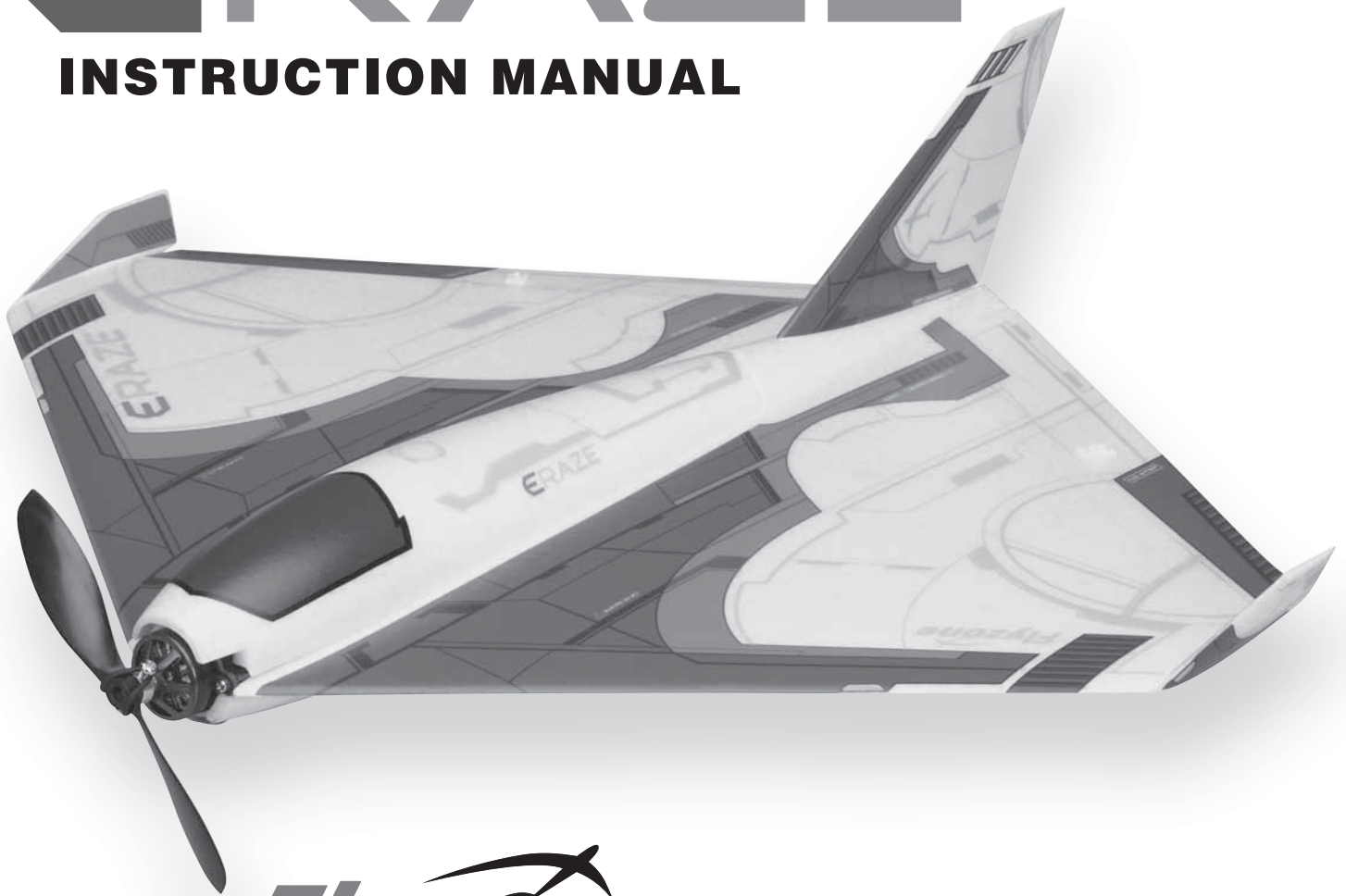


# ERAZE™

## INSTRUCTION MANUAL



**Flyzone™**  
how high will you soar

### WARRANTY

**Flyzone** guarantees this kit to be free from defects in both material and workmanship at the date of purchase. This warranty does not cover any component parts damaged by use or modification. **In no case shall Flyzone's liability exceed the original cost of the purchased kit.** Further, Flyzone reserves the right to change or modify this warranty without notice.

In that Flyzone has no control over the final assembly or material used for final assembly, no liability shall be assumed nor accepted for any damage resulting from the use by the user of the final user-assembled product. By the act of using the user-assembled product, the user accepts all resulting liability.

**If the buyer is not prepared to accept the liability associated with the use of this product, the buyer is advised to return this kit immediately in new and unused condition to the**

**place of purchase.**

To make a warranty claim send the defective part or item to Hobby Services at the address below:

**Hobby Services**  
3002 N. Apollo Dr. Suite 1  
Champaign IL 61822 USA

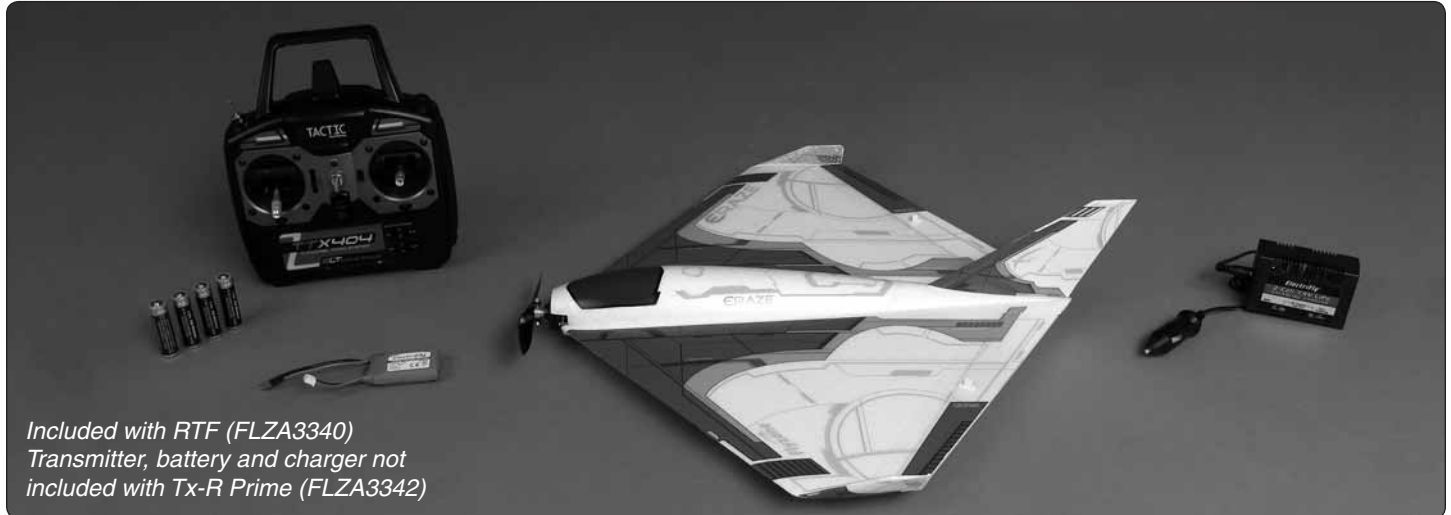
Include a letter stating your name, return shipping address, as much contact information as possible (daytime telephone number, fax number, e-mail address), a detailed description of the problem and a photocopy of the purchase receipt. Upon receipt of the package the problem will be evaluated as quickly as possible.

READ THROUGH THIS MANUAL BEFORE STARTING CONSTRUCTION. IT CONTAINS IMPORTANT INSTRUCTIONS AND WARNINGS CONCERNING THE ASSEMBLY AND USE OF THIS MODEL.

## TABLE OF CONTENTS

PRECAUTIONS .....	3	CENTER OF GRAVITY .....	10
ADDITIONAL ITEMS REQUIRED.....	3	ARM THE MOTOR.....	10
LITHIUM BATTERY HANDLING & USAGE .....	4	CHOOSE A FLYING SITE.....	10
CHARGE THE BATTERY .....	4	RANGE CHECK.....	10
TTX404 TRANSMITTER.....	5	HAND LAUNCHING .....	11
FINAL SETUP .....	7	FLIGHT .....	11
POWER THE TTX404 AND CENTER THE TRIMS .....	8	REPAIRS .....	11
CHECK THE CONTROL SURFACE DIRECTIONS .....	8	REPLACEMENT PARTS.....	11
CENTER THE CONTROL SURFACES.....	10		

## INCLUDED ITEMS



*Included with RTF (FLZA3340)  
Transmitter, battery and charger not  
included with Tx-R Prime (FLZA3342)*

Check the parts against those shown. If any parts are damaged or missing, please call Hobby Services at: (217) 398-8970.

## FCC AND ETSI

### FCC REQUIREMENT



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.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

**NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.**

### CE COMPLIANCE INFORMATION FOR THE EUROPEAN UNION

**Instructions for Disposal of Waste Equipment by Private Users in the European Union:** This symbol on the product or its packaging indicates this product must not be disposed of with other household waste. Instead, it is the user's responsibility to dispose of their waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or location where you purchased the product.



#### Declaration of Conformity:

Product: Tactic TTX404 2.4GHz 4-Channel Tx Rx  
Item number: TACJ2404, Equipment class: 1



Tactic TTX404 transmitter and Tactic TR624 receiver: The objects of the declaration described here are in conformity with the requirements of the specifications listed below, following the provisions of the European 2006/95/EC Low Voltage Directive:

EN 60950-1:2006 Safety

The objects of the declaration described here are in conformity with the requirements of the specifications listed below, following the provisions of the European R&TTE directive 1995/5/EC:

ETSI EN 300 328 V1.7.1 Technical requirements for radio equipment  
ETSI EN 301 489-1 V1.8.1, 301 489-17 V1.3.2 General EMC requirements for radio equipment

Tactic™  
c/o Hobbico, Inc.  
2904 Research Road  
Champaign, IL USA 61826

The associated regulatory agencies of the following countries recognize the noted certifications to this product as authorized for sale and use.

UK	DE	DK	BG	SE	FI	
EE	LV	LT	PL	CZ	SK	HU
RO	SI	AT	IT	ES	PT	IE
NL	LU	MT	CY	GR		

## PRECAUTIONS

Your Erazé should not be considered a toy, but rather a sophisticated, working model that functions very much like a full-size airplane. Because of its performance capabilities, the Erazé, if not assembled and operated correctly, could possibly cause injury to yourself or spectators and damage to property.

1. Operate the plane **according to the instructions**. **DO NOT** alter or modify the model. If you make any modifications, you void your warranty.
2. **Test** the operation of the model **before each flight** to ensure that all equipment is operating properly and that the model remains structurally sound.
3. Fly only on calmer days (with wind speeds no more than 10 mph) and in large open areas free of trees, people, buildings, or any other obstacles.
4. If you are not an experienced pilot or have not flown this type of model before, we recommend that you get the assistance of an experienced pilot in your R/C club for your first flights. If you're not a member of a club, your local hobby shop has information about clubs in your area whose membership includes experienced pilots. You can also contact the National Academy of Model Aeronautics (AMA) which has over 2,500 chartered clubs across the country. Instructor training programs and insured newcomer training are available through any of these clubs. Contact the AMA at the following address or toll-free phone number:

### Academy of Model Aeronautics

5151 East Memorial Drive  
Muncie, IN 47302-9252

Ph. (800) 435-9262  
Fx. (765) 741-0057

[www.modelaircraft.org](http://www.modelaircraft.org)

### TRANSMITTER CAUTIONS

- Do not use rechargeable (NiCd) batteries.
- Do not mix old and new batteries.
- Do not mix alkaline, standard (carbon-zinc) or rechargeable (NiCd) batteries.

### BATTERY CHARGING PRECAUTIONS

- ❑ 1. Always remove the battery from your Erazé before charging.
- ❑ 2. Allow the battery to cool after flight before recharging.
- ❑ 3. Do not leave a charging battery unattended! Unplug the battery if it gets warm, even if the charge LED has not gone out.

**WARNING:** Misuse or malfunction may overheat the battery and charger, resulting in personal injury or damage to surroundings.

**It is critically important to use only 2S 7.4V or 3S 11.1V LiPo batteries within the recommended capacity range that do not include a PCM (Protection Circuit Module) charging circuit inside the battery.**

**Most PCM circuits restrict the delivery of power to the ESC and motor and may cut all power to the receiver and thus, result in complete loss of control over the model.**

### LITHIUM POLYMER BATTERY RECYCLING



LiPo

**ATTENTION:** The product you have purchased is powered by a rechargeable battery. At the end of the battery's useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste system. Check with your local solid waste officials for details in your area about recycling options or proper disposal.

**WARNING:** This product contains a chemical known to the State of California to cause cancer.

## ADDITIONAL ITEMS REQUIRED

### Radio Control System

The Erazé Tx-R Prime (transmitter ready) comes with the servos and a Tactic™ TR624 receiver installed, so all that is required is a 3+ channel transmitter with elevon mixing. The Tactic TTX404 2.4GHz spread spectrum 4-channel radio control system (TACJ2404) is included with the RTF (ready to fly) version of the Erazé, so this same radio system is ideal for your Tx-R version, too.

- Tactic TTX404 2.4GHz 4-channel system (TACJ2404)
- (4) AA batteries will be required to operate the recommended transmitter (FUGP7300).

If you already own a transmitter that you plan to use with the Erazé, first make sure it is in the compatibility list at [www.Tx-Ready.com/anylink-chart.html](http://www.Tx-Ready.com/anylink-chart.html). If so, you can purchase the AnyLink™ 2.4GHz Universal Radio Adapter to allow your transmitter to communicate with the pre-installed Tactic receiver.

- Tactic AnyLink 2.4GHz Universal Radio Adapter (TACJ2000) which includes the AnyLink Cable Futaba® Square (TACM0001) and the AnyLink Cable JR/Spektrum/Graupner (TACM0002)
- Tactic AnyLink SLT™ 2.4GHz Adapter Cable Futaba Hitec® Round (TACM0003)
- Tactic AnyLink SLT 2.4GHz Adapter Cable Hitec Aurora (TACM0004)
- Tactic AnyLink SLT 2.4GHz Cable Spektrum® DX4e/5e/7s/8 (TACM0005)
- Tactic AnyLink SLT Cable Fut 12Z/14MZ/18MZ/4YF 2.4GHz (TACM0007)
- Tactic AnyLink SLT 2.4GHz Cable Spektrum® DX4e/5e/7s/8 Deans® Micro (TACM0008)

## Battery and Charger

The Erazz comes complete with a motor battery and charger. The Tx-R version requires a 600mAh 7.4V LiPo battery and LiPo Charger. The Erazz was designed for the Electrifiy® 600mAh 7.4V LiPo battery (GPMP0820). Other LiPo batteries similar in size with the same voltage and capacity may also work, but they may not fit properly in the battery compartment or have the same type of battery connector. In addition to a battery, a LiPo battery charger is also required and there are several that will work (depending on your budget and requirements). A safe, economical charger is the Electrifiy 2S (2-cell/7.4V) LiPo Balancing Charger (GPMM3321). The charger includes adapters to charge from a 110V wall outlet or a 12V DC outlet from a car. The charger will take approximately 1-1/2 hours to fully charge the battery. Some pilots prefer to have several batteries and charge them faster so they can fly more. For charging up to four batteries faster at the same time, the Great Planes PolyCharge4™ DC-powered LiPo charger (GPMM3015) is recommended. But unlike the Smart Charger, the PolyCharge4 does not have an internal LiPo cell balancer which is a critical component in making sure your LiPo batteries charge efficiently and evenly. So, for each LiPo battery you wish to charge simultaneously, one Great Planes Equinox™ LiPo Cell Balancer (GPMM3160) will also be required. Finally, the PolyCharge4 does not have AC capability, so if wall charging is a priority, a separate AC 12-Volt power source must also be purchased separately. A suitable power supply for the PolyCharge4 is the Great Planes 12V 12A DC power supply (GPMP0901).

## LITHIUM BATTERY HANDLING & USAGE

**ONLY** use a LiPo approved charger. **NEVER** use a NiCd/NiMH peak charger to charge a LiPo battery.

**NEVER** charge in excess of 4.20V per cell.

**ONLY** charge through the “charge” lead. **NEVER** charge through the “discharge” lead.

**NEVER** charge at currents greater than 1C unless the battery is rated for a higher charge rate.

**ALWAYS** set the charger’s output volts to match the battery volts.

**ALWAYS** charge in a fireproof location.

**NEVER** trickle charge.

**NEVER** allow the battery temperature to exceed 150°F (65° C).

**NEVER** disassemble or modify the pack wiring in any way or puncture the cells.

**NEVER** discharge below 2.5V per cell.

**NEVER** place the battery or charger on combustible materials or leave it unattended during charge or discharge.

**ALWAYS** KEEP OUT OF THE REACH OF CHILDREN.

**NEVER** charge the battery in the plane.

**ALWAYS** remove the battery from the plane after a crash. Set it aside in a safe location for at least 20 minutes. If the battery is damaged in the crash it could catch fire.

If the battery starts to swell, quickly move the battery to a safe location, preferably outside. Place it in a bucket, covering the battery with sand. Never use water to try and put out a LiPo fire.

## CHARGE THE BATTERY



The Electrifiy® LiPo Battery Charger is great for simple balance charging of 2-cell lithium-polymer batteries for small electric models. Use it only to charge batteries within a capacity range of 150 to 750mAh.

## Specifications

<b>Input voltage:</b>	11.7V–15V DC
<b>Battery types, # cells:</b>	2 lithium-polymer cells connected in Series (7.4V LiPo)
<b>Charge current:</b>	450 mA maximum
<b>Charge method:</b>	CC-CV (current drop-off termination)
<b>Battery capacity:</b>	150–750 mAh
<b>Status indicator:</b>	Two LEDs; one green, one red
<b>Input connectors:</b>	polarized DC power jack for DC input
<b>Output connectors:</b>	one 2S balance plug
<b>Case size:</b>	2.18" x 1.13" x 3.26" [55 x 28 x 82 mm]
<b>Weight:</b>	2.1 oz. [59 g]

## Special Features

- A very economical, portable and simple way to balance charge LiPo batteries
- Specifically designed for 2-cell 7.4V lithium-polymer batteries only
- “Constant current/constant voltage” charge method
- Automatically starts charge upon connection of battery to the balance plug
- 450 mA maximum charge current requires no adjustment
- Twin LEDs indicate charging status

## Important Precautions

- Charge only lithium-polymer (LiPo) rechargeable batteries that are 2S (2 cells in series) 7.4V nominal voltage, from 150mAh to 750mAh, which have a balance connector.
- Do not attempt to use this charger with NiCd, NiMH or different types of Lithium-Ion batteries as they are not compatible!

- Do not leave the charger unattended while charging. Disconnect the battery and remove input power from charger immediately if either becomes hot! However, it is normal for the charger to get warm.
- Disconnect the battery from the charger immediately and remove to a fireproof location if the battery begins to swell or smoke!
- Only use the included car adapter or approved AC adapter to power the charger.
- Do not use charger with car running.
- Do not allow water, moisture or foreign objects into the charger.
- Do not block the air intake holes, which could cause the charger to overheat.
- Do not place the charger or any battery on a flammable surface or near a combustible material while in use.
- Do not charge on a carpet, cluttered workbench, paper, plastic, vinyl, leather, wood, or inside an R/C model.
- Never charge inside a full-sized vehicle.
- Always disconnect charger from input power when not in use.
- Do not attempt to charge a battery if it is swollen or hot.
- Keep out of reach of children.

## Charging Batteries

**IMPORTANT!! ALWAYS charge a LiPo battery in a location that is fireproof. NEVER leave the battery unattended while being charged! If the battery feels warm during charge, remove the battery at once and disconnect the charger from the power source.**

Heat-resistant LiPo charging bags (GPMP0751) provide additional safety when charging and are available through your hobby supplier.

Use only approved power input accessories – the included car adapter and AC adapter (also available separately GPMM3310).

### To charge a battery:

1. Connect input power to the charger. The GREEN LED will be lit, indicating standby mode. The RED LED will be OFF.
2. Connect the battery to be charged to the balance plug. The RED LED will also be lit, and remain RED during charging. Both LEDs should be lit solid while charging.
3. When the battery is fully charged, the GREEN LED will turn OFF. Remove the battery from the charger at this time.
4. Charging time depends on level of discharge and capacity of the battery. To estimate how long it should take to charge an empty battery, divide the capacity of the battery in mAh by the charge rate in milliamps:

600mAh battery / 450 mA ~ 80 minutes



**LED scheme – Use this table to determine charge action:**

<b>RED LED</b>	<b>GREEN LED</b>	<b>ACTION</b>
OFF	Solid ON	No battery is connected
OFF	Flashing	Conditioning battery
Solid ON	Solid ON	Battery charging
Solid ON	OFF	Charge complete
Flashing	Flashing	ERROR

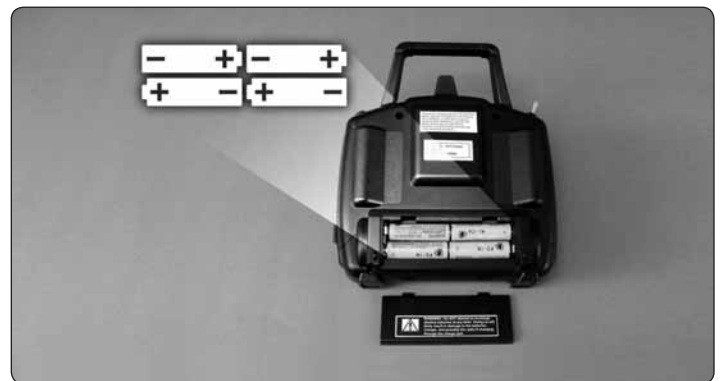
Possible sources of battery error may include a highly unbalanced pack, charger timed out, or one cell in the pack which is low voltage. In the case of a battery error, please remove the battery pack from the charger and inspect it carefully for swelling or any other damage, such as broken wires.

## Optional 11.1V Battery

The Erazz can also be flown with a 3-cell 11.1V 600mAh LiPo battery (GPMP0821). The added power is recommended only for those who are already familiar with the flight characteristics of Erazz using the included 2-cell battery. The roll rate becomes impressively fast at the increased speed and the orientation of the Erazz could become difficult to discern for unprepared pilots. If you purchase the optional 11.1V battery, you will also need a charger capable of balance charging a 3-cell LiPo. An economical choice would be the Great Planes AC/DC 3S LiPo Balancing Smart Charger (GPMM3318). A much more comprehensive charger which can function for most or all of your charging needs is Great Planes ElectricFly Triton EQ AC/DC Charger (GPMM3155).

## TTX404 TRANSMITTER

For more information on the Tactic Radio System included with the Erazz visit [tacticrc.com](http://tacticrc.com)



To install the batteries, slide the battery door down. Insert the cells as shown in the diagram, making sure to note proper polarity for each cell. Close the battery door.

## Power Switch, LED, and Low Battery Alarm

The red power LED should light when the power switch is moved upwards to the “ON” position. The Tx should have adequate power for flight when the LED is on constantly. Anytime the LED begins to flash, accompanied by the sounding of an audible tone, the Tx battery voltage has dropped too low **and operation of the model should NOT be attempted!**



**WARNING! Never operate an R/C model with weak Tx batteries! Reduced operational range and/or possible loss of control of the aircraft could result. Replace weak alkaline batteries, or re-charge NiCd or NiMH batteries before attempting a flight!**

If during a flight the Tx LED starts to flash, accompanied by the sounding of audible tones, it's a warning that the Tx batteries have become weak and the aircraft should be landed as soon as possible!

### Adjustable Sticks



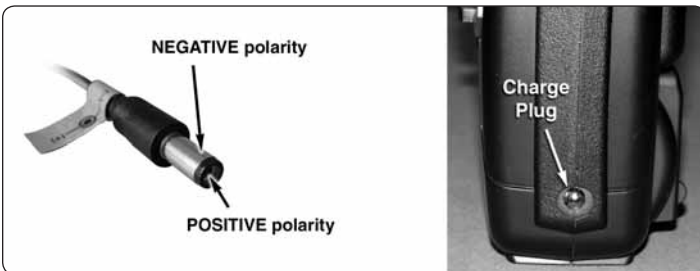
The length of both gimbal sticks can be adjusted as desired. Loosen the set screw inside the center of the stick with a 2mm hex wrench. Rotate the stick end counter-clockwise to lengthen the stick, or clockwise to shorten the stick. Once the desired stick length is found, tighten the set screw with the hex wrench.

### Charge Jack



**WARNING!! Do NOT attempt to recharge alkaline batteries! The charge jack should ONLY be used if rechargeable cells are used in the transmitter.**

The TTX404 includes a built-in charge jack for convenient recharging of NiCd or NiMH batteries, and is compatible with charge leads designed for Futaba® brand transmitters. (HCAP0101) This jack is NOT compatible with charge leads for Hitec®, Airtronics®, JR® or Spektrum® radios. The polarities for compatible charge plugs are as shown in the picture below.



To use the charge jack with optional rechargeable batteries, first remove the sticker that covers the charge jack on the side of the Tx – making sure not to allow any object to be inserted inside the jack itself. Next, insert the cells inside

the Tx's battery compartment noting proper polarity. Make sure the transmitter's power switch is in the OFF position. Connect a compatible charge lead to the jack and follow the instructions included with the charger for charging of NiCd or NiMH batteries that are rated at 4.8V.

An inexpensive DC field charger that is compatible with the recommended charge leads is the Hobbico® Quick Field DC Charger MKII (HCAP0290). A more advanced AC/DC recommendation is the Hobbico Accu-Cycle Elite Battery Cycler (HCAP0280).



**WARNING!! It's not recommended to charge batteries at greater than 1 amp through this charge jack. Fast charging of NiCd and NiMH batteries should ONLY be done with chargers that are specifically designed to include the peak-detection function which can automatically stop charge when full charge is detected. Misuse, improper charging, or over-charging of rechargeable cells can result in damage to the cells that could include cell rupture, explosion, or fire!!**

### Trainer Function

The TTX404 Tx includes a built-in **wireless** trainer function – no trainer cable required! This trainer system connects a teacher's Tactic Tx to a student's Tactic Tx by wireless connection. Tactic's wireless trainer function is not compatible with trainer systems in any other brand radios.



**IMPORTANT!** Before attempting to fly the airplane, it's very important to make sure all reversing switches and trim lever adjustments on the student's Tx match the settings on the teacher's Tx! Otherwise, the airplane could suddenly veer off in an unwanted manner when the teacher's trainer switch is pressed. Proper matching of the student and teacher's Tx settings should ensure that no unexpected movements occur when the trainer switch is pressed. This is especially true of the throttle control!

1. The Tx that was used to setup the controls on the aircraft must be used by the TEACHER.
2. The student must use a separate Tactic Tx with wireless trainer function.
3. Place the teacher and student's transmitters within 1 meter of each other, and make sure the throttle stick for each Tx is set to idle.
4. Turn ON the power switch for the Tx being held by the student.
5. Pull and hold the trainer switch on the teacher's Tx, and then turn ON the teacher's Tx power switch.
6. The LED on the teacher's Tx will flash 3 times to indicate it has become bound with the student's Tx.
7. The teacher can then release his trainer switch.
8. Once both transmitters are bound together, power can be applied to the receiver to prepare for flight.

When the training session has ended, with the model on the ground and all power removed from the model, place both transmitters within 1 meter of each other and simply turn the

power switch for both transmitters to the OFF position. This will terminate the wireless link between both transmitters. If additional training will be performed again, return to step 1 above to re-establish the wireless link between the teacher and student's transmitters.

### ***Bind the Receiver to the Tx***

For proper operation it's necessary to "bind" the Tx and Rx together electronically. This ensures sole communication between the two, and prevents other transmitters from being able to control the receiver.

1. Turn on the Tx.
2. Apply power to the Rx.
3. If the Rx LED flashes once and then stays on, the Rx is already bound to the Tx and you can skip to the next section. Otherwise, insert a small diameter screwdriver through the hole marked "BIND" and press the pushbutton until the Rx LED glows red and then turns off after about one second.
4. Release the "BIND" button.
5. If the binding is successful, the Rx LED will flash once and then remain ON.
6. Test for proper Tx/Rx functionality in the next section. If the radio doesn't appear to have become properly bound, repeat steps 1–6 above.

### ***Failsafe Function***

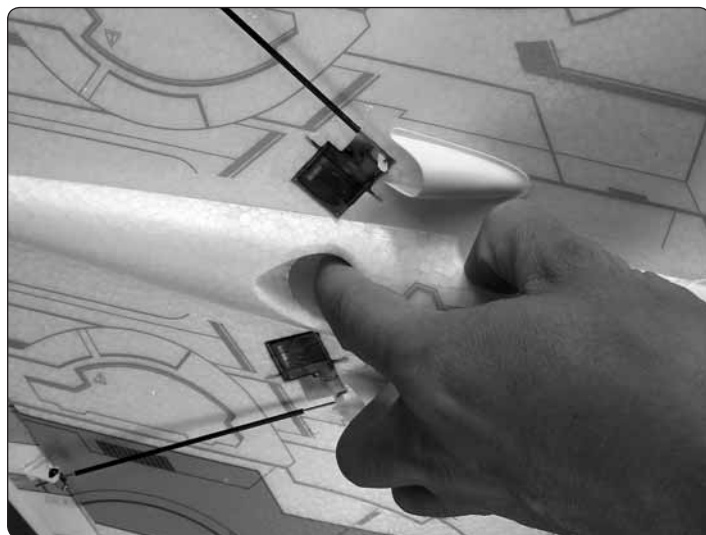
The included TR624 receiver has a failsafe feature which engages in the event that the radio signal from the transmitter somehow becomes interrupted. This safety feature causes the servos to automatically move either to a certain position, or hold their last position so to prevent the model from moving in an erratic manner. Channels 1, 2, and 4 will enter a "hold" mode, whereby the servos will lock in their last recognized position.

Channel 3 will move to a pre-set position. The factory default failsafe position for channel 3 is to move the throttle to 0%. Motor/prop movement should stop if the receiver loses signal from the transmitter. The throttle servo's failsafe position can be manually re-set to any other position if desired, as follows:

**IMPORTANT NOTE:** Before manually resetting the failsafe, make sure the servo reversing switches are in the correct position for the application.

1. Apply power to the Tx and Rx.
2. If using an ESC, do NOT arm the ESC. Do NOT attempt to adjust the throttle's failsafe position if the ESC is armed. (Disconnect one of the three motor wires to disable the motor.)
3. Move the Tx throttle stick to the desired position for the throttle control to move if the Rx goes to failsafe (otherwise this process may arm the motor).
4. Press and hold the "Bind" button on the receiver, and the Rx's LED should blink twice. Release the Bind button, and the receiver's LED should turn on (stop flashing). The Tx and Rx should now be bound, with the throttle failsafe in the new position as set above.

## **FINAL SETUP**



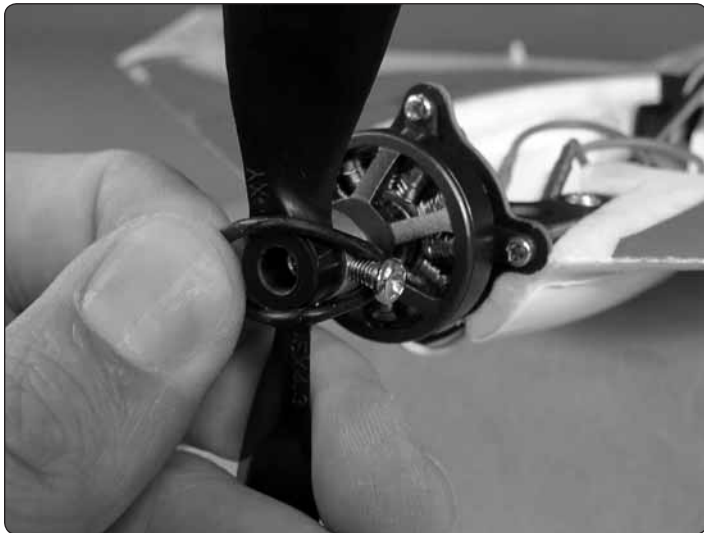
The canopy hatch is held securely to the plane with strong magnets. To avoid damaging the foam material when removing the canopy hatch, reach your finger up through the cooling hole on the underside of the fuse and push it off.



The fin easily connects to the plane with magnets. Align the fin into the slot and it will click into place.



Install the prop saver adapter onto the motor shaft aligning the screws with the flat spots on the motor shaft. Be sure you have the smallest diameter end of the prop saver towards the front. Tighten the screws against the motor shaft.



Press the propeller onto the prop saver adapter. Hook a prop saver o-ring onto one of the screw heads and pull the o-ring over the prop hub onto the opposite screw head.

## POWER THE TTX404 AND CENTER THE TRIMS

Illuminated red light indicates the TTX404 is powered and transmitting.

Keep the left stick (throttle control) in the minimum throttle position during setup.

Center the rudder, aileron, and elevator trims.

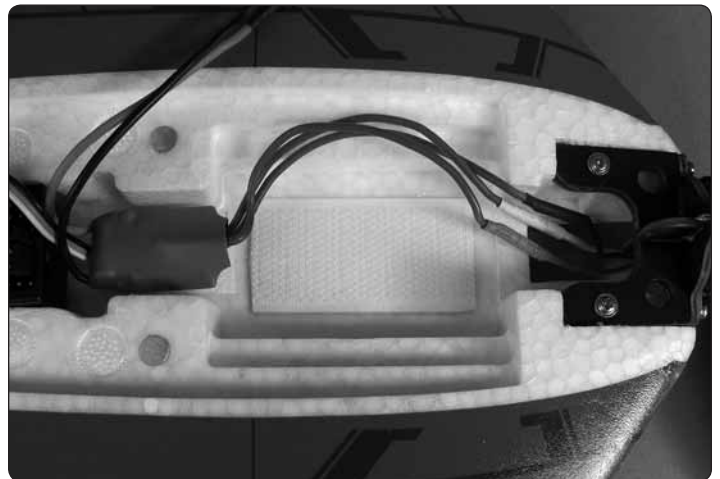
Power switch "ON".



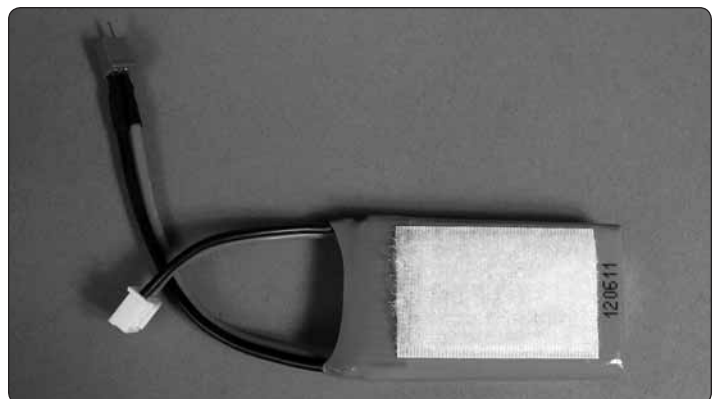
◀ TRIM ADJUSTMENT ▶

Full extent ..... Centered ..... Full extent  
 Constant «beep» ..... Single «beep» ..... Constant «beep»

## CHECK THE CONTROL SURFACE DIRECTIONS



Cut a piece from the hook side of the included hook and loop material and stick it to the battery compartment as shown.



Cut a piece from the loop side of the hook and loop material and stick it to the bottom of the battery.

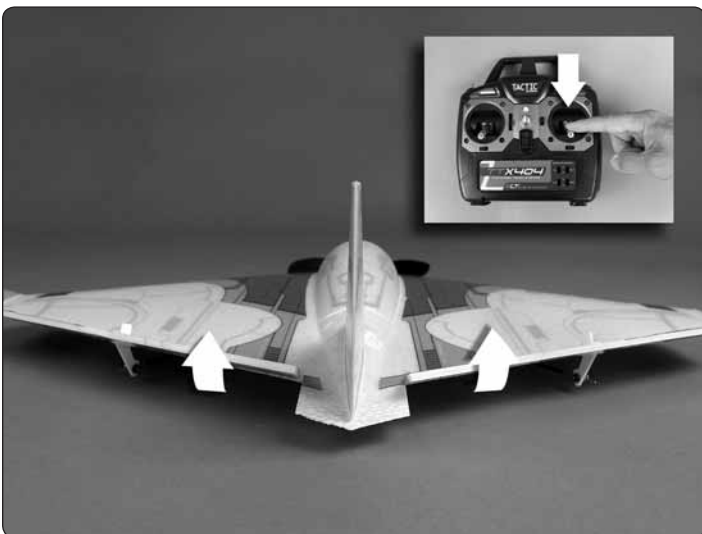




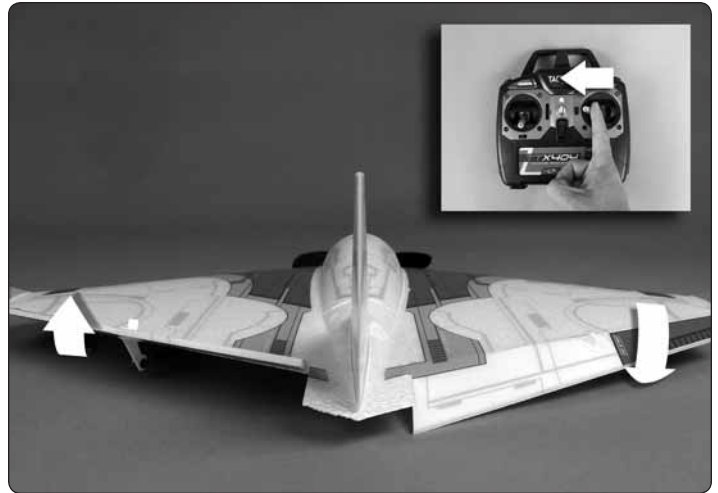
Fit the battery in place in the battery compartment. Turn on the transmitter with the throttle all the way down to the idle position. Connect the battery to the ESC.



Attach the canopy hatch being sure that the battery leads and servo leads are not interfering with the hatch.



Moving the right stick down will cause the elevons to move up.



Moving the right stick to the left will cause the left elevon to move up and the right elevon to move down.



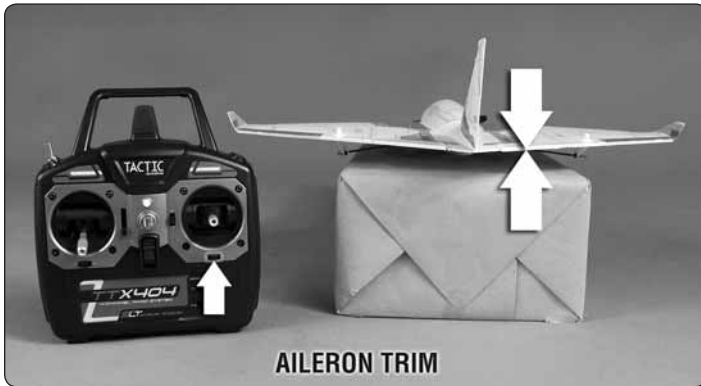
If the elevons do not move together when the right stick is moved up or down, the elevon mixing function is not turned on in your transmitter. If you are using the TTX404 transmitter, disconnect the battery from the ESC and turn off the transmitter. Hold the left stick down and to the left and the right stick down and to the right. While holding the sticks in this position, turn on the transmitter. The transmitter will make one, two, or three consecutive beeps indicating the mode it is in. 1 beep- NORMAL MODE, 2 beeps- V-TAIL MODE, 3 beeps- ELEVON MODE. Each time the power is cycled on with the sticks in this position the transmitter will change mode. Repeat this process until it beeps three times for elevon mode.

These are the control surface throws as they are set up from the factory:		
AILERON	<u>Up</u>	<u>Down</u>
	3/8" [9.5mm]	3/8" [9.5mm]
ELEVATOR	<u>Up</u>	<u>Down</u>
	3/8" [9.5mm]	3/8" [9.5mm]

If using a transmitter with the Tactic AnyLink™, set up as above.

## CENTER THE CONTROL SURFACES

Use the trim buttons to center the positions of the control surfaces.



## CENTER OF GRAVITY



The recommended balance point is 2-5/8" [67mm] from the forward edge of the battery compartment. Do not apply any sort of tape to the decal areas of the plane. Peeling off the tape will most likely lift the decals. Instead, we recommend marking the recommended balance point with very small marks using a felt-tip pen. With the battery installed in the battery compartment and the canopy hatch in place, use a Great Planes C.G. Machine or use your fingers to lift the Erazze upside down at the marks that you made. With an ElectricFly 7.4V 600mAh LiPo the plane should be close to balancing at the recommended balance point. If the plane tips forward then it is nose-heavy and weight will

need to be added to the tail of the plane. If the plane tips back then it is tail-heavy and weight will need to be added to the nose for it to properly balance. Stick-on lead weight can be used to balance the plane (GPMQ4485). If you have added weight, be sure to re-check the balance point of the plane before flying.

Later, you may wish to experiment by shifting the C.G. up to 3/16" [5mm] forward or 3/8" [9.5mm] back to change the flying characteristics. Moving the C.G. forward may improve the smoothness and stability, but the model may be less responsive during launch, aerobatics, and will require a longer glide during landing. Moving the C.G. aft makes the model more maneuverable, but could also cause it to become too difficult to control. In any case, **start at the recommended balance point** and do not at any time balance the model outside the specified range.

## ARM THE MOTOR

The Erazze requires that an arming routine be completed before the motor will operate. With the transmitter on and the throttle stick in the idle position, connect the flight battery to the ESC. Move the throttle all the way up and listen for the beep. Move the throttle back to idle and you will hear two beeps confirming the motor is now armed. **Moving the throttle up will now cause the motor to operate!** Keep items and fingers clear of the propeller.

## CHOOSE A FLYING SITE

The Erazze is a fast flying model and an adequate space free of trees and buildings is required. A park or open field that is at minimum the size of two football fields side-to-side with no obstructions or your local AMA sanctioned flying field would be ideal. The Erazze can handle winds as much as 10 mph. However, we recommend your first flew flights be done in calm conditions so you can safely trim the model and become accustomed to its flying characteristics.

## RANGE CHECK

As a precaution, an operational *ground range* test should be performed before the first flight each time you go out. Performing a range test is a good way to detect problems that could cause loss of control such as low batteries, defective or damaged radio components or radio interference. This usually requires an assistant and should be done at the actual flying site you will be using. First turn on the transmitter, then install the fully-charged battery into the fuselage. Connect the battery and install the hatch. **Remember, use care not to "bump" the throttle stick. Otherwise, the propeller may turn and possibly cause damage or injury.** To range check the Tactic TTX404 radio control system, switch on the transmitter and connect the motor battery to the ESC. Set the model on the ground and have an assistant hold the model. Walk 100' [90m] from the model and while pointing the transmitter at the plane, operate the controls ensuring that the plane's surfaces operate according to the transmitter inputs. Operate the motor at different rpm. Have your assistant alert you if the controls quit responding or move suddenly or erratically. If you are using a different radio control system, follow the instructions that came with your radio control system to perform a ground range check.

## HAND LAUNCH

It is a good idea to have a helper hand launch the Erazе for the first few flights until you are comfortable with its flying characteristics.



Hold the airplane by the finger grips just in front of the servos. Point the plane directly into the wind and at a slight upward angle of 15° to 20° with the wings level with the horizon. Apply full throttle and toss the plane into the wind, taking care to launch it straight without any rotation. The Erazе does not require an aggressive launch to achieve flying speed. A hand launch similar to the effort applied when throwing a dart is all that is needed. Immediately following the plane's launch, apply a little up elevon to gain altitude and be prepared to make any corrections with the elevons. Once you are at a comfortable altitude, throttle back to a comfortable speed, make your first turn and begin to trim the model for straight and level flight.

## FLIGHT

The Erazе is an energetic plane and the controls are very responsive. Be prepared for this during your first few flights by maintaining altitude and get a feel for the roll rate and the way in which the Erazе handles. Throttle back at altitude to 3/4 throttle during your first flight to get the model trimmed out. When you are familiar with the Erazе, you will discover it can perform loops, rolls, inverted flight and a variety of aerobatics that do not require rudder. Expect flight times of approximately 10 minutes (with throttle management) when using the recommended battery. Allow yourself excess time to prepare for your landing approach. When it's time to land, make your final pass with the wind, slow the model and make a wide banking turn into the wind approaching your landing spot. Maintain approximately 1/4 throttle and allow the plane to descend, being sure to keep the plane at a level attitude. When the plane is about one foot off the deck, apply some up elevator to flare the model and cut the throttle. If the motor begins to noticeably lose power, the battery is near depleted and soon will no longer be adequately able to power the motor. The Erazе can still be controlled after this point. As soon as you detect power being reduced, turn into the wind as soon as possible and land the plane. Failing to do so may result in you landing "dead stick" (completely

without power) and your model may suffer damage from an uncontrolled landing. We strongly encourage you to use a flight timer set for 9 minutes (safe flying time with a fully charged battery) and allow yourself enough time to make your landing approach before the timer goes off.

## REPAIRS



Repairs to your Erazе can be made quickly and easily using **regular CA glue** (not foam-safe CA). Apply a small amount of glue into the joint that is being repaired. Excess glue will squeeze out of the joint and onto the surface of the plane so use the glue sparingly. Hold the joint together and apply a light mist of CA accelerator to the glue line.

## REPLACEMENT PARTS

Replacement parts are available only as listed. Replacement parts are not available from Product Support, but can be purchased from hobby shops or mail order/Internet order firms. If you need assistance locating a dealer to purchase parts from, contact:

### Product Support

Phone: 217-398-0007 Fax: 217-398-7721  
E-mail: [productsupport@hobbico.com](mailto:productsupport@hobbico.com)

### REPLACEMENT PARTS LIST

Order No.	Description
FLZA6375	Airframe Wing & Hatch
FLZA6376	Vertical Fin
FLZA6377	Hatch/Canopy
FLZA6378	Servo 9G
FLZA6379	Pushrod Set w/Horns
FLZA6380	Brushless ESC 12A
FLZA6381	Brushless Motor 22mm
FLZA6382	Motor Mount
FLZA6383	Propeller (2)
FLZA6384	Pushrod Covers (2)
FLZA6385	Prop Saver Bands (3)
GPMM3310	12V 1A AC Power Adapter
GPMM3321	2S Micro LiPo AC/DC Charger
GPMM3322	2S Micro LiPo DC Charger w/Car Adapter
GPMP0820	LiPo 2S 7.4V 600mAh 25C

This product is suitable only for people of 14 years and older.



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