

The SAF-T-LINER® C2

# simplify



## What is Multiplex Wiring?

The Saf-T-Liner® C2 was designed to be a dependable machine that stays on the road and transports children safely. That's why we've built it with a multiplex wiring system that makes it easier and quicker to diagnose electrical faults and add optional equipment.

Conventional wiring systems use separate wires to control each electrical function. The multiplex wiring system allows multiple electronic messages to travel back and forth through the same datalink wire, just as broadband cable allows telephone, television and Internet connections to travel through the same line.

The multiplex wiring system's electronic control modules send information back and forth, monitoring vehicle components and interpreting messages transmitted through the wires. Because the modules are remotely controlled by signals, rather than by separate wires, fewer relays and connectors are required, reducing possible failure points.

### Benefits of Multiplex Wiring

#### IMPROVED RELIABILITY

The multiplex wiring system has reduced the number of wires in the C2 by more than 40 percent, from 650 to 350. That means 300 fewer possible failure points.

#### IMPROVED DIAGNOSTIC CAPABILITIES

With the multiplex wiring system, onboard computers capture fault data and relay it to the electronic instrument cluster in the dash, alerting the driver to a problem. Fault information also can be downloaded directly into Freightliner ServiceLink® software for diagnosis by a service technician.

#### EASIER TO MODIFY

Each wire is colored and numbered for easy identification. Switches can be added or moved quickly and easily without reprogramming by the dealer. So your bus will spend less time in the shop and more time on the road.



Because every mile matters.™

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### FLEXIBILITY & SUPPORT

#### Smart Switches

The Saf-T-Liner® C2's multiplex wiring system and interchangeable Smart Switches make adding electrical equipment easier for service technicians.

#### ServiceLink®

ServiceLink software is a powerful tool that communicates directly with the electronic control modules on Thomas Built Buses. It provides valuable diagnostic/service information and allows users to test and monitor circuits.

ServiceLink software allows technicians to view detailed fault information in a format that is easy to read and navigate. For easy maneuverability around the service bay, it also works offline, allowing for field troubleshooting and automatically updating when the computer is connected to the network. And the latest version of software includes new features added specifically for use with the C2.

To find out more about the electrical system of the Saf-T-Liner® C2, you'll have to see it for yourself. Visit [www.thomasbus.com](http://www.thomasbus.com) to locate your dealer for a test drive.



#### FUSE RELAY CENTER

- Distributes battery power to the bus control modules
- Easy access to fuses
- Waterproof and dustproof design



#### COLORED AND NUMBERED WIRING

- Reduces troubleshooting time
- Wiring interface for easy integration of stop, tail and turning light wiring to body



#### BULKHEAD MODULE

- Sends commands to all modules
- Communicates system faults



#### ACCESS TO BODY WIRING HARNESS

- Easy access behind curtain molding
- Harness is secured with harness clips
- Protected from chafing



#### OPTIONAL ELECTRICAL INTERFACE POINT

- Non-multiplex tap points allow easy access to battery and ignition power
- No reprogramming required



#### CHASSIS AND EXPANSION MODULE

- Tells the bulkhead module the status of input and output of circuits
- Situated together for easy diagnostics



#### SMART SWITCHES

- Switch location on the dash can be changed without reprogramming
- New switches can easily be added to the body switch panel



#### BATTERY INTERCONNECT DEVICE

- Fuse protection for battery-powered cables
- Waterproof and dustproof design
- Optional battery disconnect switch



Because every mile matters.™

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