

# **EZ-500 Installation Guide**



The installation of the EZ-500 can have a major impact on the device performance. Care should be given to physical placement of the device as well as the connections made during installation.

#### Plan the installation:

Locate and verify a constant (un-switched) +12 VDC or +24 VDC power supply, the chassis ground, and the vehicle ignition line or other key operated line.

#### Place the EZ-500 in the vehicle:

The EZ-500 features dual internal cellular and GPS antenna. The device needs to be placed inside the vehicle in the proper orientation. "top side up". Ideal device location is to mount the unit horizontally, as high up & under the top of the dashboard as physically possible, close to the front windshield. Ensure that the device is kept free from direct exposure to the elements and not directly ON or too close to the Heat/AC ducting and that it is *firmly mounted so it does NOT bounce*.



#### Connect POWER, GROUND, and IGNITION:

The power input (red wire) must be connected to a constant (un-switched) +12 VDC or +24 VDC supply; preferably, connected directly to the vehicle battery terminal or as close to it as possible.

- Note: You can also use "fuse taps" and pull the power from the fuse panel inside the passenger compartment for both the Power and Ignition signals.
  - Do NOT use those "brass fuse clip" style fuse taps and do NOT just wrap the wire around the leg of the fuse.

All voltage measurements must be taken with a Digital Voltmeter and not a "test light".

The ignition input (white wire) must be connected to the vehicle ignition or another appropriate key operated line, ensuring that power to the ignition wire is available only when the vehicle ignition is truly in the ON position.

• Note: This voltage should be at +12v when ON and "0 volts" (or as close to zero as possible) when OFF. Make sure if the vehicle has an ACCY Key Position, that the ignition wire you chose for the WHITE wire is at "zero volts" when the key is in the ACCY position.

The ground line (black wire) must be connected to chassis ground. Please verify with a continuity check with the Digital Voltmeter to ensure that it is truly a chassis ground.

Please verify that your power, ground and ignition wires are connected correctly, then plug the harness connector into the EZ-500.

## Verify:

Successful device operation can be verified by observing the LED indicator near the harness connector. The light sequence is a bit different that our other units. The EZ 500 only has 1 Multicolored LED that changes color during normal operation.

- It blinks RED to GREEN in idle
- It blinks GREEN in moving.
- Solid **RED** while stopped.

If the unit is NOT reporting properly on the UI, then the following is the light sequence of the LED is something is not working properly. The X with a # would be how many times it is blinking. So X3 = blinks 3 times and then a pause then it repeats etc...

- Blue:
  - X3 Low GPS signal
- Green:
  - $\circ \quad \text{X1 Sim Error} \quad$
  - $\circ \quad \text{X2 No Network} \\$
  - X3 Unable to register w/network
  - $\circ \quad \text{X5 Service activation error} \\$
  - X6 Service sync failure
- Red:
  - X4 Low Battery
  - $\circ \quad \text{X5 Error reading diagnostics} \\$
  - $\circ$  X10 Other system error

### **Harness Diagram**

Pin no.	Cable Wiriing Definitions	Wire Color	Status
1	12/24V Out (20W) – Software controlled	Black	not used
2	Digital Output #1 (Close to Ground)	Green	Door unlock
3	Digital Input #2 (Programmable Bias)	Blue	Input 2
4	RS-232 TxD	Blue	not used
5	CANH (2.0B) / ISO-15765 or J1939	Pink	not used
6	Digital Input #3 (Programmable Bias)	Purple	Input 3
7	Digital Output #2 (Close to Ground)	Gray	not used
8	Ignition / ignition tamper input	White	Ignition
9	Digital Input #4 (Programmable Bias)	Orange	Input 4
10	Digital Output #3 (Close to Ground)	Brown	SID
11	J1708-	Yellow	not used
12	J1708+	Orange	not used
13	RS-232 RxD	Green	not used
14	12/24/48V Power In	Red	Constant Power
15	Ground	Black	Chassis Ground
16	Ground	Black	Chassis Ground
17	1-Wire	Blue	not used
18	ISO-9141 K Line	Orange/White	not used
19	CANL (2.0B) / ISO-15765 or J1939	Black	not used
20	ISO-9141 L Line	Yellow/White	not used