# PR®PEL

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#### FCC Part 15 C Notice

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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. 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 separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

# INDUSTRY CANADA NOTICE: CANADA ONLY.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter dout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.







Requires Speed Class 6 or higher microSD or microSDHC card (not included) microSDHC Logo is a trademark of SD-3C, LLC.

Conforms to safety requirements of RSS210 and FCC.

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Made in China

V 1.0

# X02

# INDOOR/OUTDOOR MICRO VIDEO DRONE



# **INSTRUCTION BOOKLET**

WARNING: Never leave product charging unattended for extended periods of time. Always disconnect the X02 from charger immediately after it is fully charged. Please refer to enclosed safety instructions.

# PACKAGE CONTAINS:













Х

X02 Micro Video Drone 2.4G Wireless Controller Spare

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Spare Parts USB charging cord USB Card Reader Instruction Manual

Colors and styles may vary slightly.

ARTWORK NO.	DESCRIPTION	MDSER	DESIGNER	DATE		
C60- X02 Manuals	114.3×174.6mm	Vicky	Cocoa	2018/01/22		
PROPEL						

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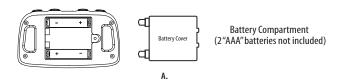
Thank you for purchasing the XO2 2.4 Ghz Micro Quadrocopter. Please read this instruction booklet as it contains valuable information on how to properly fly and care for your XO2 Drone.

# **PRODUCT FEATURES**

- On Board Camera Records Video and Captures Still Pictures
- Air Pressure Sensor Locks Flight Altitude
- 6 Axis Gyro Keeps the X02 Stable in All Conditions
- Push Button 360° Aerial Stunts
- Automatically Starts and Lands with Push of a Button
- 4 Speed Settings for Beginner to Advanced Quadrocopter Pilots

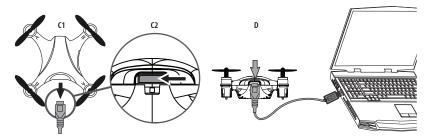
# REMOTE CONTROL BATTERY INSTALLATION

- 1. Unscrew and slide off the battery cover from the back of the controller.
- 2. Install 2"AAA" alkaline batteries into the controller as shown in diagram A.
- 3. Replace the battery cover and secure it.
- 4. Turn over the controller and turn the on/off switch to the on position If the indicator light turns on you have installed your batteries properly.



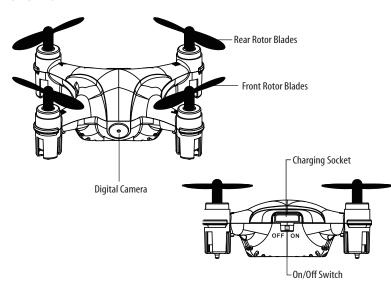
# **CHARGING YOUR X02**

- Switch the quadrocopter Off. Connect the USB end of the cable to your computer's USB port (see diagram D).
  The red light on the USB cord will light UP.
- Connect the power cable to the unit making sure the arrow side of the connector is on top side facing the top
  of the X02 (see diagrams C1 and C2). The red light on the USB cord will turn Off.
  - CAUTION: The USB plug fits the charging socket only in one way. Do not force it. Improper connection will damage the XO2.
- The red LED on the USB plug lights up again when charging is complete. Average charging time is about 30-40 minutes.
   Note: If the red LED lights up, either the charging is complete or the USB plug is not properly connected.
  - A full charge will allow for about 5 minutes of flight time depending on environment and user input.



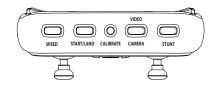
IMPORTANT: ALWAYS REMEMBER TO UNPLUG YOUR CHARGING CORD WHEN NOT IN USE!

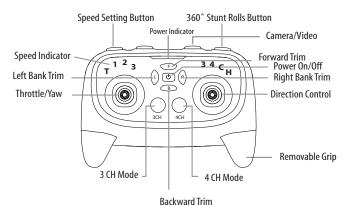
# X02 DIAGRAM



# REMOTE CONTROL DIAGRAM

3





# WARNING DO NOT FLY YOUR X02 IN FOUL WEATHER!



# **SYNCING YOUR X02**

Important! When syncing your XO2 quadrocopter with the controller always make sure that the quadrocopter is on a flat level surface and that your digital trim settings are in the center position. This ensures that the 6 Axis gyro is properly programmed to mimic your trim settings.

Your XO2 utilizes an automatic 2.4G channel selection system that allows up to 8 people to fly side by side in the same wireless range with no interference.

# For One-Person Play:

- Before starting, make sure that the power on both your controller and XO2 are in the OFF position. Make sure that there are no other 2.4G devices in the area as well.
- 2. Turn ON the XO2 and set it down on a flat level surface. The LED indicator lights of the XO2 should begin to flash rapidly.
- 3. Turn ON the remote, you will hear two beeps. Push the throttle all the way forward(1 beep) and then pull the throttle all the way back. A 2nd beep will sound and the two front white LED lights should turn to solid. This indicates your controller and the quadrocopter are successfully synced. If not, repeat above steps.

#### For Multi Person Play:

- 4. Before starting, make sure that the power on all X02 drones and controllers are in the OFF position. Make sure that there are no other 2.4G devices in the area.
- 5. Each person will have to sync their XO2 individually at a different time to avoid interference. Follow steps 1 to 3 above making sure that no one else is syncing at the same time.
- After syncing a player's XO2, it should be left ON until all players have synced their XO2 quadrocopters.
- Should there be a mistake or interference, all players must turn off their controllers and X02 quadrocopters for 60 seconds and then begin the process again.

#### PREPARING FOR FLIGHT

- Verify that there are 2"AAA" batteries inside the remote control unit and the XO2 has been fully charged.
- Make sure your X02 and controller are both turned on and synced together.
- Make sure to be in a large space with an open radius of at least 50 feet.
- Make sure the empty space has no obstacles and water close by. Set your XO2 on a clean flat level surface before take-off.

DO NOT ATTEMPT TO FLY YOUR XO2 IF THERE IS RAIN, SNOW, HEAVY WINDS, THUNDER OR LIGHTNING OUTDOORS. IT COULD DAMAGE YOUR PRODUCT AND POSSIBLY EVEN CAUSE BODILY HARM.

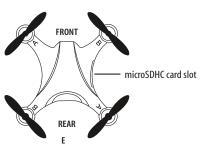
#### **FLYING TIPS**

- It is recommended that you operate the X02 in a wide open space. The ideal space should have a 200 foot radius.
- Parental guidance or adult supervision is suggested at all times.
- If you are flying the XO2 with others, make sure all spectators are behind you.
- For best performance, it is recommended that you operate the XO2 in zero wind conditions, as wind can greatly affect the performance of the aircraft.

# **RECOGNIZING THE FRONT AND REAR OF THE X02**

Even though the X02 has four rotors, there is still a "front" or forward facing direction and "rear" or backwards facing direction. The front and forward facing direction of the XO2 is the side with two black propellers (see diagram E ). The rear and backwards facing of the Quadrocopter is the side with two black propellers (see diagram E).

NOTE: The front of the Quadrocopter displays WHTIE LED lights and the back of the Quadrocopter displays RED LED lights.



# **AUTOMATICALLY TAKE OFF / LAND**

Make sure you have properly synced The X02.

- Simply press the "start/land" button on the top of controller, your XO2 will automatically take off.
- To stop or land the XO2 just press the "START/LAND" button again and the XO2 will descend and land automatically.

Tips: You also can move the two control sticks simultaneously down to the inside corners, hold them until you hear a "beep" and the blades start spinning. Release the control sticks and push up the throttle stick slowly to take off manually.

In case of emergency: to stop the rotors instantly, simply press the calibrate button on the top of the cotroller, located in the center.

#### SPEED SETTING BUTTON

The XO2 has 4 speed settings; **T(Training)**, **1 (SLOW)**, **2 (MEDIUM)** and **3(HIGH)**. The Default setting when you first turn on your XO2 is **mode 1 (SLOW)**. To increase the speed simply press the speed setting button (see remote diagram on page 3), you will hear beeping sound and the speed indicator will display the current speed setting with letter and Numbers. Number 1 indicates slow speed, 2 indicates medium speed and 3 indicate high speed. To enter T(Training) Mode, you need to press and hold the speed setting button till you hear a long beep. On the speed indicator it will display letter "T"

# 3/4 CHANNEL SELECT

XO2 allows you to control your Quadrocopter in 3 channel mode (beginner) or 4 channel mode (advanced flying). The XO2 default setting is 4 Channel mode.
To change to 3 Channel mode: PRESS the 3CH button (see remote diagram on pg 3), you will hear 3 short beeps

and the 3 CH" will light up on the controller indicating the XO2 now is set to 3 CH mode. To change back to 4 Channel mode: PRESS the 4CH button (see remote diagram on pg 3), you will hear 4 short

beeps and the "4 CH" will light up on the controller indicating the XO2 is now set to 4CH mode.

Note: T(Training) Mode is for beginner pilot, the speed is set to very slow and the height is limited upside and downside in case of crashing.

# UNDERSTANDING THE ALTITUDE LOCK SENSOR

The XO2 has a unique Altitude Lock function, air pressure sensor that allows for easier flight control and stability. A beginner's friend, it allows the user to ease into piloting the copter. The sensor locks in the altitude of the copter while allowing the user to adjust the directional controls without having to hold the throttle.

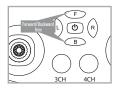
After starting the copter, fly it upwards to a safe height. Once at a safe height, release the throttle to the neutral position. Now your XO2 should be locked in the altitude and you can focus on getting used to the directional controls of the X02. The copter always will tend to self correct and go back to the last locked height after moved up or down by outside forces.

Note: The altitude sensor does have some tolerance based on atmospheric conditions. It may have a slight variation in altitude.

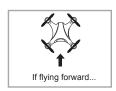
#### UNDERSTANDING TRIM ADJUSTMENTS

#### Forward/Backward Trim

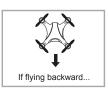
- If your XO2 is moving forwards or backwards automatically, you may need to adjust the FORWARD/BACKWARD TRIM buttons.
- If your XO2 flies forward, push and release the B TRIM button repeatedly until the moving stops and proper flight is maintained.
- If your XO2 flies backwards, push and release the FTRIM button in the same manner until the problem is resolved.
- From time to time you may have to adjust the FORWARD/BACKWARD TRIM to ensure the XO2 will hover in mid-air and respond accurately to your commands.







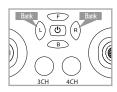
Push backward trim button



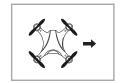
Push forward trim button

#### **Banking Left/Right Trim**

- If your XO2 is not steadily hovering and is banking to the left or right automatically, you may need to adjust the BANKING TRIM buttons.
- If your XO2 banks to the left, push and release the RTRIM button repeatedly until the banking stops and proper flight is maintained.
- If your XO2 banks to the right, push and release the LTRIM button in the same manner until the problem is resolved.
- From time to time you may need to adjust the BANKING TRIM to ensure the X02 will steadily hover in mid-air and respond accurately to your commands.



4 CH Left/Right Banking Controls



Push the "L" trim button to increase left banking sensitivity



Push "R" trim button to increase right banking sensitivity

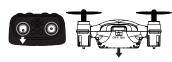
NOTE: The use of the Trim buttons are accompanied with a Beep sound. A single long Beep indicates the product is center trimmed. If there is no beep sound after press the trim buttom, it indicates the maximum rang of the trim on a particular side.

# 4 CHANNEL FLIGHT CONTROL

Below is a list of basic flight functions for your long-range remote control XO2. While learning to fly your X02 it is best to start with a large space until you get used to the basic controls. As you master flying your X02 you can move to more advanced maneuvering techniques. Practice makes perfect! When you have these basic steps down you can move to the next level.



Move the Throttle up to increase the speed of the motors and the XO2 will rise up.



Move the Throttle down to decrease the speed of the motors and the XO2 will descend.



Move the Throttle stick left and the XO2 will rotate left.



Move the Throttle stick right and the X02 will rotate right.





Move the Direction Control up and the X02 will move forward.



Move the Direction Control down and the X02 will move backward.



Move the Direction Control left and the X02 will bank to the left.





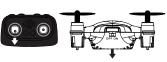
Move the Direction Control right and the X02 will bank to the right.

# 3 CHANNEL FLIGHT CONTROL

Below is a list of basic flight functions for your long-range remote control XO2. While learning to fly your XO2 it is best to start with a large space until you get used to the basic controls. As you master flying your XO2 you can move to more advanced maneuvering techniques. Practice makes perfect! When you have these basic steps down you can move to the next level.



Move the Throttle up to increase the speed of the motors and the XO2 will rise up.



Move the Throttle down to decrease the speed of the motors and the XO2 will descend.







Move the Throttle stick left and the X02 will rotate left.

Move the Throttle stick right and the X02 will rotate right.







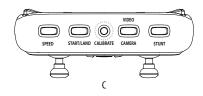


Move the Direction Control up and the X02 will move forward.

Move the Direction Control down and the X02 will move backward.

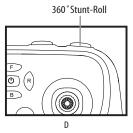
# **CALIBRATING THE X02**

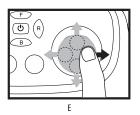
If the XO2 becomes unstable during the course of flying, you may need to calibrate the internal gyros. To do this place the XO2 on a flat level surface, long press the CALIBRATE button on the top of remote controller. The LEDs on the XO2 will flash quickly and then remain solid, this indicates your drone has been recalibrated (see diagram C).

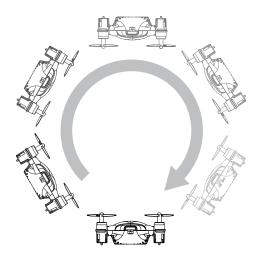


# **HOW TO DO 360° STUNT ROLLS**

- In order to make your X02 do 360° rolls you must fully charge your battery.
   Note: The X02 will not do 360° stunt rolls in Mode1 and when the drone is running low battery (The LED lights on the drone start flashing).
- 2. Once you are ready to attempt a 360° roll, short press the "STUNT" button on the top right hand side of your controller (see Remote Diagram D), you will hear continous beeping sounds. This means you are now in "STUNT MODE"
- 3. Now quickly move your right control stick in any of 4 directions; up, down, left or right and your X02 copter will instantly roll in the associated direction(See diagram E). After stunt roll the beeping sounds will stop.







# USING YOUR ON BOARD CAMERA AND VIDEO RECORDER

Your XO2 comes equipped with an onboard digital camera that takes both video and still photographs. Now you can have hours of fun creating aerial photography and videos for family and friends.

#### WHAT YOU WILL NEED TO GET STARTED USING YOUR CAMERA

- 1. One microSDHC card (not included)
- 2. One microSDHC card reader (included)
- One Computer with USB port and Windows Media Player or other Media player that can play AVI files (not included).

#### FORMATTING YOUR microSDHC CARD

Before you can begin to take videos or digital photographs you must first format your microSDHC card. To format your microSDHC card simply place the microSDHC card into the included USB card reader and plug it into your computers USB port (See diagram 1 and 2 below). After a few moments an icon will appear on your Desktop. Right click on the Icon and follow instructions to format your microSDHC card.

# INSTALLING THE microSDHC CARD IN YOUR XO2 QUADROCOPTER

- Keep X02 power turned off.
- Place the formatted microSDHC card into the side of the quadrocopter's digital camera port( see diagram 3 below). Push gently and consistently until you hear and feel the microSDHC card "click" into the digital camera slot
- Turn on your X02 power and properly sync it to the Controller (see HOW TO SYNC YOUR DRONE on page 4).
- When you have successfully installed your microSDHC card and your quadrocopter is powered up, the flashing red LED lights on the back of the drone will turn solid.
- NOTE: If you see the red LED lights keep flashing, it means you have not installed your microSDHC card correctly or there is a problem with your card. You can repeat the above steps again. If you continue to encounter problems call our customers service line at 949.566.9573 Ext 1 for assistance.

#### TAKING DIGITAL PHOTOS

To take photographs simply short press the CAMERA/VIDEO button on the top of the controller (refer to CONTROLLER DIAGRAM on pg. 3), when you push the button you will hear a short "beep" and the green indicating LED light will flash 3 times indicating that 3 pictures have been taken.

# RECORDING VIDEOS

To record a video, first make sure that your quadrocopter is fully charged and that you have correctly installed the microSDHC card in the quadrocopters camera port. Begin recording a video by pressing the CAMERA/VIDEO button for a few seconds (see CONTROLLER DIAGRAM on page 3). The red LED lights on the back of XO2 will flash constantly to indicate that you are in video mode and the camera is recording. To stop the video recording, long press the button again. The red LED lights on the back of the camera will change to solid indicating that video recording has stopped and the Camera is in ready mode again.

# IMPORTANT NOTICE: You can not take photos and videos at the same time.

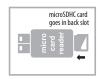






Diagram 1

Diagram 2

Diagram 3

#### REMOVING YOUR microSDHC CARD

To remove your microSDHC card, push in gently on the back of the card until you hear and feel a "clicking". The microSDHC card will "pop out" slightly and is ready for removal. Simply grab and pull gently away from the quadrocopter camera port to remove the card. Always store your microSDHC card in a clean, safe and cool environment.

# DOWNLOADING AND CLEARING SPACE ON YOUR microSDHC CARD

Plug your microSDHC card into microSDHC card reader and connect to your computer. It is best to always download all your videos and pictures onto your computer and not store this data on your microSDHC card.

After downloading your photos and videos, follow your computers instructions to "delete" files on your microSDHC card.

IMPORTANT NOTICE: When your microSDHC card is full the indicator light on the bottom of your quadrocopter will not flashing when you press the photographs or video record button. This indicates that its time to put a new SD card in your quadrocopter or download files and clear space for new photos and videos.

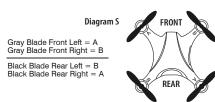
# **TROUBLESHOOTING YOUR X02**

PROBLEM	POSSIBLE REASON	SOLUTION	
NO POWER	Power switched off     Polarity is reversed     Batteries may be dead	1. Switch the ON/OFF switch to ON 2. Make sure all batteries are installed correctly (see diagram B) 3. Replace batteries	
Remote Not Responding	1. Remote is switched off     2. XO2 is switched off     3. Too windy  4. The Remote light is flashing	1. Switch the ON/OFF switch to ON 2. Switch the ON/OFF switch to ON 3. Windy condition severly affects the operation of the XO2 4. Replace batteries	
Drone Won't lift off	1. Rotor speed too slow 2. Drone not fully charged	1. Push throttle lever forward more 2. Recharge your X02	
Drone Decsends Too Fast	1. Moving the throttle too quickly	1. Control the throttle slower and smoother	
Drone Not Responding	1. Gyroscopes not functioning	1.Turn on the XO2 and Reset the Gyros (see diagram C)	
Loss of XO2 Control	1. Drone is out of range of remote	1. Keep the drone within a 20 meter radius of the remote	

# REPLACING THE PROPELLER BLADES

Your XO2 propeller system is a precision instrument that may need repair or replacement from time to time for optimal flight function. Crash landing from high-speed aerial flights may cause damage to your XO2's propellers.

- XO2 have four blades, two gray propellers on the front, and two black propellers on the back.
   Please note that the blades and the XO2 are marked with an embossed A or B (see the diagram S).
- 2. When replacing the propeller blades, gently remove the blade from the rotor shaft. Make sure to match both the color of the blade and the indication letter on the blade with the letter on the aircraft.
- 3. Replace the damaged blade with the new correct blade.



Note: The "A" and "B" marks are embossed on the propellers.

# X02 WARNING:

The XO2 is designed for INDOOR or OUTDOOR flight. XO2's blades revolve at high speeds and can cause damage to the user, spectators and animals. Stand away from the XO2 to reduce the risk of getting into the flight path. Warn spectators that you will be flying your XO2 so that they are aware of its position. Before flight, inspect the rotor blades to make certain that the blades are securely fastened to the XO2.

#### WARNING!

- Choking/Cutting Hazard. Small Parts/Sharp Rotor Blades.
- Keep hands, hair and loose clothing away from the propeller when the power switch is turned to the ON position.
- Turn off the transmitter and X02 power switches when not in use.
- The included charger is built specifically for the XO2 Li-Poly battery. Do not use it to charge any other battery.
- New alkaline batteries are recommended for maximum performance.
- Parental supervision recommended when flying X02

# **BATTERY WARNINGS**

#### RECHARGEABLE BATTERY:

This XO2 uses a Li-Poly rechargeable battery. If battery can no longer be charged, dispose of battery properly according to local disposal requirements.

#### **CONTROLLER BATTERIES:**

Remote control requires 2"AAA" batteries (not included). Please read the important battery safety warning below

- Do not mix alkaline, standard (carbon-zinc) and rechargeable batteries (Nickel Metal Hydride).
- Do not mix old and new batteries.
- Non-rechargeable batteries are not to be recharged.
- Rechargeable batteries are to be removed from the item before being charged (if removable).
- Rechargeable batteries are only to be charged under adult supervision.
- Exhausted batteries should be removed immediately and must be recycled or disposed of properly according to state or local government ordinances and regulations.
- The supply terminals are not to be short-circuited.
- Only batteries of the same or equivalent type as recommended are to be used.
- Batteries are to be inserted with the correct polarity (see inside booklet for diagram).
- Do not dispose batteries in a fire batteries may leak or explode.

#### CARE AND MAINTENANCE

- Always remove the batteries from the wireless 2.4G remote control when it is not being used for an extended period of time.
- To clean, gently wipe the remote control and XO2 with a clean damp cloth.
- Keep the tov away from direct heat or sunlight.
- Do not submerge the toy into water. This can damage the unit beyond repair.
- Parental guidance recommended when installing or replacing the batteries.