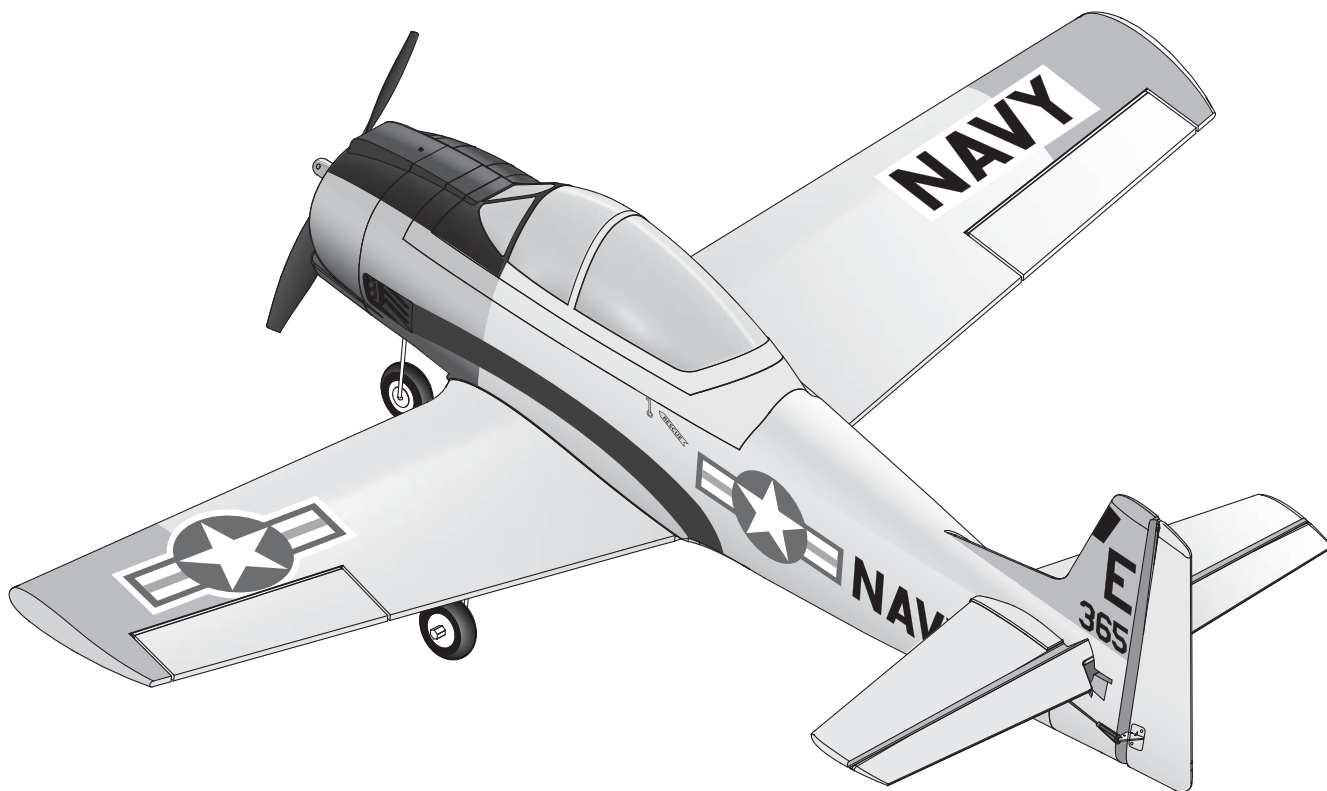


**HORIZON**<sup>®</sup>  
H O B B Y

**Eflite**<sup>®</sup>  
ADVANCING ELECTRIC FLIGHT

# T-28 Trojan



*Instruction Manual*  
*Bedienungsanleitung*  
*Manuel d'utilisation*  
*Manuale di Istruzioni*

**Bind-N-Fly**<sup>®</sup>  
BASIC

**NOTICE**

All instructions, warranties and other collateral documents are subject to change at the sole discretion of Horizon Hobby, LLC. For up-to-date product literature, visit [www.horizonhobby.com](http://www.horizonhobby.com) and click on the support tab for this product.

**Meaning of Special Language:**

The following terms are used throughout the product literature to indicate various levels of potential harm when operating this product:

**NOTICE:** Procedures, which if not properly followed, create a possibility of physical property damage AND little or no possibility of injury.

**CAUTION:** Procedures, which if not properly followed, create the probability of physical property damage AND a possibility of serious injury.

**WARNING:** Procedures, which if not properly followed, create the probability of property damage, collateral damage, and serious injury OR create a high probability of superficial injury.



**WARNING:** Read the ENTIRE instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, personal property and cause serious injury.

This is a sophisticated hobby product. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision. Do not use with incompatible components or alter this product in any way outside of the instructions provided by Horizon Hobby, LLC. This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

**14+**

**AGE RECOMMENDATION:**  
Not for children under 14  
years. This is not a toy.



**WARNING AGAINST COUNTERFEIT PRODUCTS:** If you ever need to replace your Spektrum receiver found in a Horizon Hobby product, always purchase from Horizon Hobby, LLC or a Horizon Hobby authorized dealer to ensure authentic high-quality Spektrum product. Horizon Hobby, LLC disclaims all support and warranty with regards, but not limited to, compatibility and performance of counterfeit products or products claiming compatibility with DSM or Spektrum.

## Safety Precautions and Warnings

As the user of this product, you are solely responsible for operating in a manner that does not endanger yourself and others or result in damage to the product or the property of others.

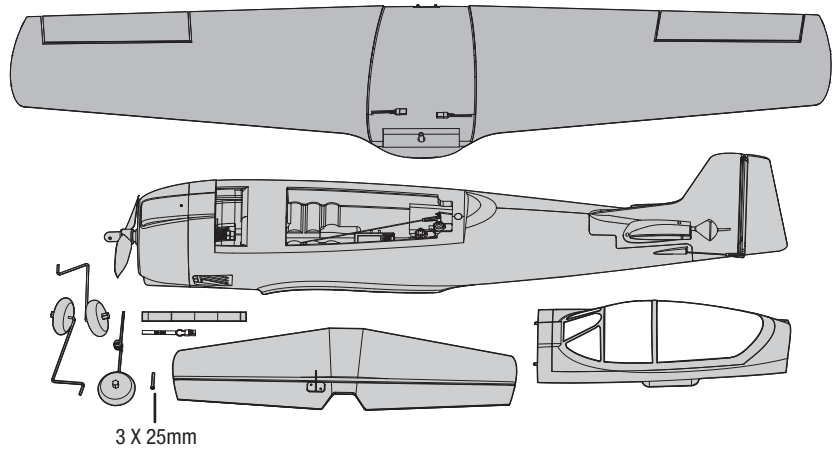
- Always keep a safe distance in all directions around your model to avoid collisions or injury. This model is controlled by a radio signal subject to interference from many sources outside your control. Interference can cause momentary loss of control.
- Always operate your model in open spaces away from full-size vehicles, traffic and people.
- Always carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.).
- Always keep all chemicals, small parts and anything electrical out of the reach of children.
- Always avoid water exposure to all equipment not specifically designed and

protected for this purpose. Moisture causes damage to electronics.

- Never place any portion of the model in your mouth as it could cause serious injury or even death.
- Never operate your model with low transmitter batteries.
- Always keep aircraft in sight and under control.
- Always use fully charged batteries.
- Always keep transmitter powered on while aircraft is powered.
- Always remove batteries before disassembly.
- Always keep moving parts clean.
- Always keep parts dry.
- Always let parts cool after use before touching.
- Always remove batteries after use.
- Always ensure failsafe is properly set before flying.
- Never operate aircraft with damaged wiring.
- Never touch moving parts.

## Box Contents

Quick Start Information		
Transmitter Setup	Blank (Acro) Model	
	Servo Reversing: <b>Rudder:</b> Reverse <b>Elevator:</b> Normal <b>Aileron:</b> Reverse	
	<b>DO NOT Reverse Throttle</b> Travel Adjust ( All Surfaces): 100%	
Dual Rates		<b>Hi Rate</b>
	Ail	▲=13mm ▼=13mm
	Ele	▲=16mm ▼=16mm
	Rud	▶=22mm ◀=22mm
Center of Gravity (CG)	63.5mm back from leading edge at the root.	
Flight Timer Setting	5-7 minutes	

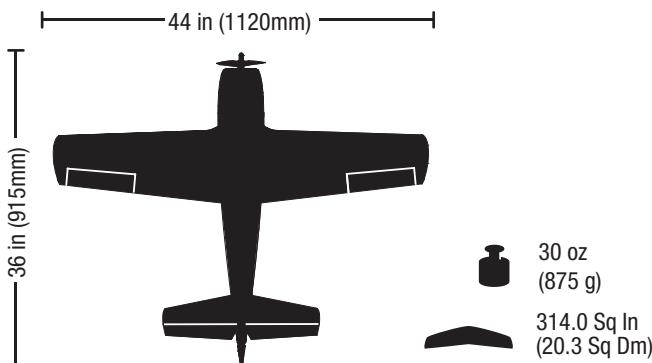


## Specifications

		<b>BNF BASIC</b>
	<b>Motor:</b> 480 BL Outrunner; 960Kv	<b>Installed</b>
	<b>ESC:</b> 30A Pro SB Brushless ESC	<b>Installed</b>
	<b>Servo:</b> (4)	<b>Installed</b>
	<b>Receiver:</b> Spektrum™ AR610 6-Channel Sport Receiver	<b>Installed</b>
	<b>Recommended Battery:</b> 11.1V 3S 1800-2200mAh Li-Po	<b>Required to Complete</b>
	<b>Recommended Battery Charger:</b> 3-cell Li-Po battery balancing charger	<b>Required to Complete</b>
	<b>Recommended Transmitter:</b> Full-Range 6 channel (or more) 2.4GHz with Spektrum™ DSM2®/DSMX® technology with adjustable Dual Rates.	<b>Required to Complete</b>

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To register your product online, visit [www.e-fliterc.com](http://www.e-fliterc.com)

## Preflight

1	Remove and inspect contents.
2	Read this instruction manual thoroughly.
3	Charge the flight battery.
4	Fully assemble the airplane.
5	Install the flight battery in the aircraft (once it has been fully charged).
6	Check the Center of Gravity (CG).
7	Apply Dual Rate values to your transmitter

8	Bind the aircraft to your transmitter.
9	Make sure linkages move freely.
10	Perform the Control Direction Test with the transmitter.
11	Adjust flight controls and transmitter.
12	Perform a radio system Range Test.
13	Find a safe open area to fly.
14	Plan flight for flying field conditions.

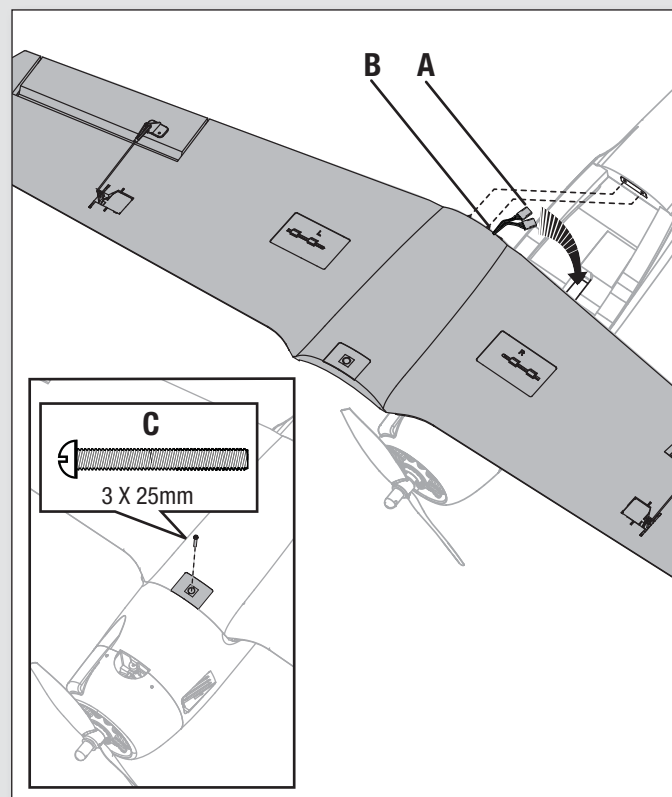
## Model Assembly

### Wing Installation

1. Remove the canopy from the fuselage.
2. Turn the wing and fuselage so their bottom sides face up.
3. Place the wing's aileron servo connectors (A) into the rectangular hole in the fuselage.
4. Slide the two guide pins (B) of the wing into the two holes in the fuselage.
5. Align and attach the wing to the fuselage using a screw (C).
6. Inside the fuselage, connect both aileron servo connectors to the aileron Y-harness. There is no difference between the two connections on a Y-harness. Left and right servo connectors do not have to be connected to a particular side of a Y-harness.
7. When needed, disassemble in reverse order.



**CAUTION:** DO NOT crush or otherwise damage wiring when attaching the wing to the fuselage.



## Model Assembly *Continued*

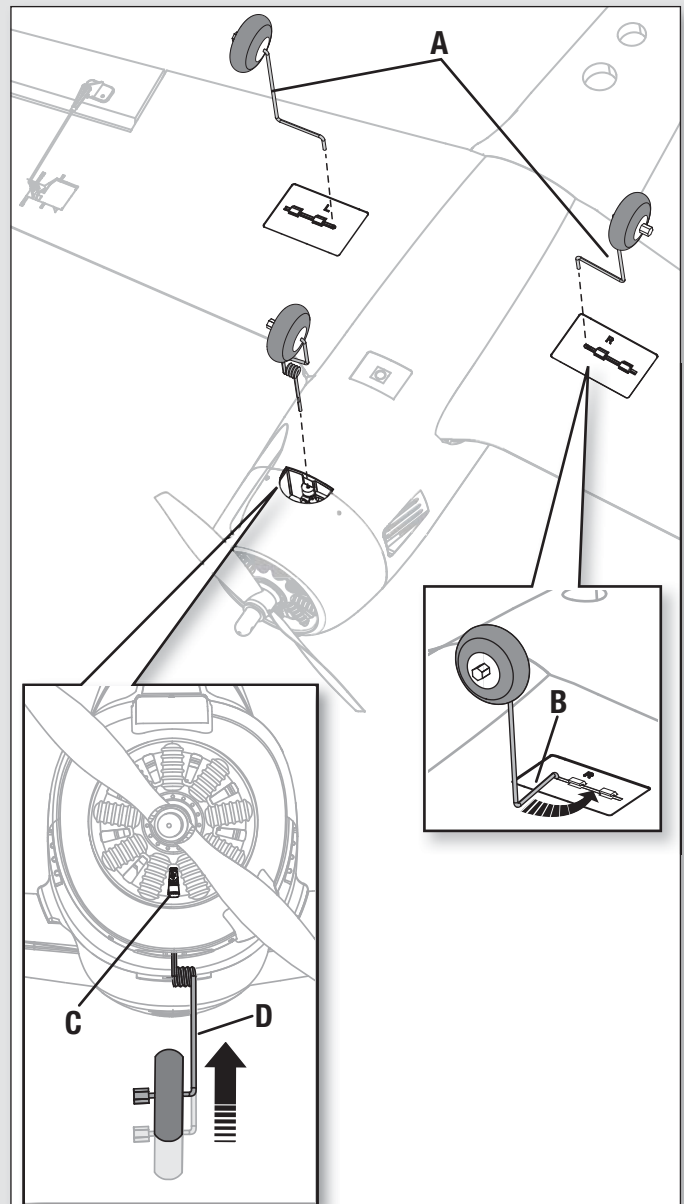
### Landing Gear Installation

1. Turn the model so the bottom of the wing faces up.
2. Install the main landing gear by inserting the main gear struts (A) into the corresponding gear plate hole located on each wing.
3. Carefully turn each strut in the gear plate until the horizontal section (B) of the strut gently snaps into place.
4. Loosen the nose gear screw (C) in the nose gear arm before installing the nose gear strut (D). The screw may be fully installed at the factory, so loosen the screw enough to ensure the screw does not block the strut. A hole in the cowling allows a screwdriver to be used to turn the screw on the nose gear arm.

If more maneuvering space is needed, remove the propeller and cowling from the model before installing the nose gear. (As shown in the “**Service of Power Components**” section of this manual.)

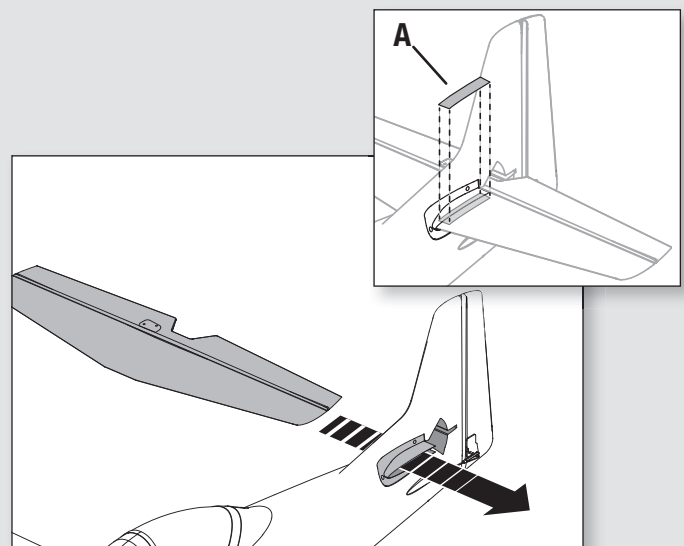
5. Install the nose gear strut so the flat surface of the strut faces forward. The coil in the nose gear strut should face the rear of the airplane. Fully insert the nose gear strut into the nose gear arm. When inserted, the top of the strut will touch the upper portion of the firewall.
6. Fully tighten the nose gear screw against the flat surface of the nose gear strut.
7. When needed, disassemble in reverse order.

Always ensure the steering linkage clevis on the rudder servo arm is correctly adjusted so the model steers straight when the rudder control is at neutral.



### Tail Installation

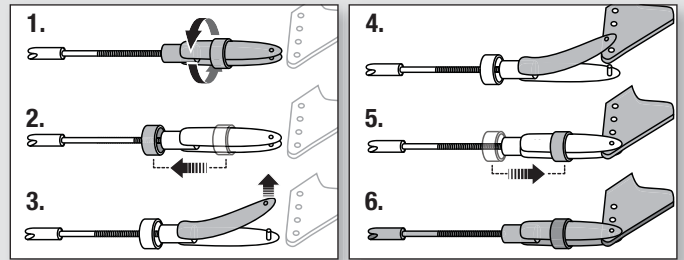
1. Place the model on its landing gear.
2. Turn the horizontal tail so the control horn faces down.
3. Slide the horizontal tail in the horizontal tail mount until it is centered perpendicular to the vertical tail.
4. Apply 4 pieces of tape (A) on the fuselage mounts and the top and bottom of the horizontal tail.
5. Attach the clevis to the elevator control horn (see instructions for clevis connection).
6. When needed, disassemble in reverse order.



## Model Assembly *Continued*

### Clevis Installation

- Pull the tube from the clevis to the linkage.
- Carefully spread the clevis, then insert the clevis pin into the desired hole in the control horn.
- Move the tube to hold the clevis on the control horn.

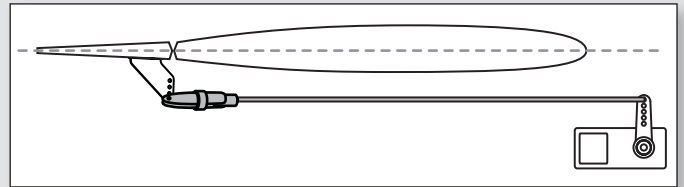


### Control Surface Centering

After assembly and transmitter setup, confirm that the control surfaces are centered. If the control surfaces are not centered, mechanically center the control surfaces by adjusting the linkages.

If adjustment is required, turn the clevis on the linkage to change the length of the linkage between the servo arm and the control horn.

After binding a transmitter to the aircraft receiver, set the trims and sub-trims to 0, then adjust the clevises to center the control surfaces.



### Control Horn and Servo Arm Settings

The table to the right shows the factory settings for the control horns and servo arms. Fly the aircraft at factory settings before making changes.

After flying, you may choose to adjust the linkage positions for the desired control response. See the table to the right.

	Horns	Arms
Elevator		
Ailerons		
Rudder		

More control throw	Less control throw

## Transmitter and Receiver Binding

Binding is the process of programming the receiver to recognize the GUID (Globally Unique Identifier) code of a single specific transmitter. You need to 'bind' your chosen Spektrum™ DSM2®/DSMX® technology equipped aircraft transmitter to the receiver for proper operation.

**IMPORTANT:** Before binding a transmitter, read the Transmitter Setup section of this manual to ensure that your transmitter is properly programmed for this aircraft.

### Binding Procedure

**IMPORTANT:** The included AR610 receiver has been programmed for operation specifically for this aircraft. Refer to the receiver manual for correct setup if the receiver is replaced or is used in another aircraft.

Read the transmitter instructions for binding to a receiver (location of transmitter's Bind control). **Please visit [www.bindnfly.com](http://www.bindnfly.com) for a complete list of compatible transmitters.**

**CAUTION:** When using a Futaba® transmitter with a Spektrum DSM module, you must reverse the throttle channel and rebind. Refer to your Spektrum module manual for binding and failsafe instructions. Refer to your Futaba transmitter manual for instructions on reversing the throttle channel.

1. Make sure the transmitter is powered off.
2. Move the transmitter controls to neutral (flight controls: rudder, elevators and ailerons) or to low positions (throttle, throttle trim).\*\*
3. Install a bind plug in the receiver bind port.
4. Connect the flight battery to the ESC. The ESC will produce a series of sounds. 3 short tones confirm that the LVC is set correctly for the ESC. The orange bind LED on the receiver will begin to flash rapidly.
5. Power on the transmitter while holding the transmitter bind button or switch. Refer to your transmitter's manual for binding.
6. When the receiver binds to the transmitter, the orange bind light on the receiver will turn solid and the ESC will produce ascending tones. The tones indicate the ESC is armed, provided the throttle stick and throttle trim are low enough to trigger arming.

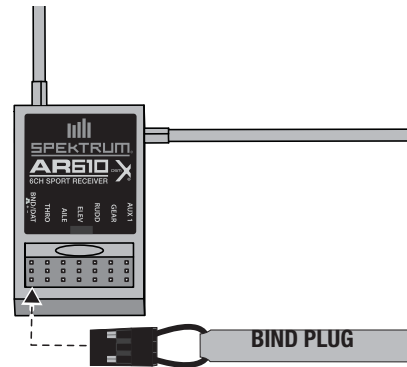
7. Remove the bind plug from the bind port.
8. Safely store the bind plug (some owners attach the bind plug to their transmitter using two-part loops and clips).
9. The receiver should retain the binding instructions received from the transmitter until another binding is done.

\* The throttle will not arm if the transmitter's throttle control is not put at the lowest position. If you encounter problems, follow the binding instructions and refer to the transmitter troubleshooting guide for other instructions. If needed, contact the appropriate Horizon Product Support office.

### \*\*Failsafe

If the receiver loses transmitter communication, the failsafe will activate. When activated, the airplane controls return to the neutral position established during step 2 of the binding procedure.

### Bind Plug Installation



## Battery Installation and ESC Arming

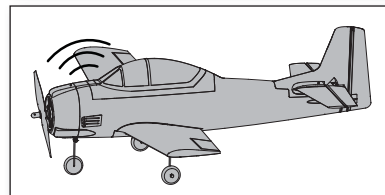
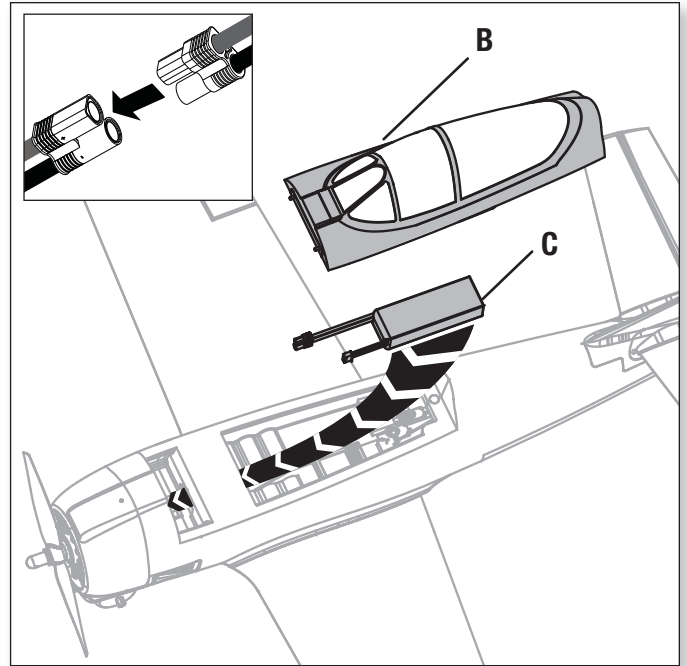
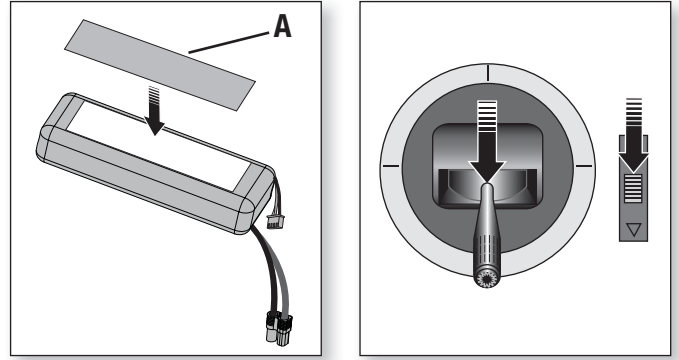
### Battery Selection

We recommend the E-flite® 1800mAh 11.1V 3S 30C Li-Po battery (EFLB18003S30). Refer to the Optional Parts List for other recommended batteries. If using a battery other than those listed, the battery should be within the range of capacity, dimensions and weight of the E-flite Li-Po battery packs to fit in the fuselage. Be sure the model balances at the recommended CG.

1. Apply the loop side (soft side) of the hook and loop tape (A) to the bottom of your battery.
2. Lower the throttle and throttle trim to the lowest settings. Power on the Transmitter, then wait 5 seconds.
3. Carefully lift the back of the canopy hatch (B) to remove.
4. Install the fully charged battery (C) in the battery compartment as shown. See the *Adjusting the Center of Gravity* instructions for more information.
5. Make sure the flight battery is secured using the hook and loop strap.
6. Connect the battery to the ESC (the ESC is now armed).
  - The ESC will sound 3 tones (refer to step 6 of the binding instructions for more information).
  - An LED will light on the receiver.

If the ESC sounds a continuous double beep after the flight battery is connected, recharge or replace the battery.

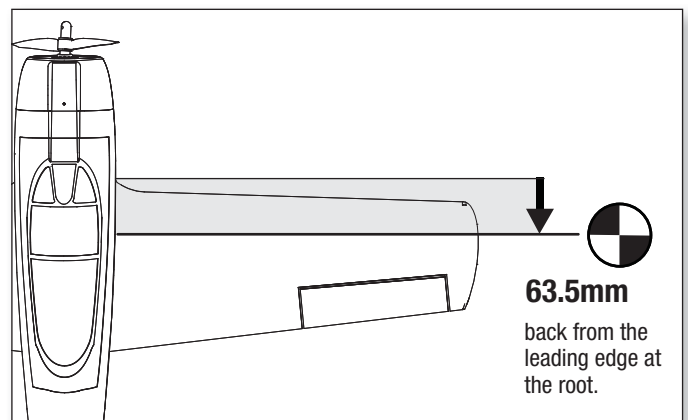
7. Reinstall the canopy hatch.



**CAUTION:** Always keep hands away from the propeller. When armed, the motor will turn the propeller in response to any throttle movement.

### Center of Gravity (CG)

Place the battery all the way forward in the fuselage and hold the battery in place using a hook and loop strap. It is easiest to balance the T-28 with the aircraft inverted.



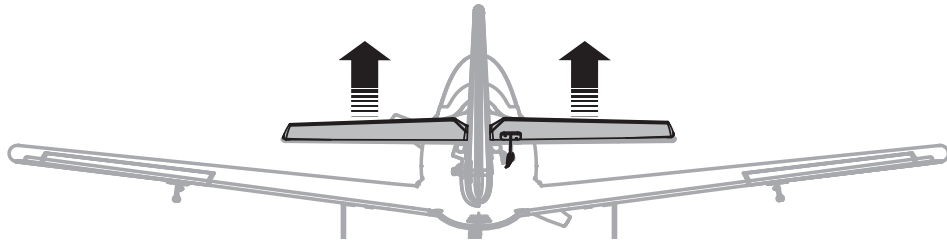


## Control Direction Test

Bind your aircraft and transmitter before performing these tests. Move the controls on the transmitter to ensure the aircraft control surfaces move correctly. After doing the Control Test, correctly set the failsafe. Make sure the transmitter controls are at neutral and the throttle and throttle trim are in the low position, then rebind the model to your transmitter. If the receiver loses its link to the transmitter, the failsafe automatically moves the controls and throttle settings to those made at binding.

### Elevator

#### Up Elevator

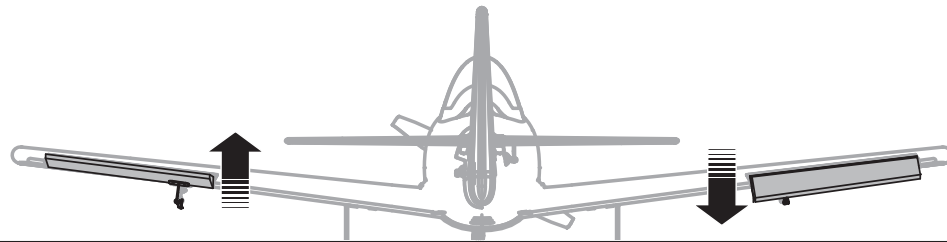


#### Down Elevator

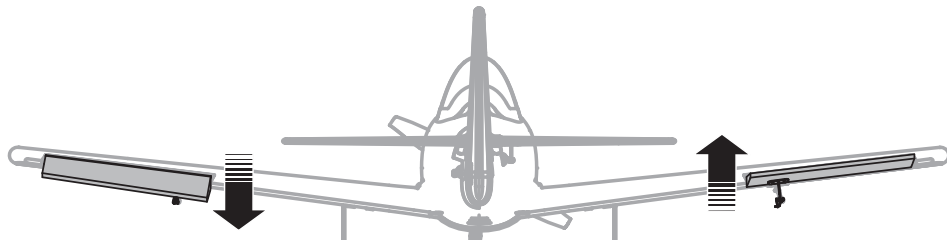


### Aileron

#### Stick Left

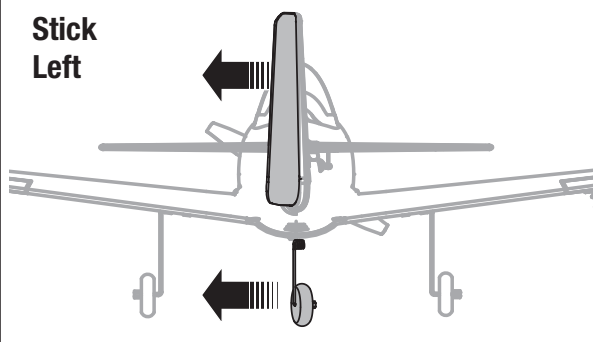


#### Stick Right

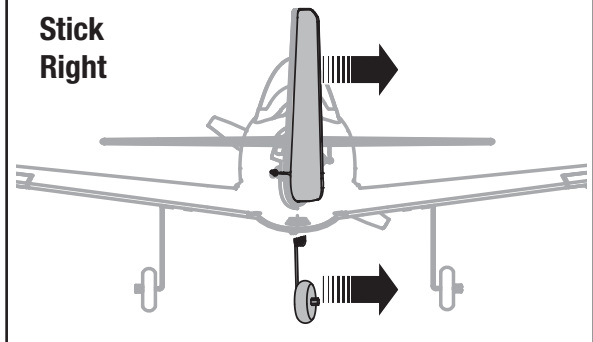


### Rudder

#### Stick Left



#### Stick Right



## Flying Tips and Repairs

Consult local laws and ordinances before choosing a flying location.

### Flying Field

Always choose a wide-open space for flying your aircraft. It is recommended that you fly at a designated RC flying field. Always avoid flying near houses, trees, wires and buildings. Avoid flying in areas where there are many people, such as parks, schoolyards, or soccer fields.

### Range Check your Radio System

Before you fly, range check the radio system. Refer to your specific transmitter instruction manual for range test information.

### Takeoff

For your first flights, set your transmitter timer or a stopwatch to 7 minutes. Adjust your timer for longer or shorter flights once you have flown the model.

Place the aircraft in position for takeoff (facing into the wind). Select low rates for first takeoff and gradually increase the throttle to 3/4 to full and steer with the rudder. Pull back gently on the elevator and climb to a comfortable altitude.

### Flying

Fly the airplane and trim it for level flight at 3/4 throttle. After landing, adjust the linkages mechanically to account for trim changes and then reset the trims to neutral. Ensure the aircraft will fly straight and level with no trim or sub-trim.

### Landing

To land the aircraft, fly the airplane down to about a foot above the ground. Reduce power and add back pressure on the elevator to flare the airplane. Touch down with the main wheels first by holding the nosewheel off the ground. Avoid holding too much elevator after touchdown to prevent the plane from becoming airborne again. Gently steer with the rudder until the plane has slowed. Avoid sharp turns on the ground until the plane has slowed enough to prevent scraping the wing tips.

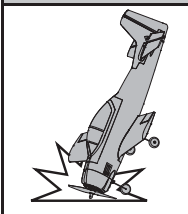
**NOTICE:** If a crash is imminent, reduce the throttle and trim fully. Failure to do so could result in extra damage to the airframe, as well as damage to the ESC and motor.

**NOTICE:** After any impact, always ensure the receiver is secure in the fuselage. If you replace the receiver, install the new receiver in the same orientation as the original receiver or damage may result.

**NOTICE:** Crash damage is not covered under warranty.

**NOTICE:** When you are finished flying, never leave the aircraft in direct sunlight or in a hot, enclosed area such as a car. Doing so can damage the aircraft.

**WARNING:**  
Always decrease throttle at propeller strike.



### Low Voltage Cutoff (LVC)

When a Li-Po battery is discharged below 3V per cell, it will not hold a charge. The ESC protects the flight battery from over-discharge using Low Voltage Cutoff (LVC). Before the battery charge decreases too much, LVC removes power supplied to the motor. Power to the motor pulses, showing that some battery power is reserved for flight control and safe landing.

Disconnect and remove the Li-Po battery from the aircraft after use to prevent trickle discharge. Charge your Li-Po battery to about half capacity before storage. During storage, make sure the battery charge does not fall below 3V per cell. LVC does not prevent the battery from over-discharge during storage.

**NOTICE:** Repeated flying to LVC will damage the battery.

**Tip:** Monitor your aircraft battery's voltage before and after flying by using a Li-Po Cell Voltage Checker (EFLA111, sold separately).

### Repairs

Thanks to the Z-Foam™ material in this aircraft, repairs to the foam can be made using virtually any adhesive (hot glue, regular CA, epoxy, etc). **The horizontal tail is not made of the same material, so use only foam-compatible CA on the horizontal tail.**

When parts are not repairable, see the Replacement Parts List for ordering by item number. For a listing of all replacement and optional parts, refer to the list at the end of this manual.

**NOTICE:** Use of CA accelerant on your aircraft can damage paint. DO NOT handle the aircraft until accelerant fully dries.

## Post Flight

1	Disconnect the flight battery from the ESC (Required for Safety and battery life).
2	Power OFF the transmitter.
3	Remove the flight battery from the aircraft.
4	Recharge the flight battery.

5	Repair or replace all damaged parts.
6	Store the flight battery apart from the aircraft and monitor the battery charge.
7	Make note of the flight conditions and flight plan results, planning for future flights.

## Motor Service

**CAUTION:** Always disconnect the flight battery before performing motor service.

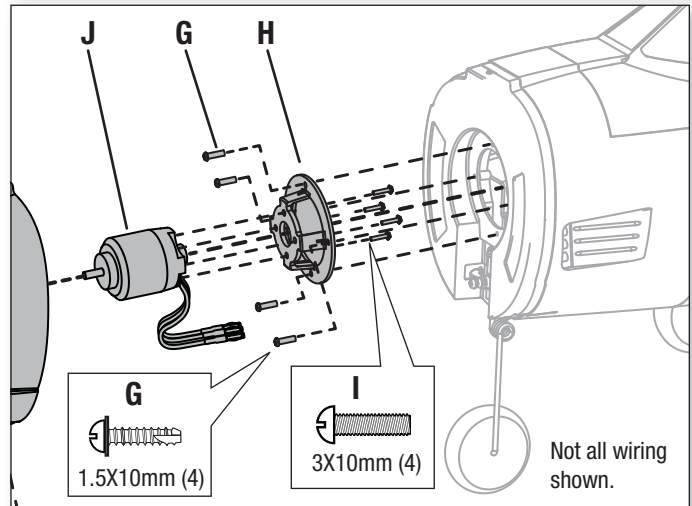
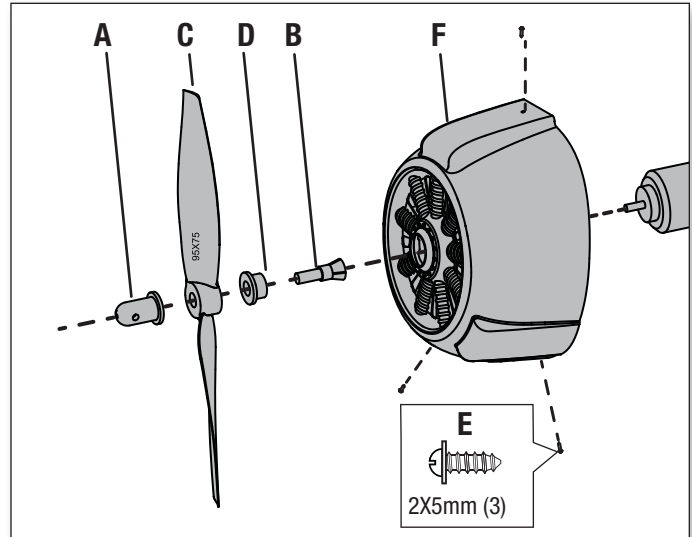
### Disassembly

1. Use a tool to remove the spinner nut (A) from the collet (B).
2. Remove the propeller (C), backplate (D) and collet from the motor shaft.
3. Remove three screws (E) from the cowling (F).
4. Carefully remove the cowling from the fuselage. Paint may keep the cowling attached to the fuselage.
5. Remove four screws (G) from the motor mount (H) and fuselage.
6. Disconnect the motor wires from the ESC wires.
7. Remove four screws (I) and motor (J) from the motor mount. Keep the rubber washers attached to the motor mount when removing the screws and motor from the motor mount.

### Assembly

Assemble in reverse order.

- Correctly align and connect the motor wire colors with the ESC wires.
- Install the propeller with the size numbers (9.5 x 7.5) facing out from the motor.
- A tool is required to tighten the lock nut on the collet.



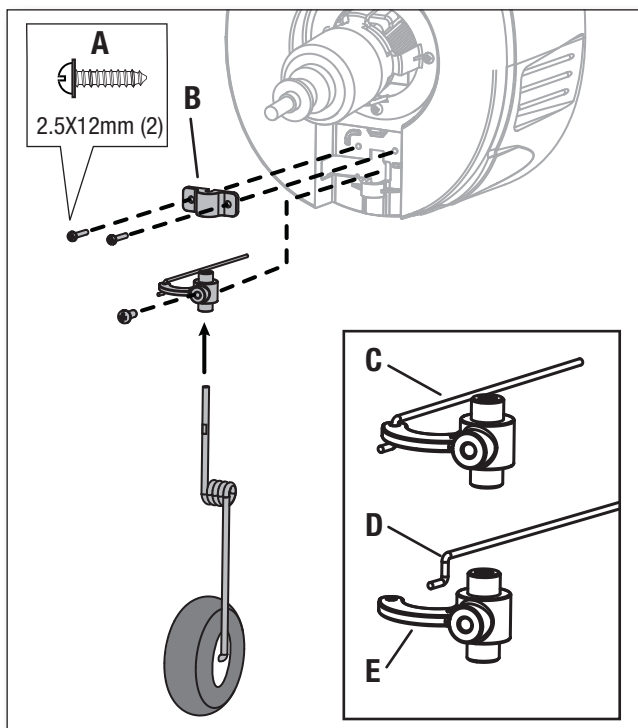
## Nose Gear Service

Hard landings may damage the nose gear. Replace damaged parts as needed.

**CAUTION:** DO NOT handle the propeller while the flight battery is connected to the ESC. Personal injury could result.

1. Remove the canopy from the model.
2. Disconnect the flight battery from the model.
3. Disconnect the steering clevis from the rudder servo arm.
4. Remove the propeller and cowling from the model. (As shown in the "Service of Power Components" section of this manual.)
5. Loosen the nose gear screw and remove the strut.
6. Remove the two screws (A) and steering arm retainer (B) (PKZ4408, retainer with steering arm) from the firewall.
7. Pull the steering linkage (C) forward and remove the Z-bend end (D) of the linkage from the steering arm (E) (PKZ4408, including steering arm retainer).
8. Reinstall the steering arm on the Z-bend end of the linkage.
9. Install the steering arm in the firewall using the steering arm retainer and two screws.
10. Connect the linkage clevis to the rudder servo arm.
11. Install the strut using the screws.
12. Reinstall the cowling, propeller and canopy on the model.

**NOTICE:** Always make sure the steering linkage clevis is adjusted correctly to ensure the model steers straight when the rudder control is at neutral.



## Troubleshooting Guide

Problem	Possible Cause	Solution
Aircraft will not respond to throttle but responds to other controls	Throttle not at idle and/or throttle trim too high	Reset controls with throttle stick and throttle trim at lowest setting
	Throttle servo travel is lower than 100%	Make sure throttle servo travel is 100% or greater
	Throttle channel is reversed	Reverse throttle channel on transmitter
	Motor disconnected from ESC	Make sure motor is connected to the ESC
Extra propeller noise or extra vibration	Damaged propeller and spinner, collet or motor	Replace damaged parts
	Propeller is out of balance	Balance or replace propeller
	Prop nut is too loose	Tighten the prop nut
	Spinner is not tight or fully seated in place	Inspect spinner to ensure it is fully seated
Reduced flight time or aircraft under-powered	Flight battery charge is low	Completely recharge flight battery
	Propeller installed backwards	Install propeller with numbers facing forward
	Flight battery damaged	Replace flight battery and follow flight battery instructions
	Flight conditions may be too cold	Make sure battery is warm before use
	Battery capacity too low for flight conditions	Replace battery or use a larger capacity battery
Aircraft will not Bind (during binding) to transmitter	Transmitter too near aircraft during binding process	Move powered transmitter a few feet from aircraft, disconnect and reconnect flight battery to aircraft
	Aircraft or transmitter is too close to large metal object, wireless source or another transmitter	Move aircraft and transmitter to another location and attempt binding again
	The bind plug is not installed correctly in the bind port	Install bind plug in bind port and bind the aircraft to the transmitter
	Flight battery/transmitter battery charge is too low	Replace/recharge batteries
	Bind switch or button not held long enough during bind process	Power off transmitter and repeat bind process. Hold transmitter bind button or switch until receiver is bound
Aircraft will not connect (after binding) to transmitter	Transmitter too near aircraft during connecting process	Move powered transmitter a few feet from aircraft, disconnect and reconnect flight battery to aircraft
	Aircraft or transmitter is too close to large metal object, wireless source or another transmitter	Move aircraft and transmitter to another location and attempt connecting again
	Bind plug left installed in bind port	Rebind transmitter to the aircraft and remove the bind plug before cycling power
	Aircraft bound to different model memory (ModelMatch™ radios only)	Select correct model memory on transmitter
	Flight battery/Transmitter battery charge is too low	Replace/recharge batteries
	Transmitter may have been bound to a different aircraft using different DSM protocol	Bind aircraft to transmitter
Control surface does not move	Control surface, control horn, linkage or servo damage	Replace or repair damaged parts and adjust controls
	Wire damaged or connections loose	Do a check of wires and connections, connect or replace as needed
	Transmitter is not bound correctly or the incorrect airplanes was selected	Re-bind or select correct airplanes in transmitter
	Flight battery charge is low	Fully recharge flight battery
	BEC (Battery Elimination Circuit) of the ESC is damaged	Replace ESC
Controls reversed	Transmitter settings are reversed	Perform the Control Direction Test and adjust the controls on transmitter appropriately
Motor power pulses then motor loses power	ESC uses default soft Low Voltage Cutoff (LVC)	Recharge flight battery or replace battery that is no longer performing
	Weather conditions might be too cold	Postpone flight until weather is warmer
	Battery is old, worn out, or damaged	Replace battery
	Battery C rating might be too small	Use recommended battery

# AMA National Model Aircraft Safety Code

Effective January 1, 2014

## A. GENERAL

A model aircraft is a non-human-carrying aircraft capable of sustained flight in the atmosphere. It may not exceed limitations of this code and is intended exclusively for sport, recreation, education and/or competition. All model flights must be conducted in accordance with this safety code and any additional rules specific to the flying site.

1. Model aircraft will not be flown:
  - (a) In a careless or reckless manner.
  - (b) At a location where model aircraft activities are prohibited.
2. Model aircraft pilots will:
  - (a) Yield the right of way to all man carrying aircraft.
  - (b) See and avoid all aircraft and a spotter must be used when appropriate. (AMA Document #540-D.)
  - (c) Not fly higher than approximately 400 feet above ground level within three (3) miles of an airport, without notifying the airport operator.
  - (d) Not interfere with operations and traffic patterns at any airport, heliport or seaplane base except where there is a mixed use agreement.
  - (e) Not exceed a takeoff weight, including fuel, of 55 pounds unless in compliance with the AMA Large Model Aircraft program. (AMA Document 520-A.)
  - (f) Ensure the aircraft is identified with the name and address or AMA number of the owner on the inside or affixed to the outside of the model aircraft. (This does not apply to model aircraft flown indoors).
  - (g) Not operate aircraft with metal-blade propellers or with gaseous boosts except for helicopters operated under the provisions of AMA Document #555.
  - (h) Not operate model aircraft while under the influence of alcohol or while using any drug which could adversely affect the pilot's ability to safely control the model.
  - (i) Not operate model aircraft carrying pyrotechnic devices which explode or burn, or any device which propels a projectile or drops any object that creates a hazard to persons or property.
 

Exceptions:

    - Free Flight fuses or devices that burn producing smoke and are securely attached to the model aircraft during flight.
    - Rocket motors (using solid propellant) up to a G-series size may be used provided they remain attached to the model during flight. Model rockets may be flown in accordance with the National Model Rocketry Safety Code but may not be launched from model aircraft.
    - Officially designated AMA Air Show Teams (AST) are authorized to use devices and practices as defined within the Team AMA Program Document (AMA Document #718).
  - (j) Not operate a turbine-powered aircraft, unless in compliance with the AMA turbine regulations. (AMA Document #510-A).
3. Model aircraft will not be flown in AMA sanctioned events, air shows or model demonstrations unless:
  - (a) The aircraft, control system and pilot skills have successfully demonstrated all maneuvers intended or anticipated prior to the specific event.
  - (b) An inexperienced pilot is assisted by an experienced pilot.
4. When and where required by rule, helmets must be properly worn and fastened. They must be OSHA, DOT, ANSI, SNELL or NOCSAE approved or comply with comparable standards.

## B. RADIO CONTROL

1. All pilots shall avoid flying directly over unprotected people, vessels, vehicles or structures and shall avoid endangerment of life and property of others.
2. A successful radio equipment ground-range check in accordance with manufacturer's recommendations will be completed before the first flight of a new or repaired model aircraft.
3. At all flying sites a safety line(s) must be established in front of which all flying takes place (AMA Document #706.)
  - (a) Only personnel associated with flying the model aircraft are allowed at or in front of the safety line.
  - (b) At air shows or demonstrations, a straight safety line must be established.
  - (c) An area away from the safety line must be maintained for spectators.
  - (d) Intentional flying behind the safety line is prohibited.
4. RC model aircraft must use the radio-control frequencies currently allowed by the Federal Communications Commission (FCC). Only individuals properly licensed by the FCC are authorized to operate equipment on Amateur Band frequencies.
5. RC model aircraft will not operate within three (3) miles of any pre-existing flying site without a frequency-management agreement (AMA Documents #922 and #923.)
6. With the exception of events flown under official AMA Competition Regulations, excluding takeoff and landing, no powered model may be flown outdoors closer than 25 feet to any individual, except for the pilot and the pilot's helper(s) located at the flight line.
7. Under no circumstances may a pilot or other person touch a model aircraft in flight while it is still under power, except to divert it from striking an individual.
8. RC night flying requires a lighting system providing the pilot with a clear view of the model's attitude and orientation at all times. Hand-held illumination systems are inadequate for night flying operations.
9. The pilot of a RC model aircraft shall:
  - (a) Maintain control during the entire flight, maintaining visual contact without enhancement other than by corrective lenses prescribed for the pilot.
  - (b) Fly using the assistance of a camera or First-Person View (FPV) only in accordance with the procedures outlined in AMA Document #550.
  - (c) Fly using the assistance of autopilot or stabilization system only in accordance with the procedures outlined in AMA Document #560.

Please see your local or regional modeling association's guidelines for proper, safe operation of your model aircraft.



## Limited Warranty

### What this Warranty Covers

Horizon Hobby, LLC, (Horizon) warrants to the original purchaser that the product purchased (the "Product") will be free from defects in materials and workmanship at the date of purchase.

### What is Not Covered

This warranty is not transferable and does not cover (i) cosmetic damage, (ii) damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or due to improper use, installation, operation or maintenance, (iii) modification of or to any part of the Product, (iv) attempted service by anyone other than a Horizon Hobby authorized service center, (v) Product not purchased from an authorized Horizon dealer, or (vi) Product not compliant with applicable technical regulations, or (vii) use that violates any applicable laws, rules, or regulations.

OTHER THAN THE EXPRESS WARRANTY ABOVE, HORIZON MAKES NO OTHER WARRANTY OR REPRESENTATION, AND HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

### Purchaser's Remedy

Horizon's sole obligation and purchaser's sole and exclusive remedy shall be that Horizon will, at its option, either (i) service, or (ii) replace, any Product determined by Horizon to be defective. Horizon reserves the right to inspect any and all Product(s) involved in a warranty claim. Service or replacement decisions are at the sole discretion of Horizon. Proof of purchase is required for all warranty claims. SERVICE OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY.

### Limitation of Liability

HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY, REGARDLESS OF WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF HORIZON HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability. If you as the purchaser or user are not prepared to accept the liability associated with the use of the Product, purchaser is advised to return the Product immediately in new and unused condition to the place of purchase.

### Law

These terms are governed by Illinois law (without regard to conflict of law principals). This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Horizon reserves the right to change or modify this warranty at any time without notice.

## WARRANTY SERVICES

### Questions, Assistance, and Services

Your local hobby store and/or place of purchase cannot provide warranty support or service. Once assembly, setup or use of the Product has been started, you must contact your local distributor or Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please visit our website at [www.horizonhobby.com](http://www.horizonhobby.com), submit a Product Support Inquiry, or call the toll free telephone number referenced in the Warranty and Service Contact Information section to speak with a Product Support representative.

### Inspection or Services

If this Product needs to be inspected or serviced and is compliant in the country you live and use the Product in, please use the Horizon Online Service Request submission process found on our website or call Horizon to obtain a Return Merchandise Authorization (RMA) number. Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional

protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon is not responsible for merchandise until it arrives and is accepted at our facility. An Online Service Request is available at [http://www.horizonhobby.com/content/\\_service-center\\_render-service-center](http://www.horizonhobby.com/content/_service-center_render-service-center). If you do not have internet access, please contact Horizon Product Support to obtain a RMA number along with instructions for submitting your product for service. When calling Horizon, you will be asked to provide your complete name, street address, email address and phone number where you can be reached during business hours. When sending product into Horizon, please include your RMA number, a list of the included items, and a brief summary of the problem. A copy of your original sales receipt must be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

**NOTICE: Do not ship LiPo batteries to Horizon. If you have any issue with a LiPo battery, please contact the appropriate Horizon Product Support office.**

### Warranty Requirements

**For Warranty consideration, you must include your original sales receipt verifying the proof-of-purchase date.** Provided warranty conditions have been met, your Product will be serviced or replaced free of charge. Service or replacement decisions are at the sole discretion of Horizon.

### Non-Warranty Service

**Should your service not be covered by warranty, service will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost.** By submitting the item for service you are agreeing to payment of the service without notification. Service estimates are available upon request. You must include this request with your item submitted for service. Non-warranty service estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Horizon accepts money orders and cashier's checks, as well as Visa, MasterCard, American Express, and Discover cards. By submitting any item to Horizon for service, you are agreeing to Horizon's Terms and Conditions found on our website [http://www.horizonhobby.com/content/\\_service-center\\_render-service-center](http://www.horizonhobby.com/content/_service-center_render-service-center).

**ATTENTION: Horizon service is limited to Product compliant in the country of use and ownership. If received, a non-compliant Product will not be serviced. Further, the sender will be responsible for arranging return shipment of the un-serviced Product, through a carrier of the sender's choice and at the sender's expense. Horizon will hold non-compliant Product for a period of 60 days from notification, after which it will be discarded.**

## Contact Information

Country of Purchase	Horizon Hobby	Phone Number/Email Address	Address
United States of America	Horizon Service Center (Repairs and Repair Requests)	servicecenter.horizonhobby.com/ RequestForm/	4105 Fieldstone Rd Champaign, Illinois, 61822 USA
	Horizon Product Support (Product Technical Assistance)	www.quickbase.com/db/ bghj7ey8c?a=GenNewRecord 888-959-2305	
	Sales	sales@horizonhobby.com 888-959-2305	
United Kingdom	Service/Parts/Sales: Horizon Hobby Limited	sales@horizonhobby.co.uk +44 (0) 1279 641 097	Units 1–4 , Ployters Rd, Staple Tye Harlow, Essex, CM18 7NS, United Kingdom
Germany	Horizon Technischer Service Sales: Horizon Hobby GmbH	service@horizonhobby.de +49 (0) 4121 2655 100	Christian-Junge-Straße 1 25337 Elmshorn, Germany
France	Service/Parts/Sales: Horizon Hobby SAS	infofrance@horizonhobby.com +33 (0) 1 60 18 34 90	11 Rue Georges Charpak 77127 Lieusaint, France
China	Service/Parts/Sales: Horizon Hobby – China	info@horizonhobby.com.cn +86 (021) 5180 9868	Room 506, No. 97 Changshou Rd. Shanghai, China 200060



## FCC Information

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.

This product contains a radio transmitter with wireless technology which has been tested and found to be compliant with the applicable regulations governing a radio transmitter in the 2.400GHz to 2.4835GHz frequency range.



**CAUTION:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## IC Information

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not

cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

## Compliance Information for the European Union



**EFL T28 BNF Basic (EFL4450)**

**EU Compliance Statement:** Horizon Hobby, LLC hereby declares that this product is in compliance with the essential requirements and other relevant provisions of the R&TTE and EMC Directive.

A copy of the EU Declaration of Conformity is available online at: <http://www.horizonhobby.com/content/support-render-compliance>.

## Instructions for disposal of WEEE by users in the European Union



This product must not be disposed of with other waste. Instead, it is the user's responsibility to dispose of their waste equipment by handing it over to a designated collections 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 where you purchased the product.

## Replacement Parts • Ersatzteile • Pièces de rechange • Pezzi di ricambio

Part #   Nummer Numéro   Codice	Description	Beschreibung	Description	Descrizione
PKZ5201	Prop Adapter	Propeller Adapter	Adaptateur d'hélice	Adattatore elica
PKZ1012	Propeller "9.5 X 7.5"	Luftschraube 9.5x7.5	Hélice 9.5X7.5	Elica "9.5 X 7.5"
PKZ1060	SV120 Servo (short lead): T-28 Elevator	ParkZone Mini Servo, 3 adrig, kurzes Kabel	Servo SV120 (câble court) : Profondeur T-28	SV120 Servo (terminale corto): Elevatore T-28
PKZ1063	Servo Y-Harness	ParkZone Servo Y-Kabel 3D2, T-28	Câble de servo en Y	Cavetto a Y del servo
PKZ1064	Metal Gear Set: DSV130M	ParkZone Metallgetriebe DSV130M	Jeu de train d'atterrissage principal : DSV130M	Set del carrello di atterraggio: DSV130M
PKZ1081	SV80 Servo (long lead): T-28 Ailerons	SV80 Servo mit langem Kabel	Servo SV80 (câble long) : Ailerons T-28	Servo SV80 (terminale lungo): Alettoni T-28
PKZ1090	DSV130 digital, metal gear	DSV130 Digitalservo MG	DSV130 digital, pignons métal	DSV130 digitale, ingranaggio metallico
PKZ4403	Decal Sheet: T-28 Trojan	T28 Dekorbogen	Planche de décalcomanies : T-28 Trojan	Foglio con decalcomanie T-28 Trojan
PKZ4406	Main Landing Gear: T-28	T-28 Hauptfahrwerk	Train d'atterrissage principal : T-28	Set del Carrello di Atterraggio principale: T-28
PKZ4407	Nose Gear Set: T-28	T-28 Bugfahrwerk	Jeu de roulette de nez : T-28	Set del carrello di atterraggio: T-28
PKZ4408	Nose Gear Steering Arm: T-28 Trojan	Steuerarm Bugfahrwerk	Axe de direction de roulette de nez : T-28 Trojan	Braccio di guida del ruotino di coda: T-28 Trojan
PKZ4413	Clear Canopy & Pilot with Pedestal: T-28 Trojan	T-28 Kabinenhaube & Pilot	Canopy transparent & Pilote avec piédestal T-28 Trojan	Tettuccio trasparente e pilota con predellino: T-28 Trojan
PKZ4416	480 BL Outrunner Motor; 960Kv	480BL Außenläufer 960Kv:	Moteur brushless à cage tournante 480, 960Kv	Motore a cassa rotante 480 BL; 960 Kv
PKZ4418	Motor shaft: 480 Outrunner	Motorwelle T-28	Moteur 480 BL Outrunner ; 960Kv	Albero del motore: 480 a cassa rotante
PKZ4420	Painted Wing (No Servo): T-28	T-28 Tragfläche	Arbre de moteur : 480 Outrunner	Ala verniciata (senza servo): T-28
PKZ4422	Pushrods w/Clevis: T-28	T-28 Schubstangen	Aile peinte (Sans servo) : T-28	Aste di spinta con forcilla: T-28
PKZ4423	Landing Gear Plates: T-28	Fahrwerksplatte T28 Trojan	Tiges avec clavettes : T-28	Piastre carrello di atterraggio: T-28
PKZ4425	Horizontal Tail w/Accessories: T-28	T-28 Höhenleitwerk	Plaques de train d'atterrissage : T-28	Coda orizzontale con accessori: T-28
PKZ4426	Cowl: T-28	T-28 Motorhaube	Partie horizontale de la queue avec accessoires : T-28	Cappuccio: T-28
PKZ4428	Motor Mount w/Screws: T-28/D Trojan, F4U Corsair	T-28 Motorhalter mit Schrauben	Capotage : T-28	Montante del motore con viti: T-28/D Trojan, F4U Corsair
PKZ4467	Painted Bare Fuselage: T-28	T-28 Rumpf, lackiert	Bâti moteur avec vis : T-28/D Trojan, F4U Corsair	Fusoliera nuda verniciata: T-28
EFLA1030	30-Amp Pro SB Brushless ESC	30A Pro SB Regler	Fuselage nu peint : T-28	Controllo elettronico di velocità (ESC) per 30 Amp Pro SB Brushless

## Optional Parts • Optionale Bauteile • Pièces optionnelles • Pezzi opzionali

Part #   Nummer Numéro   Codice	Description	Beschreibung	Description	Descrizione
EFLA250	Park Flyer Tool Assortment, 5 pc	Park Flyer Werkzeugsortiment, 5 teilig	Assortiment d'outils park flyer, 5pc	Park Flyer assortimento attrezzi, 5 pc
=PKZ1015	3-Blade Prop, 9 x 7.5: F4U Corsair, T-28 Trojan	Dreiblattluftschraube 8.7x6 F4U	Hélice 3 pales, 9 x 7,5 : F4U Corsair, T-28 Trojan	Elica a tre pale, 9 x 7.5: F4U Corsair, T-28 Trojan
EFLAEC302	EC3 Battery Connector, Female (2)	EC3 Akkukabel, Buchse (2)	Prise EC3 femelle (2pc)	EC3 Connettore femmina x batteria (2)
EFLAEC303	EC3 Device/Battery Connector, Male/Female	EC3 Kabelsatz, Stecker/Buchse	Prise EC3 male/femelle	EC3 Connettore batteria maschio/femmina
EFLB18003S30	11.1V 3S 1800mAh Li-Po	11.1V 3S 1800mAh LiPo	11.1V 3S 1800mAh Li-Po	11.1V 3S 1800mAh Li-Po
EFLB22003S50	11.1V 3S 30C 2200MAH Li-Po	11.1V 3S 30C 2200mAh LiPo	11.1V 3S 30C 2200MAH Li-Po	11.1V 3S 30C 2200MAH Li-Po
DYNC2020A	Prophet Sport Duo 50W x 2 AC Battery Charger	Dynamite Prophet Sport Duo 50W x 2 AC Ladegerät, EU	Chargeur Prophet Sport Duo 50W x 2 AC	Prophet Sport Duo 50W x 2 AC caricabatteria
DYNC2010CA	Prophet Sport Plus 50W AC DC Charger	Dynamite Ladegerät Prophet Sport Plus 50W AC/DC EU	Chargeur Prophet Sport Plus 50W AC DC	Caricabatterie Prophet Sport Plus 50W AC DC
EFLA111	Li-Po Cell Voltage Checker	Li-Po Cell Voltage Checker	Testeur de tension d'éléments Li-Po	Voltmetro verifica batterie LiPo
DYN1405	Li-Po Charge Protection Bag, Large	Dynamite LiPoCharge Protection Bag groß	Sac de charge Li-Po, grand modèle	Sacchetto grande di protezione per carica LiPo
DYN1400	Li-Po Charge Protection Bag, Small	Dynamite LiPoCharge Protection Bag klein	Sac de charge Li-Po, petit modèle	Sacchetto piccolo di protezione per carica LiPo
	DX6i DSMX 6-Channel Transmitter	Spektrum DX6i DSMX 6-Kanal Sender	Emetteur DX6i DSMX 6 voies	DX6i DSMX Trasmettitore 6 canali
	DX6 DSMX 6-Channel Transmitter	Spektrum DX6 DSMX 6-Kanal Sender	Emetteur DX6 DSMX 6 voies	DX6 DSMX Trasmettitore 6 canali
	DX7 DSMX 7-Channel Transmitter	Spektrum DX7 DSMX 7 Kanal Sender	Emetteur DX7 DSMX 7 voies	DX7 DSMX Trasmettitore 7 canali
	DX9 DSMX 9-Channel Transmitter	Spektrum DX9 DSMX 9 Kanal Sender	Emetteur DX9 DSMX 9 voies	DX9 DSMX Trasmettitore 9 canali
	DX18 DSMX 18-Channel Transmitter	Spektrum DX18 DSMX 18 Kanal Sender	Emetteur DX18 DSMX 18 voies	DX18 DSMX Trasmettitore 18 canali





# T-28 Trojan

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Patents pending.

<http://www.e-fliterc.com/>