Tools Needed:
- Philips head screwdriver
- Multi-meter

Always turn off the power to the sign prior to opening the cabinet.

Note: Make appropriate wiring connections per local codes.

**Identify the Sign Problem:**
Follow the flowchart to diagnose the symptoms

**There are some LEDs out**

**A message is lit that shouldn’t be**

**The display is flickering**

**The entire display is out**

**Description of Normal Operation for the Signal’s Internal Power Supply**
Diagnostic LEDs are included on the internal power supply to aid in verifying that input power is present and is being transferred to the sign face through the output connectors.

**+12V LED**
This LED illuminates Green when 120-277VAC power is applied to the internal power supply's input power pigtail.

*Note: The transformer on the power supply converts 120-277VAC power to +12V.*

**A Output LED**
Illuminates with power applied to Black/White stripe wire on the input power pigtail

**C Output LED**
Illuminates with power applied to Black/Red stripe wire on the input power pigtail

**B Output LED (Used for third message ONLY)**
Illuminates with power applied to Black/Yellow stripe wire on the input power pigtail

**Output Connectors**
These connectors transfer power from the internal power supply to the sign face to illuminate the individual message(s).
Problem: There are some LEDs out

TCIL Series 120-277VAC

Please refer to the diagrams on page 1.

There are some LEDs out

< 10 LEDs Lit

- YES: Can you measure the correct incoming voltage at the sign?
  - NO: Entire sign needs replaced
  - YES: Output voltage is > 10VDC?
    - NO: Supply is defective and needs replaced
    - YES: Check switches and wiring

Contact sales with the serial number of the sign, and be prepared with other relevant information:
- Input voltage reading from multimeter.
- Output voltage of power supply.
- Photos/video showing the issue/damage.
- Photos of the inside of the sign, showing the wiring and power supplies.
Problem: A message is lit that shouldn’t be
TCIL Series 120-277VAC

A message is lit that should not be

Do the wires run parallel to other high power devices?

YES → Run wires in separate conduit

NO →

Is there incoming voltage on that channel?

YES → Recheck all connections to switches or controlling system

NO → Replace power supply

Please refer to the diagrams on page 1.

Contact sales with the serial number of the sign, and be prepared with other relevant information:

- Input voltage reading from multimeter.
- Output voltage of power supply.
- Photos/video showing the issue/damage.
- Photos of the inside of the sign, showing the wiring and power supplies.
Problem: Display is flickering
TCIL Series 120-277VAC

Display is flickering

Is the +12V LED illuminated steady?

Can you measure the correct incoming voltage at the sign?

Is the output connector secure?

Supply is defective and needs replaced

Check switches and wiring

YES

NO

YES

YES

NO

YES

NO

Re-attach connector

Contact sales with the serial number of the sign, and be prepared with other relevant information:
• Input voltage reading from multimeter.
• Output voltage of power supply.
• Photos/video showing the issue/damage.
• Photos of the inside of the sign, showing the wiring and power supplies.

Please refer to the diagrams on page 1.
Problem: Entire display is out
TCIL Series 120-277VAC

Entire display is out

- Is the +12V LED illuminated? NO
  - Is the output LED for the affected message illuminated? NO
    - Are the input connectors and pigtail secure? NO
      - Re-attach connector
    - NO
  - Is the output connector secure? NO
    - Supply is defective and needs replaced
  - YES
    - Check switches and wiring
  - YES

- Is the input polarity correct? NO
  - Can you measure the correct incoming voltage at the sign? NO
    - Supply is defective and needs replaced
  - YES

Contact sales with the serial number of the sign, and be prepared with other relevant information:
- Input voltage reading from multimeter.
- Output voltage of power supply.
- Photos/video showing the issue/damage.
- Photos of the inside of the sign, showing the wiring and power supplies.

Please refer to the diagrams on page 1.