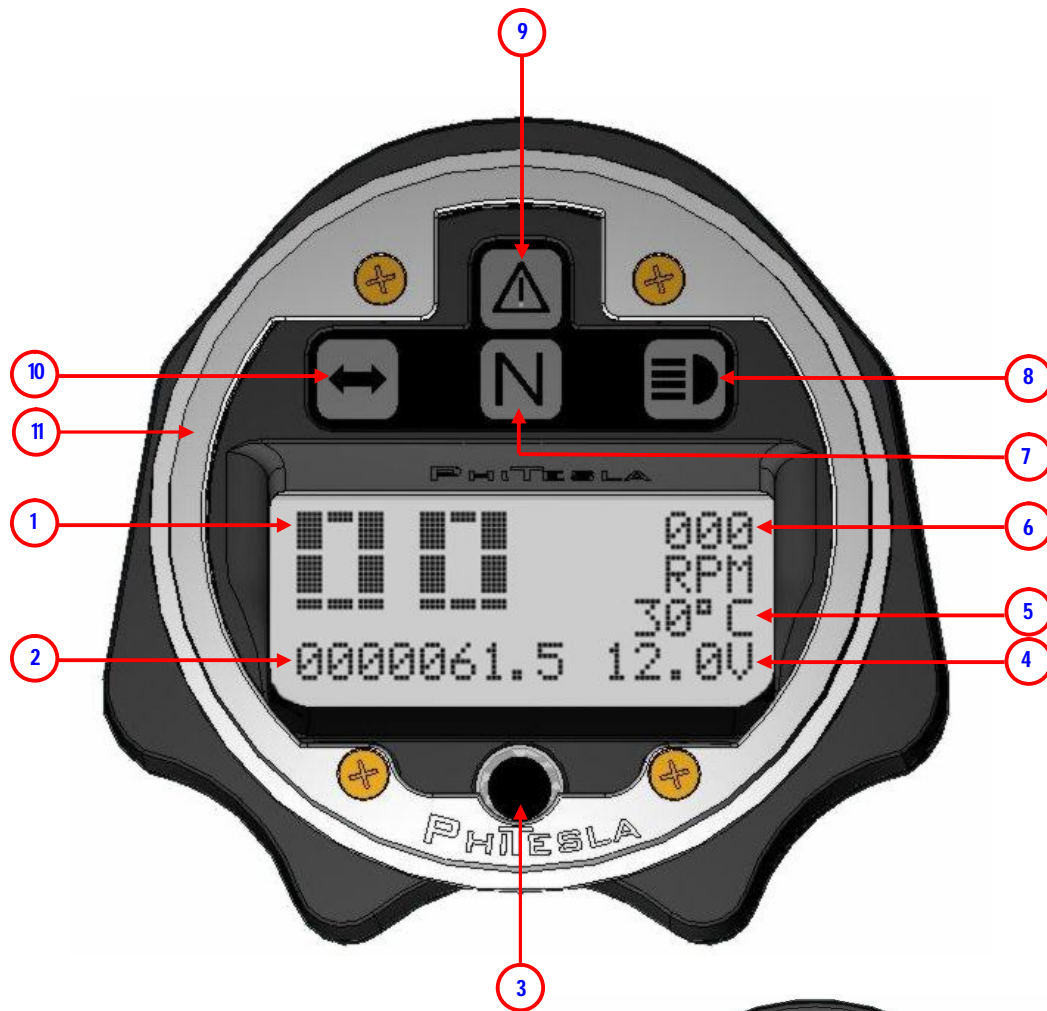
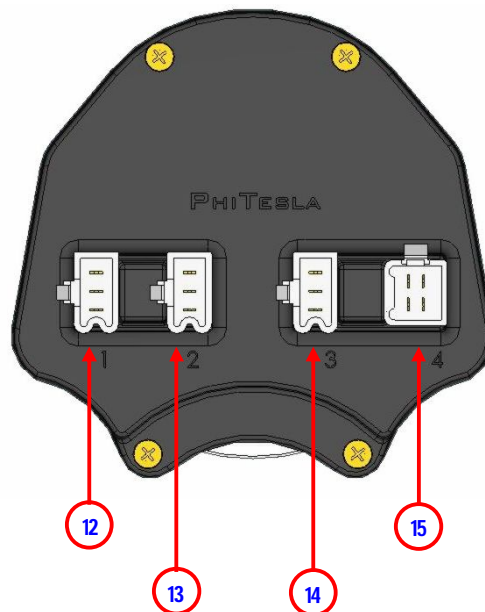


PHITESLA RADON



1. Large Character Speed Display
2. 7 digit odometer
3. Function Control Button
4. Voltage Display
5. Temperature Display in Degrees Celsius
6. Engine RPM Display
7. Neutral Indicator Light
8. High Beam Indicator Light
9. Hazard Light cum Shift Indicator Light
10. Turn Indicator
11. Outer Ring



RADON QUICK SETTINGS GUIDE

BUTTON GUIDE



Press and Release

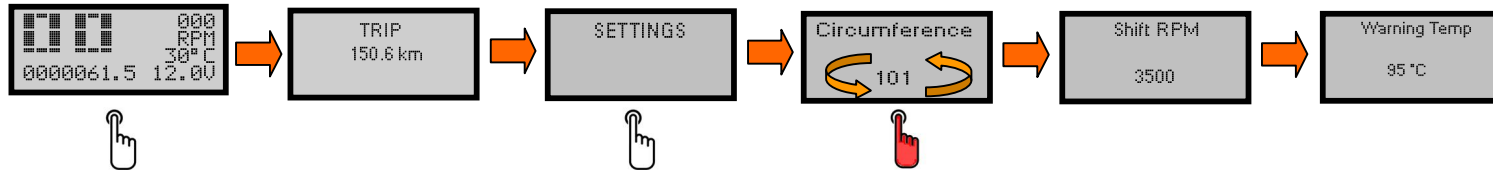


Keep Pressed

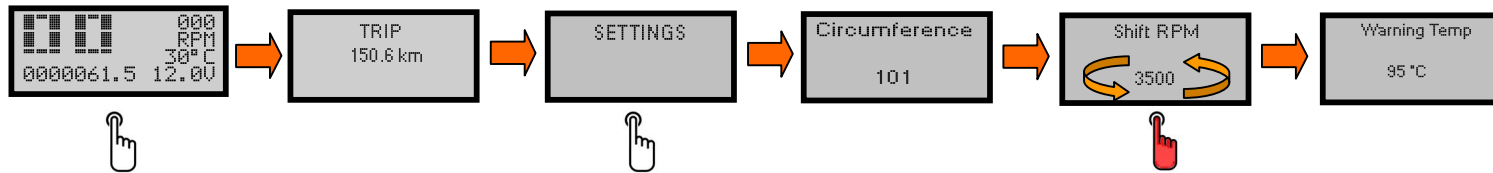
TRIP METER CHECK AND RESET



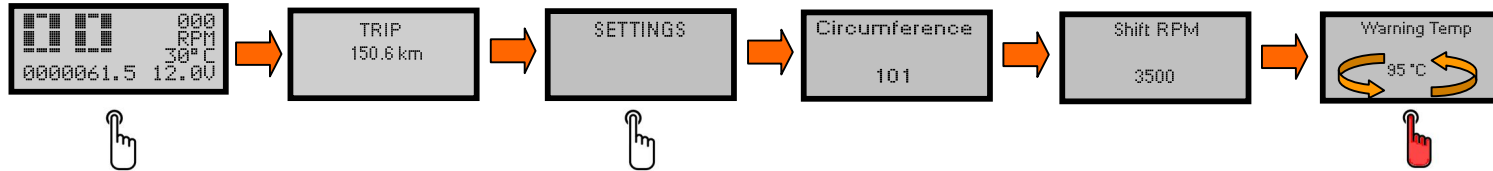
CIRCUMFERENCE SETTING



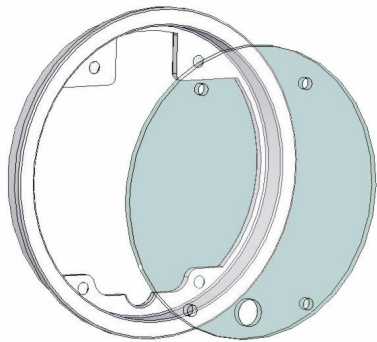
SHIFT RPM SETTING



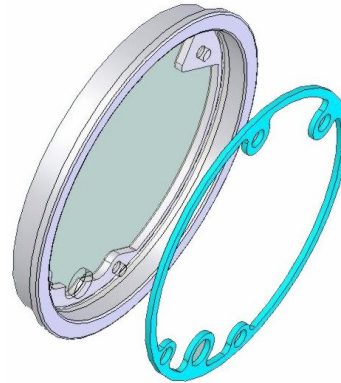
WARNING TEMP SETTING



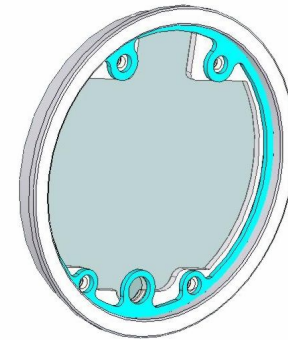
RADON QUICK ASSEMBLY/INSTALLATION GUIDE



Outer Ring + Cover Glass



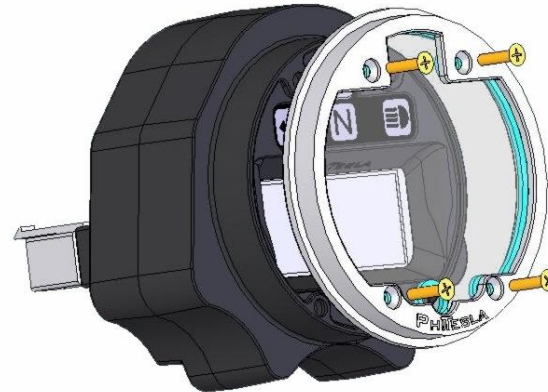
Outer Ring + Cover Glass +
Sealing Gasket



Outer Ring Assembly



RADON Assembled



Outer Ring Assembly + RADON

Caution: Do not over tighten the Outer Ring. Damaging or Deforming the Sealing Gasket will reduce its waterproofing ability. Use Thread-Lock on the Outer Ring Screws while fastening

Contact us at www.phitesla.com or sales@phitesla.com

RADON USERS MANUAL

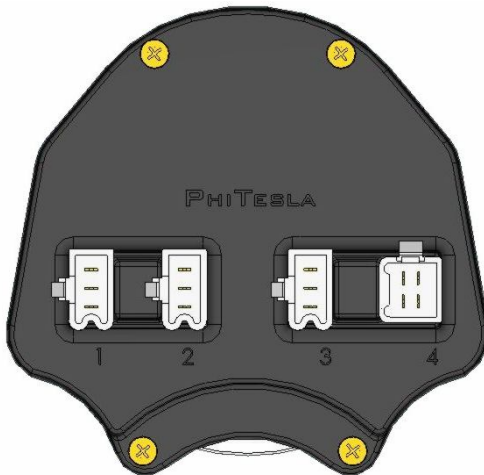
Thank you for purchasing a PhiTesla product. We hope you enjoy the experience.

GENERAL PRECAUTIONS AND OPERATION TIPS

- FOLLOW THE INSTRUCTIONS GIVEN IN THIS MANUAL TO CORRECTLY INSTALL THE RADON ONTO YOUR VEHICLE
- PROTECT THE RADON FROM DIRECT SUNLIGHT AND HEAT WHEN NOT DRIVING/RIDING
- THE RADON UNIT MAY BE USED IN THE RAINS. HOWEVER, EXPOSURE TO STRONG WATER JETS AND PRESSURIZED WATER STREAMS MAY CAUSE LEAKAGE AND LOSS OF OPERATION
- USE THE UNIT FOR ITS INTENDED OPERATION
- AVOID EXCESSIVE BENDING AND TWISTING OF SENSOR WIRES. THIS WILL LEAD TO BAD SIGNALS AND IMPROPER READINGS
- DO NOT CONNECT THE UNIT TO THE AC MAINS
- DO NOT MAKE REVERSE POLARITY CONNECTIONS OR SHORT CIRCUIT WIRES

INSTALLING THE RADON - ELECTRICAL

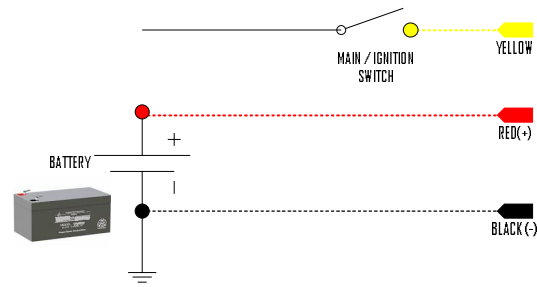
The RADON has color coded wires and marked connectors at the back for easy identification. Use these as references for making the correct connections.



Rear view of the RADON with Connectors 1 to 4

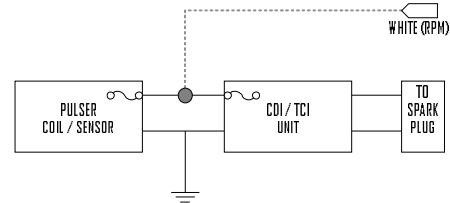
CONNECTOR 1 (POWER & RPM)

Connect the Red (+) wire from Connector 1 to the +ve battery lead and the Yellow wire to the main ignition switch. The Black (-) wire of Connector 1 should be connected to the -ve battery lead.

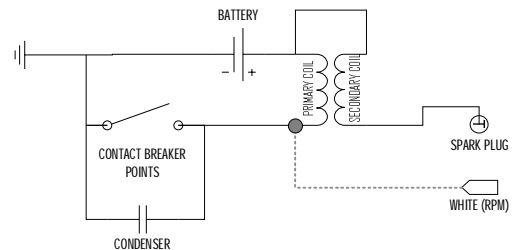


Power Supply Connections

The White (RPM) wire from Connector 1 should be connected to the signal wire from the Pulser Coil Unit as shown in the figure.



RPM Signal Wire Connection (TCI/CDI Ignition)



RPM Signal Wire Connection (CB Points Ignition)

Note: Additional circuit box provided for CB ignition

CONNECTOR 2 (SPEED)

Connector 2 connects directly to the speed pickup's connector. Refer to Speed Sensor Installation section for more details.

CONNECTOR 3 (TEMPERATURE)

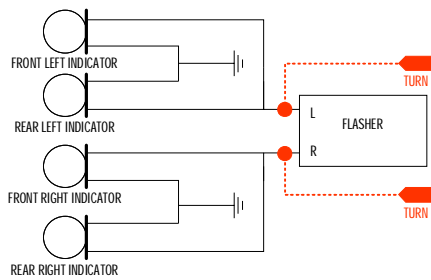
Connector 3 connects directly to the temperature pickup's connector. Refer to Temperature Sensor Installation section for more details.

CONNECTOR 4 (INDICATORS)

This connector contains wires for the Neutral, Turn and High Beam Indicator Lights. Connect the color coded wires as illustrated below:

Note: A black sleeve has been wrapped around the cables of Connector 4. If required, this can be removed to allow ease of installation

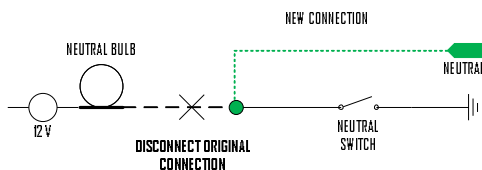
Turn Light



Turn Light Indicator Connection

Neutral Light

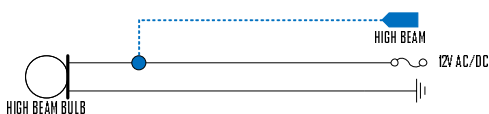
The 12V supply to the switch will have to be disconnected and a new connection will have to be made as illustrated below



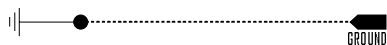
Neutral Light Indicator Connection

Note: The neutral light will work only with neutral switches that switch to ground.

High Beam

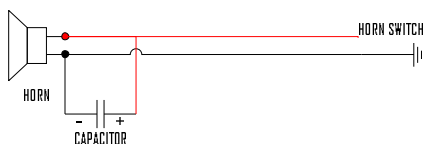


Ground



CAPACITOR

Connect the capacitor (one per Horn) with in series with the horn in correct polarity, as shown below:



INSTALLING THE RADON – MECHANICAL

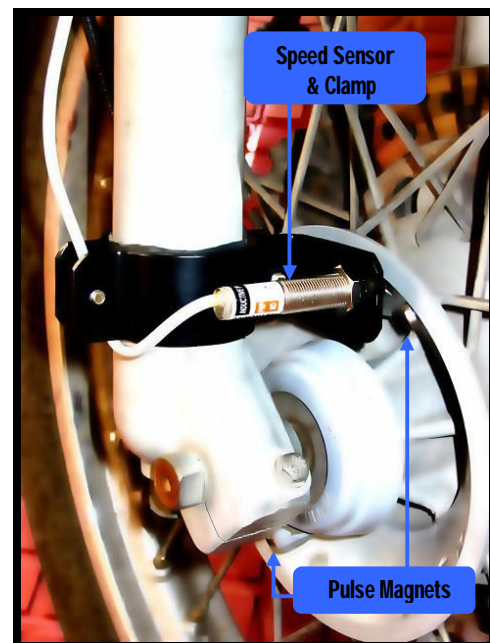
(ALSO REFER TO THE QUICK ASSEMBLY/INSTALLATION GUIDE)

Installation Steps

1. Turn the Outer Ring upside down and insert the Cover Glass into the circular cavity of the Outer Ring
2. Align the holes of the Cover Glass to match with the holes of the Outer Ring
3. Place the Sealing Gasket on the Cover Glass and align the holes. Ensure that the Sealing Gasket is properly seated inside the Outer Ring before installing the Outer Ring onto the RADON. **Tip:** Applying a very mild adhesive (like Stationery Glue) on a few sections of the Sealing Gasket will help in retaining it on the Cover Glass when the parts are inverted during assembly
4. Invert the Outer Ring and place it on the RADON
5. Ensure that the Ring, Cover Glass and Sealing Gasket are seated properly on the RADON
6. Put screws (4 Nos.) on the Outer Ring and tighten to fit securely and create a dustproof and waterproof fit

Note: For ease of installation and proper seating on the motorcycle, in certain cases the clutch, brake and decompressor (in the case of Enfield Motorcycles) may have to be rerouted.

SPEED SENSOR INSTALLATION



1. Attach the pulse magnets (2 nos.) to two diametrically opposite ends of the wheel or spokes by means of an epoxy adhesive (eg: Araldite, MSeal or Quickfix)
2. Install the clamp assembly and speed sensor onto the front fork
3. The distance between the sensor and the pulse magnets can be adjusted by changing the position of

the fastening nuts on the speed sensor to obtain good sensor response

4. To ensure a good speed signal: When connected to the RADON and powered up, an indicator light on the speed sensor will light up each time the magnet crosses the sensor
5. The sensing range of the speed sensor is 4mm, therefore ensure that the distance between the sensor and the pulse magnets does not exceed 4mm

TEMPERATURE SENSOR INSTALLATION

The temperature sensor is a magnetic pickup device that can be placed anywhere on the engine where the temperature needs to be monitored. In case of non ferrous alloy engines that are non magnetic, it can be stuck to the engine location using common adhesives like Araldite, Quickfix or MSeal. Good locations to place the temperature sensor are:

- Oil Drain Bolt
- Lower Crankcase

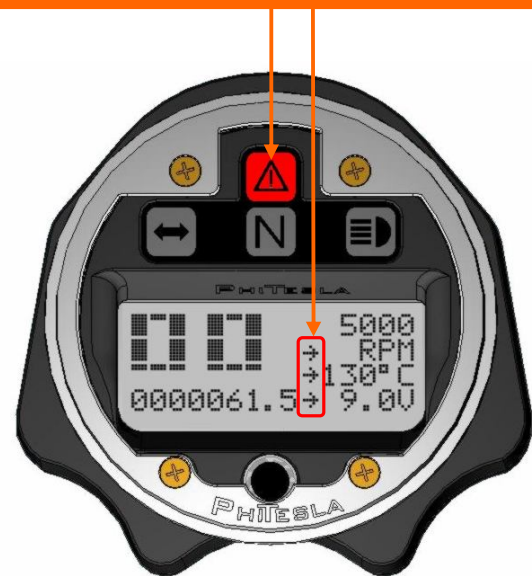
Note: Please ensure that the temperature sensor is not exposed to temperatures in excess of 150°C.

RADON OBD (ON BOARD DIAGNOSTIC) FUNCTIONS

The RADON comes with On Board Diagnostic (OBD) features to continuously track different vehicle parameters. In the case of any vitals exceeding their user set operational limits, the system starts generating textual and visual warnings to alert the user of a possible or eminent hazardous condition. The OBD features are detailed as follows:

- Shift RPM
- High Temperature
- Low Voltage

Visual warnings are created by a flashing Red Hazard Light on the Indicator panel. Warning arrows also appear in front of each parameter creating the warning condition



FUNCTIONS & SETTINGS

(ALSO REFER TO THE QUICK SETTINGS GUIDE)

Tripmeter



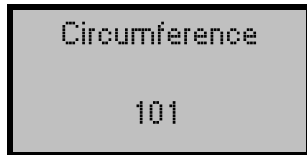
The trip meter display's distance covered from the last trip reset. The maximum distance recordable on the trip meter is 999.9km after which it will automatically reset to 000.0km

The Trip meter can be accessed by:

1. From the main screen press the Function Control Button once

2. The display screen will temporarily change to trip mode display the trip distance
3. To RESET the Trip meter, keep the Function Control Button pressed while viewing the Trip. This will set the Trip meter to 000.0 km

Circumference Factor



The Circumference Factor needs to be calibrated based on the wheel size. **Range: 60 – 300.** For KMPH readings it is a value close to the circumference (cm) of the wheel on which the speed sensor has been mounted. For eg: if your wheel circumference is 200 cm, then a value of 200 ± 8 must be entered as the Circumference Factor to obtain correct speed and distance calculation. For MPH, this value will be circumference/1.6 e.g.: If your wheel circumference is 200 cm, then a value of $200/1.6$ or 125 ± 8 must be entered as the Circumference Factor. Since this value will differ from one wheel to another, the exact value can be obtained through trials.

To access the Circumference Factor setting:

1. From the main screen press the Function Control Button Once
2. Wait for Trip -> Settings to be displayed
3. Once Settings is displayed, press the Function Control Button Once
4. The system will enter into the Settings mode
5. When Circumference Factor is displayed on the screen, keep the Function Control Button pressed until the desired circumference factor is reached

Shift RPM Setting



Shift RPM allows you to set an engine RPM value after which the RADON will display a textual and visual warning indicating that the next gear needs to be shifted or the Engine RPM has to be reduced. **Range: 500 – 12500 RPM.** Shift RPM can be incremented in steps of 100 RPM.

To access the Shift RPM setting:

1. From the main screen press the Function Control Button Once

2. Wait for Trip -> Settings to be displayed
3. When Settings is displayed, press the Function Control Button Once
4. The system will enter into the Settings mode
5. When Shift RPM is displayed on the screen, keep the Function Control Button pressed until the desired Shift RPM is reached

Warning Temp Setting



Warning Temp allows you to set a temperature after which the RADON will display a textual and visual warning indicating that the temperature is too high and corrective action needs to be taken immediately. **Range: 60 – 150 °C.** Warning Temp can be incremented in steps of 1 °C.

To access the Warning Temp setting:

1. From the main screen press the Function Control Button Once
2. Wait for Trip -> Settings to be displayed
3. When Settings is displayed, press the Function Control Button Once
4. The system will enter into the Settings mode
5. When Warning Temp is displayed on the screen, keep the Function Control Button pressed until the desired Warning Temp is reached

RPM Pulse

RPM Pulse is the number of pulses the sensor receives per rotation of the engine. **Range: 1 – 24.** Use the table below as an example to calibrate the RPM Pulse setting:

Pulse per Rotation	RPM Pulse
0.5	1
1	2
2	4
3	6
4	8
5	10
6	12

Voltage

Voltage tracking is an OBD function that monitors the real time battery voltage. When battery voltage falls below 10.0 Volts the RADON displays a textual and visual warning indicating that the battery voltage is low and corrective action is required.

FAQ & GENERAL CONCERNS

The RADON does not display the correct Speed?

Check if the speed sensor is connected to Connector 2 of the RADON. Ensure the wheel circumference factor setting is set to the appropriate value. Check if the distance between the sensor and the pulse magnets is set according to the manual specifications.

RPM doesn't work or display the correct value?

The RPM sensor wire may not be connected correctly to the vehicle sensor. Refer to the installation guide.

The temperature doesn't work correctly?

The temperature sensor may not be connected or may not be installed correctly. Please follow the correct installation procedure.

Water is getting into the RADON?

The sealing gasket needs to be inserted and fastened properly. Incorrect assembly may cause leakage gaps that allow water and humidity to enter. Please follow the installation instructions in this manual for correct installation.

Why is the display screen all dark?

The RADON may be exposed to high temperatures or a prolonged exposure to direct sunlight. Let the unit cool down to a lower temperature and the display should return to its original state.

The display screen is showing all garbled characters?

Press the Function Control Button from the Main Screen to refresh the screen. In certain cases of bad connections and faulty grounding, the RADON may respond this way. Check that all the connections to the RADON are made according to the manual. Check if your battery is properly charged.

The dashboard panel lights (Turn, High Beam and Hazard) do not work?

The ground wire from Connector 4 may not be connected properly. Check if all the connections are made according to the manual specifications.

Only the Neutral Indicator light does not work, why?

The neutral light will work only with neutral switches that switch to ground. Refer to the vehicle's manual and check if the neutral switch is of the type that switches to ground.

The RADON powers up but the LCD has no Backlight and the Battery Voltage reads 0 Volts?

The RADON has been connected in reverse polarity. Please check that the polarity of the power connection is correct and then reconnect.

LIMITED WARRANTY

Within 90 days from the date of original purchase, PhiTesla will repair or replace, at its option, any RADON unit that is verified defective in workmanship or materials. Kindly return the unit, together with proof of and date of purchase, to PhiTesla. This warranty shall extend to the original purchaser only.

This warranty does not extend to product failures or defects caused by, or associated with, but not limited to; failure to install or maintain correctly, unsuitable physical or operating environment, accident, acts of God, hazard, misuse, electrical supply, unauthorized repair, modification or alteration.

Damages or injuries resulting from negligence or misuse of this product are not enclosed by this warranty. Incidental or consequential damages are specifically excluded. Mandatory liability shall be restricted to the sum equal to the purchase of the product.