



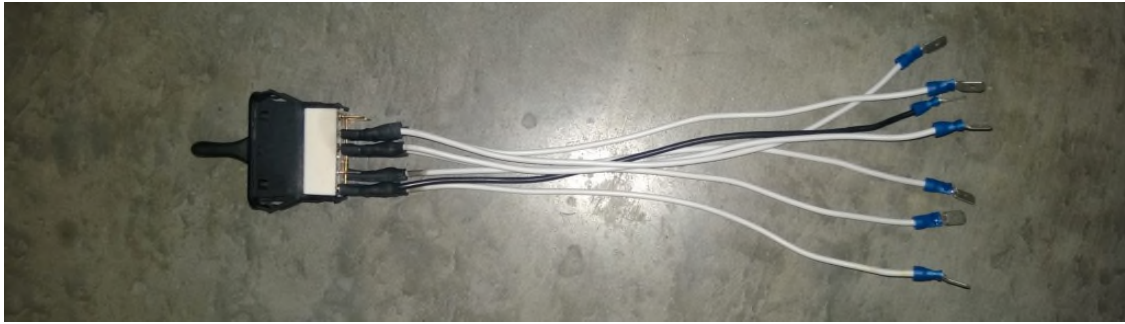
2010 43QGP Allegro Bus

5/6/2016

ONE-HUNDRED TWENTY-SIXTH - coach modification – ENGINE BRAKE PADDLE SWITCH. After several years of having to LOOK for the engine brake switch before I could switch between HI OFF LO, I decided to replace the regular rocker switch with a PADDLE actuator switch. Now all I have to do is FEEL for the paddle on the switch, pushing the paddle forward the engine brake uses all six cylinders for slowing the coach, with the paddle switch pulled to the rear the engine brake will use three cylinders for engine braking, while the center position is OFF. After checking with several sources I was able to beg a paddle switch from Tiffin, what I received is one of the engine brake switches Freightliner has used on their Allegro Bus chassis. The Carling switch is numbered A06-30769-150, this switch has ten terminals, two more terminals than used on my Powerglide chassis, so a little re-wiring was necessary.



As seen above the High/Low engine brake switch used by Tiffin on their Powerglide chassis is really no different than MOST of the other switches mounted in the driver's console, there for in most cases to select the Engine Brake switch required the operator to visually look for the engine brake switch to be able to select HI, OFF or LO. After this modification the operator can locate the proper switch by just FEELING for it.



As already stated this modification required the re-wiring of the ten pin switch as Tiffin's Powerglide chassis uses an eight pin switch with different pin spacing so this was not just a unplug the OEM switch and plug in the Freightliner paddle switch.

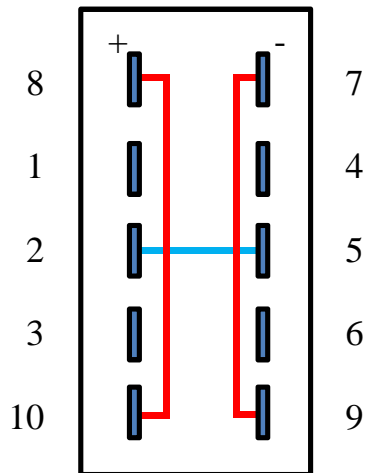
Tiffin builds the driver side console at a sub-station in the assembly plant. Tiffin wastes miles of wiring every day however on this console there is NO extra cable and every cable is bundled and tied together. Due to the short harness bundles I needed to build seven jumper wires to connect between the OEM Powerglide wiring harness and the Freightliner paddle switch. ¼" male and female connectors were attached to make seven six inch lead wires. I stayed with Tiffin's color code with is six white wires and one black wire. The female connectors were inserted over the switch pins shrink tubing was placed and shrunk in place. The ¼" male terminals were slightly bent in a bow shape making inserting the terminals into the engine brake wiring harness a tight fit, hoping to prevent ejection of the jumper wiring.



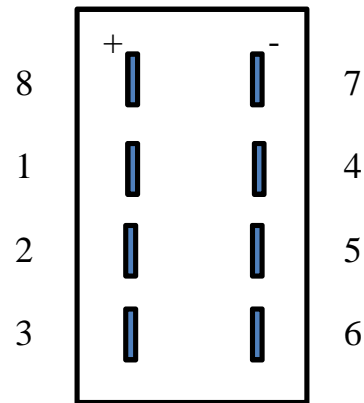
Not a major change, it allows making the proper engine braking selection easier and no longer require eyes ON the switch for proper switch selection.

BOTTOM VIEW

Freightliner Switch



Powerglide Switch



BLUE connector is INTERNAL jumper
RED connector is EXTERNAL jumper

Pins 8 and 10 are both connected to the 12 volt dash lighting .
 Pins 7 and 9 are connected to ground completing the dash lighting circuit.
 Pins 2 and 5 are connected to make a common circuit.

Pins 8, 1, 2, 3, 5 and 6 are individually wired with white wires. Pin 7 is a ground connection, that wire color is black.
 Pin 4 does not have a connection. Pin 8 has 12 volts when the dash lights are ON, Illuminating a small light.

Replacing the Powerglide rocker switch with the Freightliner Paddle switch requires 7 connections.

When EITHER switch is in the HI position pins 2 and 3 are connected while at the same time pins 5 and 6 are connected.

When EITHER switch is in the LO position pins 1 and 2 are connected while at the same time pins 4 and 5 are connected.

Pins 9 and 10 are externally connected without the need for external wiring which powered both internal switch lights.