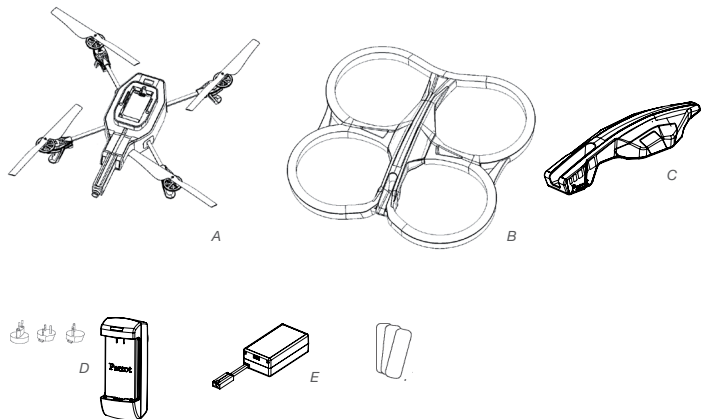


Parrot *AR.Drone2.0*

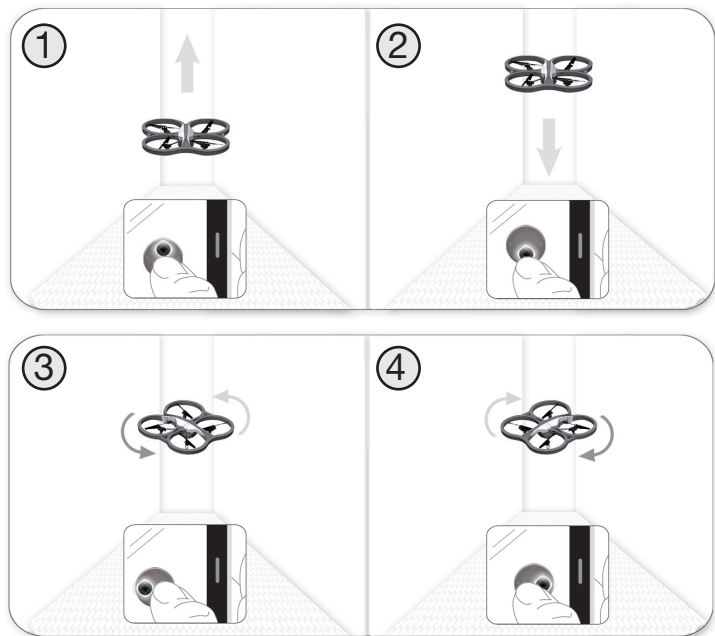


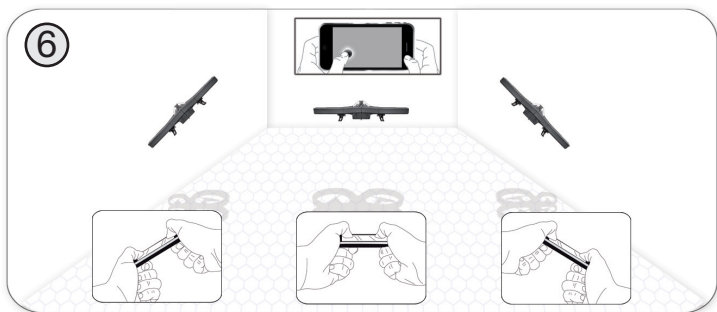
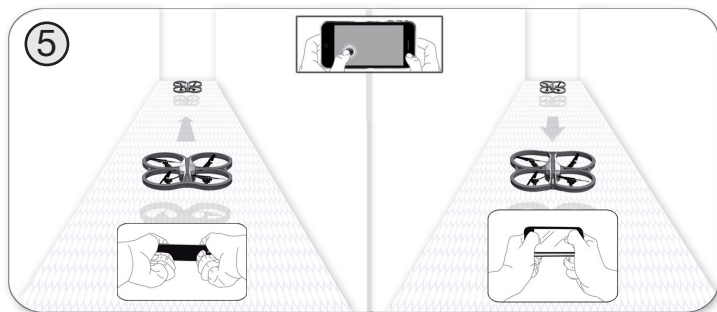
Quick start guide
Guide de démarrage rapide
Guía de instalación rápida
Bedienungsanleitung
Guida all'uso
Gebruikershandleiding
Manual do utilizador
クイック スタート ガイド
使用説明書
使用说明书

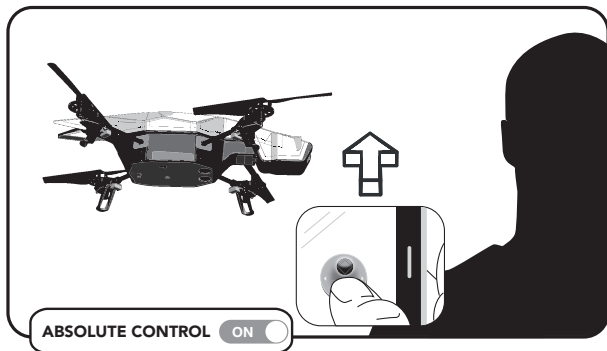
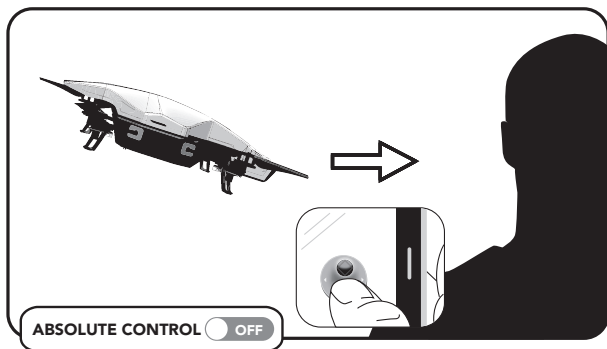


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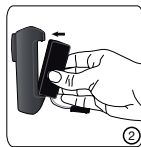




GETTING STARTED

Charging the AR.Drone 2.0 battery

- To charge the battery:
 1. Select the adapter corresponding to your country and connect it to the charger.
 2. Connect the battery to the charger and then plug the charger into the main power supply.



- The charging time for the battery is 1 hour 30 minutes.
- To remove the battery from the charger, slide it down.
- The AR.Drone 2.0 batteries work with the AR.Drone and the AR.Drone batteries work with the AR.Drone 2.0. However, the AR.Drone 2.0 charger does not allow the batteries of the AR.Drone to be charged, and the AR.Drone charger does not allow the batteries for the AR.Drone 2.0 to be charged.

Warning: Do not use the AR.Drone 2.0 charger to recharge any type of battery other than the one provided.

Compatibility

- For the purposes of readability, the iPod touch®, iPhone®, iPad® and other compatible telephones or tablet PCs shall be designated by the term «smartphone» in this manual.
- Please refer to the AR.Drone 2.0 support page on our website www.parrot.com for more information on AR.Drone 2.0 compatibility.

Downloading the application

Note : The AR.FreeFlight 2 application allowing you to use the AR.Drone 2.0 with an Android phone or tablet PC will be available in 2012.


Login to the App StoreSM or the AndroidTM Market and download the free application **AR.FreeFlight 2**.



Connecting the smartphone to the AR.Drone 2.0

1. Remove the hull and insert the battery in the AR.Drone 2.0. Make sure the battery belt is fastened and connect the battery to the AR.Drone 2.0.
2. Wait until the motors initialise.
3. On your smartphone, perform a search for available Wi-Fi® networks. If you are using an iPhone, select **Settings > Wi-Fi**. If you are using an Android phone, select **Settings > Wireless & Networking > Wi-Fi**.
> The list of available Wi-Fi networks is displayed.
4. Select “ardrone2”.
5. Wait for your smartphone to establish a connection with the AR.Drone 2.0 Wi-Fi network. This connection is usually indicated by the appearance of the Wi-Fi logo on the screen of your smartphone.
6. Launch the AR.FreeFlight 2 application.
> The welcome screen appears. You are connected.



IP address

- Check that the IP address appears on the AR.Drone 2.0 network. To do this:
 - If you are using an iPhone, select **Settings > Wi-Fi** and then press the arrow  to the right of the network "ardrone2".
 - If you are using an Android phone, select **Settings > Wireless & Networking > Wi-Fi Settings** and select the network "ardrone2".
- An IP address starting with 192.168.1. should be displayed in the IP field.

IP Address	192.168.1.2	
IP Address	169.254.131.172	


Connection problem

In case of problem during the connection process between the smartphone and the AR.Drone 2.0 :

- Check the color of the LED on the bottom side of the AR.Drone 2.0. If it is red or orange, restart the AR.Drone 2.0. To do so, disconnect and reconnect the battery. Wait until the LED turns green.
- On your smartphone, turn the Wi-Fi off and back on.
- For more information, refer to the support section of our website www.parrot.com.

Using the AR.Drone 2.0 with another smartphone

If you wish to use your AR.Drone 2.0 with another smartphone:

1. Launch the AR.FreeFlight 2 then touch 
2. Disable the Pairing option.

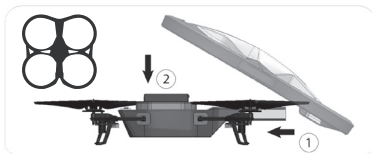


FreeFlight

We recommend you check out our flying tutorials on www.parrot.com before your first flight.

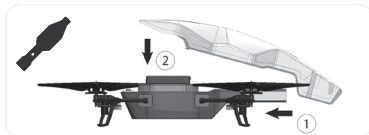
Indoor usage

- Place the AR.Drone 2.0 in the middle of a room (4m x 4m minimum) without obstacles. Step back to a distance of 1 metre behind the device (the front of the device is easy to identify because of the camera).
- Avoid flying the AR.Drone 2.0 close to young children, domestic animals or fragile objects.
- Install the hull with the guard rings in order to protect the AR.Drone 2.0 if it collides with another object.



Outdoor usage

- Install the hull without the guard rings.
- Although the automatic pilot can compensate for some turbulence caused by wind, avoid flying the AR.Drone 2.0 in wind conditions of over 15 km/h.






Taking off

1. Install the battery into the battery box and connect it to the AR.Drone 2.0.
2. Place the AR.Drone 2.0 in a clear, flat and dry area and position yourself at least 1 meter behind it.

Note: The front of the AR.Drone 2.0 is easily identifiable due to the camera located in the nose of the device.



3. Tap the  button then:
 - a. Make sure the AR.Drone 2.0 is on a flat area then tap the  button.
 - b. Select the hull that is currently installed on the AR.Drone 2.0 (internal or external) and then the type of flight (internal or external) that you wish to make.
4. Tap  .
 - > The engines start and the AR.Drone 2.0 stabilizes itself automatically at an altitude of 1 meter.

Flying the AR.Drone 2.0



- Slide the joystick to the top to move the AR.Drone 2.0 higher (diagram 1 p.8).
- Slide the joystick to the bottom to move the AR.Drone 2.0 lower (diagram 2 p.8).
- Slide the joystick to the right to move the AR.Drone 2.0 to the right (diagram 3 p.8).
- Slide the joystick to the left to move the AR.Drone 2.0 to the left (diagram 4 p.8).

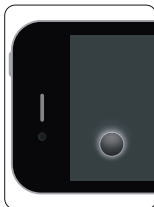
Note: To fly the AR.Drone 2.0 more intuitively, we recommend you activate the Magneto option in the AR.Drone 2.0 settings. This option allows you to fly the AR.Drone 2.0 in your frame of reference and not in the drone one.



Absolute control activated / Joypad mode activated

While being in front of the drone:

- Slide the joystick to the top to move the AR.Drone 2.0 away from your position.
- Slide the joystick to the bottom to move the AR.Drone 2.0 closer to your position.
- Slide the joystick to the right to move the AR.Drone 2.0 to your right.
- Slide the joystick to the left to move the AR.Drone 2.0 to your left.



Absolute control activated / Joypad mode deactivated


While being in front of the drone:

- Hold the Accelerometer button and lean the smartphone forward to move the AR.Drone 2.0 away from your position (diagram 1 p.9).
- Hold the Accelerometer button and lean the smartphone backward to move the AR.Drone 2.0 closer to your position (diagram 1 p.9).
- Hold the Accelerometer button and lean the smartphone to the right to move the AR.Drone 2.0 to your right (diagram 1 p.9).
- Hold the Accelerometer button and lean the smartphone to the left to move the AR.Drone 2.0 to your left (diagram 1 p.9).

Switching cameras

Press the  button to change the view of the AR.Drone 2.0 and switch between the front camera and vertical camera.


Photos

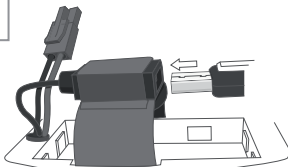
- Press the  button to take a picture.
- Select **Photos / Videos** from the main menu of the AR.FreeFlight 2.0 application to view and manage your photos.
- You can then retrieve your photos by connecting your Smartphone to a computer.

Videos

- You can use the AR.FreeFlight application to record video. The videos recorded can be saved to your Smartphone memory or to a USB stick connected to the AR.Drone 2.0.

Note: In order to maintain a good Wi-Fi connection, we recommend saving videos to a USB stick.

- To save your videos to a USB stick:
 1. Connect a USB stick to the AR.Drone 2.0. Make sure that the USB stick connected to the AR.Drone 2.0 has at least 100 MB of free space.
 2. In the AR.FreeFlight application settings, turn on the **USB** record option.
- To save your videos to your Smartphone, turn off the **USB** record option in the AR.FreeFlight application settings.
- Press the  button to record a video.
- Select **Photos / Videos** from the main menu of the AR.FreeFlight application to view and manage the videos you have saved to the Smartphone memory. You can then retrieve them by connecting your Smartphone to a computer.



Flip

- To perform a flip with your AR.Drone 2.0:
 1. Turn on the **Flip enabled** option in the AR.Drone 2.0 settings.
 2. Touch the screen of your Smartphone twice.

***Note:** Before turning on the Flip option, make sure that the conditions are suitable for the AR.Drone 2.0 (space, height, weather, wind, etc.).*

Battery

- The battery indicator on the screen of the smartphone shows battery level and becomes red when the AR.Drone 2.0 battery is running low.
- If the battery is running low, the pilot will be requested to land safely. If the pilot fails in landing the AR.Drone 2.0 in due time the autopilot will land the AR.Drone 2.0 automatically. We recommend you to land your AR.Drone 2.0 as soon as the battery level indicator becomes red in order to avoid any injury to any person, property or animal.

Landing safely

Make sure the AR.Drone 2.0 is flying above a clear, solid, flat and dry area and tap .


Disconnection during the flight

- If the AR.Drone 2.0 is too far from the smartphone (about 50 meters depending on the wi-fi environment) it may disconnect. Do not close the application. Come closer to the AR.Drone 2.0 to reconnect automatically. The AR.Drone 2.0 's position will be fixed by the autopilot until you reconnect. If the AR.Drone 2.0 was flying above 6m of altitude before disconnection then the autopilot returns it down below 6m where it can manage height.
- If you receive a phone call while flying the AR.Drone 2.0 , the autopilot fixes the AR.Drone 2.0 's position and keeps it in hover flight. If you selected the Indoors mode, the autopilot will land the AR.Drone 2.0 automatically.

Emergency button

Press the Emergency button only in case of emergency ! If you press the Emergency button, the engines will shut off and the AR.Drone 2.0 will fall out of the air. In most cases, landing the AR.Drone 2.0 is a better solution.

Settings

Press  to change the AR.Drone 2.0 settings. For more information, refer to the AR.Drone 2.0 complete user guide available on our website www.parrot.com.

Piloting hints and tips

To get the best use out of your AR.Drone 2.0 :

- Watch the tutorial videos on www.parrot.com.
- Respect the various flying levels and take time to master your piloting skills before setting off on more perilous adventures.
- Remove all plastic protective films.
- Observe the safety precautions mentioned in the HEALTH AND SAFETY PRECAUTIONS section.
- During your very first flights, always stand behind the AR.Drone 2.0. In this way the controls are highly intuitive. When the AR.Drone 2.0 is coming towards you, the controls are reversed which requires greater piloting skill.
- Avoid using your AR.Drone 2.0 in areas where there are lots of Wi-Fi networks (routers, internet boxes etc.).
- When inside, find an obstruction-free area for your first flights.
- When outside, take note of the wind direction and place your AR.Drone 2.0 in front of you, with the wind coming from behind.
- If you lose control of your AR.Drone 2.0 , remove your fingers from the controls and it will stabilise itself automatically.
- Visit www.parrot.com for all the latest news about the AR.Drone 2.0 and join the piloting community.



TECHNICAL SPECIFICATION

Running Speed: 18km/h

Weight

- without the hull: 366g
- with indoor hull: 436g
- with outdoor hull: 400g

Dimensions

- without the hull: 45 x 29 cm
- with indoor hull: 51,5 x 51,5 cm
- with outdoor hull: 45,2 x 45,2 cm

Battery

- Lithium polymer battery (3 cells, 11.1V, 1000 mAh)
- Charging time: 1h30
- Running time: 12 mn

Embedded computer system

- CPU OMAP 3630 1GHz ARM cortex A8
- DDR SDRAM 128MB
- NAND Flash memory 128MB
- Wi-Fi /g/n
- Linux OS

Ultrasound altimeter

- Emission frequency: 40kHz
- Range: 6 metres

Front Camera

- 90° wide-angle diagonal lens camera, CMOS sensor
- Video frequency: 30fps
- Resolution: 1280x720 pixels (720p)

Vertical Camera

- 64° wide-angle diagonal lens camera, CMOS sensor
- Video frequency: 60fps
- Resolution: 320x240 pixels (QVGA)

AR.Drone 2.0 operating temperature
0°C - 55°C



GENERAL INFORMATION

Warning

You should use the AR.Drone 2.0 safely and responsibly at all times, so as to avoid any damage or harm being caused to any person, animal or property next to which you are flying the AR.Drone 2.0. In this respect you should ensure that you always operate the AR.Drone 2.0 in compliance with this Quick Start Guide and our Safe Use of the AR.Drone 2.0 instructions. Parrot also reminds you that you should not use the AR.Drone 2.0 for any unauthorised or unlawful purposes, as you will otherwise be fully liable for any loss or damage caused as a result of such unauthorised use.

In particular, you should comply with any applicable data protection laws and refrain from operating the AR.Drone 2.0 in any way that could interfere with any other person's privacy.

PARROT shall not be responsible for any consequences arising from the use of the product or the use of this guide, nor shall Parrot be responsible for any damage or accidental loss of data resulting directly or indirectly from the use of the product or the information contained in this guide.

Warranty

Without prejudice to any applicable statutory warranty, Parrot warrants that the AR.Drone 2.0 will be free from defects in material and workmanship for a period of 12-months from the

initial date of purchase (excluding consumables which are warranted during 6 months from the initial date of purchase) upon presentation of proof of purchase to the retailer or to Parrot (including the date and place of purchase, product serial number). **Return to retailer is not applicable in the USA - return shall be made to Parrot.**

During the contractual warranty period, any defective product should be returned in its original packaging to the retailer's or Parrot's after-sales service. After inspection of the product, Parrot will, at its sole discretion, either repair or replace the defective part or product, excluding any other indemnification of any nature.

Parrot's warranty does not cover:

- defects due to damage caused by an accidental collision or fall;
- defects due to abnormal use of the product or if spare parts have been installed without following the recommendations and instructions provided by Parrot in this guide or on www.parrot.com or if the AR.Drone 2.0 has been customised by the end-user;
- defects caused by repairs carried out by the end-user or an unauthorised third party, except spare parts provided by PARROT;
- defects due to the use of spare parts not provided by PARROT in the original packaging.

- the use of spare parts not approved by Parrot, in particular, the use of batteries not approved by Parrot (genuine Parrot batteries can be identified by their hologram);
- defects caused by any reason other than a defect in material or workmanship
- the gradual power loss of the Parrot rechargeable battery (086x) over time, which does not constitute as a defect in material or workmanship,

If upon technical tests being carried out any product is found non defective (in particular an analysis of the flight data from the last 30 seconds of flight - results available upon request) we reserve the right to return such product to the sender at the sender's cost and to levy a charge to cover Parrot's technical test fees.

Upon expiration of the 12-month warranty period or if the defect is not covered by the warranty, any defective product can be returned to Parrot's after-sales service (see www.parrot.com for instructions) in order to be repaired or for a defective part to be replaced at the sender's costs. Repair will be carried out only after acceptance of the corresponding quotation.

Except in relation to consumables, spare parts are subject to a 12 month warranty and are subject to the same terms and conditions as those described above.

The warranty does not cover: damage to non Parrot products, including devices used to operate the AR.Drone 2.0.

Changes to this Quick Start Guide

The explanations and specifications in this guide are given for information only and may be modified at any time without prior notice. The latest version of this Quick Start Guide will however be available from our website at www.parrot.com. The explanations and specifications contained in this guide are deemed to be correct at the time of printing.

Although the utmost care has been taken when writing this guide, in order to provide you with information which is as accurate as possible. Parrot shall not be held responsible for any consequences resulting directly or indirectly from the use of the information herein.

Parrot reserves the right to amend or improve the product design or user guide without any restrictions and without any obligation to notify users. As part of our ongoing objective to upgrade and improve our products, the product that you have purchased may therefore differ slightly from the model described in this guide.

Disposal of this product at the end of its life




At the end of this product's life, please do not dispose of this product in your general household waste. Instead, in order to prevent possible harm to the environment or human health from uncontrolled waste disposal, please dispose of this product separately in accordance with your local laws and regulation. For more information on the separate collection systems for waste electrical and electronic equipment that are available for consumers, near your home, free of charge, please contact

your local municipality authority. You can also contact the retailer from which you purchased your AR.Drone 2.0 – he might have put in place recycling services or he may be part of a specific recycling scheme.

This product will be then treated in an environmentally sound manner at a licensed recycling plant and its components will be recovered, recycled or reused in the most efficient manner, in compliance with the requirements of the Directive on Waste Electrical and Electronic Equipment (2002/96/EC) of 27 January 2003 (as subsequently amended or replaced).

Declaration of Conformity CE

 Parrot SA, 174 quai de Jemmapes, 75010 Paris, France, declare under their sole responsibility that the product described in this user guide complies with technical standards EN 301489-17, EN300328, EN71-1, EN71-2, EN71-3, EN62115 following the provision of the Radio Equipment, Telecommunication Equipment directive (1999/5/EC R&TTE), and of the General Safety directive (2001/95/EC). http://ardrone.parrot.com/parrot-ar-drone/uk/support/ardrone_ce_conformity_declaration.pdf

FCC and IC Compliance Statement :

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules / with Industry Canada Licence-exempt RSS standard(s). These limits are designed to provide

reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with Part 15 of the FCC Rules / with Industry Canada Licence-exempt RSS standard(s). Operation is subject to the following two conditions:

This equipment may not cause harmful interference.

This equipment must accept any interference received, including interference that may cause undesired operation. Modifications not authorized by the manufacturer may void the user's authority to operate this device.

Copyright

Copyright © Parrot 2012. All rights reserved.
The user is required to apply for Localised Radiocomm Station Licence in Singapore. Applicants can apply online for the Localised Radio-communication Station Licence through www.business.gov.sg/licences.

If any question, please contact below person:
Ms Amy Cheng
Telephone: 6211 1936
E-mail: amy_cheng@ida.gov.sg

Trademarks

Parrot and the Parrot logo are registered trademarks of PARROT SA; AR.Drone 2.0 is a trademark of Parrot SA;
iPhone ® is a trademark of Apple Inc, registered in the USA and in other countries.
The Wi-Fi Alliance Member Logo is a logo of the Wi-Fi Alliance.



Wi-Fi ® is a registered trademark of the Wi-Fi Alliance.

Android is a trademark of Google Inc.

All other trademarks mentioned in this guide are protected and are the property of their respective owners.

Safety Instructions

CAUTION: To reduce the risk of fire, do not expose this device to rain or dampness.

1. Read these instructions.
2. Keep these instructions.
3. Pay attention to all warnings.
4. Follow all instructions.

5. Do not install the device near a source of heat. Radiators, ovens or other devices (including amplifiers) which produce heat.
6. Do not change the polarised connectors.
7. Only use attachments/accessories specified by the manufacturer.

Warning

Read the entire instruction sheet included with this battery. Failure to follow all instructions could cause permanent damage to the battery and its surroundings, and cause bodily harm.

- NEVER use anything EXCEPT a LiPo approved charger.
- ALWAYS use a LiPo cell balancing charger or a LiPo cell balancer.
- NEVER charge through the discharge lead.
- NEVER trickle charge, or allow to discharge below 2.5V per cell.
- NEVER allow the battery temperature to exceed 140°F (60°C).
- NEVER disassemble or modify pack wiring in any way or puncture cells.
- NEVER place on combustible materials or leave unattended during charge.
- ALWAYS charge in a fireproof location.
- ALWAYS set charger's output volts to match battery volts.
- ALWAYS KEEP OUT OF REACH OF CHILDREN.
- IMPROPER BATTERY USE MAY RESULT IN
- A FIRE, EXPLOSION OR OTHER HAZARD.

Caution: Exposure to Radio Frequency Radiation

The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website at www.hc-sc.gc.ca/rpb.

Important safety instructions



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



An equilateral triangle, is intended to alert the user to the presence of uninsulated «dangerous voltage» within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

1. This apparatus shall not be exposed to dripping or splashing and no object filled with liquid, such as vases, shall be placed on the apparatus.
2. The AC/DC adaptor which provides disconnection from mains supply shall remain readily operable. Unplug this apparatus when unused for long periods of time.
3. Read these instructions.
4. Keep these instructions.
5. Heed all warnings.
6. Follow all instructions.
7. Do not use this apparatus near water.
8. Clean only with dry cloth.
9. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
10. Do not install near any heat as radiators. Heat registers, stoves or other apparatus (including amplifiers) that produce heat.
11. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
12. Only use attachments/accessories specified by the manufacturer.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. **WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.. This apparatus is designed for indoor use only. Do not expose the frame to outside temperatures below 5°C or above 40°C. The system could be damaged or the cabinet warped. Avoid placing the system near a source of heat or exposing it to sunlight (even through a window). Similarly, excessively low temperatures and humidity could damage the device.