

GATEWAY and GATEWAY LITE INSTALLATION MANUAL

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This manual provides an overview of what is entailed with installing the PressurePro Gateway onto a vehicle. Included are descriptions of the Gateway and the cabling.

For Devices:

GWRE32 – Drop and Hook Gateway

GWRLT – Gateway Lite

***Gateway in this manual refers to both devices.**

CAN/J1939 INSTALLATION

Installing the PressurePro Gateway involves 3 components: Power/Ground, coax antenna, and CAN/J1939 connections.

1. Determine method of CAN access inside the dash (Extended details on page 3). The Gateway can be mounted anywhere that allows the Gateway Cable (3 ft.) to reach the J1939 access points and allows the coax antenna to be attached. The Gateway features two holes for mounting.
2. It is important to note that Power/Ground needs to be connected. **The Gateway cannot be powered by the CAN Bus (Green/Yellow) connections alone.** *(Note: If Gateway cable colors do not match Green/Yellow & Red/Black. Contact Pressure Pro for wiring diagrams.)*
3. The 35ft long TNC coax antenna (connects to the Gateway) is used to allow for easy installation towards the back of the tractor. The coax cable should be run through the firewall, and zip-tied to the frame to prevent “wear and tear”. The preferred Antenna mounting location is on a rear trailer cross member, pointed down, at least 18 inches off the ground. The coax antenna kit includes L-mounting brackets for the 6 inch antenna. It is important for the antenna to be mounted to metal, but to not be surrounded by metal.

Photo of Gateway, 35ft. Coax, and Cabled Antenna with bracket



RS-232 Connections

When connecting to the Gateway via RS-232, simply connect the male db9 to your device's female db9.

CAN BUS CONNECTIONS

The most unfamiliar aspect of installation will be locating, identifying, and accessing the CAN Bus. The physical CAN Bus network, otherwise known as a J1939 backbone, has 120 ohm terminating resistors on both ends. On many trucks one resides behind the center dash panel, but terminating resistors can be in door runners, behind the dash, and other locations. Newer vehicles also have multiple CANs; you will need to verify which CAN you need to connect to prior to installation.

Upon completion of installation, there should be two 120ohm terminating resistors, one per end of the J1939 backbone.

The preferred methods of accessing the CAN Network, in order, are:

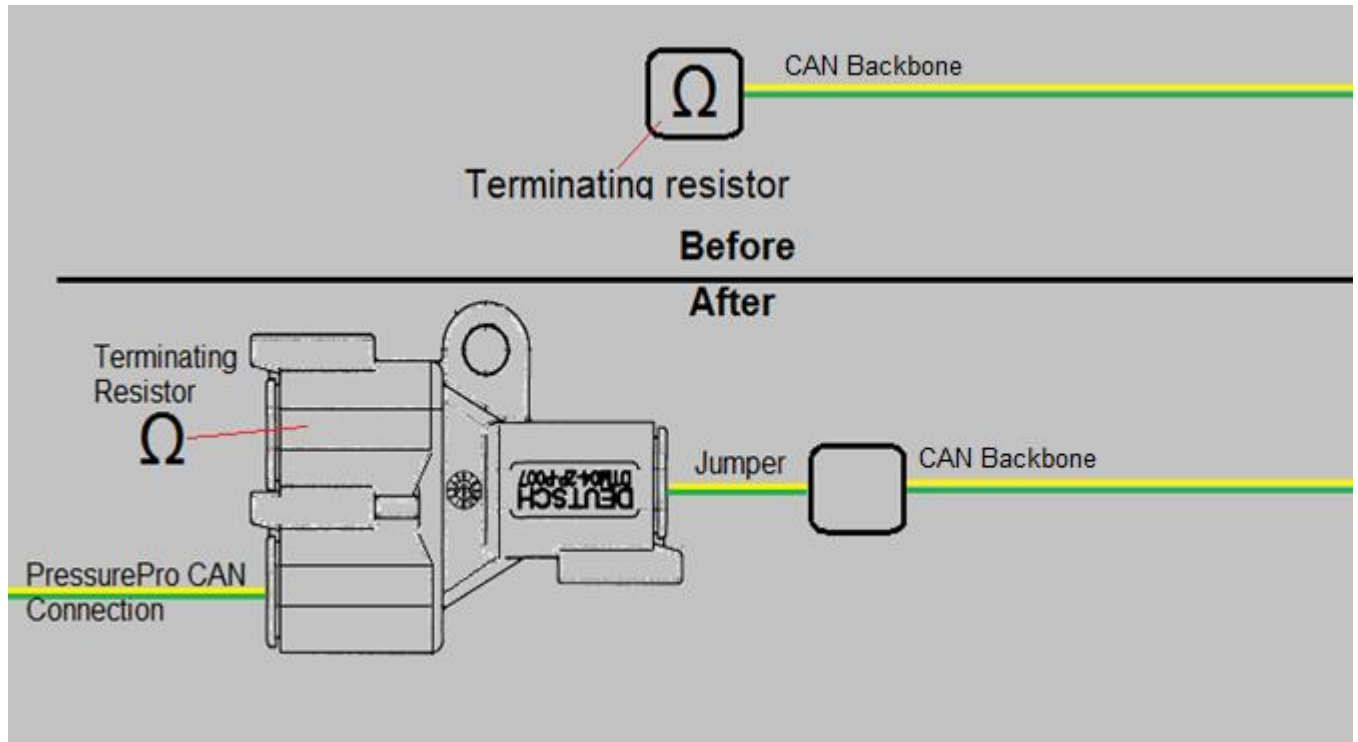
1. Use a Y-Connector at the end of the J1939 Backbone.

First, identify the part number, or take a picture of your backbone connector and terminating resistor. Then submit to your installation service provider. PressurePro offers Y-Connectors and Jumpers for plug and play installation termination on your Gateway Cable. The Y-Connector will provide a removable 120ohm resistor. (In-depth instructions on pages 4-5)

2. Use the Diagnostic port. (Not SAE recommended)

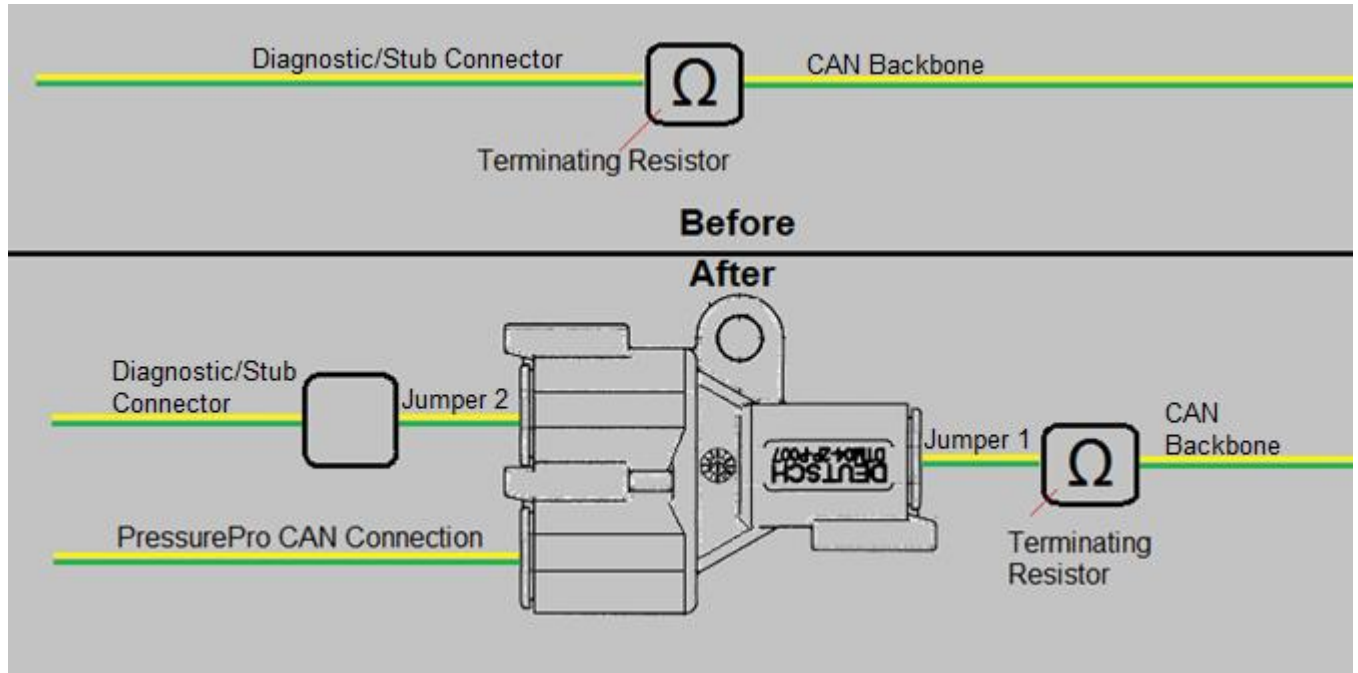
Most trucks have a 9-pin diagnostic port available in the cab. PressurePro has designed a 9-pin T-Jumper that allows our Gateway to plug directly into the port. The T-Jumper provides a free diagnostic port for any other device that requires it. The Diagnostic Port is usually located in the back of the dashboard under the steering wheel. The Gateway can be installed "hidden away" if the coax antenna can be run outside.

Terminating Resistor

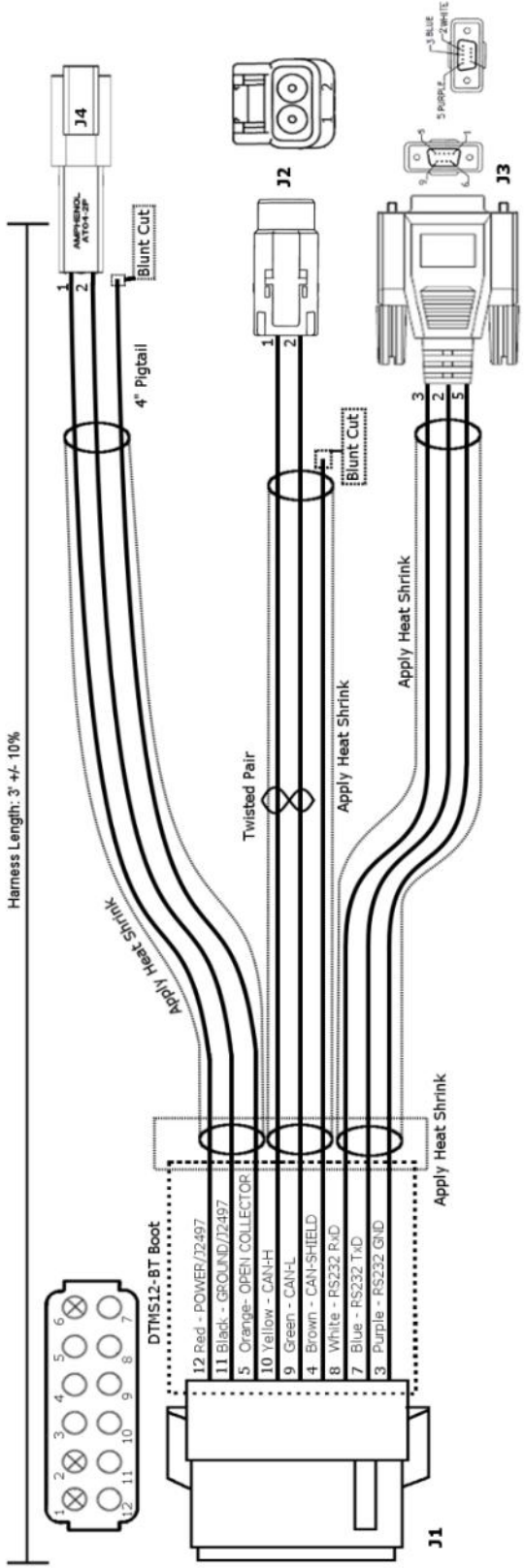


1. Remove Terminating Resistor from Vehicle CAN Backbone.
2. Insert Jumper into open CAN Backbone.
3. Insert opposite end of Jumper (Deutsch 2pin) into Deutsch 2pin Y.
 - Provided Terminating Resistor (In Deutsch 2pin Y) will replace original Terminating Resistor. (Do not reinstall original Terminating Resistor)
4. Verify PressurePro CAN connection is plugged in Deutsch 2pin Y.
5. Plug Pressure Pro CAN connection - Deutsch 12pin plug properly into Gateway. (Fully inserted when it clicks).
6. Ensure Red (Power) and Black (Ground) are connected to an Ignition power source, and a proper ground. (*Note: If Gateway cable colors do not match Green/Yellow & Red/Black. Contact Pressure Pro for wiring diagrams.*)

IN-LINE RESISTOR (Stub)



1. Remove Diagnostic/Stub connection from CAN Backbone. (Terminating Resistor may be attached to the Diagnostic/Stub connector. Remove Terminating Resistor from Diagnostic/Stub CAN connector, and add to Jumper 1.)
2. Insert Jumper 1 (with original Terminating Resistor) into CAN Backbone.
3. Insert opposite end of Jumper 1 (Deutsch 2pin) into Deutsch 2pin Y.
4. Remove Deutsch 2pin 120ohm Resistor from Deutsch 2pin Y.
5. Plug Diagnostic/Stub Connection into Jumper 2, and Jumper 2 - Deutsch 2pin plug into the final open receptacle in Deutsch 2pin Y (Formerly filled by Deutsch 2pin Resistor).
6. Verify PressurePro CAN connection Deutsch 2pin Y is plugged in.
7. Plug Pressure Pro CAN connection - Deutsch 12pin into Gateway. (Fully inserted when it clicks).
8. Ensure Red (Power) and Black (Ground) are connected to an Ignition power source, and a proper ground. *(Note: If Gateway cable colors do not match Green/Yellow & Red/Black. Contact Pressure Pro for wiring diagrams.)*



Notes:

J1 Termination Summary:
 Manuf & Series: Amphenol ATM06-125A-SR1GY Shell or equivalent
 Boot: DTMS12-BT Boot or equivalent
 Contact P/N: AT62-201-20141 (Fem Term Nickel 24-20) or equivalent
 Sealing Cavity Plug: Manuf & P/N: Amphenol AT13-204-2005-SR
 Install Plugs in Positions: 1,2,6
 Wedglock: Amphenol AWM-125 or equivalent
 Manuf & Series: Amphenol ATM06-25 Shell or equivalent
 Contact P/N: AT62-201-20141 (Fem Term Nickel 24-20) or equivalent
 Wedglock: Deutsch WM-25B (Black)
 Apply stub wire splice to Pin4, Blunt cut even with heat shrink
 Generic D-Sub 9P/F
 Attach D-Sub Hood if available
 Manuf & Series: Amphenol AT04-2P-R001 or equivalent
 Contact P/N: AT60-202-16141 or equivalent
 Wedglock: AM2P or equivalent
 Each wire to be 20ga, minimum .75mil outer insulation diameter
 Apply part number label over heat shrink on harness.
 All Wires should be labeled according to function as detailed on the drawing.

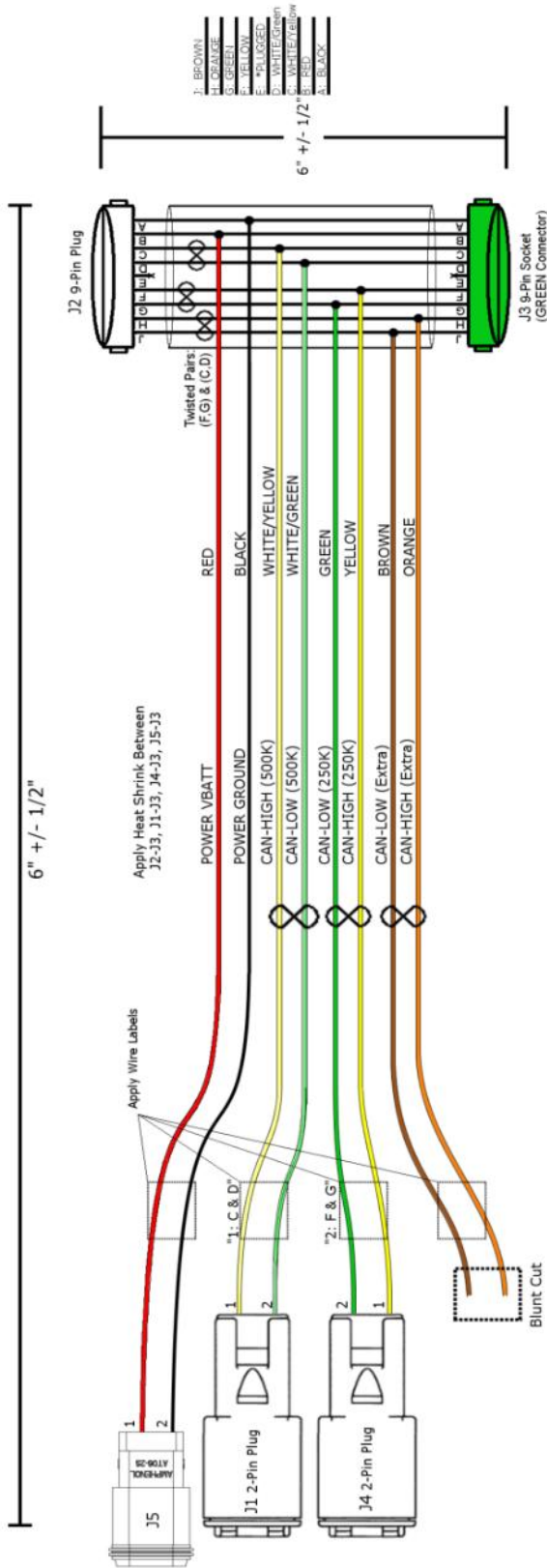
J2 Termination Summary:

J3 Termination Summary:

J4 Termination Summary:

Conductor Cable Summary:
 Harness Label:
 Wire Labelling:

<p>205 West Wall Street Harrisonville, MO 64701</p> <p>Unless Otherwise Specified, Dimensions and Tolerances Are in Inches Do Not Scale This Drawing</p>		<p>Link MOAC Cable</p>	
		<p>Drawn By: Edward Lutsko</p>	<p>Date: 2016-09-30</p>
<p>Part Number: LNK-200PD</p>		<p>Document Number: 20160930_LNK-200PD_MOAC</p>	
<p>RoHS Compliant</p>			



 205 West Wall Street Harrisonville, MO 64701	9 pin T Jumper		Date: 2016-09-30 Rev: G
	Drawn By: Edward Lutsko	Part Number: JMP-300PD	Document Number: 20160930_JMP-300PD_9pinTJumper
Unless Otherwise Specified, Dimensions and Tolerances Are in inches		RoHS Compliant	
Do Not Scale This Drawing			

Notes:

J1/J4 Termination Summary:
 Manuf & Series: Amphenol ATM04-2P or equivalent
 Contact P/N: AT60-202-20141 (Fem Term Nickel 24-20) or equivalent
 Wedgelock: Deutsch WM-2PB (Black) or equivalent

J2 Termination Summary:
 Manuf & Series: Amphenol AHD10-9-1939P or equivalent
 Pin E apply plug (AT13-204-2005 or equivalent)

J3 Termination Summary:
 Manuf & Series: Amphenol AHD16-9-1939P080 (Green) or equivalent
 Pin E apply plug (AT13-204-2005 or equivalent)
 Pins A, B, C, D, F, G, H, J should be populated from J2 to J3.
 Wires from J1, J4, J5 and Blunt Cut can be "double terminated" into J3 pins.
 Manuf & Series: Amphenol AT06-25-RD01 or equivalent
 Contact P/N: AT62-201-16141 or equivalent
 Wedgelock: AW25 or equivalent

Conductor Cable Summary:
 Each wire to be 20ga, minimum .75mil outer insulation diameter

Harness Label:
 Apply part number label over heat shrink on harness, between J2-J3.

Wire Labelling:



Operates under all normal voltage conditions for either 12V or 24V vehicles as outlined in SAE J1455, and will remain undamaged by any fault voltages outlined in J1455 AND SAE J1113-11, class L3 exposure, for either 12V or 24V vehicle systems.

Overall dimensions: 4.6" Wide, 1.4" High, 5.3" Long – including flanges but excluding side-connector.

Operating Temperature -40°C / -40F to +85°C / 302F

RX Frequency 433.92 MHz FM

Effective Data Rate 17,700 bits/sec

This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

This device has been tested to these CE standards: **will be updated.**