

For the SPEEDCHECK-18



91400_REPLACEMENT-GUIDE_SPEEDCHECK-18-LED-Display-Assembly_RevA

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1.0 Warnings and Precautions

The following symbols indicate important safety warnings and precautions throughout this guide:



WARNING indicates that serious bodily harm or death may result from failure to adhere to the precautions.



CAUTION indicates that damage to equipment may result if the instructions are not followed.



NOTE suggests optimal conditions and provides additional information.

1.1 Warranty Disclaimer

This guide will familiarize you with the features and installation of Carmanah's SPEEDCHECK-18 LED display assembly kit. Failure to comply with the use, storage, maintenance, installation or placement instructions detailed in this guide could void the warranty.

1.2 Standards

Perform all installation, wiring, grounding and maintenance in conformance with local building and electrical codes. Adherence to the National Electrical Code (NEC) is mandatory to comply with any certification markings. Non-adherence to code may void the warranty.

1.3 Safety and Usage Precautions



Use extreme caution when handling the batteries as they can generate hazardous short-circuit currents. Remove all jewelry (bracelets, metal-strap watches, etc.) before entering the cabinet.



Before lifting any heavy or bulky equipment, ensure the load is secured so moving parts do not shift, and that it can be lifted as far as needed without back strain or loss of grip. Installation may require more than one person.



Ensure the equipment is not powered during installation and wiring of the system.



Recheck all completed wiring for proper polarity prior to energizing the system.

NOTE

Changes or modifications to Carmanah equipment not expressly approved by Carmanah could void both the user's authority to operate the equipment and the warranty.

NOTE

All Carmanah traffic products use a constant-current LED output circuit. Not all traffic beacons are compatible with this output. Please contact Carmanah for additional information and guidance when adding or replacing beacons or other hardware.

NOTE

This guide is specific to the SPEEDCHECK-18 LED assembly kit installation and is not a replacement for the complete product user manual.

Visit support.carmanah.com to download the complete product user manual.

2.0 Installation Procedure

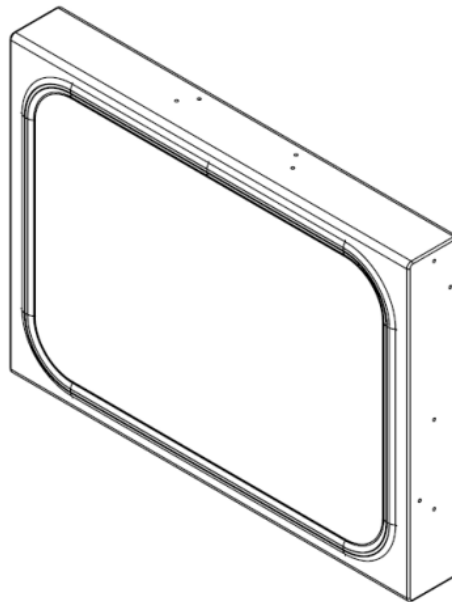
This guide is for installing replacement SPEEDCHECK-18 LED display assembly kit into the following compatible Carmanah system:

- SPEEDCHECK-18



Ensure system power is removed before accessing and removing the backplate, sign mounts, and static sign.

Refer to the individual product user manual for more details at support.carmanah.com. Your replacement LED display board kit will be specific to your installation configuration. You will receive a left and right LED display board, polycarbonate window, sign enclosure, and new internal cabling for the LEDs. It will not contain the back panel which will need to be removed and reused from the existing system.



Type	“88” LED Color	Slow Down LED Color	Application
“88” only	Yellow	N/A	Radar Speed
“88” + Slow Down	Yellow	Yellow	Radar Speed

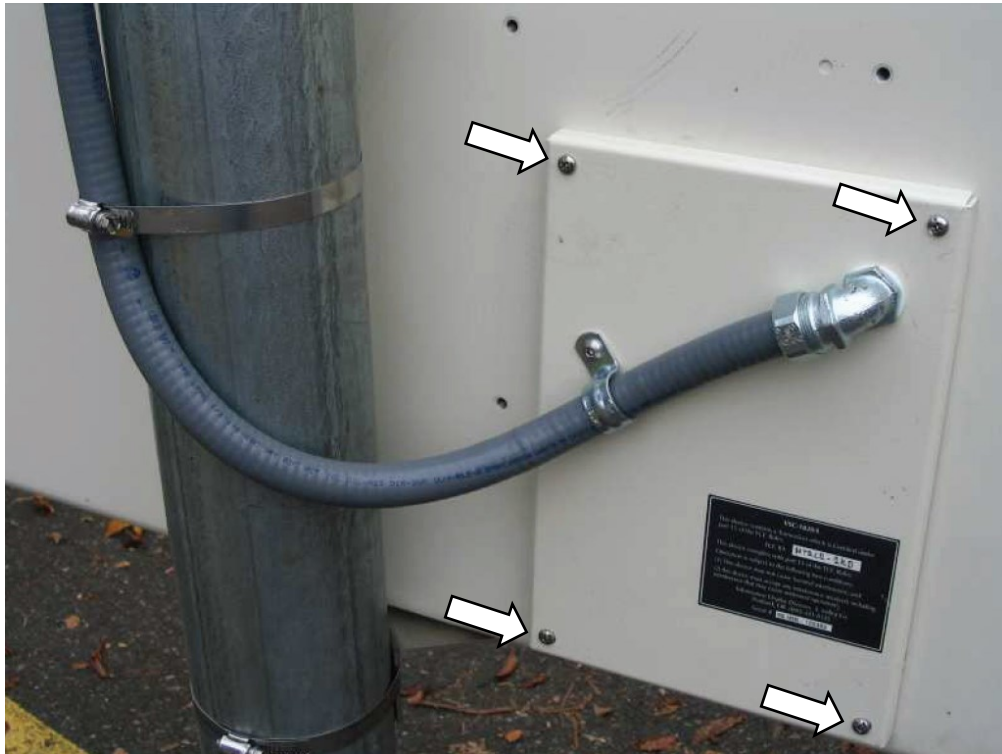
The images in this guide may differ from your SPEEDCHECK-18 radar speed sign. They are for illustrative purposes only.

2.1 Static Sign, Mounts, and Back Panel Removal

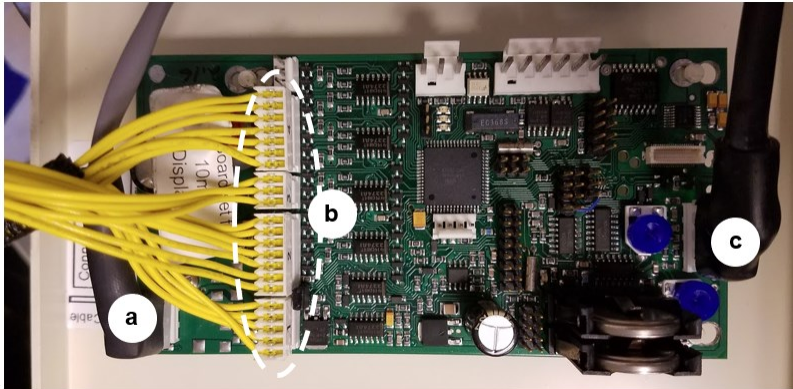


ENSURE DEVICE IS COMPLETELY POWERED OFF SO THERE IS NO DANGER OF ELECTRICAL SHOCK OR RISK OF DAMAGING EQUIPMENT.

1. Disconnect power from the SPEEDCHECK-18 sign by turning off the breaker or removing the fuse(s) in the associated power cabinet.
2. On the existing system remove the four screws holding the back panel assembly to the back of the SPEEDCHECK-18 sign.



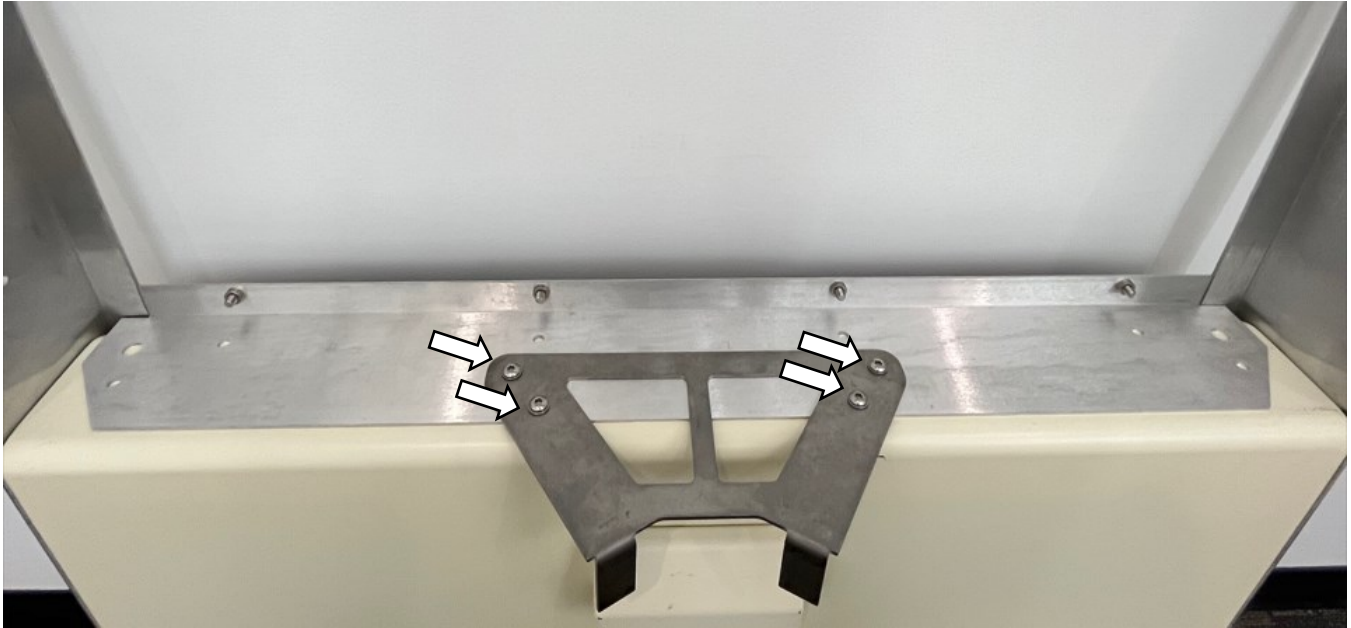
3. Remove the harness connectors from the control circuit board in the following order:
 - a. Input power harness connector
 - b. Display board harness connectors (4x)
 - c. Radar harness connector



4. Set the back panel aside to be reused.
5. Remove the system from the pole.
6. Remove the static sign assembly from the display. Remove all screws on each side of the static sign assembly. Remove the six bottom screws on the front of the static sign. Lift off the static sign assembly and set aside to be reused with new display.



7. Remove the sign mounts and top/bottom plates from the display and set aside to be reused with new display.



2.2 Static Sign, Mounts, and Back Panel Installation

1. With the new LED display assembly proceed to install the previously removed components.
2. Reassemble top and bottom plates with sign mounts.
3. Reassemble static sign assembly.
4. Mount the new system to the pole.
5. Reassemble back plate and wiring.

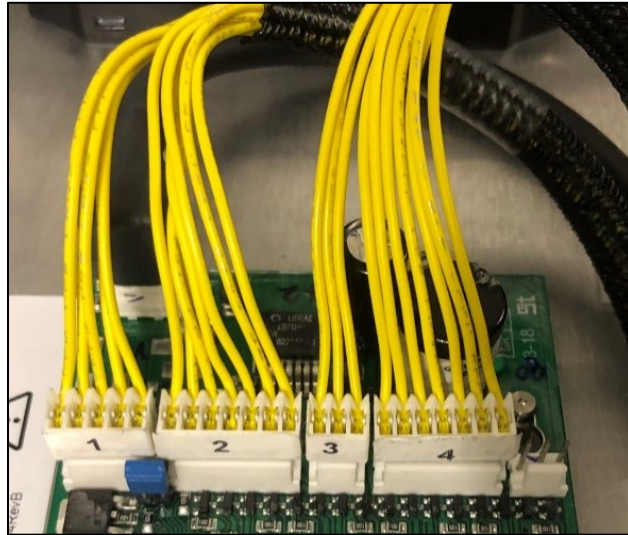


6. Reconnect power to the SPEEDCHECK-18 sign. Allow the system to power up and confirm all LED segments are functioning properly and the system is picking up traffic.

Appendix A – LED Wiring

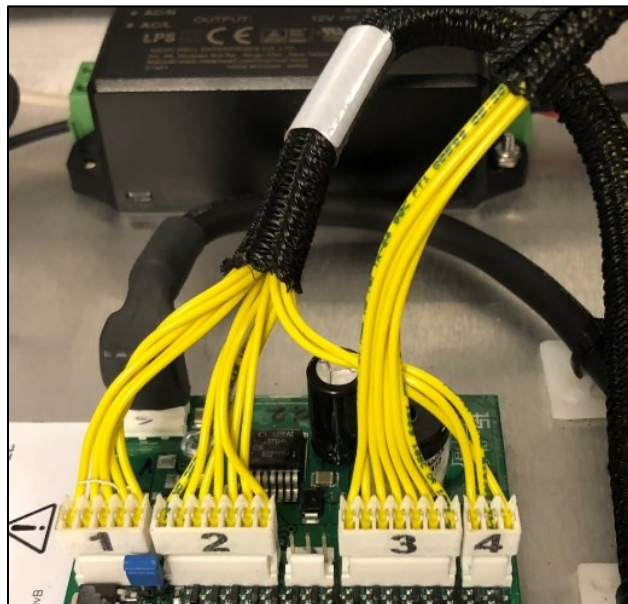
No Slow Down (“88” LEDs only):

- Left LED board = LED harnesses 3 & 4 (3-pin and 7-pin respectively)
- Right LED board = LED harnesses 1 & 2 (5-pin and 7-pin respectively)



Slow Down equipped:

- Left LED board = LED harness 3 only (7-pin)
- Right LED board = LED harnesses 1, 2, & 4 (5-pin, 7-pin, and 3-pin respectively)





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Technical Support:

Email: customersupport@carmanah.com

Toll Free: 1.877.722.8877 (US & Canada)

Worldwide: 1.250.380.0052

Fax: 1.250.380.0062

Web: carmanah.com