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 remotely 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 over 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's 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.



The SAF-T-LINER® C2

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.

Simple Pre-Engineering

Thomas Built has pre-engineered standard interfaces for lighting, engine and transmission wiring. Vehicle Interface Wiring Connectors provide an easy "plug and play" design. These connectors eliminate the need for splicing and provide an easy access point for wiring.

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 reprogram factory settings to simplify customization.

For more than eight years, ServiceLink software has allowed 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.



POWER DISTRIBUTION MODULES

- Distributes battery power to the bus control modules
- Easy access to fuses



BULKHEAD MODULE

- Sends commands to the chassis module for battery, accessories, lamps, switch function and more
- Eliminates traditional devices such as relays and circuit breakers



OPTIONAL ELECTRICAL INTERFACE POINT

- Non-multiplex tap points allow easy access to illumination, ground and ignition circuits
- No reprogramming required



SMART SWITCHES AND GAUGES

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



COLORED AND NUMBERED WIRING

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



ACCESS TO BODY WIRING HARNESS

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



CHASSIS MODULE

- Tells the bulkhead module the status of input and output of circuits
- Controls Air Management Unit's air solenoid valves



BATTERY INTERCONNECT DEVICE

- Allows for safely accessing fused battery power
- Consistent power access for major consumers like A/C and wheel chair options

