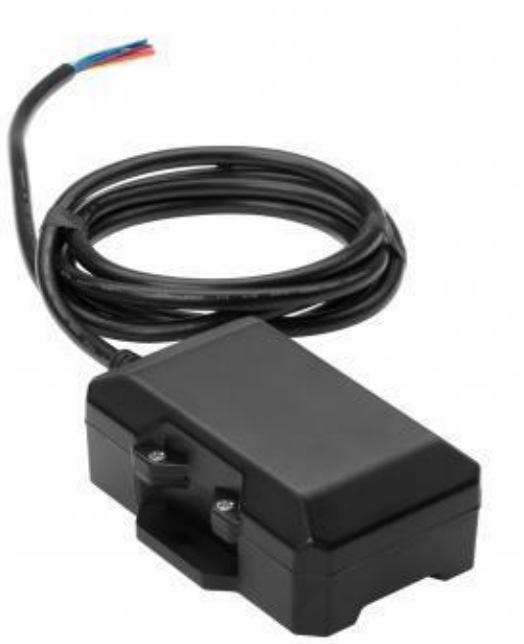
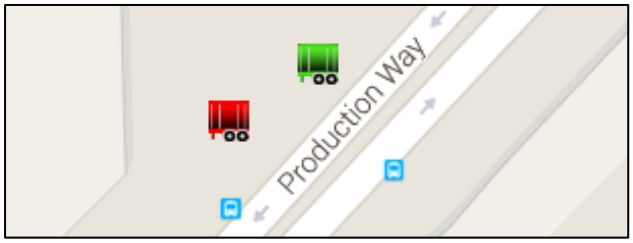
Installation Guide
MOSS-2800

Trailer Asset Tracking and Security Beacon



The MOSS 2800 is a high-performance beacon designed for commercial trailers which are typically tethered to 12V and 24V vehicle systems. Trailers may now be tracked as independent vehicles in the GPS Portal, regardless of whether they are tethered to a tractor. The device transmits location data using the latest 3G HSPA (high speed packet access) network technology for fast and error-free data communication.



This fully weather-proofed device has a powerful internal battery that will power the device for more than one month while the trailer is untethered, providing periodic location data.

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1. Beacon Installation

The MOSS 2800 comes with highly sensitive internal GPS and Cell Network antenna modules. Because of this, the beacon must be positioned on the trailer so that it has a clear signal path to as much of the sky as possible, without metal obstruction. The internal antenna will allow signals to be received regardless of the orientation of the device once it is installed.

- Determine beacon installation position but do not fasten it in place until all wiring is complete.
- Determine the best location for the beacon – a strong flat surface that can be drilled to accommodate the mounting holes is ideal.
- Visibility of the indicator LEDs will be useful for testing and troubleshooting.

MOSS 2800 Beacon
Kit Contents

- GPS Beacon device with SIM
- Wiring harness

Tools and Supplies Required

- Wire cutters, wire strippers
- Voltmeter (multimeter)
- Soldering iron, solder
- Electrical tape
- Plastic cable ties
- Screw drivers, mounting screws
- Wrenches, sockets

2. Connect Power and Ignition Sense

The MOSS 2800 power harness is pre-attached to the beacon with a weather-proof connector. It contains 12 22AWG leads, 3 of which are important for the proper connection of the device: the constant Power (Red), Ground (**Black**), and Ignition Sense (White) wires.

Installation Guide
MOSS-2800

Notes:

- If wiring harness wires need to be extended, use the same gauge wire and solder the extension wire on, then insulate with heat shrink tubing or electrical tape.
- Ensure that no wires are routed near heat sources.

Connection Instructions:

- Connect the **Black** (Ground) wire to battery negative or the trailer chassis – this wire MUST be connected first, before the power wire. Be sure the grounding screw is not painted or coated with an insulating material.
- Connect the **Red** (Power) wire to a constant 9-32V power connection point – directly to the trailer's power source if available.
- Connect the White (Ignition Sense) wire directly to the same power connection point as the **Red** wire. **Failure to install the ignition sense correctly will result in erroneous data being reported from the beacon.**
- Ensure that any wires in the wiring harness that are not to be connected do not come in contact with power, ground, or any other voltage. Insulate them with electrical tape.

Important Notice

The MOSS 2800 is designated to operate from 9 to 32 Volts DC. The user is responsible for ensuring the voltage supplied to the 2800 remains in this voltage range to include transient voltage spikes and load dump voltages. Failure to comply may damage the 2800. The current draw under normal operating conditions is approximately 68mA at 12V.

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3. Connect and Mount Beacon

- Affix the beacon securely to the vehicle using the mounting holes found in the tabs on either side of the beacon. If the beacon is not securely mounted, it may report a false data.
- If a suitable panel for affixing the beacon is not available, fastening the beacon to a bracket or wire bundle with plastic cable ties is also adequate.
- Secure any loose or extra lengths of wire.

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4. LED Indicators

The MOSS 2800 is equipped with two status LEDs, one for GPS (**green**) and one for wireless network communications (**orange**). The LEDs use the patterns described in the following table to indicate the current state of the device.

Installation Guide
MOSS-2800

MOSS 2800 LED Indicators

Orange (Comm) LED Behavior	Device Status
off	modem is off
slow blinking	modem is on, searching for network
fast blinking	network is available
alternate fast blink/solid every 1s	network registered, no inbound acknowledgement
Solid	network registered, received inbound acknowledgement

Green (GPS) LED Behavior	Device Status
off	GPS is off
slow blinking	GPS is on
fast blinking	GPS time sync
solid	GPS fix acquired