# 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.

#### ISED NOTICE: CANADA ONLY.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.

2. This device must accept any interference, including interference that may cause undesired operation of the device.

#### CAN ICES-003(B) / NMB-003(B)

This product meets the applicable Innovation, Science and Economic Development Canada technical specifications.



Conforms to safety requirements of FCC, RSS210.

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> Made in China C001-CA-V1.0

# VA-2140

# DUCTED FAN DRONE WITH NEW HAND GESTURE CONTROL TECHNOLOGY



# INSTRUCTION BOOKLET

WARNING: Never leave product charging unattended for extended periods of time. Always disconnect VA-2140 from charger immediately after the VA-2140 is fully charged. Please refer to enclosed safety instructions.

# PACKAGE CONTAINS:



VA-2140







2.4G Wireless Controller

r USB Charging Cord Spa

Spare Parts Instruction Booklet

Colors and styles may vary slightly.

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FCC Part 15 C Notice

Thank you for purchasing the 2.4 G Indoor /Outdoor VA-2140. Please read this instruction booklet as it contains valuable information on how to properly fly and care for your VA-2140.

# **FEATURES**

- Ultra-compact design
- 3 speed settings + push button 360° stunt rolls
- NEW training mode helps beginner pilots learn how to fly
- Air pressure sensor automatically locks your altitude in place
- InvenSense<sup>™</sup> 6 axis gyro for smooth and stable flight
- Automatically starts and lands with the push of a button
- LED head and tail lamps for visual orientation
- New hand gesture control technology

# **REMOTE CONTROL BATTERY INSTALLATION**

1. Unscrew and remove the battery cover from the back of the remote control.

2. Install 3 "AAA" alkaline batteries into the battery compartment as shown in the diagram A1.

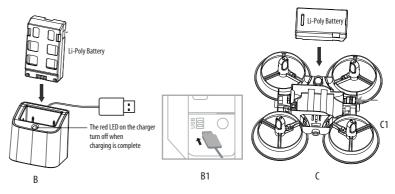
3. Replace the battery cover and secure it.

# **CHARGING THE VA-2140**

- 1. Before playing, you need to charge the VA-2140 battery first. Plug the VA-2140 battery into the charging base then connect the USB charging cord to the charging base. (See diagram B)
- Caution: The USB plug fits the charging base only in one way. Do not force it.
- 2. Connect the charging cord to your computer's USB port (See diagram B1). Caution: Only use this charging cord with a computer USB port! Do not attempt to use other USB charging devices.
- 3. The red LED on the charging base will turn off when charging is complete.

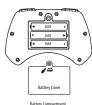
Note: If the red LED lights up that meaning the charging is in process.

4. The average charging time is approximately 35-40 minutes. The VA-2140 operates for about 6 minutes per charge. Low battery indication: the VA-2140 's LED liahts will beain to flash to notify you that the battery is running low. About 45 seconds after the LED lights start flashing your VA-2140 will automatically land to the floor.



# **VA-2140 BATTERY INSTALLATION**

- 1. Slide the fully charged battery into the battery compartment as shown in illustraition C.
- 2. Make sure the battery is fully inserted and push the battery lock in to secure the battery. (see diagram C1) Caution: The battery fits only one way! Do not force it.
- 3. Turn on the ON/OFF button of the VA-2140, the LED lights will start flashing if you install the battary properly.

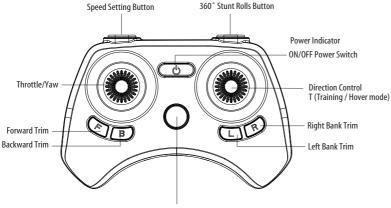


А

# VA-2140 DIAGRAM

# Power Button Safety Guard Rotor Blade Landing Gear Battery compartment

# **REMOTE DIAGRAM**



AUTO Start/Land Button

# WARNING DO NOT FLY YOUR VA-2140 IN FOUL WEATHER!



# Flight with controller control:

# PREPARING FOR FLIGHT

Verify that there are 2 "AAA" batteries inside the remote control unit and the VA-2140 has been fully charged.
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 or rivers. Set your VA-2140 on a clean flat surface before take-off. DO NOT ATTEMPT TO FLY YOUR VA-2140 IF THERE IS RAIN, SNOW, HEAVY WINDS, THUNDER OR LIGHTNING OUTDOORS. IT COULD DAMAGE YOUR PRODUCT AND POSSIBLY EVEN CAUSE BODILY HARM.

# **SYNCING YOUR VA-2140**

Important! When syncing your VA-2140 drone with the controller always make sure that the drone is on a flat level surface. This insures that the 6-axis gyro is properly programmed to mimic your trim settings.

Your VA-2140 utilizes an automatic 2.4G channel selection system that allows up to 8 people to fly side by side in the same wireless range.

#### For One-person Play:

- 1. Before starting, make sure that both your controller and VA-2140 are powered off. Make sure that there are no other 2.4G devices in the area as well.
- Connect the battery into your VA-2140 and set it down on a flat level surface. The white and red LED indicators of the VA-2140 should start flashing rapidly.
- 3. Turn ON your remote and you will hear 1 short beep, the white and red LED lights will start flashing slower. Push the throttle all the way up then pull it all the way down. You will hear one long beep and the LED lights will turn solid. Your VA-2140 and remote should have successfully synced. Should this not happen, repeat all steps again.

#### For Multi-person Play:

- Before starting, make sure that all VA-2140s and Controllers are powered off. Make sure that there
  are no other 2.4G devices in the area as well.
- 5. Each person will have to sync their VA-2140 individually at a different time to avoid interference. Follow steps 1 to 3 above, making sure to keep away from other people while also making sure that no one else is syncing at the same time.
- 6. After syncing one player's VA-2140, it should be left ON until all players have synced their VA-2140s.
- 7. Should there be a mistake/interference, all players must turn off their controllers and VA-2140s and start the process all over again.

# **FLYING TIPS**

• It is recommended that you operate the VA-2140 in a wide space. The ideal space should have a 61 m/200 ft radius.

- Parental guidance or adult supervision is suggested at all times.
- If you are flying the VA-2140 with others, make sure all spectators are behind you.
- For best performance, it is recommended that you operate the VA-2140 in zero wind conditions. Wind can greatly affect the performance of the VA-2140.

# NOW YOU ARE READY TO FLY!

If you have successfully synced your VA-2140 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 take off and auto land feature and how the controls work, 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 VA-2140 too high until you become a more experienced pilot.

# **RECOGNIZING THE FRONT AND REAR OF THE VA-2140**

Even though the VA-2140 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 VA-2140 is the side with two grey propellers. The rear and back of the VA-2140 is the side with two black propellers. The VA-2140 when in flight will also help you keep aware of the orientation with lighted LED lights in the arms of the VA-2140.

Front

# **AUTOMATICALLY TAKE OFF / LAND**

Make sure you have properly synced The VA-2140.

 simply press the Auto Start/Land button, your VA-2140 will automatically take off

• To stop or land the VA-2140 just Press the Auto Start/Land button again and the VA-2140 will descend and land automatically.

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

# UNDERSTANDING THE ALTITUDE LOCK

The VA-2140 has a unique Altitude Lock function. With the help of air pressure sensor you can control, your VA-2140 more stable than ever. The sensor locks in the altitude of the drone while allowing the user to adjust the directional control without having to hold the throttle.

After starting the drone, fly upwards to a safe height. Once at a safe height, let go of the throttle control, vour VA-2140 should lock in the altitude and allow the user to focus on getting used to the directional controls.

NOTE: The altitude sensor does have some tolerance based on atmospheric conditions and could have a slight variation in altitude.

# SPEED SETTING BUTTON

The VA-2140 has 3 speed Modes; 1(SLOW), 2(MEDIUM) and 3(HIGH). The Default setting when you first turn on your VA-2140 is **1(SLOW)**. Short press speed button you can switch among the 3 speed settings.

# T (Training)MODE & OBSTACLE AVOIDANCE TRAINING FEATURE

Press down the Direction Control/T (Training mode) throttle, you will hear a beep indicating you are in T Mode now.T mode allows you to learn how to operate your VA-2140 at a very slow speed. Also there are maximum and minim height limits set to avoid crashing to ceiling or floor in T mode.

New obstacle avoidance training feature will cause the drone to automatically circumvent walls and other obstructions so new pilots can get the hang of flying. Set the VA-2140 speed in the T(Training) speed mode the obstacle avoidance feature will start working. Note: the obstacle avoidance feature only works for T(Training) mode.

#### UNDERSTANDING TRIM ADJUSTMENTS Forward/Backward Trim

- If your VA-2140 is moving forwards or backwards automatically, you may need to adjust the FORWARD/BACKWARD TRIM buttons.
- If your VA-2140 flies forward, push and release the Backward TRIM button repeatedly until the moving stops and proper flight is maintained.
- If your VA-2140 flies backwards, push and release the Forward TRIM 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 VA-2140 will hover in mid-air and respond accurately to your commands.







Forward/Backward Trim Controls

Push backward trim button

Push forward trim button

#### Banking Left/Right Trim

- If your VA-2140 is not steadily hovering and is banking to the left or right automatically, you may need to adjust the BANKING TRIM buttons.
- If your VA-2140 banks to the left, push and release the R Trim button repeatedly until the banking stops and proper flight is maintained.
- If your VA-2140 banks to the right, push and release the L Trim button in the same manner until the problem is resolved.
- From time to time you may have to adjust the BANKING TRIM to ensure the VA-2140 will and respond accurately to your commands.



Left/Right Banking Controls





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

If flving Leftward

Push the "R" trim button to increase Right banking sensitivity

NOTE: The use of the Trim buttons are accompanied with a beep tone. A single long beep indicates the product is centre-trimmed. No beeping after press the trim button indicates the product is trimmed to the maximum on a particular side.



# FLIGHT CONTROL

Below is a list of basic flight functions for your long-range remote to control the VA-2140. While learning to fly your VA-2140 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 VA-2140 you can move to more advanced maneuvering techniques. Practice makes perfect!





Move the Throttle up to increase the speed of the motors and the VA-2140 will rise up.

Move the Throttle down to decrease the speed of the motors and the VA-2140 will descend.





rotate right.

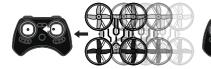


Move the Throttle stick right and the VA-2140 will

Move the Throttle stick left and the VA-2140 will rotate left.



Move the Direction Control up and the VA-2140 will move forward.



Move the Direction Control left and the VA-2140 will bank to the left.



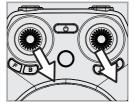
Move the Direction Control down and the VA-2140 will move backward.



Move the Direction Control right and the VA-2140 will bank to the right.

# **CALIBRATING THE VA-2140**

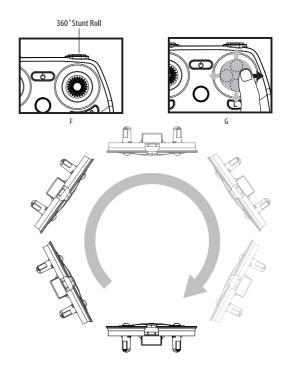
If the VA-2140 becomes unstable during the course of flying, you may need to calibrate the internal gyros. To do this place the VA-2140 on a flat level surface. Do not start the blades. Instead move both the throttle and control stick down and to the right corner . The LEDs on the VA-2140 will flash quickly and then remain solid, this indicates your drone has been recalibrated (see diagram E).



# HOW TO DO 360° STUNT ROLLS

1. In order to make your VA-2140 do 360° rolls you must fully charge your battery.

- Note: The VA-2140 will not do 360° stunt rolls in T mode and Mode 1 or under low battery indication (The LED lights on the drone will be flashing).
- 2. Once you are ready to attempt a 360° roll, simply depress and let go of the "STUNT" button on the top right hand side of your controller (see Remote Diagram on page 3). You will hear 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. Your VA-2140 drone will instantly roll in the associated direction. See diagram below.
- Note: After performed the stunt roll, the beeping sounds will stop. Repeat step 2 to 3 if you wish to do it again.



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# Comparison Compar

electrical or mechanical defects for a period of 90 DAYS from the date of purchase. If any such defect is discovered within the warranty period, AMAX Group USA will repair or replace the unit free of charge upon receipt of the unit, shipped postage prepaid and insured to our warranty center ALONG WITH THE ORIGINAL RECEIPT evidencing that the product was purchased from an approved AMAX retail partner and that the product is still within the 90 day warranty period. The warranty covers normal consumer use and does not cover damage that occurs in shipment or failure that results from alterations, accident, misuse, abuse, neglect, wear and tear, inadequate maintenance, commercial use or unreasonable use of the unit. Removal of any parts/components voids all warranties. This warranty does not cover cost of repairs made or attempted outside by third-party individuals or companies. Any applicable implied warranties, including warranties of merchantability and fitness, are hereby limited to 90 DAYS from the date of purchase. Consequential or incidental damages resulting from a breach of any applicable express or implied warranties are hereby excluded. Some states do not allow limitations on the duration of implied warranties and do not allow exclusion of incidental or consequential damages, so the above limitations and exclusions in these instances may not apply.

# **REPAIR/REPLACE PRODUCT**

If your product begins to malfunction or stop working, immediately contact our warranty center (contact details listed below). If it is determined that a return is necessary, our warranty department will issue you an RMA number/form and an address to the nearest return center for shipping the product to us. When honoring the warranty, AMAX reserves the right to either repair, replace or refund the product.

# **IMPORTANT NOTICE:**

We will reject and return to sender returns that are not accompanied by an AMAX issued RMA form and RMA number so make sure to contact our warranty center before attempting to return your product!

# PREPARATION FOR SHIPPING YOUR PRODUCT:

Please repack your product in a durable box, preferably in the original carton, and send it prepaid, and adequately insured. Include the RMA form that was issued by our warranty department along with your daytime telephone number and email address inside the shipping carton. If your warranty has expired and you still require service please contact our customer care team For further information please send all inquiries to: customerare@amaxbrands.com

# IMPORTANT NOTICE! DO NOT ATTEMPT TO SHIP YOUR PRODUCT BACK WITHOUT FIRST CONTACTING OUR WARRANTY DEPARTMENT AT:

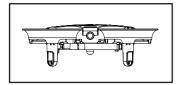
www.amaxbrands.com

Email: customercare@amaxbrands.com

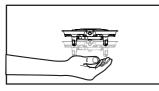
# Flight with hand gesture control:

#### LET'S GET STARTED!

Noted: you can not control the VA-2140 with the controller and hand gesture in the same time. Turn off your remote control and follow these simple steps in the order below and you will be successfully flying your VA-2140 in no time!

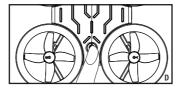


1. Make sure your VA-2140 is fully charged.

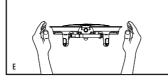


3. Then hold the VA-2140 in the mid-air and then give it a small gentle toss upward or simply release it as if you were dropping it from your hand. The VA-2140 will automatically turn on and begin hovering.

TIP: Make sure to hold the VA-2140 level to ground when starting or it may fly sideways.



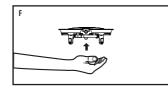
2. Turn on the VA-2140 and put it on the table or ground wait the LED lights becomes solid blue. (see diagram D)



4. Hold both your hands out simultaneously on both sides of the VA-2140 about two inches from the body so the VA-2140 is in the center space between your two hands. The drone will descend and land automatically. Noted: do not touch the spinning blades, it may hurt your fingures.

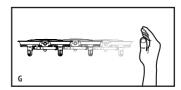
# HOW TO CONTROL YOUR VA-2140

Your VA-2140 is equipped with motion sensors and air pressure sensors which read your hand motions to determine its direction for flight.



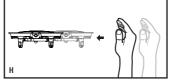
#### TO MAKE YOUR VA-2140 GO UP:

Place one hand palm side up directly underneath the bottom of the VA-2140 and slowly move your hand straight up, VA-2140 will rise upward (See Diagram F)



# TO MAKE YOUR VA-2140 FLY HORIZONTALLY ACROSS THE ROOM:

Hold your hand up vertically palm side facing the VA-2140 like your going to push it away, but don't actually touch it. The VA-2140 will begin to move in the opposite direction of your hand (See Diagram G).



#### TO MAKE YOUR VA-2140 MOVE FASTER AND FURTHER.

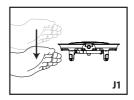
Once you have gotten the hang of controlling the direction of your VA-2140 simply move your hand along outside of the VA-2140 as it begins to fly away, literally follow the VA-2140 with your hand. The longer and faster you move your hand behind the VA-2140 the further and faster it will fly (See diagram H) Remember to follow behind it, not touch it.

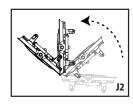
# HOW TO DO 360° STUNT FLIPS!

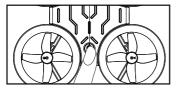
The VA-2140 allows you to command 360° stunt flips with a special hand movement! Your VA-2140 has the ability to do a 360° flip in all 4 directions..

- First pass your open palm face side across the side of your VA-214like doing a vertical cut in the air, you are crossing an invisible sensor.
- The fluid combination of going across the side will activate the 360° Flip.

NOTE the VA-2140 will do somersaults in the direction of the side where your hand completed the movement (SEE DIAGRAM J1, J2).





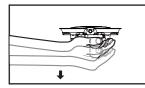


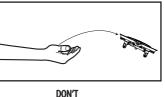
7. When done playing make sure to turn the power off by depressing the power button, All the lights will turn off.

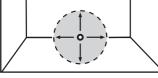
(see power button diagram on pg. 3)

#### HOW TO PLAY SAFELY!

Safety is number one and should be taken seriously! Please carefully study the below DO's and DON'Ts so that you may always enjoy the safe operation of your VA-2140.





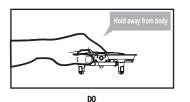


D0



DON'T

DO





DON' T FLY OVER HEAD

IMPORTANT SAFETY INFORMATION: KEEP YOUR VA-2140 AWAY FROM FACE AND EYES.

# VA-2140 WARNING:

The VA-2140 is designed for INDOOR and OUTDOOR use. The VA-2140 blades revolve at high speeds and can cause damage to the user, spectators and animals. Stand away from the VA-2140 to reduce the risk of getting into the flight path. Warn spectators that you will be flying your VA-2140 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 VA-2140.

#### 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 VA-2140 power switches when not in use.
- The included charger is built specifically for the VA-2140 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 VA-2140.

# BATTERY WARNINGS

#### **RECHARGEABLE BATTERY:**

This VA-2140 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 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 of 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 VA-2140 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.

# **REPLACING THE PROPELLER BLADE**

Your VA-2140 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 VA-2140 propellers.

- 1. VA-2140 has four blades, two gray propellers on the front and two black propellers on the back.
- 2. When taking off the damaged blade, always use the included blade wrench. Refer to the instruction diagrams below. Always use mild force, be gentle!
- 3. When replacing the new blades, make sure to match the indicating letter embossed on the blades to the diagram below.

