

## ELECTRICAL:

### Wiring Installation:

1. Run electrical before the system is installed on chassis.
  - a. Note: Re-pinning the MP92-1608 wiring harness might be necessary on certain models (This applies to Cascadia Freightliners)
  - b. Cut zip ties flush with the head of the zip tie to avoid being cut
2. Wiring:
  - a. J1939-500KB-white w/yellow stripe
  - b. green w/yellow stripe
  - c. Black/Purple w/white strip-load lights
  - d. The four wires needed from the truck side are: power, ground, switch power, fuel signal, and load lights (if equipped)
  - e. Note: Wire locations and colors on the truck side will vary (these apply to Freightliner Cascadia trucks)
3. MP92-1208 harness (round BOC connector)-zip tie to the frame cross member, this will connect the BOC system to the rest of the truck. Ensure there is enough slack in the electrical to allow easy installation once the system is installed.
  - a. Avoid routing harness over any sharp or hard edges to avoid breaking wires.
4. MP92-1608-jumper harness is installed between the MP92-1208 system harness and the truck wiring.
  - a. This harness allows the MP92-1208 system harness to be installed on Freightliner trucks.
5. MP92-1035-(J1939 Jumper Wire harness)-This jumper harness may be required for some cab configurations in order for harness to reach the inside of the cab.
6. On truck side: the purple w/white stripe (+) and the black (-) wires may have to have the connector on the momentum harness changed in order to connect to the harness of the truck.
  - a. New harness coming in the future to alleviate this problem.
7. Once harness is test fitted along the frame rail tie up any extra slack in the wire harness by looping them and using zip-ties to hold excess wire.

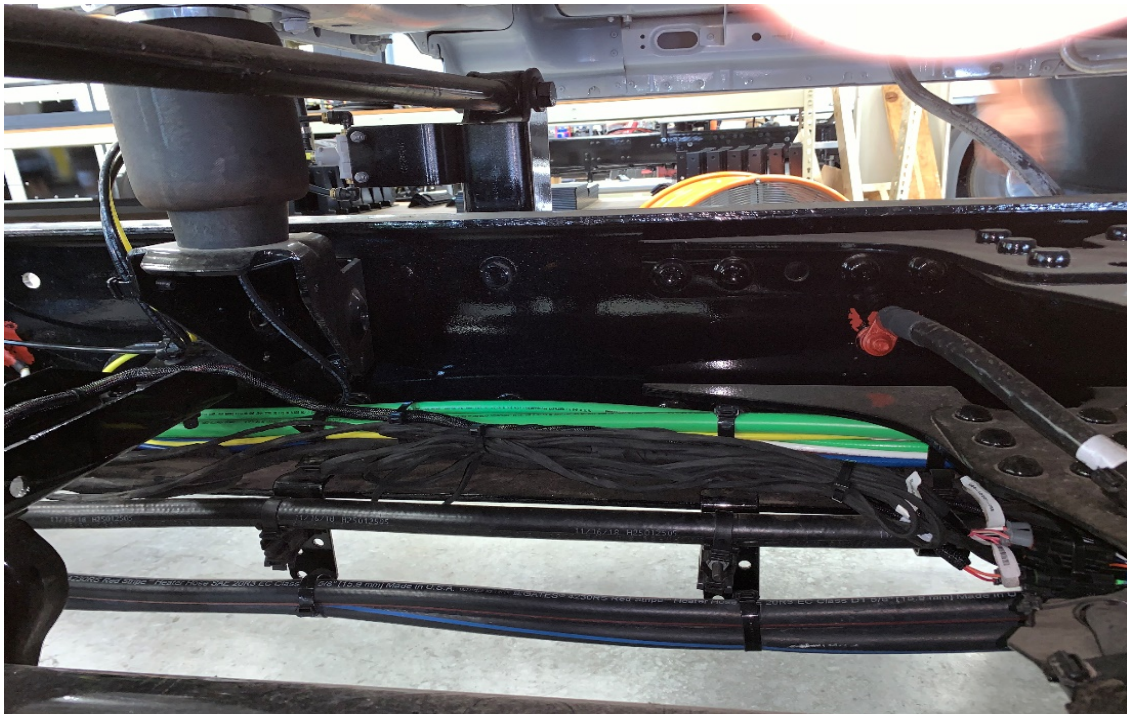
8. Continue running the harness along the top side of the left side frame rail into the under hood area of the truck with the main harness and air brake lines come through underneath the cab assembly.
9. Cut hole in the firewall of cab assembly to the right of where the truck air supply lines enter the cab. Feed wire through firewall.
10. Zip tie under hood portion of the wiring harness to existing wiring harness away from any moving components which could cause damage.



*Figure 3: BOC Harness Install*



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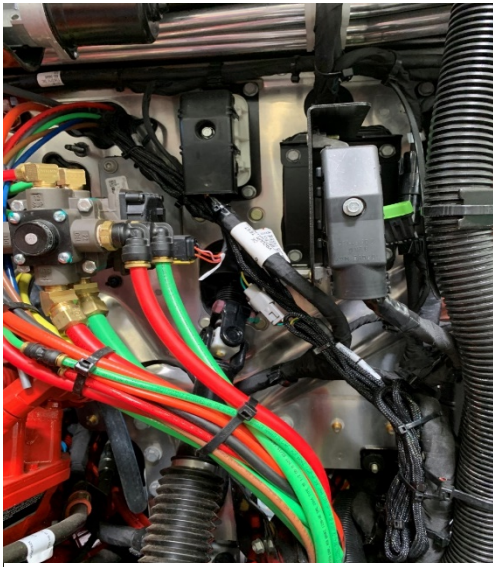


*Figure 1: Wiring Harness Routing-Behind Cab*

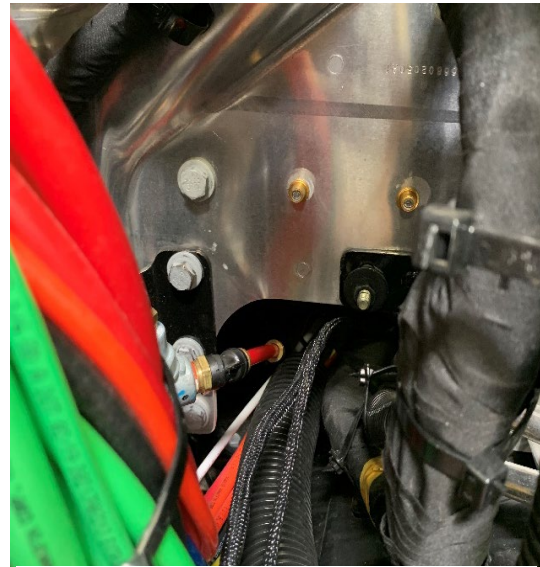




*Figure 5: Wiring Harness Routing-Under Cab*



*Figure 7: Under Hood Wiring*



*Figure 4: Wiring Harness Routing-Under*



*Figure 6: Firewall Hole Drilled*

# FUEL GAUGE:

## Interior Dash Removal:

Once the wiring harness is routed into the cabin of the truck, the lower dash panels must be removed in order to route the ignition switch interrupter and the fuel gauge circuits.

1. Remove the small panel just above the gas pedal assembly with the 3 torx bolts. (Fig. 20)
2. Remove the grab handle assembly and plastic covers over the bolts that hold it in place.
3. Remove the foot well assembly across door threshold taking care not to damage the weather stripping.
4. Remove the left kick panel assembly.
5. Remove the 13 mm hex head along the firewall.
6. Remove the left side panel under key switch area.
7. Remove the center dash piece.
8. Remove the ignition switch from the dash assembly.



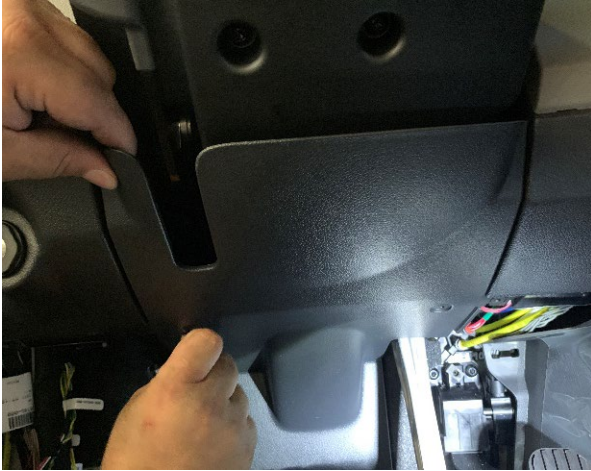
*Figure 10: Panel above gas pedal*



*Figure 10: Interior Grab Handle*







### Start Interrupter Circuit Installation:

1. Cut the wire for the center pin of the ignition switch.
  - a. Note: Will always be the center pin on all trucks.
2. Install start interrupter circuit between the switch and the truck.
  - a. From the MP92-1608 harness, the yellow wire is the key switch side and the grey w/red stripe goes to the starter circuit.
  - b. After center pin wire is cut, install crimps on each side of the switch.
3. Reinstall key switch into dashboard.

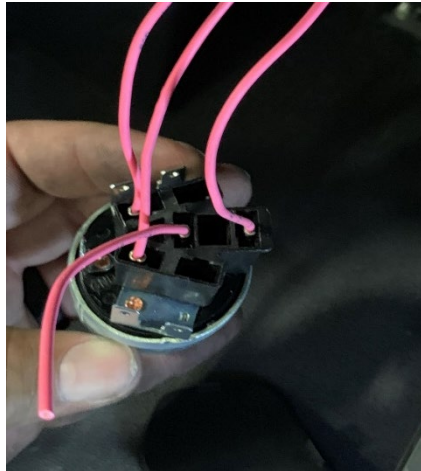


Figure 12: Key Switch-Center Pin



Figure 11: Key Switch Installed

4. Zip tie key switch interrupter circuit harness out of the way, taking caution to avoid brake, gas, and steering assemblies.
5. Remove 4 torx head bolts for the in-dash cover plate to gain access to the area behind the dash.



Figure 14: Blank Dash Panel



Figure 14: Passenger Side Dash Pad

6. Route the fuel gauge harness MP92-1031-C to this area.
7. Zip tie any loose wires from the fuel gauge harness taking caution to avoid the brake, gas, and steering assemblies.
8. Reinstall the lower dashboard assembly in the reverse order that it was taken apart.
9. Remove the passenger side dashboard pad. This has no screws holding it into place.
10. Remove gauge blank (if applicable) otherwise a hole in the dash will have to be cut in an appropriate location.
11. Install gauge assembly into the dashboard.
  - a. Gauge comes with two styles of terminals
    - i. Standard terminals





Figure 16: Fuel Gauge Blank Removed



Figure 16: Fuel Gauge Installed

ii. Freightliner, PACCAR, Kenworth, etc. style

12. Locate power, ground, and backlighting splice blocks for fuel gauge under the dash.
13. Crimp new terminals onto positive (red) and negative (black) on the end of the MP92-1031-C harness.



Figure 19: Ground Splice



Figure 19: Gauge Dimmer



Figure 19: Switched Power Gauge Block

- a. Power connection needs to be switched power
14. Install the black ground wire of the MP92-1031 to the truck side of the splice block
  15. Install the blue analog backlight to dimmer terminal splice block.
  16. Install red power wire to a switched power splice block under dash.
  17. Clean up wiring with zip ties and reassemble the dash after installing fuel gauge harness into the backside of the gauge assembly.