

Mack LR Wiring Harness Installation

Date: 6.3.2024

Subject: Mack LR Wiring Harness Installation

Models: Mack LR



Cummins Clean Fuel Technologies

1051 Republic Drive, Suite 200

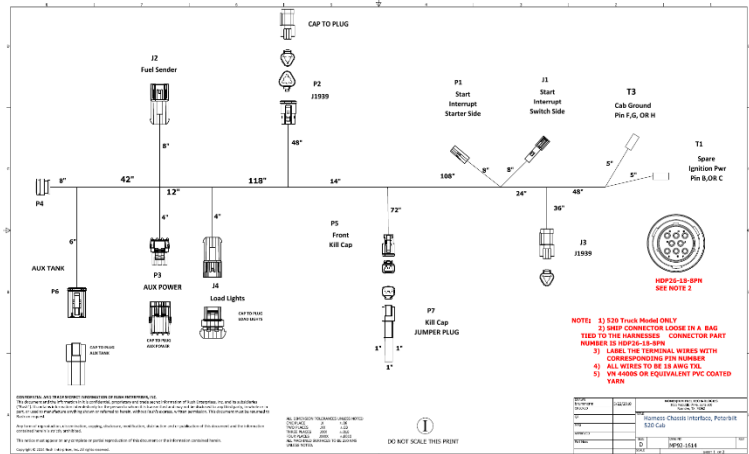
Roanoke, TX 76262

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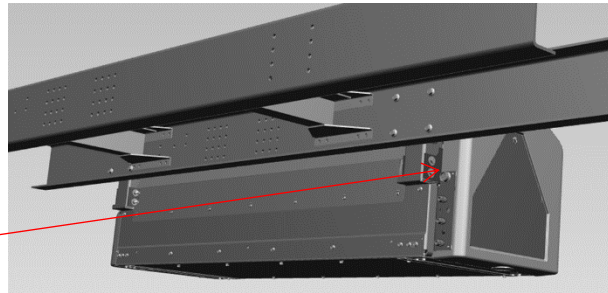
Chassis Interface Harness

Locate the CCFT Chassis Interface Harness in the installation kit MP92-1614.

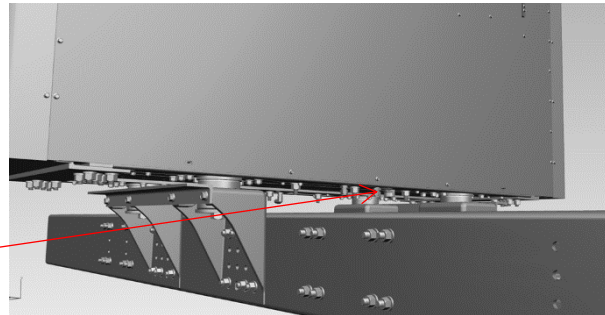
The P4 Deutsch 23 pin connector will connect to the fuel system, whether it is a Side Mount, Back of Cab with integrated FMM system, or a Standalone FMM.



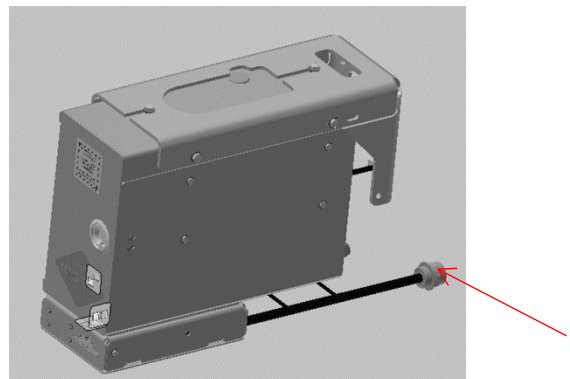
Side Mount with integrated FMM, the connection will be on the rear of the system with the FMM.



Back of Cab with integrated FMM, the connection is on the bottom of the system between the frame rails.



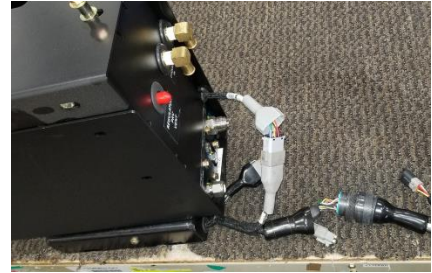
Standalone FMM, the connection will be on the rear of the system with the FMM.



FMM Connection

Connect the P4 connector on the CCFT Chassis Interface Harness to the J1 Chassis Interface connector on the FMM Harness

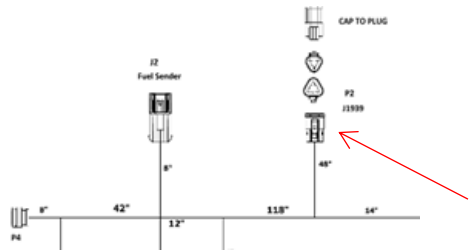
Route the CCFT Chassis Interface harness to the frame rail and try to secure the 23 pin connectors so the wires coming out of both harnesses go in a downward slope from the connectors so as not to trap water in the boots of the connectors.



J1939 Connection to Chassis

Route the Momentum Chassis Interface Harness.

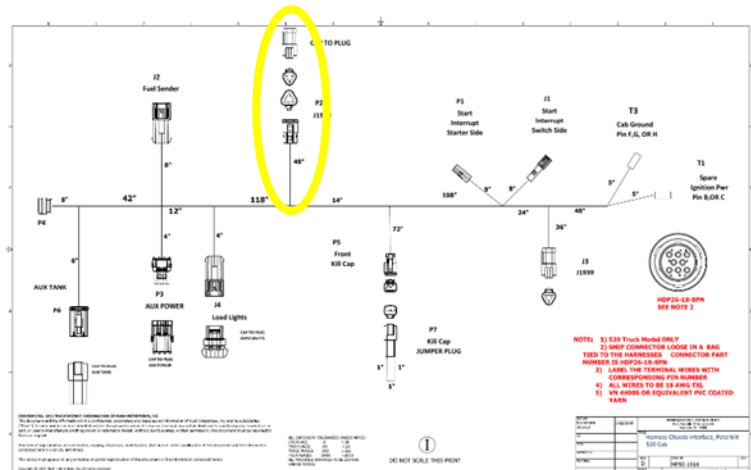
Route the harness so the J1939 connector is as far forward as possible in the left-hand frame rail.



Locate the J1939 Extension Harness in the CCFT Digital Gauge Kit MP92-1035.

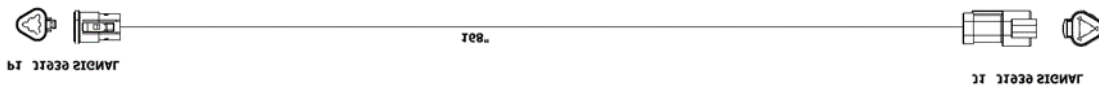


Plug the J1939 Extension Harness into the J1939 connector on the CCFT Chassis Interface Harness



Route the J1939 Extension Harness up the LH frame rail and into the LH side of the cab.

Route the Momentum Chassis Interface Harness up the LH frame rail as well and route into the cab as well. Ensure that the Front Kill Cap stays in the LH frame rail.



Remove the lower LH kick panels and locate the Term Resistor CAN 1 connector in the Mack harness.



Unplug the terminating resistor from the receptacle.

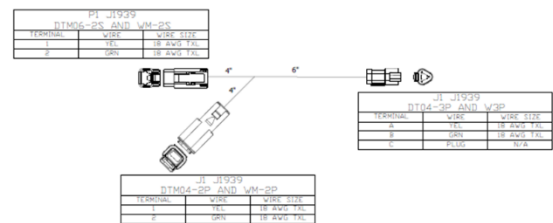
Remove the wedgelock from the receptacle on the truck.

Remove the wedgelock from the receptacle on the CCFT Y-harness adapter receptacle.

Install the wedgelock removed from the CCFT Y-harness receptacle into the Mack receptacle, and the wedgelock removed from the Mack harness into the CCFT Y-harness receptacle.

Plug the terminating resistor into the CCFT Y-harness adapter.

Connect the plug of the CCFT Y-harness adapter to the receptacle on the chassis.

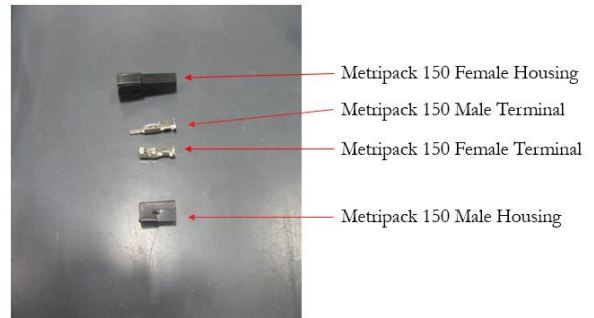


Start Interrupt Connection

The install kit will contact Metri-Pack 150 one terminal connectors and terminals. These will be used for the Starter Interrupt. .

It is especially important that the connectors be used as described as one of the first trouble shooting steps for a no crank issue is to unplug the Momentum fuel system from the start interrupt circuit and plug back in OEM wires to see if the issue is on the OEM side or the fuel system side.

It is required that the yellow Start Interrupt Switch Side be connected towards the switch as it requires power from the switch when it is cranking position. If the Momentum wires are reversed at the switch the circuit will not function.



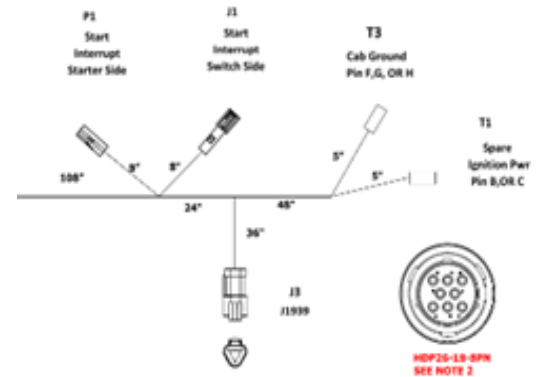
Route the CCFT Chassis Interface Harness Start Interrupt connectors to the key switch MP92-1614.

Cut the crank wire from the key switch, normally the center wire on the key switch, approximately 6"-12" from the key switch.

Install the Metripack 150 Male Terminal and Female Housing on the wire going to the switch.

Install the Metripack 150 Female Terminal and Male Housing on the wire going to the chassis.

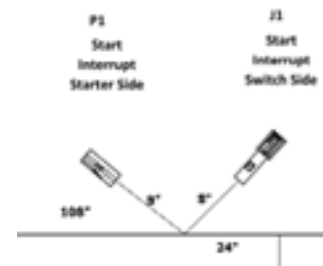
Plug the connectors just installed at the key switch into the Momentum Start Interrupt Starter Side and Start Interrupt Switch Side connectors.



Power and Ground Connections

Route the Spare Ignition Power and Cab Ground connectors on the CCFT Chassis Interface Harness MP92-1614 to the doghouse.

Route the Spare Ignition Power and Cab Ground connectors on the CCFT Chassis Interface Harness to the doghouse.



Remove the doghouse cover and locate the Mack 9 Pin Body Builder Connector.

The CCFT Fuel System must use switched power and cannot use accessory power.

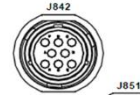
The CCFT Spare Ignition PWR wire can be connected to either Pin B or Pin C on the Mack Body Builder Connector.

The CCFT Cab Ground can be connected to either pins F, G, or H

Included with the CCFT Chassis Interface harness is the mating 9 pin connector.

CONNECTOR INFO: J842		
PART NUMBER:	P20-6389-0810	
CAVITIES:	8	
LABEL:	BODY BUILDER CONNECTION 1	
LABEL COLOR:	WHITE	
VAR:	BASE	

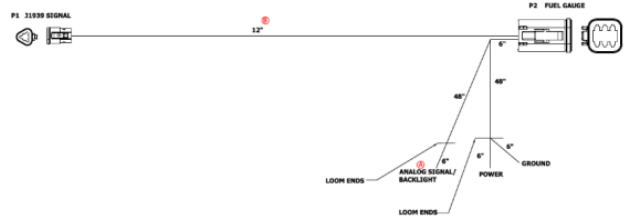
TERMINAL INFO: J842		
CAVITY	CIRCUIT NO.	PLT
A	RED0714-1	NI
B	RED0711-1	NI
C	RED0751-1	NI
D	RED_WHT3111-0	NI
E	YEL2960-0	NI
F	WHT0711-1	NI
G	WHT0712-1	NI
H	WHT0713-1	NI



Digital Gauge Connection

The CCFT digital gauge can be installed in place of the analog fuel gauge if the chassis has one installed or installed in the panel of the dash.

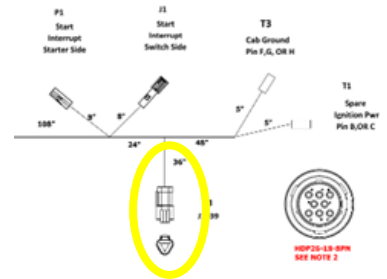
Find the CCFT Gauge Harness in the gauge kit.



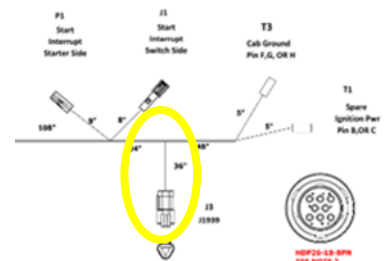
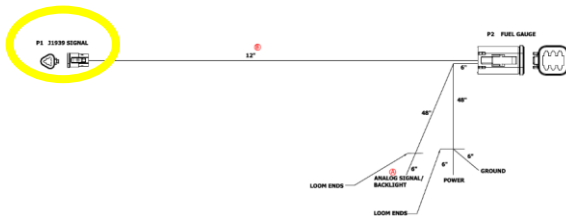
Locate the second J1939 connector on the CCFT Chassis Interface Harness.

It is located between the Starter Interrupt Wires and the Cab Ground and Spare Ignition connectors.

This should be routed towards the digital fuel gauge.



Connect the J1939 connector on the CCFT Chassis Interface Harness to the J1939 Signal connector on the Gauge Harness



Connect the Power and Ground connections on the CCFT Gauge Harness to Switched Power and Ground on the chassis.