Tools Needed:
Philips head screwdriver
Multi-meter

Always turn off the power to the sign prior to opening the cabinet. Disconnect the power wires going to the sign.

Note: Clear all metal chips created by drilling into sign cabinet.
Note: Do not over-tighten fasteners or distort back panel.
Note: Make appropriate wiring connections per local codes.

Identification of Power Supply

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

<table>
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<tr>
<th>Power Supply</th>
<th>A message is lit that shouldn’t be</th>
<th>The display is flickering</th>
<th>The entire display is out</th>
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</thead>
<tbody>
<tr>
<td>Output Power to Sign Face</td>
<td>Pg 2</td>
<td>Pg 3</td>
<td>Pg 4</td>
</tr>
</tbody>
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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.

V Out 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.

Output Connectors
These connectors transfer power from the internal power supply to the sign face to illuminate the individual message(s).

For signs with one message and one power supply, the V Out LED should illuminate green when the message is powered. For signs with multiple message and/or multiple power supplies, the V Out LED on each power supply of the energized message should illuminate.

Note: A longer single message may require multiple power supplies to illuminate the entire message.

Description of Normal Operation for the Sign’s Internal Power Supply

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Problem: Dark band or area when message is illuminated

SBL(F) Series 120-277VAC

There is a dark band or dark area when message is illuminated

Do some areas of the sign face appear dark when illuminated?

YES

Entire sign needs replaced

Contact sales with the serial number of the sign

Please refer to the diagrams on page 1.
Problem: A message is lit that shouldn’t be

SBL(F) 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.
Problem: Display is flickering

Display is flickering

Is the V Out LED illuminated steady?

NO → Check switches and wiring

YES → Is the output connector secure?

YES → Supply is defective and needs replaced

NO → Re-attach connector

Please refer to the diagrams on page 1.
Problem: Entire display is out

SBL(F) Series 120-277VAC

Entire display is out

Is the V Out LED illuminated?

Is the output LED for the affected message illuminated?

Are the input connectors and pigtail secure?

Can you measure the correct incoming voltage at the sign?

Is the output LED for the affected message illuminated?

Is the output connector secure?

Check switches and wiring

Supply is defective and needs replaced

Re-attach connector

Contact sales with the serial number of the sign

Please refer to the diagrams on page 1.