

Thank you for purchasing the Venom™ Mantis Electric Helicopter. This easy to fly electric R/C Helicopter was developed with beginning R/C Hobbyists in mind. Beginning pilots will love the larger scale appearance of the Venom Mantis. With it's innovative safety features like soft rubber leading edge main blades and covered tail rotor gear, we hope you have as much fun with your Venom™ Mantis as we did creating it. Not only did you purchase an extremely fun R/C helicopter but you have also joined the Venom Team and it's world class product line and customer service.

## **INCLUDED ITEMS**

### **Venom™ Mantis**



**venom™**  
**MANTIS**

## **WARNINGS AND INFORMATION**

### **BATTERY CARE**

- 1) Install transmitter batteries with correct polarity (+ to +). Reversing battery polarity may cause shorts or battery failure.
- 2) DO NOT expose batteries to heat or open flame.
- 3) Dispose of old batteries properly.
- 4) DO NOT mix old and new batteries or rechargeable and non rechargeable batteries.
- 5) DO NOT recharge alkaline or non rechargeable batteries.
- 6) Remove batteries if the Mantis is not going to be used for long periods of time.
- 7) DO NOT over charge rechargeable batteries.

**CAUTION:** Batteries will get warm during charging. If batteries get extremely hot during charging, discontinue charging immediately and disconnect battery from charger. Never leave battery unattended while charging. If you are unsure of how to charge this battery, please contact Venom™ or seek the advice of your local hobby shop. Never let children charge batteries without adult supervision.

Charging and discharging batteries has the potential for serious injury to persons and damage to property. In purchasing this product, the user agrees to accept responsibility for all such risks, and will not hold Venom, it's affiliates, manufacturers, distributors, or retail partners responsible for any accident, injury to persons, or damage to property resulting from the use of this product. This product contains chemicals known to the State of California to cause Cancer, Birth Defects and other Reproductive Harm. Be responsible, dispose of properly.

### **WARNING**

- 1) Rotating and moving parts such as the rotor blades can cause severe injury. Keep hands, fingers, body parts and clothing away from moving parts.
- 2) If the battery in the helicopter is damaged in a crash, remove it from the helicopter. Keep battery away from your eyes at all times.
- 3) Only use the charger that came with your Venom™ Mantis. Do not use other chargers as they may damage the battery.
- 4) Do not fly the helicopter if the main rotor or tail rotor blades are cracked or damaged. Replace them immediately before flying.

### **IMPORTANT NOTES**

- 1) Read this instruction manual thoroughly before using the Venom™ Mantis.
- 2) Never disassemble or modify the Venom™ Mantis.
- 3) DO NOT allow children under the age of 14 to use the Venom™ Mantis.
- 4) Always turn the transmitter on first and off last to avoid an out of control model.



## CHARGING BATTERIES

To charge the Mantis, make sure the power switch on the helicopter is in the "OFF" position. Plug the charger cable into the charge port on the back of the helicopter located above the "ON/OFF" switch. Plug the charger into a wall outlet and the charge cycle will begin automatically. The red light on the wall charger will illuminate when the charging cycle begins. When the Red light goes off, the charge cycle is complete and the Mantis is ready to fly.



## RADIO PREPARATION

While the Helicopter is charging, screw the antenna clockwise into the top of the transmitter until it is secure. Do not overtighten the antenna to avoid stripping the threads. Remove the battery cover and install 8 new AA batteries. Note: 8 AA batteries are not included with the Venom Mantis.



## PROPER FLYING AREAS

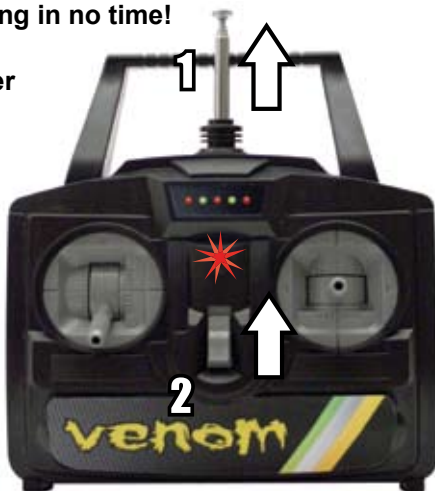
When your Mantis is charged and ready to fly, you need to find a proper flying area. What you need now is a spacious room or an open outdoor area without any obstacles. Make sure that the air is calm. Drafts caused by open windows or doors should be avoided. We recommend a flat, smooth surface on which the Venom™ Mantis can slide, soft carpet and grass is not a good choice for flying off of because it could hook the skid of the helicopter and cause damage. Carpet and grass are good surfaces to fly over because they can provide a softer landing in the event of a crash. Your flying area should be large and free of obstacles such as furniture, trees, power lines, people and animals. Make sure the area you are flying in meets these requirements. Do not fly your Venom™ Mantis in bad weather, high winds or near trees and water.

## PREFLIGHT PREPARATION

Now you're ready to fly! Follow these steps for final preflight preparation and you'll be flying in no time!

- 1) Fully extend the transmitter antenna.
- 2) Turn on the controller and make sure the Red light illuminates brightly.

**NOTE:** Always turn the transmitter "ON" first and "OFF" last to avoid an out of control model.



## ***PREFLIGHT PREPARATION CONT.***

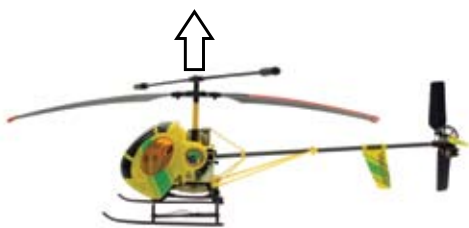
- 3) Turn on the Venom™ Mantis by moving the switch to the “ON” position.



- 4) Make sure your area is clear of people and obstacles and move to the next section to get your Mantis Airborne!

**NOTE:** Always turn the transmitter “ON” first and “OFF” last to avoid an out of control model.

## ***FLYING THE MANTIS***



Increase the Throttle stick to increase the speed of the main rotor. The faster the rotor spins the more lift it generates making the helicopter increase altitude.

## FLYING THE MANTIS CONT.



Decrease the Throttle stick to decrease the speed of the main rotor. The slower the rotor spins the less lift it generates making the helicopter lose altitude.



Push the Control stick to the left to rotate the helicopter left or "counter clockwise".



Push the Control stick to the right to rotate the helicopter right or "clockwise".

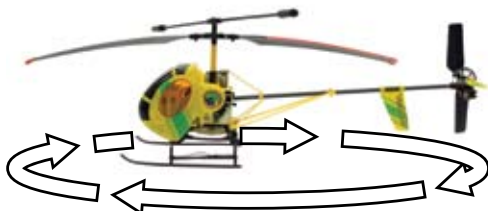
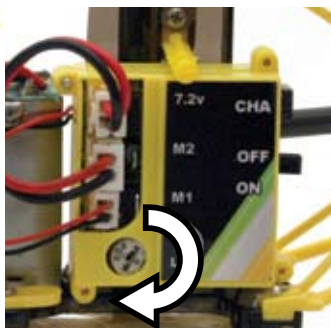
## TRIMMING THE MANTIS

The Venom™ Mantis is very stable in flight but slight deviations in tail movement will be unavoidable. If the helicopter rotates dramatically by itself without any Control stick input, you may need to adjust the potentiometer on the Main Control Unit. Don't worry, it just sounds difficult.



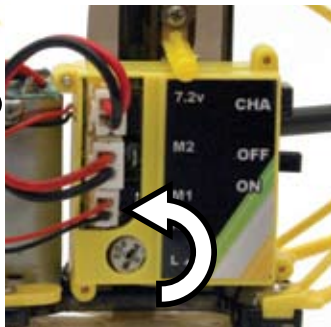
If the helicopter rotates to the left, use a small screwdriver to adjust the potentiometer screw clockwise in small increments until the rotation stops.

Potentiometer



If the helicopter rotates to the right, use a small screwdriver to adjust the potentiometer screw counter-clockwise in small increments until the rotation stops.

Potentiometer



## **TROUBLE SHOOTING**

<b>Description</b>	<b>Possible Problem</b>	<b>Solution</b>
<b>Transmitter Doesn't Work.</b>	1) Power Switch is off. 2) Batteries are not installed or incorrectly installed. 3) Batteries are old or dead.	1) Turn Power Switch on. 2) Make sure batteries are installed correctly. 3) Replace Batteries.
<b>Out of Control Helicopter.</b>	1) The transmitter is off. 2) Transmitter antenna is loose or not fully extended. 3) Flying in wind that is too strong.	1) Turn Power Switch on. 2) Tighten or fully extend antenna. 3) Do not fly in strong wind.
<b>Helicopter will not fly.</b>	1) Rotor blades are not spinning fast enough. 2) Battery is not fully charged.	1) Apply more throttle. 2) Fully charge battery before flying.

### **CARE AND MAINTENANCE**

- 1) Always remove the batteries from the transmitter when it is not being used for long periods of time.
- 2) Keep the model away from direct heat.
- 3) Do not submerge the model into water as it can damage the electronics.

### **NOTES**

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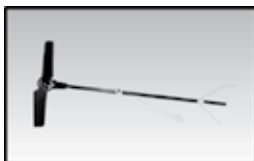
## PARTS LIST



**VENF-7580**  
Canopy



**VENF-7581**  
Main Frame



**VENF-7582**  
Tail Assembly



**VENF-7583**  
Battery Case & Cover



**VENF-7584**  
Landing Gear



**VENF-7585**  
Main Blades (1 Set)



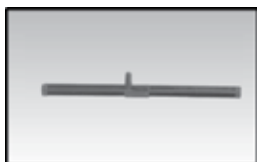
**VENF-7586**  
Tail Blade



**VENF-7587**  
Stabilizer Pole



**VENF-7588**  
Tail Fins



**VENF-7589**  
Canopy Mount

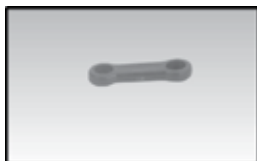


**VENF-7590**  
Blade Grips 2Pcs



**VENF-7591**  
Main Gear & Hub

## PARTS LIST



**VENF-7592**  
Stabilizer Link



**VENF-7593**  
Tail Motor Cover



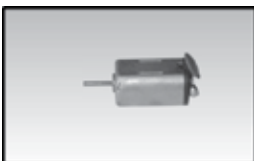
**VENF-7594**  
Main Shaft



**VENF-7595**  
Main Control Unit



**VENF-7596**  
Main Motor w/  
Connector



**VENF-7597**  
Tail Motor



**VENF-7598**  
Battery Pack



**VENF-7599**  
Battery Charge

## ORDERING REPLACEMENT PARTS

Venom Makes it really easy if you need to order replacement parts for your Venom™ Mantis. You can call our toll free 800 number Monday through Friday, 9:00am to 4:00pm Pacific Standard Time. You can also e-mail our helpful customer service department at [customerservice@venom-group.com](mailto:customerservice@venom-group.com). For the fastest parts replacement, visit our online store at [www.venom-group.com](http://www.venom-group.com) for convenient 24hr online ordering 7 days a week.

**Customer Service**  
800.705.0620

[customerservice@venom-group.com](mailto:customerservice@venom-group.com)  
[www.venom-group.com](http://www.venom-group.com)

