



# Ultra Micro T-28 Trojan RTF/BNF



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



**RTF**





## NOTICE

All instructions, warranties and other collateral documents are subject to change at the sole discretion of Horizon Hobby, Inc. For up-to-date product literature, visit <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 and NOT a toy. 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 attempt disassembly, use with incompatible components or augment product in any way without the approval of Horizon Hobby, Inc. 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.

## 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.

This model is controlled by a radio signal subject to interference from many sources outside your control. This interference can cause momentary loss of control so it is advisable to always keep a safe distance in all directions around your model, as this margin will help avoid collisions or injury.

**Age Recommendation: 14 years or over. This is not a toy.** This product is not intended for use by children without direct adult supervision.

- Never operate your model with low transmitter batteries.

- Always operate your model in open spaces away from full-size vehicles, traffic and people.
- Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.) you use.
- Keep all chemicals, small parts and anything electrical out of the reach of children.
- Moisture causes damage to electronics. Avoid water exposure to all equipment not specifically designed and protected for this purpose.
- Never lick or place any portion of your model in your mouth as it could cause serious injury or even death.

This exciting Ultra Micro Series edition of ParkZone's wildly popular T-28 is a must-have for any intermediate to experienced pilot. Like the original, it has plenty of performance for sport aerobatics but remains a joy to fly at slower speeds if you want to throttle back and shoot touch and gos. And, like the original, it boasts remarkably scale lines and a great looking U.S. Navy trim scheme. Best of all, this one is small enough to fly in your backyard.

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## First Flight Preparation

- Remove and inspect contents
- Begin charging the flight battery
- Install landing gear
- Install batteries into battery charger
- Install batteries into the included transmitter (RTF ONLY)
- Install fully charged battery
- Bind the receiver to a transmitter (BNF ONLY)
- Perform the Control Direction Test with the transmitter
- Adjust flight controls and transmitter
- Adjust battery for center of gravity (CG)
- Perform a radio system Range Check
- Find a safe and open area
- Plan flight for flying field conditions

T-28 Specifications	
<b>Wingspan</b>	<b>16.8 in (426mm)</b>
<b>Length</b>	<b>13.5 in (343mm)</b>
<b>Weight</b>	<b>1.30 oz (38 g)</b>

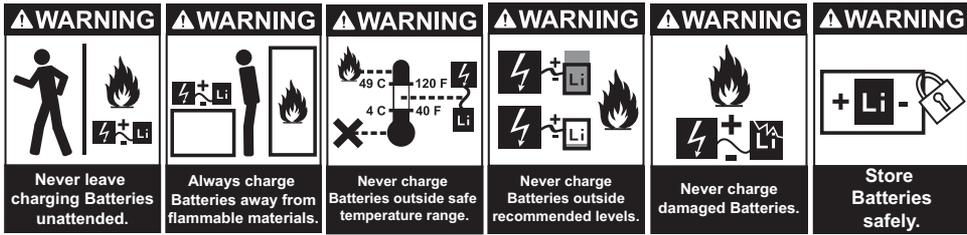
## Maintenance After Flying

- Disconnect flight battery from ESC (Required for Safety)
- Turn off transmitter
- Remove flight battery from aircraft
- Recharge flight battery
- Repair or replace all damaged parts
- Store flight battery apart from aircraft and monitor the battery charge
- Make note of flight conditions and flight plan results, planning for future flights

T-28 Features	Bind-N-Fly Version	Ready to Fly Version
<b>Onboard Electronics</b> Spektrum AR6400 Receiver/Servos/ESC	<b>Installed</b>	<b>Installed</b>
<b>Battery</b> 120mAh 3.7V 14C Li-Po	<b>Included</b>	<b>Included</b>
<b>Charger</b> 1S 3.7V Li-Po Battery Charger	<b>Included</b>	<b>Included</b>
<b>Transmitter</b> DSM2 aircraft transmitter	<b>Sold Separately</b>	<b>Included</b>

To register your product online, go to <http://www.parkzone.com>

# Battery Warnings



The Battery Charger (PKZ3240) included with the T-28 BNF has been designed to safely charge the Li-Po battery. You must read the following safety instructions and warnings before handling, charging or using the Li-Po battery.

**CAUTION:** All instructions and warnings must be followed exactly. Mishandling of Li-Po batteries can result in a fire, personal injury, and/or property damage.

- By handling, charging or using the included Li-Po battery you assume all risks associated with lithium batteries. If you do not agree with these conditions, return your complete T-28 model in new, unused condition to the place of purchase immediately.
- DO NOT USE A Ni-Cd OR Ni-MH CHARGER. Failure to charge the battery with a compatible charger may cause fire resulting in personal injury and/or property damage.

- If at any time during the charge process the battery begins to balloon or swell, discontinue charging or discharging immediately. Quickly and safely disconnect the battery, then place it in a safe area away from flammable materials to observe it for at least 15 minutes. Continuing to charge or discharge a battery that has begun to balloon or swell can result in a fire.
- Store the battery at room temperature in a dry area for best results.
- When transporting or temporarily storing the battery the temperature range should be from 40–120° F. Do not store battery or model in a car or direct sunlight. If stored in a hot car, the battery can be damaged or even catch fire.
- Li-Po cells should not be discharged to below 3V each under load.

## Low Voltage Cutoff (LVC)

The T-28 receiver features a soft low voltage cutoff (LVC) that occurs when the battery reaches 3V per cell under load. When the soft cutoff occurs, the electronic speed control (ESC) and receiver reduce power to the motor (regardless of the power level set with the throttle stick). This prevents the voltage of the battery from dropping below 3V per cell.

While it is possible to continue flying the aircraft after the soft LVC occurs, this is NOT recommended. Battery discharge after LVC will damage the Li-Po battery, resulting in less power and shorter flight duration during subsequent flights, or complete failure of the battery.

Discharging the battery after low voltage cutoff may result in loss of control. Battery power may drop below the receiver's minimum operating voltage so flight controls do not respond to the transmitter.

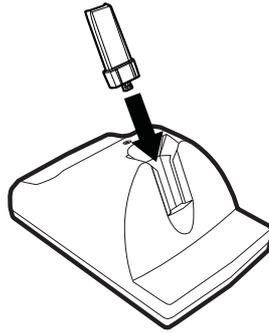
Stay aware of the power level of the battery/ aircraft throughout the flight, and when the aircraft requires more throttle than typical, immediately land the T-28.

**Note:** Battery performance is reduced in cooler temperatures.

**CAUTION:** ALWAYS disconnect the battery from the aircraft to prevent trickle discharge of the battery. These batteries require regular maintenance to keep them at a usable charge level.

# Charging the Battery

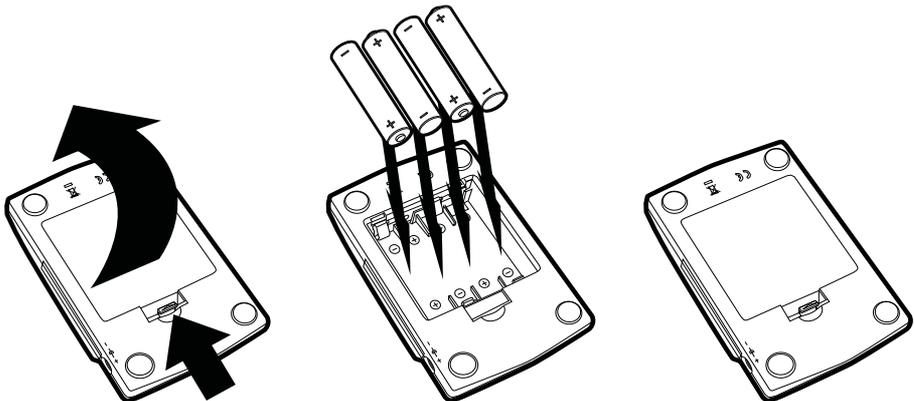
Your T-28 comes with 1S 3.7V Li-Po Battery Charger and 1S Li-Po battery. It is important that you only charge with the included charger, or the E-flite® Celecra™ 4-port Charger (EFLC1004). Refer to page 4. It is recommended to charge the battery pack while you are assembling the aircraft. The flight battery will be required to confirm proper aircraft operation in future steps.



The Battery Charging Process
1. Charge only batteries that are cool to the touch and are not damaged. Look at the battery to make sure it is not damaged e.g., swollen, bent, broken or punctured.
2. Remove the cover on the bottom of the charger and install four of the included AA batteries, noting proper polarity. Replace the cover after the AA batteries are installed.
3. Slide the battery into the slot on the charger. The end cap of the battery is specifically designed to allow the battery to fit into the slot one way (usually with the label on the battery facing outward) to prevent reverse polarity connection. However, check for proper alignment and polarity before proceeding to the next step.
4. Gently press the battery and its connector into the charge jack/connector located at the bottom of the slot in the charger.
5. When you make the connection successfully, the LED on the charger turns solid red, indicating charging has begun.
6. Charging a fully discharged (not over-discharged) 120mAh battery takes approximately 30–40 minutes. As the battery nears full charge, the LED begins to blink.
7. When the battery is fully charged, the LED blinks approximately every 20 seconds or goes out entirely. Note: If the LED stays on when the LiPo is removed, the AA batteries in the charger are low.
8. Always unplug the battery from the charger immediately upon completion of charging. <b>CAUTION:</b> Overcharging a battery can cause a fire.

**⚠ WARNING:** Failure to use the proper charger for a Li-Po battery can result in serious damage, and if left charging long enough, will cause a fire. ALWAYS use caution when charging Li-Po batteries.

**⚠ WARNING:** Selecting a charge rate higher than 1x (one times) the battery capacity on a variable rate charger may cause a fire.



## Transmitter and Receiver Binding

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

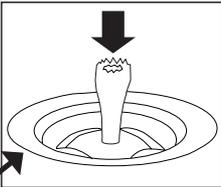
To bind or re-bind your T-28 to your chosen transmitter please follow the directions below:

The T-28 requires a DSM2 transmitter. The list below is Spektrum™ or JR® DSM2-equipped transmitters that can bind to the T-28. (If your transmitter is not listed, please contact Horizon Hobby):

- E-flite MLP4DSM
- E-flite LP5DSM
- ParkZone Vapor® 2 Transmitter
- JR 12X 2.4
- Spektrum DX5e
- Spektrum DX6i
- Spektrum DX7/DX7se
- JR X9503
- HP6DSM

*List is complete as of this printing. Additional compatible transmitters may be available.*

### ✓ Binding Procedure Reference Table

1. Refer to your transmitter's unique instructions for binding to a receiver.	
2. Make sure the flight battery is disconnected from the airplane.	
3. Power off the transmitter.	
4. Connect the flight battery in the aircraft. The receiver LED will begin to flash. (Typically after 5 seconds).	
5. Put your transmitter into bind mode. If using the MLP4DSM transmitter, push the left control stick vertically into the case until it clicks, while powering on the transmitter.	
6. Make sure transmitter controls are neutral and throttle is in low position.	

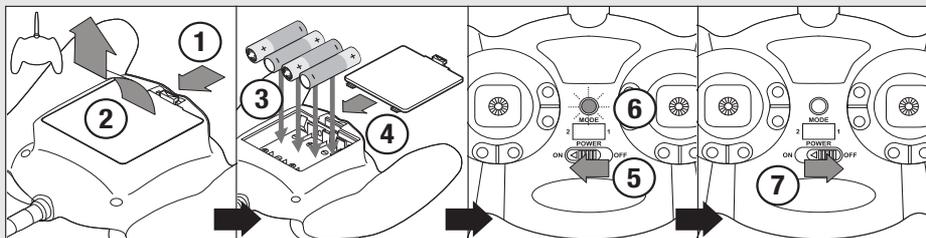
### Additional Binding Information

Prior to each flight, power on your transmitter and wait about 5 seconds before you plug the flight battery into the receiver. This allows time for the transmitter to scan and secure two open frequencies. If you plug the flight battery in too quickly and miss the link, the receiver may inadvertently enter bind mode. If this occurs leave the transmitter on, then disconnect and reconnect the flight battery. Avoid binding multiple transmitters and receivers simultaneously, binding near large metal objects (furniture, vehicles, etc.), and binding with the transmitter too near the aircraft. Please bind the transmitter at least 50 cm from aircraft.

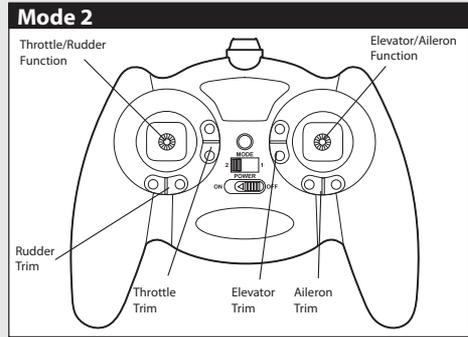
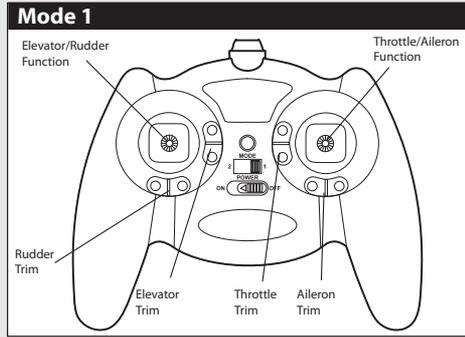
## RTF

### Installing Transmitter Battery

Your T-28 RTF transmitter comes pre-bound to the aircraft, so binding should not be necessary. All that is needed to begin flying is installation of fully charged batteries in the aircraft and transmitter.



## Transmitter Control



### Digital Trims

The ParkZone® 4-channel 2.4GHz DSM2 transmitter features digital trim buttons on all controls to make fine adjustments. Before the first flight, center the control surfaces mechanically (see Control Centering, page 9). The digital trims are used to fine-tune the model's flight path when in flight.

Note: When pressed down, trim buttons make a sound that increases or decreases in pitch at each pressing. The middle or neutral trim position is heard as a middle tone in the pitch range of the sounds. The end of the control range is sounded by a series of beeps.

### Dual Rate Function

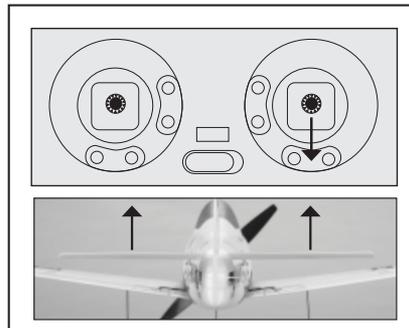
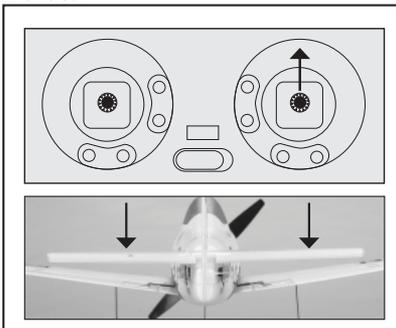
This transmitter's dual rate feature lets the pilot change between high and low control rates for the aileron, elevator, rudder and throttle channels.

- When powered on, this transmitter is automatically in high-rate mode.
- Change rate modes by pushing the right-hand control stick down into the case until it clicks while the transmitter is powered on.
- High-rate mode is shown by the transmitter's LED glowing solid red. In high-rate mode the controls can reach their maximum values. This mode is typically preferred by experienced pilots for maximum control authority.
- Low-rate mode is shown by the transmitter's LED blinking continuously. In low-rate mode the controls are reduced to a percentage of their maximum values. This mode is typically preferred by (and best for) first-time, low-time and other pilots interested in smoother and more easily controlled hovering and flying.

### Control Direction Test

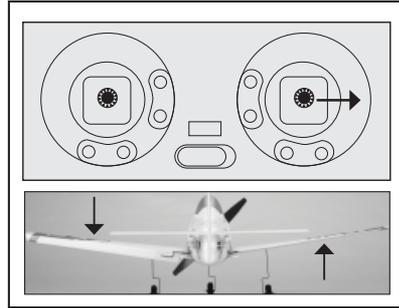
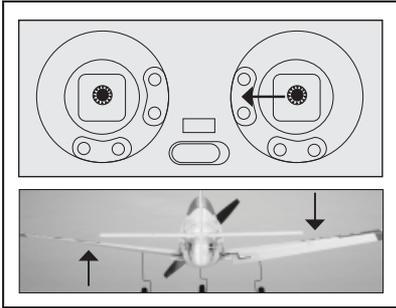
You should bind your aircraft and transmitter before doing these tests. Move the controls on the transmitter to make sure aircraft control surfaces are moved correctly. (Mode 2 shown).

#### Elevator

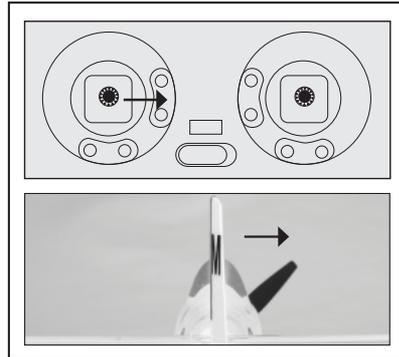
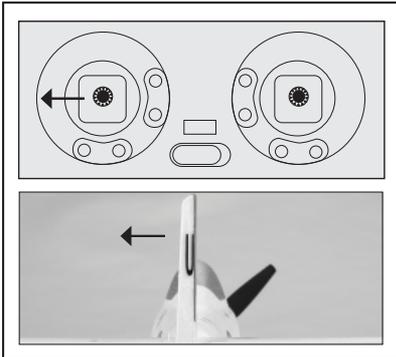


## Control Direction Test, continued

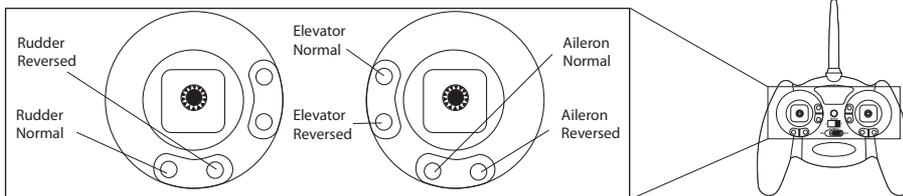
### Aileron



### Rudder



## Reverse Controls



The transmitter (MLP4DSM) included with the T-28 is the same transmitter included in other Ultra Micro RTF versions. It also functions identically to the transmitter included with the E-flite mCX and mSR.

**Note:** Refer to any other transmitter's manual for reversing instructions.

Should the T-28's electronic components be used in another aircraft, you may find it necessary to reverse the operation of flight control surfaces. See *Servo Reversing in your transmitter manual*.

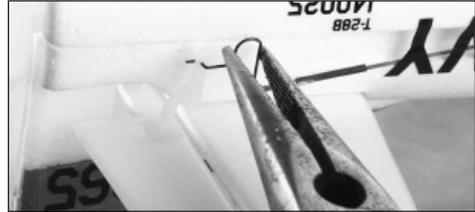
1. Be certain the battery is unplugged from the aircraft and the transmitter is turned off.
2. Press and hold the digital trim button for the surface you would like to reverse.
3. While holding the digital trim button, turn the transmitter on.
4. Hold the digital trim buttons down for approximately 5 seconds until you hear a tone, confirming the selection.
5. Connect the flight battery and complete the flight control test. Confirm all surfaces operate in the correct direction.

## Control Centering

Before first flight or in the event of an accident, check to make sure the flight control surfaces are centered. It is much better to do this mechanically due to the mechanical limit of linear servos.

1. Make sure the transmitter's trims are centered, and if your transmitter has them, sub-trims are set to zero (0).
2. Check to see if any of the flight control surfaces are not centered.

3. If the surface is not centered, use a pair of pliers and carefully lengthen or shorten the pushrod by bending the U-shape in the pushrod.

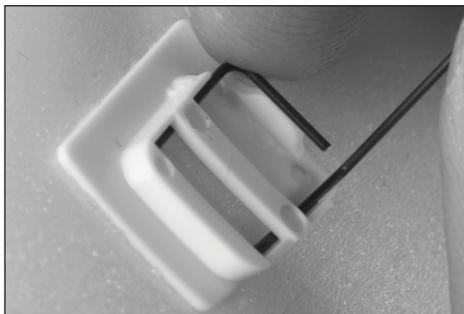


## Installing Landing Gear

1. Remove the airplane and the landing gear from the box.



2. Gently slide left and right mainlanding gear into plastic mounting clips on the bottom of the wings, orienting the struts toward the front of the airplane as shown.



**Note:** Install left and right gear with the vertical strut of the landing gear toward the front of each wing. Install the bent wire of each strut fully inside each mount.

3. Carefully slide the nose gear into the plastic nose gear mount on the bottom of the fuselage.



**Note:** You can adjust the nose gear height by slightly pulling out the nose gear strut to create a more positive angle of attack, and more prop clearance.

# Receiver Control Unit, Arming and Motor Control Test

Turn on the transmitter before connecting the flight battery to the aircraft. Binding is done by connecting the flight battery before turning on the transmitter (see binding instructions on page 6). Always disconnect and remove the flight battery after use to prevent unsafe power draining of the Li-Po battery.

- Put the throttle stick at the lowest position
- Power on the transmitter
- Connect the flight battery to the aircraft
- When the status LED on the receiver shines solid red, the receiver unit is initialized and ready for flight.
- When the throttle stick is in the idle

position and throttle trim is in the lowest position when the flight battery is connected, the ESC/motor will be armed.

**CAUTION:** When armed, the motor will turn the propeller in response to any throttle movement.

If the status LED continues to flash red, then bind the transmitter to the aircraft per instructions on page 6.

**Note:** The throttle trim must be at the lowest setting to arm the ESC.

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# Installing Flight Battery and Adjusting Center of Gravity

1. Install the fully charged flight battery in the airplane.
2. Where necessary, apply a strip of hook fastener to the back of the battery, opposite the label.
3. Connect flight battery to Spektrum AR6400 plug. Refer to photo below for correct alignment.

4. Attach flight battery to strip of loop fastener on the bottom of the fuselage.



## Adjusting Center of Gravity (CG)

The CG location is 30–32mm back from leading edge of the wing at the root. This CG location has been determined with the ParkZone 1S 120mAh 3.7V Li-Po battery installed in the middle of the battery cavity.

**Note:** The battery cavity is oversized to allow for Center of Gravity adjustment. Start by placing the battery in the center of the cavity, and adjust as necessary.

**Note:** Always disconnect the Li-Po from the receiver of the airplane when not flying. Failure to do so will render the battery unusable.

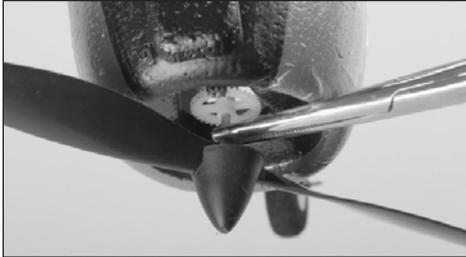


# Propeller and Propeller Shaft Maintenance

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

## Remove Propeller

1. Hold the shaft using needle-nose pliers or hemostats.



2. Remove the propeller by turning it counterclockwise on the threaded shaft



## Remove Propeller Shaft

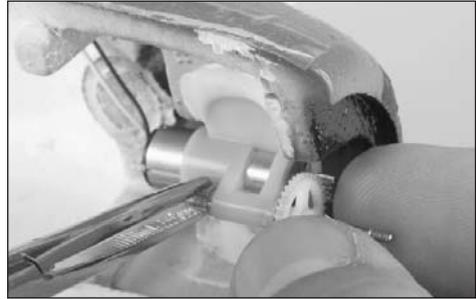
1. Cut open the fuselage at the decal on one side of the fuselage and on the turtle deck (top of fuselage behind the canopy).



**Note:** Removing tape or decals will remove paint from the fuselage.

2. While the fuselage is open, hold the white nylon nut on the prop shaft using needle-nose pliers or hemostats.

3. Turn the spur gear on the prop shaft clockwise to remove the nut.

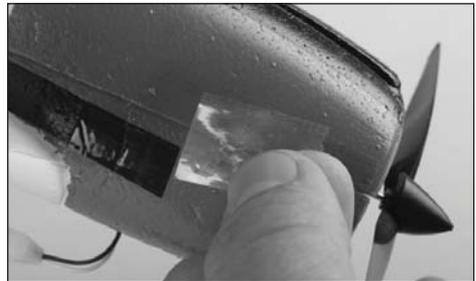


4. Gently pull the shaft from the gearbox.

**Note:** Make sure no parts fall into the fuselage when removing the shaft.

## Installing

1. Turn a 130mm x 70mm prop and spinner clockwise on the prop shaft.
2. Install the prop shaft in the gearbox.
3. Hold the nylon nut on the back of the prop shaft.
4. Turn the spur gear counterclockwise until the nut is tightly installed on the shaft.
5. Assemble the fuselage with clear tape.



# Flying Tips and Repairs

## Flying

Always avoid flying near houses, trees, wires and buildings. You should also be careful to avoid flying in areas where there are many people, such as busy parks, schoolyards, or soccer fields. Consult local laws and ordinances before choosing a location to fly your aircraft. We recommend only flying your T-28 in light winds.

Place the T-28 in position for takeoff (facing into the wind if flying outdoors). Gradually increase the throttle to  $\frac{3}{4}$  to full, and steer with the rudder. Pull back gently with the elevator and climb to check trim. Once the trim is adjusted, begin exploring the flight envelope of the T-28.

**Note:** Due to the large propeller on the T-28, it is possible to hit the prop on the ground while landing. Make sure to flare when landing and try to land as smoothly as possible to minimize hitting the prop. While this does not damage the airplane it is possible to wear down the tips of the propeller if flying from an abrasive



surface such as concrete or asphalt.

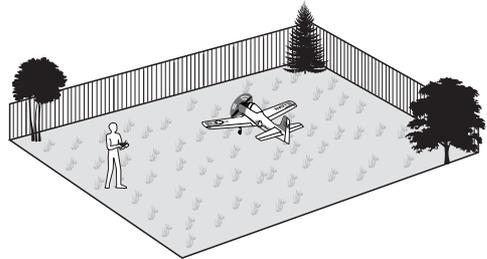
**Note:** You can also raise the nose gear to avoid further prop strikes.

Failure to lower the throttle stick and trim to the lowest possible positions during a crash could result in damage to the ESC in the receiver unit, which may require replacement.

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

## Repairs

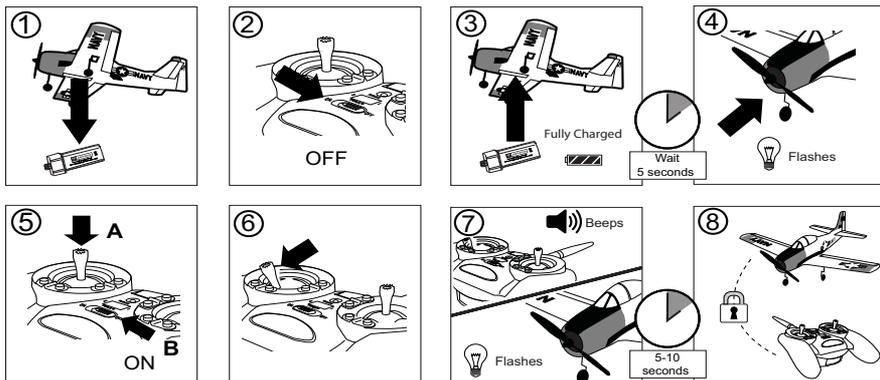
Thanks to the T-28's construction, repairs to the foam can be made using foam-compatible CA or tape. When parts are not repairable, see the Replacement Parts List for ordering by item number.



## RTF

### Re-binding Transmitter

The T-28 RTF comes pre-bound to the included DSM2 transmitter. If you need to re-bind your airplane, follow the simple directions below.



## Troubleshooting Guide

PROBLEM	POSSIBLE CAUSE	SOLUTION
Aircraft will not respond to throttle but responds to other controls	<ul style="list-style-type: none"> <li>• Throttle not at idle at control setup and/or throttle trim too high.</li> <li>• Throttle channel is reversed</li> </ul>	<ul style="list-style-type: none"> <li>• Reset controls with throttle stick and throttle trim at lowest setting</li> <li>• Reverse throttle channel on transmitter</li> </ul>
Extra propeller noise or extra vibration	<ul style="list-style-type: none"> <li>• Damaged propeller and spinner, gear shaft or motor</li> </ul>	<ul style="list-style-type: none"> <li>• Replace damaged parts</li> </ul>
Reduced flight time or aircraft underpowered	<ul style="list-style-type: none"> <li>• Flight battery charge is low</li> <li>• Propeller or gear shaft damaged</li> <li>• Flight battery damaged</li> <li>• Gearbox not moving freely</li> <li>• Flight conditions may be too cold</li> </ul>	<ul style="list-style-type: none"> <li>• Completely recharge flight battery</li> <li>• Replace damaged parts</li> <li>• Replace flight battery and follow flight battery instructions</li> <li>• Lubricate gear shaft and bushings</li> <li>• Make sure battery is warm before use</li> </ul>
LED on receiver flashes and aircraft will not bind to transmitter	<ul style="list-style-type: none"> <li>• Less than a 5 second wait after powering transmitter and before connecting flight battery to aircraft</li> <li>• Transmitter too near aircraft during binding process</li> <li>• Batteries in transmitter low</li> </ul>	<ul style="list-style-type: none"> <li>• Disconnect then connect flight battery to aircraft</li> <li>• Move powered transmitter a few feet from aircraft, disconnect and connect flight battery to aircraft</li> <li>• Replace transmitter batteries</li> </ul>
Control surface does not move, or is slow to respond to controls	<ul style="list-style-type: none"> <li>• Control surface, control horn, linkage or servo damage</li> <li>• Wire damaged or connections loose</li> <li>• Flight battery charge is low</li> <li>• Control trim out of adjustment</li> </ul>	<ul style="list-style-type: none"> <li>• Replace or repair damaged parts and adjust controls</li> <li>• Do a check of wires and connections, connect or replace as needed</li> <li>• Fully recharge flight battery</li> <li>• Adjust trims to restore full control</li> </ul>
Controls reversed	<ul style="list-style-type: none"> <li>• Transmitter settings reversed</li> </ul>	<ul style="list-style-type: none"> <li>• Do the Control Direction Test and adjust controls on transmitter appropriately</li> </ul>
Motor loses power	<ul style="list-style-type: none"> <li>• Damage to motor, or power components</li> </ul>	<ul style="list-style-type: none"> <li>• Do a check of batteries, transmitter, receiver, ESC, motor and wiring for damage (replace as needed)</li> </ul>
Motor power pulses then motor loses power	<ul style="list-style-type: none"> <li>• ESC uses default soft Low Voltage Cutoff (LVC)</li> </ul>	<ul style="list-style-type: none"> <li>• Recharge flight battery</li> </ul>

## Replacement Parts and Optional Parts

Number	Description
PKZ1035	3.7V 120mAh Li-Po Battery
PKZ3240	DC 3.7V Li-Po Charger
EFL9051	130 x 70 Propeller with Spinner (2)
PKZ3527	Gearbox without Motor
PKZ3528	Prop Shaft
PKZ3616	Motor
PKZU1502	Decal Sheet
PKZU1504	Main and Nose Landing Gear
PKZU1520	Wing with Ailerons
PKZU1522	Aileron Pushrod and Linkages
PKZ3623	Aileron Bellcrank
PKZ3624	Motor and Gearbox
PKZU1525	Complete Tail Set
PKZU1526	Elevator/Rudder Pushrod Set
PKZU1567	Bare Fuselage: T-28
SPMAR6400	DSM2 6-Channel Ultra Micro Receiver with ESC and Servos
SPMAS2000	1.5g Linear Servo
EFLH1066	Replacement Servo Mechanics
EFLH1067	Replacement Servo Retaining Collars
PKZ3052	Battery Connector with Wire <i>(Optional)</i>
EFLB1201S	120mAh 3.7V 14C Li-Po Battery <i>(Optional)</i>
EFLB1501S	150mAh 3.7V 12C Li-Po Battery <i>(Optional)</i>

Number	Description
EFLC1004	4-Port 3.7V Li-Po Charger <i>(Optional)</i>
EFLC1005	AC to 6V DC Adapter <i>(Optional)</i>
EFLC1005AU	AC to 6V DC Adapter (AU) <i>(Optional)</i>
EFLC1005EU	AC to 6V DC Adapter (EU) <i>(Optional)</i>
EFLC1005UK	AC to 6V DC Adapter (UK) <i>(Optional)</i>
SPM6825	Linear Servo Reverser <i>(Optional)</i>
SPMR5500	DX5e 5-Channel Transmitter Mode 2 <i>(Optional)</i>
SPMR55001	DX5e 5-Channel Transmitter Mode 1 <i>(Optional)</i>
SPMR6600	DX6i 6-Channel Transmitter Mode 2 <i>(Optional)</i>
SPMR66001	DX6i 6-Channel Transmitter Mode 1 <i>(Optional)</i>
SPMR6600E	DX6i 6-Channel Transmitter Mode 2 (EU) <i>(Optional)</i>
SPMR66001E	DX6i 6-Channel Transmitter Mode 1 (EU) <i>(Optional)</i>
SPMR7700	DX7 7-Channel Transmitter Mode 2 <i>(Optional)</i>
SPMR77001	DX7 7-Channel Transmitter Mode 1 <i>(Optional)</i>
SPMR7700E	DX7 7-Channel Transmitter Mode 2 (EU) <i>(Optional)</i>
SPMR77001E	DX7 7-Channel Transmitter Mode 1 (EU) <i>(Optional)</i>

## Warranty and Repair Policy

### Warranty Period

Exclusive Warranty- Horizon Hobby, Inc., (Horizon) warranties that the Products purchased (the "Product") will be free from defects in materials and workmanship at the date of purchase by the Purchaser.

### Limited Warranty

Horizon reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.

(a) This warranty is limited to the original Purchaser ("Purchaser") and is not transferable. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. This

warranty covers only those Products purchased from an authorized Horizon dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for all warranty claims.

- (b) Limitations- HORIZON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCT. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.
- (c) Purchaser Remedy- Horizon's sole obligation hereunder shall be that Horizon will, at its option, (i) repair or (ii) replace, any Product determined by Horizon to be

defective. In the event of a defect, these are the Purchaser's exclusive remedies. Horizon reserves the right to inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the sole discretion of Horizon. This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part of the Product.

This warranty does not cover damage due to improper installation, operation, maintenance, or attempted repair by anyone other than Horizon. Return of any Product by Purchaser must be approved in writing by Horizon before shipment.

#### Damage Limits

HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCT, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY. 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 this Product, you are advised to return this 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).

#### Warranty Services

Questions, Assistance, and Repairs

Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the Product has been started, you must contact 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 direct your email to [productsupport@horizonhobby.com](mailto:productsupport@horizonhobby.com), or call 877.504.0233 toll free to speak to a Product Support representative. You may also find information on our website at [www.horizonhobby.com](http://www.horizonhobby.com).

#### Inspection or Repairs

If this Product needs to be inspected or repaired, please use the Horizon Online Repair 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 Repair Request is available at [www.horizonhobby.com](http://www.horizonhobby.com) <http://www.horizonhobby.com> under the Repairs tab. 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 repair. 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 batteries to Horizon. If you have any issue with a battery, please contact the appropriate Horizon Product Support office.

#### Warranty Inspection and Repairs

To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon Hobby.

#### Non-Warranty Repairs

Should your repair not be covered by warranty the repair 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 repair you are agreeing to payment of the repair without notification. Repair estimates are available upon request. You must include this request with your repair. Non-warranty repair 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 cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards. By submitting any item to Horizon for inspection or repair, you are agreeing to Horizon's Terms and Conditions found on our website under the Repairs tab.

## Contact Information

Country of Purchase	Horizon Hobby	Address	Phone Number / Email Address
United States of America	Horizon Service Center (Electronics and engines)	4105 Fieldstone Rd Champaign, Illinois 61822 USA	877-504-0233 <a href="mailto:productsupport@horizonhobby.com">productsupport@horizonhobby.com</a>
	Horizon Product Support (All other products)	4105 Fieldstone Rd Champaign, Illinois 61822 USA	877-504-0233 <a href="mailto:productsupport@horizonhobby.com">productsupport@horizonhobby.com</a>
United Kingdom	Horizon Hobby Limited	Units 1-4 Ployters Rd Staple Tye Harlow, Essex CM18 7NS United Kingdom	+44 (0) 1279 641 097 <a href="mailto:sales@horizonhobby.co.uk">sales@horizonhobby.co.uk</a>
Germany	Horizon Technischer Service	Hamburger Str. 10 25335 Elmshorn Germany	+49 4121 46199 66 <a href="mailto:service@horizonhobby.de">service@horizonhobby.de</a>
France	Horizon Hobby SAS	14 Rue Gustave Eiffel Zone d'Activité du Réveil Matin 91230 Montgeron	+33 (0) 1 60 47 44 70

## FCC Information

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

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.

## Compliance Information for the European Union

### Declaration of Conformity

(in accordance with ISO/IEC 17050-1)

No. HH2010072901

<b>CE</b>	Product(s):	PKZ T-28 Trojan Ultra Micro RTF
	Item Number(s):	PKZU1500, PKZU1500M1
	Equipment class:	1

The object of declaration described above is in conformity with the requirements of the specifications listed below, following the provisions of the European R&TTE directive 1999/5/EC:

<b>EN 300-328</b>	Technical requirements for Radio equipment.
<b>EN 301 489-1, 301 489-17</b>	General EMC requirements
<b>EN 60950</b>	Safety

Signed for and on behalf of:  
Horizon Hobby, Inc.  
Champaign, IL USA  
July 29, 2010



Steven A. Hall  
Vice President  
International Operations and Risk Management  
Horizon Hobby, Inc.

### Declaration of Conformity

(in accordance with ISO/IEC 17050-1)

No. HH2010072902

<b>CE</b>	Product(s):	PKZ T-28 Trojan Ultra Micro BNF
	Item Number(s):	PKZU1580
	Equipment class:	1

The object of declaration described above is in conformity with the requirements of the specifications listed below, following the provisions of the European R&TTE directive 1999/5/EC:

<b>EN 301 489-1, 301 489-17</b>	General EMC requirements
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Signed for and on behalf of:  
Horizon Hobby, Inc.  
Champaign, IL USA  
July 29, 2010



Steven A. Hall  
Vice President  
International Operations and Risk Management  
Horizon Hobby, Inc.

## 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.



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US 7,391,320. US D578,146. PRC ZL 200720069025.2. Other patents pending.

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