

# Installation Instructions

100543-000

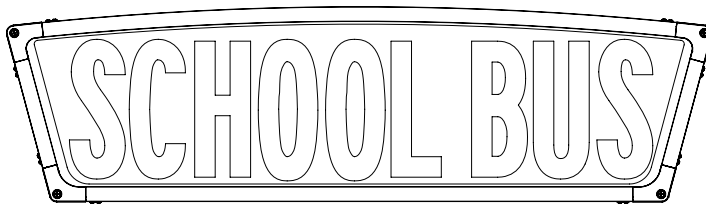


**FIRST LIGHT**  
SAFETY PRODUCTS

# ILLUMINATED SCHOOL BUS SIGN IC SOLID CAVITY



## IC SOLID CAVITY - FRONT



Fully Assembled Sign Unit  
A x 1



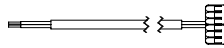
Backsheet Template  
B x 1



#10-32 Rivet Nut  
C x 5



2Ft Sign Main Power  
Wire Harness  
D x 1

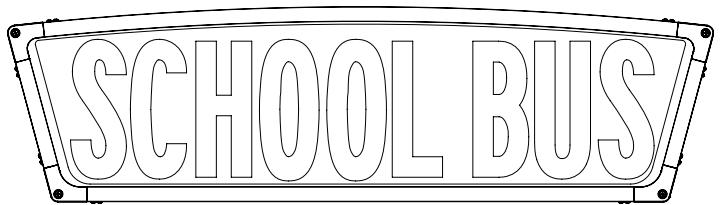


Front Leg  
Wire Harness  
E x 1



ATM Fuse Panel  
Wire Harness  
F x 1

## IC SOLID CAVITY - REAR



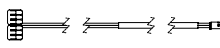
Fully Assembled Sign Unit  
A x 1



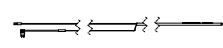
Backsheet Template  
B x 1



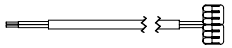
#10-32 Rivet Nut  
C x 5



2Ft Sign Main Power  
Wire Harness  
D x 1



ATM Fuse Panel  
Wire Harness  
F x 1



Back Leg 35Ft Wire  
Harness w/ Connectors  
G x 1

## IC SOLID CAVITY - SET - FRONT AND REAR



Back Leg 35Ft Wire Harness (Replacement for G)  
H x 1

# IC Solid Cavity

## BILL OF MATERIALS

IC SOLID CAVITY - FRONT	QTY	REF
Fully Assembled Sign Unit	1	A
Backsheet Template	1	B
#10-32 Rivet Nut*	5	C
2Ft Sign Main Power Wire Harness	1	D
Front Leg Wire Harness	1	E
ATM Fuse Panel Wire Harness	1	F

IC SOLID CAVITY - REAR	QTY	REF
Fully Assembled Sign Unit	1	A
Backsheet Template	1	B
#10-32 Rivet Nut*	5	C
2Ft Sign Main Power Wire Harness	1	D
ATM Fuse Panel Wire Harness	1	F
Back Leg 35Ft Wire Harness w/ Connectors	1	G

IC SOLID CAVITY - SET - FRONT AND REAR	QTY	REF
Fully Assembled Sign Unit	2	A
Backsheet Template	2	B
#10-32 Rivet Nut*	9	C
2Ft Sign Main Power Wire Harness	2	D
Front Leg Wire Harness	1	E
ATM Fuse Panel Wire Harness	1	F
Back Leg 35Ft Wire Harness	1	H

\* One extra Rivet Nut provided as spare.

## REQUIRED TOOLS

- Marker
- 5/32" and 1/8" Allen keys
- 25/64" and 3/4" Drill
- Rivet nut installation tool\*
- 7/8" Wrench
- 11/16" Wrench or socket
- Screwdriver set

\* Available for Purchase.  
Part Number: 100521

## DISCLAIMER

**IMPORTANT: PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE INSTALLING, FAILURE TO DO SO MAY CAUSE PERSONAL INJURY OR DAMAGE TO PRODUCT AND/OR PROPERTY.**

This manual has been created for basic informational purposes only. The activities described herein can be dangerous unless proper safety precautions are taken. If you are not comfortable or are inexperienced with the processes and tools described in this manual, you should not attempt to install the product. These instructions do not purport to cover all details or variations in the equipment and do not claim to provide for every possible contingency met in connection with the installation. Installation of this product should always be performed by a qualified technician and in accordance with safe work procedures. First Light Safety Products (a division of Smartrend Supply Ltd., hereinafter "First Light Safety Products") shall not be held responsible for any errors or omissions respecting installation as they are the responsibility of the installing technician and/or the customer. First Light Safety Products does not make any representation, warranty, guarantee or condition respecting third-party installation or any other service provided by a third-party, and any such representations perceived by the reader/customer are hereby fully disclaimed.

Any reliance on this manual is solely at the risk of the customer/reader. First Light Safety Products assumes no responsibility for other's use of this manual and hereby expressly disclaims any and all liability to any party for any direct, indirect, implied, punitive, special, incidental or other consequential damages arising directly or indirectly from any improper or incorrect use of this manual.

Visit our website for video instructions and additional supporting documentation:

[www.firstlightsafety.com/resources](http://www.firstlightsafety.com/resources)



PROUDLY MADE IN  
NORTH AMERICA

If further help is needed, please contact us:

### Technical Support

Monday - Friday, 8 a.m. to 5 p.m. CST

E: [techsupport@firstlightsafety.com](mailto:techsupport@firstlightsafety.com)

P: 866.216.2605

# IC Solid Cavity

## STEP 1 - USE BACKSHEET TEMPLATE (B) TO MARK HOLES

- Locate the Backsheet Template (B) to the cap where the Sign Unit (A) will go.
- Ensure the Backsheet Template (B) is level and secure in place using masking tape.
- Mark the location of the harness and mounting holes.
- Remove Backsheet Template (B) once holes are marked.



1

## STEP 2 - DRILL HOLES AND INSTALL RIVET NUTS (C)

- Before drilling any holes, ensure the electrical power to the vehicle is disconnected.
- Drill the harness opening hole to 3/4".
- Drill the mounting holes for the Rivet Nuts (C) to 25/64".
- Using the Rivet nut installation tool, install the supplied Rivet Nuts (C).



2

**NOTE:** For Rivet nut installation instructions refer to our resources page: [www.firstlightsafety.com/resources](http://www.firstlightsafety.com/resources)

## STEP 3 - INSTALL FUSE TAP INTO FUSE PANEL

- Install the fusetap from the ATM Fuse Panel Wire Harness (F) into a circuit that is powered by the ignition switch (destination sign circuit recommended).

**NOTE:** If space allows, the fusetap should be installed with the fuse pointing up (see figure 3.ii).

The Sign Unit (A) can be wired in two ways:

- Directly to a 12V circuit powered by the ignition switch.

OR

- Through a manual switch to a 12V circuit powered by the ignition switch.

Please check with your local state/province for requirements.



3.i



3.ii

## STEP 4 - SECURING GROUND FORK

- Ensure a quality ground connection by securing the ground forks from the ATM Fuse Panel Wire Harness (F) to a ground stud.
- Run the remaining end of the ATM Fuse Panel Wire Harness (F) up the b-post and into the interior of the vehicle.



4

# IC Solid Cavity

## STEP 5 - HARNESS INSTALLATION

### A. FRONT SIGN HARNESS INSTALLATION (D, E, F)

**NOTE:** Keep harnesses away from sharp edges, secure harnesses with ty-wraps as needed, and maintain white (power) and black (ground) wire color code.

- i. Inside the drivers overhead compartment/closing panel, connect the Front Leg Wire Harness (E) to the ATM Fuse Panel Wire Harness (F).
- ii. Run the Front Leg Wire Harness (E) through the drivers overhead compartment/closing panel into the front overhead compartment.
- iii. Inside the front overhead compartment, connect the 2Ft Sign Main Power Wire Harness (D) to the Front Leg Wire Harness (E).

### B. REAR SIGN HARNESS INSTALLATION (G/H, D/F, E)

**NOTE:** Keep harnesses away from sharp edges, secure harnesses with ty-wraps as needed, and maintain white (power) and black (ground) wire color code.

- i.i. *Rear only* - Inside the drivers overhead compartment/closing panel, connect the Back Leg 35Ft Wire Harness w/ Connectors (G) to the ATM Fuse Panel Wire Harness (F).
- i.ii *Front and rear set* - Inside the drivers overhead compartment/closing panel, connect the Back Leg 35Ft Wire Harness (H) to the Front Leg Wire Harness (E).
- ii. Run the Back Leg 35Ft Wire Harness (G/H) behind the closing panels on the drivers side, all the way to the rear and into the rear closing compartment.
- iii. Inside the rear closing compartment, connect the 2Ft Sign Main Power Wire Harness (D) to the Back Leg 35Ft Wire Harness (G/H).

## STEP 6 - CONNECT HARNESS TO SIGN UNIT (A)

- i. Run the 2Ft Sign Main Power Wire Harness (D) through the harness opening hole and connect it to the Sign Unit (A).

## STEP 7 - SEAT GROMMET

- i. Ensure grommet seats fully against the cap to form a weather resistant seal.

## STEP 8 - MOUNT SIGN UNIT (A)

- i. Mount the Sign Unit (A) using the frame's integrated screws.

**NOTE:** Recommended torque is 25-40 in-lbs.

## STEP 9 - TURN ON SIGN UNIT (A)

- i. Ensure no wiring has been damaged and once safe, restore electrical power to the vehicle.
1. If wired directly to a 12V circuit powered by the ignition switch: turn the vehicle on and ensure the Sign Unit (A) illuminates.
2. If wired through a manual switch to a 12V circuit powered by the ignition switch: turn the vehicle on, turn the switch on, and ensure the Sign Unit (A) illuminates.

