

**USER MANUAL**

**FAQs**

**DISCLAIMER**

**WARRANTY**



**4<sup>th</sup> Generation**

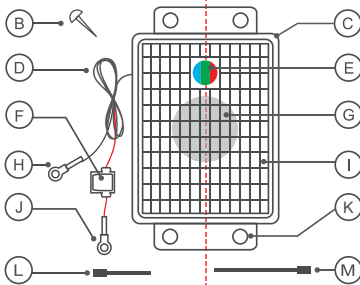
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## UNBOXING CARCAT-RED

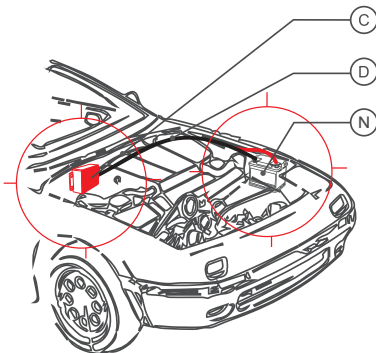
Top view:



Front view:



## INSTALLATION



- (A) CONFIG KEY (Touch)
- (B) MOUNTING SCREWS (x4)
- (C) CARCAT-RED
- (D) CARCAT CABLE (2 meters)
- (E) RGB LED (Strobe / Status)
- (F) FUSE BOX (Waterproof)
- (G) ULTRASOUND CRYSTAL
- (H) (-) CONNECTOR (Black Insulation)
- (I) FRONT GRILL
- (J) (+) CONNECTOR (Red Insulation)
- (K) MOUNTING HOLES (x4)
- (L) CABLE TIES (x4)
- (M) FASTENER TIES (x4)
- (N) CAR BATTERY

## CARCAT-RED

Ultrasound Rat/Rodent Repellent System

Where to Install?

The following points should be considered before choosing a location for mounting CARCAT.

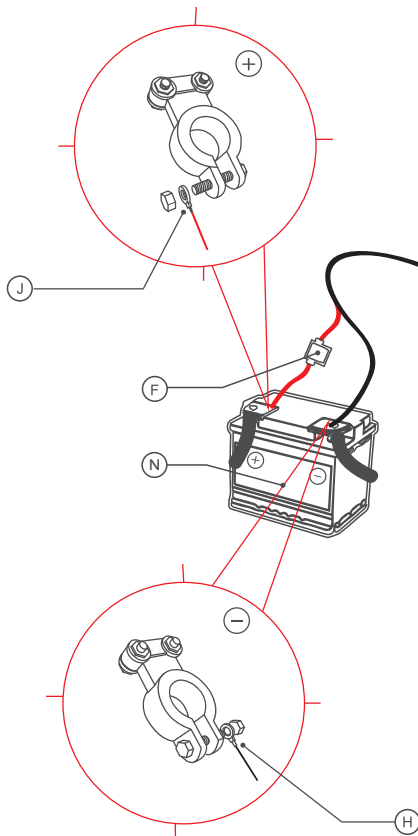
- The unit should be mounted on a hard rigid surface and secured tightly to the mounting surface using the screws / fastener ties provided.
- Mounting should be such that the front grill of **CARCAT-RED** always faces hard metallic / plastic surfaces. (This ensures multiple reflections of ultrasound waves. Ultrasound energy is quickly absorbed by soft materials like foam and rubber, drastically reducing performance.)
- The unit should be mounted away from hot surfaces or engine parts.
- Recommended mounting: Back or side wall of engine cavity, close to battery.

### WIRING

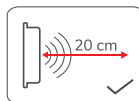
- First remove fuse from fuse box (Ⓞ).
- Connect (+) connector of **CARCAT-RED** (Ⓡ) to (+) of battery.
- Connect (-) connector of **CARCAT-RED** (Ⓢ) to (-) of battery.
- Use cable ties to tidy up the wiring.
- Re-insert fuse in fuse box (Ⓞ).

### Important

- In case car is under warranty or user does not wish to drill holes in chassis, use the fastner ties provided and secure a tight fit.
- It is recommended to connect **CARCAT-RED** directly to the battery as the unit should always be powered 'ON'.
- In case of existing rat / rodent infestation, the user is advised to park the vehicle at a different location for a few days post installation.



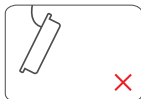
### Installation Do's & Don'ts



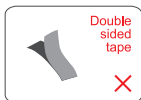
Ensure minimum clearance of 20 cm (~8 inches) between front grill of **CARCAT-RED** and any other engine part.



Do not mount unit facing the bonnet, if it is covered with insulating foam.



Never keep CARCAT-RED dangling loose or suspended by its cable.



Double sided tape

Never affix CARCAT-RED using a double sided tape. Direct contact with metallic / plastic surface enhances repelling effect.

## Status / Troubleshooting / Health Check:

### RGB-LED states



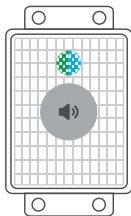
Solid 'ON'



Blinking / Strobing

### 1. Normal Operation –

- RGB-LED will Strobe GREEN / BLUE combinations
- ZigZag pattern + intermittent pulsing ultrasound
- Faint audible beep every 30 seconds (feature can be disabled – default state = 'enabled')



#### • Normal Operation

CARCAT-RED Status	Active Protection
RGB-LED Indication	GREEN / BLUE strobe variations

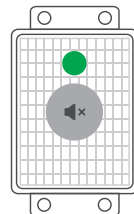
Ultrasound	'ON'
Audible Beep	'ON' (If audible beeps Enabled)
Default Setting	NA

**Note** - RED LED of RGB-LED will not strobe in normal operation, only GREEN / BLUE variations. Rats have dichromatic vision - they have very low sensitivity in the longer wavelength red region.

### 2. Standby Mode / Engine 'ON' –

(Battery is getting charged) – (Feature can be disabled – default state = 'Enabled')  
(12 Volt system – 13 to 17 Volts & 24 Volt system – 26 to 35 Volts)

- CARCAT-RED enters standby mode
- RGB-LED will glow solid GREEN
- Ultrasound – stopped
- 30 second audible beep – stopped



#### • Standby Mode

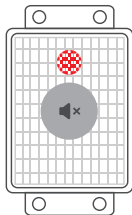
CARCAT-RED Status	Engine Running (If standby mode - Enabled)
RGB-LED Indication	GREEN - Solid 'ON'
Ultrasound	OFF
Audible Beep	OFF
Default Setting	Enabled

### 3. Shutdown Mode - Car Battery Low –

(Feature can be enabled – default state = 'Disabled' (12 Volt system – <10.5 Volts & 24 Volt system – <21 Volts down to 17 Volts)

- CARCAT-RED enters low power mode
- RGB-LED will blink RED every 2 seconds
- Ultrasound – stopped
- 30-second audible beep – stopped

Note – For 24V system voltage if voltage falls below 17 Volts CARCAT-RED will mistake it as a 12 Volt system.



#### • Shutdown Mode

CARCAT-RED Status	Car Battery Low (If shutdown mode - Enabled)
RGB-LED Indication	RED - Blinks every 2 seconds
Ultrasound	OFF
Audible Beep	OFF
Default Setting	Disabled

### CARCAT-RED – 4th gen

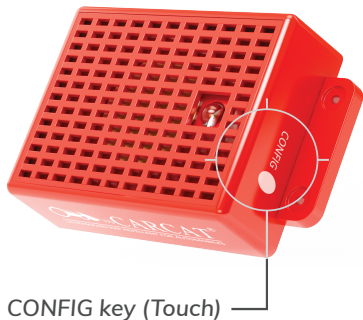
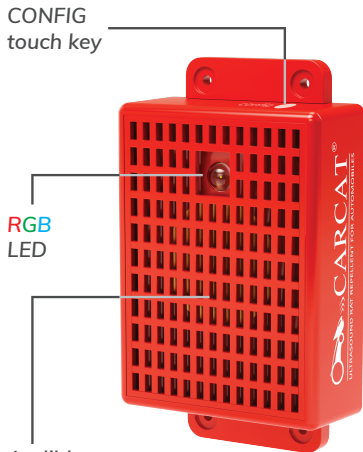
CONFIG Key (Touch) Menu / Setup Guide Menu / Status indicator LED's / Feature Scroll / Feature (enable or disable)

#### 3-step Menu System

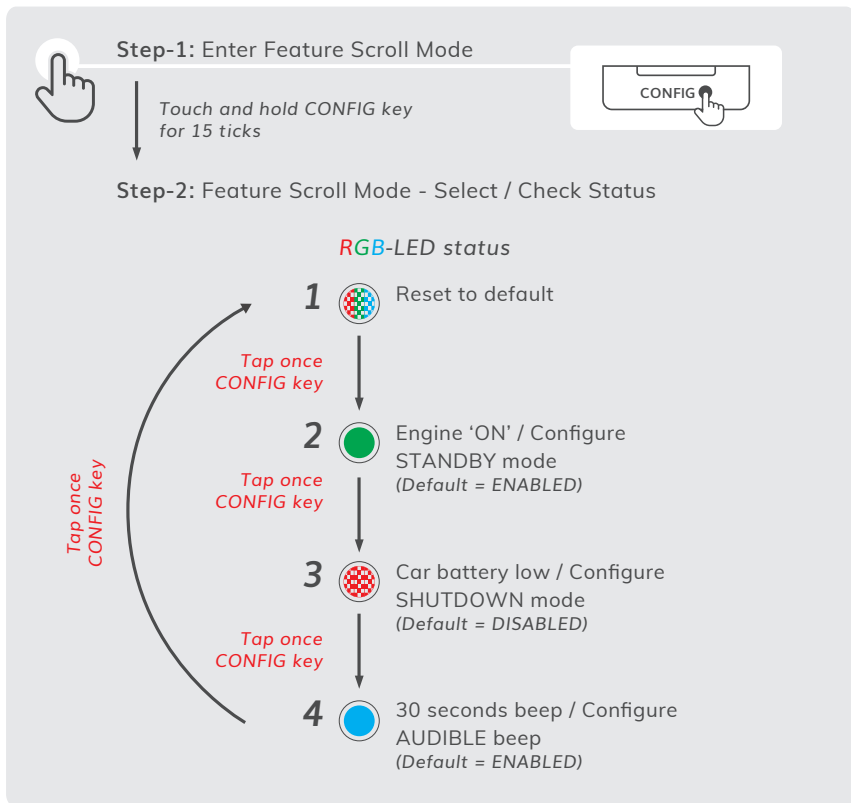
- Input method - CONFIG touch key
- Feature indicator - RGB-LED
- Key pressed indicator - Audible 'ticks'

#### Default CARCAT-RED Setting:



1. ZigZag pattern ultrasound
2. GREEN / BLUE LED strobe
3. Audible beep every 30 seconds
4. Enters STANDBY mode if 'engine on'



## Simple 3-step Menu System: Check Feature Status / Configure Feature / Reset to Default



### RGB-LED states

-  Solid colour = Feature enabled
-  Rapid blinking = Feature disabled (Not applicable to RESET to defaults)  
RGB-LED - Rapid blinking only

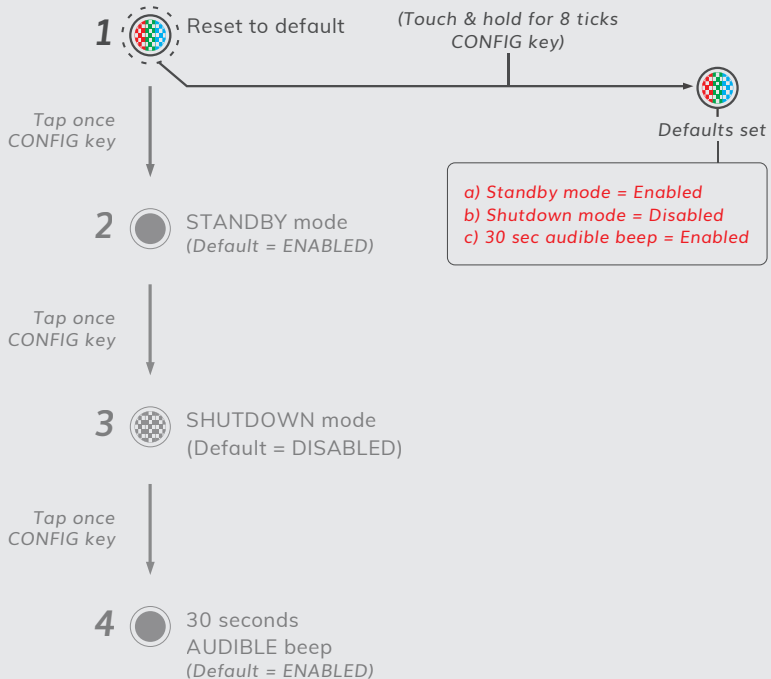
### Scroll mode timeout

If no touch is registered within 20 seconds, operation resumes according to features configured

### Step-3/1: Reset to defaults settings

**Note - This configuration is not a feature, but instead sets all features to their default company setting.**

RGB-LED status



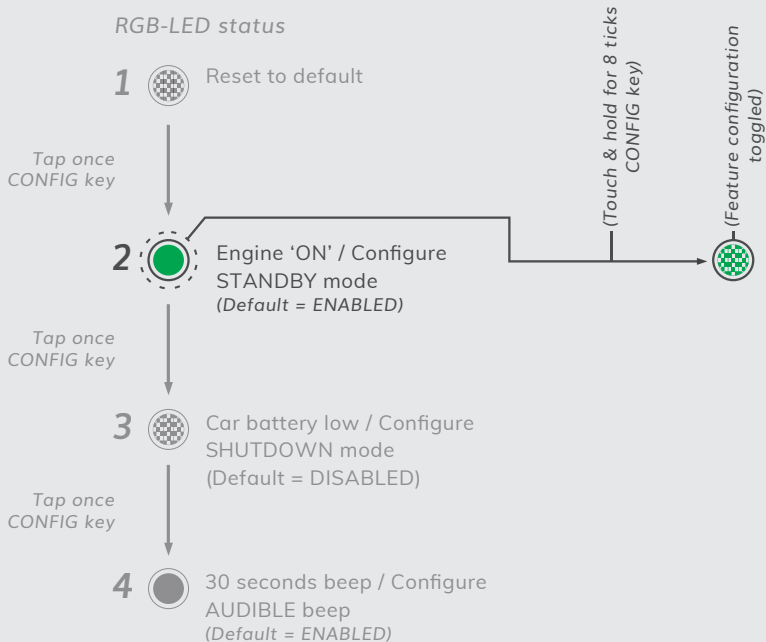
**Feature changed timeout** - If no touch is registered within 5 seconds, operation resumes according to features configured

**Note - For defaults RGB-LED will be blinking all 3 colours (RED, BLUE, GREEN) rapidly even after setting defaults.**

### Step-3/2: Configure selected feature (*Standby mode / Engine 'ON'*)

*This feature is enabled by default. This feature puts CARCAT in standby mode as soon as the car is started.*

RGB-LED status



**Feature changed timeout** - If no touch is registered within 5 seconds, operation resumes according to features configured

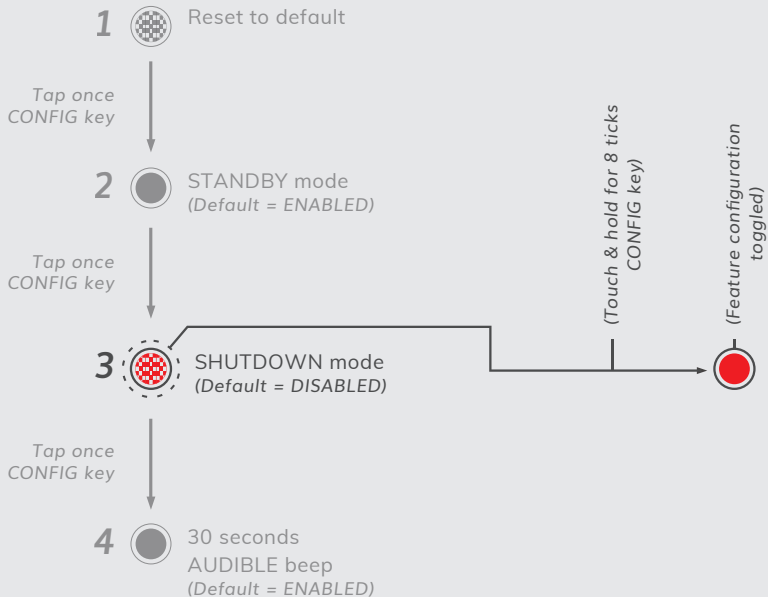
If RGB-LED was 'blinking rapidly', RGB-LED will be toggled to 'Solid-ON' and vice-versa

*Note - This feature depends on the cars battery charging voltage. If CARCAT is not going into standby mode (RGB-LED = Green, Solid 'ON') something maybe wrong with the alternator or the battery. This can also happen if the idling charging voltage is less than 13V for your car model.*

### Step-3/3: Configure selected feature - *Shutdown mode / car battery low*

*This feature is disabled by default. When enabled, if car battery voltage drops to permanent damage levels, this feature puts CARCAT in shutdown mode.*

RGB-LED status



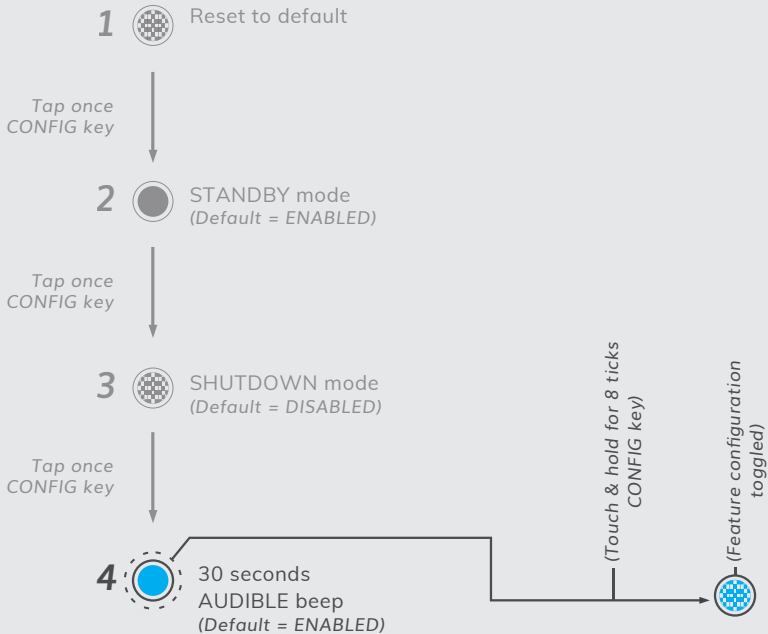
**Feature changed timeout** - If no touch is registered within 5 seconds, operation resumes according to features configured

If RGB-LED was 'blinking rapidly', RGB-LED will be toggled to 'Solid-ON' and vice-versa

**Note** - Enabling this feature may save the battery from permanent sulfation damage. But it is strongly recommended, 'not to enable' this feature. Rats can cause damage, more expensive than the cost of a new battery. CARCAT-RED should be allowed to protect the car as long as the battery can.

**Step-3/4:** Configure selected feature - **30 seconds audible beep**  
*This feature is enabled by default. It gives out an audible beep every 30 seconds by using the ultrasound crystal in audible frequency range.*

RGB-LED status



**Feature changed timeout** - If no touch is registered within 5 seconds, operation resumes according to features configured

If RGB-LED was 'blinking rapidly', RGB-LED will be toggled to 'Solid-ON' and vice-versa

**Note** - Since ultrasound cannot be heard by human ears, this feature is useful for CARCAT-RED health check / trouble shooting.

## Car Battery Care - Do's & Don'ts

### Unusual Battery discharge:

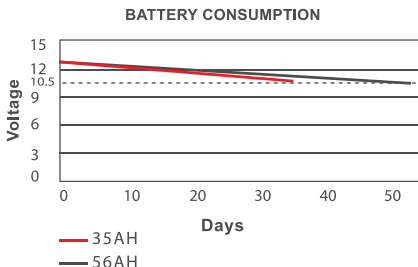
- Loose terminals - The mechanic may not have fastened the terminals properly post installation.
- Corrosion between battery terminals and battery connector – sanding and battery terminal gel / grease needs to be applied.
- Alternator is weak.
- Other gadgets connected to battery may hamper the battery performance.

All the above cases can lead to the battery not charging optimally and running down when a new load is connected.

### CARCAT-RED recommendations:

- If car is idle for more than 10 or 15 days, it is recommended to start / drive your car for an hour or so, to optimally charge car battery.
- Please verify if CARCAT-RED is functioning properly or not. (Strobing LED & Audible Beeps every 30 seconds)
- If car is unused / idle for a prolonged period, use battery charger / maintainer to keep battery charged.

**Caution** - During charging cycle when charging voltage goes above 13 Volts, CARCAT-RED will enter STANDBY mode (RGB-LED 'SOLID' GREEN). To prevent this, STANDBY mode should be disabled.



### Note :

The battery discharge curve does not include consumption of other equipment / devices like security systems which are also continuously powered by the battery.

Typical self-discharge rate of 4% per week is considered.

### FAQs:

**Q:** Is the audible beep necessary for repelling rats? OR Why is there an audible beep? OR How do I enable / disable audible beeps? OR Why am I not hearing audible beeps?

**A:** No. Audible beep which occurs every 30 seconds is a troubleshooting feature for car owners to check if the ultrasound system is working. Audible beeps are at a lower human audible frequency and created with the same ultrasound crystal. The audible beep feature can be disabled (default – 'enabled'). To disable / enable the feature, refer **Config key (Touch)** menu / setup guide (pg.4).

**Q:** There is no RGB-LED strobing but instead RGB-LED is stuck on Green. OR How do I enable / disable CARCAT-RED standby mode while Car / engine is running?

**A:** If the car / engine is running, that means the battery is getting charged and CARCAT-RED will go into standby mode. This feature is 'enabled' by default. To disable / enable the feature, refer **Config key (Touch)** menu / setup guide (pg.4). If this is happening with the feature disabled, something is wrong – contact customer care.

**Q:** There is no GREEN / BLUE strobing but instead RGB-LED is blinking RED. OR How do I enable / disable CARCAT-RED low power mode when car battery has discharged below 10.5 Volts?

**A:** If the car battery voltage discharges below 10.5 Volts (21 Volts for 24V system) and shutdown mode feature is enabled (default – 'disabled') CARCAT-RED will go into shutdown mode to stop battery from draining further, which can damage

the battery permanently. To disable / enable the feature, refer Config key (Touch) menu / setup guide (pg.4). If this is happening with the feature disabled, something is wrong – contact customer care.

Q: How do I reset **CARCAT-RED** features to company defaults? OR How do I know which features are enabled / disabled?

A: Press the Config touch key on **CARCAT-RED** for 15 ticks to enter feature scroll / status check mode. Navigate to the feature using the **RGB-LED** colour / Status decode to check if feature is enabled / disabled. Pressing the config touch key for a further 8 ticks toggles the feature state. i.e. if it is disabled it will be enabled and vice versa. Refer **Config key (Touch) menu / setup guide (pg. 4)** for details or contact customer care for further guidance.

## Legal Disclaimer

As per the feedback from our huge global customer base, **CARCAT-RED** has an efficacy of around 94% for cars with existing rat problems. Efficacy for **CARCAT-RED** installed in cars with non-existing rat problems (proactive prevention / newly purchased cars) is 4 to 5% higher.

This is way more than any rat poison or sprays can provide on a 24 hrs / 365 days basis.

However, a proactive approach is recommended. Rats may sometimes enter the engine area due to a survival need like escaping from a cat / dog or flooding during monsoon season.

They will not be able to withstand **CARCAT-RED** for long, and user may occasionally see paw marks or rat urine and faeces. User is advised to get it cleaned up. This is how rats mark territory. Once they start thinking your car is their domain, they will try to resist the ultrasound and strobe LED distress. In a worst-case scenario, they may even

chew on something due to the agitation caused by **CARCAT-RED**, as chewing de-stresses them. But our experience and customer feedback show the extent of damage caused is far less than without **CARCAT-RED** installed.

**CARCAT-RED** is powered by the car's battery. Although, the power drawn is very small and can power **CARCAT-RED** for 15-20 days (depending on Ah capacity / age / charge status) without affecting cranking power. It is still recommended to give a good run to the car at least once a week, to keep the battery optimally charged.

If the battery voltage goes critically low (below 10.5V) sulfation process takes place, which may reduce the battery capacity and / or cause permanent damage.



## WARRANTY CERTIFICATE

**Limited warranty:** CUSTOM LOGICS Pvt. Ltd. (CLPL) provides limited warranty for this device "CARCAT" (hereinafter referred to as "Product").

The warranty period for the product is 1 year from the date of purchase.

### CLPL Warranty for CARCAT:

Subject to the conditions of this limited warranty,

CLPL warrants the product to be free from defects in design, material and workmanship at the time of its original purchase by you, and for a subsequent period of one (1) year.

This warranty does not apply in the event any of the following conditions are applicable:

- The product has been subjected to abnormal use or conditions, improper storage, exposure to excessive temperature, unauthorized repair (including but not limited to use of unauthorized spare parts in repairs), abuse, accidents, Acts of God, improper installation.
- The product serial no. code has been removed, defaced or altered.
- The product has been used with or connected to a power source other than a car battery or used otherwise than in manner intended.
- The product enclosure seals have been broken or show evidence of tampering.
- CLPL has not been notified of the defect in the product during the applicable warranty period.

## WARRANTY REGISTRATION

Date of Purchase: \_\_\_\_\_ CARCAT Serial no.: \_\_\_\_\_

Vehicle no.: \_\_\_\_\_ Vehicle Chassis no.: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Mobile no.: \_\_\_\_\_ Email: \_\_\_\_\_

Purchased from: \_\_\_\_\_

Date:

Authorised Signatory & Stamp



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