FleetLink
Trek DVR

Installation and Troubleshooting Guide

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Introduction and Intended Audience

This document is intended for installers and integrators of FleetMind Solutions' Mobile DVR platform. It provides important installation notes, reference diagrams, and troubleshooting tips to assist you with your installation.

In order to ensure a successful and trouble-free installation at the client's site, we make the following recommendations, which we strongly suggest that you follow:

- Read and follow the instructions in this guide. The information contained here is provided to help you work effectively and minimize the likelihood of any critical issues coming up during installation. Have this document on hand when doing your on-site installation.
- Prepare your equipment. Having the right tools and proper planning saves resources and time.
- When in doubt, ask. Taking time to ask FleetMind or local staff for help costs less than taking a risk on something you are uncertain about
- Check twice, do once. At first glance, wiring & connection points in trucks may be labeled correctly, but, trucks pass through many hands and undergo considerable improvisational repairs during their lifespan. Spending five minutes with a multi meter authenticating proper connection points prior to installing is an invaluable step in eliminating troubleshooting later on.

By following these recommendations, you will minimize the risk of inconvenience, hampered productivity, and/or revenue loss for your customer.

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IMPORTANT—OPERATING ENVIRONMENT

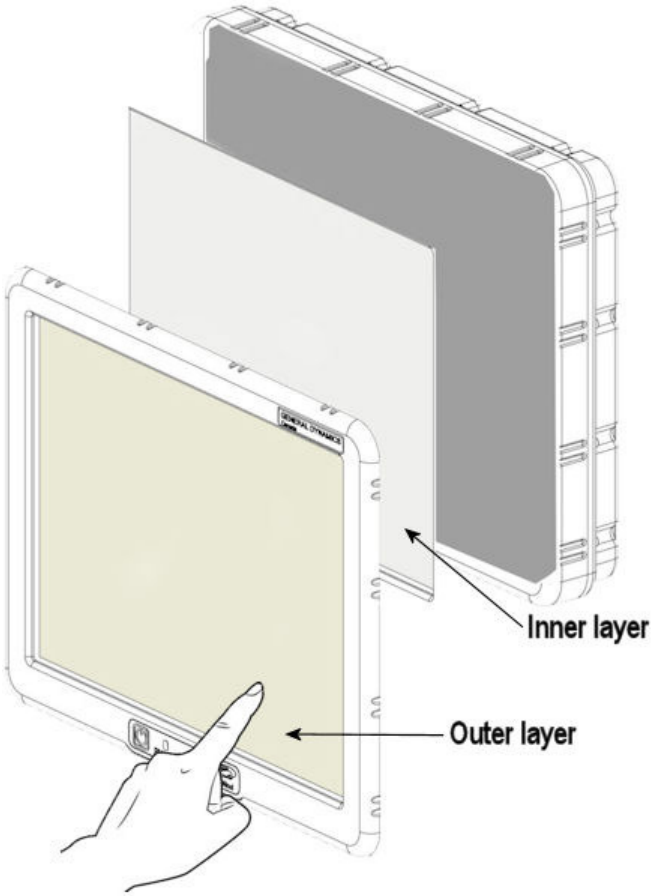
CAUTION: Operating environment

This page contains important information concerning the operation of your fleetmind mobile platforms.
Failure to comply with the instructions provided herein may cause permanent equipment damage and void your warranty.
Read carefully and follow these instructions.

The robust design of FleetMind's mobile platforms enables them to perform reliably within a wide range of normal (i.e., suitable-for-humans) operating temperatures.

However extremely hot weather conditions, combined with heat generated by the equipment itself, can quickly accelerate the increase of in-cab operating temperatures well beyond the equipment's supported temperature range, and can cause operational degradation or complete system shutdown.

In the case of touch screens, extreme heat can inflict irreparable damage, causing the two layers that comprise the touch screen to fuse together, rendering the screen unusable and impossible to repair.
Operating the equipment outside its supported range, which has been identified by FleetMind as causing this damage, constitutes abuse and is not covered by warranty.



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CAUTION: Internal damage risk

Risk of damage is not limited to the touch screen—internal storage and RFID may also sustain damage from prolonged exposure to extremely high in-cab temperatures.

In cases studied by FleetMind with customers in a location experiencing record high temperatures, it was identified that this damage was caused in vehicles that were either not equipped with a kill switch (or Power Tamer) or the driver did not engage the kill switch before leaving the vehicle for an extended period of time. As a result, the equipment remains powered on and generating heat.
An outside air temperature of 122F/50C will typically translate inside the truck with windows closed to be higher than 185F/85C.

The following chart shows how rapidly the temperature of a vehicle's interior can rise during periods of extreme heat, creating conditions dangerous or fatal to humans and animals, and potentially destructive to electronic equipment.

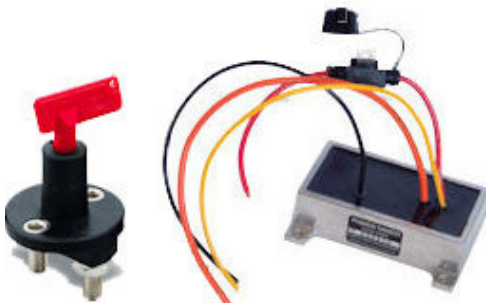
Estimated Vehicle Interior Air Temperature v. Elapsed Time

Elapsed time	Outside Air Temperature (F)					
	70	75	80	85	90	95
0 minutes	70	75	80	85	90	95
10 minutes	89	94	99	104	109	114
20 minutes	99	104	109	114	119	124
30 minutes	104	109	114	119	124	129
40 minutes	108	113	118	123	128	133
50 minutes	111	116	121	126	131	136
60 minutes	113	118	123	128	133	138
> 1 hour	115	120	125	130	135	140

Courtesy Jan Null, CCM; Department of Geosciences San Francisco State University

CAUTION: Prevent equipment damage

Remember and follow these rules! To prevent equipment damage due to extreme heat fleetmind flat screens and rfid readers cannot be left to operate when the truck is parked for extended periods, particularly in high temperatures. Always engage the kill switch (or use the Power Tamer) when the vehicle is not in use.



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Information in the following table is provided as a quick-reference reminder of the operational temperatures of various FleetMind mobile components.

COMPONENT	OPERATIONAL TEMPERATURE	
GD4010	+176°F/+80°C (non-operational) and +158°F/+70°C (operational)	
GETAC	0 °C (32 °F) and 50 °C (122 °F)	
TREK	-30°C ~ +70°C (-22°F to +158 °F)	
SSV9	-20°C ~ +75°C (-4°F to +167 °F)	
XM	-40°C to +85°C (storage), -25°C to +70°C (operating)	
XS	-40°C to + 65°C (operating) -40°C to + 70°C (storage)	
ALIEN RFID	-20°C to +55°C (-4°F to +131°F)	

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Kit Contents

Your FleetLink DVR installation kit is packed and shipped in a rugged and reusable flap-nest storage container (in-vehicle kits) whose capacity, outside dimensions, and shipping weight are described below.

FleetLink Mobile In-Vehicle Kit		
Capacity	2.43 cu. ft. (67 L)	
Length	27.4 in. (696 cm.)	
Width	17.0 in. (432 cm.)	
Depth	12.6 in. (320 cm.)	
Shipping Weight*	29 lb. (approx.) (13.2 kg)	

**Shipping weight varies according to selected options.*

Before you install the FleetLink DVR system, you must ensure that you have received all hardware components and that the items in the kit are in good condition.

To check that you have all components:

1. Refer to the Bill of Material (BOM) packed in the container.
2. Consult the ***Basic Kit*** table.

Check the condition of all hardware components and parts kit items to ensure they are in good condition.

CAUTION: Damaged kit

Do not attempt installation if any hardware component or item in the kit is damaged. Contact FleetMind to report the damage immediately and request a Return Material Authorization (RMA).

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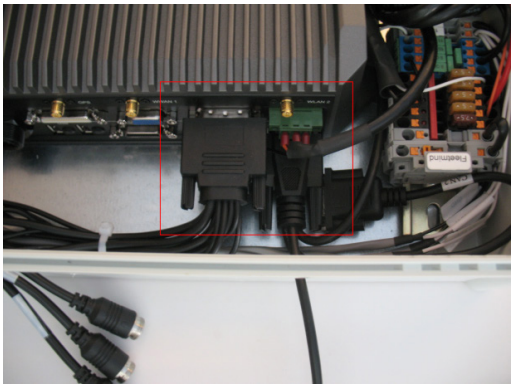
The following table lists the components included in each kit.

Note that some components—such as cables and connectors—are vehicle-specific (as determined by Fleet Survey data) and/or are offered according to the chosen option packages. As such, your kit will not necessarily contain ***all*** components listed.

For example, a kit provided for an installation requiring a Deutcsh-9 connection will include only a Deutsch-9 cable—not Deutsch-9 ***and*** Deutsch-6 cables.
Consult the Bill of Material included with your kit for specific contents.

Basic Kit

Qty.	Component	
1	FleetLink DVR Computer	
	Housed in a Fibox enclosure with FleetMind terminal block, lower photo.	
	Harnesses are connected at FleetMind prior to shipping.	

Basic kit table is continued on the next page.

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Basic Kit (continued)

Qty.	Component	
1	FleetLink DVR Monitor	
1	A/V In cable 060-5453	
1	Generic I/O cable	

Basic kit table is continued on the next page.

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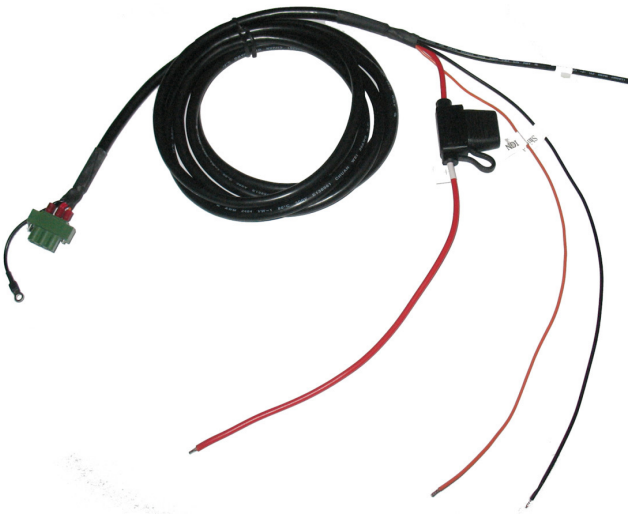
Basic Kit (continued)

Qty.	Component	
1	Vehicle I/O cable	
1	Power cable for DVR	
1	Multi-purpose antenna (GPS, Wi-Fi, LTE)	

Basic kit table is continued on the next page.

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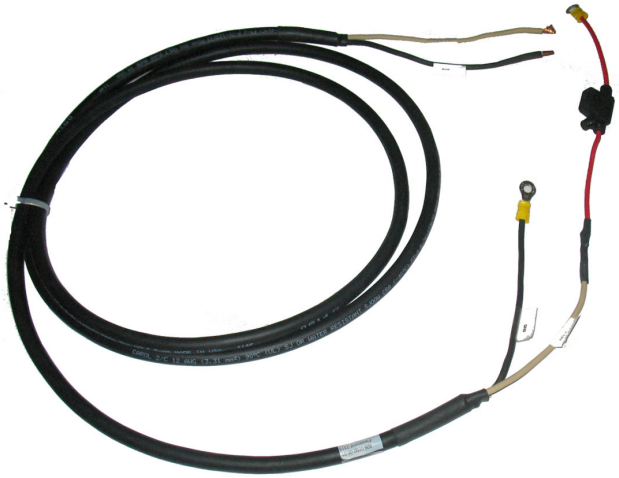
Basic Kit (continued)

Qty.	Component	
1	FleetMind ECM cable	
1	Truck power cable	
2	Protective covers for LAN ports	

Basic kit table is continued on the next page.

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Basic Kit (continued)

Qty.	Component	
1	Key	
1	Monitor cable	
1	Lift sensor adapter cable	

Parts list

PRODUCT CODE	PART NUMBERS	DESCRIPTION
VPKG-DVR	144-022-01	5540582, RA-Fleetmind Assembly Pit MOD2
	144-032	Fibox Enclosure PC2538113 7.5"x11x5.1 (based on type of system)
	144-033	Fibox backplate EKVT for 7.5"x11"x5.1" Enclosure (based on type of system)
	144-034	Fibox Enclosure PC282813T 11"x11x5.1 (based on type of system)
	144-035	Fibox backplate ECOVT for 11"x11"x5.1" Enclosure (based on type of system)
	144-036	Fibox Enclosure PC562813T 22"x11x5.1 (based on type of system)
	144-037	Fibox backplate EKTVT for 22"x11"x5.1" Enclosure (based on type of system)
	144-042	Fibox Enclosure 15"x11x5.1 (based on type of system)
	144-041	Fibox backplate for 15"x11"x5.1" Enclosure (based on type of system)
	891-042	TREK Ant 201 GWL3E 3 in 1 Combo Antenna LTE-WiFi-GPS
	916-0040-00.00	TREK 674 HWB001E-ES Compact In-vehicle Computer
	916-0040-00.01	TREK 674 1502E-T Compact In-vehicle Computer
	916-0041-00.00	TREK 306D HA0E 10.4 in XVGA display
	916-0041-00.01	TREK 303D HA0E - ES 7 in Monitor
	926-0120-00.01	Monitor Cable 36P(M)/36P(M) 5m
	926-0075-36.00	Adapter:TREK BNC to STREET SMART Camera (based on type of system)
	926-0075-36.01	Adapter:TREK BNC to STREET SMART Camera Without Audio (based on type of system)
	926-0107-00.02	SAE J1939 Only Deutsch 9 pin connector to DB9 Female for TREK (based on type of system)
	926-0107-01.01	SAE J11962 16 pin connector to DB9 Female for TREK (based on type of system)
	501-039	RAM 3 5/8" Square 75 MIL . Vesa Base W/ball
	926-0092-00.01	Truck Power Cable
	926 0093 00.03	Truck I/O Cable 2 conductor 6ft for TREK (brake, PTO, reverse etc...)
	shop material	Surge current protector
	890-068.01	Verizon LTE SIM Card
	880-007.05	Lift sensor relay adapter cable

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In-vehicle Installation Guidelines

Safety Instructions for FleetLink DVR Computer

1. Read these safety instructions carefully.
2. Keep this equipment away from humidity.
3. Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage.
4. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.
5. Make sure the voltage of the power source is correct before connecting the equipment to the power source.
6. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
7. All cautions and warnings on the equipment should be noted.
8. Never pour any liquid into an opening. This may cause fire or electrical shock.
9. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
10. If one of the following situations arises, get the equipment checked by service personnel:
    i. The power cord or plug is damaged.
    ii. Liquid has penetrated into the equipment.
    iii. The equipment has been exposed to moisture.
    iv. The equipment does not work well, or you cannot get it to work according to the documentation.
    v. The equipment has been dropped and damaged.
    vi. The equipment has obvious signs of breakage.
11. DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -30° C (-22° F) OR ABOVE 70° C (158° F). THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.
    Operating temperature: 50° C
12. CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER, DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.
13. The sound pressure level at the operator's position according to IEC 704-1:1982 is no more than 70dB (A).

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General Guidelines

Different vehicles may present different challenges when mounting the FleetLink DVR equipment, as will customer/driver preference.

The first stage of any installation is performing an inspection of the various truck models involved. The on-site project manager and anyone deemed necessary in making decisions (e.g., maintenance supervisor, safety supervisor, lead drivers) should be present during this process to avoid the phrase “we didn’t want the screen there” later on in the project. Every client has different requirements regarding in-cab real estate.

The final installations position of the DVR HW should be discussed and approved by the customer prior to final placement.

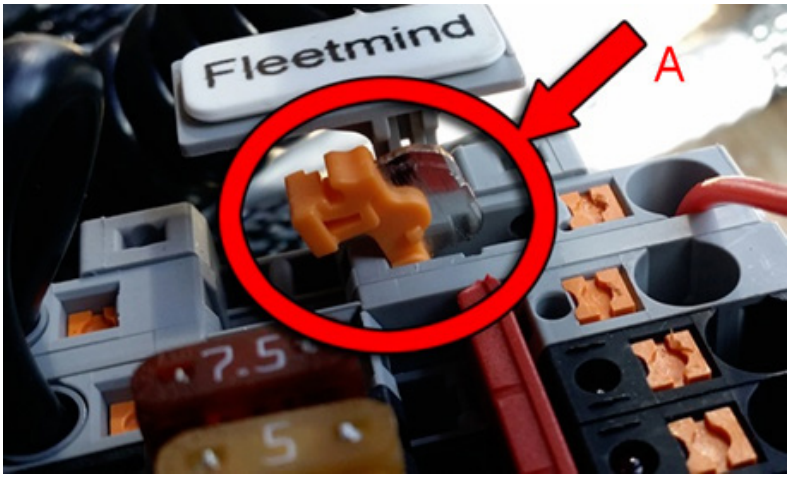
Given the wide variation of in-cab design among various truck makes and models, FleetMind suggests that you consider the following general issues when doing an in-vehicle installation.

1. **Safety**
   See ***Safety Instructions*** .
2. **Ergonomics**
   The FleetLink DVR Monitor should be easily accessible to the driver, and be viewable without being obstructed by other equipment, for example, a scale control unit or a FleetLink Mobile flat screen computer (where installed).
3. **Cable run**
   The cable run from the Smart Display to the FleetLink DVR must be short enough to enable reliable performance.
   The Smart Display cable is available in 3 lengths:
   a. 1700020007 M Cable SCSI 36P(M)/SCSI 36P(M) 200cm (78.7in.)
   b. 1700020008 M Cable SCSI 36P(M)/SCSI 36P(M) 500cm (197in.)
   c. 1700020329-01 M Cable SCSI 36P(M)/SCSI 36P(M) 800cm (315in.)
   To ensure signal quality, the maximum cable length is limited to 10 meters. If greater cable length is desired, an additional signal booster box might be required.
   Please contact FleetMind for further assistance.
4. **Unobstructed access to communications**
   Ensure that all antennae (GPS, network, LTE) are unhampered by dashboard clutter or other objects.

DOs and DON’Ts

CAUTION: Welding precautions

When doing any welding on the vehicle, disconnect the 12V bridge (A) on the terminal block.



- **DO** involve and advise local maintenance supervisors about any wiring connections being performed or holes being cut
- **DO** use heat-shrink butt connectors when tapping into any existing wiring in a truck (B)
- **DON’T** use regular butt connectors unless local staff permits it (C)

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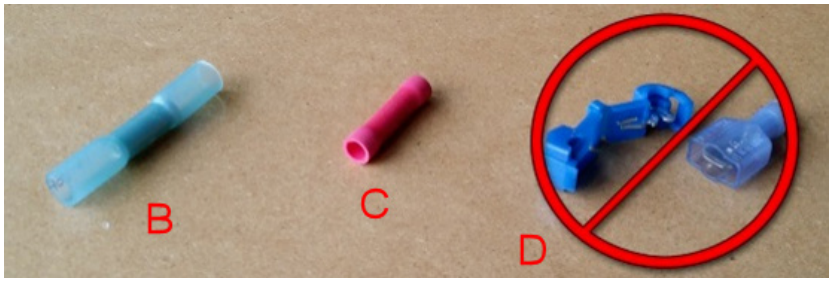
- **DON'T EVER** use quick splice lock connectors to tap into existing wiring on a truck (D)



- **DO** make sure there is enough slack on the DVR Monitor's display cable so that the screen can pivot from driver to passenger side easily, ensuring the cable is not bent at dangerous angles.
- **DON'T**: For all connectors, do not twist sided to side; make sure screws are completely loosened before pulling.

GPS/Cellular/WLAN

IMPORTANT:

You must connect all 5 cables from the antenna to the rear-panel connectors.

DO NOT OVERTIGHTEN:

Never tighten GPS, cellular, or WLAN antenna connectors using tools. Finger-tighten only, using minimal hand strength.

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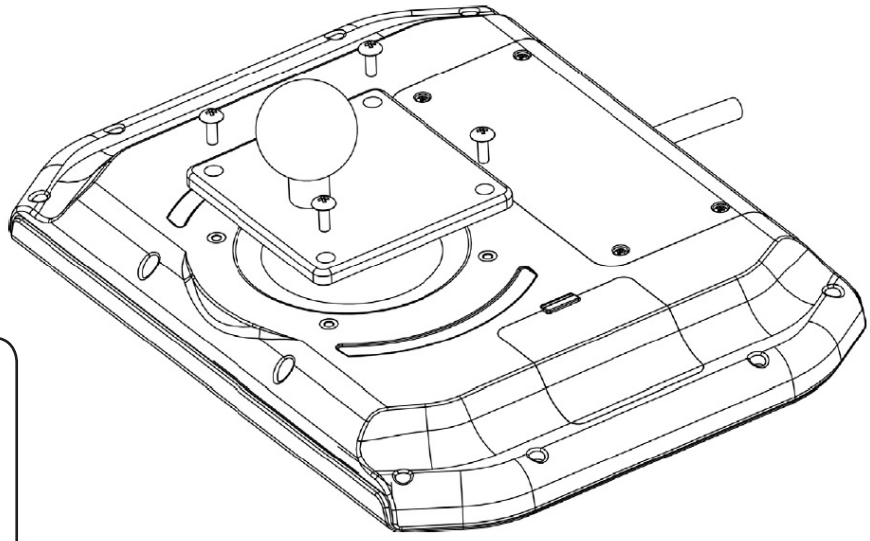
- **NEVER DISCONNECT/RECONNECT THE ANTENNAE ON THE REAR PANEL WITHOUT FIRST DISCONNECTING POWER TO THE DVR**.
- **DON'T** mount the GPS/Cellular antenna outside the cab
- **DO** mount the GPS/Cellular antenna on the dash, as close to the windshield as possible, away from other devices and clutter.
- **DO** prep the mounting surface for the GPS/Cellular antenna by properly cleaning off dirt, dust and debris, as well as, using the alcohol swab provided in the packaging.
- **DON'T** crush or bend the GPS/Cellular antenna wiring with staples or fasteners.
- **DON'T** bundle the excess GPS/Cellular wiring back and forth onto itself.
- **DO** bundle the excess GPS/Cellular wiring in neat loops, fastened with cable ties.

Mounting the FleetLink DVR Computer

The FleetLink DVR comes in a Fibox enclosure with a clear cover, terminal block pre-mounted inside. The final installations position of the DVR HW should be discussed and approved by the customer prior to final placement.

Mounting the FleetLink DVR Monitor

The FleetLink DVR Monitor is compatible with VESA mount and RAM Mount (75 x 75 mm). The mounting kits come with two plates and double socket arms which can absorb harmful shocks and vibrations. The viewing angle and position of Display is fully adjustable by the double socket design.



NOTE:

When connecting monitor cable, be sure to leave enough slack behind the display to allow adjustment of the viewing angle from driver side to passenger side without placing strain on the cable or connector.

Mounting plate

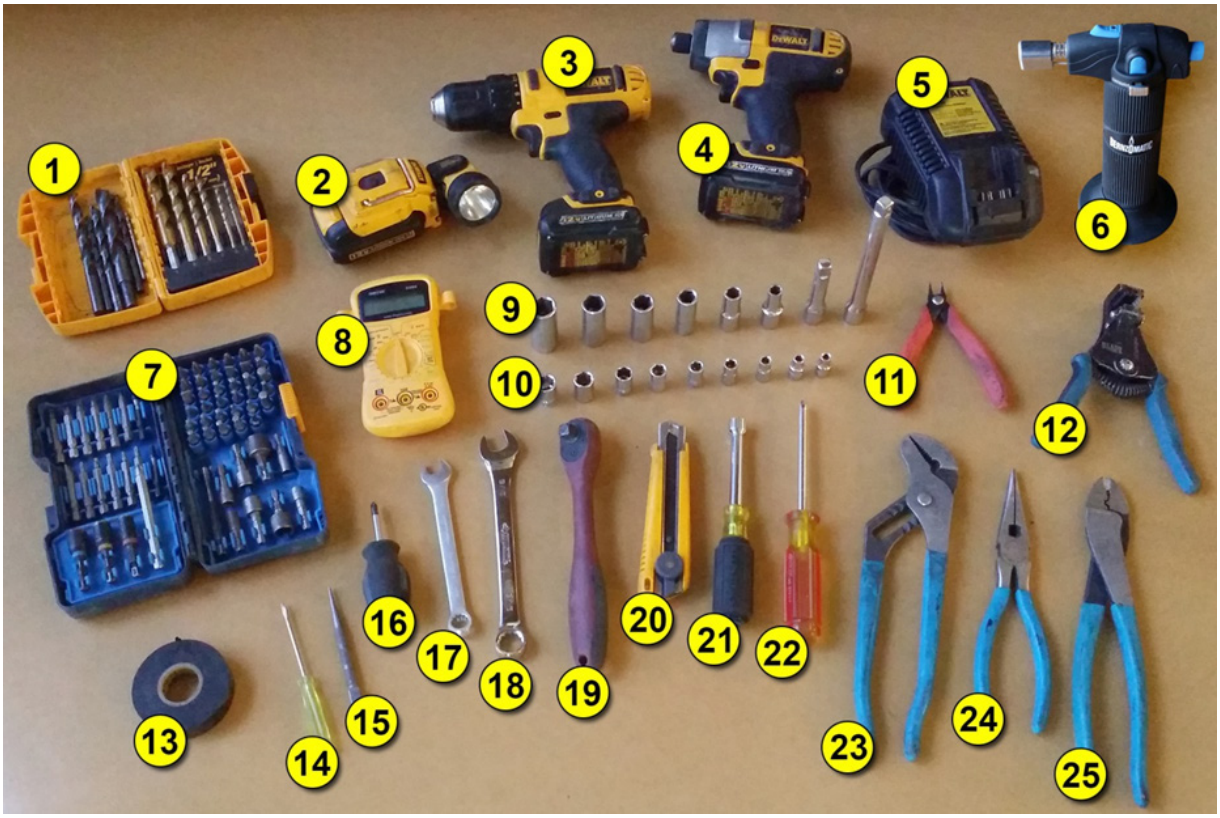
Double socket arm

Assembled

Required Tools and Equipment

Essential Tools

The following tools are necessary for any FleetLink in-vehicle installation:



1. Drill bit set
2. Flashlight
3. 12v 3/8” cordless drill/driver
4. 12v cordless impact
5. 12v charger and batteries
6. Butane torch
7. Driving kit
8. Multimeter
9. Deep well 3/8” drive sockets (5/8”, 9/16”, 1/2”, 7/16”, 3/8”, 5/16”)
10. 1/4” drive sockets (12mm, 11mm, 10mm, 9mm, 8mm, 7mm, 6mm, 5.5mm, 5mm)
11. Wire/cable tie cutter (preferably flush cutting)
12. Wire stripper
13. Electrical tape
14. Miniature flat head screwdriver
15. Nail punch
16. 2” Phillips screwdriver
17. 7/16” wrench
18. 9/16” wrench
19. 3/8” & 1/4” ratchets (single purpose dual-head item shown)
20. Heavy duty knife/cutter
21. 3/8” hex nut driver
22. 4” Phillips screwdriver
23. Right-Angle tongue & groove pliers
24. Long nose pliers
25. Crimping and cutting pliers
26. Caulk gun (used only for FleetMind Scale Installation)
27. 4-1/2” angle grinder (used only for FleetMind Scale Installation)

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Optional/Useful tools

The following tools are useful, but not crucial, for any installation:

28. 7” vise grip
29. Offset right-angle drive adapter (helps drive screws in hard to reach areas)
30. Measuring tape (mostly used for FleetMind Scale Installation)
31. 5/8” x 18” Metal cab-jack bar (typically missing in older trucks, having this handy saves time searching for one)
32. 4-pc hole saw set (1”, 1-1/4”, 1-3/4”, 2”)
33. Hammer
34. Tight-fitting gloves
35. Bungee tie (used for keeping truck doors from swinging closed)
36. 8” Cable ties (11” & 14” also useful)
37. 6-in-1 tool (mostly used for FleetMind Scale Installation)
38. First Aid kit

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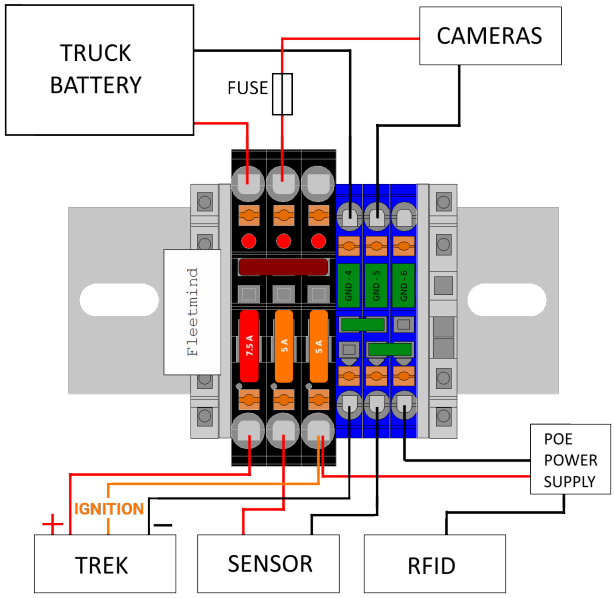
Wiring 12V DC Power to the Terminal Block

IMPORTANT!

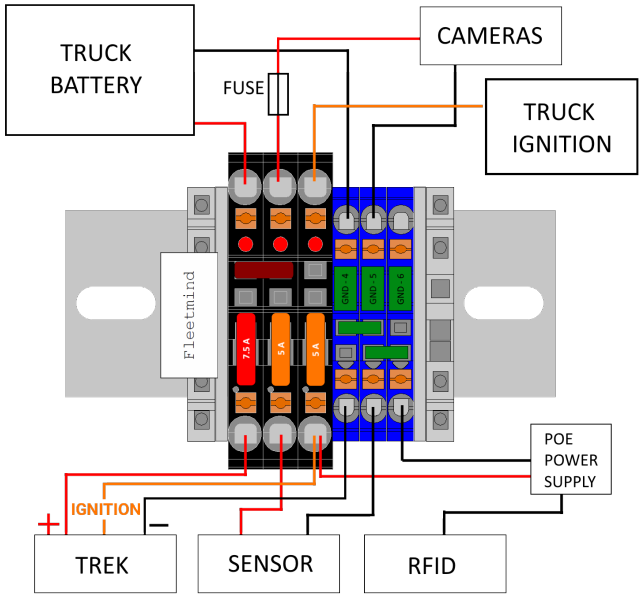
12V DC power to the FleetMind Terminal must always be taken from the vehicle's main power leads within the cab.

Method of installation will vary, depending whether the vehicle is equipped with a kill switch. Refer to the following wiring diagram when making connections.

Typical Installation



Installation with ignition wire



1. When the truck has no kill switch, an extra 9 ft. of wire is required, and the power bus bar should connect only two slots of the power bus.
2. The ignition wire must always be connected to the terminal block separately, not with the power wire (3rd terminal lug).
3. Sensor and cameras should take their power from the part of the bus that is connected to the battery (2nd terminal lug).
4. RFID should to be connected to the part of the bus that is connected to ignition. (3rd terminal lug).

An additional power wiring option is available upon customer request.

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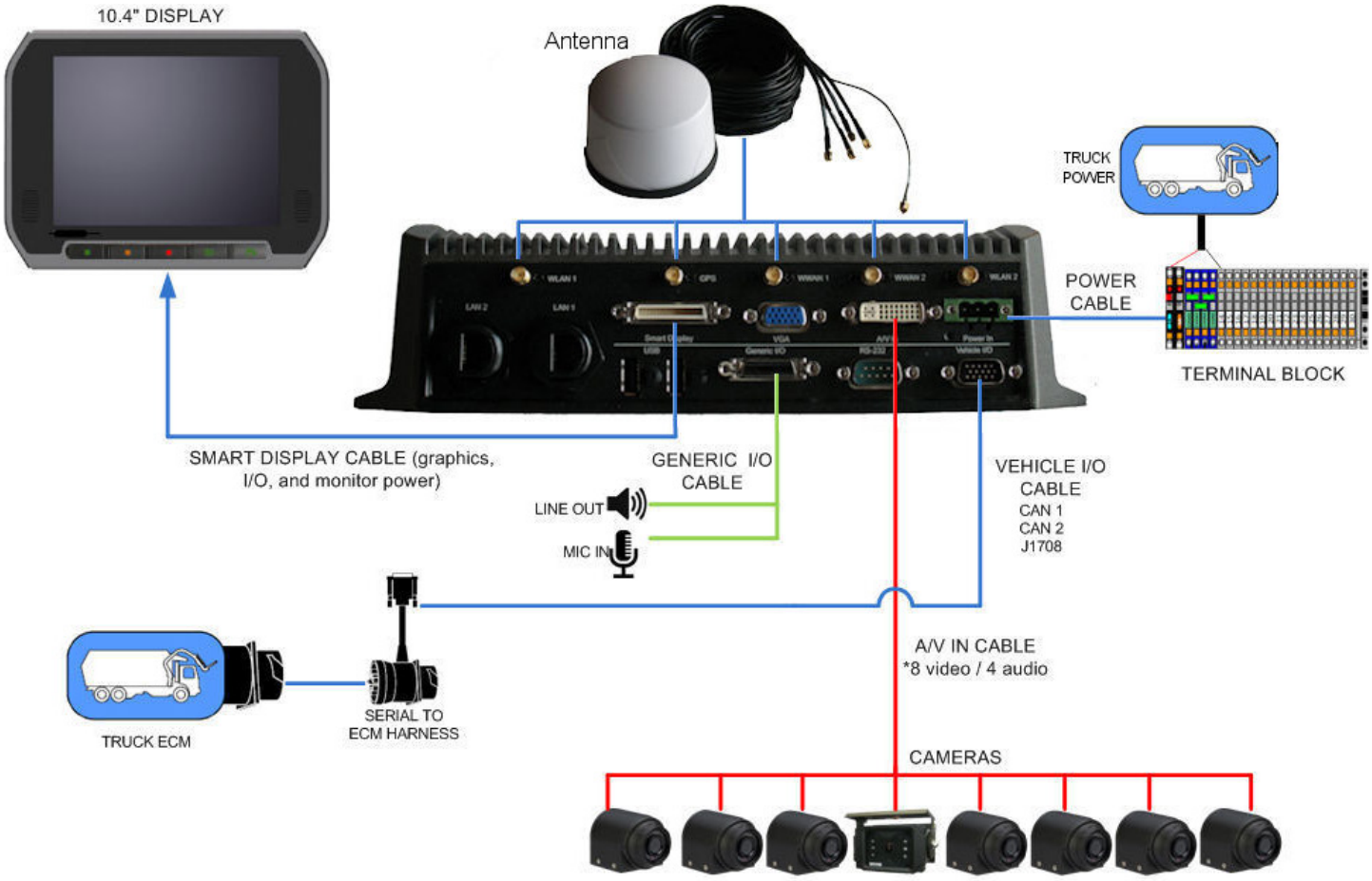
Making Connections

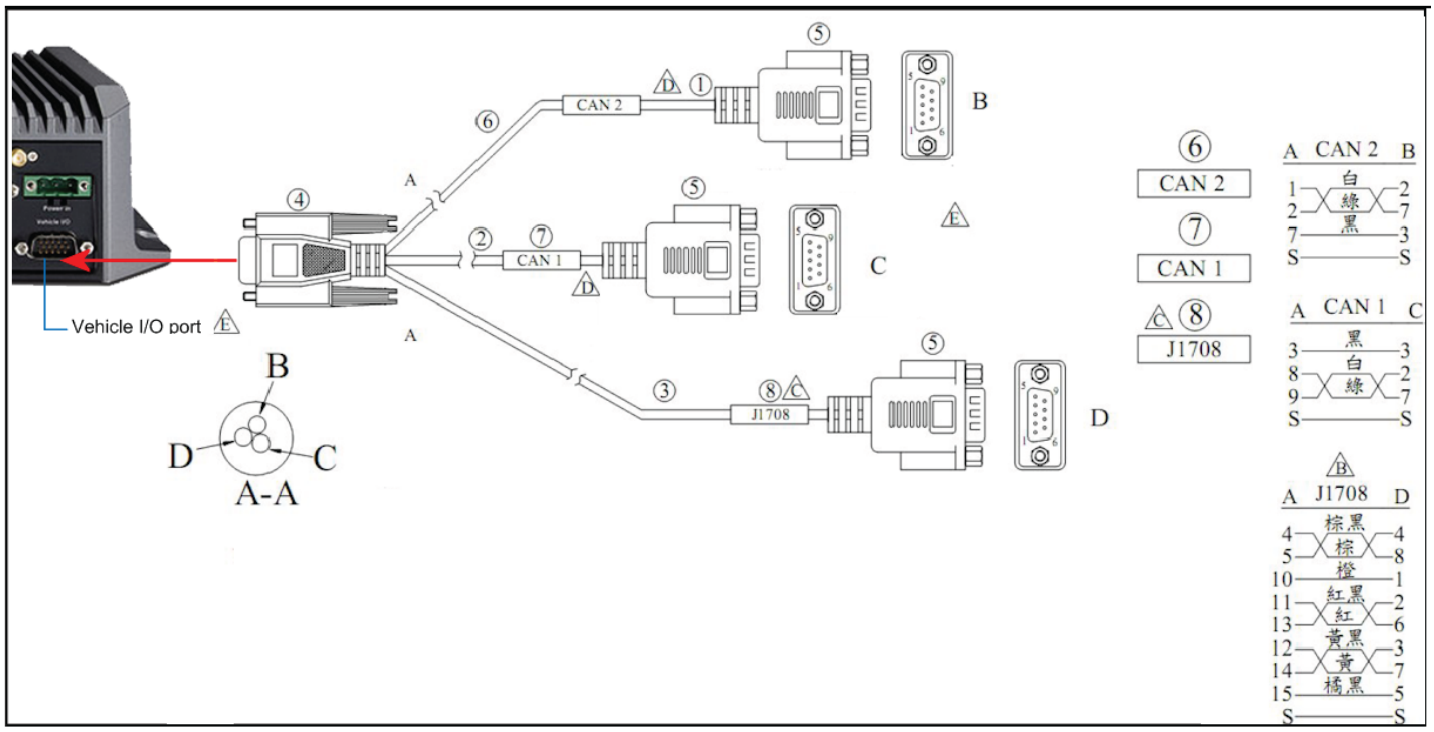
The following diagram shows how the FleetLink DVR system and the other FleetLink solution components interconnect.



Vehicle I/O

NOTE: The Vehicle I/O cable is connected to the DVR at FleetMind prior to shipping.

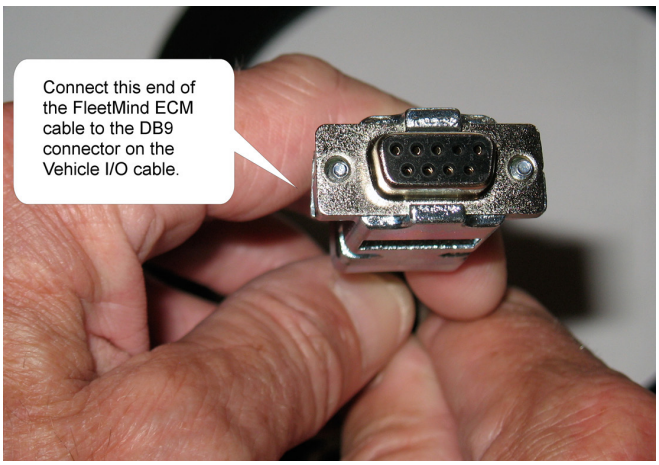
The Vehicle I/O cable is a break-out cable comprising a DB15 female connector and 3 DB9 male connectors. Depending on the CANBUS Protocol of the vehicle, select the appropriate DB9 male connector (CAN1, CAN2 or J1708) for use with the FleetMind ECM harness, which in turn connects to the vehicle's ECM.

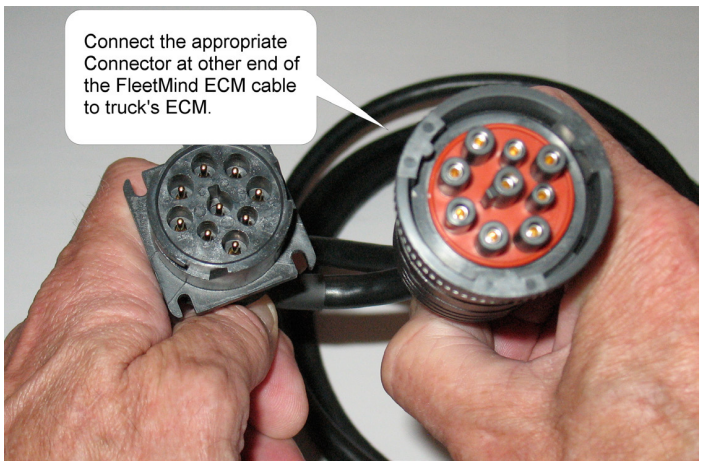


The 3 DB9-M connectors are easily identifiable by adhesive stickers affixed to their cables. If, for any reason, these stickers become detached or illegible, you can differentiate the connectors as follows:

- J1708 is the longest cable (390mm/15.4in.)
- CAN 1 is the shortest (250mm/9.8in.)
- CAN 2 is of medium length (290mm/11.4in.)

To connect the Vehicle I/O cable to the truck's ECM, use the FleetMind ECM cable.





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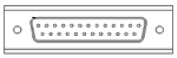
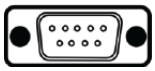
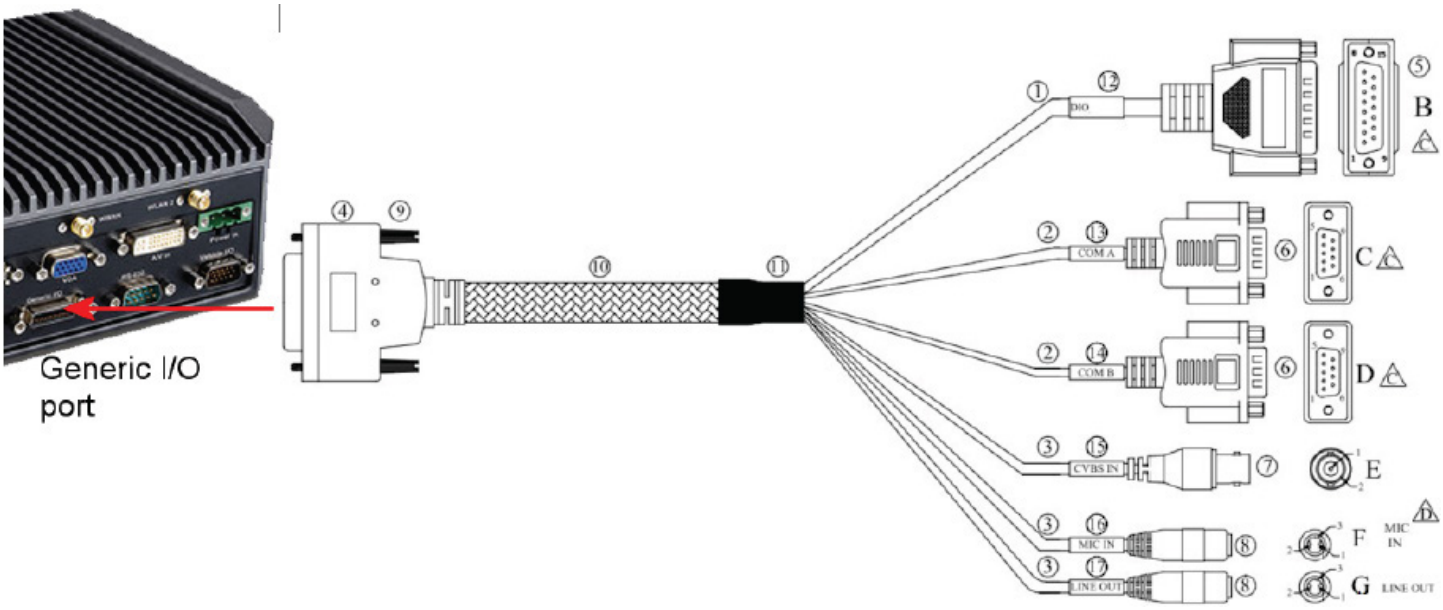
Generic I/O

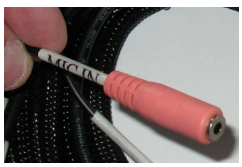
The Generic I/O cable is a breakout cable comprising:

A	B	
Mini D ribbon connector, 26-pos (x1) 	 For connecting to lift sensor relay adapter cable	
	 COM A, B - DB9M (x2)	
	MIC IN (1/8" audio jack), pink	
	LINE OUT (1/8" audio jack), green	
	CVBS IN - CVBS connector (Not used for this installation)	

1. Connect components to the FleetLink DVR as shown in the following diagram.



1. Connect the 26-position Mini D ribbon connector to the Generic I/O port on the DVR .
2. Connect to the scale and RFID reader (where installed) using the 2 DB9M connectors, COM A and COM B. **NOTE:** Adapters may be required.
3. Connect a microphone to the 1/8" MIC input jack (pink).
4. Connect an audio output device (e.g., speaker) to the 1/8" Line Out jack (green).
   NOTE: Adapters may be required to make the above connections.



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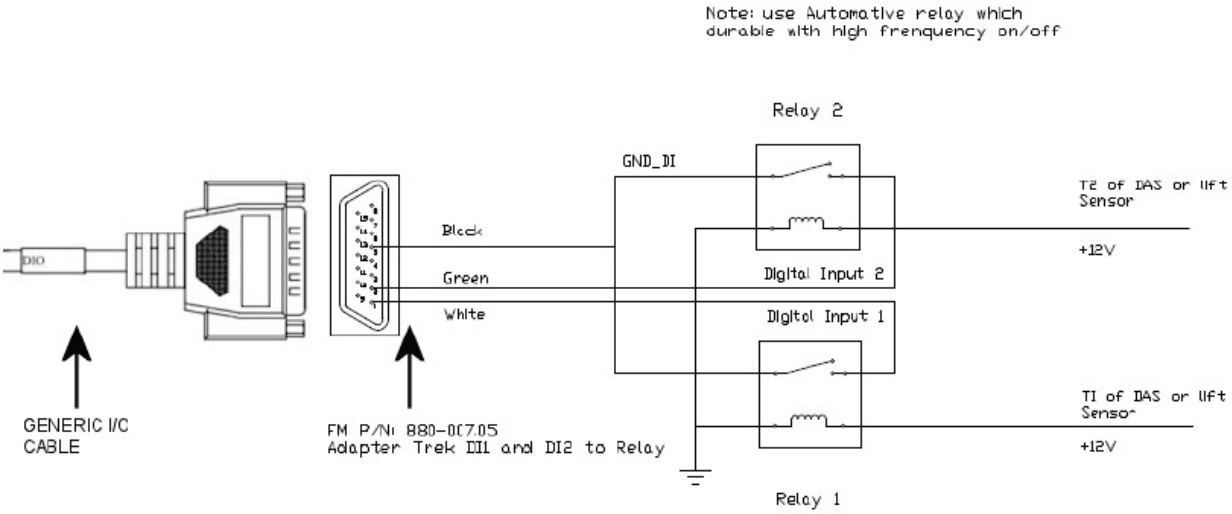
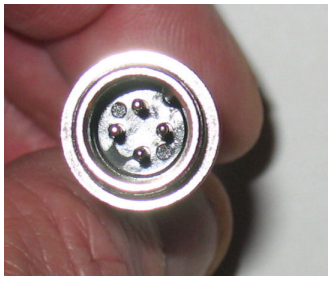
5. For lift sensor relays (where applicable):
   i. Connect the Generic I/O's 25-pin (DB25M) **DIO** connector to DB25F connector on the Lift Sensor Relay Adapter cable.
   ii. Connect the Lift Sensor Relay Adapter's digital input (green and white) and ground (black) wires to the lift sensors or dual-angle switches.



A/V IN Cable

1. Connect the DVI male plug to the DVI female port on the DVR.

2. Connect up to 8 cameras using the 4-pin camera connectors.



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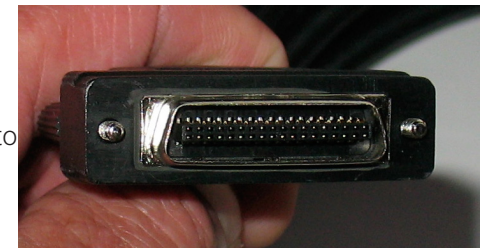
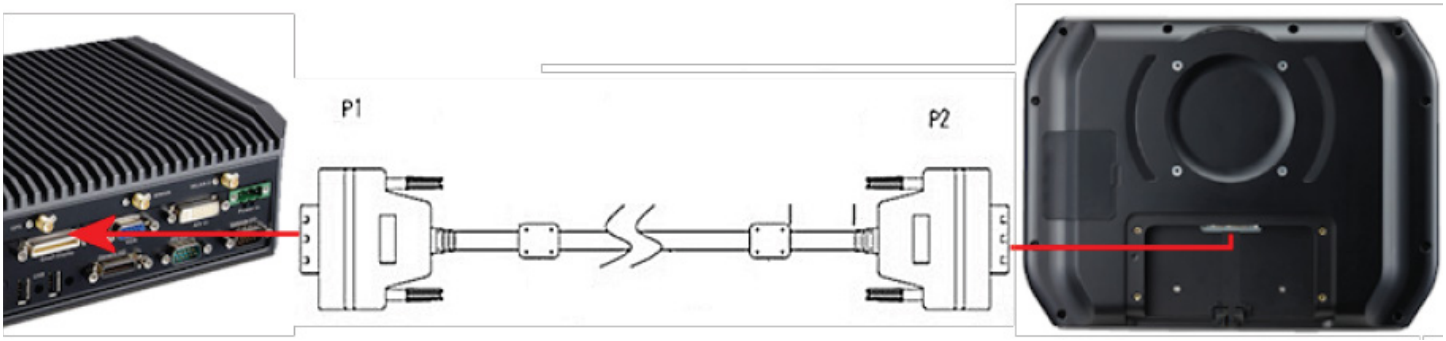
FleetLink DVR Monitor

The monitor cable is a 36-pin locking type high density connector that includes a variety of signal interfaces to be paired with FleetLink DVR Monitor. The monitor cable has the same type of connector at either end.



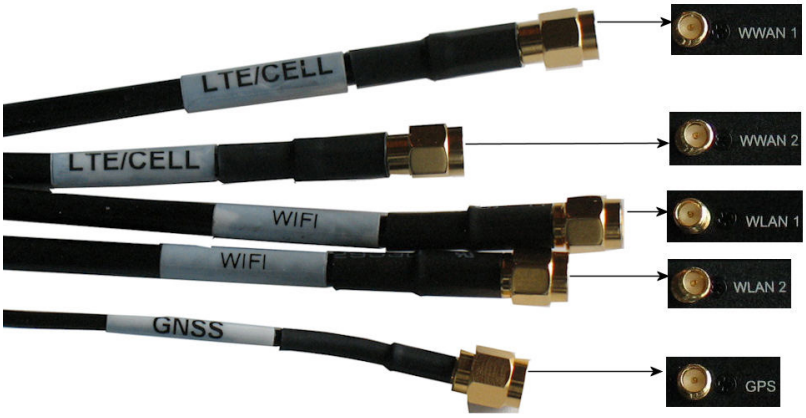
Connect one end to the port labeled Smart Display on the FleetLink DVR, the other to the port on the rear of the DVR monitor as shown in the following diagram.



Network Connections and GPS

Five SMA type connectors for GPS, Wi-Fi+BT MIMO, and WWAN/LTE MIMO are provided on the rear panel of the FleetLink DVR. The connector type is Female RP-SMA connector (i.e., female connector body (outside threads) with a male inner pin contact.)

Connect all components as shown in the following figure.



IMPORTANT:

You must connect all 5 cables from the antenna to the rear-panel connectors.

IMPORTANT:

DO NOT OVERTIGHTEN.

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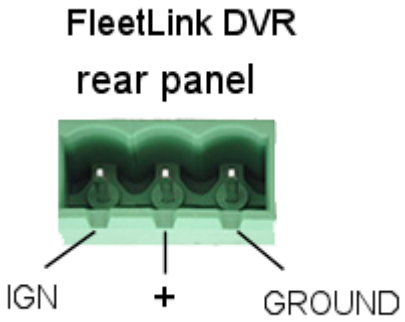
Power In

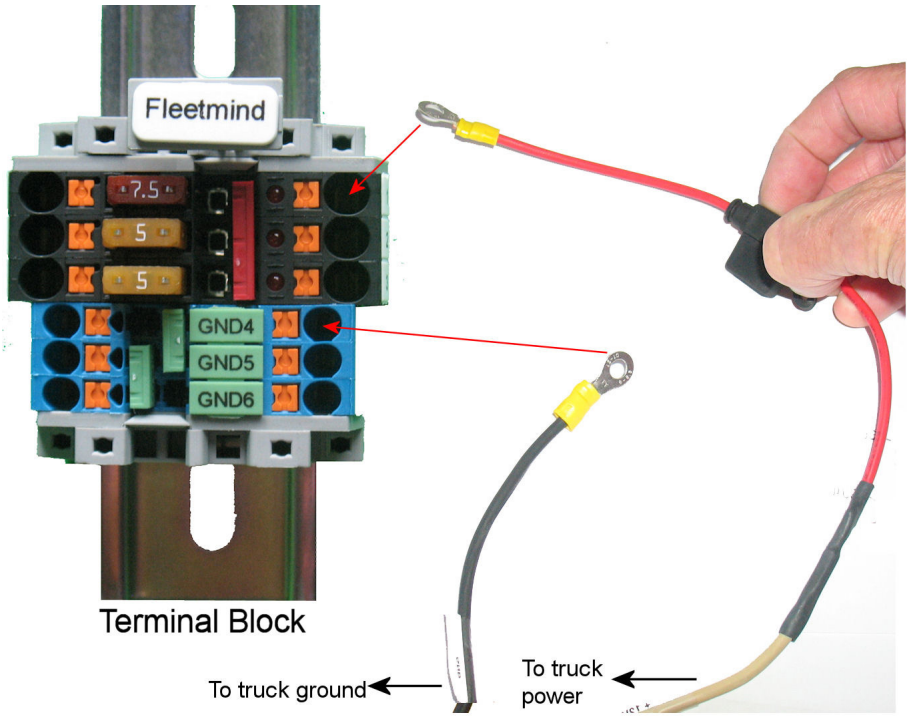
The Power In cable is connected to the DVR at FleetMind prior to shipping.

The power cable supplied with your kit connects to a 3-contact Euro-type connector on the rear panel. The pin designation is shown below.



Truck Power Cable

Connect the Truck Power cable between vehicle power and the terminal block, as shown below.



For important information concerning connecting vehicle power, see ***Wiring 12V DC Power to the Terminal Block.***

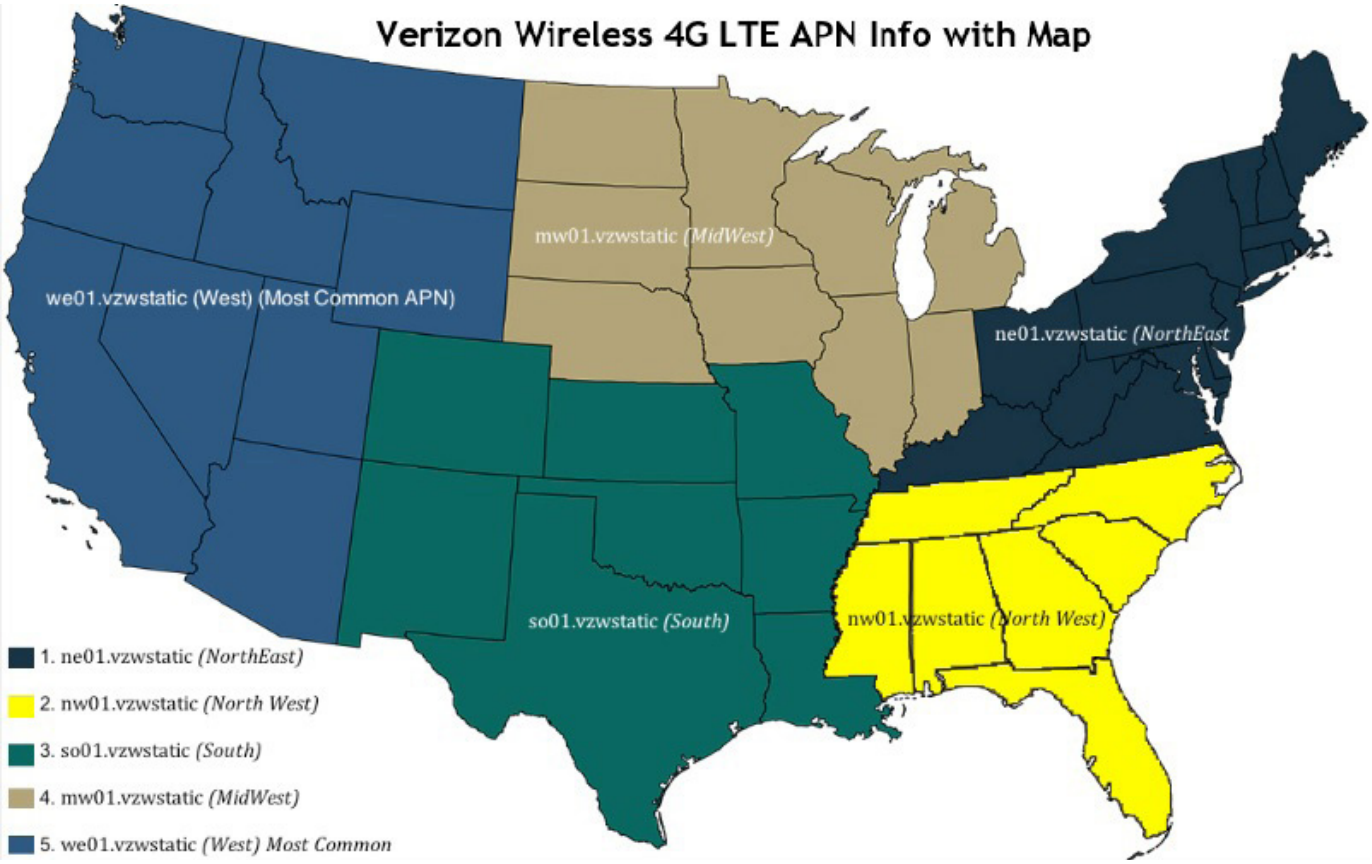
Verizon Wireless 4G LTE APN Setup

When receiving a repaired mobile device from FleetMind, you must reconfigure the Verizon Access Point Name (APN). This document describes the procedure for doing so and provides a list of typical APNs.

APN Information and Map

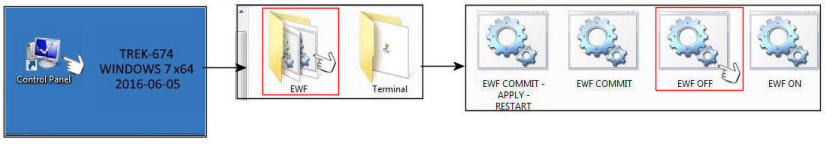
For a SIM 4G LTE with Static IP Address from Verizon Wireless, commonly used for Getac, Trek and GD4010 units, FleetMind has identified the following APNs, depending on the origination of the phone number:

1. ne01.vzwstatic (NorthEast)
2. nw01.vzwstatic (North West)
3. so01.vzwstatic (South)
4. mw01.vzwstatic (MidWest)
5. we01.vzwstatic (West) Most Common APN)



Turn off EWS

1. Exit the WasteApp to the Windows desktop.
2. Select **Control Panel > EWF > EWF OFF.**
   A command prompt window displays.



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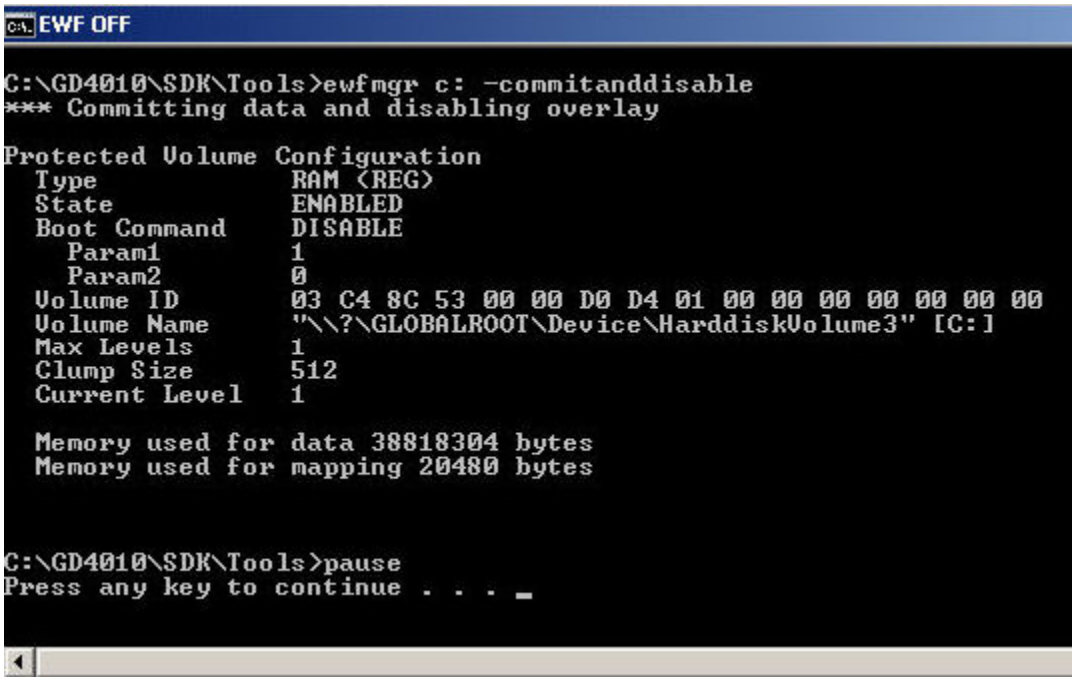
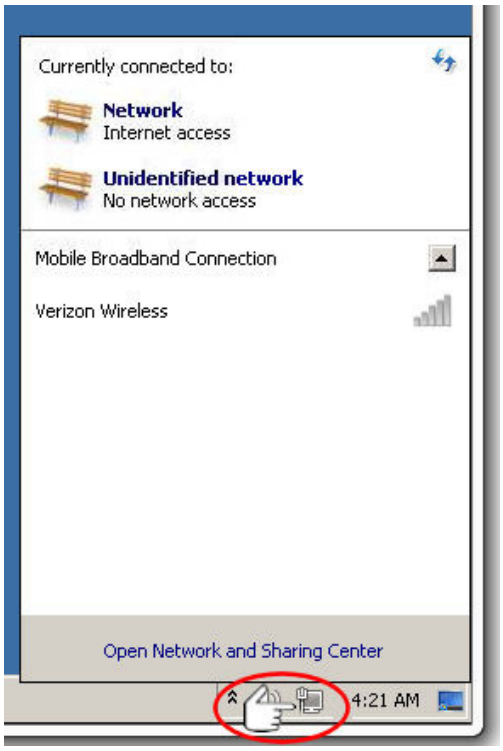


3. Exit the window and restart the computer. Upon restart, WasteApp launches automatically.
4. Exit WasteApp to the Windows desktop again.

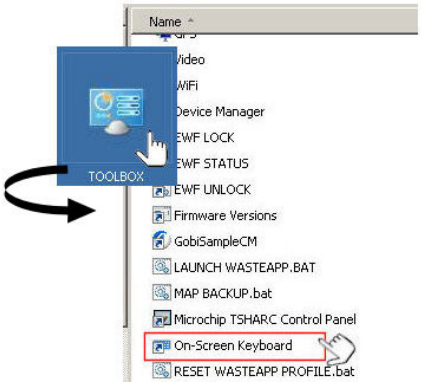
Configuration

1. In the Windows taskbar (lower-right area of the screen), left-click and hold on the Network icon to display network connections.



2. Locate the Verizon connection, right-click on it and choose **Properties**.

3. In the Verizon Wireless Mobile Broadband Properties dialog, select the Profile tab. Use the On-Screen Keyboard or a USB-connected external keyboard for the following step.



OR

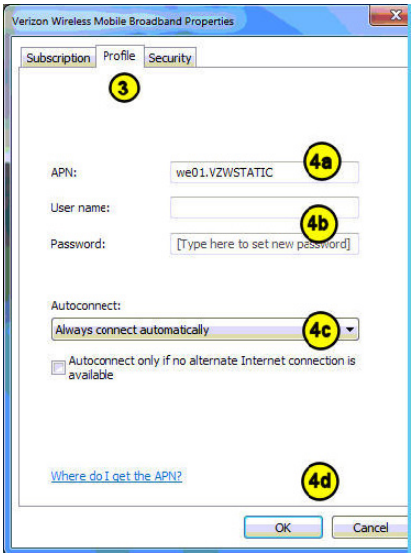
4. In the properties dialog, do the following:

   i. Enter the appropriate APN in the **APN** field.
   This is a public APN with static IP address; **you must enter exactly the correct name of the APN for your working unit.**

   ii. Leave the **User name** and **Password** fields blank.

   iii. Ensure that the Autoconnect option is set to **Always connect automatically**.
   DO NOT CHOOSE **Connect automatically except when roaming**!

   iv. Select **OK**.



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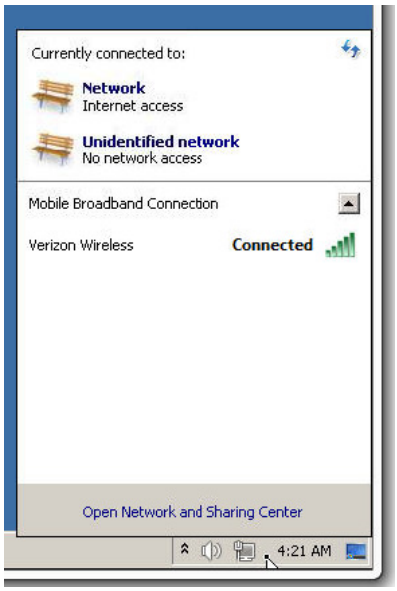
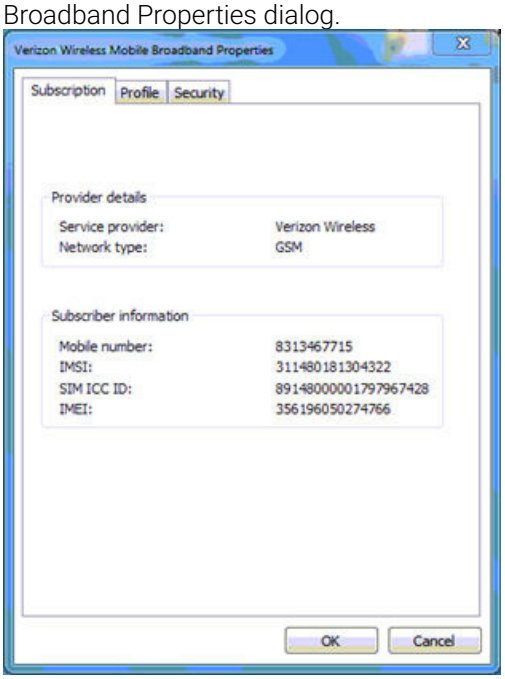
Upon successful connection, the status displays in the list of connections.

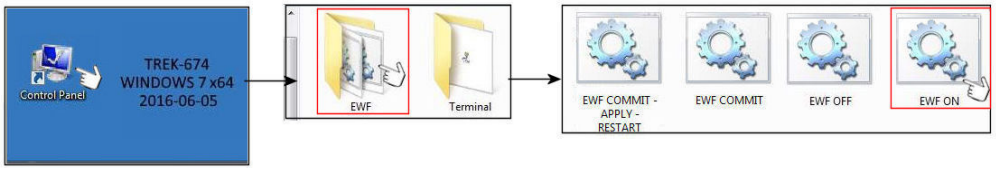


You can view further connection status information by selecting the **Subscription** tab of the Verizon Wireless Mobile Broadband Properties dialog.



Turn on EWF

1. Close all open windows.
2. Select **Control Panel > EWF > EWF ON.**
3. Restart the computer and, when WasteApp launches, verify that you are connected to the server.



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Suggested Camera Locations and Settings

Optimal camera configuration will ultimately depend on customer preference and the requirements involved for the various types of waste collection. As a guideline, FleetMind proposes the following configurations based on actual installations performed by our installation team.

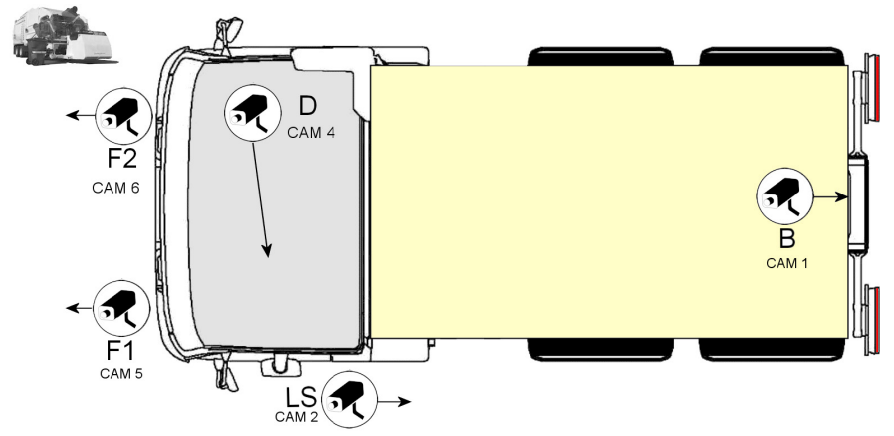
NOTE: Custom configurations

The configurations presented here are "minimal" configurations, i.e., not all 8 cameras are used in each scenario. You can use as many cameras as you deem appropriate for your particular application.

Legend

Camera number (as specified on DVR wiring diagrams)	Description
1	(B) Backup/reverse
2	(LS) Left Side / (A) Alley
3	(RS) Right Side / (A) Alley
4	(D) Driver
5	(F1) Front 1
6	(F2) Front 2
7	(C) Curb
8	(H) Hopper

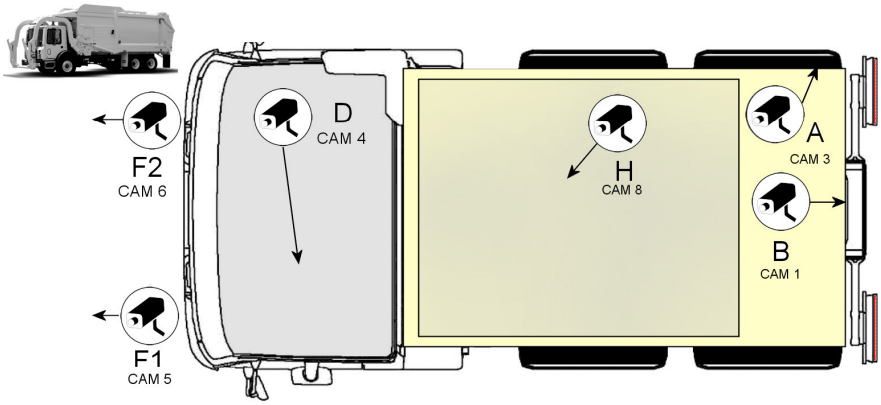
Residential Front-Load (Curotto-Can)



MONITOR VIEW 4-1

MONITOR VIEW 4-2

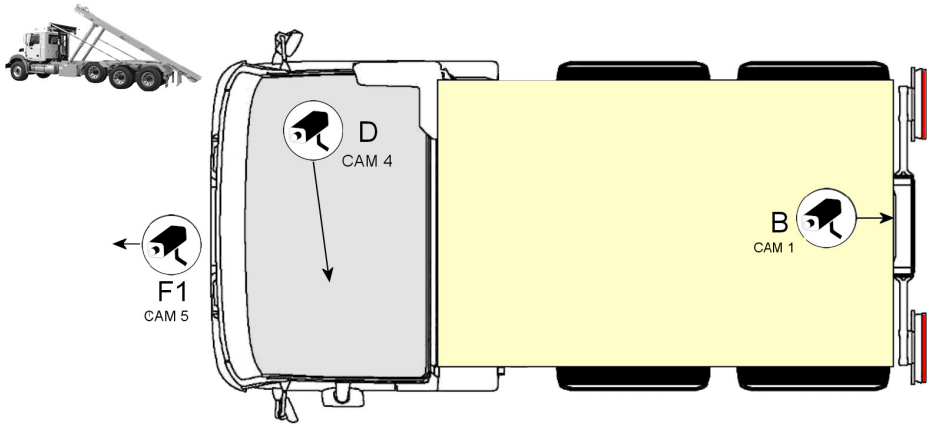
Commercial Front-Load



MONITOR VIEW 4-1

MONITOR VIEW 4-2

Roll-off and Rear-Load



MONITOR VIEW 4-1

MONITOR VIEW 4-2

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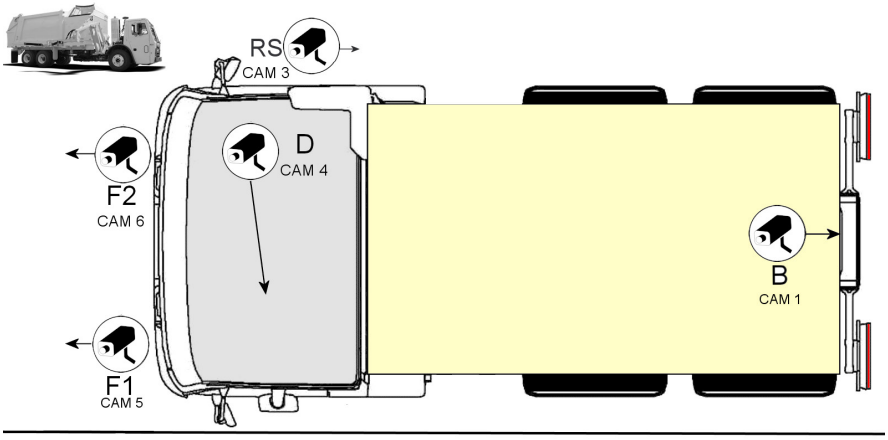
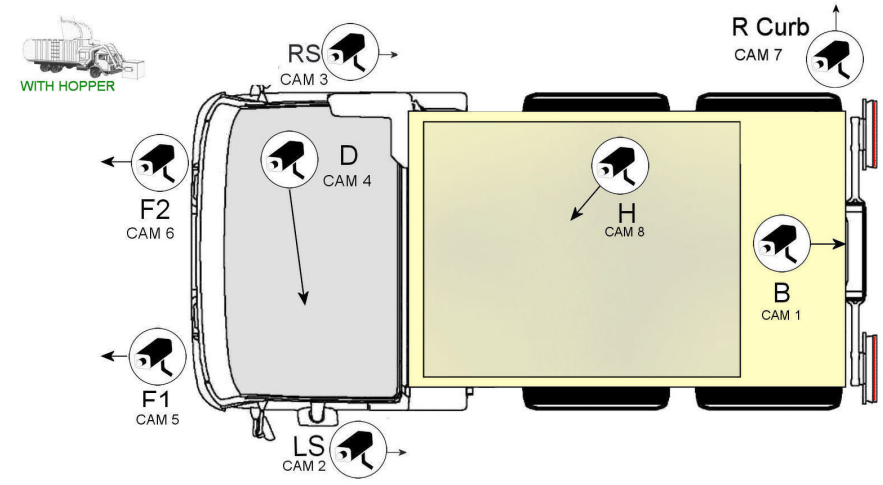
Residential Side-Load



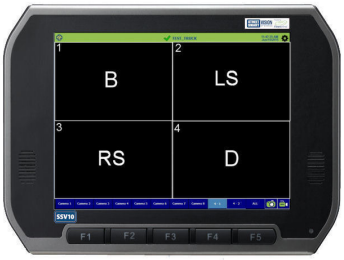
MONITOR VIEW 4-1

MONITOR VIEW 4-2

8-Camera Option with Hopper



MONITOR VIEW 4-1



MONITOR VIEW 4-2

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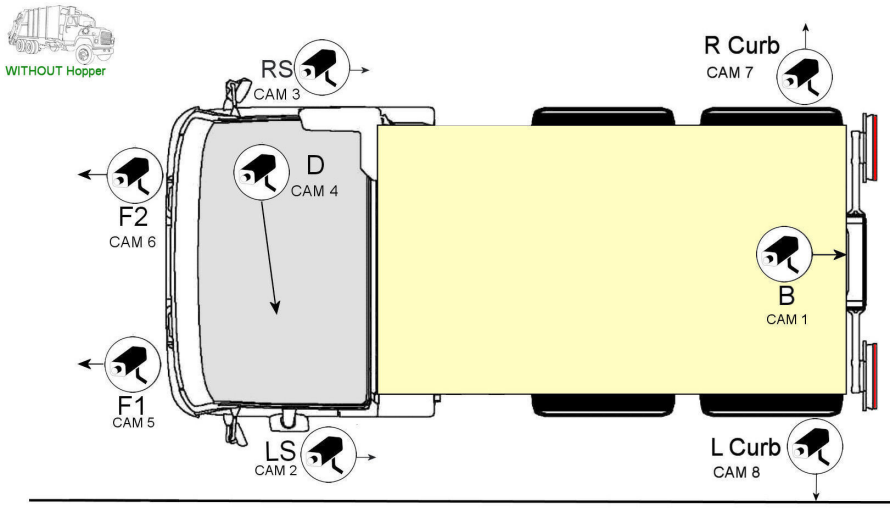
8-Camera Option without Hopper



MONITOR VIEW 4-1

MONITOR VIEW 4-2

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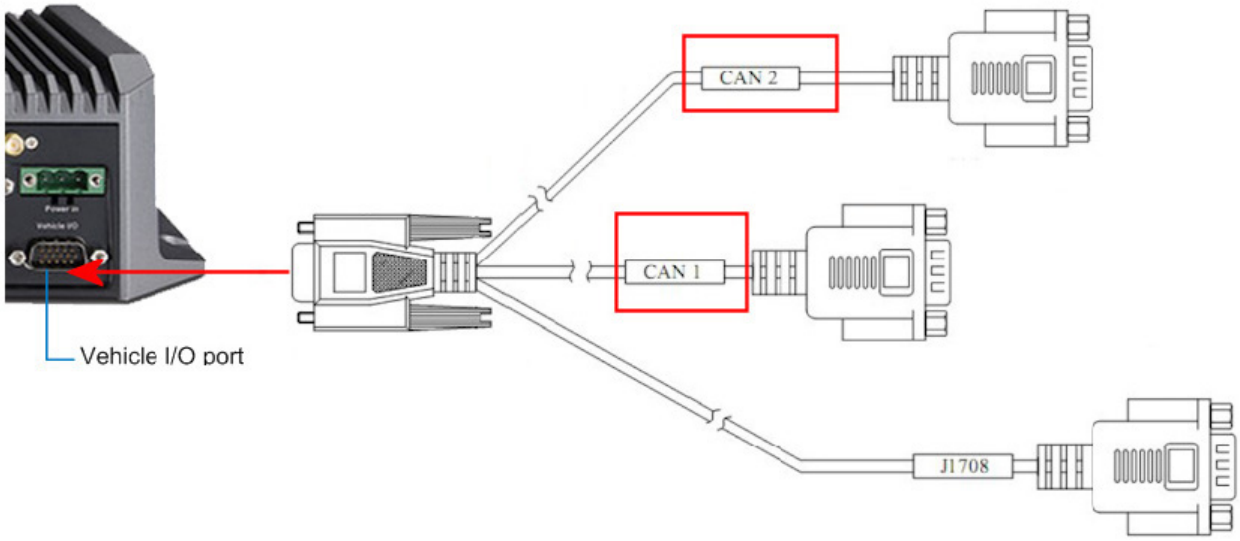
CAN bus Troubleshooting

In the event of improper cable connection or incorrect configuration parameter values, WasteApp may not be receiving engine data from the vehicle's ECM. In addition, the Check Engine light on the vehicle's dash may be illuminated, indicating a fault condition.

The following procedures suggest corrective measures.

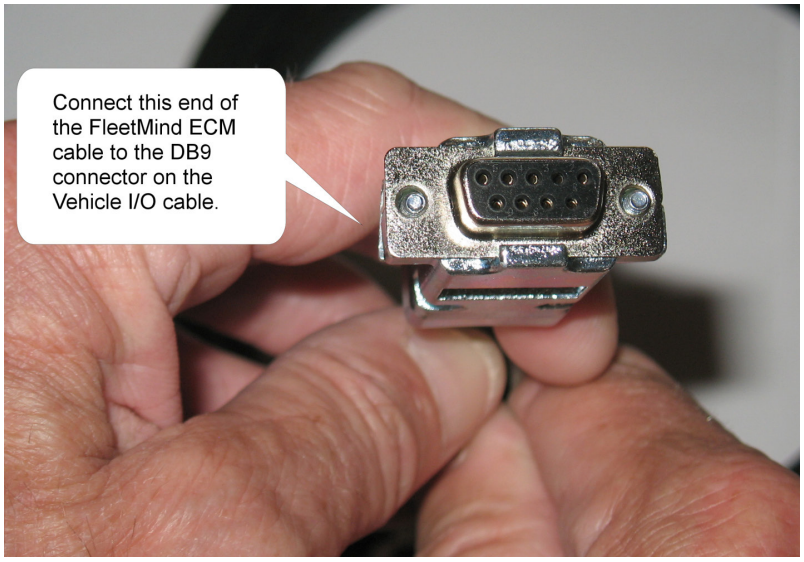
Resetting Check Engine Light

Refer to the figures below when performing the following procedure.



With the vehicle's engine off:

1. Disconnect the currently connected DB9 CAN connector (CAN 1 or CAN 2) of the Vehicle I/O cable from the FleetMind ECM harness.
2. Connect the other (previously unconnected) CAN connector to the FleetMind ECM harness.
3. Restart the vehicle.
4. Verify that the engine fault light is extinguished.



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Verifying ECM Data Communication

If the OBC is not receiving data from the truck's ECM:

1. Quit WasteApp (exit to the desktop):

   i. Select the **Config** button in the lower-left corner of the screen or the gear icon in the upper-right area of the status bar to access the configuration menus.

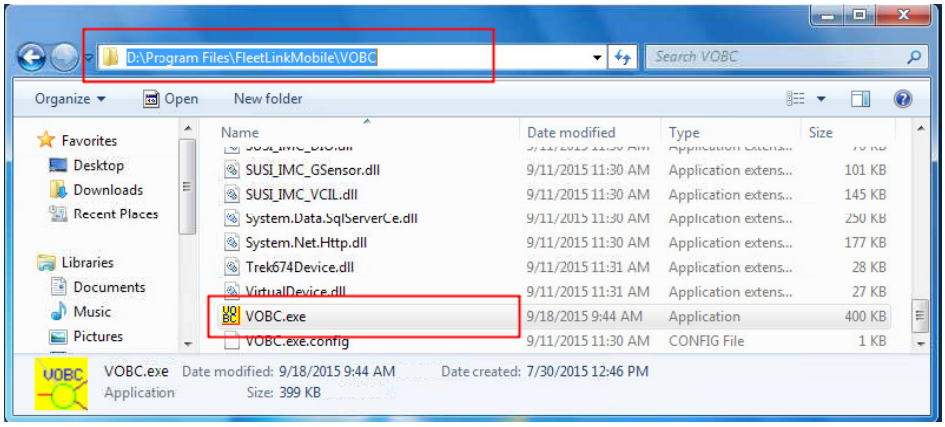
   ii. In the Basic configuration panel, select the **Sys** button.

   iii. Enter your password, and then select **Go**.

   iv. Select the **Desktop** button.

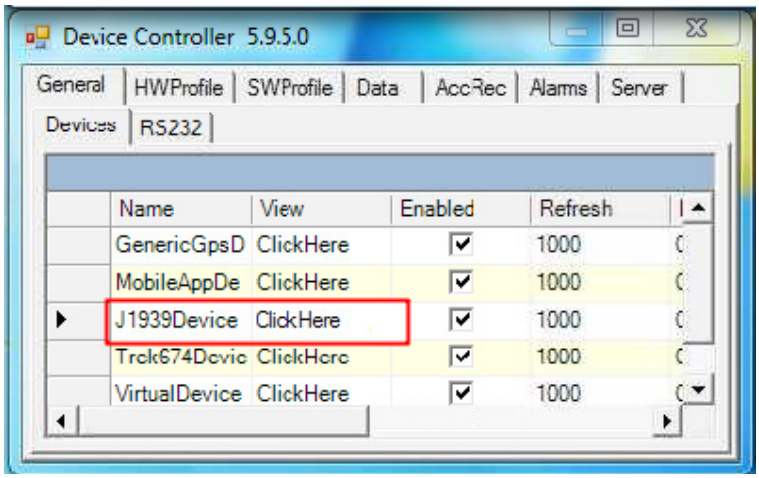
2. Touch in the lower-left corner of the screen to show the Windows taskbar, if it is hidden.

3. Open Windows Explorer and navigate to the following folder:
   D:\Program Files\FleetLinkMobile\VOBC



4. Locate the executable file **VOBC.exe**, and double-click to launch it.

5. In the Device Controller window, with the **Devices** tab selected, locate the entry J1939Device, and click in its View column.



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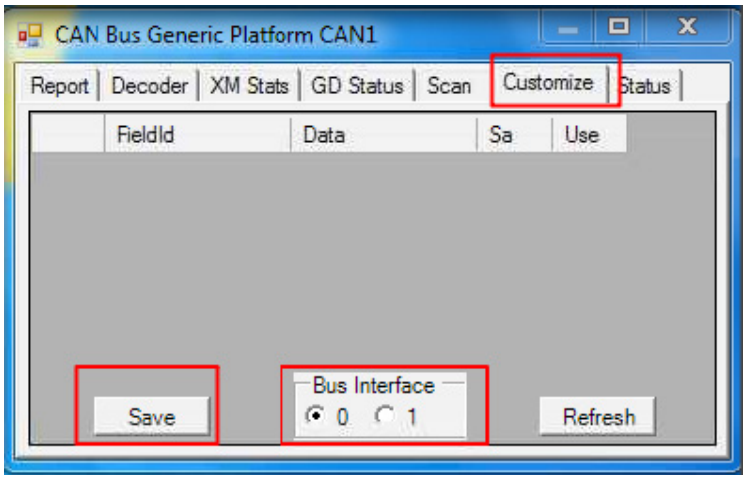
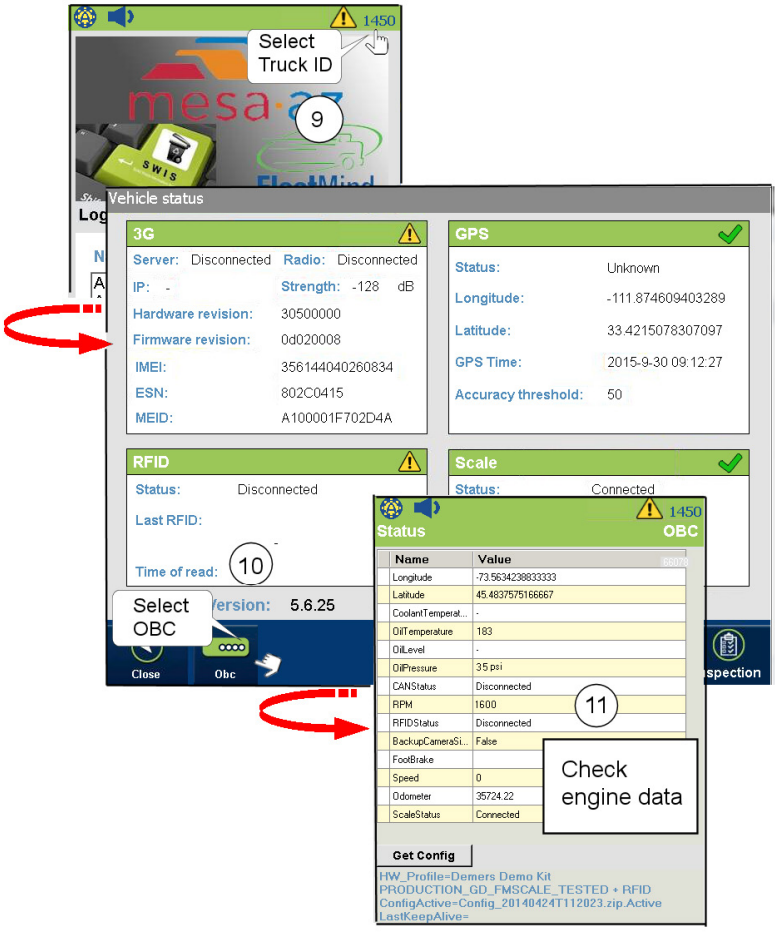
6. In the CAN Bus Generic Platform window, select the **Customize** tab.



The Bus Interface controls comprise two radio buttons: **0** and **1**, one of which will be selected.

7. Select whichever radio button is not currently selected, and then press **Save**.
8. Turn the ignition key to the **ON** position to restart WasteApp.
9. Once the application loads, select the Truck ID in the status bar to display the Vehicle Status screen.



10. Press the OBC button.
11. Verify that engine data displays in the OBC status panel.

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Third-Party Scales

This page describes FleetLink Mobile WasteApp's interaction with third-party onboard scales, and provides notes for their installation and troubleshooting.

Driver User Interface

Driver interaction with onboard scales via FleetLink Mobile WasteApp's user interface will vary slightly, depending on whether Automatic or Manual Confirmation mode is used.

Automatic Confirmation Mode

In Automatic mode, when a lift is detected, all three control buttons (Arrived, Blocked, Exception) in the Menu pane are grayed out, and focus shifts to the Navigation pane. A Scale window showing lift information displays there, temporarily replacing the map and other navigation content.

A 10-second countdown timer to call confirmation will take place allowing the scale time to send the weight to the screen.

NOTE: Countdown value

The countdown is a configurable value within the WasteApp and should never be reduced below 10 seconds.

Once the weight has been captured, the value displays in the Scale window, and the call is confirmed automatically.

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Manual Confirmation Mode

In Manual confirmation mode, the driver must press the **ARRIVED** button prior to doing a lift.

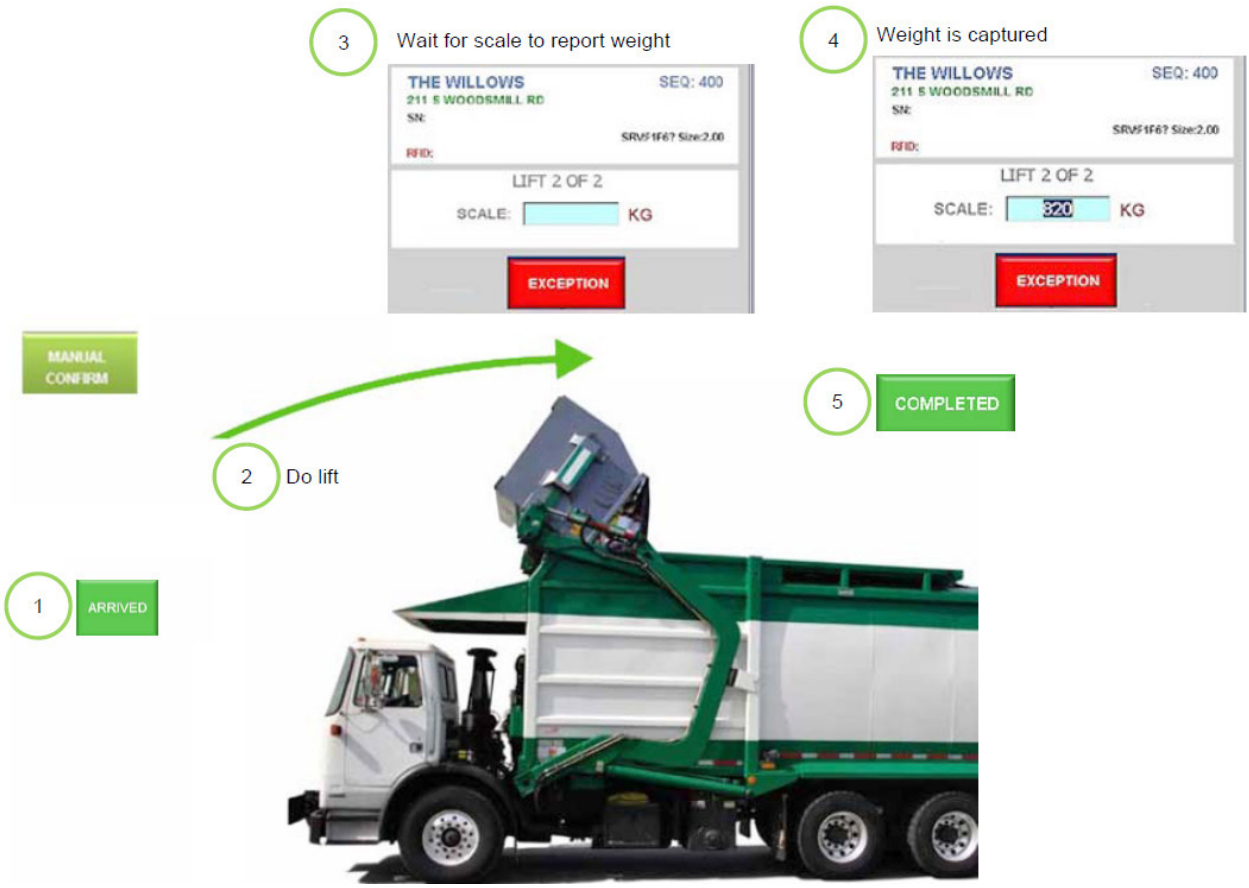
A time stamp is embedded on the button, all three control buttons (Arrived, Blocked, Exception) in the Menu pane are grayed out, and focus shifts to the Navigation pane.

A Scale window showing lift information displays there, temporarily replacing the map and other navigation content.

Unlike Automatic mode, in Manual mode, no countdown timer runs in the Scale window.

NOTE: Wait for weight

The driver must wait until the weight displays in the SCALE field before completing the call.



Once the weight has been captured, the driver completes the call by pressing the COMPLETED button.

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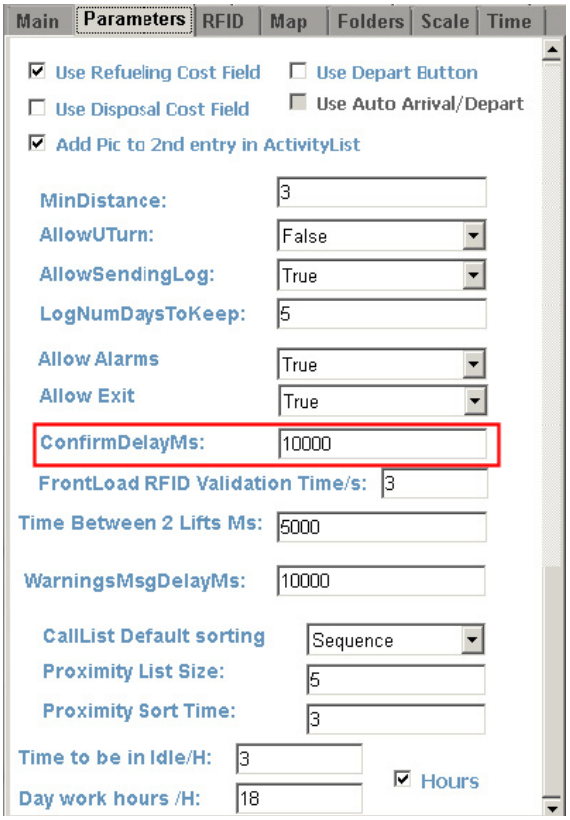
Troubleshooting (Loadman Scales)

Long Response Time

In cases where the Loadman device takes an unusually long time to send weights to the screen, adjusting the **ConfirmDelayMs** parameter to 15 seconds may be required for improved results.

The **ConfirmDelayMs** parameter can be found on the **Scales** menu of the WasteApp's system configuration user interface.



Weights not Transmitted to Flat Screen

In the event that the Loadman device is not sending weights to the screen at all, the driver can use the following procedure to record the weight manually:

1. If the application is running in Automatic Confirm mode, switch to Manual mode by pressing **MANUAL CONFIRM**.
2. Press **ARRIVE** to open the Scale window.
3. When the lift is completed, wait for the weight to appear on the Loadman device.
4. Press the small rectangle in the middle of the Scale window to open the virtual keyboard.
5. Enter the weight manually, and then press **DONE**.

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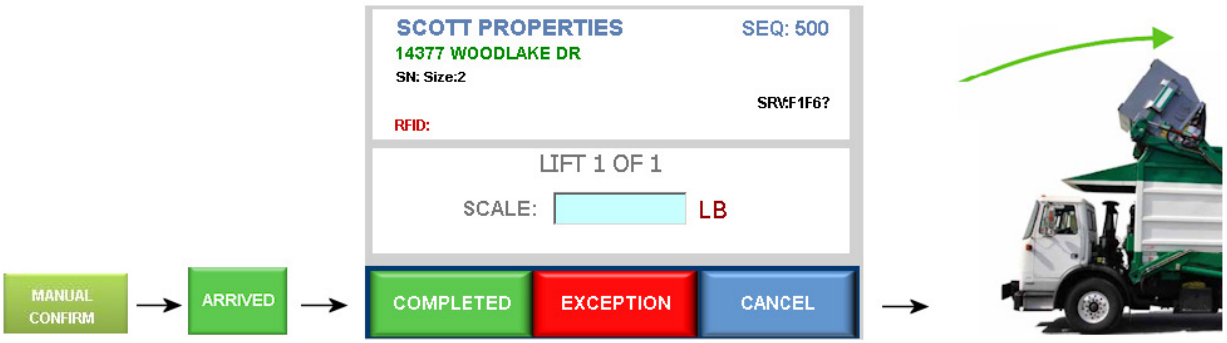
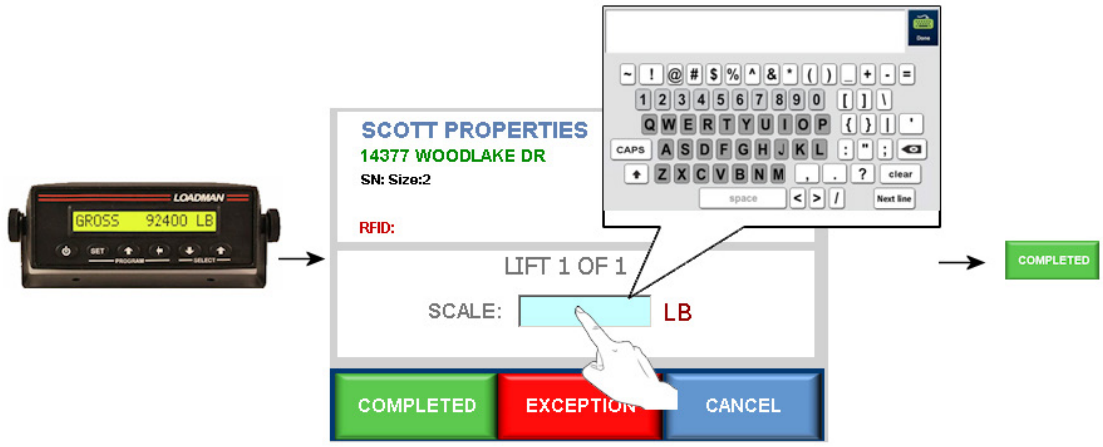


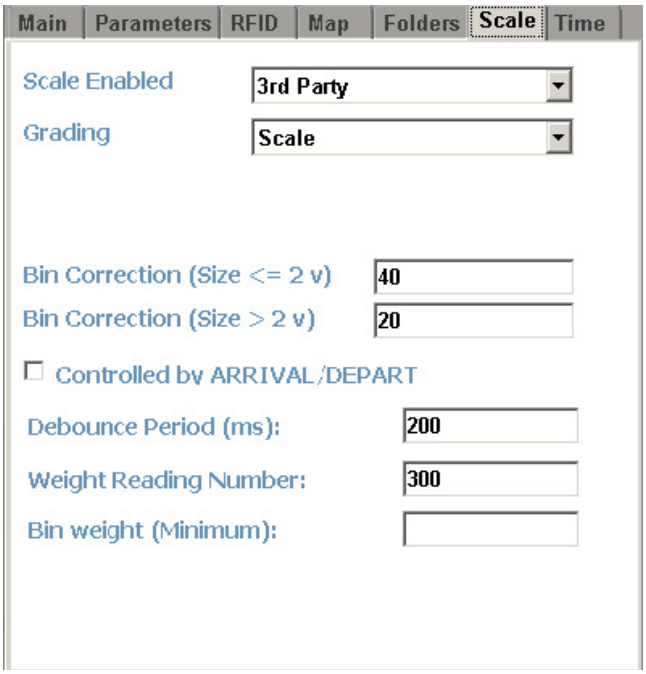


Testing Loadman-to-FleetMind Connectivity

1. On the FleetMind display, press the GPS icon at the top of the screen , and then press the OBC icon at the bottom of the screen.
2. Perform a lift that will result in a weight on the Loadman device.
3. On the Loadman device, navigate to the PRINTLOAD function and press **SET.**
   This will attempt to send a weight to the FleetMind screen. If the test is successful, the value will appear in the FleetMind diagnostic panel.

Scale Configuration

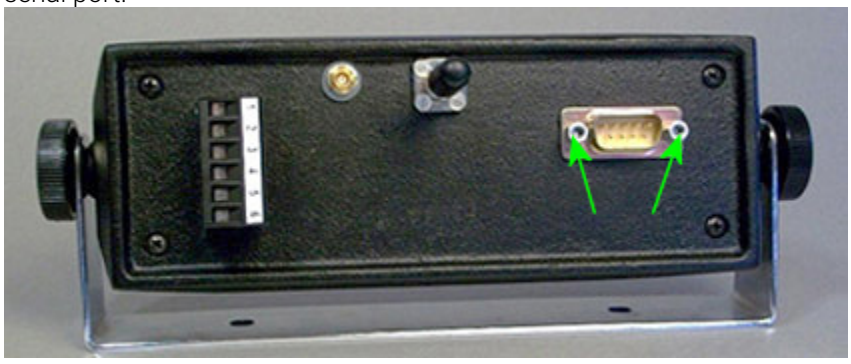
The WasteApp **Scale Enabled** parameter must be set to **3rd Party**. This parameter can be verified and adjusted on site or remotely.
The **Scale Enabled** parameter can be found on the **Scale** menu of the WasteApp's system configuration user interface.



The WasteApp VOBC must be configured for third-party scale. This configuration can only be verified and adjusted remotely.

Hardware Notes

1. Verify that the Loadman scale cable is secured to the Loadman device via the retaining screws on either side of the serial port.



2. Check that the Loadman device is secured to the correct positions of the FleetMind terminal block. See ***Wiring Diagrams***.
3. If the Loadman scale cable is suspected to be defective:
    i. Disconnect the current scale cable from the Loadman device and the FleetMind terminal block. See ***Wiring Diagrams***.
    ii. Connect a spare scale cable (if necessary retrieve a known working cable from another vehicle) and connect to the Loadman device and the FleetMind terminal block.
    iii. Perform the tests described in section ***Testing Loadman-to-FleetMind Connectivity***.

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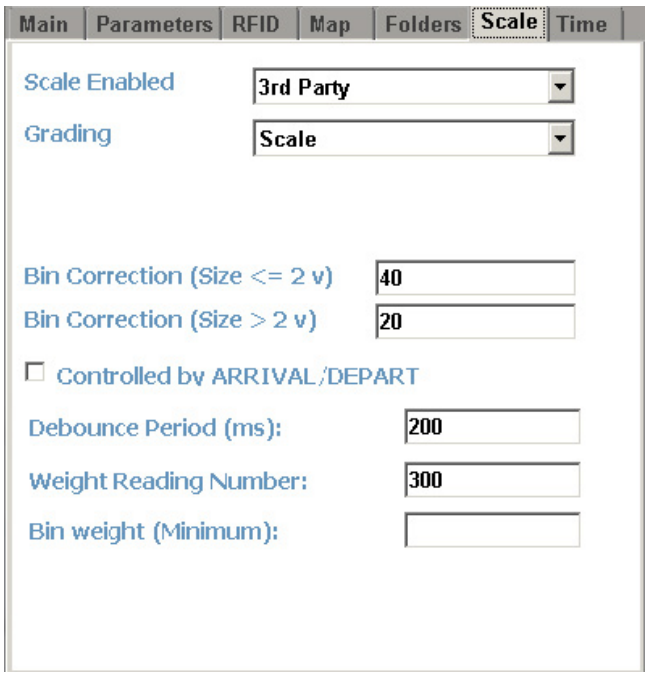
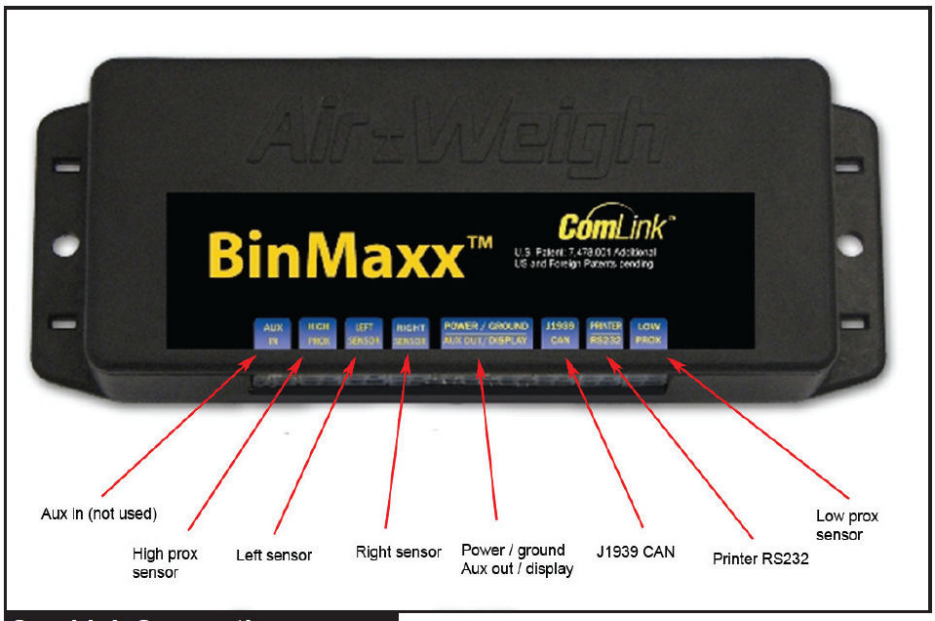
Air-Weigh Scale

In order to connect and integrate an Air Weigh Binn Maxx scale, ensure the following:

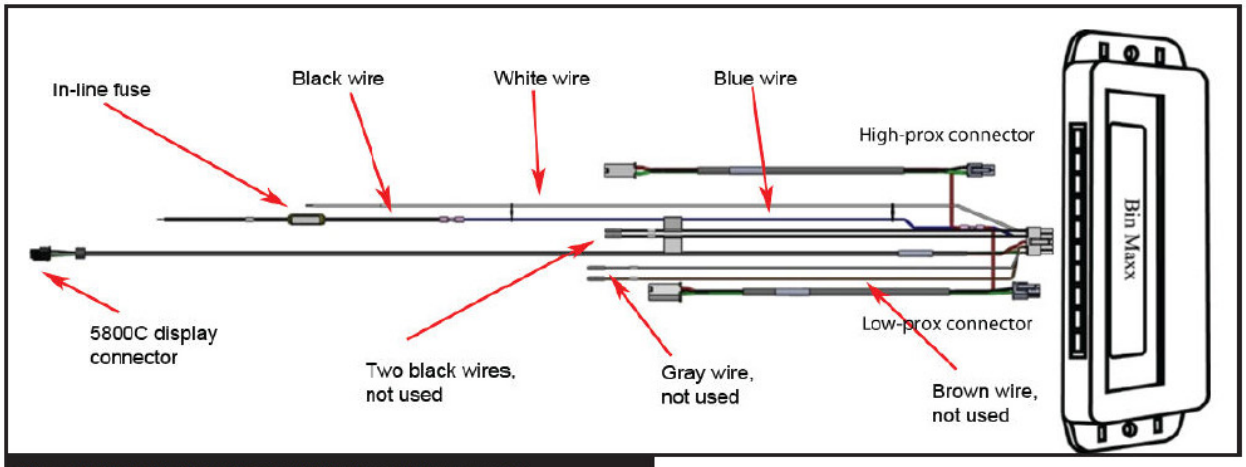
1. Loadman type cable must be used.
2. 3rd party scale set in the waste application.



3. Set scale to “airweigh” on OBC if legacy system (5.3.A or better needed on OBC firmware).
4. Set Air weigh scale on the Hardware configuration of the profile.
5. Connect interface cable to BinnMaxx terminal, as shown below.



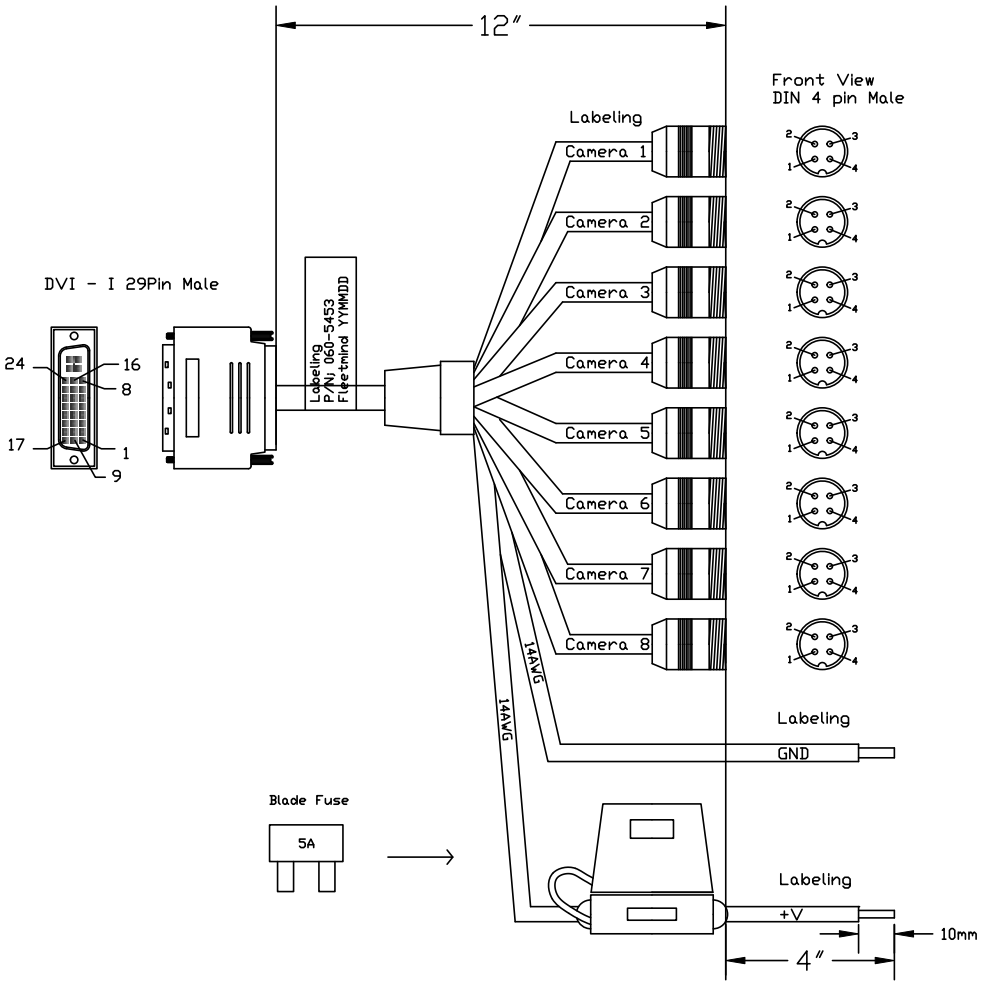
ComLink Connections



ComLink Interface Wiring Harness

Wiring Diagrams

AV Input Cable



M12 DIN4
Male Connector

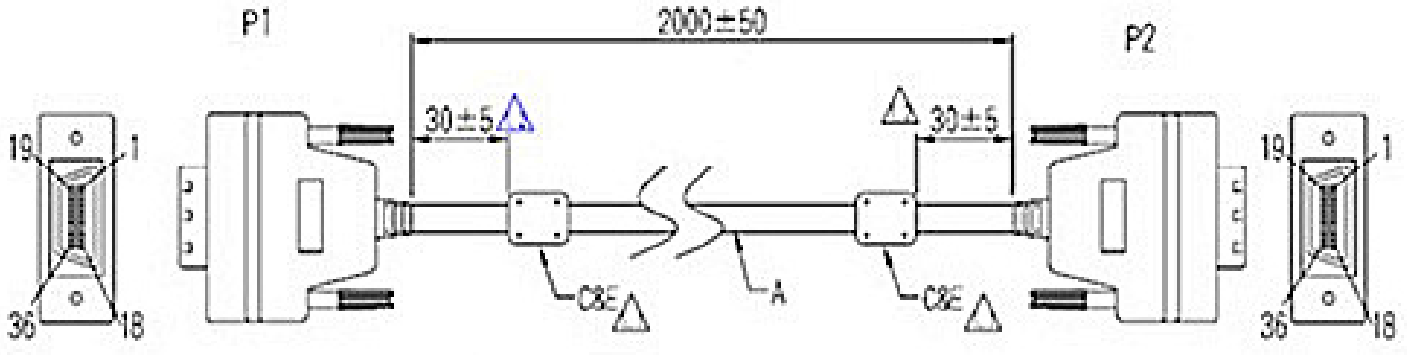
1 Power +9V to +32V
2 GND & Shield (Note)
3 Audio
4 Video

DVI - I 29Pin
Male Connector

1 Video Camera 1
2 Video Camera 2
3 Video Camera 3
4 Video Camera 4
5 Audio Camera 1
6 Audio Camera 2
7 Audio Camera 3
8 Audio Camera 4
9 GND Camera 1
10 GND Camera 2
11 GND Camera 3
12 GND Camera 4
13 GND Camera 5
14 GND Camera 6
15 GND Camera 7
16 GND Camera 8
17 Empty
18 Empty
19 Empty
20 Empty
21 Video Camera 5
22 Video Camera 6
23 Video Camera 7
24 Video Camera 8

Note:
Connect DIN4 shield with DVI shield,
Do not connect shield with Pin1
of the DIN4

DVR Monitor Cable



P1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
P2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Color	Brown	White	Ground	Brown	red	white	Ground	Ground		white	red		yellow	white	Ground	Ground	Green	white

19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Blue	white	Ground	yellow		Blue	Purple	Grey	white	Black	Black Brown	black red	Orange	Black Yellow	Black green	Black blue	Black purple	Black grey

NOTE: Signal quality

To assure signal quality, the maximum cable length is limited to 10 meters. If longer cable length is desired, an additional signal booster box might be required. Please contact FleetMind for further assistance.

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DVR Monitor Pin Out Assignments

The Smart Display port is a high density connector which includes a variety of signal interfaces to achieve the "One-Cable-Connection" between the display and the computer.

The following interfaces are embedded in the Smart Display port:

- LVDS
- UART
- USB
- Power button
- Reset button
- Audio line out
- 12VDC power
- Ground

Pin assignment for Smart Display Ports			
Pin	**Signal**	**Pin**	**Signal**
1	Backlight Enable output #	2	Panel Power Enable output #
3	LVDS Ground	4	Reset Button Input #
5	LVDS Clock +	6	LVDS Clock -
7	LVDS Ground	8	LVDS Ground
9	LVDS Data2 +	10	LVDS Data2 -
11	RS232 TXD1 #	12	RS232 RXD1 #
13	LVDS Data1 +	14	LVDS Data1 -
15	LVDS Ground	16	LVDS Ground
17	LVDS Data0 +	18	LVDS Data0 -
19	USB D-	20	USB D+
21	USB Ground	22	USB Ground
23	+12 VDC output (+/- 5%, max 1A)	24	+12 VDC output (+/- 5%, max 1A)
25	+12 VDC output (+/- 5%, max 1A)	26	+12 VDC output (+/- 5%, max 1A)
27	Power Ground	28	Power Ground
29	Power Ground	30	Power Ground
31	RS-232 TXD2 #	32	RS-232 RXD2 #
33	RS-232 RTS2	34	Power Button Input #
35	Audio Ground	36	Mono. Line-out

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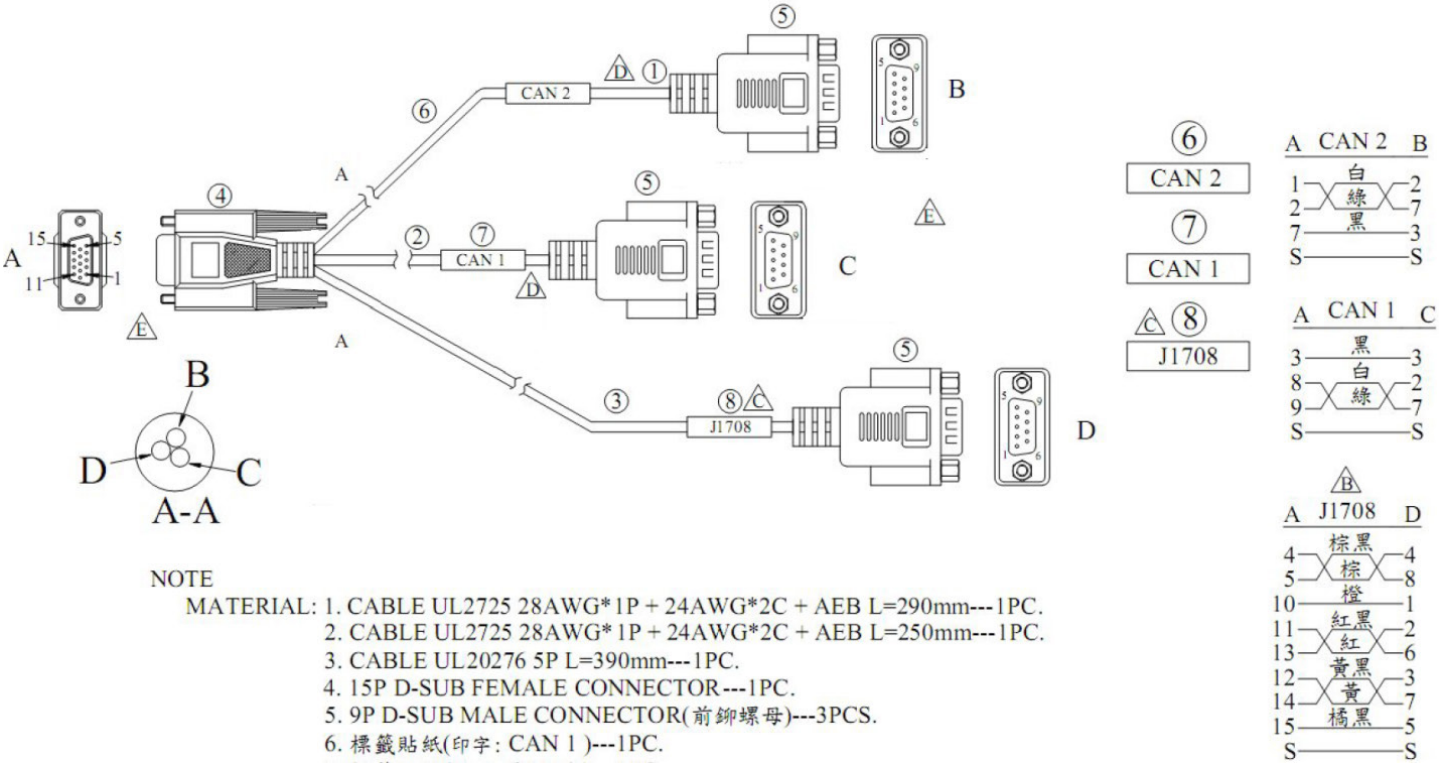
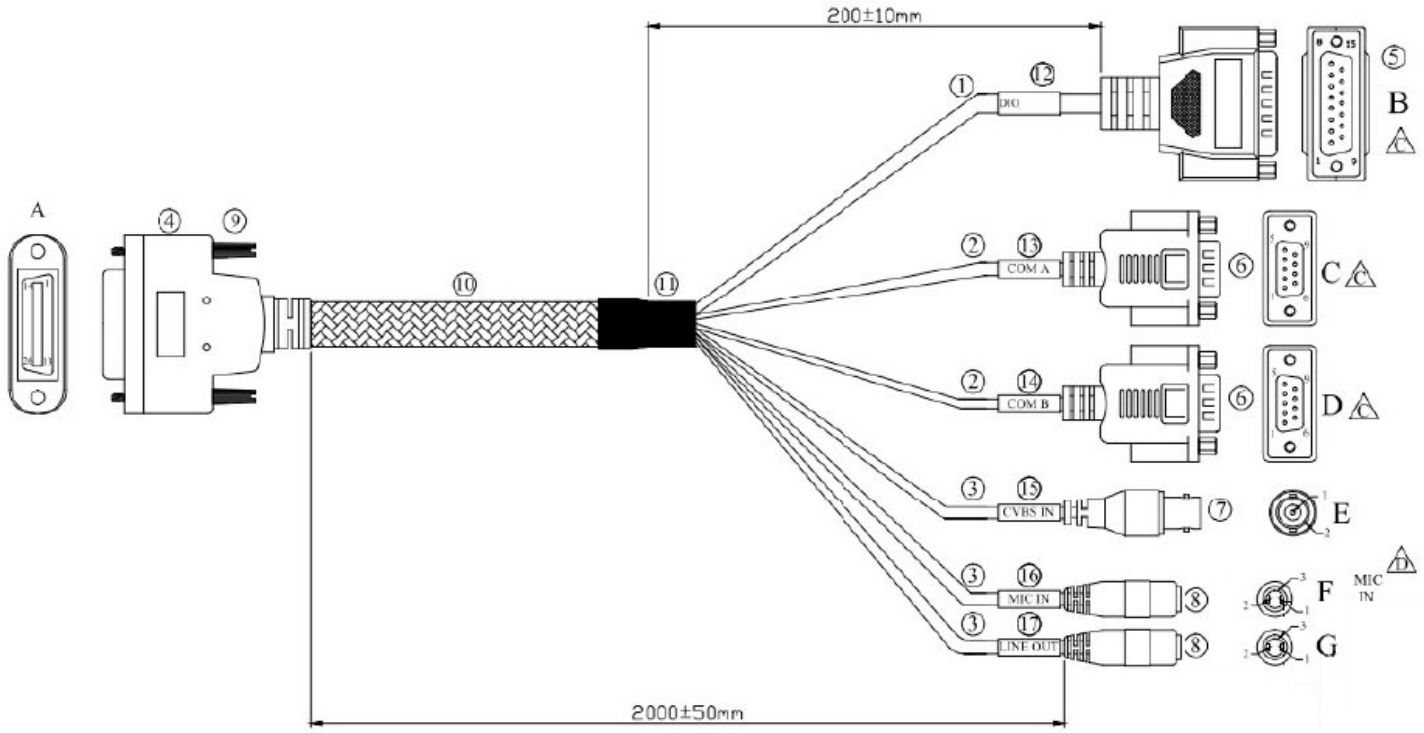
FleetLink DVR Pin-out Assignments

Vehicle I/O



CAN_2	VIO (DB15_M) Conn A	CAN_A (DB9_M) Conn B	Note
CAN_L	1	2	Twisted
CAN_H	2	7	
CAN_GND	7	3	Shielding
CAN_1	VIO (DB15_M) Conn A	CAN_B (DB9_M) ConnC	
ODB_CAN_L	8	2	Twisted
ODB_CAN_H	9	7	
ODB_CAN_GND	3	3	Shielding
J1708	VIO (DB15_M) Conn A	J1708+DR (DB9_M) ConnD	
J1708_DN	4	4	Twisted
J1708_DP	5	8	
J1708_GND	10	1	Shielding
CAR_SPEED-	11	3	Twisted
CAR_SPEED	12	5	
CAR_FWD-	13	6	Twisted
CAR_FWD	14	9	

Generic I/O



Pin-out	Conn A GIO	Conn B DIO_RS485
DI1	1	1
DI2	2	2
DI3	3	3
DI4	4	4
GND_DI	5	5
RS-485+	6	13
RS-485-	7	14
GND_RS-485	8	15
ISO_RELAYOUT1	14	9
ISO_RELAYOUT2	15	10
GND_DO	16	6
Pin-out	Conn A GIO	Conn C COM_A
COMA_232_RXD	17	2
COMA_232_TXD	18	3
COMA_232_RTS# COMA_232_CTS#	19 20	7 8
GND_COMA	21	5

Pin-out	Conn A GIO	Conn D COM_B
COMB_232_RXD	22	2
COMB_232_TXD	23	3
COMB_232_RTS#	24	7
COMB_232_CTS#	25	8
GND_COMB	26	5
Pin-out	Conn A GIO	Conn E CVBS_IN
GND_CVBS	9	2
CVBS	10	1
Pin-out	Conn A GIO	Conn F MIC_IN
GND_AUD	11	3
MIC_IN	12	1,2
Pin-out	Conn A GIO	Conn G LINE_OUT
GND_AUD	11	3
LINE_OUT	13	1,2

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FleetLink DVR Terminal Block

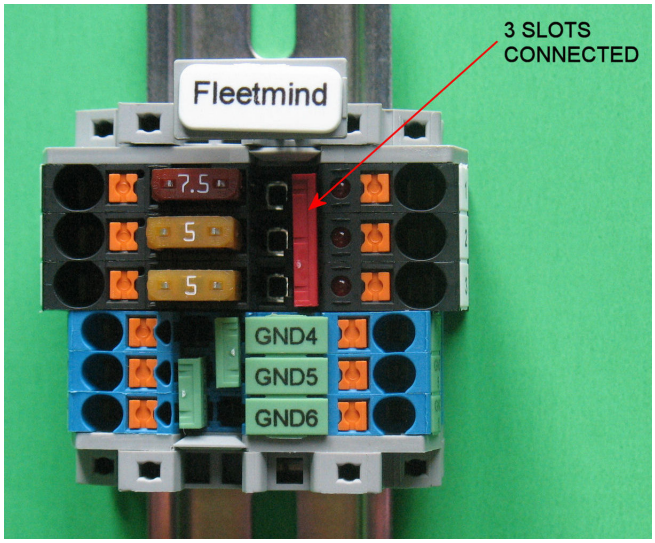
The FleetMind terminal block will differ slightly depending whether the vehicle is equipped with a kill switch.

IMPORTANT!

Before connecting truck power to the terminal block, see ***Wiring 12V DC Power to the Terminal Block***.

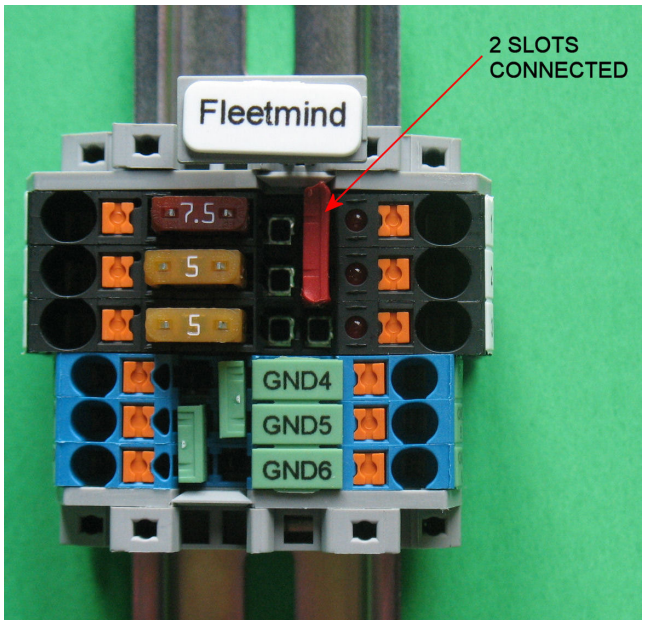
With Kill Switch

When a kill switch is present, 3 slots on the power bus bar must be connected.



Without Kill Switch

In the absence of a kill switch, only 2 slots on the power bus bar must be connected.



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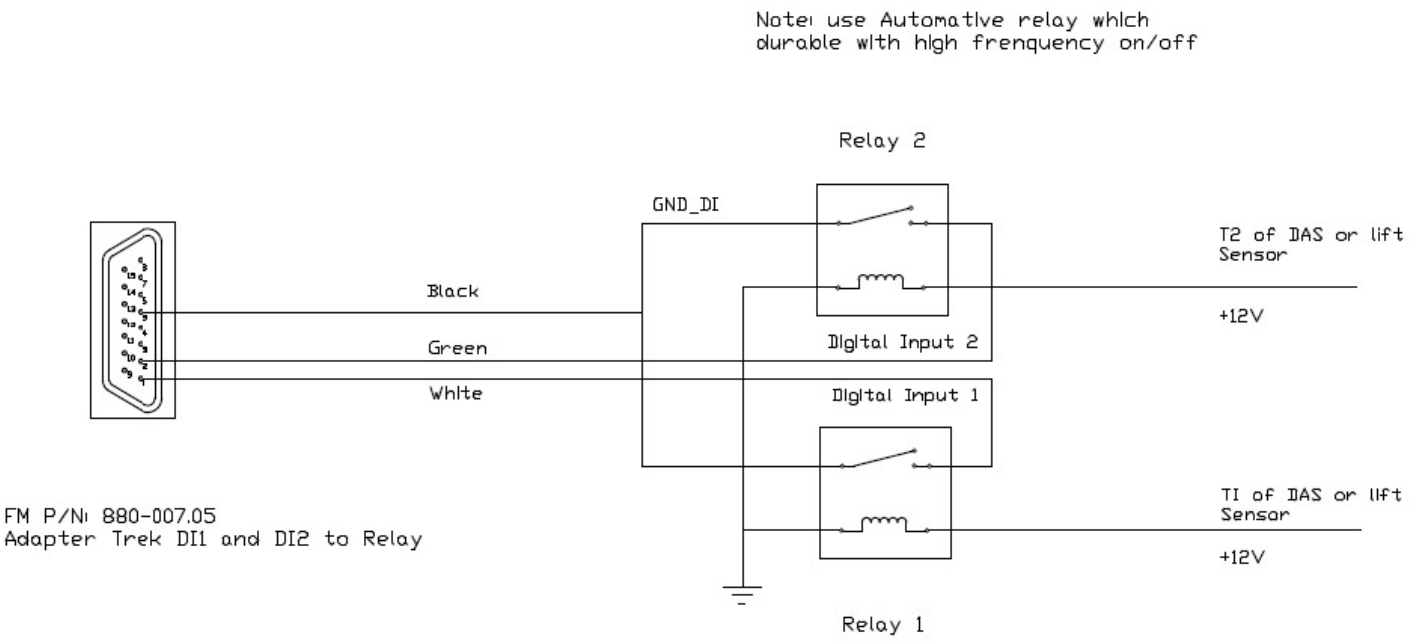
Lift Sensor Relay Adapter Cable

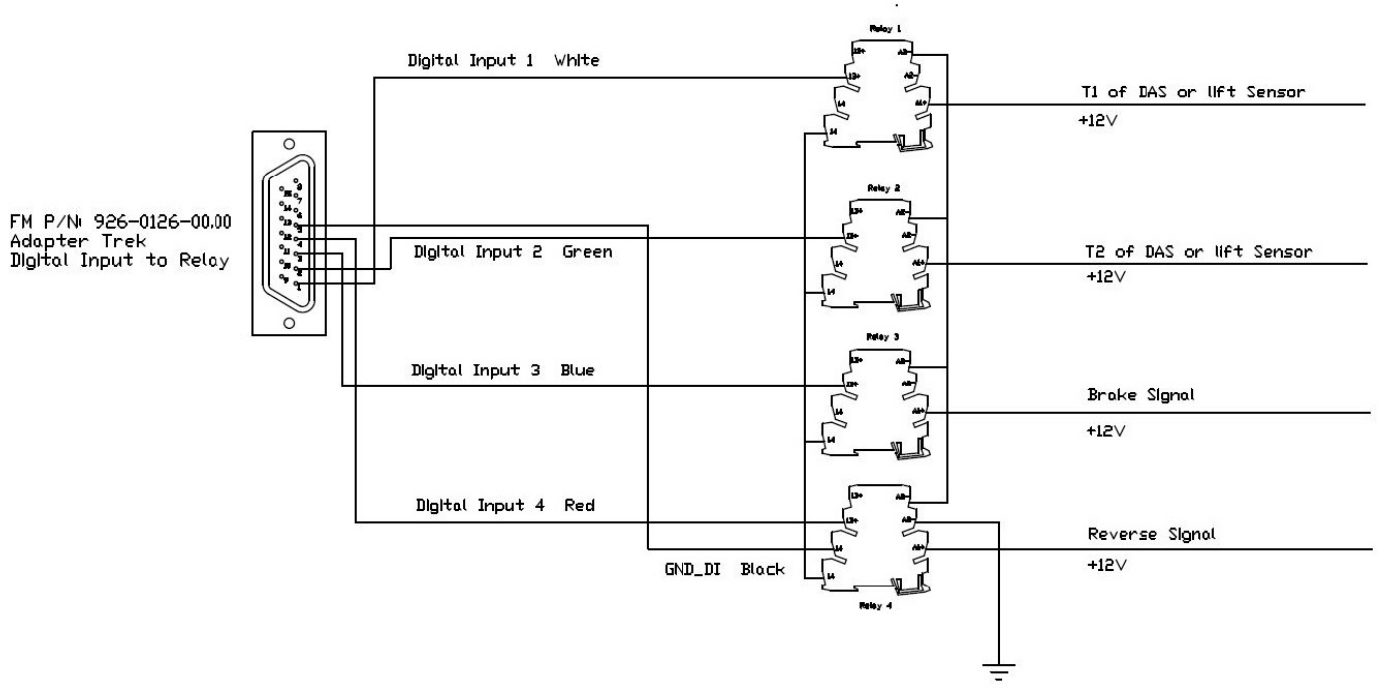


Relays for Brake and Reverse Signals (J1708)

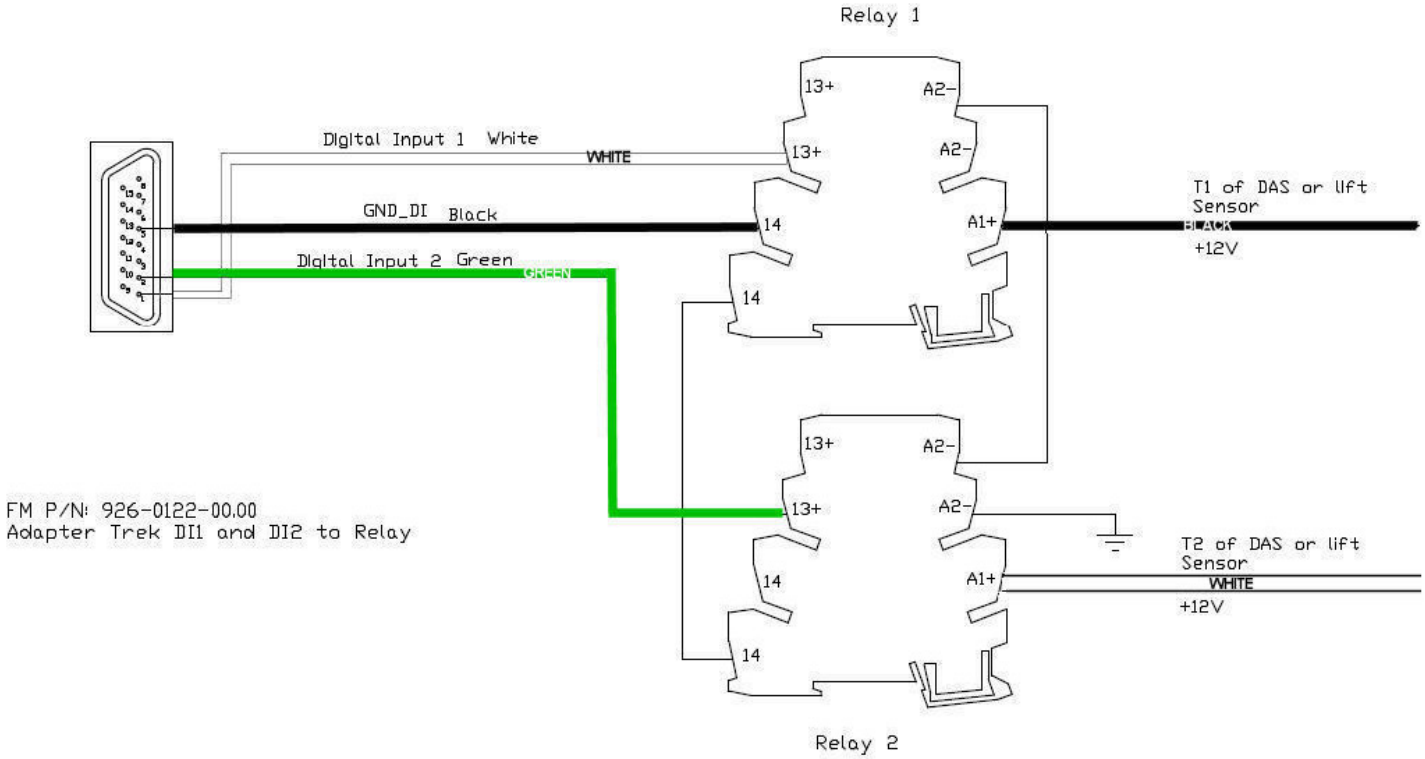
The following diagram shows the physical connections to the truck's reverse signal for older trucks (2008 and prior) using J1708 serial communications protocol.

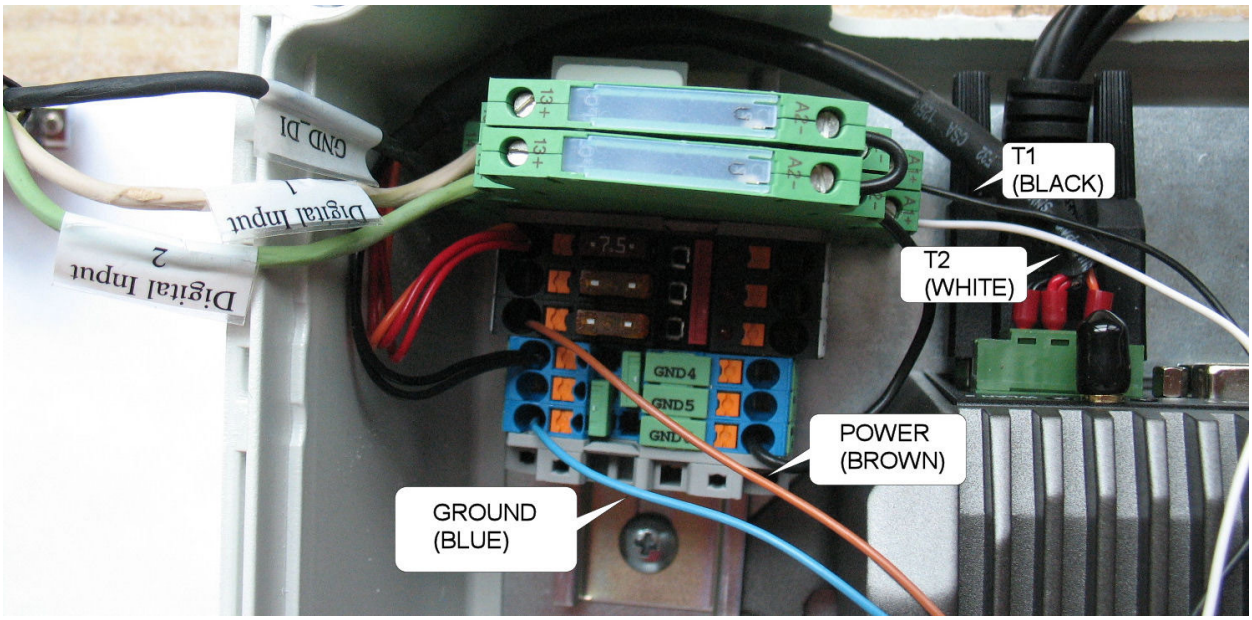
In this example:

- DI1 and DI2 connect to relays for lift sensor or dual-angle switch.
- DI3 and DI4 connect to relays for brake signal and reverse signal, respectively.



Phoenix Contact Relay





Electrical Tapping Points

NOTE: Equipment may vary

The material presented here is provided solely for the purposes of locating DC voltage source locations within various vehicle types. The equipment depicted in the images is not relevant within this context and, as such, may vary from that being used in your installation.

Electrical Requirements

12 V

The 12 V tap must be after the battery disconnect (i.e., turning battery disconnect off eliminates 12 V to the FleetMind mobile platform. Turning battery disconnect on reapplies 12 V). Other names for the battery disconnect are night switch and kill switch.

Ground

Most trucks have a dedicated ground stud while some trucks require locating the screw that is tapped into the chassis as ground. Note that a clean ground implies direct contact to a rust free metal surface.

Reverse & Brake

For both reverse and brake, the FleetMind mobile platform is expecting a state change from 0v (disengaged/off) to 12 V (engaged/on).

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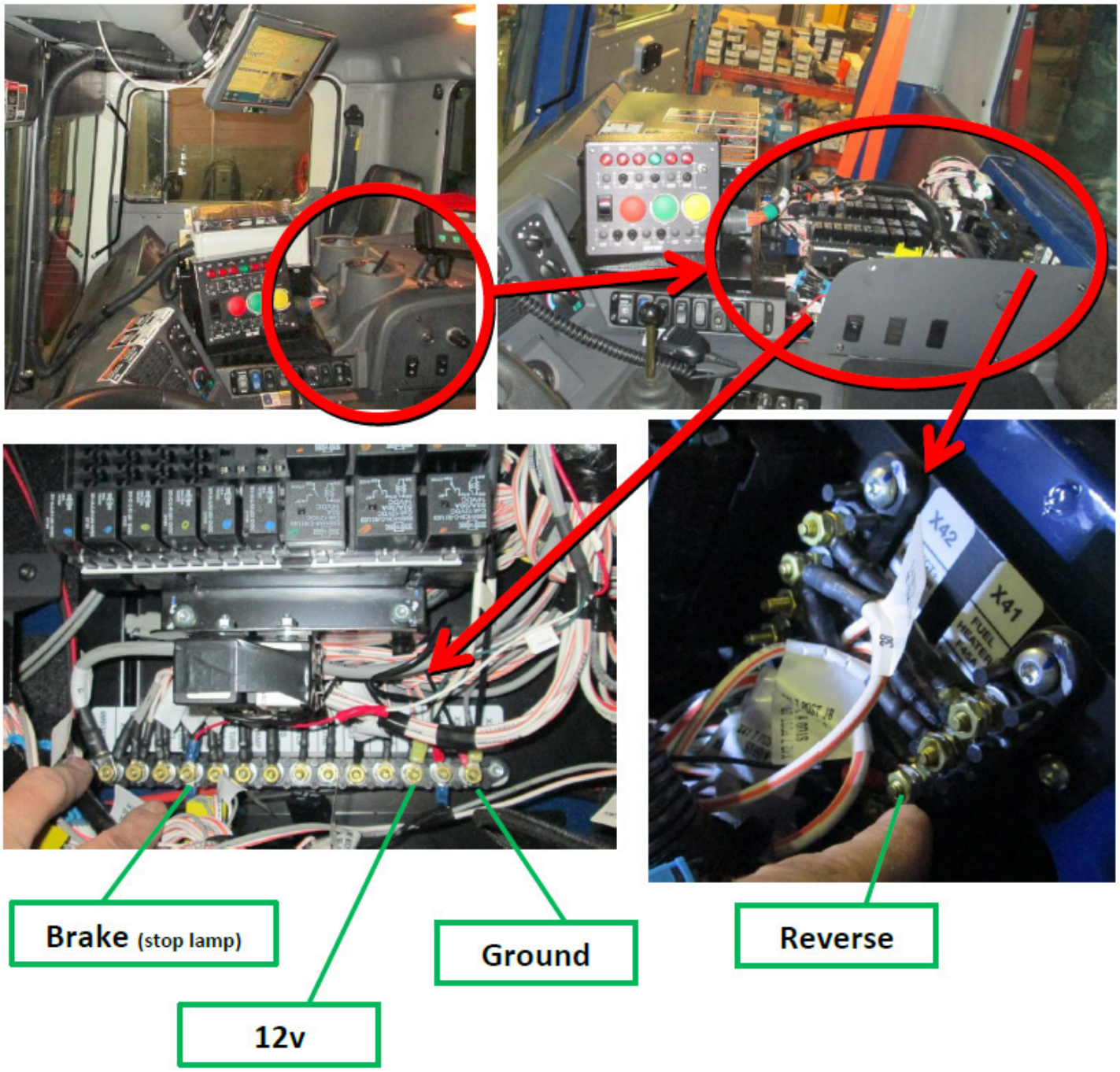
Mack - MRU



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Mack - MR

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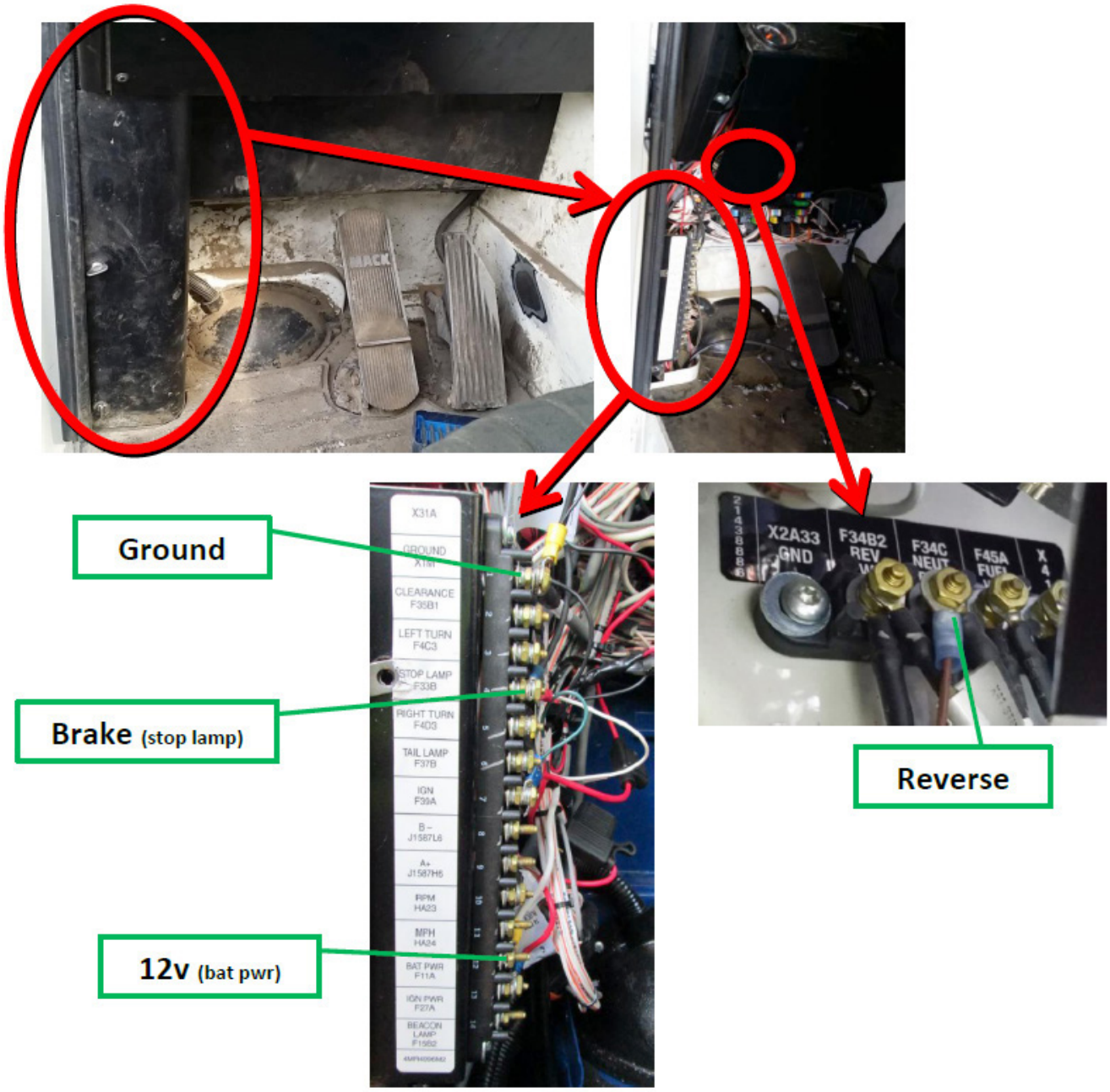
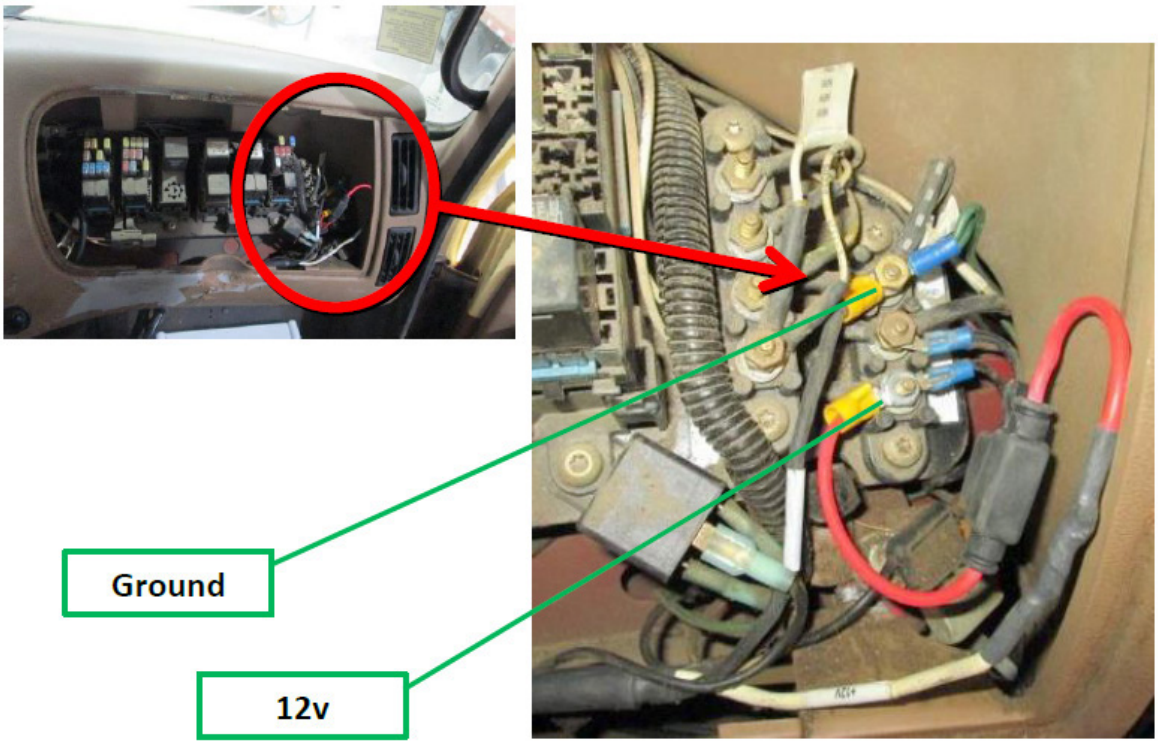
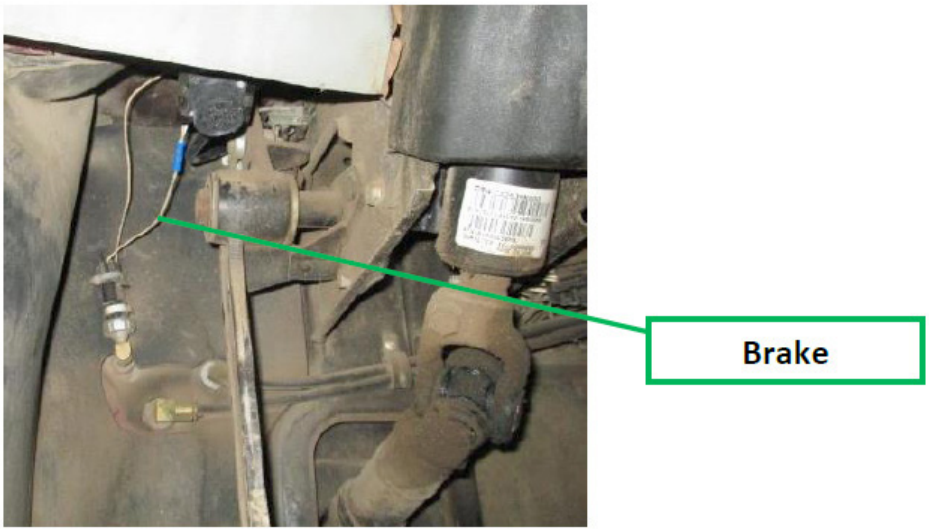
Mack - LEU600


Ground
Brake (stop lamp)
12v (bat pwr)
Reverse
X31A
CLEARANCE F35B1
LEFT TURN F4C3
STOP LAMP F33B
RIGHT TURN F4D3
TAIL LAMP F37B
IGN F39A
MPH HA24
BAT PWR F11A
X2A33 GND
F34B2 REV
F34C NEUT
F45A

Mack - CT713





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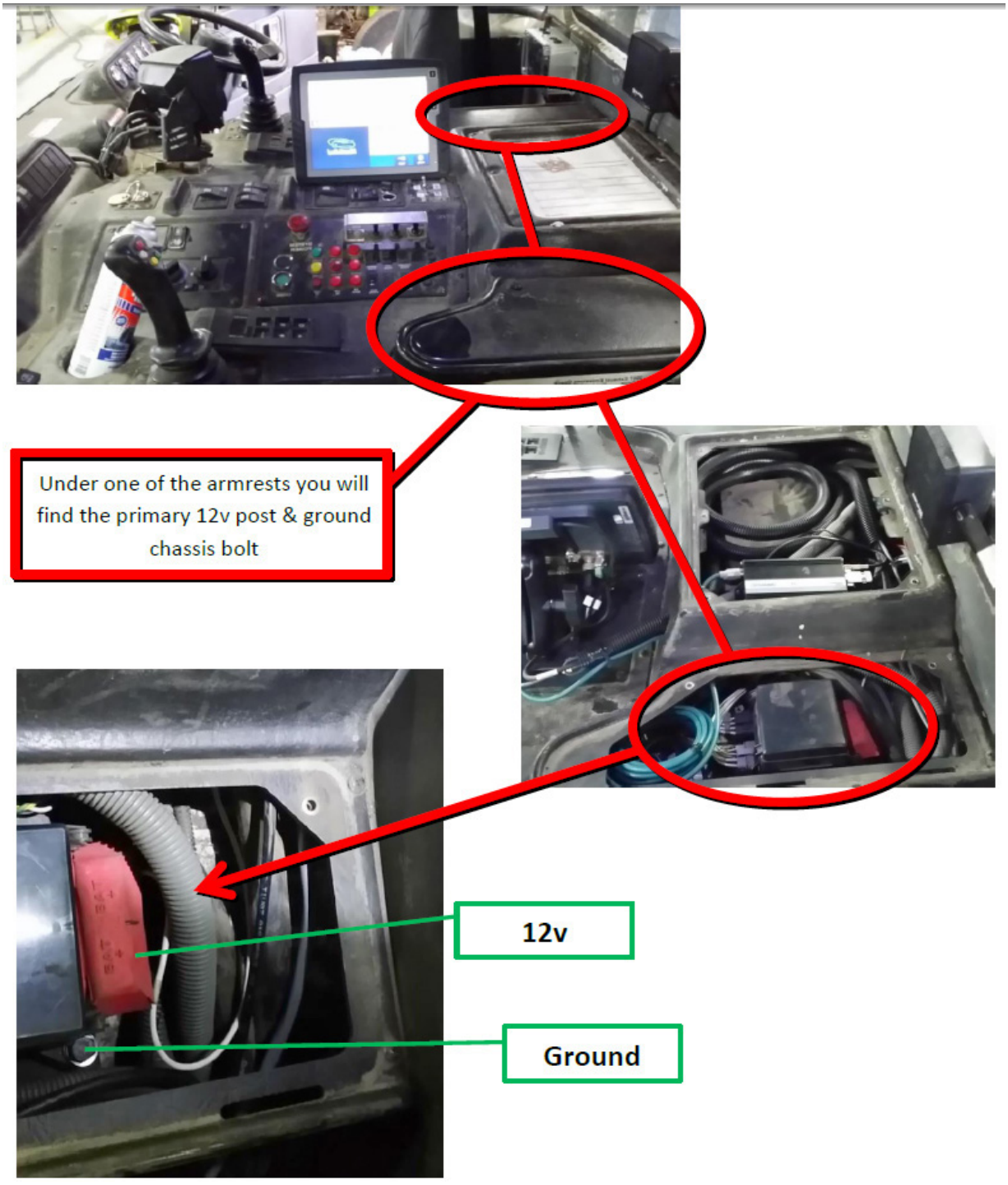
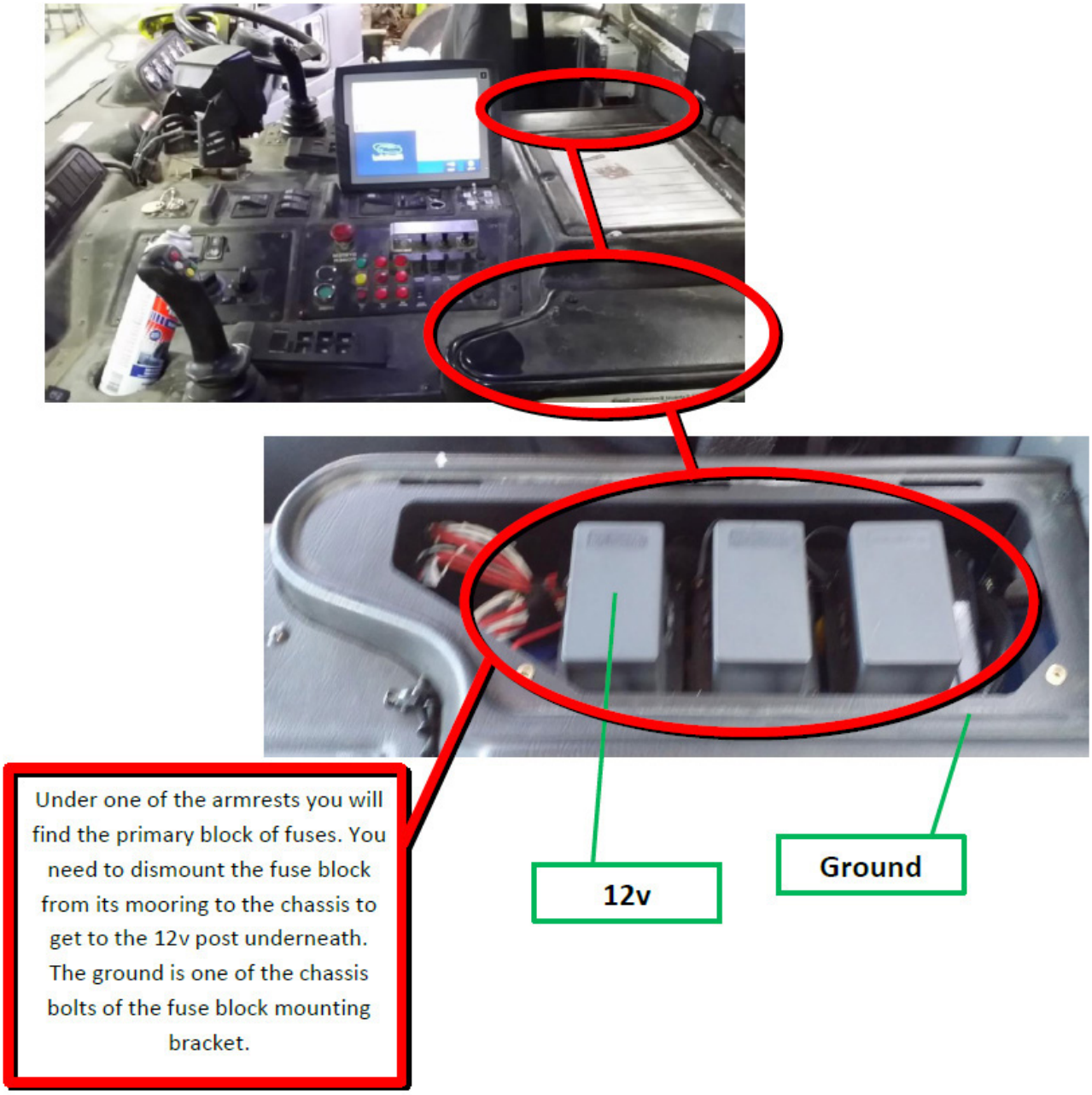
Autocar

12 V & Ground (Configuration 1)



12 V & Ground (Configuration 2)



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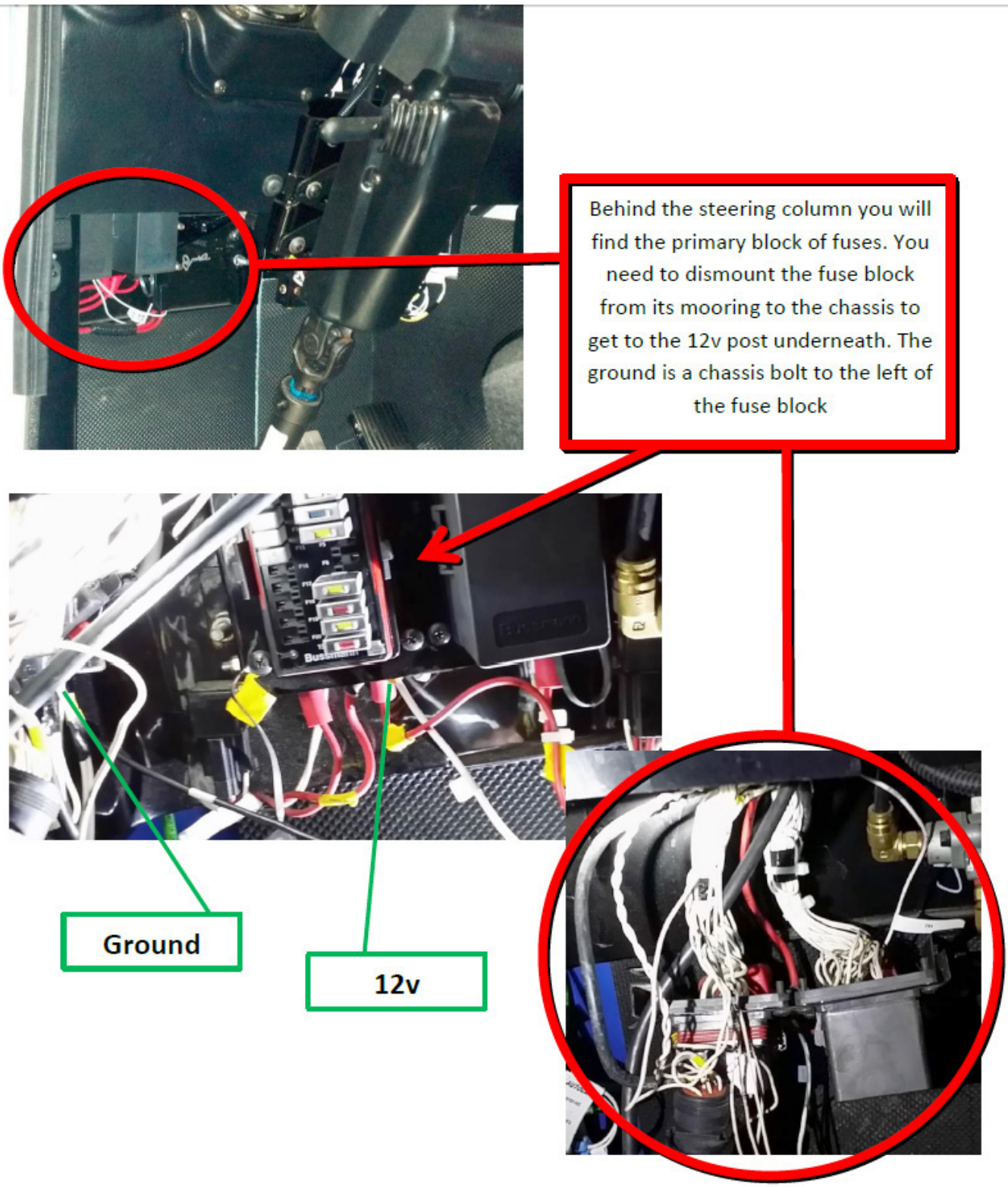
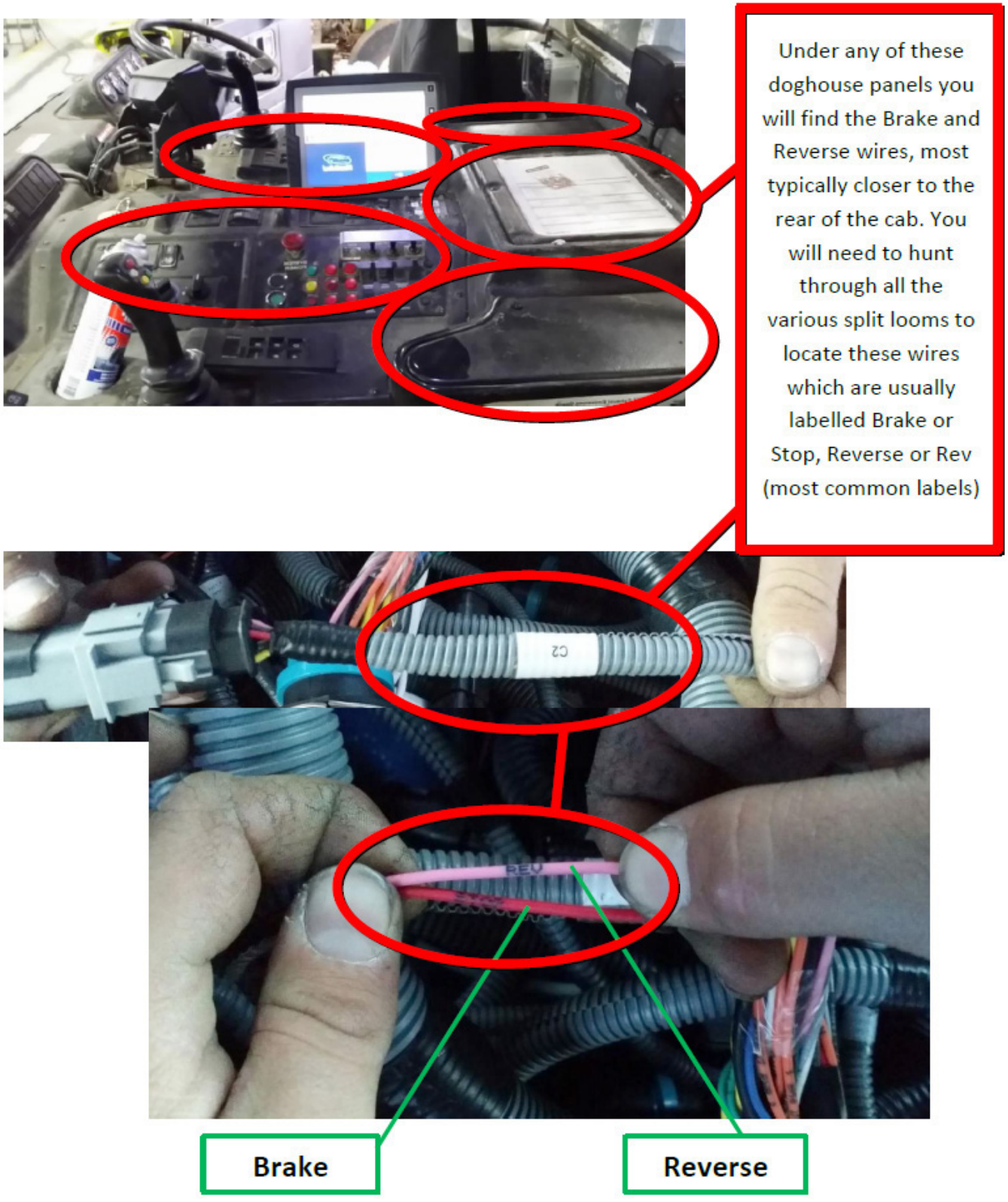
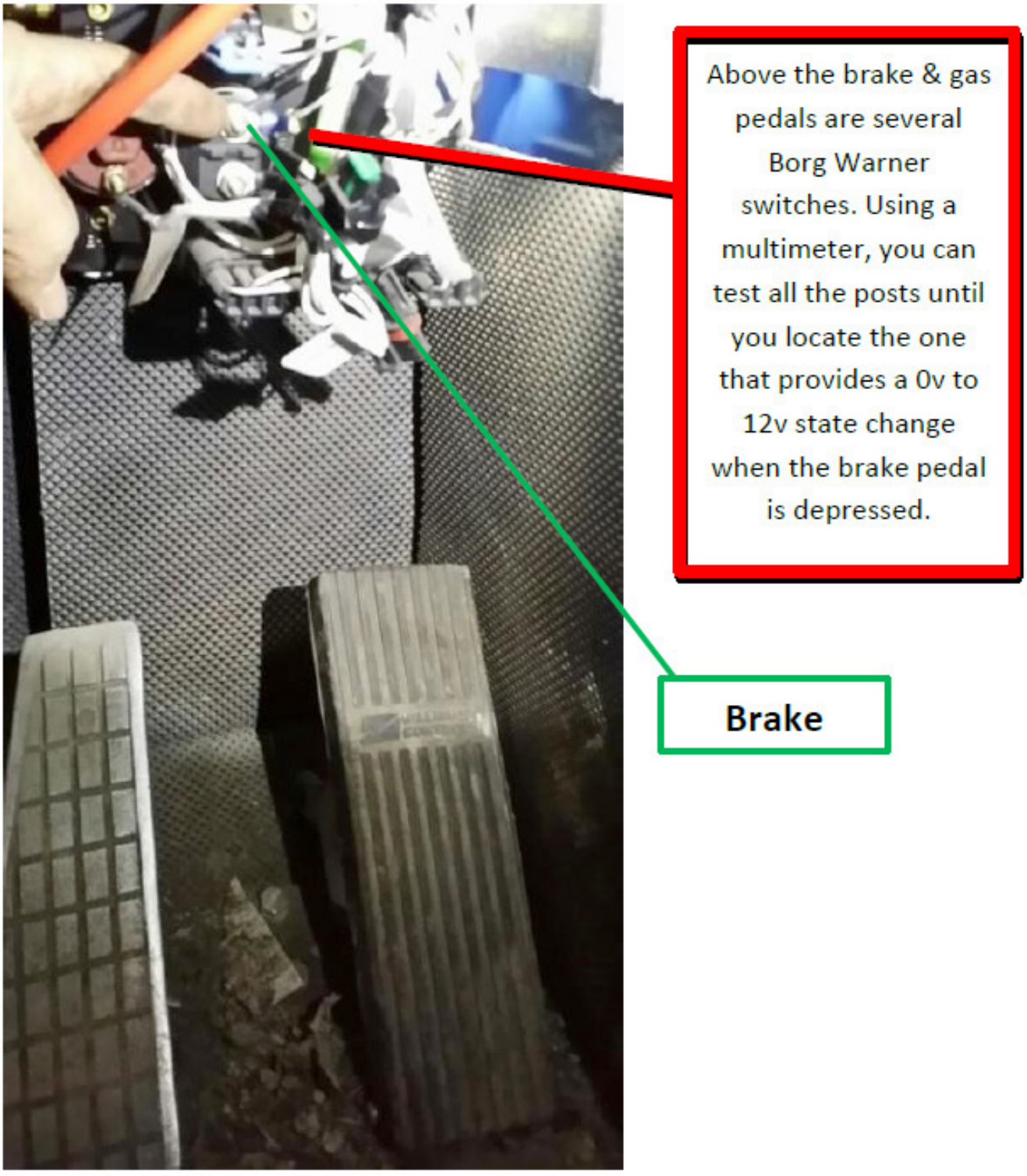
12 V & Ground (Configuration 3)



Brake and Reverse (Configuration 1)



Brake and Reverse (Configuration 2)



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Peterbilt

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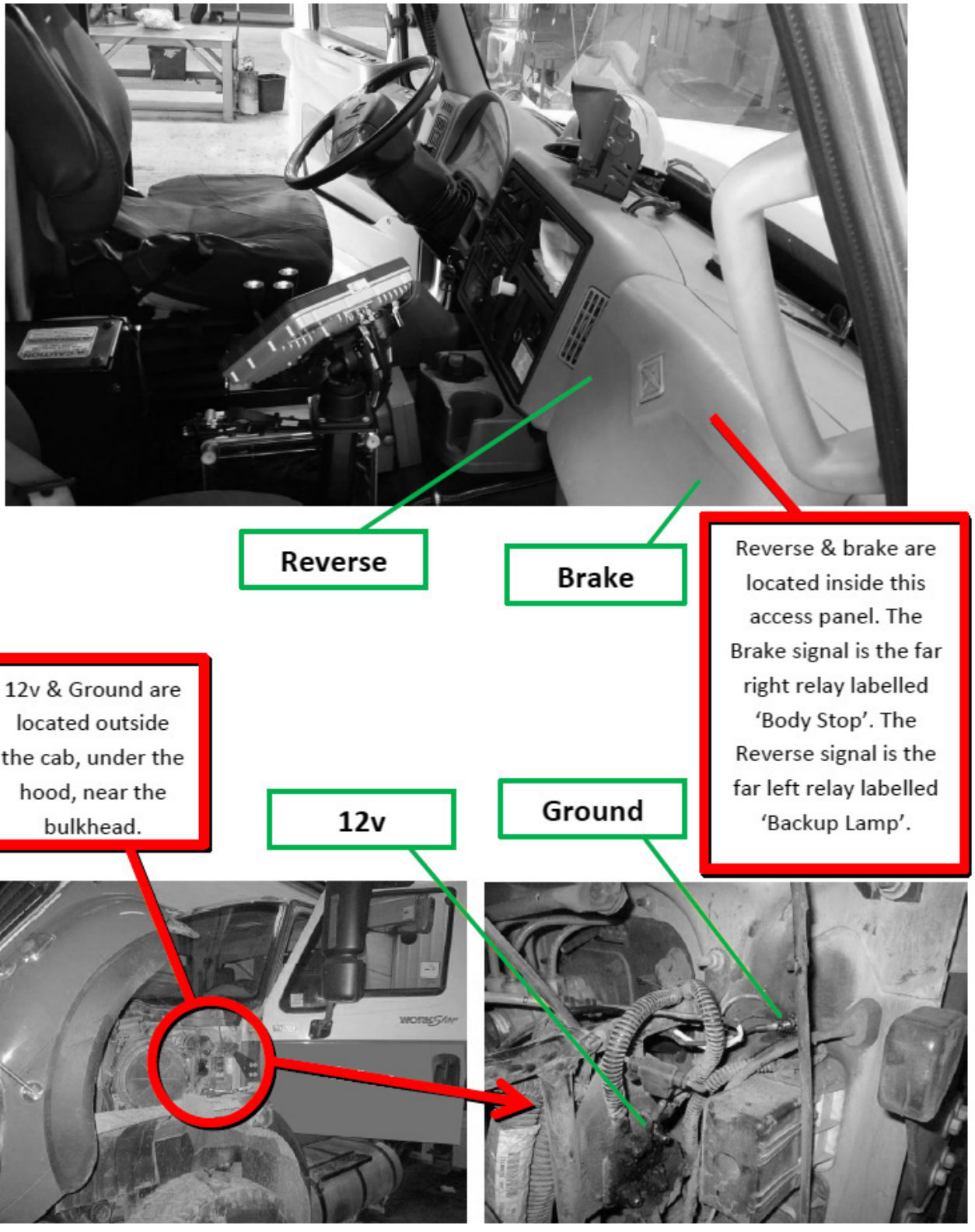
International - 7600



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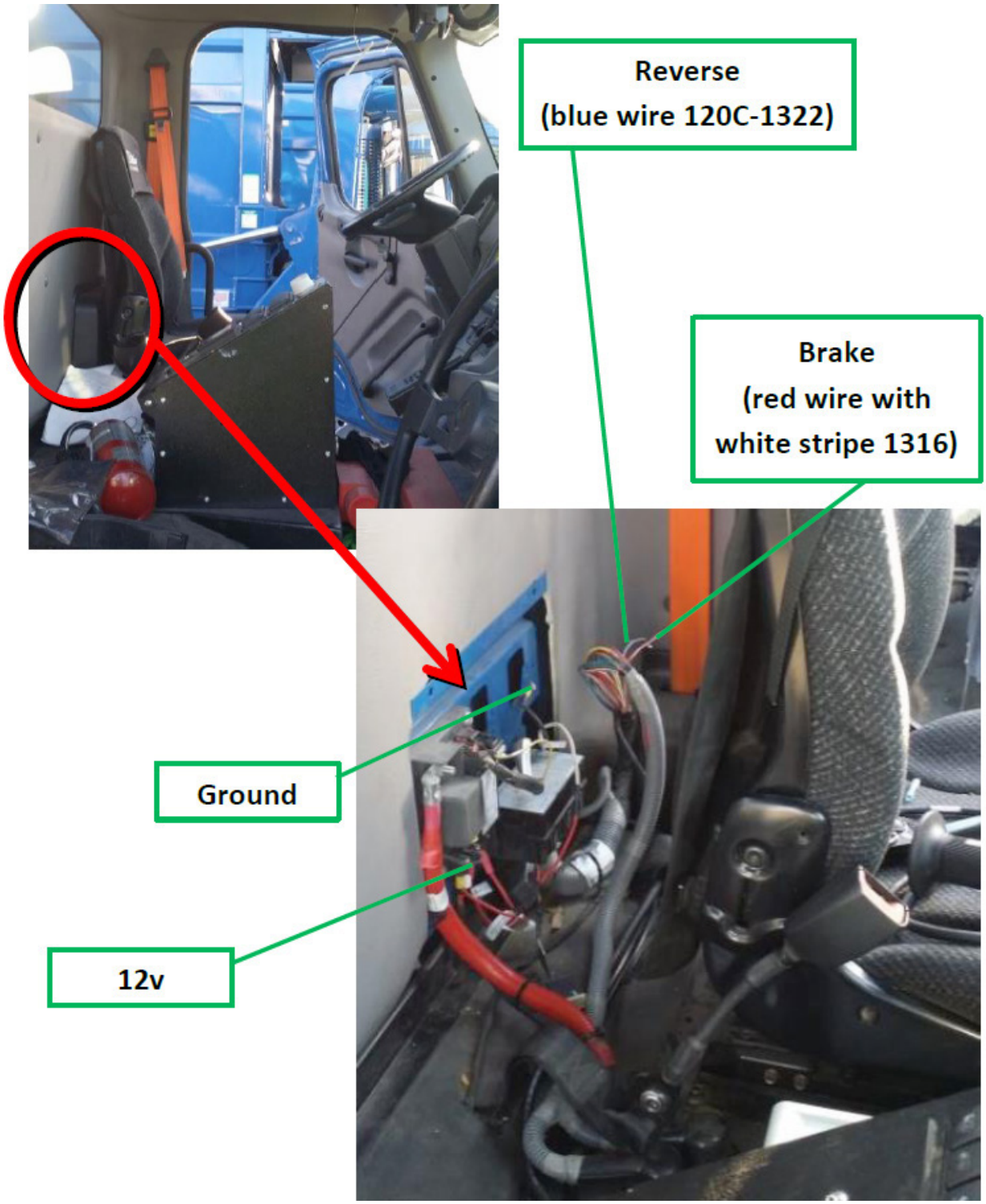
Freightliner - M2 12yd Minimax 2014



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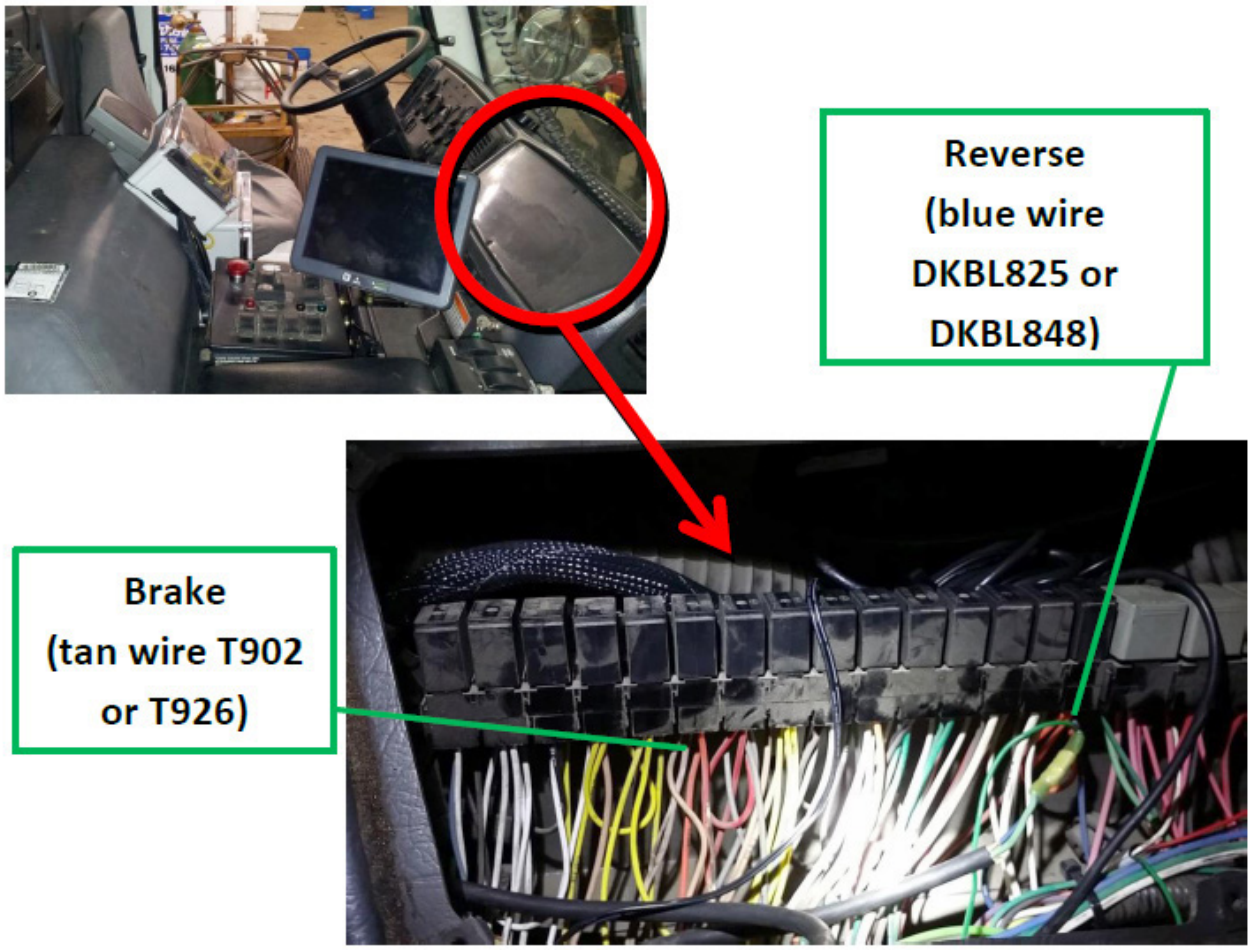
CCC



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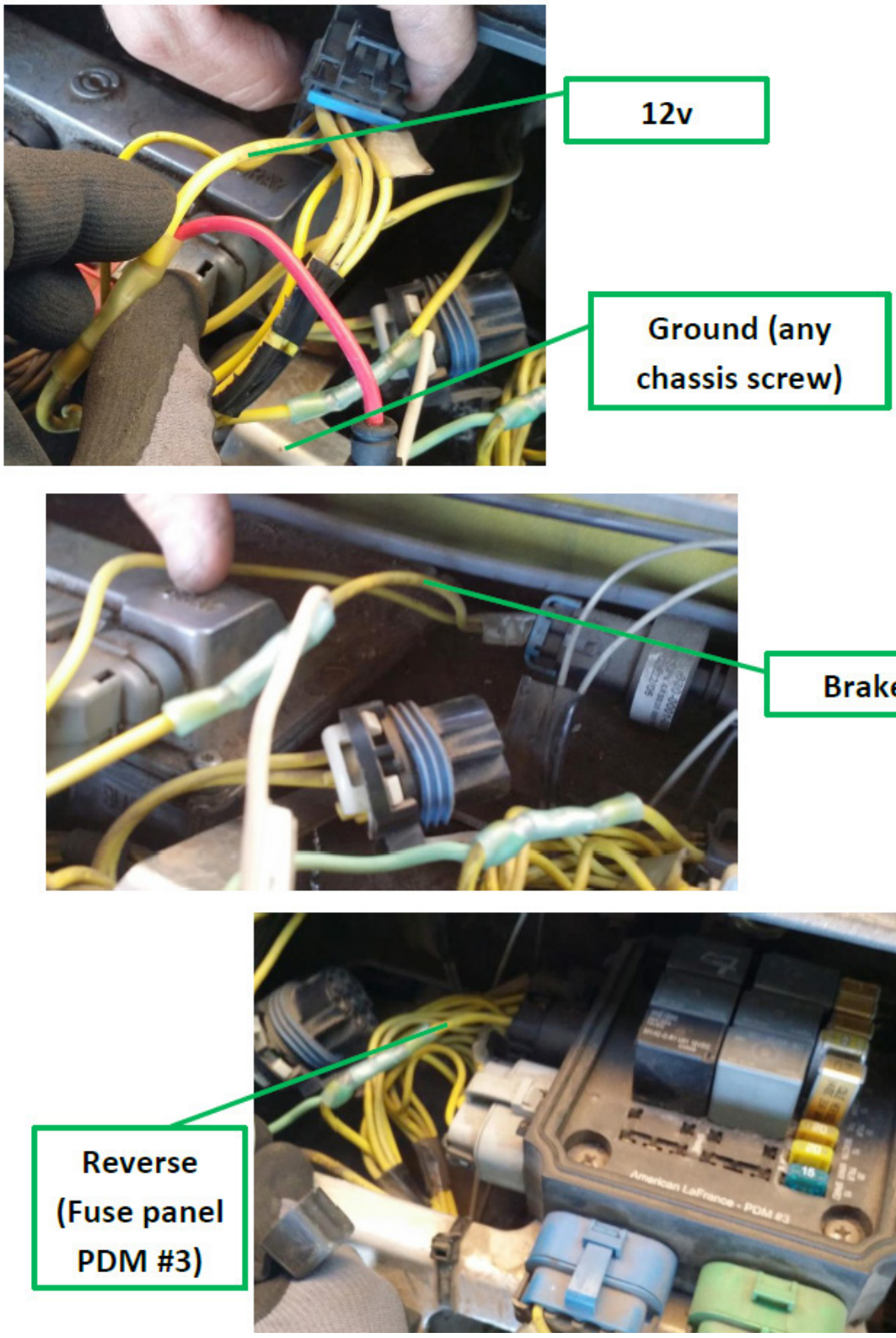
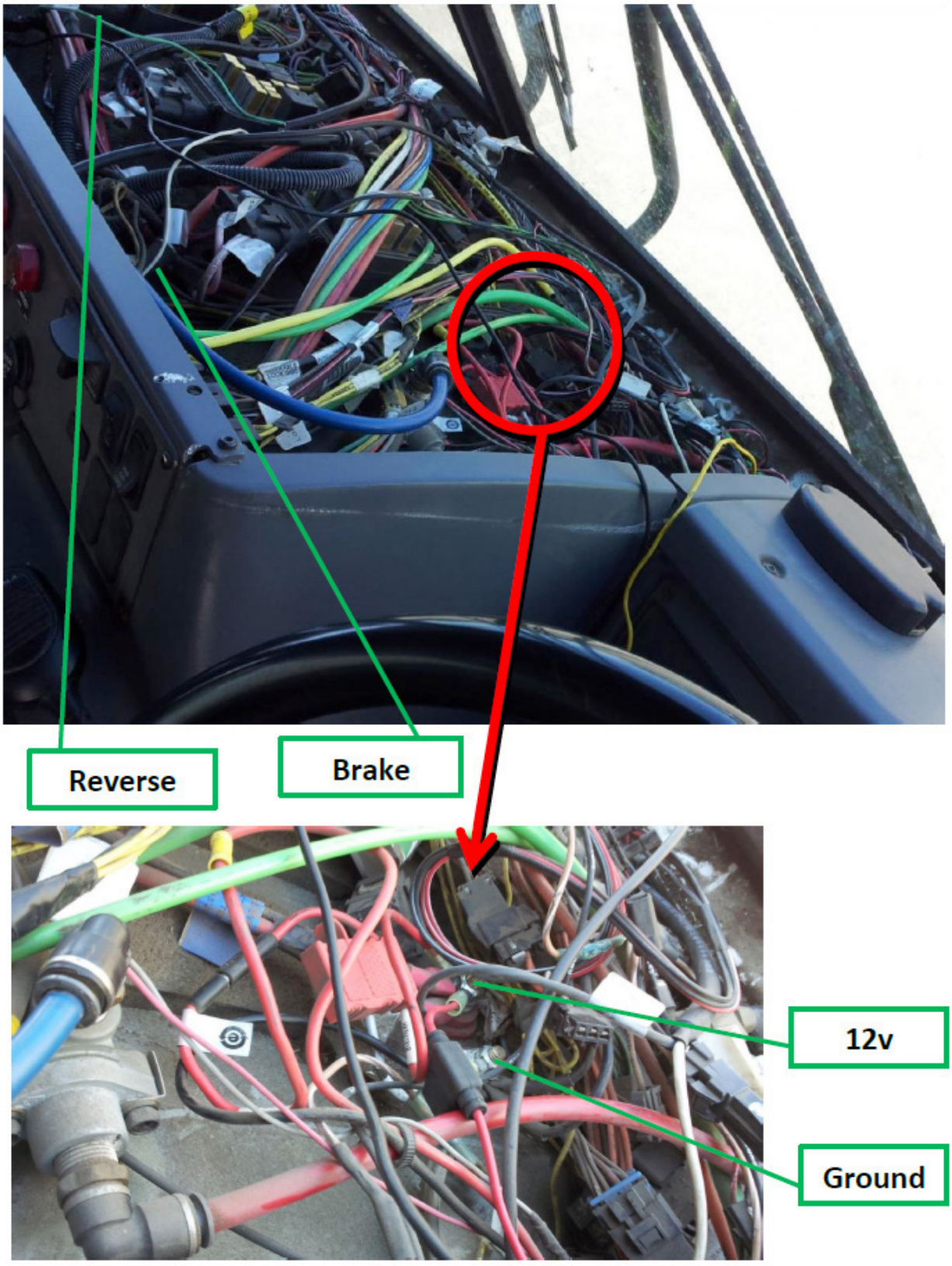
Sterling - Condor



American - LaFrance



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Lift Signal Tap Points

Peterbilt

- The white wire on the camera harness is usually connected to a proximity switch on the arm assembly.
- White wire (1753 212) in a large bundled harness near the rear of the cab, leading to the joystick.
- 2015 Scorpion trucks have a white wire underneath the joystick that has a programmable output signal and can be triggered off any of the proximity switches on the arm.

Labrie Arms

- The majority of Labrie systems have a wire labeled 235i inside the PTO box associated with a proximity switch on the arm when it is elevated.
- Other possibilities include wires labeled 'Auto-cam switcher' and 'Arm Mid Position'.

Zero Radius - Autocar 2014

Behind an access panel located on the body, driver side, near the front, are a series of fuse assemblies. A part of assembly 1483835, there is a green wire labeled 'Arm up stowed prox' associated with the proximity switch on the arm when stowed all the way up.

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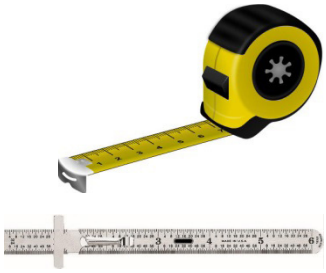
Fibox Modification for Phoenix Contact Relay

In earlier shipments of the FleetLink DVR, the terminal block mounting position within the Fibox enclosure may be too close to the edge of the enclosure to accommodate installation of a Phoenix Relay. This page describes a simple modification that will permit easy mounting of the component.

Required Tools and Equipment

The tools required for this procedure are:

- Electric Drill, with No.22 drill bit.
- Phillips head screw driver.
- Tape measure of ruler.

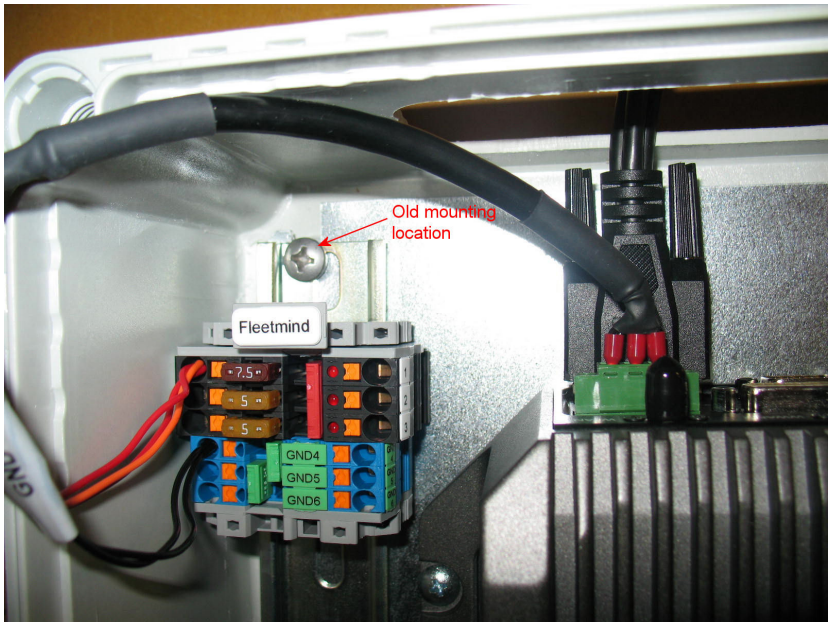


Estimated Time to Complete

This procedure takes approximately 20 minutes to complete.

Procedure

1. Remove the terminal block. To do so, using a Phillips head screwdriver, remove the (1 or 2) screw(s) that secure the terminal block to the metal base plate on the bottom of the Fibox enclosure.
   Set the terminal block and screw(s) aside for later mounting.



Mounted at the upper end of the terminal block is a stop piece, which prevents components on the block from sliding around.

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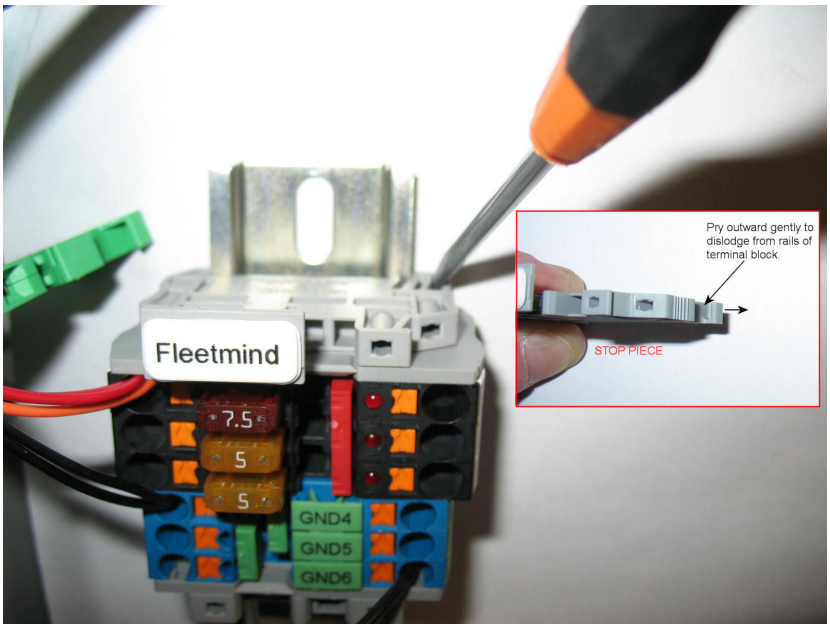
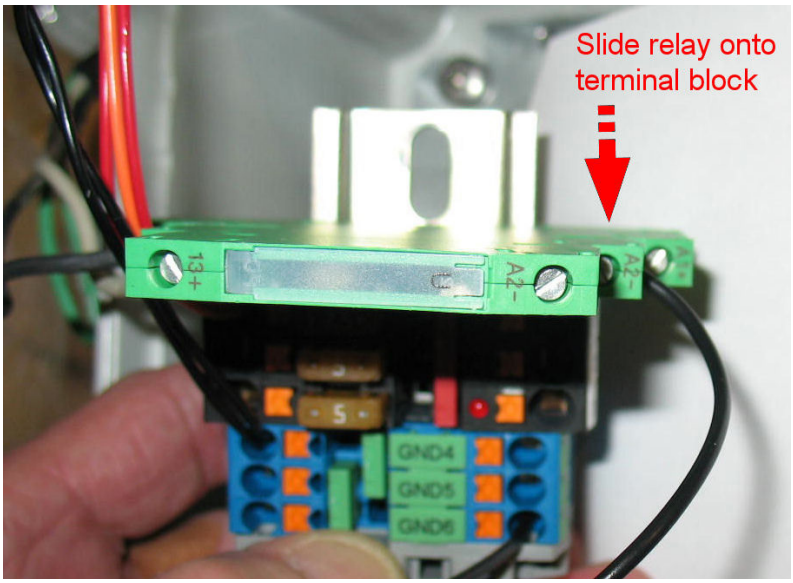
2. Dislodge this stop piece by prying outward gently on the tab, as shown in the following figure.



NOTE:

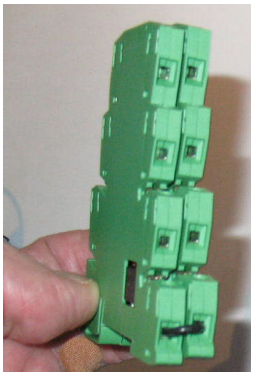
The stop piece may be mounted in the orientation opposite to that shown, i.e., with the tab on the left side. When reinstalling the stop piece, it is recommended to mount it in the orientation shown to facilitate future access, if required.

3. Mount the relay by sliding it onto the rails of the terminal block.

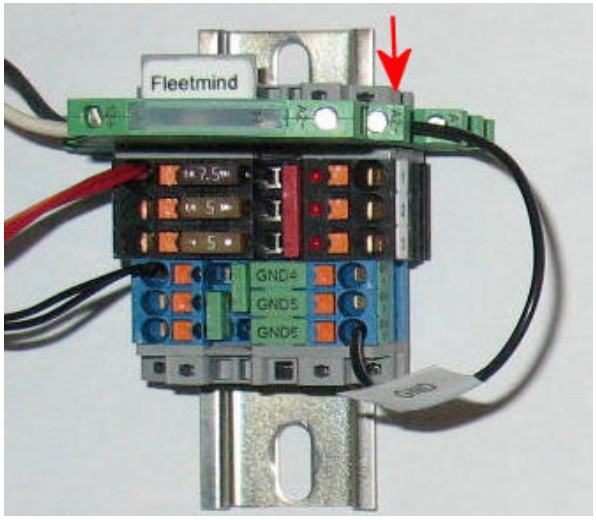


NOTE:

When installing two relays, the following step (reinstalling stop piece) may be omitted if there is insufficient space on the terminal block rails.



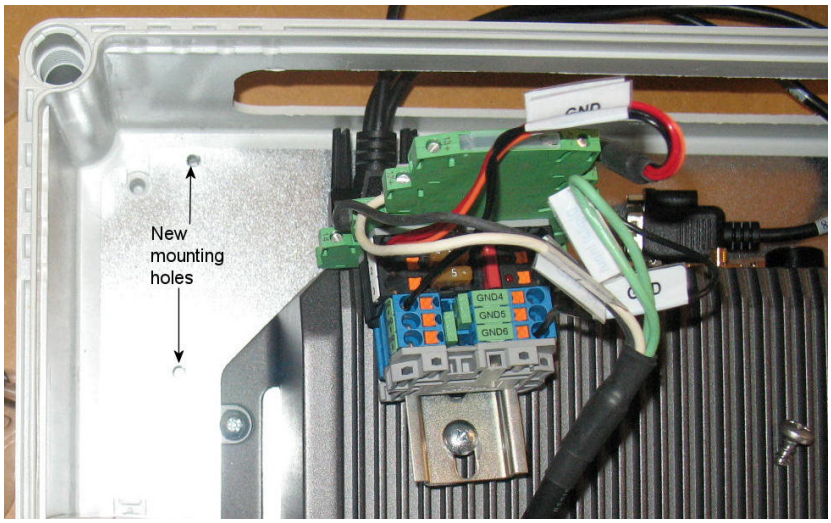
4. Reinstall the stop piece by snapping it into place on the rails of the terminal block.



5. Measure approximately 3/4” to the right of the old mounting hole(s), and mark the location(s) to drill for re-mounting.

> **NOTE:**
> Alternatively, you may wish to position the reassembled terminal block within the enclosure to determine the best fit, and then mark new mounting holes accordingly.

6. Using a drill and a no.22 drill bit, drill new mounting hole(s) into the metal base plate at the marked position(s).



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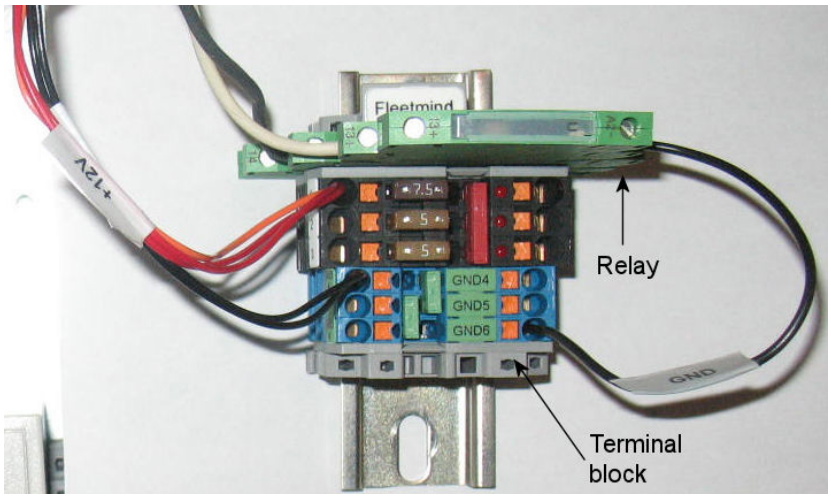
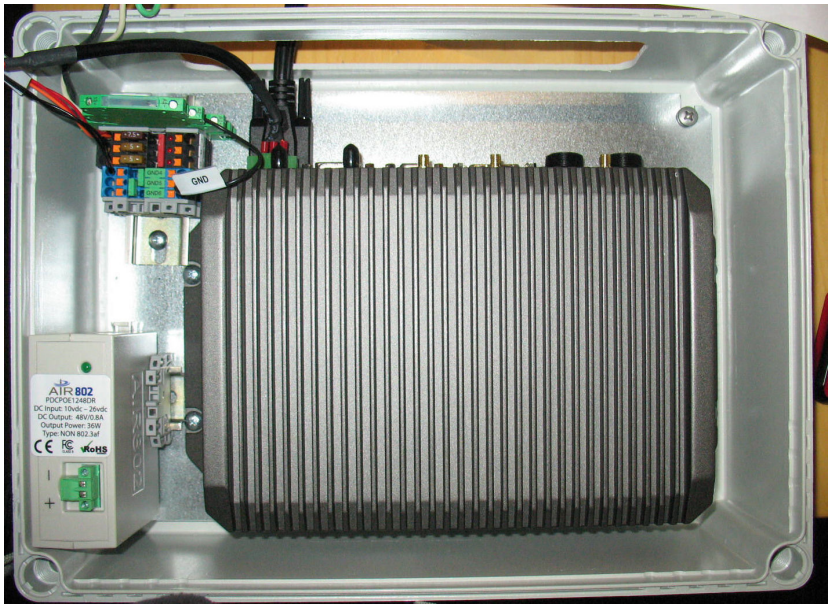
7. Mount and fasten the relay to the terminal block in the orientation shown, if you have not already done so.



8. Fasten the terminal block into the base plate using the screw(s) and new mounting hole(s).



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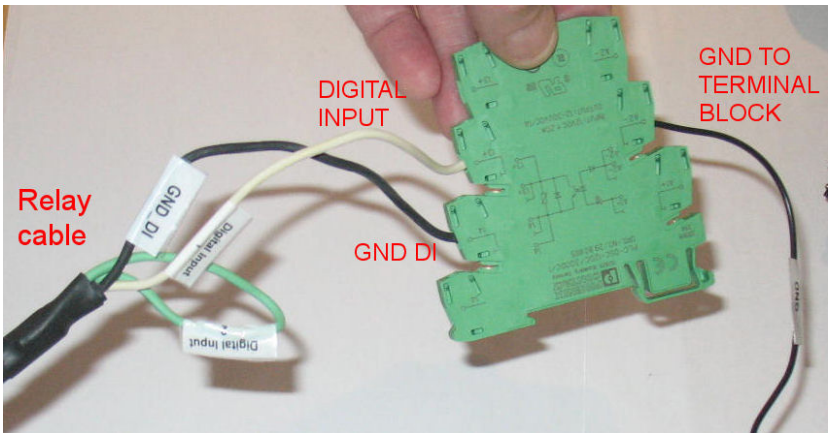
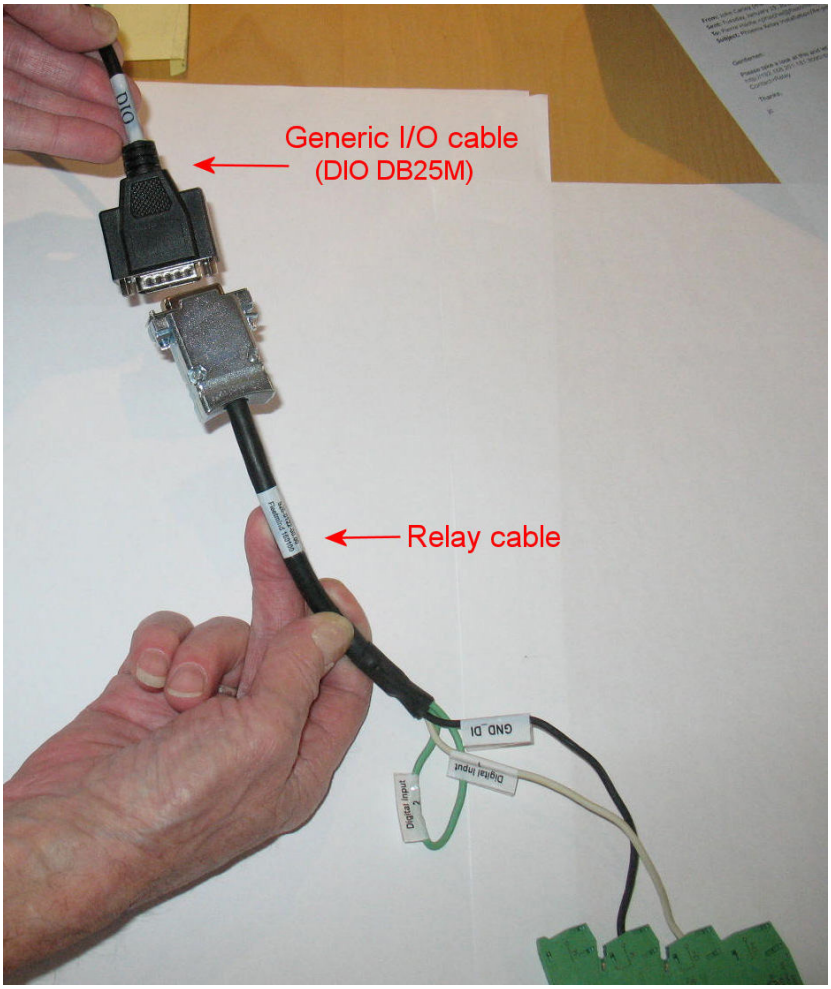
Wiring the Relay

Complete the wiring of your relay using the following photos and the wiring diagram as a reference.

1. Connect the GND DI (black) and DIGITAL INPUT (white) wires to the connectors on the left-hand side of the relay. Connect a ground wire from the right-hand side of the relay to ground on the terminal block.



2. Connect the 25-pin connector of the relay cable to the DIO (DB25M) connector on the Generic I/O cable.



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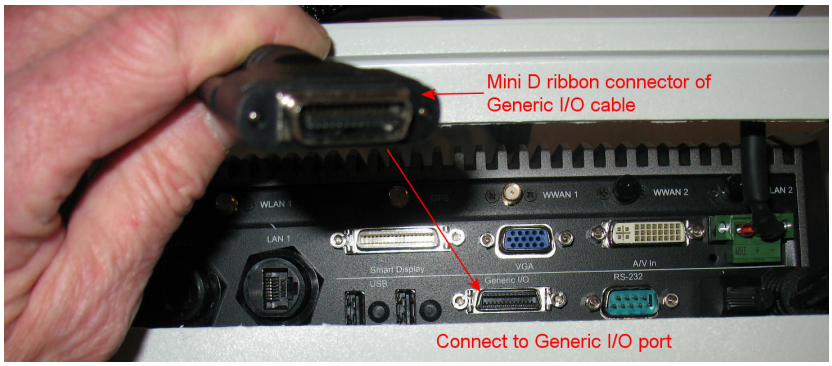
3. Connect the Mini D ribbon connector of the Generic I/O cable to the Generic I/O port on the rear panel of the DVR.



Phoenix Contact Relay Wiring Diagram

See ***Phoenix Contact Relay Wiring Diagram***.

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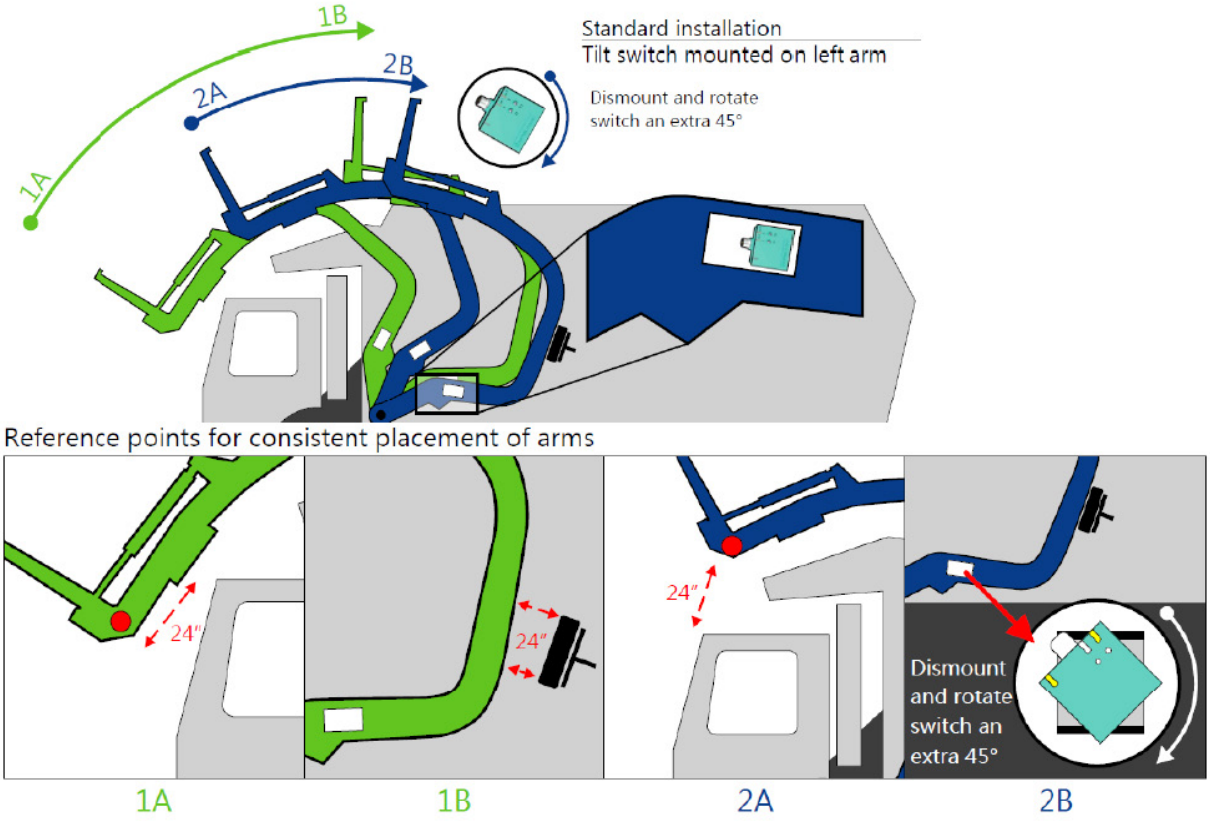
Dual-Angle Electronic Tilt Switch Configuration

1. Regardless of arm position, press and hold the T1 button until the **out 1** LED blinks steadily, indicating T1 is ready to be programmed.
2. Position forks to point **1A**.
3. Briefly press and hold the T1 button until the **out 1** LED turns solid. It will then continue to blink steadily.
4. Position forks to point **1B**.
5. Briefly press and hold the T1 button until the **out 1** LED turns and remains solid, indicating programming is complete.
6. Press and hold the T2 button until the **out 2** LED blinks steadily.
7. Position forks to point **2A**.
8. Briefly press and hold the T2 button until the **out 2** LED turns solid. It will then continue to blink steadily.
9. Position forks to point **2B** and then dismount the tilt switch and rotate it an extra 45 degrees in the same direction, ensuring an absolute position.
10. With the tilt switch in the absolute position, briefly press and hold the T2 button until the **out 2** LED turns and remains solid.
11. Return switch to its original mounted position.



Python Automated Lift Arm Actuator Installation

For ***all*** actuator installations on ***any*** type of arm assembly, the following rules must be observed:

- The correct position for the actuator has the end with the wire pointing down.
- The actuator needs to be installed securely so that it is not free to move around.

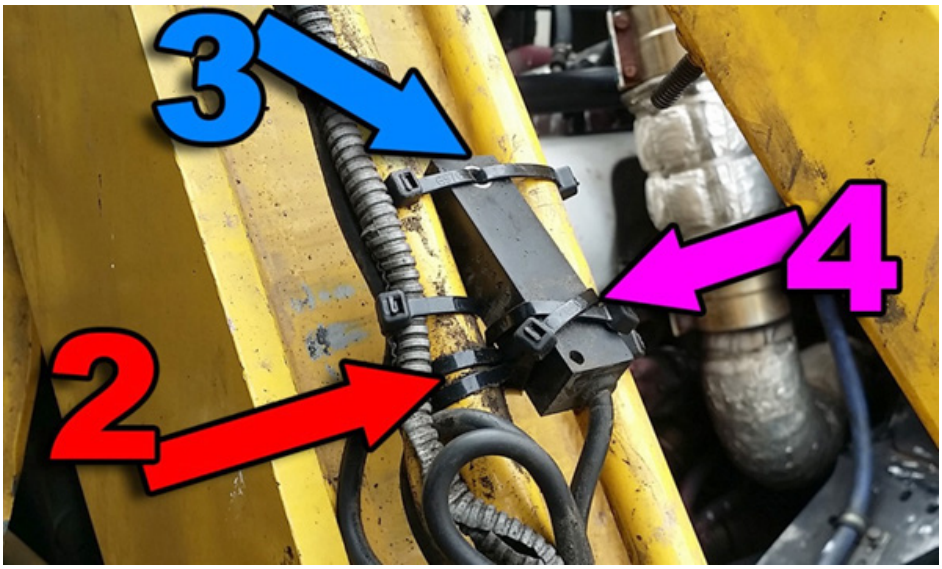
Specific to the Python arm, the actuator needs to be installed at an angle. The simplest way to accomplish this is as follows:

1. The actuator should be installed roughly halfway down the length of arm and mounted between the 2 hydraulic pipes

2. Using 2 cable ties, create a 'bridge' spanning the 2 hydraulic pipes.

3. Thread 2 cable ties through the eyelet of the actuator and secure one to each hydraulic pipe on either side of the actuator.

4. Position the other end of the actuator on top of the 'bridge' (step 2) and secure in place by crisscrossing 2 cable ties around the actuator ***and*** 'bridge'.



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DVR Removal and Replacement

This section provides instructions for disconnecting and removing the in-vehicle equipment for purposes of Return Material Authorization (RMA).

Safety Instructions

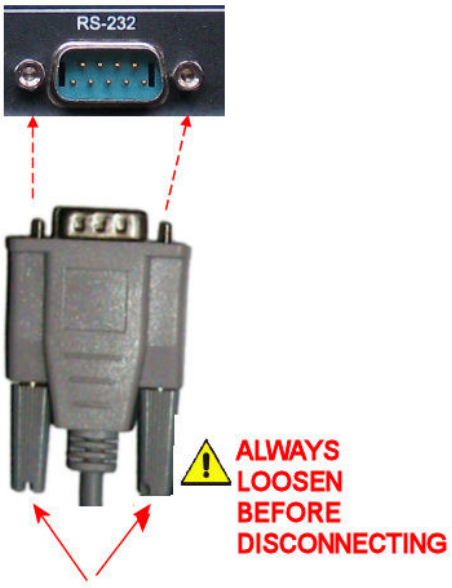
WARNING!

Failure to follow these instructions may result in personal injury and cause equipment damage which may void your warranty.

1. Read these safety instructions carefully.
2. All cautions and warnings on the equipment should be noted.
3. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
4. Electrical power to the equipment must be disconnected before attempting to disconnect or connect cabling to the components.
5. **DO NOT OVER-TIGHTEN**: Never tighten GPS, cellular, or WLAN antenna connectors using tools. Finger-tighten only, using minimal hand strength.
6. **NEVER DISCONNECT/RECONNECT THE ANTENNAE ON THE REAR PANEL WITHOUT FIRST DISCONNECTING POWER TO THE DVR**.
7. Numerous connectors on the rear panel of the DVR secure to the header using metal jack screw standoffs and holding posts.

CAUTION: Do not tug!

Never force or tug on a cable to remove it. Always loosen the connector screws fully or risk voiding your warranty.



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Required Tools and Equipment

The tools required for this procedure are:

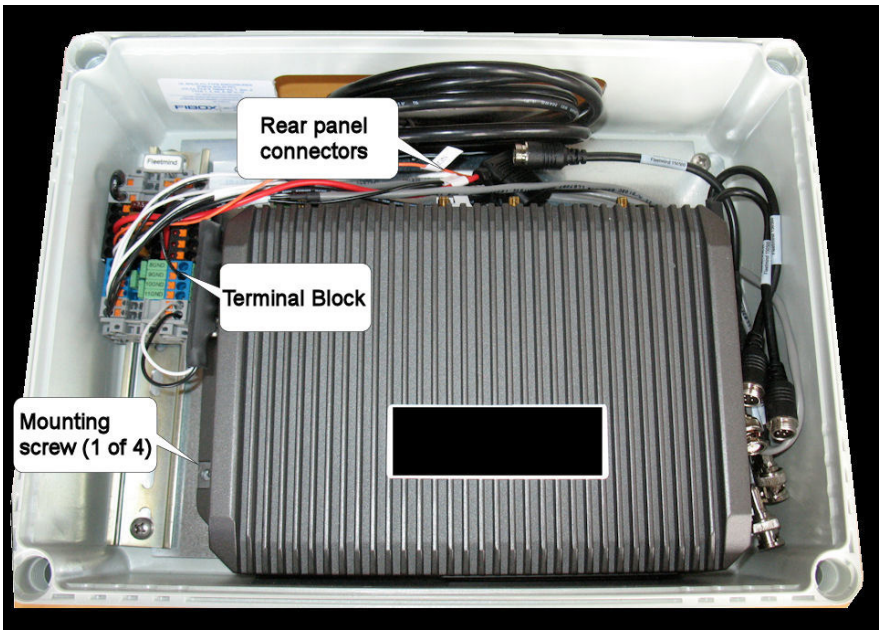
- Phillips head screwdriver
- Flathead (slotted) precision screwdriver (watchmaker/jeweler size)

Estimated Time to Complete

This procedure can be completed in 15 minutes or less.

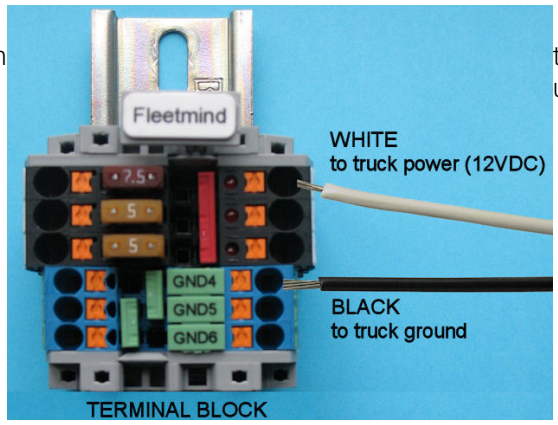
DVR Removal

Refer to the following image to assist you in locating components.



As cabling is routed through the apertures in the Fibox enclosure, you must disconnect all cables before removing the DVR. To remove the DVR:

1. Disconnect 12 V truck power from the terminal block. To do so, using a small slotted screwdriver, disconnect the power cable from the Euro-block connector by turning the screws counter-clockwise until the plug can be removed.



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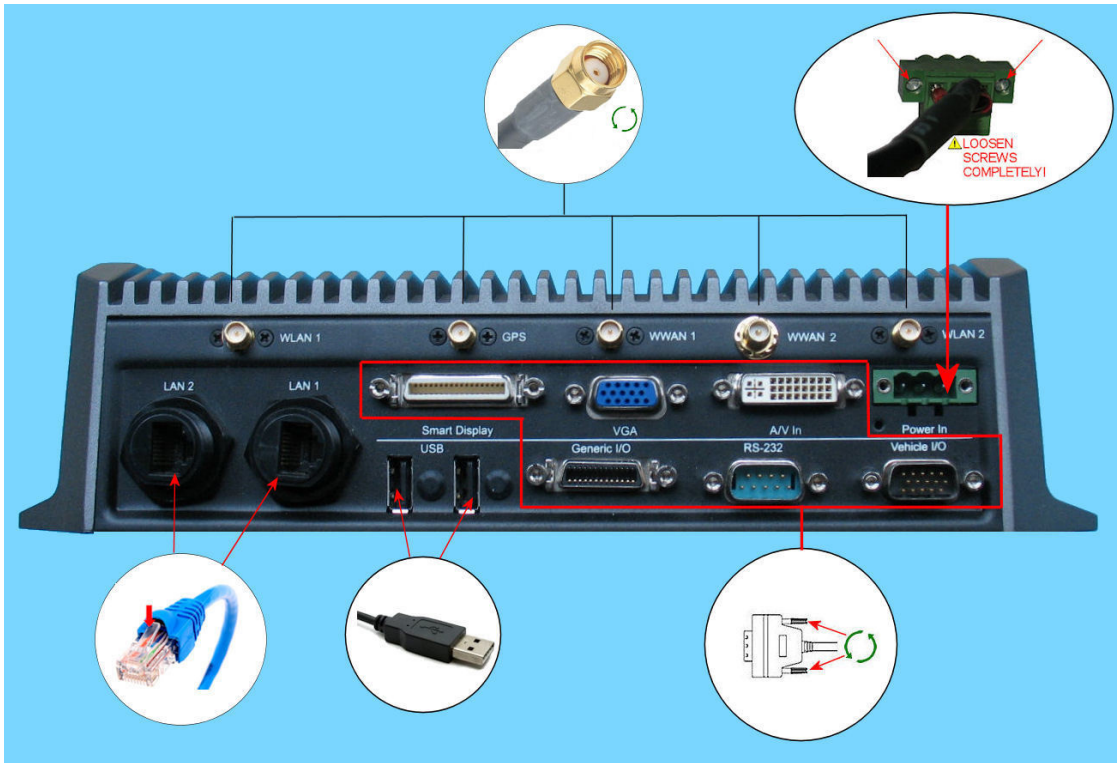
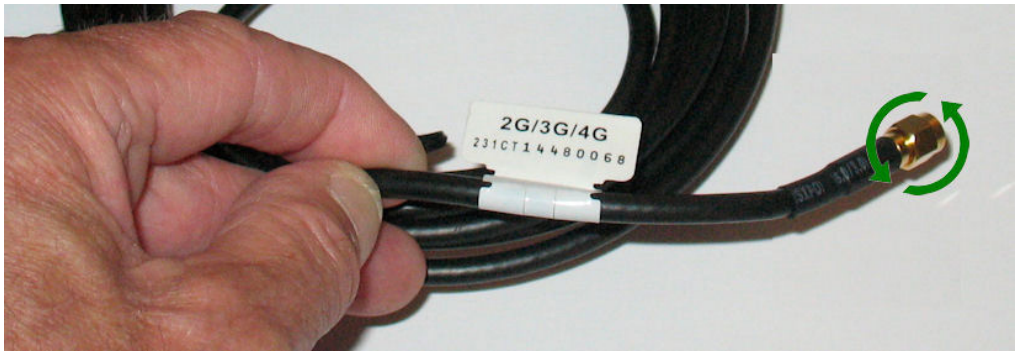
CAUTION: Do not tug!

Never tug on the cable to remove it. Doing so can cause equipment damage that may void your warranty.



2. Disconnect all connected antennae (WLAN1, GPS, WWAN1, WWAN2, WLAN2) by grasping their SMA connectors firmly and turning counter-clockwise.



3. Remove any RJ45 connectors from the LAN1 and LAN2 ports (if connected).
4. Disconnect any connected devices from the two USB ports
5. Remove any RJ45 connectors from the LAN1 and LAN2 ports (if connected).
6. Disconnect any connected devices from the two USB ports

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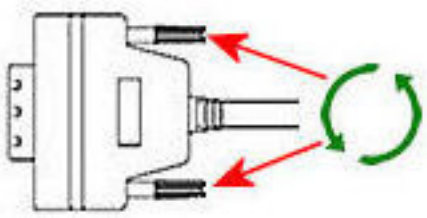
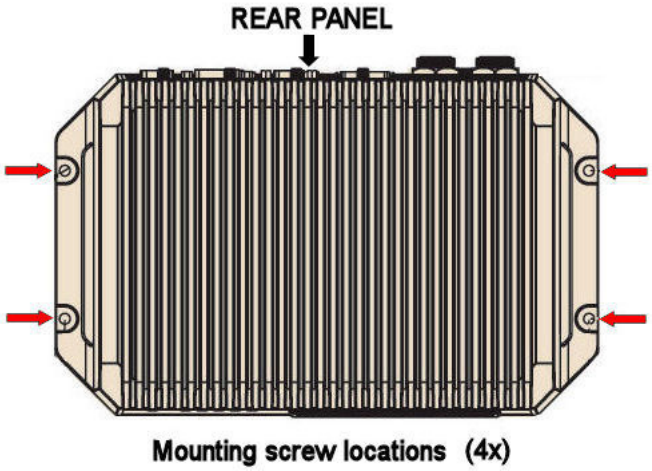
7. All remaining connectors have jack-screw standoffs and holding posts, as earlier described. Loosen the connector screws and remove:
   - Smart Display
   - VGA
   - A/V In
   - Generic I/O
   - RS-232
   - Vehicle I/O



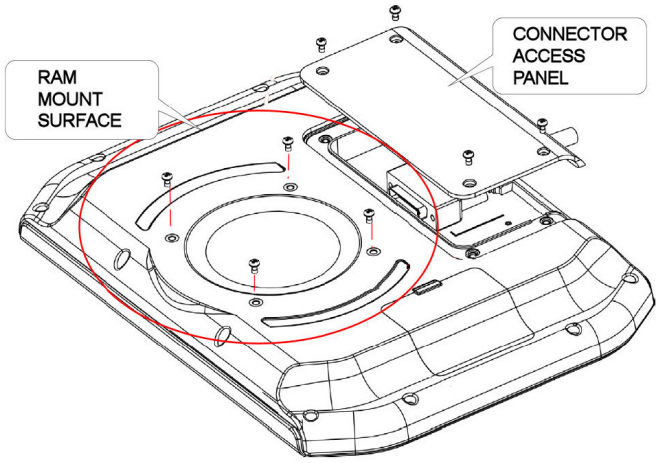
8. Locate the 4 mounting screws that fasten the DVR to the Fibox enclosure, and remove them using a Phillips head screwdriver.



9. Gently lift the DVR out of the enclosure and place it on a stable flat surface

Smart Display Removal

Refer to the following image to assist you in locating key areas of the monitor's rear panel.



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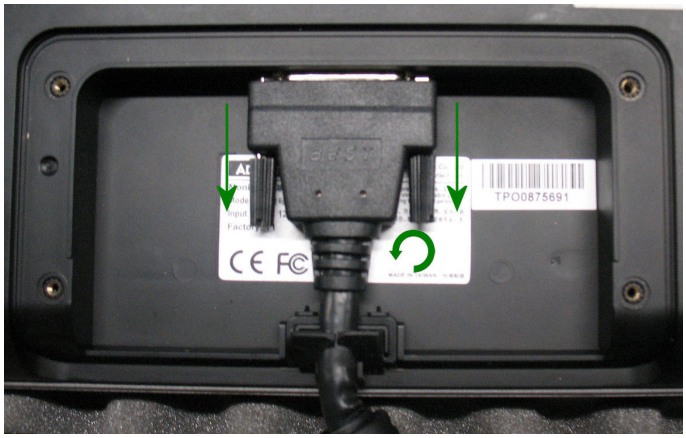
The Smart Display is mounted using a pedestal-type RAM Mount.

With electrical power disconnected from the unit, do the following:

1. While supporting the monitor securely to prevent it from falling, remove the 4 machine screws that fasten the RAM mount to the monitor.
2. Lay the monitor face-down on a stable padded surface, so that you can access the rear panel easily.
3. Using a Phillips head screwdriver, remove the connector access panel cover.



4. Disconnect the video cable from the monitor.
5. Replace the connector access panel cover.

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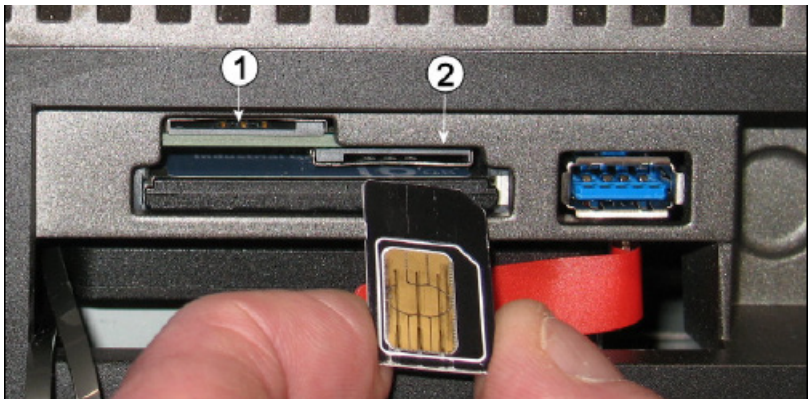
Installing SIM Card

In most cases, this procedure should not be necessary, as the SIM card will be installed in your replacement or repaired unit before shipping. However, if required, follow the steps in this section.

1. Locate the key for the DVR.
2. With electrical power disconnected from the unit, open the front panel tray by pushing the key in gently and turning 45 degrees counterclockwise.

3. There are two SIM slots in the DVR: upper (1) and lower (2).
   Install the SIM card, in the direction shown, in the lower slot (2), ensuring that it is firmly seated.



4. Replace and lock the front door of the tray.

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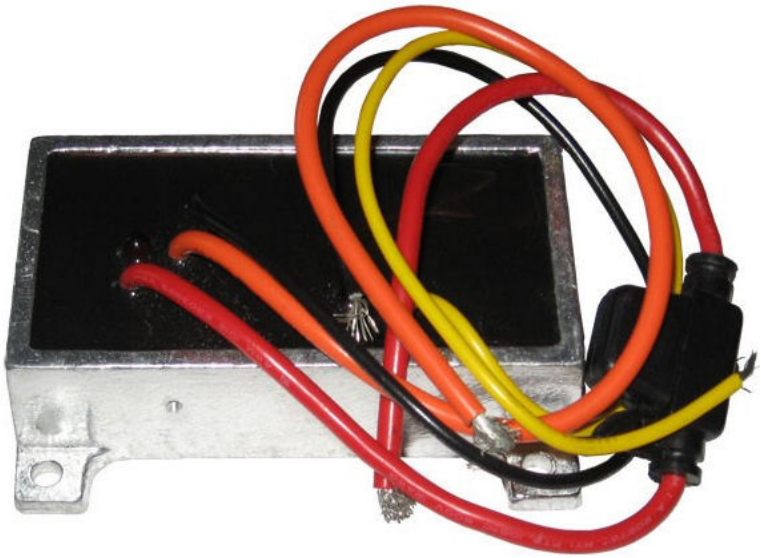
POWER TAMER© Installation

NOTE: Important for all installations

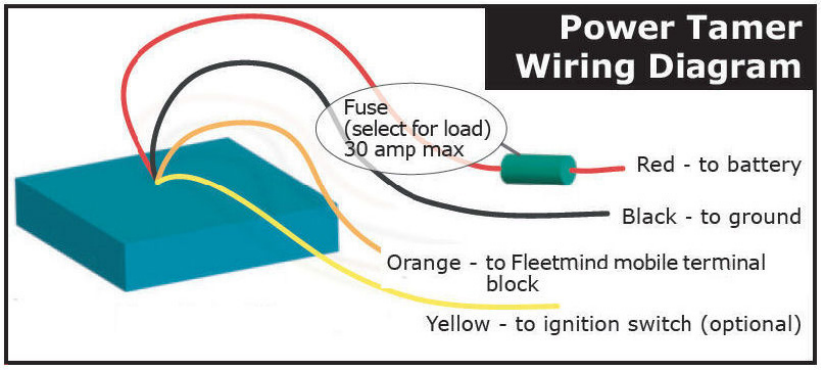
- **ALL MAIN POWER LEADS** for FleetMind's mobile platforms including TREK, GETAC or GD4010 based systems must be connected to the truck's main battery power in the cab. Power Leads must be attached to a power terminal that will disconnect when the vehicle's kill switch is applied to shut off battery power.
- Power for FleetMind's mobile platforms **MUST NEVER BE SOURCED** from the vehicle's Ignition switch, radio or other devices. When the vehicle does not have a kill switch, the main Power Leads must be connected to a time delayed relay device such as a "Power Tamer" which will in turn be connected directly to the vehicle's main power distribution with it's "key-on" sensor lead connected to the ignition switch.

The Power Tamer (PN 5201) from Copeland Engineering is an example of an after-market third-party device used by FleetMind customers to automatically cut the power to the FM Mobile units upon detection of a KeyOFF condition. Time delays can vary from a few minutes to multiple hours depending on the model used. In cases where the FleetMind mobile platform is continuously recording video, FleetMind recommends that the delay be set to at least 1 hour.

Similar devices have been used in light trucks where Kill Switches are typically not used, or when drivers are not instructed to always turn off the Kill Switch when exiting the vehicle.



POWER TAMER© can be installed at any convenient location in the vehicle and wired according to the drawing below.



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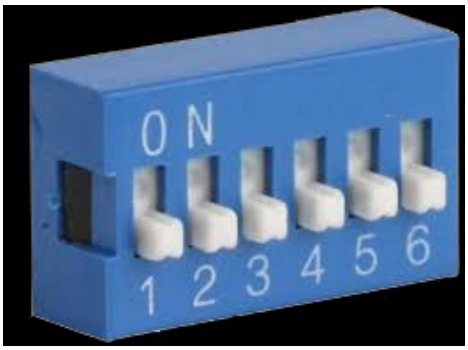
In the auto sense mode (YELLOW wire not connected) POWER TAMER© senses the charging system pick-up (engine running) to turn equipment on.

POWER TAMER© starts timing when the engine stops. If the “auto sense” mode is chosen, be sure to tape the YELLOW wire to prevent accidental grounding. If the YELLOW wire is connected to a circuit that is hot when the ignition switch is on, your equipment will come on immediately with the ignition.

The time delay switches are on the bottom of the box.



Using the table below, the total delay is the sum of the time set for each switch placed “ON”.

NOTE: Shut off

For TEST purposes, all switches OFF causes the Power Tamer to shut off in approximately 4 seconds.

TIME DELAY SWITCH VALUES

SWITCH 6 ON	SWITCH 6 OFF	Time Setting Examples
S1= 15 min	S1= 1Hour	S6, 5, 3 on = 5 Hours
S2= 1/2 Hour	S2= 2 Hour	S6, S1 on = 15 minutes
S3= 1 Hour	S3= 4 Hour	(Note switch 6 off = 4X delay)
S4= 2 Hour	S4= 8 Hour S6	off, S1 on = 1 Hour
S5= 4 Hour	S5= 16 Hour S6	off, S1, 2,3 on = 7 Hours

After setting the desired time, place the enclosed label over the switches.

CAUTION: Cover the switches

This step is extremely important. Failure to cover the switches will void the warranty and may cause premature failure due to switch contamination.

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Support Information

Contact customer service

- Technical Support: 1.888.639.1666
- General Enquiries: 1.888.639.1666
- Email: support@fleetmind.com

Product information

For product information and related documentation, please visit the Safe Fleet Community:

- https://community.seon.com/

Please contact Technical Support if you do not have credentials to log in.

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