

# Power Connections for OBDII/J1939 Cables

Model	CTM-ONE
Revision	Rev 1.1

Application Note: CTM-ONE 3066 Beta Avenue | Burnaby, B.C. | V5G 4K4 © 2021 Cypress Solutions

## **Revision Control**

Description	Revision	Date
Customer Release	Rev 1.0	2021-06-18
Changed title and added wake on ignition support for regular OBDII/J1939 cables	Rev 1.1	2021-07-21



# Power (Required if special\* OBDII/J1939 cables used)

\*Separate DC power is required if one of the following OBDII/J1939 cable is used:

6954.2046 6954.2047 6954.2048 6954.2049

6954.2050

Molex Micro-Fit 3.0<sup>™</sup> connector #:

Molex Part Number	Description
43025-0400	Receptacle housing
43030	Crimp Terminals 20-24 AWG

When a compatible vehicle interface is not available or not preferred, the CTM-ONE can be connected with a DC power cable (see available options below) for direct connection to a DC power supply or with an optional AC Wall Plug adaptor (P/N: 6954.2019) that allows quick and easy connection to standard 120V AC Power.

Below are the available DC Power Cable options: 6954.2000 (13ft.) 6954.2020 (3ft.)

6954.2031 (15ft.)

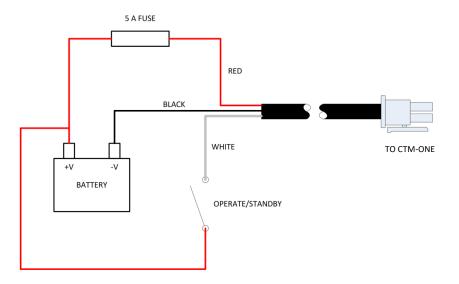


- 1. Common Ground (GND)
- 2. Ignition (IGN)
- 3. Shipping Pin
- 4. Power (PWR)

Red	+7V to +32V DC
Black	0V return (GND)
White	Standby / Ignition (+V for operation, Off for standby)

A 5 Amp "slow-blow" fuse is recommended for the +V supply line.





When the operate/standby line is used, the CTM-ONE can take advantage of the state of this line using its "ignition sense" features. When the ignition line is wired, the CTM-ONE does not completely shut down. A small amount of power is used (1.2mW-40 mW) to monitor the status of various inputs so the device can "wake on events" that occur when the device is in low power mode.

Advantages of connecting power using the vehicle operate/standby or ignition line:

- Ignition ON/OFF events can be reported and logged.
- Shutdown based on a timer can be activated. For example, turn the CTM-ONE off for 10 minutes after ignition.

## Power (Not Required if regular\* OBDII/J1939 cables used)

\*Separate DC power is not required if one of the following OBDII/J1939 cable is used: 6954.2001 6954.2028 6954.2029 6954.2044



To enable the "ignition sense" feature, a separate Ignition cable (P/N: 6954.2052) is required. Simply plug this cable into the CTM ONE's power port, contact Cypress Solutions Technical Support and an updated configuration will be pushed through to enable the ignition-based power management.

Before any external cables are connected (GPS, Cellular RF, Wi-Fi RF, WPAN RF, serial, Ethernet, GPIO, CAN), verify that the power cable is wired correctly on the battery side. In certain cases, reversely connected battery input may cause damage which is not covered under warranty.

### **Technical Support**

#### Cypress Solutions Service Support Group

1.877.985.2878 or 1.604.294.4465 9.00am to 5.00pm PST support@cypress.bc.ca

