

REVOLVER™

SPECIAL FORCES

TRI38000

SPECIFICATIONS:

- Upper Rotor Diameter: 260 mm
- Lower Rotor Diameter: 260 mm
- Overall Length: 300 mm
- Drive: 2 high torque electric motors
- Battery: 7.4V 350mAh Li-Po battery
- Flying Weight: 80g w/battery
- Transmitter: TRIB1071

FEATURES:

Coaxial structure effectively offers stable flight and easy operation.

The combination of prompt servos and 2 high torque motors ensures various flight courses.

Adjustable servo extent and the sensitivity of built-in gyro in the 3-in-1 receiving circuit lets you make fine adjustments for perfect flight.

The hi-capacity 7.4V 350mAh Lithium Polymer battery pack on a fully charged cycle will offer 8 to 10 minute flight.



WARNING! THIS HELICOPTER USES A LI-PO (Lithium Polymer) BATTERY PACK AND ALL BATTERY WARNINGS AND BATTERY CARE INSTRUCTIONS MUST BE READ BEFORE USE.

Read these instructions and follow them in regards to safely charging your Li-Po battery pack. The user will take the full responsibility for using and the results of using this battery pack. Trinity Products Inc. your point of purchase and any dealer/distributor of this battery will assume no responsibility for the use or misuse of this product and any damages or injuries that may occur.

Li-Po (Lithium-Polymer) batteries are designed to out perform Ni-Cd and Ni-MH batteries in the areas of weight, voltage and capacity, but greater care must be taken to insure safe use in regards to your vehicle, person and surroundings.

The nature of Li-Po batteries is the capacity and performance gains comes at a cost in the areas of safety and maintenance. Used correctly your Li-Po battery pack will prove to be safe and reliable.

The Li-Po technology requires special chargers and different ways of charging and caring for your battery pack than you have been accustomed to with Ni-Cd and Ni-MH. More care is required with Li-Po especially during charging and storing.

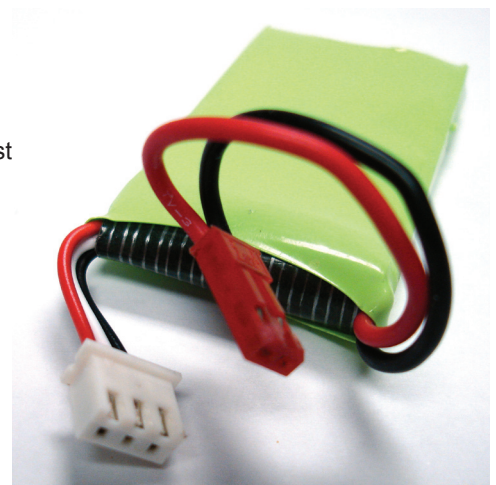
WARNING!

Li-Po batteries are unlike Ni-Cd and Ni-MH and cannot be charged, used, treated or stored in the same manner. The nature of the Li-Po battery pack is that the failure to follow the care and handling instructions provided can result in severe permanent damage to the battery pack, its surroundings, your person and it can even start a fire.

CHARGING:

• Your Trinity Li-PRO battery pack has both a RED power plug and a WHITE charging plug. The RED plug is used for powering your vehicle. The White plug is used for charging the pack battery.

•Never leave battery pack unattended at any time during charging. You must always charge your battery pack in a fireproof location, which could be a metal container like a pail, pot or bucket of sand. Always keep "ABC" type lithium approved fire extinguisher



present.

- Charge only with a Li-Po compatible charger that has a constant current/constant voltage (cc/cv) circuit, your enclosed Trinity charger has these specifications.

Never use a charger designed for Ni-Cd/Ni-MH. This will result in catastrophic failure of the battery that can result in serious fire and personal injury. Charging the battery pack with any charger other than the one supplied will void any warranty on the battery packs and can result in a catastrophic failure of the battery and cause damage to the battery, its surroundings, and cause personal injury.

- Never charge battery while in your helicopter. A hot battery pack could ignite foam, plastic or wood.
- Do not charge at currents greater than the battery packs 1C rating. A higher setting may cause fire. Your Trinity balanced charger will automatically charge your battery at the correct rate.
- Do not trickle charge your Li-Po batteries. Your Trinity charger has no trickle mode and stops charging when the battery becomes fully charged.
- Always use a Li-Po compatible charger that automatically detects the number of cells. Your Li-Po pack has 2 cells. The balancing plug will only fit in the 3 cell port of your charger.
- Do not allow battery temperature to exceed 140°F /60°C while charging. Batteries, which exceed these temperatures more than likely, have become damaged and can possibly catch fire. Always inspect any battery pack than may have become over heated and if you suspect damage do not reuse.
- Discontinue charging immediately if you see any smoke or swelling of the battery pack. This could cause the battery pack to rupture and leak. The chemicals used in Li-Po battery packs on exposure to the air may cause the chemicals to ignite. Disconnect battery and leave in a safe fireproof location for 60 minutes.
- Your Trinity Reference Li-PRO™ battery pack has a balanced charger input. This is to be used only with a balance charger like the (Trinity TRI22004) charger. This type of charger balances the cells making your battery more stable and higher performing.



- Monitor battery pack through out entire charge cycle. Do not leave unattended.

- The small balance charger plug is used only for balance charging. Do not fast charge through this connection.

USING & DISCHARGING:

- Make sure you stop running as soon as helicopter slows down. With a Li-Po battery you never want to drain the battery all the way down. Your helicopter will no longer produce lift when battery voltage drops to point you should stop using battery. Unplug battery pack and store it in safe area.

- Do not discharge the batteries with current exceeding their specified maximum continuous discharge current (C), otherwise, it will cause the batteries to overheat and result in battery deterioration, burst, balloon or may even cause fire or explosion.

- Stop using or charging the battery immediately whenever a battery becomes damaged, gives off an odor, becomes discolored or deformed, starts to balloon or swell up, leaks, its temperature reaches over 160°F (71°C) or anything else abnormal occurs, disconnect the battery and observe it in a safe fire proof place.

- Never discharge Li-Po battery below the Lowest Discharge Voltage, as it may cause irreversible damage that will deteriorate the battery performance and cycle life. Stop using battery as soon as vehicle slows.

- Discharge only in fireproof area.

DAMAGED BATTERIES:

- Because of the nature of Li-Po technology batteries subjected to crash damage are much more dangerous than Ni-Cd or Ni-MH cells. The battery may appear to have no physical damage however there could be a delayed chemical reaction which could cause the battery to smolder, smoke and catch fire even an hour after subjected to a crash. After a crash remove battery and place in fireproof location for observation. Leave for 24 hours for safety.

- Inspect battery packs for even the smallest crack, split, puncture or any damage to wires or connectors.

- Cells may get hot. DO NOT ALLOW the batteries electrolyte to get in eyes or on your skin. Wash affected areas immediately. If splashed in eyes flush with large amounts of water for 15 minutes and seek medical attention immediately.

STORAGE:

- For long-term storage charge battery fully and discharge to 50 to 60% capacity.

- Always store batteries in fireproof container. Never in helicopter.

- Store battery at room temperature in cool shaded area.

- Store battery in temperature between 40 to 75°F.

- Store battery out of direct sunlight and away from any liquids. Do not let battery get wet.

- Never transport batteries in your pit box or helicopter. Always

transport in fireproof container.

- Make sure all plugs and connectors are covered to prevent accidental shorting.
- Never leave your Li-Po battery pack in your full size automobile as temperatures can easily exceed 120°F damaging your battery.

HANDLING:

- Never charge or discharge your Li-Po battery pack around combustible materials.
- Never carry battery pack in pocket of clothing.
- Never store batteries near heat or open flame.
- Never allow battery to come in contact with water. If battery becomes wet wipe off immediately with rag.
- Never solder to battery pack. Soldering to Li-Po cells has to be done by professional Li-Po battery assemblers under controlled conditions.
- Never assemble Li-Po battery with any other Li-Po or other type of battery pack.
- Never disassemble, alter, modify, puncture, mechanical shock, crash and/or short the battery, it may cause leakage, smoke emissions, ignition, explosion and even fire, which may result in personal injury and property damage.
- Never charge without “ABC type” Lithium approved fire extinguisher readily available in case of fire.
- Keep all metallic objects away from battery pack. Shorting battery pack can cause fire and personal injury.
- If battery pack becomes overheated immediately put battery in fireproof container or location until battery pack cools.
- Always make sure there is adequate ventilation around battery pack while charging, discharging and during storage.
- Never store battery in R/C vehicle.

FIRST AID:

- Do not allow the battery packs electrolyte make contact with eyes or skin. If this happens was affected areas with soap and water immediately. If electrolyte comes in contact with eyes, flush with large amounts of water for approximately 15 minutes and seek medical attention immediately.
- If your battery leaks electrolyte, vapors or smokes do not inhale the leaked material or fumes. Leave the area and allow battery pack to cool and vapors to dissipate. Remove spilled liquid with absorbent material and wash area thoroughly with soap and water.

DISPOSAL:

- Li-Po batteries are environmentally friendly and do not need to be recycled like Ni-Cd. Although there is no recycling required Li-Po batteries need special care before disposing of them.
- Do not throw batteries directly in trash. There are measures you must take to dispose of damaged and undamaged battery packs. Throwing batteries directly in trash can result in fire.

Trinity Products Inc. assumes no liability for the use or misuse of this product. By purchasing this battery the consumer/buyer/user assumes all liability and will take the full responsibility for using and the results of using this battery pack.

Trinity Products Inc. your point of purchase and any dealer/distributor of this battery their employees or owners will assume no responsibility for the use or misuse of this product and any damages or injuries to property or person that may occur from its use.

If the above terms are not agreed to please return this battery pack to the place of purchase.

TRINITY PRODUCTS INC
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732-562-1234
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TOOLS NEEDED:

Your Revolver helicopter comes completely ready to ready to race except for 8 transmitter batteries. We recommend the following tools for keeping your Revolver running well.

Philips miniture screwdrivers
CA type glue.

When working on your Revolver never use an electric screwdriver as you risk stripping out the plastic parts.

WHAT'S NEEDED TO GET STARTED:

8 “AA” batteries for the transmitter.

WARNING:

The is not a toy. It is a complex combination of electronics, mechanics and aerodynamics.

Children under 16 years old are strictly forbidden from flying the helicopter with out adult supervision.

Always fly in a clear area. Never fly around other people or areas where you may cause damage by crashing your helicopter.

Keep clear of rotor blades at all times.

When your helicopter is flying, anything that causes the rotor blades to stop spinning will result in the helicopter crashing which could cause damage to the battery pack and the helicopter itself.

Before flying your helicopter, please spread the upper and lower blades and make sure the left and right blades are in line.

Notice: Please let the motors cool 10 minutes between flights, otherwise, the motors of your helicopter will take a high risk of burning out or may be damage.

Do Not allow any of the electrical components get wet. Do not fly in the rain or near water as water will damage the electronics, motors and battery pack.

You should complete a successful range check of your radio equipment prior to each new day of flying, or prior to the first flight of a new or repaired model.

If the helicopter gets dirty, dont use any solvents to clean it. Solvents will

damage the plastic and composite parts.

Always turn on the transmitter before plugging in the flight battery and always unplug the flight battery before turning off the transmitter.

Never cut the receiver antenna shorter or you could lose control of the helicopter during flight.

When flying the helicopter, please make sure that the transmitter antenna is completely extended and is pointed up toward the sky, not down toward the ground.

Transmitter Features

- 4-Channel Transmitter features:
- The panel is easy to operate with multistage indication.
- Ergonomic design, easy to hold and operate.
- Switches are available for various servos. It can perform the flight actions such as ascending, descending, forward, backward, left, right and so on.
- 4 channel micro-processor encoder, PPM modulation. requires 8 “AA”s for power.

Control Identification and Function:

MODE 1

1. Left stick/Rudder. It controls your helicopter forward, left, and right. Push up to fly your helicopter forward, pull down to fly backward, push leftward to fly left, and push rightward to fly right.

2. Right stick/Throttle. It controls your helicopter ascending, descending, left moving and right moving. Push up to ascend your helicopter; pull down to descend, push left to move your helicopter left, and push right to move right.

MODE 2

1. Left stick/Rudder. It controls your helicopter forward, left, and right. Push up to fly your helicopter forward, pull down to fly backward, push left to fly left, and push right to fly right.

2. Right stick/Throttle. It controls your helicopter ascending, descending, left moving and right moving. Push up to ascend your helicopter; pull down to descend, push left to move your helicopter left, and push right to move right.

3. Elevator trim. It controls and modifies your helicopter forward and backward. Push up to fly forward, and pull down to fly backward.

4. Rudder trim. The trim controls and modifies your helicopter left and right. Move the trim left to fly left, and move right to fly right.

5. Throttle trim. The trim controls and modifies your helicopter to ascend and descend. Push up the trim to ascend, and pull down to descend.

6. Aileron trim. The trim controls your helicopter left and right. Push the trim left and fly left, and push the trim right and fly right.

7. Power switch. Turns on or off the power of the transmitter. Push up the switch to turn on the power, and push down to turn off.

8. Antenna. Transmits the signals.

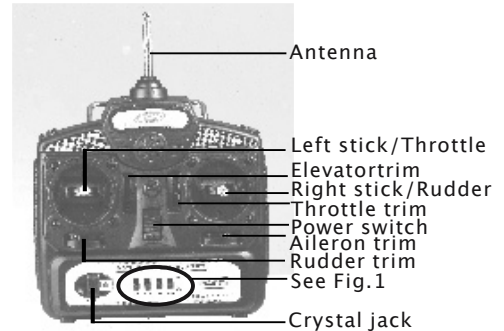
9. Crystal jack. It facilitates to alter the frequency by changing the crystal oscillator.

10. Charge jack. Charge the battery back if rechargable battery pack is used. Not included.

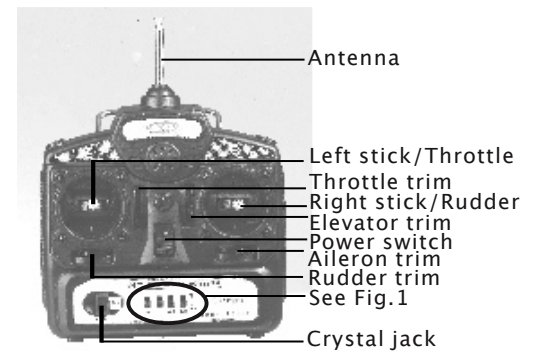
11. Battery box. Please note the polarities while inserting the batteries.

Switch Identification(Fig.1)

1. Flybar paddle. Reverses the aileron servo direction.
2. Elevator. Reverses the elevator servo direction.
3. Throttle. Reverses the throttle stick direction.
4. Tail Rotor Blade. Reverses the rudder stick direction.



Mode I



Mode II

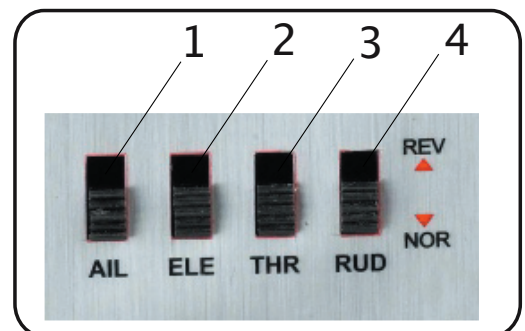
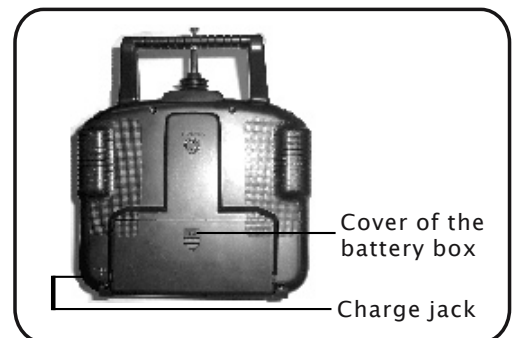


Fig.1

Receiver Identification (Fig.2)

1. CH1, connects to the aileron servo.
2. CH2, connects to the elevator servo.
3. MAIN Mo, connects to the driver motor.
4. TAIL Mo, connects to the tail motor.
5. Battery, connects the battery pack.
6. Sensitive, gyro sensitivity knob. Adjust the sensitivity according to the hunting effect of the helicopter while flying. Clockwise tune the knob to increase the sensitivity and counterclockwise tune to decrease the sensitivity., connect the battery pack.
7. LED, LED indicates the receiving status. Quick flash means the signal is being received; LED on means the signal has been received; slow flash means the signal failed to be received.

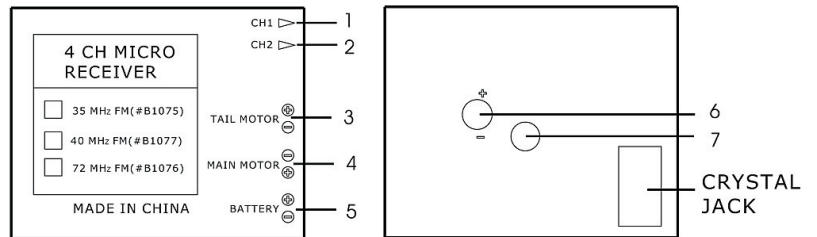


Fig. 2

Swashplate Adjustment

1. Swashplate check. Pull down the throttle stick and throttle trim to the lowest position, and put the elevator trim and eileron trim in the neutral position. Check whether the swashplate is in a horizontal level.
2. Swashplate adjustment. If the swashplate is not in a horizontal level, adjust via the following two steps: servo and servo bellcrank adjustment. Re-connect the battery cable to the motor again and await the servo reposition. After the reposition is ready, adjust the angle between the servo bellcrank and servo linkage rod at 90 degrees (Fig. 3). Servo linkage rod adjustment. Adjust the servo linkage rod to parallel to swashplate bottom level.

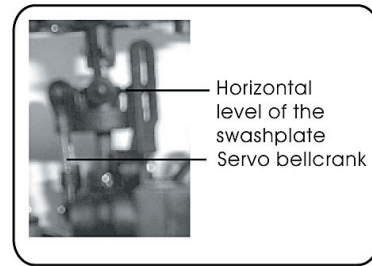


Fig. 3

Main Rotor Blade Adjustment

1. Main rotor blade inspection. (1) Inspect whether the fixing screws of the main rotor blade are too tight or loose. Extreme tightness or loosening of the blades will result in instable flight. (2) Inspect the blade tracking problem. Blade tracking will lead to instable flight.
2. Main rotor blade adjustment. (1) Keep the fixing screw of the main rotor blades not too tight or too loose. (2) Lengthen or shorten the short ball linkage if the blade tracking is exhibited (Fig.4)

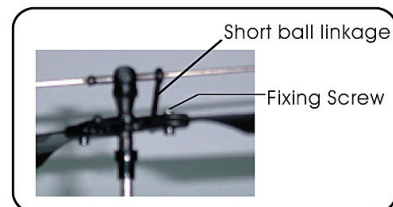
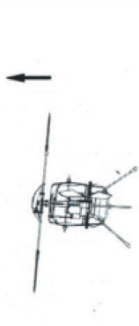
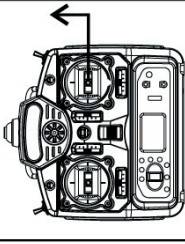


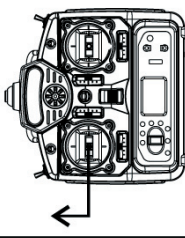
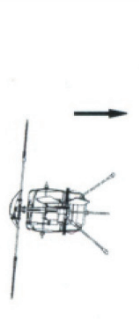
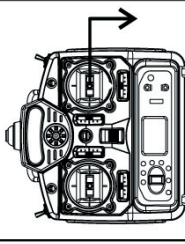
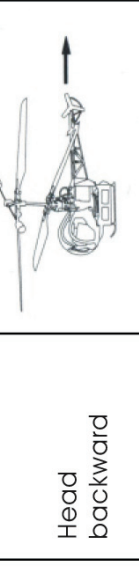

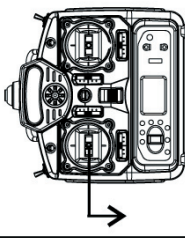
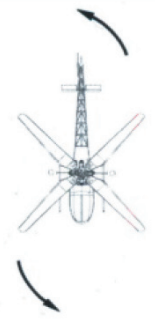
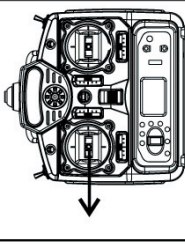
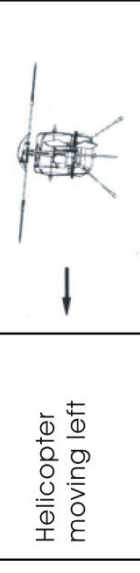
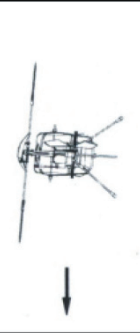
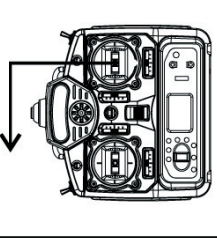
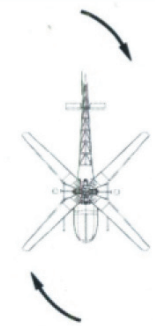
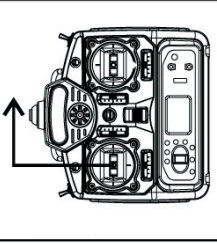
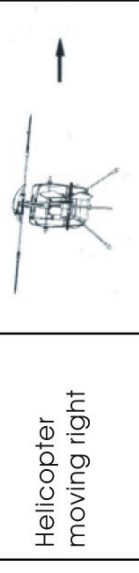
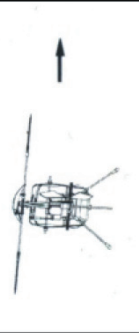
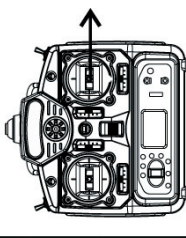





Fig. 4

■ Main Rotor Blade Adjustment

Normal Mode

Ascending			Throttle pushing up		Head forward			Elevator stick pushing up
Descending			Throttle pulling down		Head backward			Elevator stick pulling down
Head turning left			Rudder stick moving left		Helicopter moving left			Aileron stick moving left
Head turning right			Rudder stick moving right		Helicopter moving right			Aileron stick moving right

REVOLVER PARTS LIST

<p>TRI38001, Stabilizer Set \$9.99</p> 	<p>TRI38002, Upper Rotor Bracket \$4.99</p> 	<p>TRI38003, Lower Rotor Bracket With Shaft \$5.99</p> 	<p>TRI38004, Rotor Holder \$2.99</p> 
<p>TRI38005, Swashplate 1 Set \$5.99</p> 	<p>TRI38006, Main Gear 1 Set \$5.99</p> 	<p>TRI38007, Tie-Rods 1 Set \$2.99</p> 	<p>TRI38008, Motors w/Pinions 2 Sets \$35.99</p> 
<p>TRI38009, Blade set 2 Pair \$3.99</p> 	<p>TRI22004, Balanced Li-Po Charger \$49.99</p> 	<p>TRI380010, Li-Po Battery Pack \$29.99</p> 	<p>TRI380011, Tail Rotor Assembly \$4.99</p> 
<p>TRI380012, Main Body \$1.99</p> 	<p>TRI380013, Landing Gear, Battery Holder \$1.99</p> 	<p>TRI380014, Canopy & Decals \$5.99</p> 	<p>TRI380015, Ball Bearing, 3x6x2mm, 2 pieces \$6.99</p> 

WARRANTY INFORMATION

Your Revolver helicopter is covered only for defects at the time of manufacture. Trinity has no control over usage of this helicopter or the skill of the operator once they leave the dealer, therefore Trinity can only offer a warranty against all manufacturer's defects in materials, workmanship, and assembly at point of sale (before use). No warranties are expressed or implied that cover damage caused by what is considered normal use, or cover or imply how long any motor, battery or electronic component will last before requiring replacement.

Any and all warranty coverage will not cover replacement of any part or component damaged by crashing, neglect, abuse or improper or unreasonable use. This includes but is not limited to damage from crashing, improper adjustment of electronics, chemical and/or water damage, excessive moisture, improper or no maintenance, or user modifications which compromise the integrity of components.

Trinity does not pay nor refund shipping on any component sent to Trinity for warranty.

All Revolver warranty issues are handled directly by Trinity Products Inc. in Piscataway, NJ.

All warranty claims must be accompanied by original receipt UPC bar code from the side of the box and a Warranty Authorization number.

This number is obtained by contacting Trinity at the e-mail address listed below.

Trinity reserves the right to make the final determination of the warranty status of any component or part.

Any component sent in for warranty without the proper information

will be held for 60 days. The sender will be notified on return shipping charges via e-mail or parcel post within 3 days. After 60 days the parts will be discarded.

You may contact us for warranty or technical support through our e-mail tech support address: tsupport@teamtrinity.com. All e-mail is usually answered within 24 hours.

Limitations of Liability, Trinity Products Inc. makes no other warranties expressed or implied. Trinity shall not be held liable for any damages to property or person resulting in the use of this product or any accessories required to use this product.

In the act of purchasing, using or operating this helicopter, the user accepts all resulting liability. In no case shall Trinity's liability exceed the purchase price of the vehicle.

Trinity Products Inc. assumes no liability for the use or misuse of this product. By purchasing this helicopter with Li-Po battery the consumer/buyer/user assumes all liability and will take the full responsibility for using this product.

Trinity Products Inc. your point of purchase and any dealer/distributor of this battery their employees or owners will assume no responsibility for the use or misuse of this product and any damages or injuries to property or person that may occur from its use.

If the above terms are not agreed to please return this product to the place of purchase.

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