

Installation Instructions

100545-000



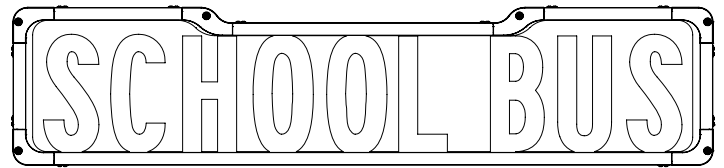
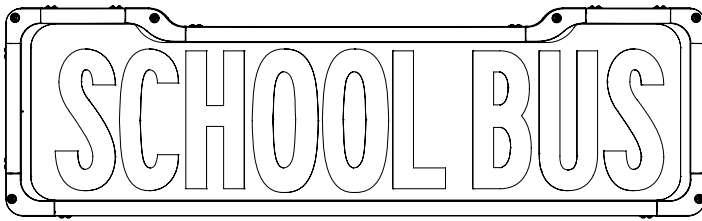
FIRST LIGHT
SAFETY PRODUCTS

ILLUMINATED SCHOOL BUS SIGN THOMAS BUILT BUSES SOLID CAVITY



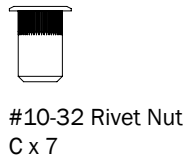
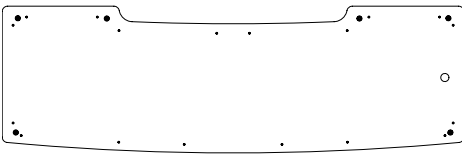
THOMAS BUILT BUSES SOLID CAVITY-FRONT

THOMAS BUILT BUSES SOLID CAVITY - REAR



Fully Assembled Sign Unit - Front
A1 x 1

Fully Assembled Sign Unit - Rear
A2 x 1



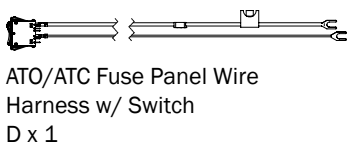
#10-32 Rivet Nut
C x 7



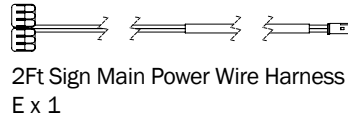
Backsheet Template - Rear
B2 x 1

#10-32 Rivet Nut
C x 7

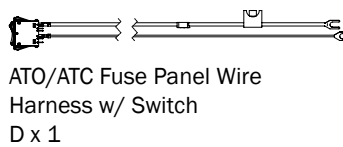
Backsheet Template - Front
B1 x 1



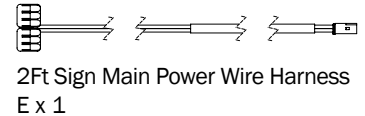
ATO/ATC Fuse Panel Wire
Harness w/ Switch
D x 1



2Ft Sign Main Power Wire
Harness
E x 1



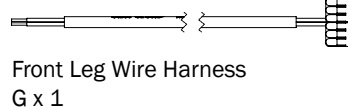
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2Ft Sign Main Power Wire
Harness
E x 1



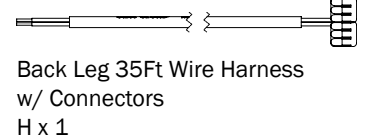
8.5Ft Main Leg
F x 1



Front Leg Wire Harness
G x 1



8.5Ft Main Leg
F x 1



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

THOMAS BUILT BUSES SOLID CAVITY - SET - FRONT AND REAR



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

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BILL OF MATERIALS

THOMAS BUILT BUSES SOLID CAVITY - FRONT	QTY	REF
Fully Assembled Sign Unit - Front	1	A1
Backsheet Template - Front	1	B1
#10-32 Rivet Nut*	7	C
ATO/ATC Fuse Panel Wire Harness w/ Switch	1	D
2Ft Sign Main Power Wire Harness	1	E
8.5Ft Main Leg	1	F
Front Leg Wire Harness	1	G

THOMAS BUILT BUSES SOLID CAVITY - REAR	QTY	REF
Fully Assembled Sign Unit - Rear	1	A2
Backsheet Template - Rear	1	B2
#10-32 Rivet Nut*	7	C
ATO/ATC Fuse Panel Wire Harness w/ Switch	1	D
2Ft Sign Main Power Wire Harness	1	E
8.5Ft Main Leg	1	F
Back Leg 35Ft Wire Harness w/ Connectors	1	H

THOMAS BUILT BUSES SOLID CAVITY-SET-FRONT AND REAR	QTY	REF
Fully Assembled Sign Unit - Front	1	A1
Fully Assembled Sign Unit - Rear	1	A2
Backsheet Template - Front	1	B1
Backsheet Template - Rear	1	B2
#10-32 Rivet Nut*	13	C
ATO/ATC Fuse Panel Wire Harness w/ Switch	1	D
2Ft Sign Main Power Wire Harness	2	E
8.5Ft Main Leg	1	F
Front Leg Wire Harness	1	G
Back Leg 35Ft Wire Harness	1	I

* 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.

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Visit our website for video instructions and additional supporting documentation:

www.firstlightsafety.com/resources



If further help is needed, please contact us:

Technical Support

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STEP 1 - USE BACKSHEET TEMPLATE (B1/B2) TO MARK HOLES

- i. Locate the Backsheet Template (B1/B2) to the cap where the Sign Unit (A1/A2) will go.
- ii. Ensure the Backsheet Template (B1/B2) is level and secure in place using masking tape.
- iii. Mark the location of the harness and mounting holes.
- iv. Remove Backsheet Template (B1/B2) once holes are marked.



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

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

NOTE: For Rivet nut installation instructions refer to our resources page: www.firstlightsafety.com/resources



STEP 3 - SWITCH INSTALL

- i. Connect the spade terminal from the 8.5Ft Main Leg (F) to the switch from the ATO/ATC Fuse Panel Wire Harness w/ Switch (D).
- ii. Remove the switch blank from the drivers left hand switch panel.
- iii. Run the wires from the 8.5Ft Main Leg (F) and the ATO/ATC Fuse Panel Wire Harness w/ Switch (D) through the hole in the drivers left hand switch panel and into the junction box.
- iv. Install the switch from the ATO/ATC Fuse Panel Wire Harness w/ Switch (D) into the hole in the drivers left hand switch panel.



STEP 4 - INSTALL FUSE TAP INTO FUSE PANEL

- i. Install the fusetap from the ATO/ATC Fuse Panel Wire Harness w/ Switch (D) 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.



STEP 5 - SECURING GROUND FORKS

- i. Ensure a quality ground connection by securing the ground forks from the ATO/ATC Fuse Panel Wire Harness w/ Switch (D) and the 8.5Ft Main Leg (F) to a ground stud.
- ii. Run the remaining end of the 8.5Ft Main Leg (F) up the b-post and into the interior of the vehicle.



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STEP 6 - SIGN HARNESS INSTALL

A - FRONT SIGN HARNESS INSTALL (E, F, G)

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 (G) to the 8.5Ft Main Leg (F).
- ii. Run the Front Leg Wire Harness (G) 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 (E) to the Front Leg Wire Harness (G).

B - REAR SIGN HARNESS INSTALL (H/I, D/G, 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 (H) to the ATO/ATC Fuse Panel Wire Harness w/ Switch (D).
- i.ii. *Front and rear set* - Inside the drivers overhead compartment/closing panel, connect the Back Leg 35Ft Wire Harness (I) to the Front Leg Wire Harness (G).
- ii. Run the Back Leg 35Ft Wire Harness (H/I) 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 (E) to the Back Leg 35Ft Wire Harness (H/I).

STEP 7 - CONNECT HARNESS TO SIGN UNIT (A1/A2)

- i. Run the 2Ft Sign Main Power Wire Harness (E) through the harness hole and connect it to the Sign Unit (A1/A2).

STEP 8 - SEAT GROMMET

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

STEP 9 - MOUNT SIGN UNIT (A1/A2)

- i. Mount the Sign Unit (A1/A2) using the frame's integrated screws.

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

STEP 10 - TURN ON SIGN UNIT (A1/A2)

- i. Ensure no wiring has been damaged and once safe, restore electrical power to the vehicle. Turn the vehicle on first then turn the switch on, and ensure the Sign Unit (A1/A2) illuminates.

