



Installation Guide

PTO Device

Table of Contents

OVERVIEW	2
WHAT'S IN THE BOX	3
PTO WIRING INSTRUCTION	3
INSTALLATION - PTO DEVICE	5

Overview

How does Azuga utilize PTO?

Azuga utilizes PTO (Power Take-Off) by connecting a special cable to its plug-and-play device. The cable receives the digital input (ON/OFF) from the PTO switch and transmits it to the device, which then reports it to the Azuga cloud. This allows Azuga to track and measure instances of PTO usage, which can be helpful for fleet managers who need to monitor panic events, fuel consumption, and equipment utilization.

Here are some of the benefits of using Azuga to track PTO usage:

- To track and measure panic events: Fleet managers can Track and measure panic events such as door opening and closing, switches being turned on and off, and sirens engaged and disengaged in the vehicles.
- Improved fuel efficiency: By tracking PTO usage, fleet managers can identify opportunities to reduce fuel consumption. For example, if a fleet manager sees that a particular vehicle is using PTO for extended periods of time, they can investigate the cause and implement changes to improve efficiency.
- Improved safety: By tracking PTO usage, fleet managers can identify potential safety hazards. For example, if a fleet manager sees that a particular vehicle is using PTO in a dangerous area, they can take steps to prevent accidents.

If you are a fleet manager who is looking to improve fuel efficiency, increase equipment utilization, and improve safety, then Azuga is a great solution for tracking PTO usage. To learn more, please visit our website or contact us today.


Important:

- The voltage on the digital input must be 0 V or 12 V for either of the actuation levels.
- If OFF is indicated by 0 V, then ON must be indicated by 12 V (OR) If ON is indicated by 0 V, then OFF must be indicated by 12 V.

Prerequisites for the PTO feature to work:

- Please check if the correct devices are installed to report PTO events OBD-II: DCM970-21ZB70 / 3-wire Hardwired: DCM970-21ZB1 or JBUS PTO OBDII: DCM970-21ZB72 supports (6 Pin/9 Pin Type 1 / 9 Pin Type 2).
- Firmware: 34D0015330 and above. Configuration: Should end with _4 and Enable the PTO package for the device.

What's in the box?

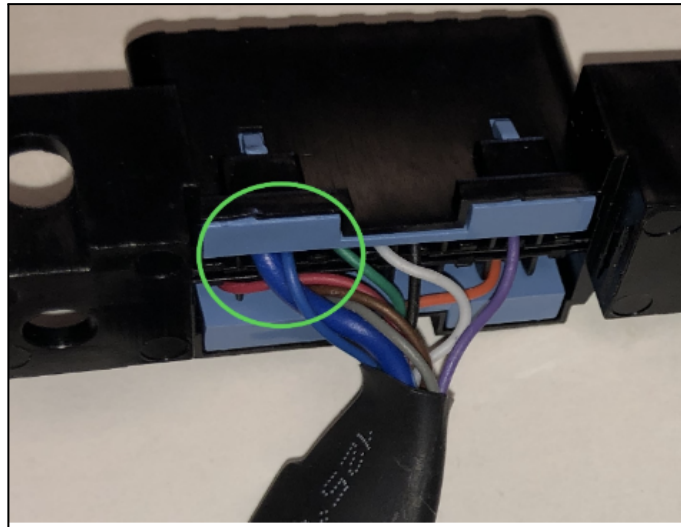
OBD II Device	
PTO Monitor Sensor Extension Cable	
OBD Y Cable	 Required when the diagnostic port is occupied
Extension Cable	 Required when the diagnostic port is covered by a panel/door

Note: Hardware in the box may vary according to the customer's requirements.

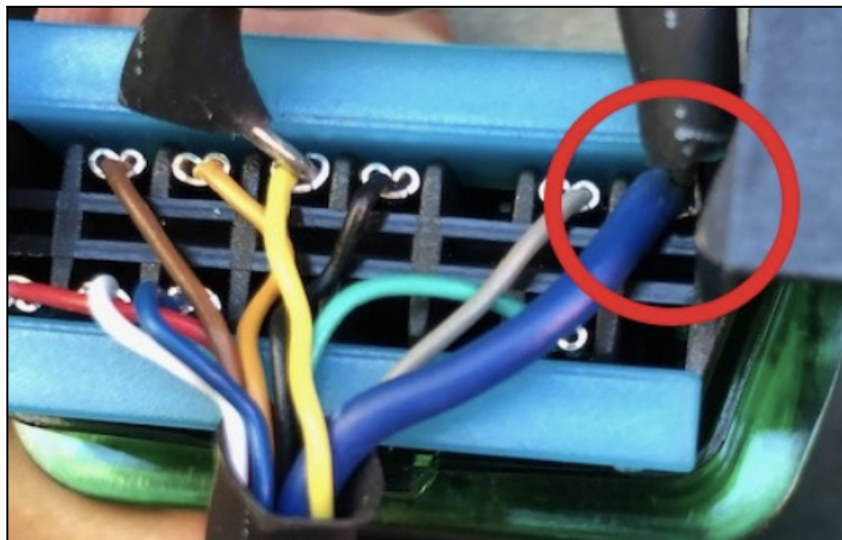
PTO Wiring Instructions

Prior to installation of OBDII PTO sensor cable, please ensure the proper cable is being installed. The devices being installed in the vehicles are designed to work with a PTO sensor wire (Large blue wire) on the 7th pin. The PTO monitoring will not function properly if the blue sensor wire goes into the back of the female end of the PTO cable in the 1st pin position.

Correct Configuration: Large Blue wire goes into the 7th pin position



Incorrect Configuration: Note, the Larger, blue wire goes into the first pin slot counted from right to left. The wire should be going into the 7th position, where the brown wire is located on this photo



Installation - PTO Device

1. Locate the OBD II monitor extension cable that contains OBD II connectors at both the ends (one male and one female) and has an extended blue cable.



2. Connect the Azuga Device securely to the female end of the extension cable.



3. Connect the extended blue cable that comes from the monitor extension cable to the power source that provides voltage when the rear hatch is opened.

4. Connect the male end of the monitor extension cable to the one of the open female ends of the Y-Cable.
5. Connect the Y-Cable to the Vehicle diagnostic port.
6. The Azuga device will light up green and stay for 1 to 5 seconds, while the device initializes. Once initialized, the green light will turn off.
7. Start the vehicle engine, let it run for 30-60 seconds and then turn the ignition off. When the ignition is started, multi-colored LEDs will illuminate on the device and will turn off after a few seconds.

A few tips to properly organize and secure all cables and devices

- *Use Zip-ties or Twist ties to bundle excess cables neatly.*
- *Ensure routing of cables does not put undue stress on the cables or connections.*
- *Secure excess cables with zip ties where they will be out of the way of any moving parts of the vehicle or pedals.*
- *Secure the Azuga device in such a way that it will not have any excess movement or vibration.*
- *Replace any panels that may have been removed in the installation process*
- *If the other open end of the Y-Cable is not mounted in the location of the original port, then it should be secured in a location where it will be accessible for mechanics.*