

# RK3000 Unit

## Self Installation Guide

---

### Table of contents

2. What's in the box
3. Connections for 12V - 24V
4. GPS unit Installation
5. Drum Sensor Installation
6. Drum Sensor (Front-end Discharge only)

# What's in the box ?

V-QJ13 (060 3033)

RK3000-CA Unit



Power cable +  
Drum cable connection



Drum Sensor



Drum Sensor Bracket



Drum sensor cable



Drum Magnet



# Connections for 12V - 24V

## About the power cable:

- Three of which are 8 ft long and bundled.
  - Power cable has a bunch of 6 inches wire coming from it.
  - Only use the **RED**, **WHITE**, **BLACK** wires that has a sleeve in it.
- 

## Of those three you have:

- **RED**, fused - this is the 12-24V power.
- **WHITE** fused - this is an ignition sensor.
- **BLACK**, non-fused - this is chassis ground.

# GPS Unit Installation

- The unit should be installed in a dry location that will not have water infiltration. An adequate location is within the dash. Alternatively, some install the device in the glove compartment. It should be installed in a way that it resides over 2 ft away from the driver and passengers.
- While a relatively good install, it does expose the unit to potential tampering. Tamper evident paste is recommended especially if such an install is chosen.
- Since the unit contains the antenna, please install it somewhere that does not have metal between the unit and the sky, as that may affect GPS reception.
- Once installed, turn the ignition ON.
- The GREEN GPS light will blink until it acquires a signal, and it will turn solid once it has been acquired.
- The RED CELL light will blink until it acquires a signal, and it will turn solid once it has been acquired.
- If you see a distinct “three fast, one long” blink pattern, double check that the unit is indeed getting a signal through the ignition wire. The lights are positioned to the left of the power + input connector.



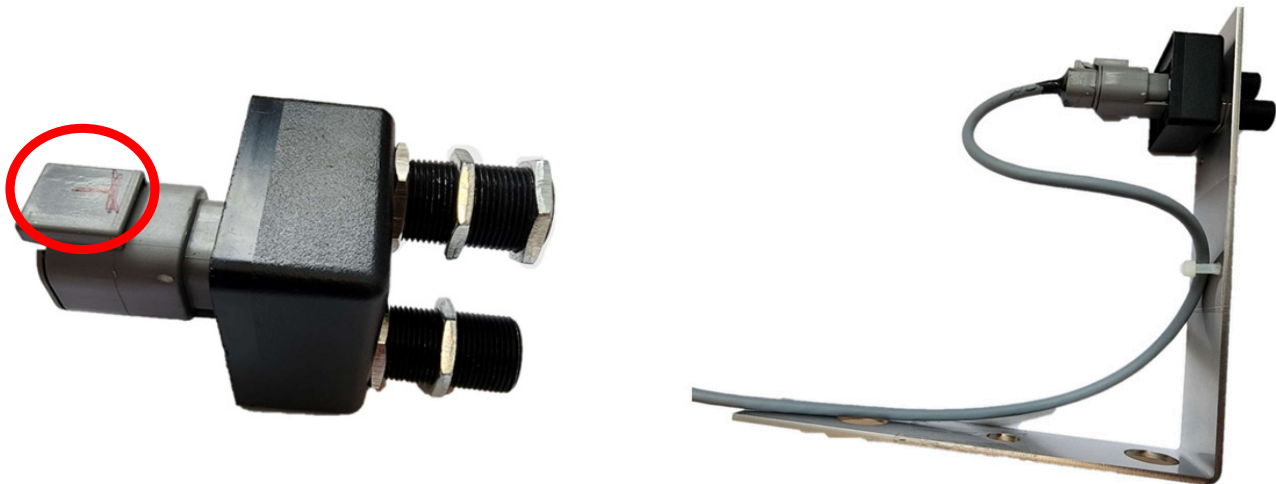
**For more information, check out this video:**

**<https://www.youtube.com/watch?v=W-ip8lGrLL8>**

# Drum Sensor Installation

The Drum hardware comprises the Drum Sensor, Drum Sensor Bracket, Drum Sensor Cable, and Drum Magnet. For every Drum Sensor, five nuts are included, one being a spare.

- Fasten one nut on each post roughly three quarters down.
- Place the sensor into the bracket as shown.



- The side marked "TOP" or "T" should be upwards (rear-end discharge).
- For front-discharge vehicles the side marked TOP must be installed downwards (see page 9 & 10).
- Fasten one more nut on each post until flush with the bracket.

# Drum Sensor Installation

- There are pre-drilled holes for a tie-wrap, this can be used to fasten the cable to the bracket.
- With the sensor and bracket fastened together comes affixing them to the drum gearbox pedestal.
- Affix the bracket to the drum gearbox pedestal on the driver's side of the vehicle.

For optimal Drum turn capture the sensor's posts should have a clearance of 1/2" with the magnet, you may bend the bracket to acquire the necessary position.

- Fasten one nut on each post roughly three quarters down.
- Place the sensor into the bracket as shown.

With the sensor in place, clean an area of the Drum that passes in front of the sensor.

Use a wire brush, wipe off dust, grease, and acid residue.



# Drum Sensor Installation

Place the magnet in such a way that it approaches the sensor with its longest side (see picture below).

We recommend attaching the magnet in place temporarily (without glue) for this step.



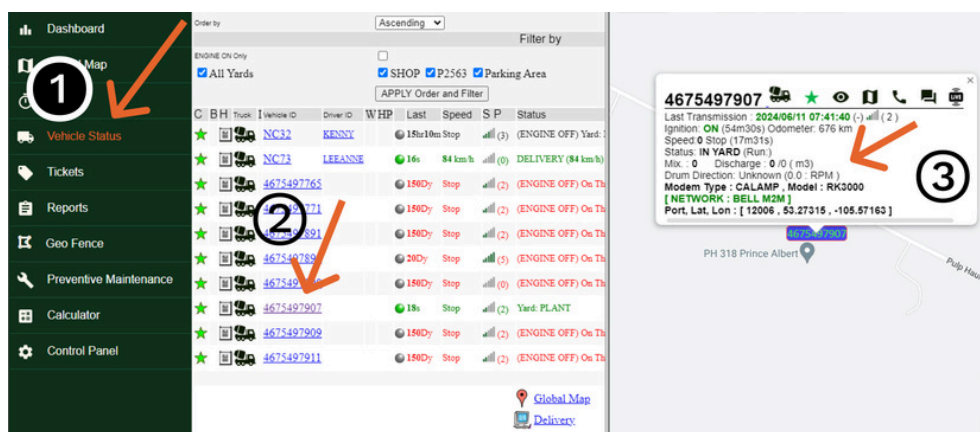
- Run the cable to the unit, it can be cut to remove extra cabling.
- Then, your next step is to connect the Drum sensor's wires to the Power Cable :
- **VIOLET** and **GREY** are your two inputs for the Power Cable. **BLACK** is for your ground.
- Take the Drum Cable's **GREEN** wire and connect it to the Power Cable's **VIOLET** wire.
- Take the Drum Cable's **BROWN** wire and connect it to the Power Cable's **GREY** wire.
- Finally, take the Drum Cable's **YELLOW** and **WHITE** wire and connect it to the Power Cable's **BLACK** wire.



# Drum Sensor Installation

- Test the installation by turning the Drum and monitoring the vehicle status. Your website – “Vehicle Status” – “Vehicle ID”.
- Mix turns are counted and sent along other transmissions whereas a discharge turn will force a transmission, therefore it is recommended to begin testing with discharge turns.
- Once the turns are being accurately reported, remove tape + magnet, apply two inches of goop, and place the magnet back.

When everything is functioning properly, you should see the following on the platform:



- It is recommended to tape the magnet to the Drum once again after application of goop, for at least 24 hours.



# Drum Sensor Installation

## Front Discharge Only

**Use same information as above accept the installation of the bracket on the gearbox pedestal and the position of the drum rotation sensor.**

These notes and images are exclusive for front-discharge vehicles. The standard cable is 20FT long, this is not adequate for front-discharge vehicles. A 35FT version is provided if we are told in advance of the vehicle type.

Front-discharge with bracket installed ON DRIVER'S SIDE.



# Drum Sensor Installation

## Front Discharge Only

Sensor installed with "TOP" marker upside down.

