

Mini-Bus Multiplex System

Intellitec's Mini-Bus Multiplex Electrical System consists of five basic modules: the master, auxiliary heater, switch adapter, door control and the auxiliary output. These modules "talk" to each other via Intellitec's multiplex communications. Connections are made using Mate-n-Lok connectors and the wire you commonly use. *Expensive connectors, shielded, or twisted pair wiring is not required.* This system does not require programming. Logic functions and system features are built-in and selected using simple dip switch, or jumper settings. The system features all solid-state switching.

FEATURES

Intellitec's Mini-Bus Multiplex System is a 16-channel system, capable of addressing as many as 16 inputs and controlling an almost unlimited number of outputs. Currently, the system has modules that will control multiple electrically operated doors, 2 sets of logic controlled interior lights, multiple 2 or 3 speed auxiliary heater fans, 2 door ajar panel lights, a heat valve and multiple auxiliary outputs. The flexibility of the system allows for additional special purpose modules and future expansion.

Wiring is reduced; only 3 wires are needed to connect as many as 12, lighted rocker switches and a 4-position rotary switch. Conventional wiring would require as many as 48 wires. You can configure the system with as many or as few switches, as are needed. Three wires are used to communicate and provide power to each module in the system.

Standardized Wiring - Using the Mini-Bus System results in a standardized wiring scheme, which provides consistency from one vehicle to the next. Even trouble shooting becomes standardized.

Modular - Depending upon the vehicle, the system can be configured with as few as 4 outputs, or as many as 16 outputs. Outputs can be duplicated for left side/right side banked switching and additional heaters or water pumps. Modules can be added as required. Output modules may be placed near the loads to be controlled or at any convenient location.

Solid-State Switching provides for unlimited life-cycles and eliminate the need to replace relays. A fuse block and power distribution is built into the master and auxiliary modules.

Battery Run Down Protection - If the ignition is turned off and the lighting switches are left on, the system automatically turns the lights off after 20 minutes. If ignition is off and the battery voltage becomes low, the lights will turn off after 2 minutes. When ignition is turned off, the fan outputs and auxiliary outputs will turn off immediately, the door outputs can be set to be active with or without ignition. Aux. outputs 1 and 2 may be programmed to stay on with the 20 minute timer, or go off with ignition. No more dead batteries because someone left the lights on or the door open.

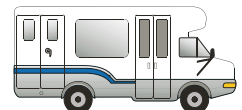
A Step Well Light output located on the door controller, automatically turns on when the door opens and off 10 seconds after the door closes. The step well light remains on as long as the door is open. If the door is left open and battery voltage becomes low, this light will automatically turn off preventing further discharge of the battery, allowing the vehicle to still be started.

A Door Open Indicator output is located on the switch adapter module and is used to drive a panel light or buzzer. The light advises the driver that a door is open. No special wiring is required. The door module sends a signal via the multiplex system to light the door ajar light. An output to drive a hot water solenoid is also located on the switch adapter.



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Simulated Sensitive Edge - Without using a sensitive edge switch, the solid-state door controller senses an obstruction in the door's path and reverses the door's direction. In the event that the specification justifies the cost of a sensitive edge switch, an input is provided to connect it.

Exterior Key Switch - an input for an optional exterior key switch (located on the door controller) is available to open and close the door. This input is also used when the door module is used as a stand alone module outside of the Mini Bus system.

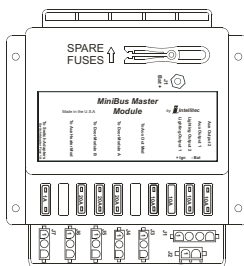
Electronic Wheel Chair Lift Interlock - The interlock prevents operation of the lift, unless: ignition is on, the transmission is in park, the parking brake is set and the lift door is open. When all of these conditions are true, the interlock module activates the lift relay allowing the lift to be operated. The module also activates the vehicles shift lock mechanism whenever ignition is on and either the parking brake is set or the lift door is open. In the event that the lift interlock is preventing the operation of the lift due to a faulty input switch, the module has 5 diagnostic LEDs that help the technician or operator determine the cause. In the event that an input switch fails or becomes misadjusted, a bypass switch located on the module allows operation of the lift. The interlock resets each time the vehicle is started. In addition to the interlock functions, the module has a lift dome light output, interlock not satisfied output and flashing light output. *For additional details see the module data sheet for p/n 00-00847-000 available on the web.*

SELECTABLE FEATURES

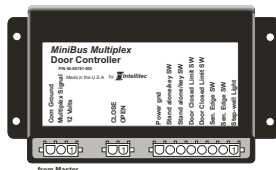
No complex programming is required. All of the selectable features of the system are accomplished using simple dip switch or jumper settings.

Selectable features are as follows:

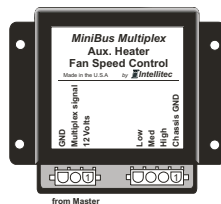
1. The switch adapter can be configured to operate different doors and different outputs
2. The door switch can be set to operate the door only when ignition is on or all the time.
3. The two outputs on the Master module can be set to turn off with ignition or 20 minutes after ignition turns off.
4. The auxiliary outputs on the aux output modules can be configured to operate from specific switches.
5. Multiple door modules can be configured to operate from the same switch or different switches.



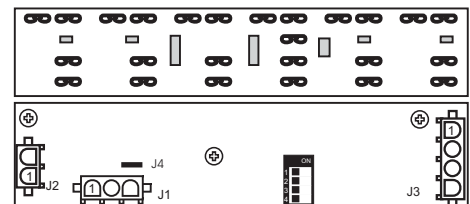
00-00778-000
Master Module



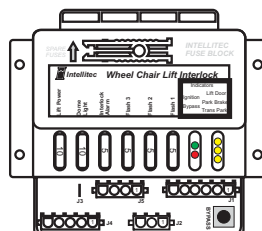
00-00787-000
Door Module



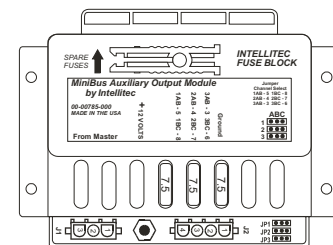
00-00771-000
Heater Fan Module



00-00853-000 AND 00-00862-000
Switches are plugged directly into the adapter



00-00847-000
Wheel Chair Lift Interlock II



00-00785-000
Auxiliary Output Module



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For more detailed information wiring instructions and trouble shooting information see the MiniBus Multiplex Service Manual and other literature at www.intellitcsve.com.