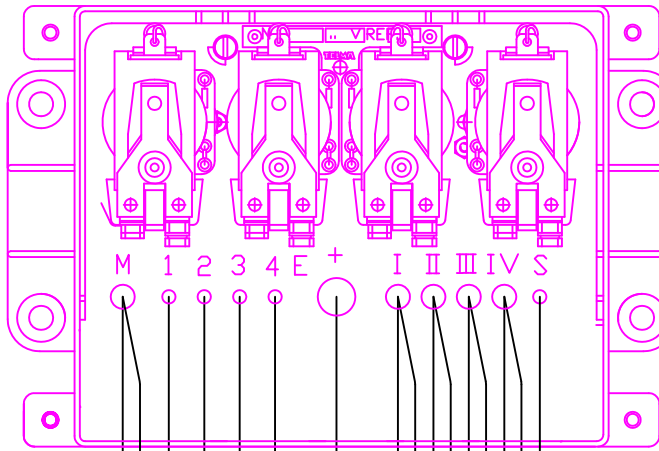


TL134075 AIR BRAKE WIRING DIAGRAM WITH TRCM2 AND J1939 Freightliner 8nov19jh

J1939 CAN control features:
TRCM active outputs turn off
under the following conditions.
1) during ABS event
(with progressive reactivation)
2) Speed below 2 mph
3) Throttle position greater than 1%

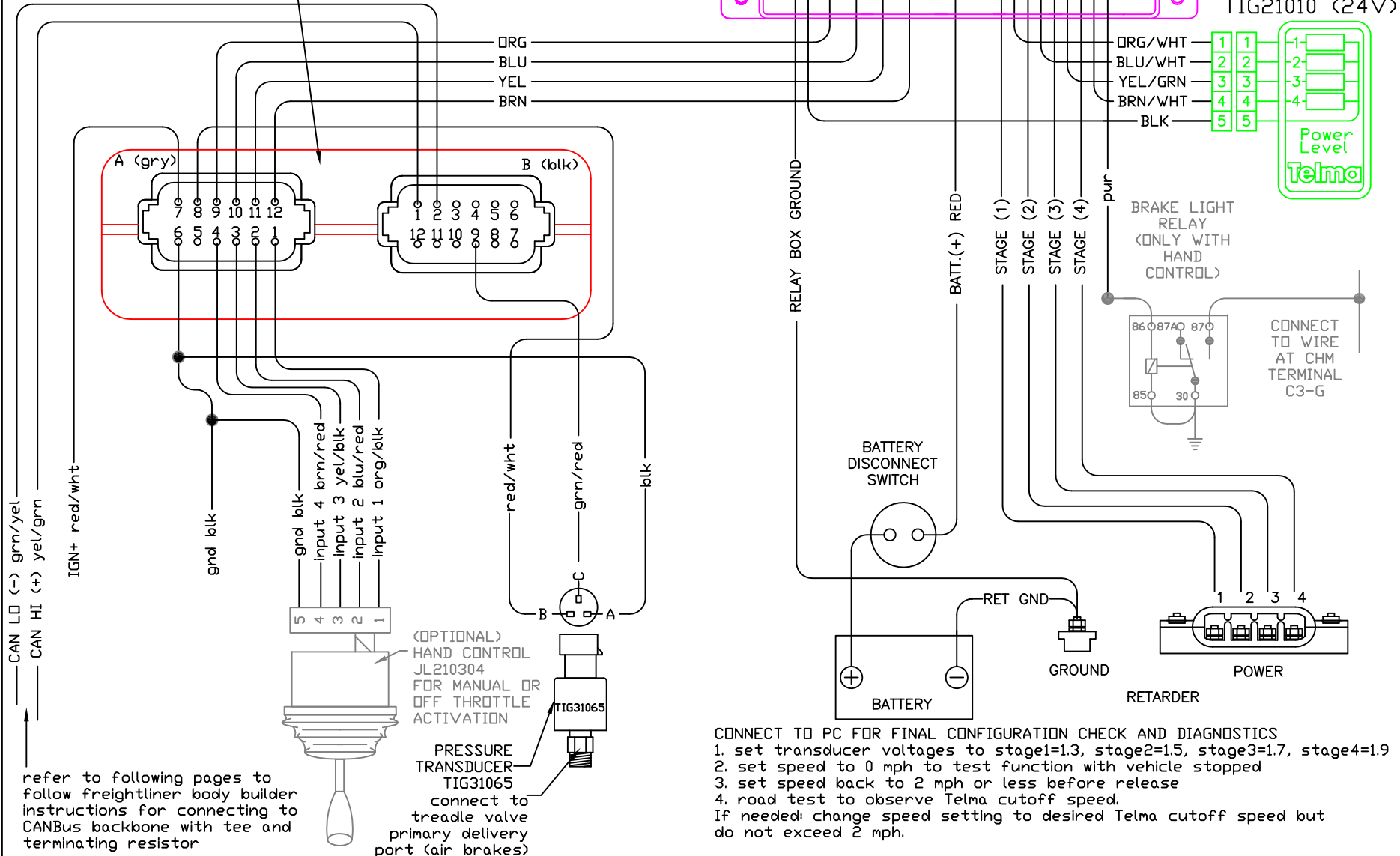
Note: For Telma activation when accelerator is released
1) connect org/blk wire (TRCM gray pin 1) at hand control plug to ground for 25% activation when accelerator is released
2) connect org/blk and blu/red wire (TRCM gray pins 1 and 2) at hand control plug to ground for 50% activation when accelerator is released.
Caution: Connect with on/off switch to turn off this function under slippery conditions

TRCM2
TIG31069
12V/24V



RELAY BOX
JD331121 (12V)
JD332121 (24V)

LIGHT BAR
DISPLAY
TIG11010 (12V)
TIG21010 (24V)



CONNECT TO PC FOR FINAL CONFIGURATION CHECK AND DIAGNOSTICS
1. set transducer voltages to stage1=1.3, stage2=1.5, stage3=1.7, stage4=1.9
2. set speed to 0 mph to test function with vehicle stopped
3. set speed back to 2 mph or less before release
4. road test to observe Telma cutoff speed.
If needed: change speed setting to desired Telma cutoff speed but do not exceed 2 mph.

refer to following pages to follow freightliner body builder instructions for connecting to CANBus backbone with tee and terminating resistor



EPA 2010 Models System Tap Points

Dash Tap Points

Ignition Power, Ground and Dash Illumination

Tapping into dash illumination and ignition power and ground can be accomplished by using the center tap point connections located in the center back wall of the dash.

Note:

- * Ignition power source will be powered during engine cranking
- * Ignition power source will not be powered when key is in accessory position.

J1939 Connections

Tying into the J1939 backbone is accomplished by tapping into the system using the terminating resistor tee's located at each end of the backbone

The Chassis terminating resistor is located in a tee along the left frame rail, usually behind the cab.

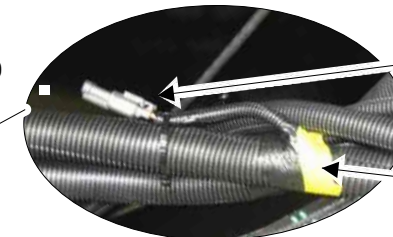
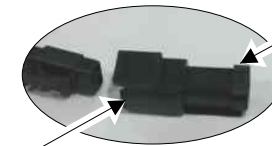
The cab terminating resistor is located in the dash tucked up above the dash tap points for the J1587.

The correct datlink resistance measured at any device, or at the diagnostic plug should be 60 ohms with the battery disconnected.

IMPORTANT:

- It is essential that both terminating resistors remain connected to the ends of the J1939 backbone to dampen feedback signals. Numerous J1939 problems can be attributed to terminated resistors are missing or disconnected.
- If connections under dash become disconnected. Connections should never be reconnected back together directly IE ABS with ABS as this creates an independent circuit in the system that is not connected to the backbone.

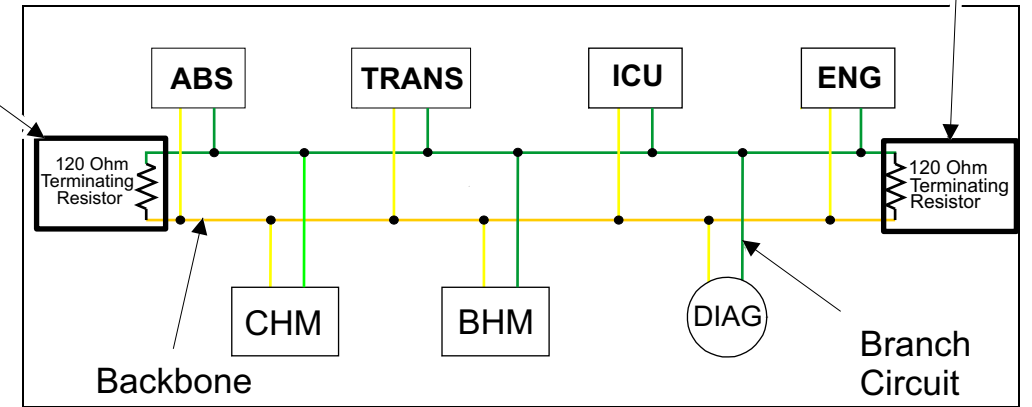
Resistor Receptor
Part FTL# 23-13303-902
Deutsch # DTM04 - 2P - EP10



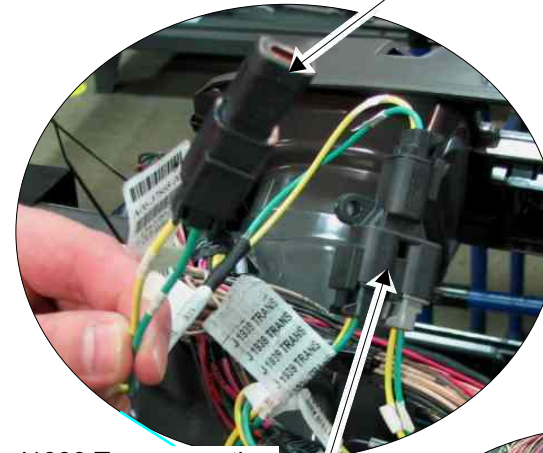
Chassis resistor located in chassis frame rear of cab

Look for Yellow or Red tape located at breakout point under cab Drivers side

The J1939 Datalink

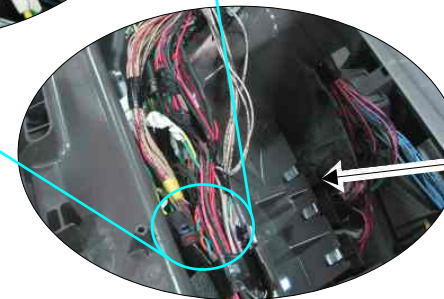


J1939 Multiplexing System connections

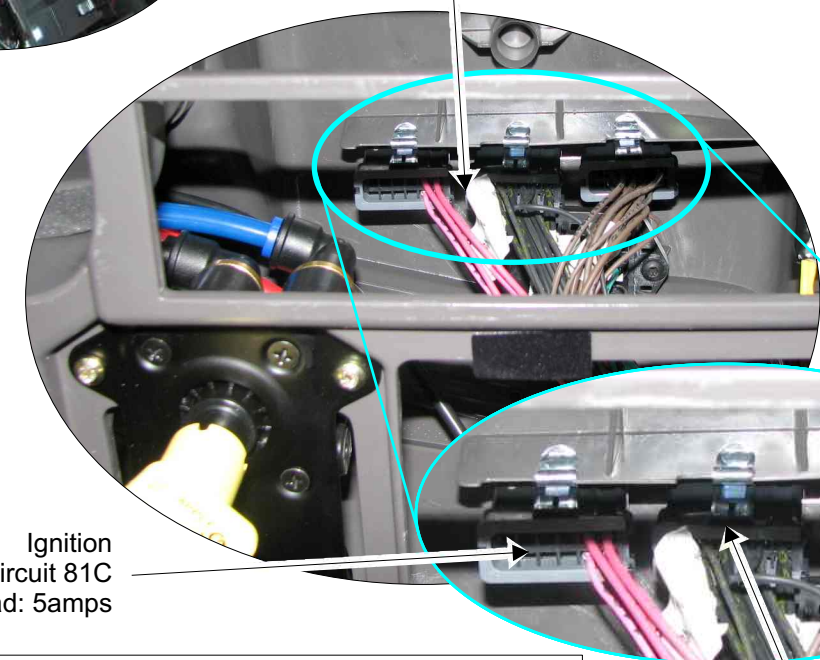


Cab resistor located in dash behind ICU panel

J1939 Tee connection is used for Switch Expansion or adding additional devices Modules only and is not used on std assemblies (FTL # A06-37868-000)



Dash Tap point



Illumination Circuit 29A
Max load: 5amps

Ignition Circuit 81C
Max load: 5amps

Pin part number for harness connection
TERM-FEMALE,(18-16) PAC12110844
TERM-FEMALE,(14-12) PAC12110842

Ground Circuit GND
Max load: 10amps



J1939 Connections for Body Builders

To connect easily to J1939 at dash or chassis locations order the following parts:

- (1) Tee and Jumper FTL# A06-37868-000
- (1) Jumper Plug # DUFDTM06 2S E004
- (2) Female Pins DUFWM2SB

Component Module Locations

| Component | Module Number |
|---|-------------------|
| General J1939 harness drawings, schematics, and installation drawings | 160 |
| Engine harness, installation drawings and wiring diagrams | 283 and 286 |
| Transmission harness, installation drawings and wiring diagrams | 34A, 34B and 343 |
| ABS harness and installation drawings | 330, 332, and 333 |
| Gateway harness and installation drawings | 860 and 835 |

Dash Tap Points



EPA 2010 Models

Chassis Module (CHM) Pin Detail



A B C D E F G
H J K L M N P

C1 Tail Light Harness

| Taillight Harness Pinouts at Connector C1 | | | | |
|---|------------------------------|----------------|------|----------|
| Connector and Pin Numbers | Signal Name | Signal Type | Full | Standard |
| C1-A | Left Backup Lamp | Digital Output | X | X |
| C1-D | Left Taillight Pass-through | Pass-through | X | X |
| C1-E | Right Taillight Pass-through | Pass-through | X | X |
| C1-F | License Plate Lamp | Digital Output | X | X |
| C1-G | Left Rear Turn Lamp | Digital Output | X | X |
| C1-H | Backup Alarm | Digital Output | X | X |
| C1-J | Right Backup Lamp | Digital Output | X | X |
| C1-L | Right Stop Lamp | Digital Output | X | X |
| C1-N | Left Stop Lamp | Digital Output | X | X |
| C1-P | Right Rear Turn Lamp | Digital Output | X | X |

C2 Trailer Module Harness

A B C D
E F G H

| Trailer Module Harness Pinouts at Connector C2 | | | | |
|--|--------------------------------------|----------------|------|----------|
| Connector and Pin Numbers | Signal Name | Signal Type | Full | Standard |
| C2-A | Trailer Power Relay | Digital Output | X | |
| C2-C | Ground | Power Ground | X | |
| C2-D | Trailer Stop Lamp Relay Pass-through | Pass-through | X | |
| C2-E | Trailer Right Turn Lamp | Digital Output | X | |
| C2-F | Trailer Marker Lamps Relay | Digital Output | X | |
| C2-G | Trailer Taillight Relay Pass-through | Pass-through | X | |
| C2-H | Trailer Left Turn Lamp | Digital Output | X | |

C3 Forward Chassis Harness

H G F E D C B A
J K L M N P R S

| Forward Chassis Harness Pinouts at Connector C3 | | | | |
|---|--|-----------------------------|------|----------|
| Connector and Pin Numbers | Signal Name | Signal Type | Full | Standard |
| C3-A | Fuel/Water Separator Heater | Digital Output | X | |
| C3-B | J1587{ Datalink | Datalink | X | X |
| C3-C | Fog/Road Lamps | Digital Output | X | |
| C3-D | Fog/Road Lamps | Digital Output | X | |
| C3-E | Low Air Pressure | Digital Input (active low) | X | X |
| C3-F | Park Brake | Digital Input (active low) | X | X |
| C3-G | Service Brake | Digital Input (active low) | X | X |
| C3-H | Ground | Power Ground | X | X |
| C3-J | Main Battery Power (VBAT2) | Power | X | X |
| C3-K | Right DRL | Digital Output | X | |
| C3-L | Right Low Beam | Digital Output | X | X |
| C3-M | Ignition | Digital Input (active high) | X | X |
| C3-N | Left Front/Side Turn Lamp | Digital Output | X | X |
| C3-P | Taillight/License Plate Lamps Pass-through | Pass-through | X | X |
| C3-R | Right Front/Side Turn Lamp | Digital Output | X | X |
| C3-S | J1587+ Datalink | Datalink | X | X |

C5 Air Management Unit

M L K J H G
F E D C B A

| Connector C5 Air Management Unit (AMU) Harness Pinouts | | | | |
|--|--------------------|--|------|----------|
| Connector and Pin Numbers | Signal Name | Signal Type | Full | Standard |
| C5-A | AMU Analog Input 0 | Digital Input (active low), Analog Input | X | |
| C5-B | AMU Analog Input 1 | Digital Input (active low), Analog Input | X | |
| C5-C | Ground | Signal Ground | X | |
| C5-F | AMU Analog Input 2 | Digital Input (active low), Analog Input | X | |
| C5-G | AMU Analog Input 3 | Digital Input (active low), Analog Input | X | |
| C5-H | AMU Solenoid 0 | Digital Output | X | |
| C5-J | AMU Solenoid 1 | Digital Output | X | |
| C5-L | AMU Solenoid 2 | Digital Output | X | |
| C5-M | AMU Solenoid 3 | Digital Output | X | |

C4 Forward Chassis Harness

S R P N M L K J
H G F E D C B A

| Forward Chassis Harness Pinouts at Connector C4 | | | | |
|---|-----------------------------------|----------------------|------|----------|
| Connector and Pin Numbers | Signal Name | Signal Type | Full | Standard |
| C4-A | Module Wake-up Signal | Digital Input/Output | X | X |
| C4-B | Address Identification A | Analog Input | X | X |
| C4-C | Left Park Lamp | Digital Output | X | X |
| C4-D | Left Marker Lamp | Digital Output | X | X |
| C4-E | Address Identification C | Analog Input | X | X |
| C4-F | Left DRL | Digital Output | X | |
| C4-G | J1939+ Datalink | Datalink | X | X |
| C4-H | Ground (address identification D) | Signal Ground | X | X |
| C4-J | Main Battery Power (VBAT3) | Power | X | |
| C4-K | Right High Beam | Digital Output | X | X |
| C4-L | Right Park Lamp | Digital Output | X | X |
| C4-M | Right Marker Lamp | Digital Output | X | X |
| C4-N | Address Identification B | Analog Input | X | X |
| C4-P | Main Battery Power (VBAT1) | Power | X | X |
| C4-R | J1939{ Datalink | Datalink | X | X |
| C4-S | Ground | Power Ground | X | X |