

PRIORITY:	Normal
DATE:	September 7, 2001
TITLE:	Removing coating on AlphaEclipse™ LED board connectors
ECO REFERENCE:	N/A
PRODUCT(S) AFFECTED:	AlphaEclipse™ 3500 series electronic signs
SUMMARY:	The material (called "conformal coating") used to seal an LED boards may inadvertently get onto this board's connector pins. This may cause erratic LED display behavior on a sign. This TechMemo shows how to remove this coating from the connectors.

Introduction

Problem:

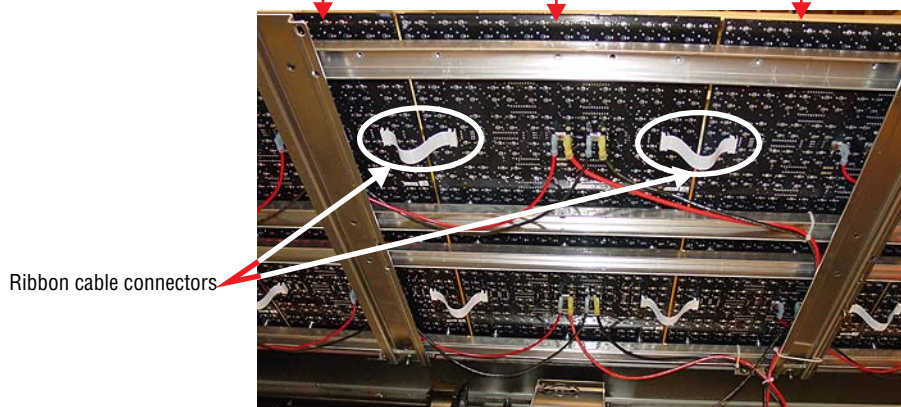
Intermittently, the pixels (LEDs) on LED boards:

- do not light up
- continuously light up
- flicker

Recommended solution:

Clean the ribbon cable connectors on the affected and adjacent LED boards as described in this TechMemo:

LED boards (bottoms)



Internal view of an AlphaEclipse™ sign.

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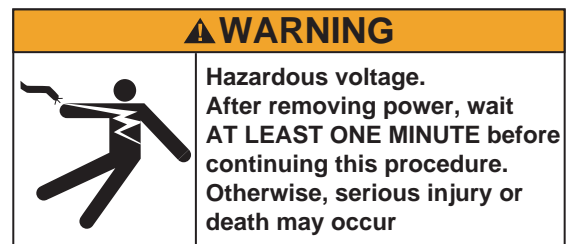
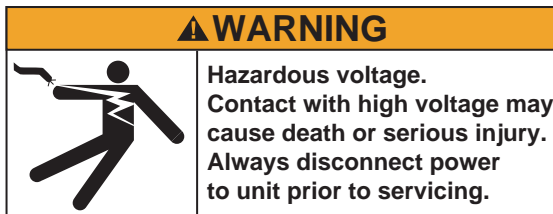
The distinctive trade dress of this product is a trademark claimed by Adaptive Micro Systems, Inc.

Due to continuing product innovation, specifications in this manual are subject to change without notice.

Required materials

Item	Part number	Function
Latch key	6811-6061	Necessary to open sign door
Phillips head screwdriver	—	Removing screws
Isopropyl ("rubbing") alcohol	—	For cleaning ribbon cable connectors
Small plastic brush (like a toothbrush)	—	Used with alcohol to clean connectors

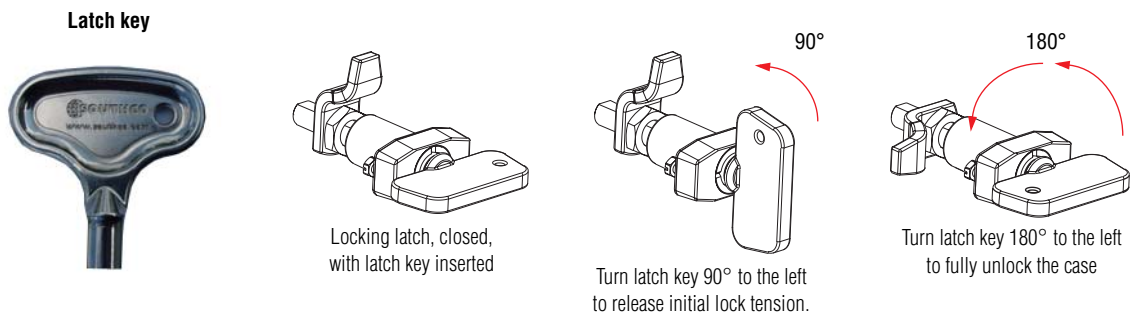
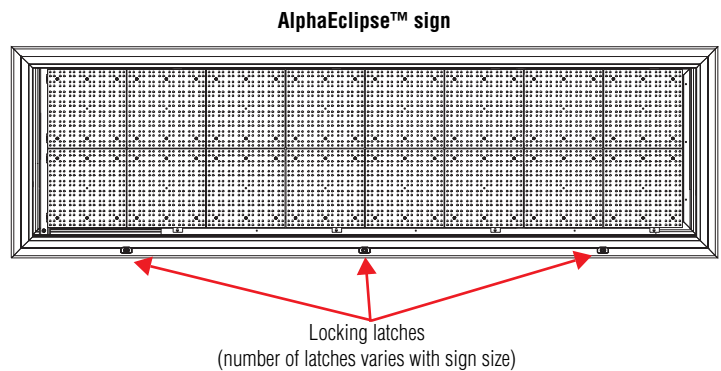
Instructions



Open the sign door

NOTE: Do NOT attempt to open the door on a sign in windy conditions.

1. Disconnect power from the sign.
2. Use a latch key to unlock and open the locking latches along the lower edge of the sign's front door:



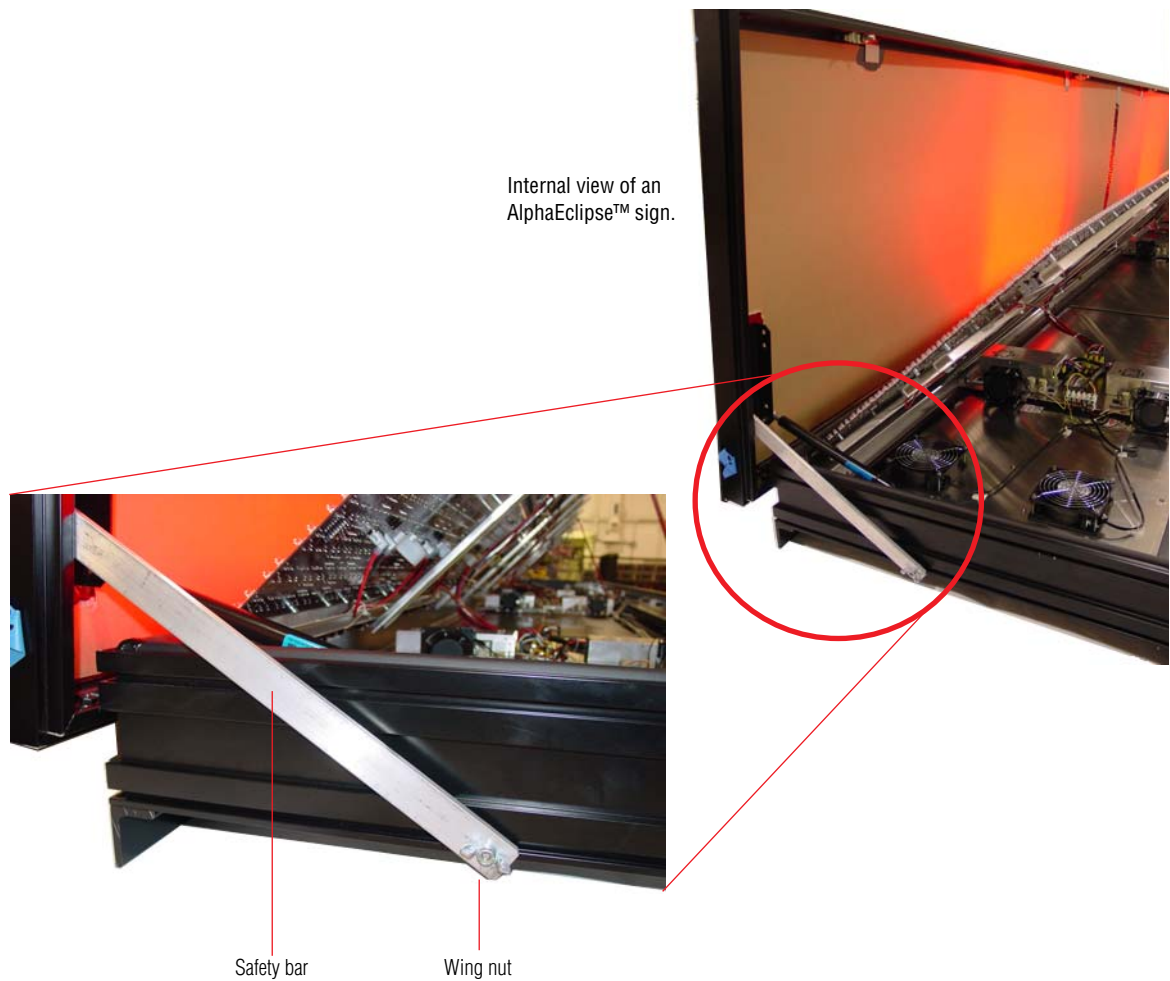
3. Stand away from the front of the unit and lift the door upward.

NOTE: With wide signs, a person may be needed at each end of the sign to assist in opening.

NOTE: If a sign is equipped with gas shock absorbers, the front door may open more quickly than expected, especially on small signs.

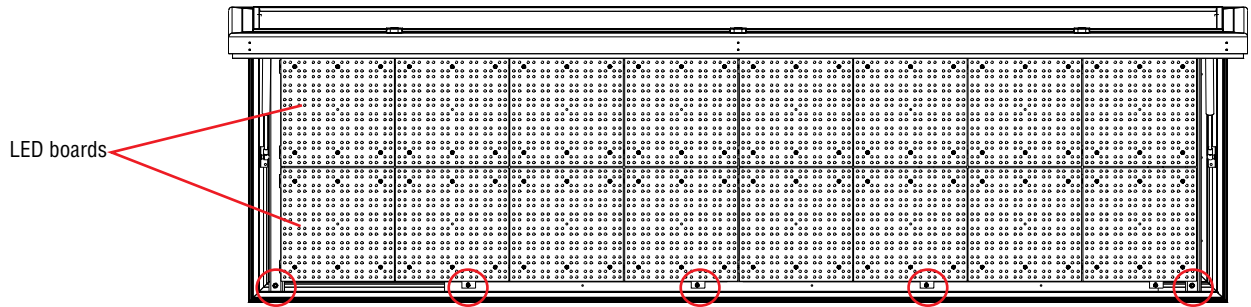
4. Unscrew and remove the wing nut on each safety bar. Then swing each safety bar down and attach it to the bolt *outside* the sign using the wing nut.

NOTE: If there is a plastic sleeve on the bolt, remove and save it.



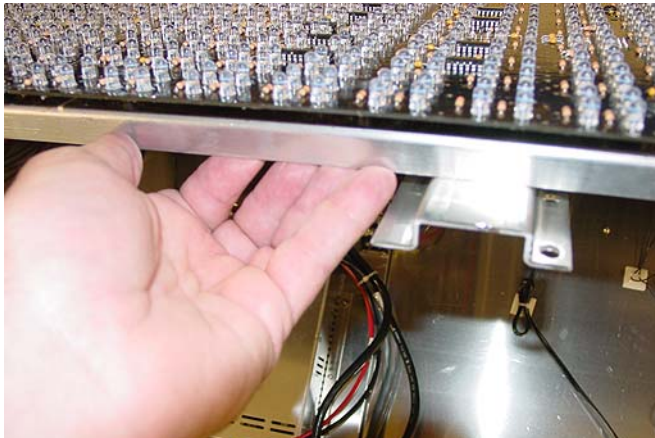
Raise the LED boards

5. Remove the rail screw (circled below) at the bottom of each internal vertical rail:

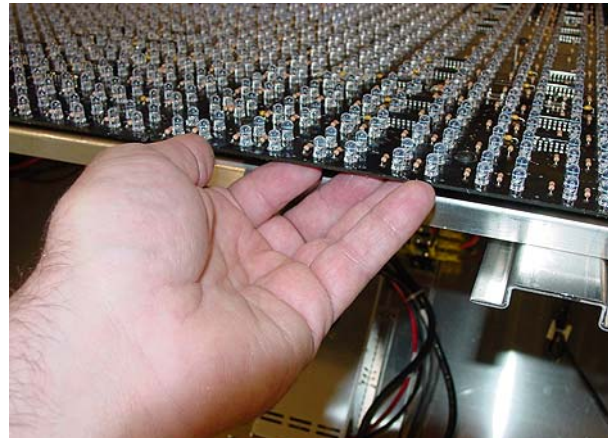


6. Carefully lift the LED boards by placing your hands underneath the mounting rail — *NOT an LED board* — as shown below:

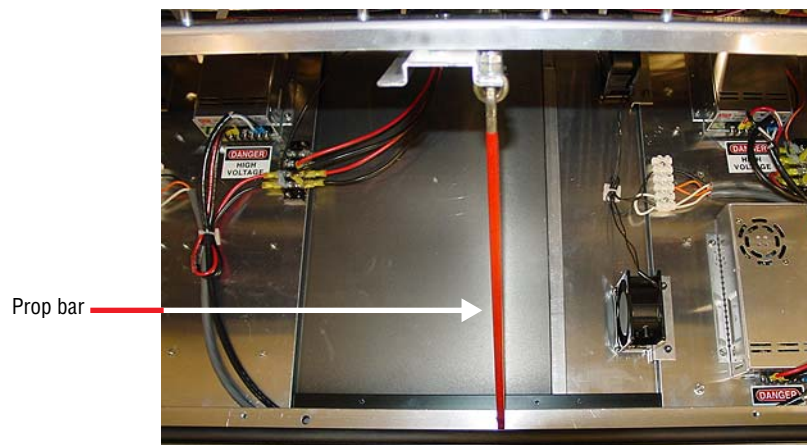
RIGHT WAY to Lift



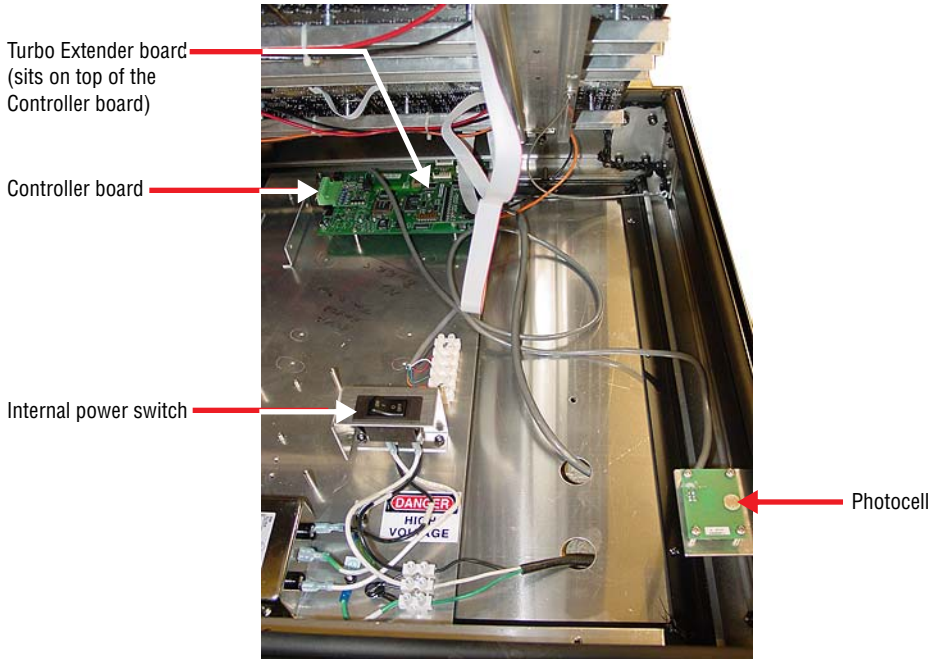
WRONG WAY to Lift



7. Lower and fasten each prop bar to support the LED boards:

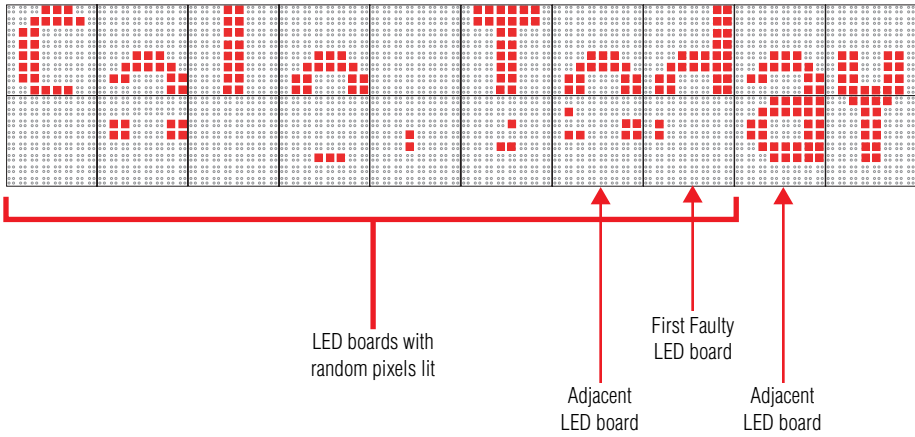


- Once the LED boards are raised and supported by the prop bar(s), turn off the sign's internal power switch by pressing on 0:



Identify the ribbon cable connectors that should be cleaned

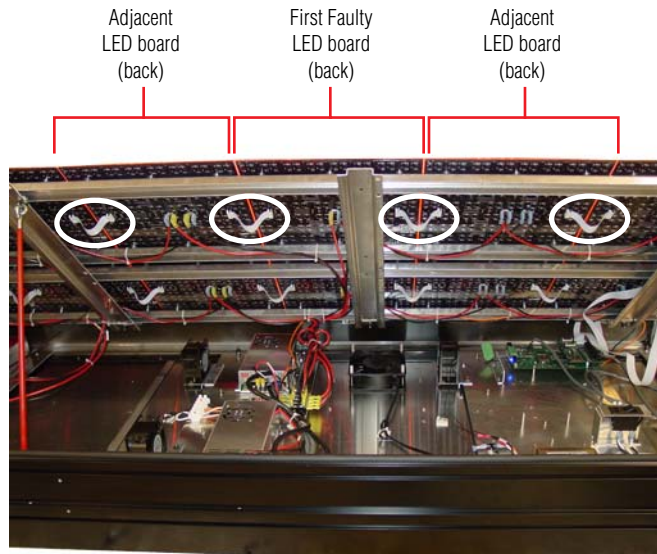
- The ribbon cable connectors on either side of the *first* faulty LED board should be cleaned:



The ribbon cable connectors on the backs of these three LED boards should be cleaned.

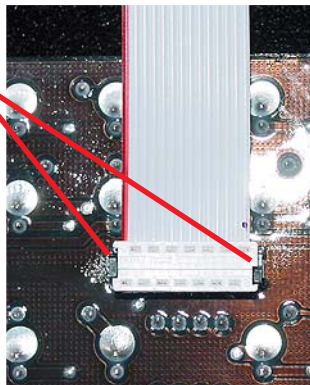
Clean the LED ribbon cable contacts

10. Once the LED boards have been identified, locate the ribbon cables that should be disconnected (circled below):



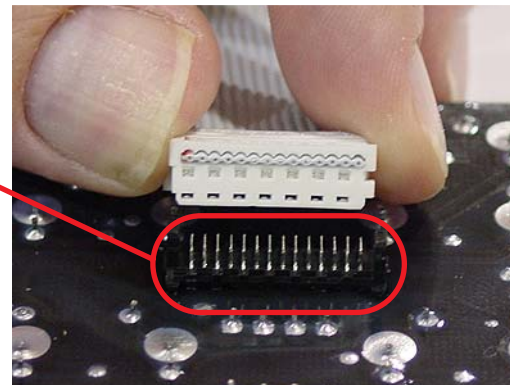
11. CAREFULLY REMOVE BOTH SIDES OF EACH RIBBON CABLE:

Each side of the ribbon cable is held in place by two black prongs. THESE PRONGS CAN EASILY BREAK OFF.



Clean these connectors.

Also clean the small, mounting indentations where the ribbon cable fits.



12. Using the soft brush and isopropyl alcohol, clean the eight ribbon cable connectors and mounting indentations on the LED boards.

Reassemble the sign

13. Reconnect all LED board ribbon cables. An audible snap should be heard when a cable is successfully connected. If not, try cleaning the mounting indentations again.
14. Press 1 on the sign's internal power switch.
15. Lower the LED boards and fasten a rail screw to each vertical rail.
16. Unfasten each safety bar and return the bar to its original position.
17. Close and lock the sign's door using the latch key.
18. Restart the sign. If the sign continues to have problems, replace the Turbo Extender board as described in TechMemo #01-0006.