



# **USER MANUAL**

PRODUCT CODE: ZXRAP

www.zero-x.com.au www.zero-x.co.nz

Thanks for purchasing a Zero-X Rapture Drone, get ready to have the time of your life! We're sure your Zero-X Rapture drone will bring you a world of great experiences in the air.

Please take the time to read the following safety warnings and operating instructions carefully.

## Before you get up in the air

Connect the Rapture drone battery to the included USB charging cable and insert the USB charging cable into the supplied USB wall charger. While the battery is charging the LED on the charging cable



will glow red. Once charging is complete the light will glow green. While the battery is charging take the time to read the instructions and familiarise yourself with the controls of your Zero-X Rapture drone.

## **General Safety**

Please familiarise yourself with your local legislation regarding drone usage before you begin using your Zero-X Rapture drone.

Included in the package contents of your Zero-X Rapture drone are the Australian CASA guidelines, please carefully read and understand this information as operating a drone outside of these guidelines may result in legal issues. The manufacturer takes no responsibility for operation of this product outside of what is legally permissible in your local area.

• Do not fly your Rapture drone any closer than 30 metres from people, animals, or buildings, and check to make sure you are no closer than 5.5 kilometres from any airfields or airports.

For more information on CASA's Australian legislation visit:

http://www.casa.gov.au/ For information outside Australia please visit the website of your local aviation authority.

- Do not attempt to modify the Rapture drone or any of its components in any way, doing so will void your warranty and may affect the operation of the drone.
- Do not use the Rapture drone in any conditions that could affect, damage, or impair your view of the Rapture drone including rain, wind, snow, fog or low light.
- Avoid getting your Rapture drone wet, dusty, or sandy. These elements will damage the components of your Rapture drone.

cont. page 2

## General Safety cont.

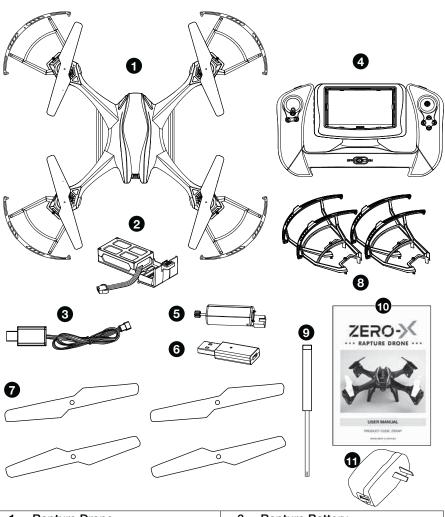
- Please pay attention to the indication of low battery to avoid damage to your Rapture drone, or your surroundings.
- Please do not attempt to touch the Rapture drone when the Remote Control is powered on, or if the rotor blades are turning.
- When flying your Rapture drone, please keep in mind the privacy of others.

## **Battery Safety**

When handled incorrectly, Lithium polymer batteries can be dangerous and can potentially harm and do damage to persons or property. The manufacturer does not accept any liability of damage to persons or property if the battery is not correctly charged, stored or protected.

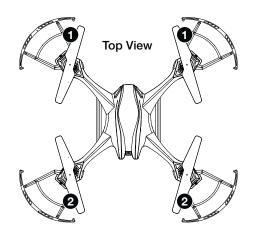
- Always unwind all cables before charging.
- Do not over charge the battery. Once the charging process is completed, remove the battery from the charger as soon as possible.
- You must charge the LiPo battery in a safe area away from flammable materials.
- Only use the included, or replacement Zero-X Rapture compatible chargers and batteries.
- The battery is only to be charged under adult supervision, do not leave charging batteries unattended. You should always remain in constant observation to monitor the charging process and react immediately to any potential problems that may occur.
- Do not charge the battery in temperatures hotter than 40°C or colder than 0°C.
- After each flight & or crash, please check battery for any damage or swelling.
- Do not cover the batteries when charging. Do not leave batteries in direct sunlight.
- If the batteries are damaged, leaking, making noise, punctured or malformed in any way DO NOT attempt to use it. Please dispose of the battery immediately and safely in the correct manner.
- Do not bend, puncture, crush or scratch the drone's batteries, do not store batteries in your pockets, on your person, or in extreme temperatures.
- After flying/discharging the battery you must allow it to cool to ambient/room temperature before recharging.
- If at any time during the charge or discharge process the battery begins to balloon or swell, discontinue charging or discharging immediately. Quickly and safely disconnect the battery, then place it in a safe, open area away from flammable materials to observe it for at least 15 minutes. Continuing to charge or discharge a battery that has begun to balloon or swell can result in a fire. A battery that has ballooned or swollen even a small amount must be removed from service completely.
- Never plug in a battery and leave it to charge unattended overnight.
- Non-compliance with the above warnings may result in the failure of the battery.

# **Package Contents**



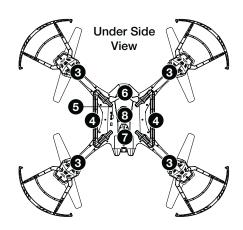
1. Rapture Drone	2. Rapture Battery
3. Rapture Battery Charger	4. Remote Control
5. Remote Control Battery	6. Remote Control Battery Charger
7. Rotor Blades	8. Rotor Guards
9. Screwdriver	10. User Guide
11. USB Wall Charger	

## **Rapture Drone Diagram**



1. Front Rotor Blades

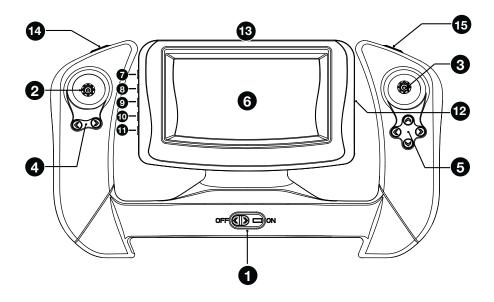
2. Rear Rotor Blades



3. LED Lights	4. Feet
5. On / Off Switch	6. Camera
7. Battery	8. Micro SD Card Slot*

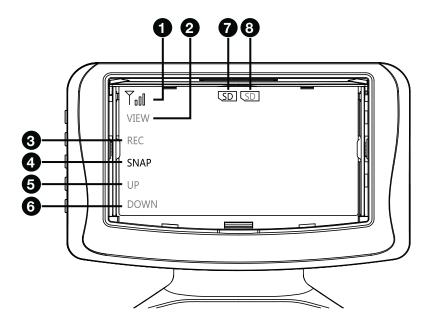
<sup>\*</sup> Micro SD Card not included

## **Remote Control Diagram**



1. Power Switch	2. Left Thumbstick (Acceleration / Yaw)
3. Right Thumbstick (Pitch / Roll)	4. Yaw Trim Controller
5. Pitch / Roll Trim Controller	6. FPV Screen
7. View Button	8. Record Button
9. Photo Button	10. Up Button
11. Down Button	12. Micro SD Card Slot
13. Glare Shield (detachable)	14. Speed Button
15. Flip Mode (On / Off)	

## **Remote Control LCD Screen Diagram**



- 1. Connection
- View Footage / Photos
   (Micro SD card must be inserted into the FPV screen to view)
- 3. Shoot Video Footage
  (Micro SD card must be inserted in the Rapture Drone to shoot video footage)
- 4. Shoot Still Photo (Micro SD card must be inserted in the Rapture Drone to shoot still photos)
- 5. Brightness Up
- 6. Brightness Down
- 7. Micro SD Card in camera icon
- 8. Micro SD Card in FPV icon

## Set Up

## Charging the Battery

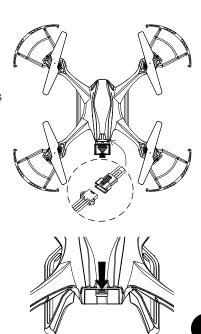
Fully unwind the included USB charging cable and plug the USB end into the included USB wall charger. Only use the USB charging cable and wall charger included with the Rapture drone. If you are unable to use the suppled wall charger, please ensure that the charger that you use is C Tick certified and has an output minimum of DC 5V/1A and maximum of DC 5V/2.1A. Chargers above or below this range can potentially damage the battery and charger. When connected to a charging source the LED light in the charger will glow green. Connect the drone battery to the charging cable and the light will glow red indicating charging is in process. The LED on the USB charging cable will begin to glow green again once charging is complete. To keep the battery life as long as possible avoid removing the battery from the charging cable before charging is complete. If you have just finished flying your Rapture drone, please allow the battery to cool down for at least 30 minutes before recharging.

- If the battery is being charged by computer, make sure to pull out the USB cable if you want to shut down the computer.
- When connecting the USB cable with the battery, make sure to follow the correct polar indicator.
- When Flying the Rapture drone, low battery will be indicated when the remote control starts beeping and the lights on the Rapture drone start flashing.

## Installing the Rapture Battery

- Ensure that the Rapture drone's power switch (5) is in the OFF position.
- Connect the battery cable to the Rapture drone's power cable ensure that the plug is inserted in the correct orientation.
- Tuck the cable into the battery opening.
- Insert the fully charged battery with the charging wires facing outwards.
- Connect the battery cable to the Rapture drone's power cable.
- Close the battery hatch making sure the door clicks into place.

For information on the Remote Control Battery, see section marked Remote control



## Set Up

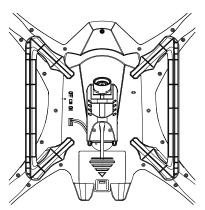
#### Camera

- The camera on the Rapture drone should already be connected. It is advised that the camera is not removed and reconnected as this can potentially damage the camera connection.
- If it is necessary to plug these cables in make sure that the plugs are facing the correct way as plugging these in incorrectly could permanently damage the connection pins on the Rapture drone.

## Installing a Micro SD Card

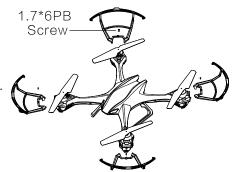
- With the Rapture drone upside down and facing away from you insert the Micro SD Card into the side of the camera ensuring that the text side of the Micro SD Card is facing up.
- Gently press the card in until you hear the lock click into place.

(Micro SD Card not included)



## **Rotor Guards**

- Rotor Guards are an optional fitting on the Rapture drone, however for safety reasons we strongly advise you to attach them. Whether Rotor Guards are attached or not, please be very careful when handling the drone. To avoid injury, do not touch the drone while the blades are turning or the remote control is powered on.
- Line up the guide pegs on the Rotor Guards with the holes on the arms of the Rapture drone so that the screw in the Rotor Guard matches up with the screw hole in the Rapture drone.
- Firmly press the Rotor guard into position inserting one peg at a time.
- Insert the included screws into the screw holes and use the included screwdriver tighten the screws making sure not to over tighten.



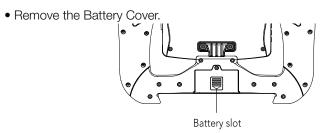
## Set Up

#### Remote Control

• Connect the Remote Control Battery to the included Remote Control Battery Charging Cable and connect the USB end into the included USB wall charger.



- The red light on the Remote Control Battery Charger will turn off once the battery is fully charged, once charged disconnect the battery form the charger.
- Ensure that the Remote Controls' power switch is in the OFF (Left) position.
- With the included screwdriver unscrew the battery cover on the rear of the Remote Control.



- Connect the Battery cable to the power cable inside the Remote Control battery hatch.
- Insert the Remote Control battery into the battery slot and make sure that the wires are tucked in to ensure they are not crushed buy the battery cover.
- Replace the battery cover making sure not to over tighten the screw.

## Flight Safety

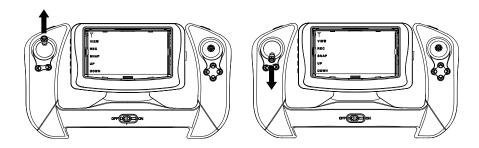
Before flying your Rapture drone make sure that you are in a safe setting.

CASA restrictions regarding flying drones require the drone be no closer than 5.5kms from any airport or airfield whilst flying. Drones should also not be flown over populated areas or any closer than 30 metres from vehicles people or animals.

It is also required that you check your surroundings before taking off making sure there are no obstacles or dangers in the area, including overhead power lines and bodies of water. If there are hazards present in your intended area of flight, please consider an alternative location.

## Launching your Rapture drone

- 1. After installing a fully charged battery into the Rapture drone and Remote Control and conducting a complete check of your surroundings, turn the Power Switch (5) on the Rapture drone to the ON position.
- 2. Once the Rapture drone is powered on, the LED lights on the arms should flash, signalling no connection to the Remote Control. Place the Rapture drone on flat ground facing away from you and move back three meters.
- 3. With the Left Thumbstick (Acceleration/Yaw) (2) in the lowest (down) position, power on the Remote Control, the remote should beep once to indicate power up has been successful.
- 4. To activate the connection between the Remote Control and the Rapture drone, move the Left Thumbstick (Acceleration/Yaw) (2) on the Remote Control to the highest (up) position, hold for one second and then return the Left Thumbstick (Acceleration/Yaw) to the lowest (down) position holding for another 5 seconds. The remote should beep three times, the lights on the arms of the Rapture drone should shine solid and the power indicator light on the Remote Control will shine solid indicating that the connection has been successful.



5. Calibrate the Rapture drone by holding the Right Thumbstick (Pitch/Roll) (3) in the bottom right position. This ensures that the Rapture drone stays level and flies straight. The Lights on the Rapture drone will flash fast while calibrating. Keep holding the Thumbstick in the bottom right position until calibration is complete.

If the Rapture drone starts to fly abnormally, it may need to be re-calibrated. To recalibrate the Rapture drone turn the Remote Control and Rapture drone off, and then restart the Launching your Rapture drone process.

## Launching your Rapture drone

# Once activated do not approach the drone again until the remote has been powered off

If for any reason the Rapture drone does not work after following the launching steps, please check the following.

- a) The Rapture drone batteries are fully charged, correctly connected and not damaged.
- b) The connection between the Remote Control and the Rapture drone may not have been completed correctly. Ensure that when activating the connection, the Left Thumbstick is moved all the way to the top and then all the way to the bottom. If this is not completed the connection will not activate.

Once these elements have been checked turn both the Rapture drone and the Remote Control off and start the launching process again.

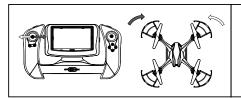
#### **Basic Controls**

#### Lift / Descent



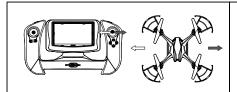
Push up the Throttle Rudder Stick and the drone will fly up. Push down the Throttle Rudder Stick and the drone will fly down.

## Yaw Left / Right



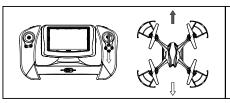
Push the Left Rudder Stick to the left or to the right, the drone will rotate in the corresponding direction.

#### Roll Left / Right



Push the Right Stick to the left or to the right, the drone will fly in the corresponding direction.

#### Pitch Forward / Back



Push the Right Stick forward or backward, the drone will fly in the corresponding direction.

## **Speed Modes**

The Rapture drone has 3 speed modes that control the acceleration and manoeuvrability of the drone.

To cycle through the Speed Modes, use the Speed Button (14) on the rear of the left handle of the Remote Control.

#### LOW

When the Rapture drone is powered up it will start in LOW speed mode.

In this mode the Rapture drone will control and fly slowly. It is advised that beginners use this mode to learn the basics before moving onto the two higher modes

#### MID

Push the Speed Button (14) once and the Remote Control will quickly beep twice indicating that the Rapture drone is now in the medium Speed Mode.

In this mode the sensitivity of both the acceleration, and directional control of the Rapture drone will be increased, making the Rapture drone more nimble and quick.

#### HIGH

Pushing the Speed Button (14) a second time the Remote Control will quickly beep three times indicating that the Rapture drone is now in the highest Speed Mode.

In this mode the sensitivity of both the acceleration and directional control will be increased again. It is advised that this mode is only used in a very open space once the pilot has gained significant drone flight experience.

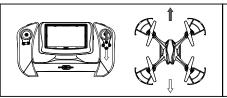
Push the Speed button again to return the drone to Low Speed setting.

## **Trimming**

Trimming is used to balance the Rapture drone when the flight is off centred.

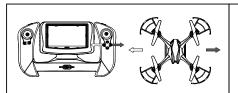
Please check before attempting to use trimming that the Rapture drone's flight is not being affected by outside forces such as wind.

#### **Trimming Pitch**



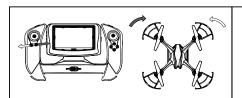
To trim the Rapture drones' pitch, use the Pitch Trim Controls (5) which are the top and bottom buttons below the Right Thumbstick. This will balance the forward and back movement of the Rapture drone.

### Trimming Roll



To trim the Rapture drones' roll, use the Roll Trim Controls (5) which are the left and right buttons below the Right Thumbstick. This will balance the left and right movement of the Rapture drone.

#### **Trimming Yaw**



To trim the Rapture drones' Yaw, use the Yaw Trim Controller (4) which is the small switch on the Remote Control below the Left Thumbstick. This will balance the left and right spin of the Rapture drone.

## 360° Flipping

The Rapture drone is capable of performing 360° flips. This is possible by using the Flip button (15).

To Perform a forward flip push the Flip Button (15) on the back side of the Remote Controls Right handle. This will launch the Rapture drone forward into a forward flip.

Please ensure that you have a 2 metre clearance below, and in all directions around the drone before attempting to flip as this manoeuvre requires considerable space.

Flips will be deactivated when the Rapture drone has low power, and will be reactivated once the battery is charged.

#### Camera

The camera on the Rapture drone is controlled via the Record and Snap buttons on the left hand side on the FPV screen.

When you are intending to use the camera, please ensure that you have inserted a Micro SD Card (not included) into the Micro SD Card slot in the camera on the underside of the Rapture drone. The camera will not record to a SD Micro card that is inserted into the FPV screen.

The Left SD icon on the FPV screen will display green when a Micro SD Card is detected, and it is ready to record video or take still photos.

If the SD icon does not display green, or shows "ERR", try re inserting the Micro SD Card into the Rapture drones' Camera and restart the Rapture drone. If this issue persists please ensure you are using a compatible Micro SD card.

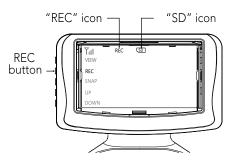
#### **Shooting Video:**

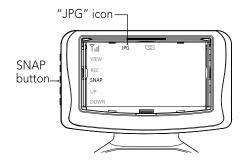
The Rapture drone will capture 60 second clips, once it has finished recording a clip it will begin a new clip and continue recording 60 second clips until you stop recording.

To start recording video, push the Record button (8) on the left side of the FPV Screen. The FPV screen will flash the word "REC" in red at the top of the screen and a counter will show timing the clip length indicating that recording is in progress. To stop recording push the Record Button again. Ensure you have stopped recording before removing the Micro SD Card, or turning the power off on your Rapture drone.

## **Shooting Photos:**

To shoot a photo with your Rapture drone press the Snap button (9) on the left side of the FPV screen. "JPG" will be displayed at the top of the FPV screen in red indicating that a photo has been taken.





## First Person View Display

When connected the First Person Display streams the video from the Rapture drones camera as well as gives the ability to play back footage from an inserted SD Micro Card.

#### Interface

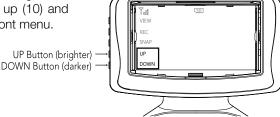
The FPV interface can be controlled using the five buttons on the side of the FPV screen.

In the front menu the buttons control recording footage, taking photos, viewing recorded Videos/Photos and adjusting the brightness of the FPV screen.



## **Brightness**

To increase or decrease the brightness of the FPV screen use the up (10) and down (11) buttons on the front menu.



## Pairing

If you are in an area where more than one drone is being flown it is recommended that you pair your FPV screen to your drone to avoid signal interference.

To pair your FPV screen to your Rapture Drone:

- 1. Connect your Rapture drone to the controller by following the connection instructions in the section named 'Launching your Rapture Drone'.
- 2. Once paired hold the Up button in the Front Menu for six seconds, this will then allow you to pair the Rapture drone to the FPV Screen by pushing the Up button again.
- 3. The FPV screen will then take five seconds to bind the connection which will be counted down on screen.
- **4.** The FPV Screen and Rapture Drone are now paired.

## First Person View Display

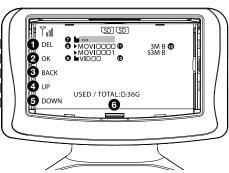
#### **Directory Screen**

The Directory Screen is used to playback and delete Videos and Photos.

## Viewing

The FPV screen will allow you to view Videos and Photos taken with the Rapture drone.

To view recorded Video or photos, remove the Micro SD Card form the Rapture Drone camera, and insert into the FPV Screen Micro SD Card Slot.



2. OK / Select (Record Button)
4. Up Button
6. Micro SD Card Capacity / Used
8. Playable File
10. File Size
12. Folder Name

Please note. The FPV Screen cannot remotely play videos / photos from a Micro SD card that is in the Rapture Drones camera.

Once inserted, a white SD icon will appear at the top of the Front Menu indicating that a Micro SD card has been detected. If the SD icon does not appear, or shows "ERR", try re-inserting the Micro SD Card into the FPV Screen and restarting the Remote Control. If this issue persists ensure you are using a compatible Micro SD card.

Press the View Button (7) on the FPV screen which will take you to the directory screen. In this screen the Up (10) and Down (11) buttons are used to navigate the folders, the Snap Photo Button (8) is used to navigate back and the Record Video Button (9) is used to select.



To view a video or photo use the navigational

buttons to access folders and select (8) a video or photo. Once a video has completed playing the next video in the folder will be queued to play. This will continue until playback is stopped or the last file in a folder is played.

## **Deleting videos and Photos**

With the delete function you can delete videos and photos taken with the Rapture drone.

To delete a file from a Micro SD Card select the file that is required to be deleted and push the Delete button (View) (7).

You will then be asked if you are sure you want to delete this file, select Yes or No accordingly and push OK (8) to proceed.

#### Maintenance

## Cleaning:

Avoid exposing your Rapture drone and it's accessories to dust, sand and moisture as these can damage the Rapture drone. If the Rapture drone is exposed to dust or sand, use a soft brush to remove any visible particles.

## Rotor Blade replacement:

- Use the Included screwdriver to remove the screw on the base of the Rotor Blade.
- 2. Gently remove the Rotor Blade.
- 3. Ensure that you are replacing the Rotor Blade with the correct blade as there are two different orientations of blades which are labelled A and B.



If the incorrect blade is used in the incorrect placement the Rapture drone WILL NOT WORK. Different colour Rotor Blades are used so it is easy to identify the front and rear of the Rapture drone when flying. To ensure that it is easy to fly the Rapture drone make sure that the front and rear blades are different colours.



**4.** Gently push the replacement Rotor Blade onto the rod ensuring that the screw hole on the Rotor hole lines up with the hole on the rod.

Replace the screw, being careful not to over tighten. If the screw will not fit into place, remove the screw and make sure that the holes on both the Rotor Blade and the rod are aligned.

## **Parts and Accessories**

To purchase parts and accessories for your Zero-X Rapture drone, please visit your nearest Zero-X retailer or visit us online at www.zero-x.com.au

ZXRBSRBW	Rotor Blades for Rapture and Spectre drones – Black and White
ZXRBSRBO	Rotor Blades for Rapture and Spectre drones – Black and Orange
ZXRBSRBR	Rotor Blades for Rapture and Spectre drones – Black and Red
ZXRBSRVP	Rotor Blades for Rapture and Spectre drones Value Pack
ZXBATSR1K	1000mAh Battery for Rapture and Spectre drones
ZXCHSRDR	Battery charger for Rapture and Spectre drones
ZXBATSRCT	Battery and charger for the Rapture remote control

## **Specifications**

Dimensions	48cm x 48cm x12cm
Weight	320g
Channels	4
Battery	1000mAh
Motors	4
Transmitter Battery	450mAh Rechargeable
Screen	Colour FPV screen
Frequency	2.4
Camera Resolution	640 x 480
Photo Resolution	0.3MP
Video Format	AVI
Photo Format	JPG
Memory	Micro SD Card (up to 32GB)
Battery	5V, 1A, USB

## **Warranty Terms & Conditions**

Our goods come with guarantees that cannot be excluded under the Australian and New Zealand Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

This warranty is provided in addition to your rights under the Australian & New Zealand Consumer Law.

Zero-X warrants that this product is free from defects in material and workmanship for a period of 12 months from the date of purchase or for the period stated on the packaging. This warranty is only valid where you have used the product in accordance with any recommendations or instructions provided by Zero-X.

This warranty excludes defects resulting from alterations of the product, accident, misuse, abuse or neglect.

In order to claim the warranty, you must return the product to the retailer from which it was purchased or if that retailer is part of a National network, a store within that chain, along with satisfactory proof of purchase. The retailer will then return the goods to Zero-X. Zero-X will repair, replace or refurbish the product at its discretion. The retailer will contact you when the product is ready for collection. All costs involved in claiming this warranty, including the cost of the retailer sending the product to Zero-X, will be borne by you.

#### Zero-X Address:

33 Quinn Drive, Keilor Park Victoria 3042 Australia Ph: +61 03 8331 4800 Email: service@zero-x.com.au

