

# PHX(F) Series Troubleshooting Guide

PHX(F) Series 120-277VAC

Last Update: 07/16/20

## Identify the Sign Problem:

Follow the flowchart to diagnose the symptoms

Dark band or area when illuminated Pg 2

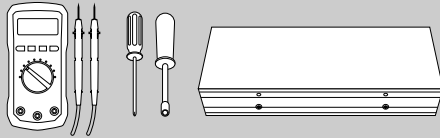
A message is lit that shouldn't be Pg 3

The display is flickering Pg 4

The entire display is out Pg 5

### 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.

## Description of Normal Operation for the Sign'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.

### 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.

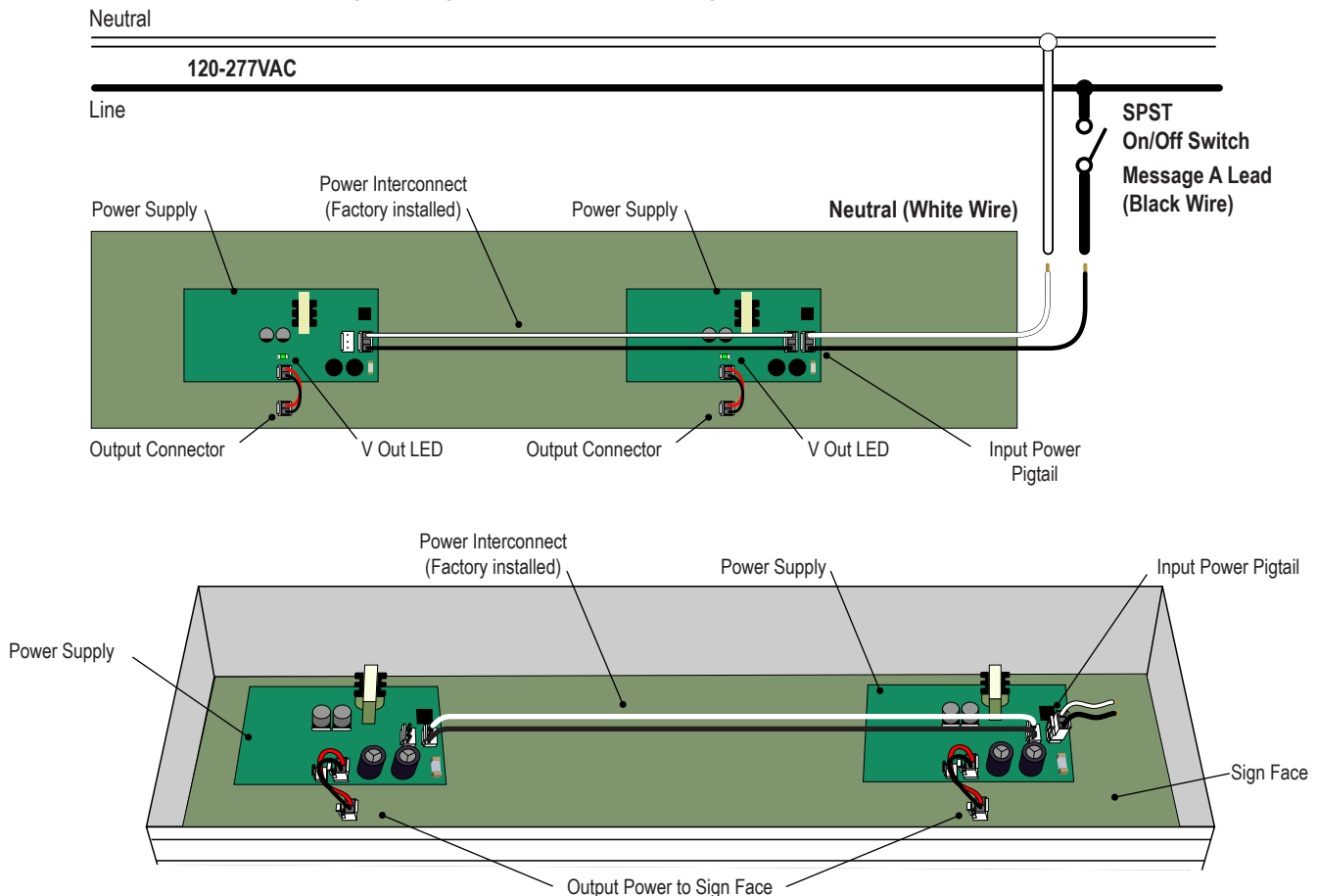
### Output Connectors

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.

### Single Message with Multiple Power Supply Example



# Problem: Dark band or area when message is illuminated

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Please refer to the diagrams on page 1.

**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, and be prepared with other relevant information:**

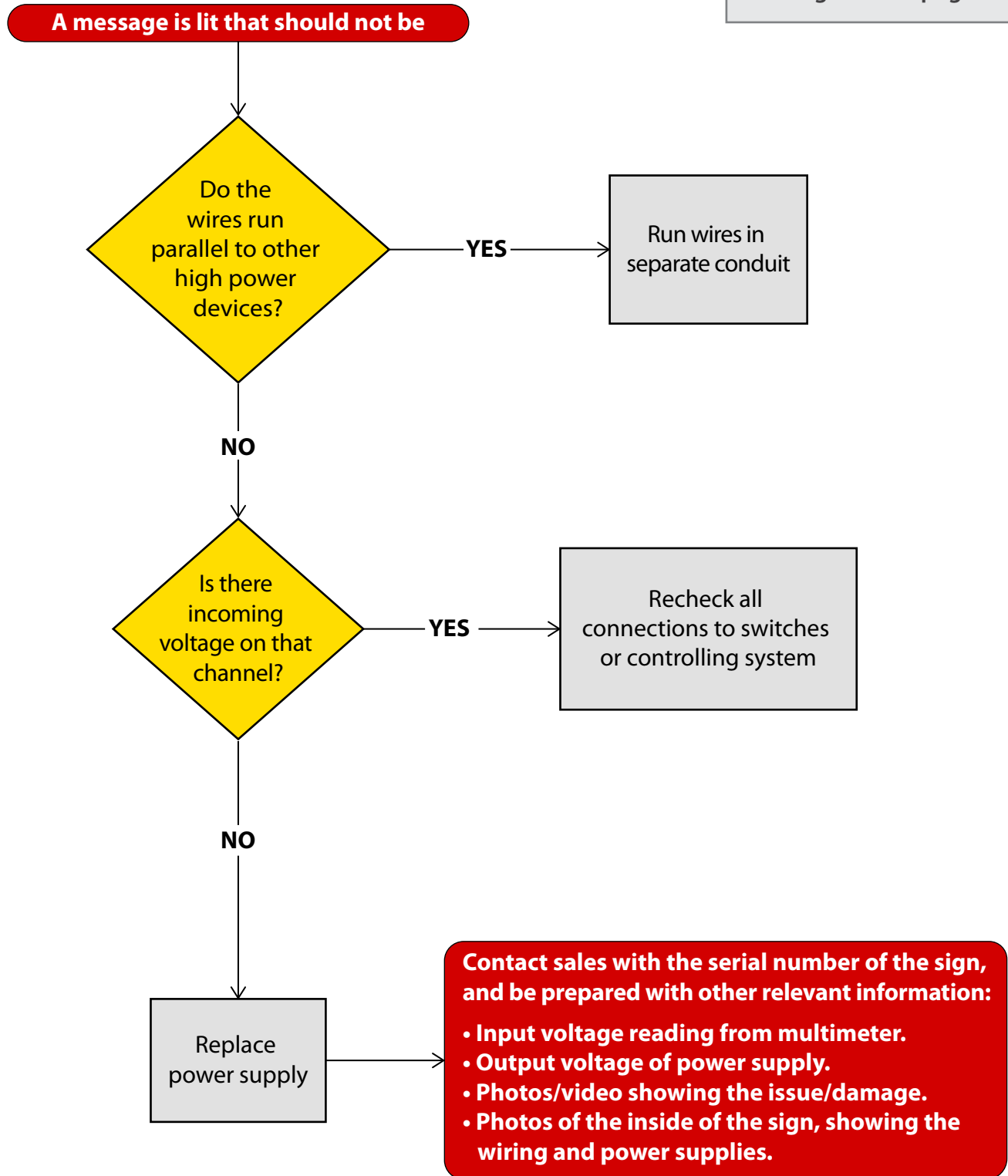
- Input voltage reading from multimeter.
- Output voltage of power supply.
- Photos/video showing the issue/damage.
- Photos of the inside of the sign, showing the wiring and power supplies.

# Problem: A message is lit that shouldn't be

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Please refer to the diagrams on page 1.

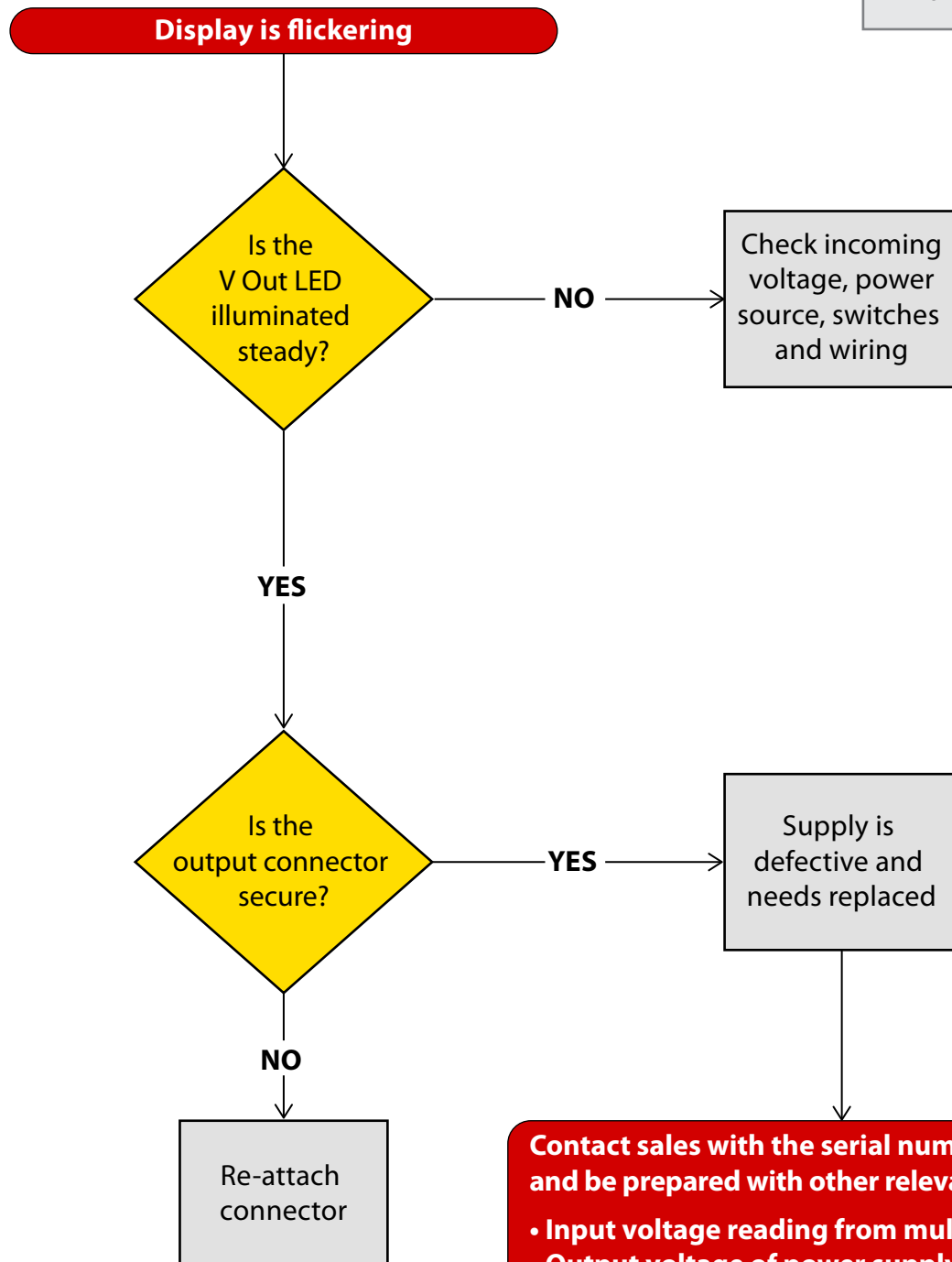


# Problem: Display is flickering

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Please refer to the diagrams on page 1.



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

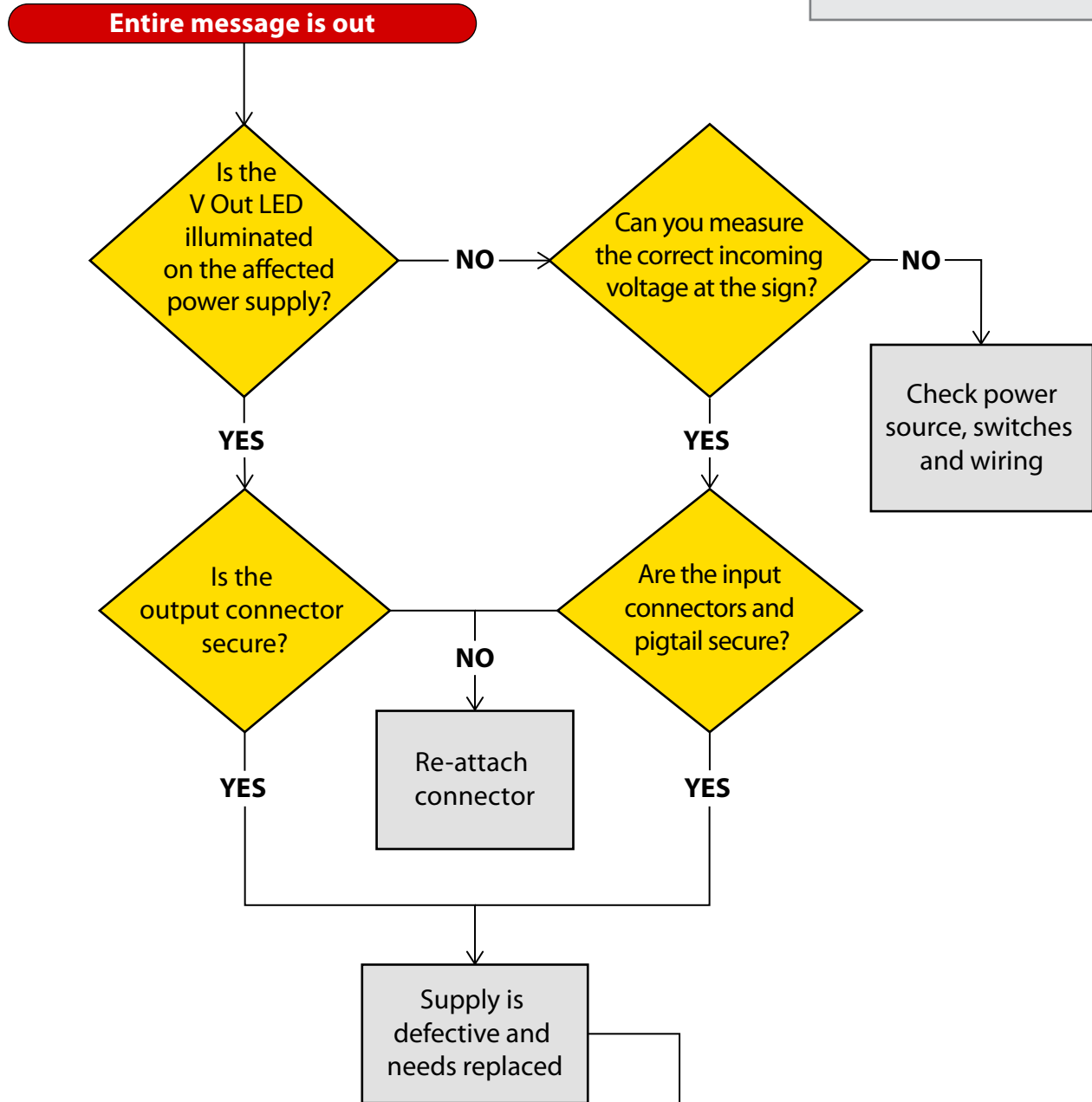
- Input voltage reading from multimeter.
- Output voltage of power supply.
- Photos/video showing the issue/damage.
- Photos of the inside of the sign, showing the wiring and power supplies.

# Problem: Entire message is out

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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.