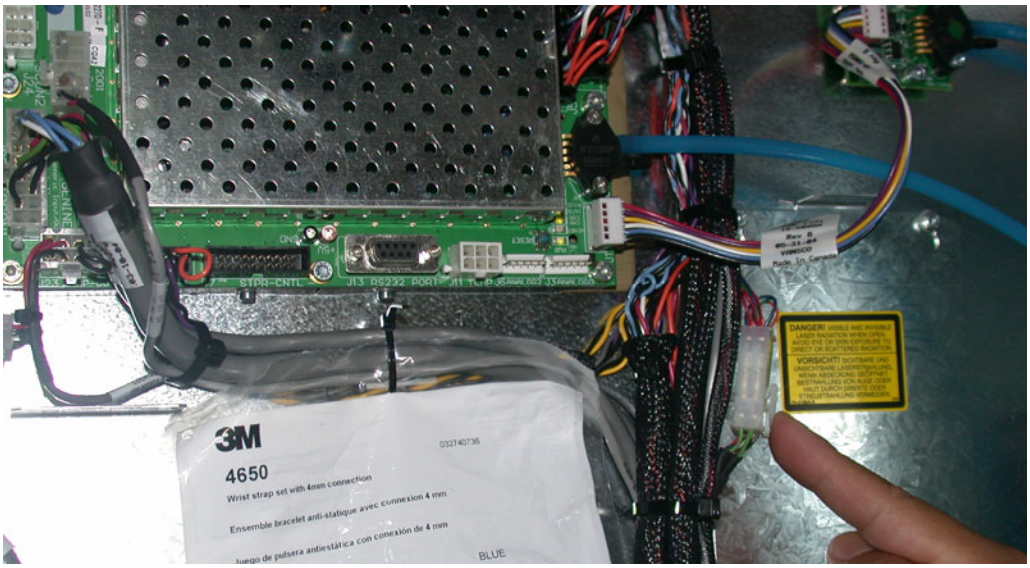


Figure 11: Connecting the 6-pin Molex plug on cable 10-4872A to the 6-pin Molex receptacle on cable 10-4871B

22. Install the white lens 252-06230A (flat pieces—not angled) into the back of each status light compartment. Only install the washer and M4 Nylock nut on the outside. The inside will be used to mount the status light board and bracket.

23. Wearing an antistatic wrist strap, remove the status light boards from their ESD packaging.

24. Use the wide M4 washers supplied in the kit (part number 304-00083) to mount the brackets to the compartment, and slide the board and bracket as far to the back of the compartment as possible, keeping the bracket vertical to the compartment. The mounting position of the away side bracket and board is shown in Figure 12. Tighten the nut using an extension socket.

    Caution: Be sure to not damage the board while tightening the M4 nut.

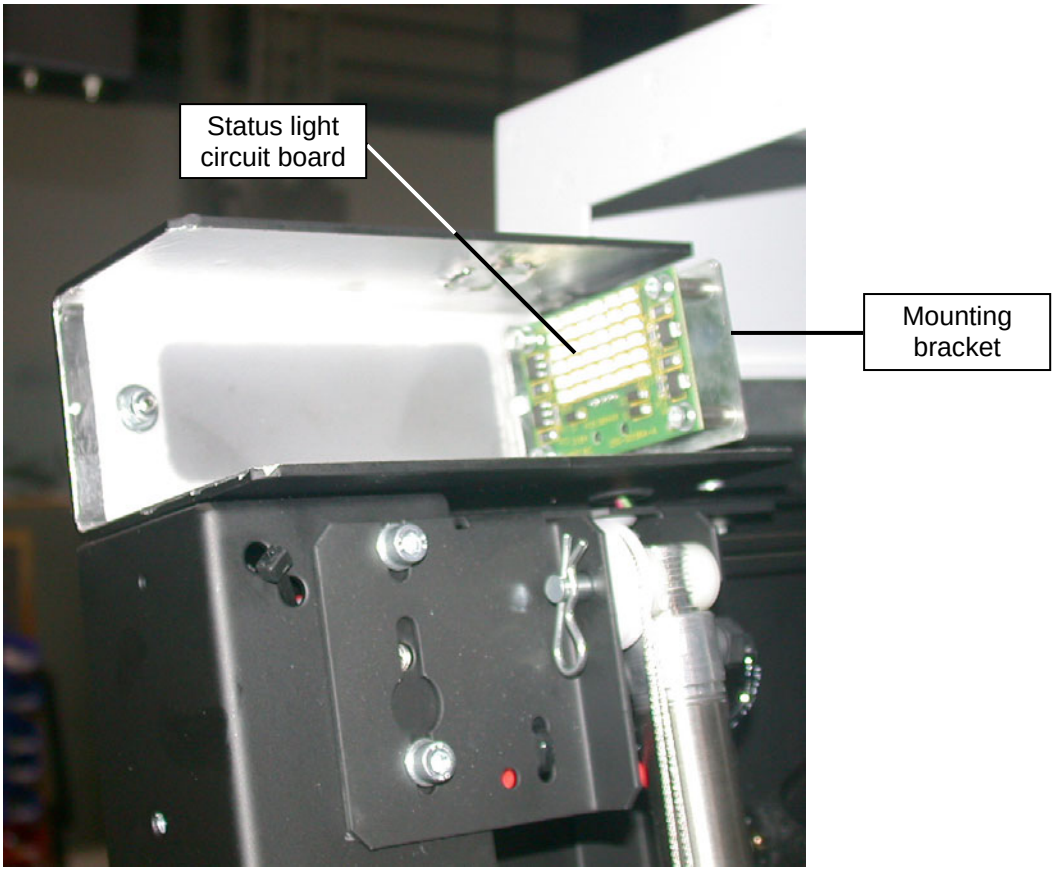


Figure 12: Mounting position for status light bracket and board (away side shown)

25. Install the rubber grommets on the new cable (part number 220-00733A) at the PCB connector ends that you removed from the compartment in step 7. Keep the grommet near the connector and slide the connector into the hole that you trimmed in step 11. Install the grommet into the hole to prevent damage to the cable.

26. Connect cable 220-00733A to the 4-pin connector on the status light board.

27. Use the M3 x 12 screws and serrated M3 Bel washers to mount the status light boards to the brackets for both the home and away sides. The away side board and bracket are shown in Figure 12.

28. Route cable 220-00733A through the post on the home side, making sure that it does not interfere with any mechanical motion of the picker. Route it out the same opening that

you used to remove cable 10-4853A and 10-3741A. Connect the 8-pin plug on cable 220-00733A to the 8-pin receptacle on cable 10-4871B in the power box.

29. Use cable ties to secure all the cables, and make sure that they do not interfere with any moving parts.

28. Replace all the covers.

29. Turn on the power to the output device.

30. Upgrade the device firmware to the version required to support the new status lights. Controlled Release 4.0 (not yet released as of 19 Aug 2004) provides support for the new status lights. If you need to install this upgrade for a customer prior to the release of CR 4.0, please contact Product Development.

5. TESTING

1. Enter the following commands to test the status lights:

   `statuslights bluef`
   The status lights flash blue.

   `statuslights greenf`
   The status lights flash green.

   `statuslights off`
   The status lights turn off.

   `ui errlamp on`
   The yellow status lights turn on.

   `ui errlamp off`
   The yellow status lights turn off.

2. If the lights pass the above test, the hardware and firmware installation was successful, and the system is ready to put into service.