

WARNING! Hazardous voltage. Contact with high voltage may cause death or serious injury. Always disconnect power to unit prior to servicing.

Possible fall or crush hazard. Remain clear of panel when opening and closing.

Notice: Observe appropriate precautions to prevent electrostatic discharge (ESD) or “static” damage to the replacement part. For safe handling of ESD-sensitive parts, see TechMemo #00-0005.

Best practices

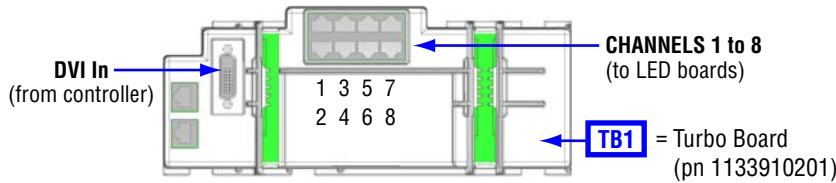
- Verify Diagnostic LEDs on the sign’s customer service board (control panel) indicate normal sign operation. Refer to your sign’s installation manual for details.
- **Always disconnect AC power** from the sign before replacing any of the sign’s components except for the display driver boards.
- **Always turn off the DC power** at the sign’s customer service board (control panel) before replacing any of the display driver boards or disconnecting any attached cables.
- Confirm all cable connections associated with the problem component are seated tightly in place, including the connections at the sign’s customer service/interface board (control panel) and the component itself (if applicable). If loose connections are detected, secure the connection(s) and check the sign operation to see if the problem still exists.
- Verify operation of each replacement component individually before proceeding to replace additional components.

Troubleshooting reference

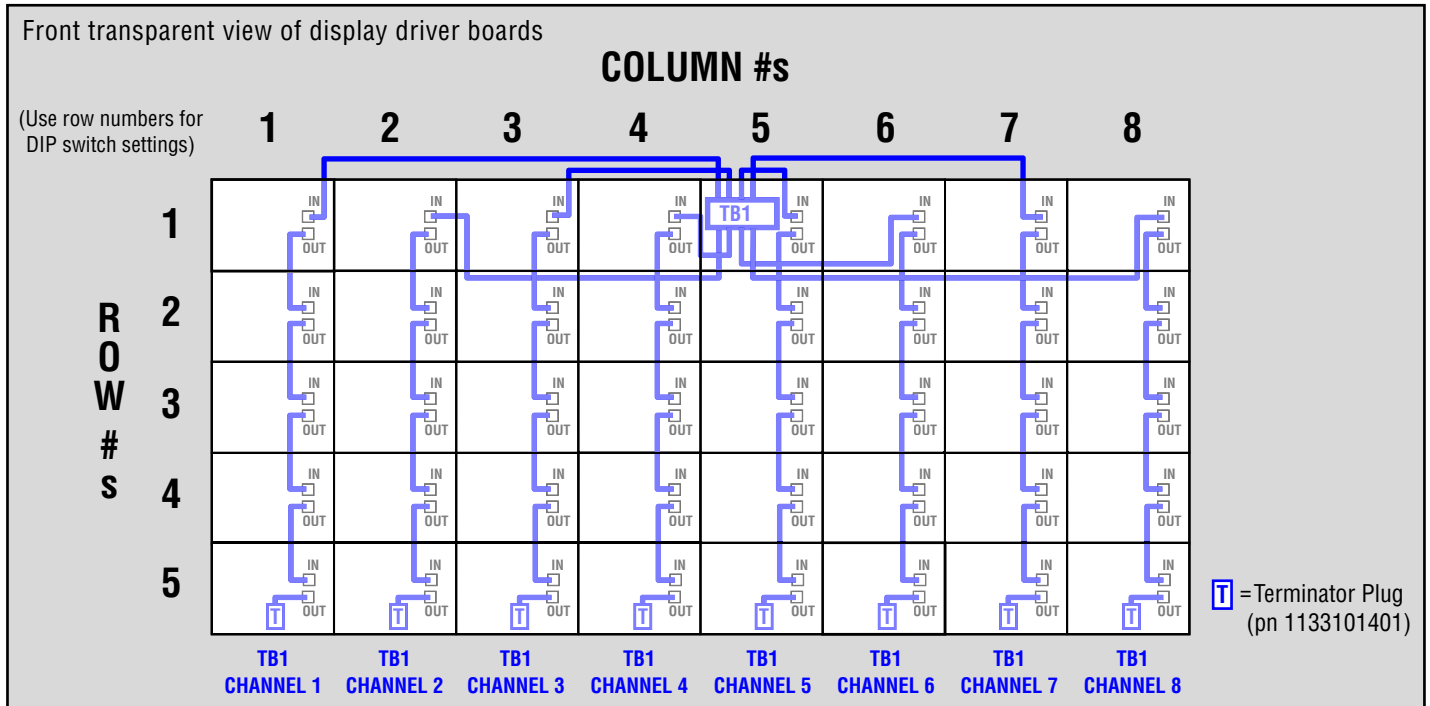
Problem	Corrective action
Sign display is completely blank	<ol style="list-style-type: none"> 1. Confirm DC power switch is on. 2. Confirm Diagnostic LED’s on the sign’s customer service board indicate normal sign operation. <ul style="list-style-type: none"> • If any of the FAIL LED’s are lit check installation manual for details. • If the Diagnostic LED’s are not lit check the following: <ul style="list-style-type: none"> - Check circuit breaker in sign and reset if necessary. - Check external circuit breaker and reset if necessary. Call an electrician to validate the incoming AC power at the sign’s terminal strip is 120VAC or 230VAC (depending on the sign’s electrical rating). - Confirm green LED on power supply is lit, replace power supply if it is not lit. - Confirm green LED on sign’s surge suppressor is lit, if it is not lit replace the surge suppressor. 3. Verify Ethernet CAT5 connection is securely connected. 4. Confirm DVI cable connection between the turbo distribution board and the controller board is securely connected. If possible, test the DVI cable with a DVI compliant monitor (replace cable if necessary).
Sign display is erratic	<ol style="list-style-type: none"> 1. If DC FAIL LED is lit: <ul style="list-style-type: none"> • Reboot the sign’s computer. If problem continues contact Adaptive Micro Systems about replacing the DC reset circuit. • Turn the DC power switch off and back on, if problem continues contact Adaptive Micro Systems about replacing the DC reset circuit. 2. Confirm DVI cable connection between the turbo distribution board and the controller board is securely connected. If possible, test the DVI cable with a DVI compliant monitor (replace cable if necessary). <ul style="list-style-type: none"> • If problem continues, replace the CAT5 cable that is connected to the IN port on the problem display driver board. • If problem continues, replace the problem display driver board. 3. Turn DC power off on the sign’s customer service board and swap the CAT5 cable on the suspect channel port of the turbo distribution board with a known good channel. Turn DC power back on: <ul style="list-style-type: none"> • If the problem area illuminates, replace the turbo distribution board. • If the problem area moves to a previously working column/display driver board, replace the CAT5 cable. • If the problem continues, place a terminator plug in the OUT port on the top display driver board of the erratic column. If the display driver board becomes stable remove the terminator plug and reconnect CAT5 cable. Repeat procedure on the next display driver board, continue this process until the defective display driver board is detected (replace defective display driver board).

Problem	Corrective action
Data on the display driver board is incorrect	Check DIP switch settings on the display driver board for correct setting. If settings are correct replace the problem display driver board.
Entire display column is blank.	Turn DC power off on the sign's customer service board and swap the CAT5 cable on the suspect channel port on the turbo distribution board with a known good channel. Turn DC power back on: <ul style="list-style-type: none"> • If the failed column illuminates, replace the turbo distribution board. • If the failed column moves to a previously working column, replace the CAT5 cable. • If the failed column continues to fail, replace the display driver board at the top of the failed column.

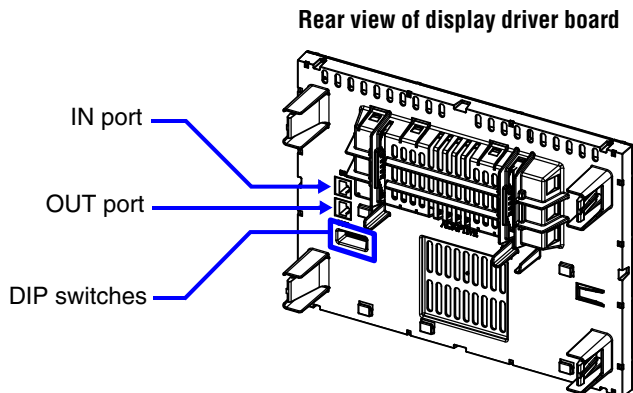
Sign wiring diagram



Turbo board (SW1) DIP switch settings							
1	2	3	4	5	6	7	8
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF



Display driver board ports and DIP switch setting



Display driver board DIP switch settings

Display driver board row number	DIP switch number							
	1	2	3	4	5	6	7	8
1	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
2	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
3	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
4	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
5	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF

NOTE: DIP switch settings are dependent on the row number on which the display driver board is located.