

ILISC410 Shift Interlock (Manual Lift Door) 2010-2011 Mercedes Benz Sprinter Contact InterMotive for specific applications

Introduction

The ILISC410 module represents the next generation of Lift Interlock and Input/Output capabilities from InterMotive Vehicle Controls. The ILISC410 provides a number of benefits for the installer and user. 1/5 the size of its predecessor, easier, faster installation with fewer and unique connectors simplifying installation and ensuring proper connections.



Installation Instructions

Be sure the vehicle's battery is disconnected before proceeding with installation.



WARNING
Disconnect the battery to prevent setting a check engine light.

It is the installer's responsibility to route and secure all wiring harnesses where they cannot be damaged by sharp objects, mechanical moving parts, and high heat sources. Failure to do so could result in damage to the system or vehicle and create possible safety concerns for the operator and passengers.

ILIS Module

Remove the driver's seat and step-well trim for access. The ILISC410 module mounting location is inside the seat pedestal. The module can be secured using self-tapping screws.



LED Display Panel Mounting - Black 4-pin connector

Locate a suitable position on the dashboard, within view of the driver to mount the LED Display Panel. Make sure that there is open space behind the dash where the panel is mounted. The harness is 8 ft. in length, which is the maximum distance the display can be from the module. Drill a 5/8" hole in the dash where you wish the center of the display to be. Attach the Black 4-pin connector of the LED display panel harness to the module. Run the other end of the harness under the dash and out through the 5/8" hole. Attach the end to the LED Display Panel. Ensure the panel is level and secure using supplied screws.



Data Link - White 4-pin connector

Red wire – Find an ignition switched circuit (**hot** in start and run only) from the fuse panel located on the seat pedestal side closest to the driver's door. Parallel tap, solder and heat shrink this circuit.

Black wire – Attach to the ground stud located inside the pedestal box.

Locate the CAN twisted pair wires at the front of the pedestal box.

Yellow wire – Attach to CAN-High (green with white tracer).

Brown wire – Attach to CAN-Low (green).

CAN communication wires must have a soldered and heat shrink or taped parallel tap. A poor connection will result in network communication errors.

Connect the White 4-pin connector to the module.

Control Inputs/Outputs - White 8-pin connector

The ILISC410 provides two ground side inputs and one 12V, 1/2 amp output.

Refer to the ILISC410 CAD drawing as reference when reading these instructions. If the lift draws more than 1/2 an amp. when operating, a control relay is needed to power the lift. A diode **must** be installed between pins 85 & 86 of the relay, as shown on the CAD drawing.

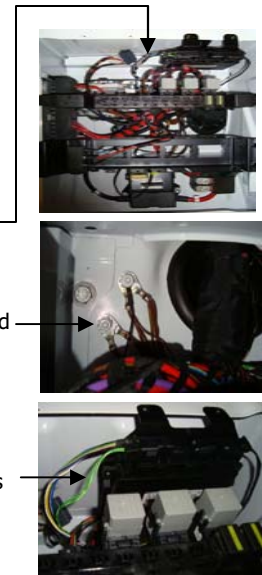
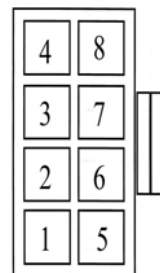
The Input/Output harness provides for control connections to the vehicle as follows:

Orange – This output is to be connected to the lift or lift relay. Refer to your particular lift model drawing when making this connection. This output provides 12V @ 1/2 amp when it is safe to operate the lift.

Gray – This input is to be connected to the Lift Door switch if an aftermarket lift door switch is used. As the CAD drawing shows, make sure that a ground signal is provided with the door open. When the door is open the vehicle is prevented from shifting out of Park. This door must be open in order to allow lift operation. See Lift Door Input section below.

Lift Inhibit - Grounding the Lift Inhibit pin #4 will prevent ILISC410 from supplying power to the lift. To use this input, properly crimp a connector terminal (two are provided) to a installer supplied wire using the correct crimping tool. (Molex Part# 11-01-0197), and insert the terminal into the 8 pin connector housing position #4. Make sure the terminal is fully seated in the connector. The largest wire that can be used with this terminal is 16 AWG.

- Pin #1 — N/C
- Pin #2 — N/C
- Pin #3 — ORANGE (Vehicle Secure (12V@1/2 amp) Output)
- Pin #4 — (Optional Lift Inhibit (GND) Input)
- Pin #5 — N/C
- Pin #6 — N/C
- Pin #7 — N/C
- Pin #8 — GRAY (Optional Lift Door Open (GND) Input)



Ground Stud

CAN Wires

Connect the White 8-pin connector to the module.

Lift Door Input

There are three options for the lift door input on the ILISC410: Factory Rear Door, Factory Passenger Slider or a discrete door input. In the first two cases, the OEM door switch status is read over the vehicle network and no wire or switch needs to connect to the module. In the third case the user must install their own grounding lift door switch and run a wire to the discrete lift door input (Gray Wire) on the ILISC410.

By default, the Factory Rear Door is used as the lift door. To change this setting or determine how it is currently configured use the following sections.

Determining the Lift Door

To determine which door is currently being used as the lift door, turn the key on and put the module into diagnostic mode by momentarily grounding the module's mounting hole and check the status of the on-board LEDs:

1. LED 1 on, LED2 off: Rear Door
2. LED1 off, LED2 on: Passenger Door
3. LED1 on, LED2 on: Discrete Input

Selecting the Input

By default, the Factory Rear Door is used as the lift door by the ILISC410.

To change this, perform the following steps:

1. Start the engine.
2. Momentarily ground the mounting hole on the ILISC410 module. The on-board LEDs will begin to flash indicating diagnostic mode is enabled.
3. Apply the service brake.
4. Place the vehicle in neutral.
5. Apply and release the parking brake 4 times within 5 seconds.



When successfully reprogrammed, the on-board LEDs 1 through 3 will momentarily flash in unison. At this point, cycle the key and the new setting will take affect.

The lift door setting changes in the following order each time the above sequence is performed and start over at Rear Door when it reaches the end:

1. Rear Door (default)
2. Passenger Door
3. Discrete Input

Post Installation / Check List

The following checks must be made after installation of the system, to ensure correct and safe operation of the lift. If any of the checks do not pass, do not deliver the vehicle. Recheck all connections as per the installation instructions.

Begin the checklist with the vehicle in the following state:

- Lift stowed
- Lift Door closed
- Park Brake set (PB)
- Transmission in Park (P)
- Ignition off (Key off).



1. Start the engine, verify the module wakes up and all 5 LEDs illuminate for approximately 2 seconds. The lower icon LEDs are backlit and should remain illuminated whenever the module is awake.
2. Verify that the Park LED, the Park Brake LED, and the Shift Lock LED remain illuminated.
3. Attempt to deploy the lift. The lift must not deploy with the Lift Door closed.
4. With key on, Lift Door open, Park Brake set and transmission in Park, all 5 LEDs will be illuminated. Attempt to deploy the lift. The lift should deploy. Stow the lift.
5. With key on, Lift Door open, transmission in Park, release Park Brake, verify that the Park Brake (PB) and Vehicle Secure LEDs go out, attempt to deploy the lift. The lift should not deploy.
6. With key on, Lift Door closed, Park Brake set, make sure transmission will not shift out of Park.
7. With key on, Lift Door open, Park Brake released, make sure transmission will not shift out of Park.
8. With key on, Lift Door closed, Park Brake released and the Service Brake applied, the transmission shift lever should be able to shift out of Park.

**The ILISC410 is properly installed only if it passes all of the above steps.
If any irregular operational issues persist,
contact InterMotive at 530-823-1048 for technical assistance.**

ILISC410 Shift Interlock (Manual Lift Door) 2010-2011 Mercedes Benz Sprinter (Diesel) Contact InterMotive for specific applications

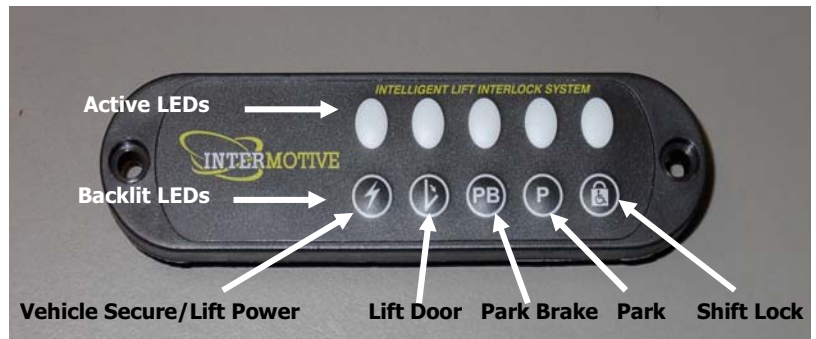
Operating Instructions

ILISC410

The ILISC410 system is a microprocessor driven system for controlling wheelchair lift operation. The system will operate with the vehicle ignition on only. Lift operation will only be allowed as defined below in step 6.

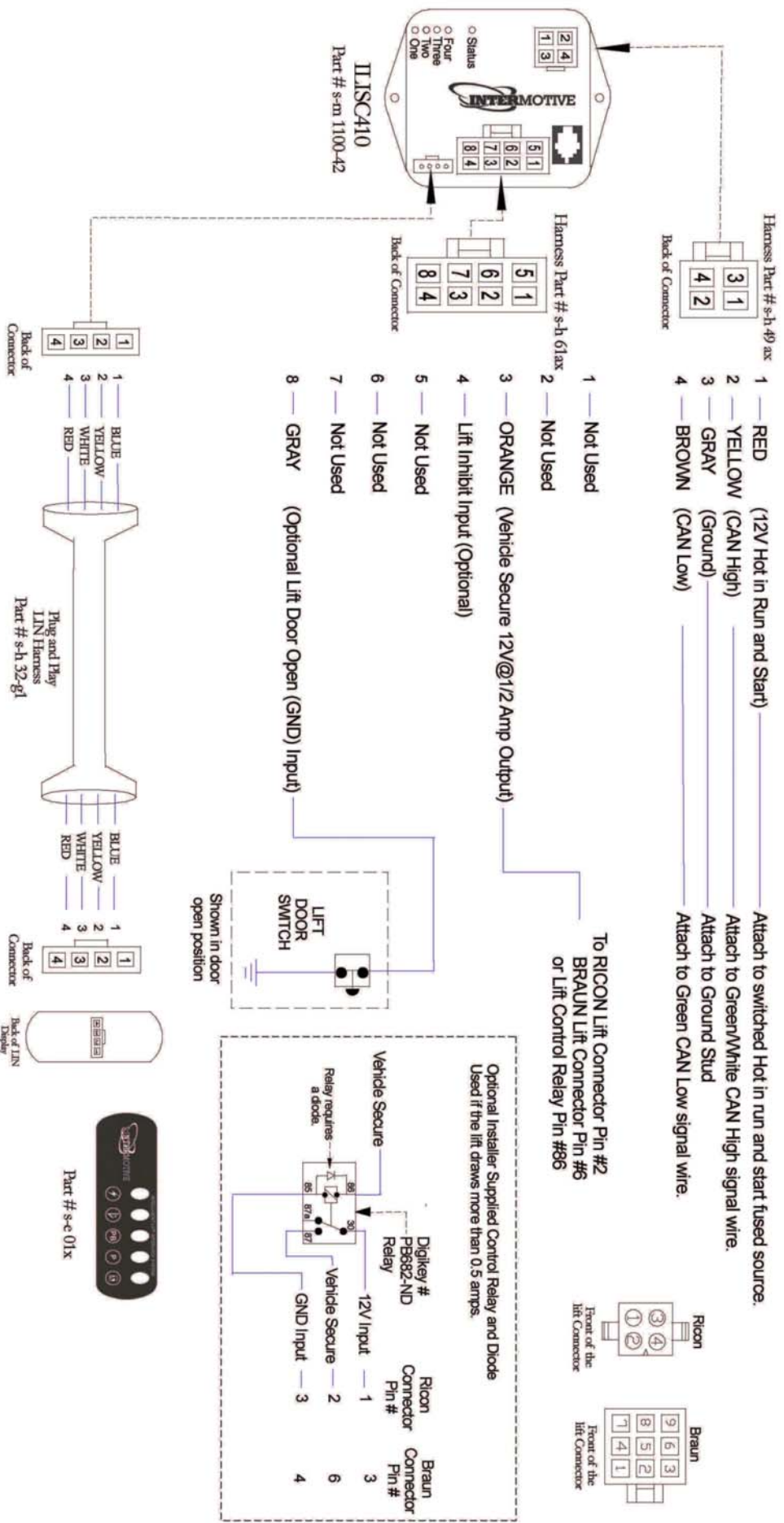
Lift function:

1. Turn the vehicle ignition to the on position.
2. When the vehicle is in "Park" the (P) LED will be illuminated.
3. When the Park Brake is applied, the (PB) LED will be illuminated.
4. When the Lift Door is open, the Lift Door LED will be illuminated.
5. When the Park Brake is applied or the Lift Door is open, the Shift Lock LED will be illuminated, and you will be unable to shift out of Park.
6. With the vehicle in Park, Park Brake applied and Lift Door open, the Vehicle Secure LED will be illuminated and the lift will be operational. At this point **all** LEDs will be illuminated on either display panel.
7. If the lift inhibit input is grounded, the Vehicle Secure LED will not illuminate and the lift will not operate.



The ILISC410 will not allow the vehicle to be shifted out of park if the key is on and the lift door is open. As an added feature, it will not allow the vehicle to be shifted out of park anytime the key is on and the parking brake is applied. This eliminates excessive parking brake wear due to driving with the parking brake applied.

Note: When "keying on" all of the display LEDs will illuminate for approximately 2 seconds as a "prove out". The backlit LEDs remain on as long as the module is powered up.



Submit product registration at www.intermotive.net

If the ILISC410 fails any step in the Post Installation Test, review the installation instructions and check all connections.
If necessary, call

Intermotive Technical Support @ (530) 823-1048. ILISC410-01 CAD