Donaldson X220137 Analog Universal Transmitter Instruction Manual

FILTRATION SOLUTIONS

Installation Instructions for Wireless Sensor Kit X220137

Contents

System overview

The Analog Universal transmitter is used to transfer sensor data wirelessly. The wireless signal is then picked up by a Donaldson receiver connected to a vehicle CAN bus, Telematics device, or datalogger. Since only power and ground are required, aftermarket installation becomes easier.

Contents

Part number	Item description
X220137	Universal Transmitter, analog
P290067	Harness, Analog
*New	Heavy-duty sensors, vacuum
*New	T-Fitting, M22x1.5 to ¼ NPT *fittings needs may vary with application.

Tools

- side cutters (trim zip ties)
- Heat source (heat shrink)
- Wrench (tighten fuel fittings)
- Wire strippers/crimpers

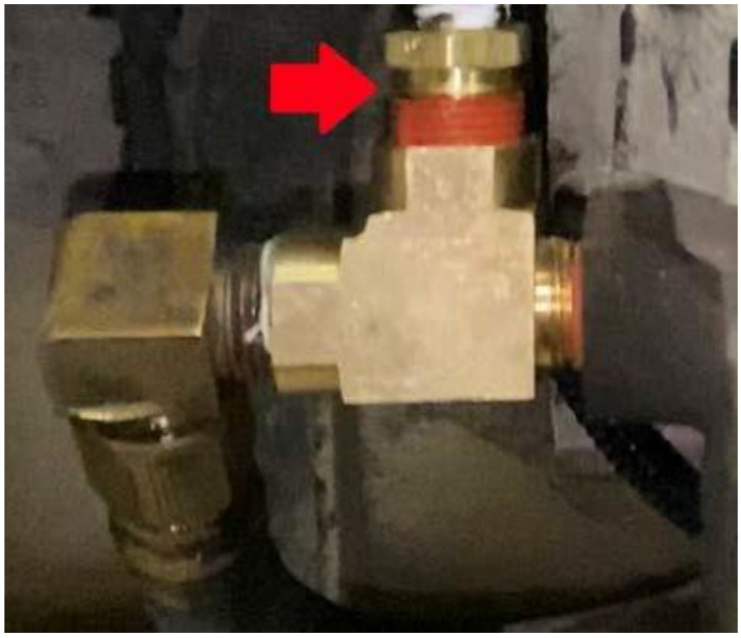
  Before beginning the installation there are a few things to consider.
- The Universal Transmitter should not be mounted in a metal enclosure, which would prevent the wireless signal from getting out. Mount in a location with as much free space as possible to prevent interference with the wireless signal.
- The Universal Transmitter requires switched (key) 12V power. Identify the source before

beginning the install.

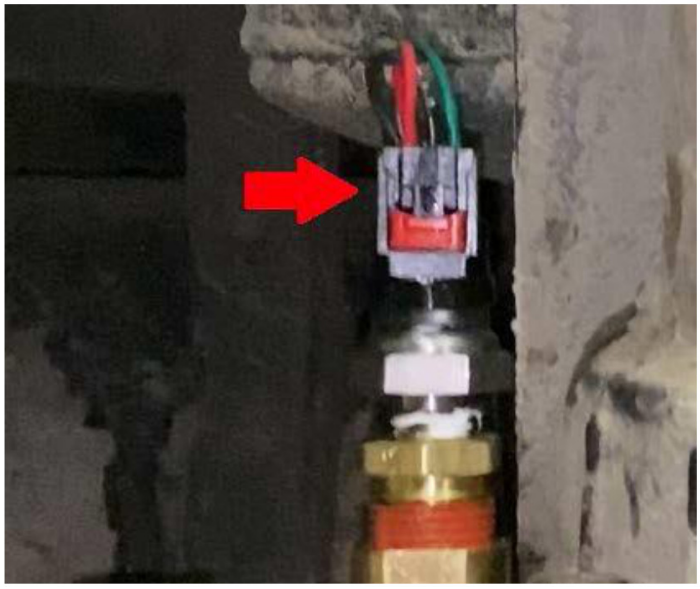
Fuel pressure install

1. Locate primary (chassis mounted) fuel filter on the vehicle.
2. Find a nearby location to mount the Universal transmitter.
   a. The Universal transmitter is designed to be strapped to a flat surface.
   b. It is preferable that the electrical connector does not point up. Water can flow down the wire and pool on the seal increasing the risk of water damage.
3. Remove the fuel lines by unthreading them from the filter head.
   a. Be prepared to plug the lines if needed.
   b. Have a container ready to catch fuel.
   NOTE: If the fuel Inlet connection has a check valve that stays attached to the filter head, only remove the fuel line from the Check Valve.
4. Install the Tee fittings.

5. Connect the fuel lines to the adapter.
6. Install the adapter to the Tee fitting.



7. Install the fuel sensors into the adapter.



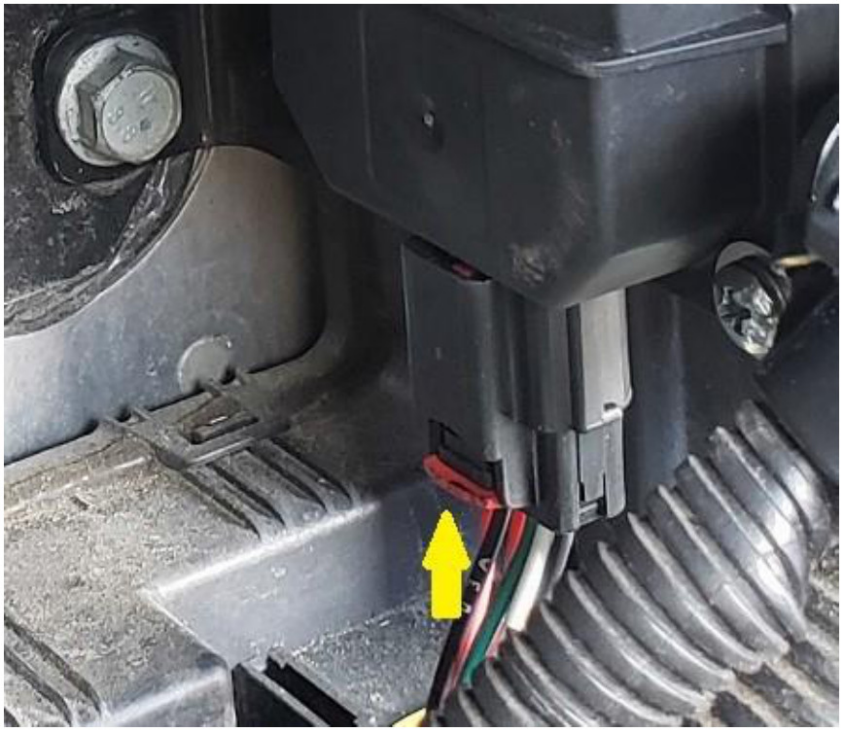
8. Prime the fuel system.
   a. Check for leaks.
9. Find a location to mount the Universal Transmitter less than 5’ from the sensor.
   a. Do not place in a metal enclosure as it may block the wireless signal.
   b. It is best to have the Universal Transmitter mounted against a flat surface. The connector should not be pointed up as that may allow water to follow the wires to the
   connector. It is best to have water follow the wires away from the connector.

c. The center of the box is designed to retain a strap.

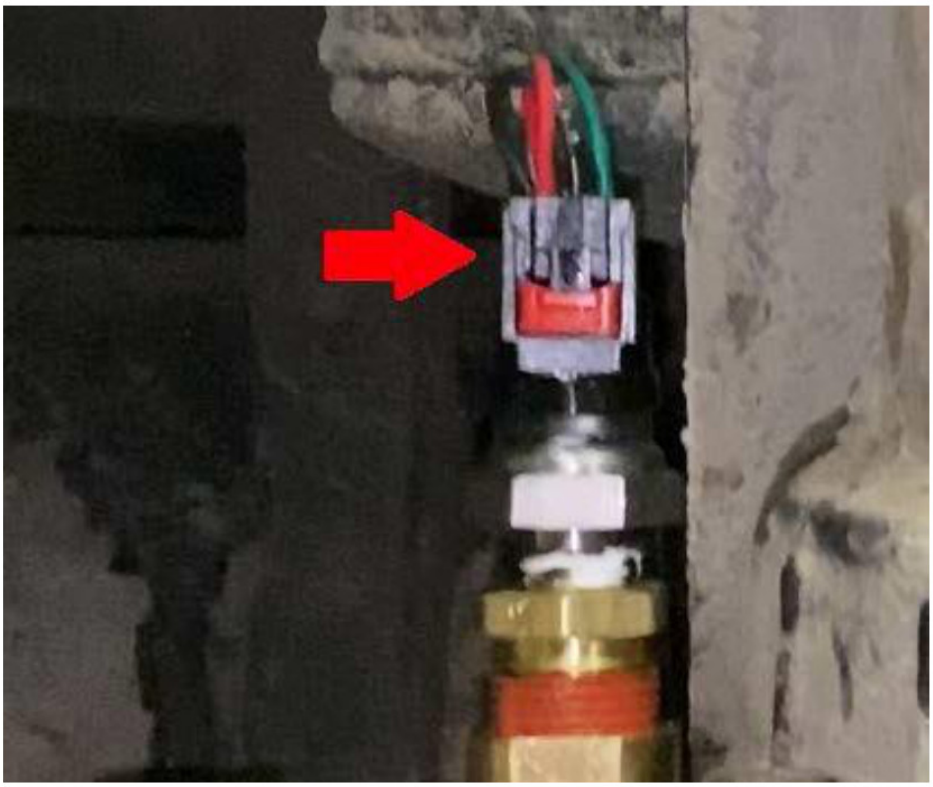
d. The holes at the four corners can be used for tie straps or bolts.

10. Attached the harness to the universal transmitter.

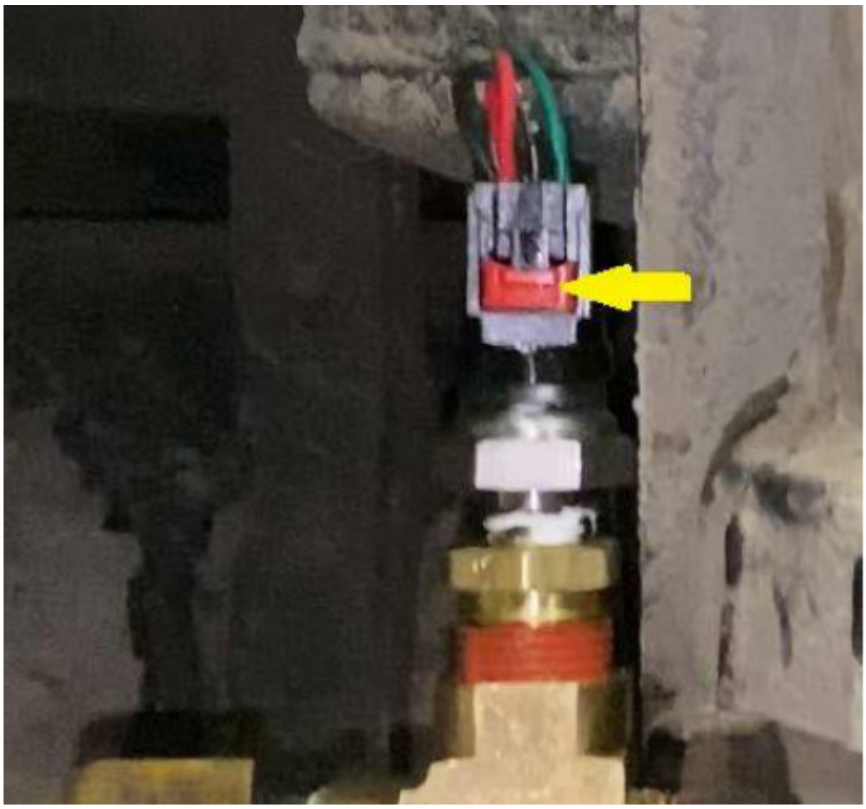
11. Press in the red tab to lock the connector.



12. Attach the harness connectors to the fuel sensors.



13. Press the red tab to lock the connector.



14. Secure the wires to the connector by creating a loop and using a zip tie. The loop should be 3 to 6 inches of wire.

    Note: making the loop too short will put tension on the seal allowing water intrusion.

Harness install

1. Determine the locations from which to get switched (key) 12V power and ground.
2. Power should be connected to a 5A fuse.
   a. If an existing 5A circuit cannot be found, simply add a 5A inline fuse to the harness.
3. Route the power and ground, from any installed universal transmitter harness to the intended power source.
   a. Keep harness away from hot locations such as around the turbocharger.
   b. The harness should have retention about every 12″.
   c. Avoid attaching the harness to moving parts. If attached to a hinged part, such as a hood, make sure there is enough slack to cover the distance of the movement.
4. All electrical connections made outside of the cab should be made watertight.
   a. Solder splices covered by adhesive-lined heat shrink are preferred.
   b. If butt splice connectors are used it should be covered with adhesive lined heat shrink.
   c. Electrical tape should not be considered waterproof or permanent.
   5. Use zip ties to secure the harness.

RF EXPOSURE:
This product complies with FCC and ISED radiation exposure limits set forth for an uncontrolled environment.The antenna should be installed and operated with a minimum distance of 20 cm between the radiator and your body.
FCC STATEMENT WARNING:
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1)This device may not cause harmful interference, and 12) this device must accept any interference received, including interference that may cause undesired operation.
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help. Changes or modifications not expressly

approved by the party responsible for compliance could void the user's authority to operate the equipment.

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Greater China 86-400-650-0610
Japan 81-42-540-4112
Korea 82-2-517-3333
Australasia 61-02-4350-2033
India 91-124-4807-400

Documents / Resources

	Donaldson X220137 Analog Universal Transmitter [pdf] Instruction Manual X220137, 2AUOQ-X220137, 2AUOQX220137, X220137 Analog Universal Transmitter, Analog Universal Transmitter