

Freightliner RV Chassis's

With an

HI - LO Compression Engine Brake

Many hours have been spent, researching different chassis wiring schemes in order to properly wire BrakeSwitch into the various chassis electrical systems. This August 14, 2009 document is the latest wiring version which was taken from a 2007 Tiffin Freightliner chassis, I believe it is still current.

Freightliner over the years has been fairly consistent with their wiring on the Compression engine brake with its HI, OFF and LO positions.

BrakeSwitch Wiring:

BrakeSwitch comes with six wires for making the proper electrical connections. The insulation colors of the six wires are Purple, Black, two White and two Red wires.

The **PURPLE** (activation) wire connects to the Brake Lamp supply, wire which is numbered **36E**. This connection can be made with the blue tap connector found at any automotive store. You can find this wire either under the dash behind the steering column in the large wire loom, or a better place is at the Freightliner fuse/relay block. That block is located either on the firewall under the dash near the throttle pedal or possibly under the drawer stack in front of the seats.

The **BLACK** wire connects to a ground stud, there is stud located on the firewall near the throttle pedal. I just use a large ring terminal so it will fit over the ground stud on the firewall.

Regrettably there is no simple way to access the wiring to the engine brake switch except to remove the screws from the driver's side console and then lift up on the panel. You may not be able to remove all of the panel screws some may be under the dash. But you should be able to lift the panel enough to access the engine brake switch harness. Disconnect the harness and move the harness out where you can work on it. You will need to route the two White and two Red (BrakeSwitch) wires, under the dash and into the console area.

The **TWO WHITE** wires are one circuit of the BrakeSwitch logic. Locate the **BLACK** wire attached to **Pin # 5B** on the engine brake switch harness this is the ground circuit, # 1204. Cut the **BLACK** wire about 2 or 3 inches away from the switch harness block. Using blue electrical butt splices connect the **FIRST WHITE** wire to the **BLACK** wire you just cut and then connect the **SECOND WHITE** wire to the other end of the cut **BLACK** wire. At this point you should have a **BLACK** wire going to the switch harness connected to one of the white BrakeSwitch wires and the second white BrakeSwitch wire connected to the **BLACK** wire going to the engine brake switch harness **Pin # 5B**.

The **TWO RED** wires are the second circuit of the BrakeSwitch logic.

In this configuration the second circuit is not necessary and can be just taped off.

With the BrakeSwitch wired in this way, the engine brake switch (On the driver's side console) will continue to **control** the engine brake through its **HI, OFF** or **LO** position selections. BrakeSwitch is now installed between the engine brake switch and the electronics controlling the transmission, engine brake, dash lamp (displaying engine braking) and the brake lights on the rear of the coach.

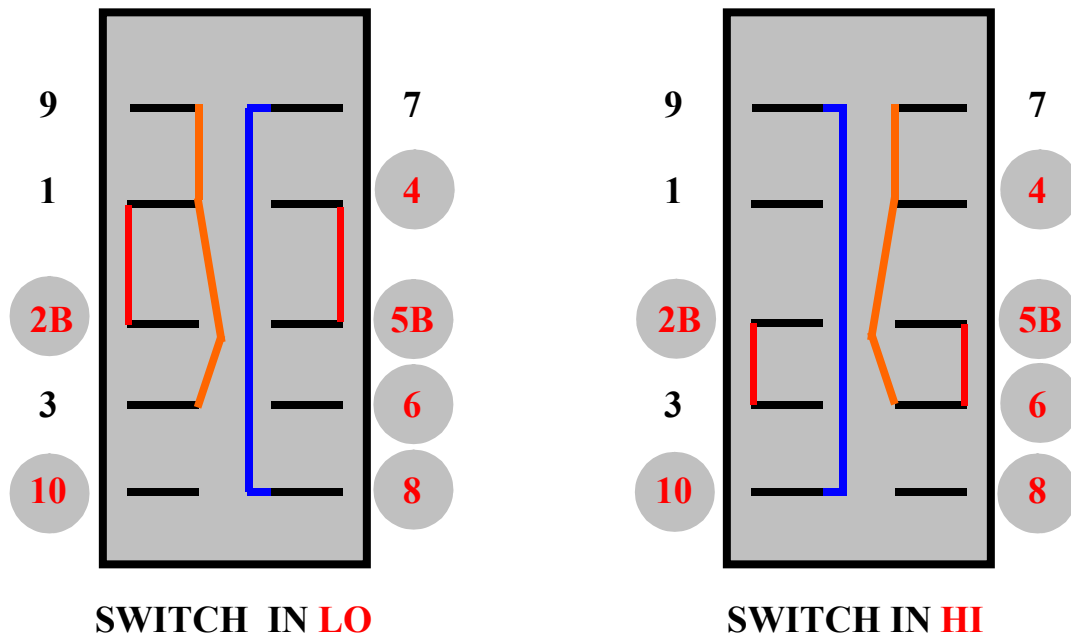
Use these wiring instructions in conjunction with the included Freightliner engine brake switch and harness wiring schematics and you should have no problems.

Freightliner HI - LO Compression Brake Switch

Switch # A06-30769-090

Bottom View of Switch

● < Denotes wire in Harness




Switch Internal Jumper
Switch Internal Jumper

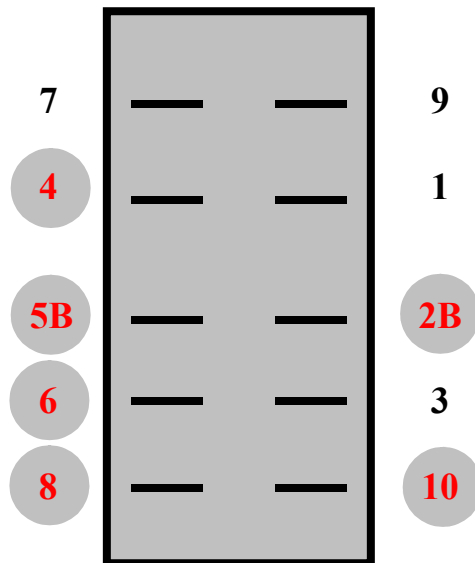
- | | |
|---------------------------|----------------------------------|
| 1 Jumper to Pin 3 & Pin 9 | 6 440K, Engine Brake, HI |
| 2B 81C, Ignition, 12V+ | 7 Jumper to Pin 8 |
| 3 Jumper to Pin 1 & Pin 9 | 8 Jumper to Pin 7, Ground (1204) |
| 4 440J, Engine Brake, LO | 9 Engine Brake Switch ON, Lamp |
| 5B Ground (1204) | 10 29A, Dash Lamp Power 12V+ |

Freightliner HI - LO Compression Brake Harness

Switch # A06-30769-090

Top View of Switch Harness

 < Denotes wire in Harness



1 Jumper to Pin 3 & Pin 9

2B 81C, Ignition, 12V+

3 Jumper to Pin 1 & Pin 9

4 440J, Engine Brake, LO

5B Ground (1204)

6 440K, Engine Brake, HI

7 Jumper to Pin 8

8 Jumper to Pin 7, Ground (1204)

9 Engine Brake Switch ON, Lamp

10 29A, Dash Lamp Power 12V+