e-DIAGNOSTIC

Specifications

- High impact PC casing
- Silicone rubber cover
- IP 65 rated
- LCD backlight graphic display
- 433.39 MHz bidirectional Transceiver
- Operates from 2 x 1.5V AAA batteries

Activation and signal strength

1. Press the **MENU** button and you will see two selections, **Open RX** will be highlighted, press **SET** to select. You can now monitor the e-Loop activation.
2. When the trip level is exceeded, the screen will display the activation and the level that it tripped at for 2 seconds, to exit this mode just press the **MENU** button again.
3. To test for background interference, press the **MENU** button, now scroll using the down arrow until **Signal Strength** is displayed. Press **SET** to select or **MENU** to exit.
4. Low background noise is indicated as 1 to 2 bars, if you see more than 2 bars displayed constantly, you may have an interference problem.
   This **Signal Strength** bar graph will also display the signal strength from our transmissions of remotes or e-Loops. Although this will only be a short burst, it can be quite useful in determining signal strength at the receiver end.

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Connecting to an e-Loop

1. Hold the remote close to the e-Loop and press the **CONNECT** button. If pairing is successful, **Pair Success** will display and the red LED will illuminate on the e-Loop. If not successful, the screen will display **Timeout**.
2. Now press the **MENU** button. **Diagnostics** will be highlighted, press the **SET** button to select.
3. The screen will display the magnetic field:

   Reading – This should be sitting between **0-200** when no vehicle is present.

   Trip Value – This is the level the reading needs to reach in order to trigger the e-Loop.

   Temperature – this is the ambient temperature of the e-Loop.
4. You can test the e-Loop on the bench by moving a magnetic screwdriver close to the e-Loop. You will see the reading value increase until it trips and sends an open command.
5. To disconnect the e-Loop press the **CONNECT** button.

Altering the e-Loop settings

NOTE: You will need to be connected to the e-Loop to make any alterations to settings. (Refer to Connecting to an e-Loop section above).

1. After making connection scroll to **Alter Settings**.
2. The first selection is **Mode** – EL00C and EL0IC are preset to EXIT mode and cannot be changed. EL00C-RAD and EL0IC-RAD are preset to Presence mode and can be changed to EXIT mode if required. To change mode press **SET**, now use the Up or Down buttons to alter and **SET** to confirm. If no further changes need to be made, press the **UPLOAD** button to upload the new settings. Once upload is complete, the screen will display **Settings Applied**.
3. Second selection is **Trip Value**; the default is 800 which is the most sensitive. To change value press **SET** to highlight the setting value and use the Up or Down arrow buttons to increase or decrease value.
4. After the value has been altered press the **SET** button again. If no further changes need to be made, press the **UPLOAD** button to upload the new settings. Once upload is complete, the screen will display **Settings Applied**.
5. To disconnect press the **CONNECT** button.

Altering XYZ axis

NOTE: We only recommend altering the XYZ axis for complex sites where you need less activation from a particular direction, such as the exit road being close proximity to an entry road. In this instance we would reduce the X field direction so that a passing vehicle in next lane will not trigger the e-Loop.

Z = Vertical detection

Y = Approach and Depart detection (Arrow indication)

X = Left and Right-hand side detection

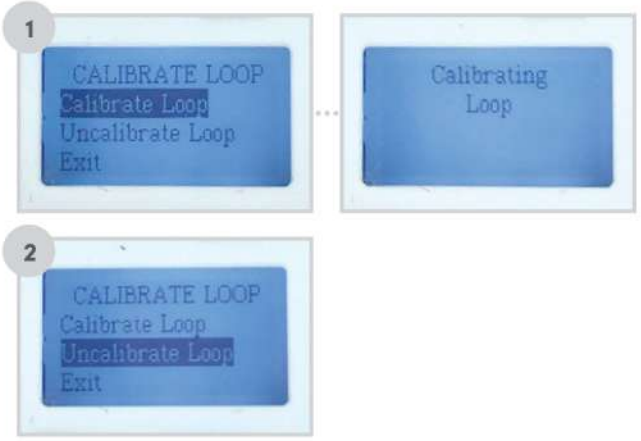
1. First make a connection to the e-Loop, then go to **MENU** and select **Alter Settings** and press **SET**. Now scroll to the Axis you want to change, then press **SET** again.
2. If we are changing the **X** axis, you can set a value between 0% to 200% – this is the same for all X, Y and Z axis.
3. Use the Up or Down arrow buttons to change the value, then press the **SET** button to confirm.

NOTE: All values should add up to a minimum of 300, so if reducing one axis then another should be increased to compensate.

4. Now press **UPLOAD** to confirm the new settings and the screen will display Sending Settings. Then press the **CONNECT** button to disconnect the e-Loop, or **MENU** button to access other options.

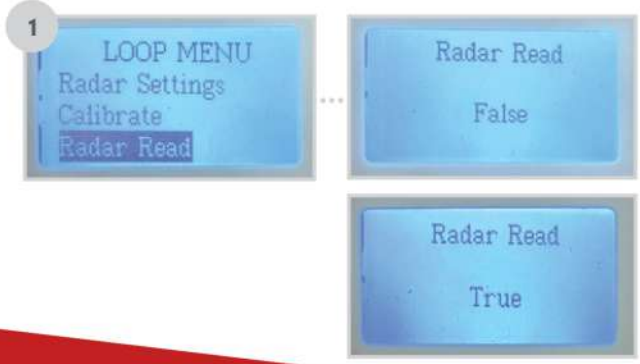
Calibrating the e-Loop using the diagnostic remote

1. Make a connection to the e-Loop, then press **MENU** and select **Calibrate**. The Calibrate menu screen will have **Calibrate Loop** highlighted. Now press **SET** to calibrate the e-Loop and the screen will display **Calibrating Loop**.
2. To uncalibrate the e-Loop enter the **Calibrate** menu and scroll down to select **Uncalibrate Loop**. Now press the **SET** button, and the e-Loop is uncalibrated.



Radar Read

1. Press **SET** to read the radar sensor state. If **False** is shown it means no object is detected. If **True** is displayed this means an object has been detected.



Changing Radar settings

NOTE: Only available for EL00C-RAD and EL0IC-RAD versions. Please contact technical department before altering any radar settings, doing so may cause the e-Loop to be unreliable.

1. After making connection, scroll to **Radar Settings** and press the **SET** button.
2. To change any of these settings, navigate to the desired option using the **UP** and **DOWN** buttons, and press the **SET** button to select option. Again, use the **UP** and **DOWN** buttons to change the setting and press **SET** to confirm.
3. Once all changes have been made, press the **UPLOAD** button to upload the new settings to the e-Loop. If successful **Setting Applied** will display, if not it may display **Connection Fail** – if this occurs, try again.

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Radar settings:

1. The first setting is **Release Trip** – this is what the magnetic field value needs to drop below to trigger the radar to take a reading which verifies the vehicle is no longer present. 300 is the default setting and should not be changed before contacting the technical department.
2. The second setting is **Start Lens** – this is the distance the radar will start detecting. 200 is the default setting and should not be change before contacting the technical department.
3. The third setting is **Measure Lens** – this is the maximum distance the radar will detect a vehicle. This can be adjusted depending on the types of vehicles being used and the location of the e-Loop.

NOTE: Lowering the range for an undercover car park where no trucks can enter can extend battery life. Extending range for a trucking depo may be needed for high trailer detection.

4. The fourth option is **Radar Trip** – this is used to adjust the sensitivity of the radar. The higher the number, the less sensitive it will be. 500 is the default setting and should not be changed before consulting the technical department.
5. The fifth option is **Radar Confirm** – the default is OFF when turned on. The sensor will detect the vehicle with magnetic field detection and will then confirm with radar before sending Open command.

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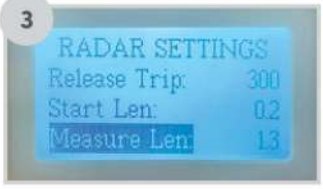

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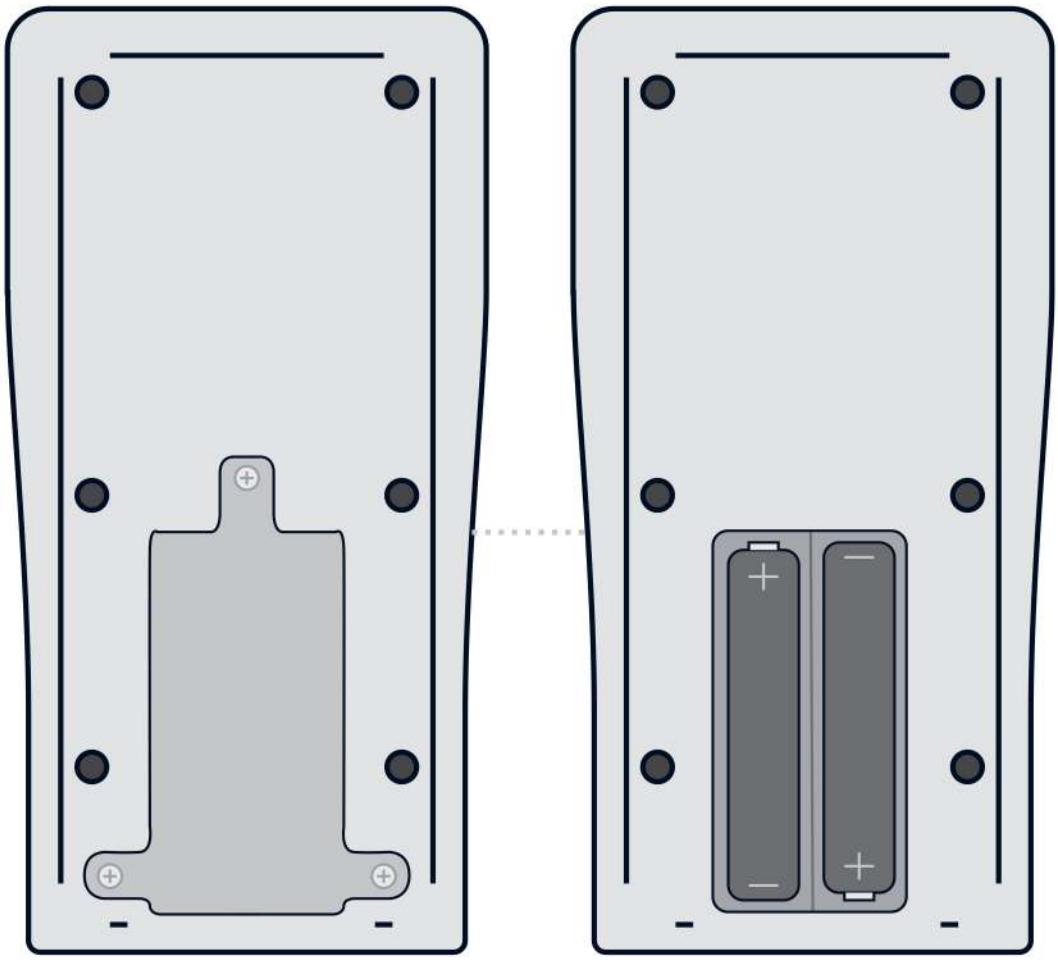
6. The sixth option is **Radar INT** – this is used to adjust the time between radar reads when in precesnse mode. The default value is 60 seconds, and can be adjusted from 15 to 180 seconds.

   Press **SET** to alter. Use Up or Down buttons to change and **SET** to confirm. If no further changes need to be made, press the **UPLOAD** button to upload the new settings. Once upload is complete, the screen will display **Settings Applied.**

Batteries

In order to replace the two AAA batteries, first remove the three screws on the back of the device. Then remove the plate, and replace the two batteries. Then reinstall the plate and screws.