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 tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.

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

Colors and styles may slightly vary.
Thank you for purchasing the TILT™ 2.4 Ghz Quadrocopter. Please read this instruction booklet as it contains valuable information on how to properly fly and care for your TILT™.

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FEATURES
• Wide range digital radio allows flight range up to 500 feet!
• Six axis gyro for extremely stable flight and maneuverability
• Switch-blade technology allows you to operate in 3ch or 4ch Modes for beginner to advanced pilots
• Push button 360° aerial stunts
• On-board camera records high-definition videos and still photos (1280x720 pixel, 30 frames per second)
• Air pressure sensors lock flight altitude for stable video footage
• Automatically lands with the push of a button
• Additional replacement parts included

REMOTE CONTROL BATTERY INSTALLATION
1. Slide off the battery cover from the back of the controller.
2. Install 4 fresh “AA” alkaline batteries into the controller as shown in diagram A. Replace the battery cover.
3. Turn over the controller and turn the on/off switch to the on position. If the power indicator turns on you have installed your batteries properly.

CHARGING THE TILT™ LI-POLY BATTERY
1. Connect the battery to the battery charger as shown (see diagram B).
2. Next, Plug the AC adaptor into a standard wall socket.
   CAUTION: improper connection may damage the battery.
   Note: The battery charger has a RED LED indicator light to indicate it is charging.
3. When the battery is fully charged the charging indicator light will change to green.
4. Average charging time is approximately 80-100 minutes. A fully charged drone can fly for approximately 10 minutes depending on environment and user input.

NOTE: You may purchase additional batteries and chargers at www.propelrc.com

IMPORTANT: ALWAYS REMEMBER TO DISCONNECT YOUR BATTERY CHARGER WHEN NOT IN USE!

TILT™ BATTERY INSTALLATION
1. Slide the fully charged battery into the TILT™s battery compartment (see diagram C).
   The battery is designed to only fit in the compartment one-way, with the guide rail on the bottom of battery facing downward.
2. Push the battery all the way in and you will hear a click, the drone’s LED lights will light up and begin flashing when you have installed the battery correctly.
   NOTE: The TILT™ has no On/Off switch. The drone automatically turns on when the battery is installed.
3. Removing the battery: On the underside of the drone body you will see a small battery eject lever. Using your finger nail pull the lever up and the battery will eject about 0.5–1cm (see diagram D). Lastly, using your thumb and forefinger gently pull out the battery.
**WARNING**

**DO NOT FLY YOUR TILT™ IN FOUL WEATHER!**

**FLIGHT PREPARATION**
- Verify that there are 4 "AA" batteries inside the remote control unit and the TILT™ has been fully charged.
- Make sure to be in a large open space preferably a field or a park with an open radius of at least 200 feet.
- Make sure to start your drone on a clean flat level surface before take-off.
- **IMPORTANT!** Until you have experience in flying your TILT™, it is not advised to use in any rate of wind. Wait until a zero wind day or extremely light wind when learning how to fly.

**SYNCING YOUR TILT™**

**Important!** When syncing your TILT™ with the controller always make sure that the drone is on a flat level surface and that your digital trim settings are in the center position. This insures that the 6 Axis gyro is properly programmed to respond to your trim settings.

Your TILT™ 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.

1. Before starting, make sure that the power switch on your controller is off and the battery is removed from the TILT™. Make sure that there are no other 2.4G devices in the area.
2. Insert the battery into the TILT™ and set it down on any flat surface. The red and white LED lights on top of the drone should begin to flash repeatedly.
3. Quickly turn ON the remote and you will notice that the top red LED light on the face of the controller should also be flashing.
4. Push the left control stick all the way up until it stops and then pull it back all the way down to the bottom (see illustration below). When pulling the stick down to the bottom you should hear a high-pitched beep and the lights on both the drone and the controller should stop flashing and become solid. If the lights on both the drone and the controller have stopped flashing and become solid you have successfully synced your TILT™ and are ready to fly. If the lights on the controller or the drone are still flashing repeat steps 1-4 again.

**TIP 1:** Try not to leave too much time between putting your battery into the drone and turning on the controller or your syncing window will time-out.

**TIP 2:** Syncing your drone indoors or in the shade will make it easier to see the LED light indicators on both the controller and the drone.
NOW YOU ARE READY TO FLY!

If you have successfully synced your TILT™ to your controller as explained on page 4 you are now ready to fly. Before beginning to fly your drone you should familiarize yourself with how to start and stop the rotors, how to use your auto land feature and how the controls work so please carefully read and familiarize yourself with various control features explained in the next few pages. Once again as a beginner pilot you should learn how to control your drone in a large open field or park on a day with zero or very light wind. Do not try to fly your TILT™ too high until you become a more experience pilot.

RECOGNIZING THE FRONT & BACK OF THE TILT™
Even though the TILT™ has four rotors there is still a front or “forward” facing direction and “back” or backwards facing direction. The Front and forward facing direction of the TILT™ is the side with two EYES (see diagram E). The rear and back of the Quadrocopter is the side with battery compartment (see diagram E).

NOTE: The front of the Quadrocopter also displays WHITE LED light and the back of the Quadrocopter displays RED LED lights.

HOW TO START/STOP ROTORS
Make sure you have properly synced the TILT™ and the power is on.
- To start and stop the rotors simply move the two control sticks either simultaneously down and to the inside or down and to the outside corners and hold for one second (see illustration below).

Note: Either position will both start and stop the rotors so use the position you are most comfortable with.
- Once the rotors begin to spin, release the control sticks and they will return to the center position. Now you are ready for take-off.

SPEED SELECT BUTTON
The TILT™ has 3 speed settings; 1 (SLOW), 2 (MEDIUM) and 3 (HIGH). The Default setting when you first turn on your TILT™ is the 1 (SLOW) speed mode. To increase the speed simply trigger the speed setting button (see remote diagram on pg 3) you will hear a beep and the speed setting indicator on the face of the controller will show you what speed setting you are on. Speed settings can be set before flight or during the flight.

AUTO LAND BUTTON / AUTO TAKE OFF
The TILT™ has an auto land and auto take off feature which allows you to land or take off automatically. Simply press the Auto Land Button and your TILT™ will begin land or take off by itself.

Note: you can still control the direction while auto landing or taking off to avoid obstacles.

3 CHANNEL VS 4 CHANNEL FLYING
Propels unique “switch-blade” technology allows you to choose between 3ch or 4ch flight control modes. Most people with no experience in flying multi copters may find 3ch easier to learn at first as controls are set up to simply move forward, back, turn left and turn right. 4channel flying gives the operator ultimate control by adding two more dimensions of flight, banking left and banking right.

To change to 3 Channel mode:
Switch the 3/4 CH. button to left side on the back of controller (see remote diagram on pg 3), you will hear 3 “beeps” indicating the TILT™ now is set to 3 CH. mode.

To change to 4 Channel mode:
Switch the 3/4 CH. button to right side on the back of controller (see remote diagram on pg 3), you will hear 4 “beeps” indicating the TILT™ now is set to 4 CH. mode.

3 CHANNEL FLIGHT CONTROL
Below is a list of basic flight functions for your long-range remote to control the TILT™. While learning to fly your TILT™ it is best to start in a large space with the drone facing away from you until you get used to the basic controls. As you master flying your TILT™ 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 left Throttle stick up to increase the propeller speed and the TILT™ will accelerate and ascend.
Move the left Throttle stick down to decrease the propeller speed and the TILT™ will decelerate and descend (see diagram F).

While in the air, move the right Direction Stick up and the TILT™ will move forward.
Move the right Direction Control down and the TILT™ will move backward (see diagram G).

While in the air, move the right Direction Control left and the TILT™ will spin to the left.
Move the right Direction Control right and the TILT™ will spin to the right (see diagram H).
4 CHANNEL FLIGHT CONTROL
Below is a list of basic flight functions for your long-range remote to control the TILT™. While learning to fly your TILT™, it is best to start in a large space with the drone facing away from you until you get used to the basic controls. As you master flying your TILT™, you can move to more advanced maneuvering techniques. Practice makes perfect!

Move the left Throttle stick up to increase the propeller speed and the TILT™ will accelerate and ascend.
Move the left Throttle stick down to decrease the propeller speed and the TILT™ will decelerate and descend (see diagram I).

While in the air, move the left Throttle stick left and the TILT™ will rotate left.
Move the left Throttle stick right and the TILT™ will rotate right (see diagram J).

While in the air, move the right Direction Stick up and the TILT™ will move forward.
Move the right Direction Control down and the TILT™ will move backward (see diagram K).

While in the air, move the right Direction Control left and the TILT™ will bank to the left.
Move the right Direction Control right and the TILT™ will bank to the right (see diagram L).

FLIGHT PRACTICE
To master flying your aircraft try practicing the exercises shown below. Start with simple vertical takeoffs, landings, and left/right turning and rotating. Once those are mastered move on to square and cross maneuvers. Good luck and have fun!

ADJUSTING THE TRIM
NOTE: The TILT™ is already properly trimmed and calibrated right out of the box and should not require any trim adjustments before flying. Some more experienced pilots may want to adjust trim settings for their style of flying. After several crashes you may need to adjust trim settings for the TILT™ to be more balanced.

Forward/Backward Trim
• If your TILT™ drifts forward while in the air, push and release the FORWARD/BACKWARD TRIM button backward repeatedly until the motion stops and proper flight is maintained (see diagram M).
• If your TILT™ drifts backwards, push and release the FORWARD/BACKWARD TRIM button forward in the same manner until the problem is resolved.

Bank Right/Left Trim
• If your TILT™ banks left while in the air, push and release the BANKS TRIM button to the rightside repeatedly until the motion stops and proper flight is maintained (see diagram N).
• If your TILT™ banks right, push and release the BANKS TRIM button to leftside in the same manner until the problem is resolved.

Spin Left Trim
• If your TILT™ spins left while in the air, push and release the LEFT/RIGHT TURN TRIM button to the rightside repeatedly until the motion stops and proper flight is maintained (see diagram O).

Spin Right Trim
• If your TILT™ spins right while in the air, push and release the LEFT/RIGHT TURN TRIM button to the leftside until the problem is resolved (see diagram P).

NOTE: The use of the Trim buttons utilizes sounds. A single long Beep indicates the product is center trimmed. Continuous long Beeps indicate the product is trimmed to the maximum on a particular side.
**CALIBRATING THE TILT™**

NOTE: Your TILT™ comes pre-calibrated out of the box so you are ready to fly.

After several crashes and shock to your gyro sensors, you may notice that your drone is drifting and not holding its center position as well as it used to.

This most likely means that you need to recalibrate the 6 axis gyro. Please follow the simple instructions below.

1. Place the TILT™ on a level surface
2. Make sure the TILT™ is on and that the controller is synced (refer to syncing pg 4.). Do not start the blades. Instead move both the throttle and control stick down and to the right corner and hold them there for 5 seconds (See Diagram R). You will see the lights on the drone rapidly flash and stop. Once the lights stop flashing you have completed your calibration and are ready to fly!

**TROUBLESHOOTING:** If you do not see the lights flash, first remove the battery from the drone then turn off your controller and start again. Always make sure to put your battery in first, then turn on your controller. Push the left throttle stick up all the way and then pull back down again. When you hear the beep the TILT™ is synced to the controller and you are ready to calibrate.

---

**HOW TO PERFORM 360° STUNT ROLLS**

Performing 360° stunt rolls with the Tilt™ is as easy as 1-2-3:

1. Hover the Tilt™ in still position making sure that you have at least 5 feet of clearance above and below the quadcopter. Set the speed settings to mode 2 or 3.
2. Press the 360 stunt button down and you will enter the stunt roll mode which is indicated by a rapid beeping (see diagram S).
3. Determine which direction you want it to flip and quickly push the right control stick in the direction you want to flip your Tilt™ (see diagram T).

You have 4 choices: a) Forward roll, b) Backwards roll, c) Right side roll, d) Left side roll.
USING YOUR ON-BOARD CAMERA AND VIDEO RECORDER

Your TILT™ comes equipped with an onboard digital camera (1280x720 pixel, 30 frames per second) 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 (included)
2. One microSDHC card reader (included)
3. A Computer with a 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 SD card reader and plug it into your computer’s USB port (see Diagram U1 and U2 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 TILT™

- Place the formatted microSDHC card into the back of the TILT™ digital camera port (see Diagram U3 below). Push gently until you hear and feel the microSDHC card “click” into the digital camera slot.
- Turn the TILT™ on and make sure that it is both fully charged and properly synced to the Controller (see HOW TO SYNC YOUR QUADROCOPTER on page 4).
- When you have successfully installed your microSDHC card and your TILT™’s battery, you will see a solid red LED light on the camera unit underside (see camera indicator light diagram U4 below).

NOTE: If you see a red LED light flashing this indicates you have not installed your Micro SD card correctly or there is a problem with your SD card. If this happens please reformat and try again. If you continue to encounter problems call our customer service line at (949) 566-9573 Ext 1 for assistance.

REMOVING YOUR MICROSDHC CARD

To remove your microSDHC Card push in gently on the back of the microSDHC card with your thumb or forefinger until you hear and feel a “clicking sound”. The microSDHC card will “pop-out” slightly and is ready in ready mode.

RECORDING VIDEOS

To begin recording a video depress and hold down CAMERA button for 2 seconds. You will hear two “beeps” and the green LED light on the camera will start flashing to indicate that you are in video mode and the camera is recording. To stop the video recording, press and hold the CAMERA button a second time, you will hear two “beeps” to indicate that the video recording has stopped and the Camera is in ready mode again.

TESTING /TROUBLESHOOTING THE CAMERA BEFORE FLIGHT

It’s a good idea to test that your camera is working before beginning flight.

1. Turn the drone upside down (it is recommended to just hold in your hand) and insert a microSDHC card. The micro SDHC card can only fit in one way so do not force it. When the micro SDHC card is installed all the way you will hear a “Click” sound and a flashing Red LED light should stay solid on the belly of the camera (see Camera Diagram U4). The solid red light indicates that you have properly installed the microSDHC card and are ready for taking pictures and videos. If you don’t see the solid red LED indicator light then start again. Remember to make sure that the drone and controller are properly synced and that the microSDHC card is inserted until you hear a “click”

2. Testing the Still Photo Feature: Keeping the drone upside down, quickly depress and release the CAMERA button on the top right hand side of the controller. A green LED should appear and flash 3x. Congratulations you just took a picture and tested your camera. If you did not see 3 green lights flash then you must start again from the beginning.

3. Testing the Video Recording Feature: Keeping the drone upside down, depress and hold down the CAMERA button for 2 seconds. A green LED light on the camera belly will appear and begin to flash continuously. This means that you are recording video. To stop recording video simply press and release the Camera button one more time and the Green LED light should off, indicating that the camera is once again in ready mode.

DOWNLOADING AND CLEARING SPACE ON YOUR MICROSDHC CARD

Plug your microSDHC card into the microSDHC card reader and connect to your computer. It is best to always download all your videos and pictures on to your computer and not store this data on your microSDHC card. After downloading your photos and videos, follow your computer’s instructions to “delete” files on your microSDHC card.

IMPORTANT NOTICE: When your microSDHC card is full, the indicator light on the bottom of your helicopter will not flash when you press the photo or video record buttons. This indicates that its time to put a new microSDHC card in your TILT™ or download files and clear space for future photos and videos.

IMPORTANT NOTICE: You can not take photos and videos at the same time. When you are in video mode your camera/photo button is disabled. If you want to take photos you must first turn off video mode.
TROUBLESHOOTING YOUR TILT™

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POSSIBLE CAUSE</th>
<th>POSSIBLE SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Power</td>
<td>1. Power switched off</td>
<td>1. Switch the ON/OFF switch to ON</td>
</tr>
<tr>
<td></td>
<td>2. Polarity is reversed</td>
<td>2. Make sure all batteries are installed correctly (see diagram A)</td>
</tr>
<tr>
<td></td>
<td>3. Batteries may be low or in need of charging</td>
<td>3. Replace batteries</td>
</tr>
<tr>
<td>Aircraft Not</td>
<td>1. Remote is switched off</td>
<td>1. Switch the ON/OFF switch to ON</td>
</tr>
<tr>
<td>Responding</td>
<td>2. Battery power in remote is too weak</td>
<td>2. Connect the battery to Tilt™</td>
</tr>
<tr>
<td></td>
<td>3. The remote is not properly synced</td>
<td>3. Re-sync the remote</td>
</tr>
<tr>
<td></td>
<td>4. Out of control range</td>
<td>4. Do not fly beyond 500 feet</td>
</tr>
<tr>
<td>Aircraft Won't</td>
<td>1. Rotor speed too slow</td>
<td>1. Push throttle lever forward</td>
</tr>
<tr>
<td>lift off</td>
<td>2. Aircraft not fully charged</td>
<td>2. Recharge your Tilt™</td>
</tr>
<tr>
<td></td>
<td>3. Obstruction of rotors</td>
<td>3. Check rotors for hair or other obstructions</td>
</tr>
<tr>
<td>Aircraft</td>
<td>1. Moving the throttle down too quickly</td>
<td>1. Control the throttle slower/use auto land feature</td>
</tr>
<tr>
<td>Descends</td>
<td>2. Flying in high wind or bad weather</td>
<td>2. Do not fly in bad weather</td>
</tr>
<tr>
<td>Too Fast</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you continue to encounter problems call our customers service line at (949) 566-9573 Ext 1 for assistance.

REPLACING THE PROPELLER BLADES

Your Tilt™ propeller system is a precision instrument that may need repair or replacement from time to time for optimal flight function. Crash landing at high-speed may cause damage to your Tilt™’s propellers.

1. The Tilt™ has four blades, two blades with indication number 2 & 3 on front, and two blades with indication number 3 & 2 on back (see the diagram V).
2. When replacing the propeller blades, make sure to match the indication number on the blade.
3. Replace the damaged blade with the correct blade.

TILT™ WARNING:

The Tilt™ is designed for OUTDOOR use. The Tilt™’s blades revolve at high speeds and can cause damage to the user, spectators and animals. Stand away from the Tilt™ to reduce the risk of getting into the flight path. Warn spectators that you will be flying your Tilt™ 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 Tilt™.

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 Tilt™ power switches when not in use.
• The included charger is built specifically for the Tilt™ 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 Tilt™.

BATTERY WARNINGS

RECHARGEABLE BATTERY:

This Tilt™ uses a Li-Poly rechargeable battery. If battery no longer stays charged, dispose of battery properly according to local disposal requirements.

CONTROLLER BATTERIES:

Remote control requires 4 “AA” 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 remote control when it is not being used for an extended period of time.
• To clean, gently wipe the remote control and Tilt™ with a clean damp cloth.
• Keep the toy 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.

Blade Front Left = 2
Blade Front Right = 3
Blade Back Left = 3
Blade Back Right = 2