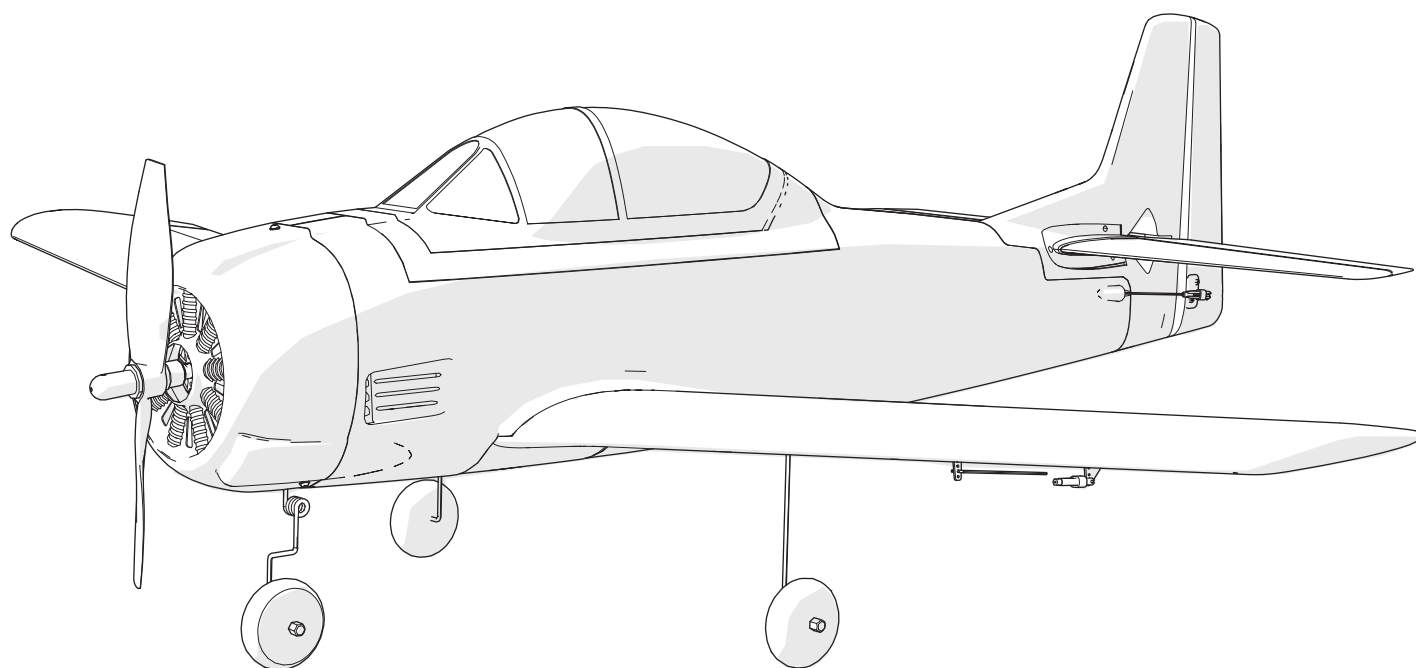# T-28 1.1m BNF Basic and PNP

Instruction Manual
Bedienungsanleitung
Manuel d'utilisation
Manuale di Istruzioni

MEANING OF SPECIAL LANGUAGE

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

<u>WARNING</u>: 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.

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

<u>NOTICE</u>: Procedures, which if not properly followed, create a possibility of physical property damage AND little or no possibility of 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.

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

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.

⚠ **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 technology.
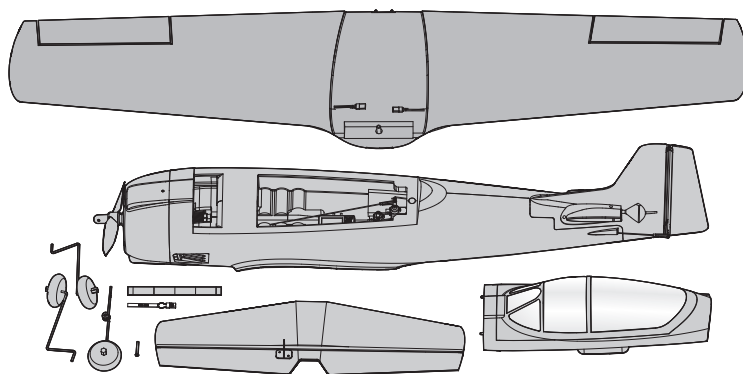
Quick Start Information

Quick Start Information			
Transmitter Setup	Set up your transmitter using the transmitter setup chart		
Dual Rates*		**High Rate**	**Low Rate**
	Aileron	▲ = 14mm ▼ = 14mm	▲ = 10mm ▼ = 10mm
	Elevator	▲ = 8mm ▼ = 8mm	▲ = 6mm ▼ = 6mm
	Rudder	▶ = 19mm ◀ = 19mm	▶ = 13mm ◀ = 13mm
Center of Gravity (CG)	67 – 72mm behind the leading edge of the wing at the fuselage		
Flight Timer Setting	5 minutes		

Box Contents

Specifications

		BNF BASIC	PNP PLUG-N-PLAY
Motor: 3226-930Kv 14-Pole Brushless Motor (SPMXAM1700)		Installed	Installed
ESCs: 30A Telemetry ESC (EFLA1030FB)		Installed	Installed
Servos: Aileron (2): A381, 400mm Lead Elevator: A382, 240mm Lead Rudder: A382, 240mm Lead		Installed	Installed
Receiver: Spektrum™ AR631 6-Channel Sport Receiver (SPMAR631)		Installed	Required
Recommended Battery: 11.1V 3S – 14.8V 4S 2200mAh 30C Li-Po with EC3 or IC3 connector (SPMX22003S30, SPMX22004S30)		Required	Required
Recommended Battery Charger: 3 – 4cell Li-Po battery balancing charger		Required	Required
Recommended Transmitter: Full range 6-channel 2.4GHz with Spektrum DSMX® technology with adjustable Dual Rates.		Required	Required

44 in (1120mm)

36 in (915mm)

314.0 Sq In
(20.3 Sq Dm)

30 oz / 855 g (without battery)
38 oz / 1080 g (with 2200mAh 4S 30C Smart battery)

Table of Contents

If you own this product, you may be required to register with the FAA. For up-to-date information on how to register with the FAA, please visit https://registermyuas.faa.gov/.
For additional assistance on regulations and guidance on UAS usage, visit knowbeforeyoufly.org/.

SAFE® Select Technology (*BNF Basic*)

The BNF Basic version of this airplane includes SAFE Select technology which can offer an extra level of protection in flight. Use the following instructions to make the SAFE Select system active and assign it to a switch. When enabled, SAFE Select prevents the airplane from banking or pitching past predetermined limits, and automatic self-leveling keeps the airplane flying in a straight and level attitude when the aileron, elevator and rudder sticks are at neutral.

SAFE Select is enabled or disabled during the bind process. When the airplane is bound with SAFE Select enabled, a switch can be assigned to toggle between SAFE Select mode and AS3X mode. AS3X® technology remains active with no bank angle limits or self leveling any time SAFE Select is disabled or OFF.

SAFE Select can be configured three ways;
• SAFE Select Off: Always in AS3X mode
• SAFE Select On with no switch assigned: Always in SAFE Select mode
• SAFE Select On with a switch assigned: Switch toggles between SAFE Select mode and AS3X mode

Preflight

1. Remove and inspect contents.	9. Make sure linkages move freely.
2. Read this instruction manual thoroughly.	10. Perform the Control Direction Test with the transmitter.
3. Charge the flight battery.	11. Perform the AS3X Control Direction Test with the aircraft.
4. Setup Transmitter using transmitter setup chart.	12. Adjust flight controls and transmitter.
5. Fully assemble the airplane.	13. Perform a radio system Range Test.
6. Install the flight battery in the aircraft (once it has been fully charged).	14. Find a safe open area to fly.
7. Check the Center of Gravity (CG).	15. Plan flight for flying field conditions.
8. Bind the aircraft to your transmitter.	

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 the included M3 x 25mm(**C**) screw using a Phillips screwdriver (not included).

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.

C
M3 X 25mm
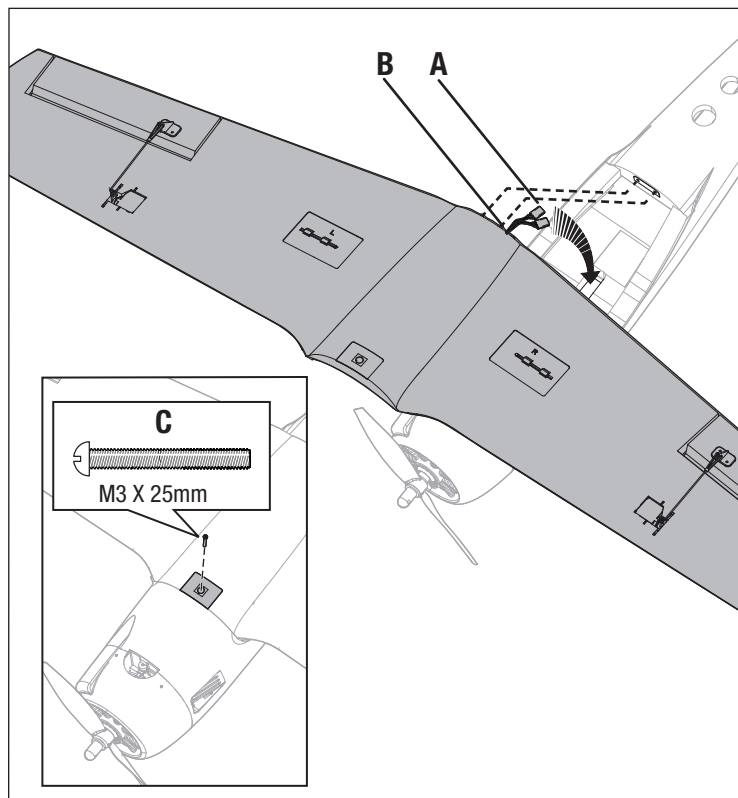
Model Assembly

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 using a #2 Phillips screw driver that is at least 6"(155mm) long (not included).

   If more maneuvering space is needed, remove the propeller and cowling from the model before installing the nose gear (as shown in the **"Motor Service"** 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.
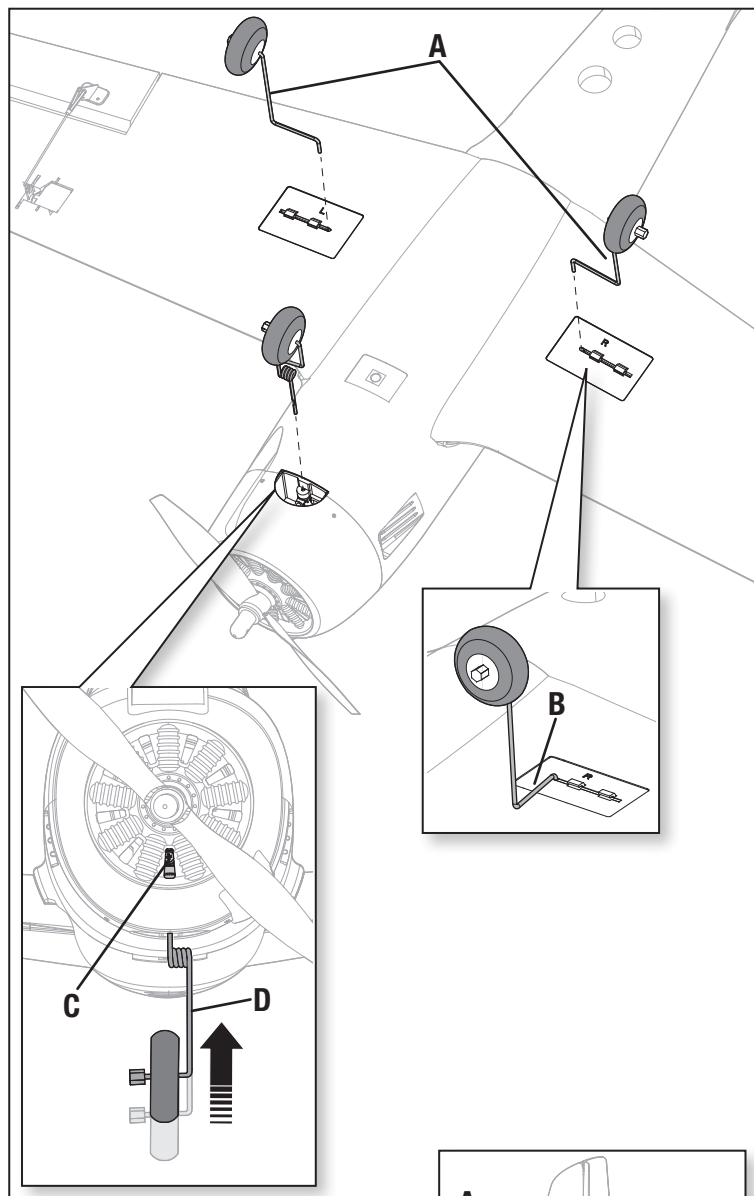
Stabilizer Installation

1. Place the model on its landing gear.

2. Turn the horizontal stabilizer so the control horn faces down.

3. Slide the horizontal stabilizer in the mount from the right hand side until it is centered and perpendicular to the fuselage.

4. Apply 4 pieces of tape (**A**) on the fuselage mounts and the top and bottom of the horizontal stabilizer.

5. Attach the clevis to the elevator control horn (see instructions for clevis connection).

6. When needed, disassemble in reverse order.
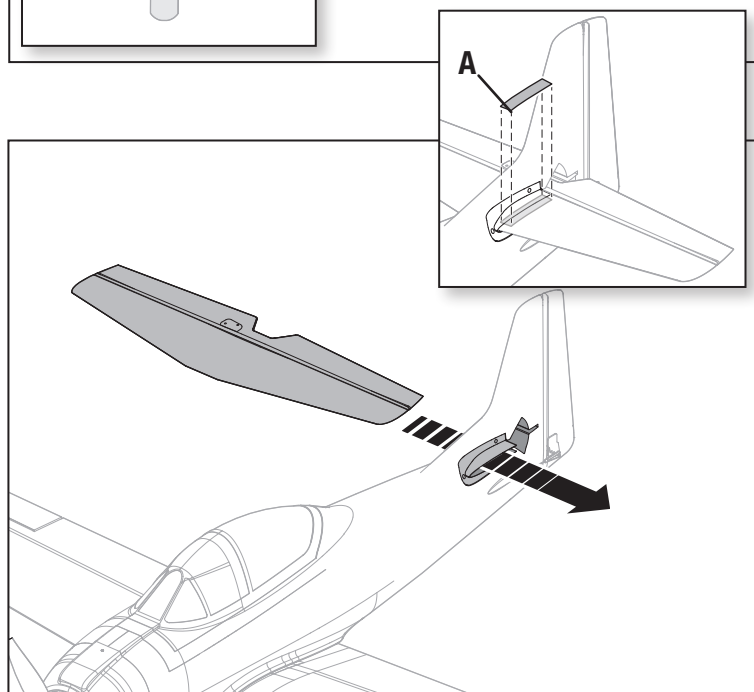
Model Assembly

The illustration shows recommended hole settings in the servo arms and control horns.

Control Horn and Servo Arm Settings

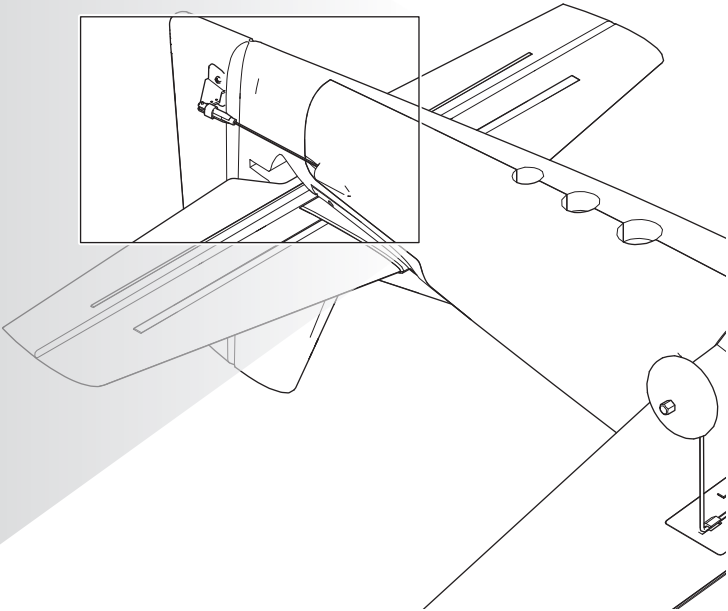|	Horns	Arms
Elevator		
Ailerons		
Rudder		
Nose Gear		Nose gear

Connect the clevises to the control horns as shown

1.

2.

3.

4.

Transmitter Setup (*BNF Basic*)

IMPORTANT: After you set up your model, always rebind the transmitter and receiver to set the desired failsafe positions.

Dual Rates

Attempt your first flights in low rate. For landings, use high rate elevator.

NOTICE: To ensure AS3X technology functions properly, do not lower rate values below 50%. If less control deflection is desired, manually adjust the position of the pushrods on the servo arm

NOTICE: If oscillation occurs at high speed, refer to the Troubleshooting Guide for more information.

Exponential (Expo)

After first flights, you may adjust expo in your transmitter.
† Some of the terminology and function locations used in the iX12 and iX20 programming may be slightly different than other Spektrum AirWare™ radios. The names given in parenthesis correspond to the iX12 and iX20 programming terminology. Consult your transmitter manual for specific information about programming your transmitter.

Computerized Transmitter Setup			
Start all transmitter programming with a blank ACRO model (perform a model reset), then name the model.			
Set Dual Rates to		HIGH 100%	LOW 70%
Set Servo Travel to		100%	
Set Throttle Cut to		-100%	
Set Retract Channel to		Reverse	
Set Aileron Expo to		High Rate 15%	Low Rate 5%
Set Elevator Expo to		High Rate 10%	Low Rate 5%
Set Rudder Expo to		High Rate 10%	Low Rate 5%
DXe	Refer to spektrumrc.com for the appropriate download setup.		
DX7S DX8	1. Go to the SYSTEM SETUP		
	2. Set MODEL TYPE: AIRPLANE		
	3. Set WING TYPE: 1 AIL		
DX6e DX6 (Gen2) DX7 (Gen2) DX8e DX8 (Gen2) DX9 DX10t DX18 DX20 iX12 iX20	1. Go to the SYSTEM SETUP (Model Utilities)†		
	2. Set MODEL TYPE: AIRPLANE		
	3. Set AIRCRAFT TYPE (Model Setup, Aircraft Type)†: WING: 1 AIL		

PNP Receiver Selection and Installation

The recommended receiver for this aircraft is the Spektrum AR631.
If you choose to install a different receiver, it needs to be a 4-channel or more full range (sport) receiver. Refer to the manual of your chosen receiver for correct installation and operation instructions.

AR631 Installation

1. Remove the hatch on the top of the fuselage.
2. Attach the appropriate control surfaces to their respective ports on the receiver using the table at the right.
3. Using double-sided servo tape, mount the receiver to the flat area behind the ESC, as shown. The receiver should be mounted in the orientation shown, parallel to the length of the fuselage, with the label facing up and the servo ports facing the rear of the aircraft. The orientation of the receiver is critical for all AS3X® and SAFE® technology setups.

⚠ **CAUTION:** Incorrect installation of the receiver could cause a crash.

Antenna Installation

The AR631 receiver has a coaxial style antenna. We recommend installing the antenna as far as possible from metal, batteries, or carbon fiber to maximize signal reception performance.

NOTICE: Do not cut, kink, or modify the antennas. Damage to the coaxial portion of an antenna will reduce the performance of the antenna. Shortening or cutting off the 31mm tip will reduce the range.

Active portion of antenna

AR631 Port Assignments

BND/PRG = BIND

1 = Throttle

2 = Aileron

3 = Elevator

4 = Rudder

5 = NA

6 = NA

Battery Installation and ESC Arming
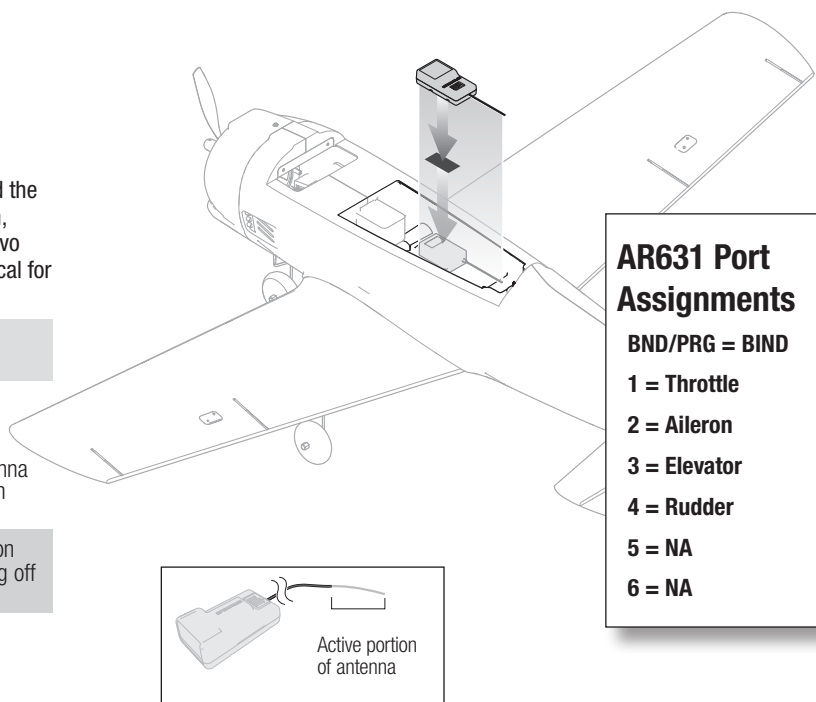
Battery Selection

We recommend the Spektrum 2200mAh 14.8V 4S 30C Smart Li-Po battery (SPMX22004S30). 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 Spektrum 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 tones corresponding to the battery cell count (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.

1.

⚠ **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

⚠ **WARNING:** Install the battery but do not connect it to the ESC while checking the CG. Personal injury may result.

The CG location is 67 – 72mm back from the leading edge of the wing at the fuselage. Check the CG with the aircraft inverted.
The CG location is adjusted by moving the battery pack forward or backward in the battery compartment.

67 – 72mm

T-28 Trojan 1.1m
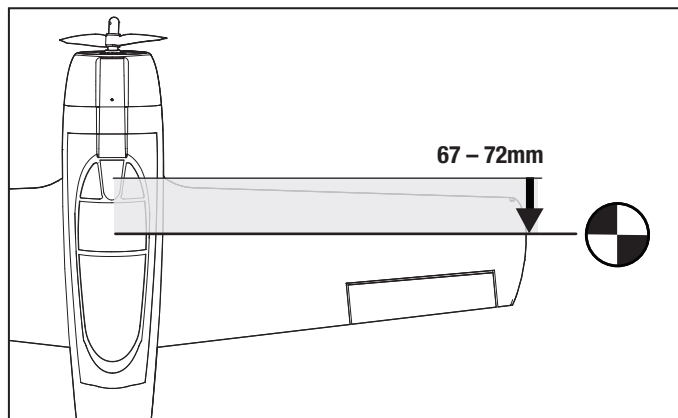
Transmitter and Receiver Binding / Enabling and Disabling SAFE Select

General Binding Tips

- The included receiver has been specifically programmed for operation of this aircraft. Refer to the receiver manual for correct setup if the receiver is replaced.
- Keep away from large metal objects while binding.
- Do not point the transmitter's antenna directly at the receiver while binding.
- The orange LED on the receiver will flash rapidly when the receiver enters bind mode.

- Once bound, the receiver will retain its bind settings for that transmitter until you re-bind.
- If the receiver loses transmitter communication, the failsafe will activate. Failsafe moves the throttle channel to low throttle. Pitch and roll channels move to actively level the aircraft in flight.
- If problems occur, refer to the troubleshooting guide or if needed, contact the appropriate Horizon Product Support office.

SAFE® Select Technology, Optional Flight Envelope Protection

The BNF Basic version of this airplane includes SAFE Select technology, enabling you to choose the level of flight protection. SAFE mode includes angle limits and automatic self leveling. AS3X mode provides the pilot with a direct response to the control sticks. SAFE Select is enabled or disabled during the bind process.
With SAFE Select disabled the aircraft is always in AS3X mode. With SAFE Select enabled the aircraft will be in SAFE Select mode all the time, or you can assign a switch to toggle between SAFE Select and AS3X modes.
Thanks to SAFE Select technology, this aircraft can be configured for full-time SAFE mode, full-time AS3X mode, or mode selection can be assigned to a switch.
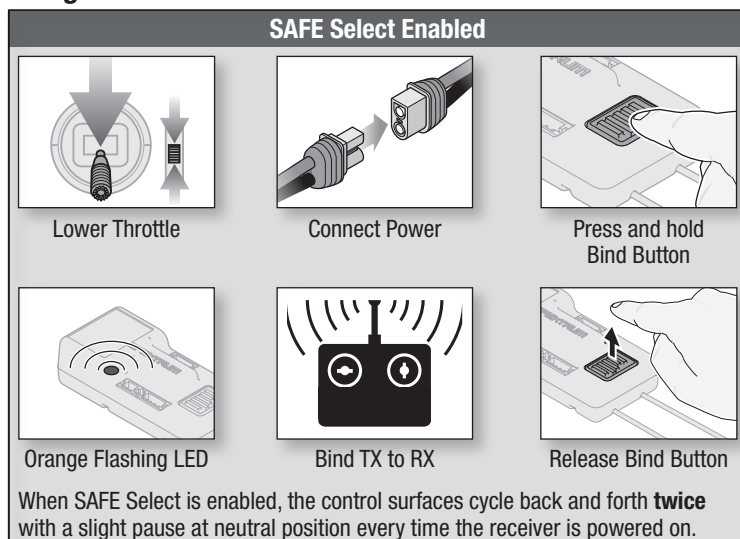
IMPORTANT: Before binding, read the transmitter setup section in this manual and complete the transmitter setup table to ensure your transmitter is properly programmed for this aircraft.

IMPORTANT: Move the transmitter flight controls (rudder, elevators, and ailerons) and the throttle trim to neutral. Move the throttle to low before and during binding. This process defines the failsafe settings.

You can use either the bind button on the receiver case or the conventional bind plug to complete the binding and SAFE Select process.

Using the Bind Button:

SAFE Select Enabled

Lower Throttle

Connect Power
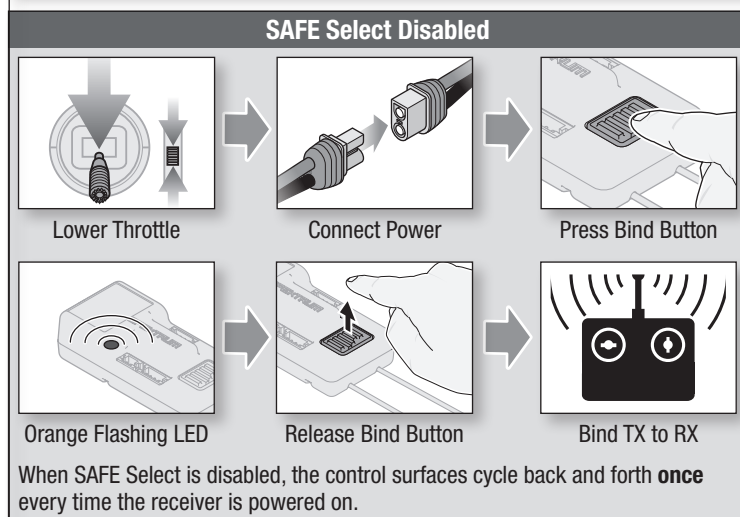
Press and hold Bind Button

Orange Flashing LED

Bind TX to RX

Release Bind Button

When SAFE Select is enabled, the control surfaces cycle back and forth **twice** with a slight pause at neutral position every time the receiver is powered on.

SAFE Select Disabled

Lower Throttle

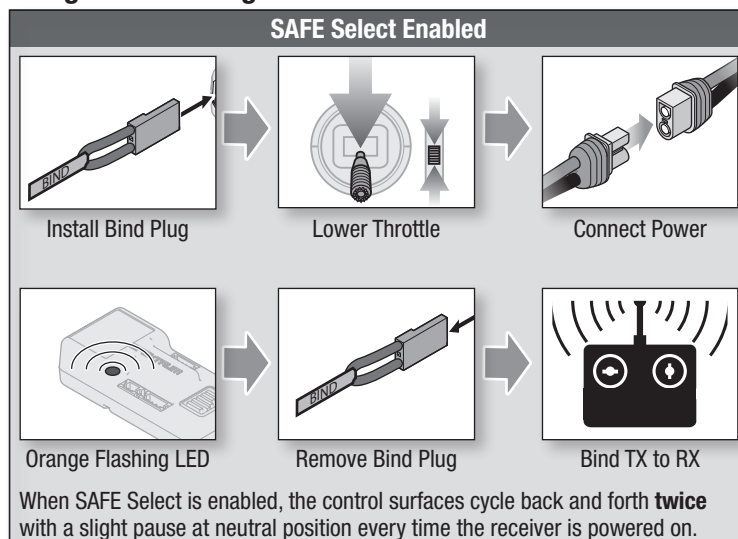Connect Power

Press Bind Button

Orange Flashing LED

Release Bind Button

Bind TX to RX

When SAFE Select is disabled, the control surfaces cycle back and forth **once** every time the receiver is powered on.

Using the Bind Plug:

SAFE Select Enabled

Install Bind Plug

Lower Throttle

Connect Power
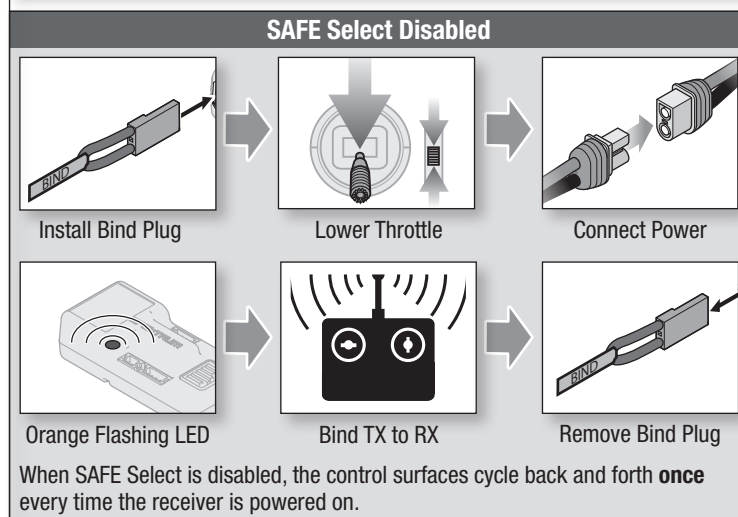
Orange Flashing LED

Remove Bind Plug

Bind TX to RX

When SAFE Select is enabled, the control surfaces cycle back and forth **twice** with a slight pause at neutral position every time the receiver is powered on.

SAFE Select Disabled

Install Bind Plug

Lower Throttle

Connect Power

Orange Flashing LED

Bind TX to RX

Remove Bind Plug

When SAFE Select is disabled, the control surfaces cycle back and forth **once** every time the receiver is powered on.

SAFE® Select Switch Designation

SAFE® Select technology can be assigned to any open switch (2 or 3 position) controlling a channel (5–9) on your transmitter. Once assigned to a switch, SAFE select ON gives you the flexibility to choose SAFE technology or AS3X mode while in flight. If the aircraft is bound with SAFE select OFF, the aircraft will be in AS3X mode exclusively.

IMPORTANT: Before assigning your desired switch, ensure that the travel for that channel is set at 100% in both directions and the aileron, elevator, rudder and throttle are all on high rate with the travel at 100%.

⚠ **CAUTION:** Keep all body parts well clear of the rotor and keep the aircraft securely restrained in case of accidental throttle activation.

TIP: SAFE Select is assignable on any unused channels 5–9. See your transmitter manual for more information about assigning a switch to a channel.

TIP: Use your radio channel monitor to confirm that the four primary channels are showing 100% travel while assigning the switch.

TIP: Use the channel monitor to make sure the switch you are assigning for SAFE Select is active and driving a channel between 5-9 and that it is traveling 100% in each direction.

TIP: Make sure your four primary channels are not reversed if you are having trouble assigning a SAFE Select switch.

Assigning a switch

1. Bind the aircraft to choose SAFE Select ON. This will allow the system to be assigned to a switch.
2. Hold both transmitter sticks to the inside bottom corners and toggle the desired switch 5 times (1 toggle = full up and down) to assign that switch. The control surfaces of the aircraft will move, indicating the switch has been selected.

Repeat the process to assign a different switch or to deactivate the current switch if desired.

Mode 1 and 2 transmitters

100%
X 5
100%
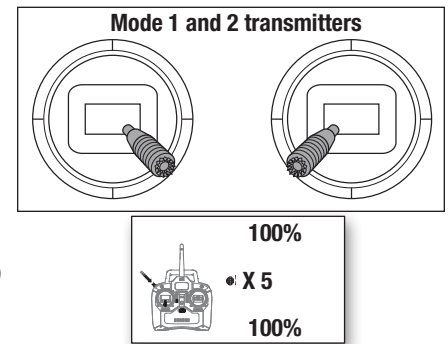
Integrated ESC Telemetry

This aircraft includes telemetry between the ESC and receiver, which can provide information like battery voltage and temperature.

To View Telemetry:

1. Begin with the transmitter bound to the receiver

2. Power on the transmitter.

3. Power on the aircraft.

4. A signal bar appears in the top left corner of the screen when the telemetry information is being received.

5. Scroll past the servo monitor to view the technology screens.

For more information about compatible transmitters, firmware updates, and how to use the telemetry technology on your transmitter, visit www.SpektrumRC.com.

Control Surface Centering

After assembly and transmitter setup, confirm that the control surfaces are centered. The model must be powered up bound to the transmitter in AS3X mode, with the throttle left at zero. When enabled, SAFE mode is active at power up. AS3X mode is activated when the throttle is raised above 25% for the first time after being powered on. It is normal for the control surfaces to respond to aircraft movement if the aircraft is in AS3X or SAFE modes.

1. Verify the trims and subtrims on your transmitter are zero
2. Power up the model in AS3X mode and leave the throttle at zero
3. Look at the tip of each control surface and verify it is mechanically centered.
4. 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.

90°

90°
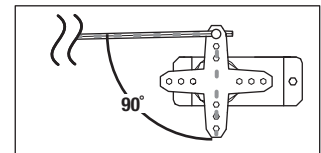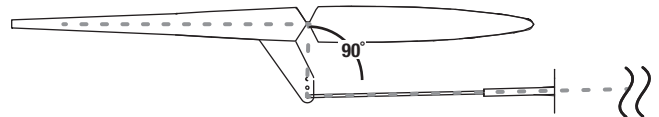
Control Surface Direction

Switch on the transmitter and connect the battery. Use the transmitter to operate the aileron, elevator, and rudder controls. View the aircraft from the rear when checking the control directions.

Ailerons

1. Move the aileron stick to the left. The right aileron should move down and the left aileron up, which will cause the aircraft to bank left.
2. Move the aileron stick to the right. The right aileron should move up and the left aileron down, which will cause the aircraft to bank right.
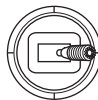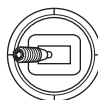
Elevators

3. Pull the elevator stick back. The elevators should move up, which will cause the aircraft to pitch up.
4. Push the elevator stick forward. The elevators should move down, which will cause the aircraft to pitch down.

Rudder

5. Move the rudder stick to the left. The rudder and the nose wheel should move to the left, which will cause the aircraft to yaw left.
6. Move the rudder stick to the right. The rudder and the nose wheel should move to the right, which will cause the aircraft to yaw right.

Aileron stick

Elevator stick
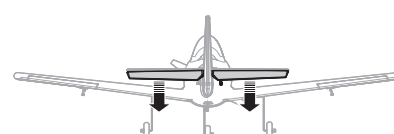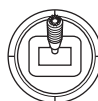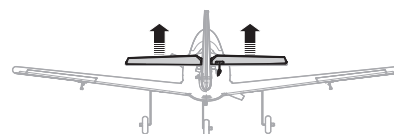
Rudder stick
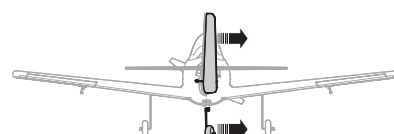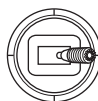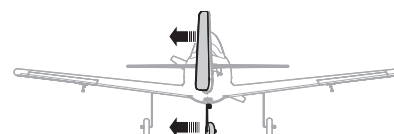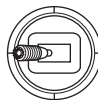
Control Horn and Servo Arm Settings

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.

NOTICE: If control throws are changed from the factory settings, the AR631 gain values may need to be adjusted. Refer to the Spektrum AR631 manual for adjustment of gain values.

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

More control throw	Less control throw

AS3X Control Response Test (*BNF Basic*)

This test ensures that the AS3X control system is functioning properly. Assemble the aircraft and bind your transmitter to the receiver before performing this test.

1. Raise the throttle to any setting above 25%, then lower the throttle to activate AS3X technology.

⚠️ **CAUTION:** Keep all body parts, hair and loose clothing away from the propeller as these items could become entangled.

2. Move the entire aircraft as shown and ensure the control surfaces move in the direction indicated in the graphic. If the control surfaces do not respond as shown, do not fly the aircraft. Refer to the receiver manual for more information.

Once the AS3X system is active, control surfaces may move rapidly. This is normal. AS3X remains active until the battery is disconnected.

Aircraft movement	AS3X Reaction
Pitch	
Roll	
Yaw	

In Flight Trimming (*BNF Basic*)

During your first flight, trim the aircraft for level flight at 1/2 throttle. Make small trim adjustments with your transmitter's trim switches to straighten the aircraft's flight path.
After adjusting the trim, do not touch the control sticks for 3 seconds. This allows the receiver to learn the correct settings to optimize AS3X performance.
Failure to do so could affect flight performance.

3 Seconds
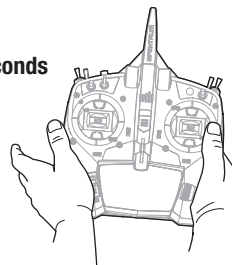
Dual Rates and Control Throws

Program your transmitter to set the rates and control throws based on your experience level. These values have been tested and are a good starting point to achieve a successful first flight.
After flying, you may choose to adjust the values for the desired control response.

	Low Rate	High Rate
Aileron	10mm	14mm
Elevator	6mm	8mm
Rudder	13mm	19mm

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 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.
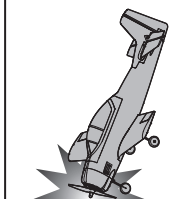
Low Voltage Cutoff (LVC)

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 (SPMXBC100, sold separately).

Repairs

Thanks to the foam material this aircraft is constructed of, 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.

SAFE Select Flying Tips (*BNF Basic*)

When flying in SAFE Select mode the aircraft will return to level flight any time the aileron and elevator controls are at neutral. Applying aileron or elevator control will cause the airplane to bank, climb or dive. The amount the stick is moved will determine the attitude the airplane flies. Holding full control will push the aircraft to the pre-determined bank and roll limits, but it will not go past those angles.

When flying with SAFE Select, it is normal to hold the control stick deflected with moderate aileron input when flying through a turn. To fly smoothly with SAFE Select, avoid making frequent control changes and don't attempt to correct for minor deviations. Holding deliberate control inputs will command the aircraft to fly at a specific angle, and the model will make all corrections to maintain that flight attitude.

When flying with SAFE Select, throttle will make the aircraft climb or descend. Full throttle will cause the aircraft to pitch up and climb slightly. Mid throttle will keep the airplane flying level. Low throttle will cause the airplane to descend slightly nose-down.

Return the elevator and aileron controls to neutral before switching from SAFE Select mode to AS3X mode. If you do not neutralize controls when switching into AS3X mode, the control inputs used for SAFE Select mode will be excessive for AS3X mode and the aircraft will react immediately.

Differences between SAFE Select and AS3X modes
This section is generally accurate but does not take into account flight speed, battery charge status, and other limiting factors.

		SAFE Select	AS3X
Control Input	Control stick is neutralized	Aircraft will self level	Aircraft will continue to fly at its present attitude
	Holding a small amount of control	Aircraft will bank or pitch to a moderate angle and maintain the attitude	Aircraft will continue to pitch or roll slowly
	Holding full control	Aircraft will bank or pitch to the predetermined limits and maintain the attitude	Aircraft will continue to roll or pitch rapidly
	Throttle	Full throttle: Climb Neutral: Level flight Low throttle: Descend	Throttle will not affect flight response.

Motor Service

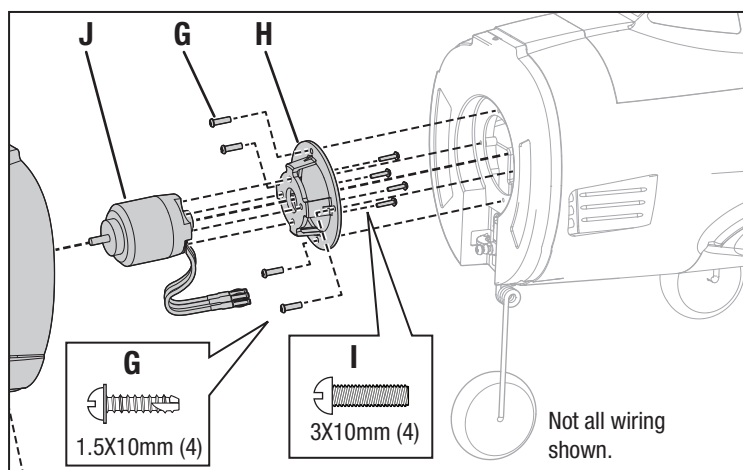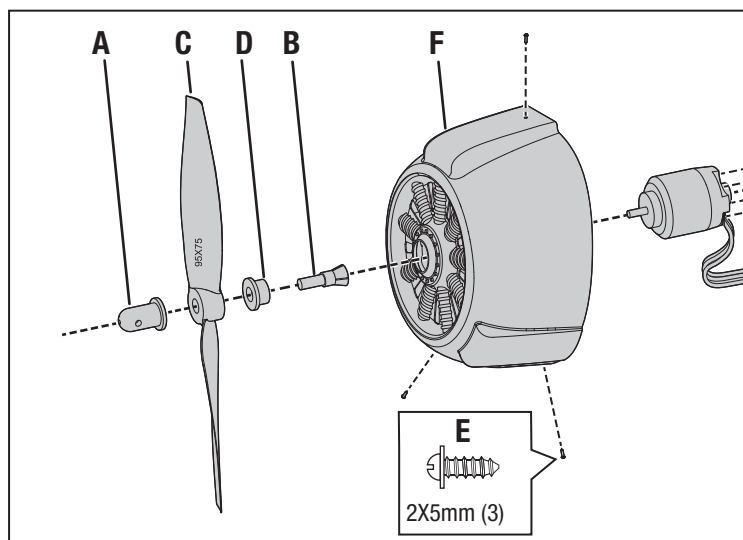⚠️ **CAUTION:** Always disconnect the flight battery before performing motor service.

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 forward.
- A tool is required to tighten the spinner nut on the collet.

A C D B F

E
2X5mm (3)

J G H

G
1.5X10mm (4)

I
3X10mm (4)

Not all wiring shown.

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 **"Motor Service"** 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**) (EFL08253, 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**) (EFL08253, 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.

A
2.5X12mm (2)

B

C

D

E
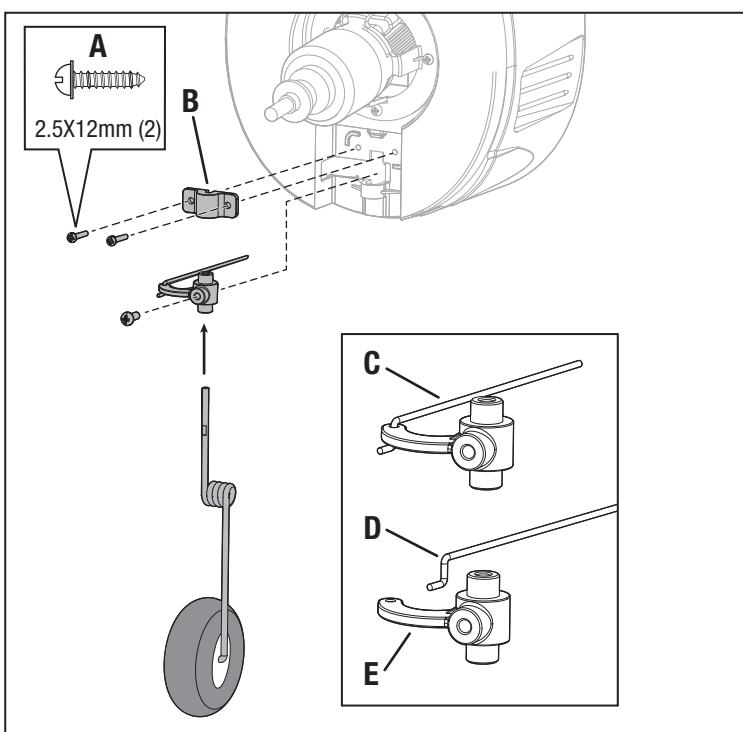
Servo Service

Wing Servo Removal
1. Remove the propeller.
2. Remove the wing.
3. Unplug the wing servo wires from the marked fuselage servo extensions.
4. Flip the wing over, and set it on a smooth, soft surface.
5. Remove the servo tape from the wing bottom of the damaged servo.
6. Remove the pushrod clevis from the aileron control horn.
7. Remove the tape strip covering the servo wire.
8. Firmly pull on the servo to remove it from the wing.
9. Remove the servo screw and the servo arm.

Fuselage Servo Replacement

Use the wing servo replacement instructions (1–9) to replace the rudder and/or elevator servos. Then plug the servo wire directly into the receiver.

Wing Servo Installation
1. Plug the servo into the correctly marked aileron extension in the fuselage.
2. With the propeller removed, power ON the plane. Wait for the plane to initialize and for the servos to center.
3. Center the transmitter trims.
4. Align the servo arm by pressing the arm onto the servo. Install the servo arm screw, disconnect the servo from the aileron extension, and begin the servo installation.
5. Using Deluxe Materials Foam 2 Foam (DLMAD34), secure the servo into the servo pocket.
6. Press the servo wire into the servo wire channel in the bottom of the wing.
7. Using Deluxe Materials Foam 2 Foam (DLMAD34), reinstall the foam servo wire retainer.
8. Reinstall the pushrod clevis into the aileron control horn.

Important: Make sure the glue is dry before proceeding.

9. Connect the aileron servo wires to the proper aileron extension wires in the fuselage.
10. Install the wing.
11. Use clear tape along the length of the servo wire to secure it in place.
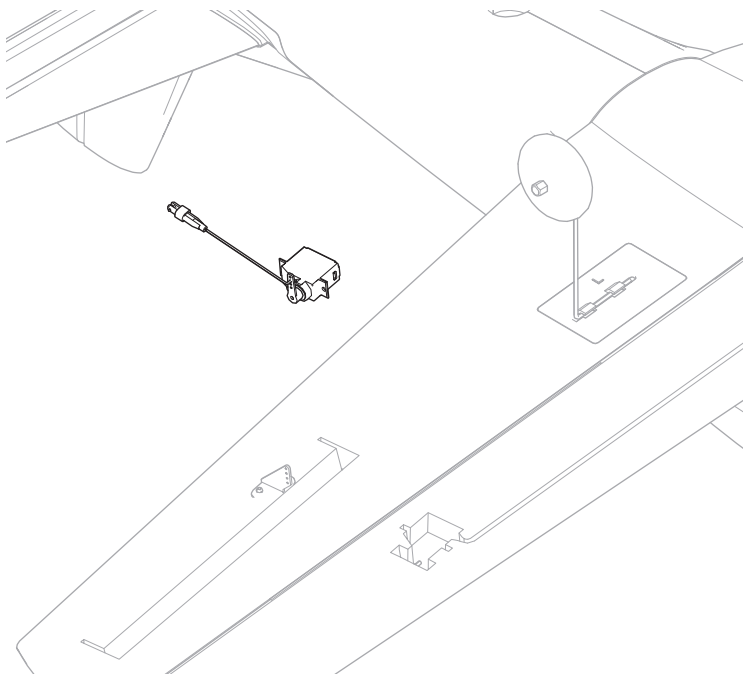
Control Surface	Replacement Servo	Description	Replacement Adhesive
Aileron	SPMSA381L	9g Sub-Micro Servo: 400mm Lead	Foam 2 Foam (DLMAD34)
Elevator	SPMSA382	15g MTL Gear Servo, 120mm Lead	
Rudder			

Troubleshooting Guide AS3X (*BNF Basic*)

Problem	Possible Cause	Solution
Oscillation	Damaged propeller or spinner	Replace propeller or spinner
	Imbalanced propeller	Balance the propeller
	Motor vibration	Replace parts or correctly align all parts and tighten fasteners as needed
	Loose receiver	Align and secure receiver in fuselage
	Loose aircraft controls	Tighten or otherwise secure parts (servo, arm, linkage, horn and control surface)
	Worn parts	Replace worn parts (especially propeller, spinner or servo)
	Irregular servo movement	Replace servo
Inconsistent flight performance	Trim is not at neutral	If you adjust trim more than 8 clicks, adjust the clevis to remove trim
	Sub-Trim is not at neutral	No Sub-Trim is allowed. Adjust the servo linkage
	Aircraft was not kept immobile for 5 seconds after battery connection	With the throttle stick in lowest position. Disconnect battery, then reconnect battery and keep the aircraft still for 5 seconds
Incorrect response to the AS3X Control Direction Test	Incorrect direction settings in the receiver, which can cause a crash	DO NOT fly. Correct the direction settings (refer to the receiver manual), then fly

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
Reduced flight time or aircraft underpowered	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

Replacement Parts

Part #	Description
EFL08201	Decal Sheet; T-28 Trojan 1.1m
EFL08202	Canopy w/Pilot; T-28 1.1m
EFL08203	Painted Wing; T-28 1.1m
EFL08204	Horizontal Stab; T-28 1.1m
EFL08205	Painted Cowl; T-28 1.1m
EFL08206	Painted Fuselage; T-28 1.1m
EFL08207	Motor Mount; T-28 1.1m
EFL08208	Prop Adaptor; T-28 1.1m
EFL08209	Landing Gear Plate; T-28 1.1m
EFL08210	Pilot; T-28 Trojan 1.1m
EFL08211	Wing Mounting Screws; T-28 1.1m
EFL08253	Nose Gear Steering Arm: T-28
EFL08255	Nose Gear Set: T-28
EFL08257	Main Landing Gear: T-28
EFL08260	Pushrods with Clevis: T-28
EFLA1030FB	30A Smart ESC: Apprentice STS
EFLP09575	Propeller: 9.5 x 7.5
SPMAR631	AR631 6CH AS3X/SAFE Receiver
SPMSA381L	9g Sub-Micro Servo: 400mm Lead
SPMSA382	15g MTL Gear Servo, 120mm Lead
SPMXAM1700	3226-930Kv 14-Pole Brushless Motor

Optional Parts

Part #	Description
SPMX22003S30	2200mAh 3S 11.1V Smart 30C LiPo Battery, IC3
SPMX22004S30	2200mAh 4S 14.8V Smart 30C LiPo Battery, IC3
SPMXC1010	Smart S1200 AC Charger, 2x100W
SPMXC1070	Smart S150 AC/DC Charger, 1x50W
SPMXBC100	Smart Battery Checker and Servo Driver
SPMR8100	DX8e 8CH Transmitter Only
SPMR6775	NX6 6-Ch Transmitter Only

Recommended Receiver (PNP)

Part Number	Description
ESC Telemetry Compatible Receivers	
SPMAR620	AR620 6-Channel Sport Air Receiver
SPMAR6610T	AR6610T 6-Channel Air Integrated Telemetry Receiver

Part Number	Description
AS3X Equipped Receivers	
SPMAR631	AR631 6-Channel AS3X Sport Receiver
SPMAR637T	AR637T 6-Channel AS3X Sport Receiver

AMA National Model Aircraft Safety Code

Academy of Model Aeronautics
National Model Aircraft Safety Code

Effective January 1, 2018

A model aircraft is a non-human-carrying device capable of sustained flight within visual line of sight of the pilot or spotter(s). 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 related AMA guidelines, any additional rules specific to the flying site, as well as all applicable laws and regulations.

As an AMA member I agree:

- I will not fly a model aircraft in a careless or reckless manner.
- I will not interfere with and will yield the right of way to all human-carrying aircraftusing AMA's See and Avoid Guidance and a spotter when appropriate.
- I will not operate any model aircraft while I am under the influence of alcohol or any drug that could adversely affect my ability to safely control the model.
- I will avoid flying directly over unprotected people, moving vehicles, and occupied structures.
- I will fly Free Flight (FF) and Control Line (CL) models in compliance with AMA's safety programming.
- I will maintain visual contact of an RC model aircraft without enhancement other than corrective lenses prescribed to me. When using an advanced flight system, such as an autopilot, or flying First-Person View (FPV), I will comply with AMA's Advanced Flight System programming.

- I will only fly models weighing more than 55 pounds, including fuel, if certified through AMA's Large Model Airplane Program.
- I will only fly a turbine-powered model aircraft in compliance with AMA's Gas Turbine Program.
- I will not fly a powered model outdoors closer than 25 feet to any individual, except for myself or my helper(s) located at the flightline, unless I am taking off and landing, or as otherwise provided in AMA's Competition Regulation.
- I will use an established safety line to separate all model aircraft operations from spectators and bystanders.

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, (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, 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. 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.

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.

10/15

Contact Information

Country of Purchase	Horizon Hobby	Contact Information	Address
United States of America	Horizon Service Center (Repairs and Repair Requests)	servicecenter.horizonhobby.com/RequestForm/	2904 Research Rd Champaign, Illinois, 61822 USA
	Horizon Product Support (Product Technical Assistance)	productsupport@horizonhobby.com 877-504-0233	
	Sales	websales@horizonhobby.com 800-338-4639	
European Union	Horizon Technischer Service	service@horizonhobby.eu	Hanskampring 9 D 22885 Barsbüttel, Germany
	Sales: Horizon Hobby GmbH	+49 (0) 4121 2655 100	

FCC Information

FCC ID: BRWSPMSR6200A

Supplier's Declaration of Conformity

T-28 Trojan 1.1m (EFL08250/EFL08275)

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.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.

Horizon Hobby, LLC
2904 Research Rd.,
Champaign, IL 61822
Email: compliance@horizonhobby.com
Web: HorizonHobby.com

IC Information

CAN ICES-3 (B)/NMB-3(B)
IC: 6157A-SPMSR6200A

This device contains license-exempt transmitter(s)/receivers(s) that comply with Innovation, Science, and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following 2 conditions:

1. This device may not cause interference.

2. This device must accept any interference, including interference that may cause undesired operation of the device.

Compliance Information for the European Union

EU Compliance Statement:
T-28 Trojan 1.1m BNF Basic (EFL08250); Hereby, Horizon Hobby, LLC declares that the device is in compliance with the following:
EU EMC Directive 2014/53/EU;
RoHS 2 Directive 2011/65/EU;
RoHS 3 Directive - Amending 2011/65/EU Annex II 2015/863.

T-28 Trojan 1.1m PNP (EFL08275); Hereby, Horizon Hobby, LLC declares that the device is in compliance with the following:
EU Radio Equipment Directive 2014/30/EU;
RoHS 2 Directive 2011/65/EU;
RoHS 3 Directive - Amending 2011/65/EU Annex II 2015/863.

The full text of the EU declaration of conformity is available at the following internet address: https://www.horizonhobby.com/content/support-render-compliance.

Wireless Frequency Range and Wireless Output Power:
2404 – 2476 MHz
5.58dBm

EU Manufacturer of Record:
Horizon Hobby, LLC
2904 Research Road
Champaign, IL 61822 USA

EU Importer of Record:
Horizon Hobby, GmbH
Hanskampring 9
22885 Barsbüttel Germany

WEEE NOTICE:

This appliance is labeled in accordance with European Directive 2012/19/EU concerning waste of electrical and electronic equipment (WEEE). This label indicates that this product should not be disposed of with household waste. It should be deposited at an appropriate facility to enable recovery and recycling.

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

Part # I Nummer Numéro I Codice	Description	Beschreibung	Description	Descrizione
EFL08201	Decal Sheet; T-28 Trojan 1.1m	T28 Dekorbogen	Planche de décalcomanies : T-28 Trojan	Foglio con decalcomanie T-28 Trojan
EFL08202	Canopy w/Pilot; T-28 1.1m	T-28 Kabinenhaube & Pilot	Canopy transparent & Pilote avec piédestal T-28 Trojan	Tettuccio trasparente e pilota con predellino: T-28 Trojan
EFL08203	Painted Wing; T-28 1.1m	T-28 Tragfläche	Aile peinte (Sans servo) : T-28	Ala verniciata (senza servo): T-28
EFL08204	Horizontal Stab; T-28 1.1m	T-28 Höhenleitwerk	Partie horizontale de la queue avec accessoires : T-28	Coda orizzontale con accessori: T-28
EFL08205	Painted Cowl; T-28 1.1m	T-28 Motorhaube	Capotage : T-28	Cappuccio: T-28
EFL08206	Painted Fuselage; T-28 1.1m	T-28 Rumpf, lackiert	Fuselage nu peint : T-28	Fusoliera nuda verniciata: T-28
EFL08207	Motor Mount; T-28 1.1m	T-28 Motorhalter mit Schrauben	Bâti moteur avec vis : T-28/D Trojan,	Montante del motore con viti: T-28/D Trojan
EFL08208	Prop Adaptor; T-28 1.1m	Propeller Adapter	Adaptateur d'hélice	Adattatore elica
EFL08209	Landing Gear Plate; T-28 1.1m	Fahrwerksplatte T28 Trojan	Plaques de train d'atterrissage : T-28	Piastre carrello di atterraggio: T-28
EFL08210	Pilot; T-28 Trojan 1.1m	Pilot	Pilote	pilota
EFL08211	Wing Mounting Screws; T-28 1.1m	Flügelbefestigungsschrauben; T-28 1.1m	vis de montage d'aile; T-28 1.1m	viti di montaggio dell'ala; T-28 1.1m
EFL08253	Nose Gear Steering Arm: T-28	Steuerarm Bugfahrwerk	Axe de direction de roulette de nez : T-28 Trojan	Braccio di guida del ruotino di coda: T-28 Trojan
EFL08255	Nose Gear Set: T-28	T-28 Bugfahrwerk	Jeu de roulette de nez : T-28	Set del carrello di atterraggio: T-28
EFL08257	Main Landing Gear: T-28	T-28 Hauptfahrwerk	Train d'atterrissage principal : T-28	Set del Carrello di Atterraggio principale: T-28
EFL08260	Pushrods with Clevis: T-28	T-28 Schubstangen	Tiges avec clavettes : T-28	Aste di spinta con forcella: T-28
EFLA1030FB	30A Smart ESC: Apprentice STS	30A Smart Regler	Variateur Smart ESC 30 A	Controllo elettronico di velocità (ESC) per 30 Amp Smart Brushless
EFLP09575	Propeller: 9.5 x 7.5	Luftschraube 9.5x7.5	Hélice 9.5X7.5	Elica "9.5 X 7.5"
SPMAR631	AR631 6CH AS3X/SAFE Receiver	Spektrum AR631 Sportempfänger mit 6 Kanälen	Récepteur sport Spektrum 6 canaux AR631	Ricevitore Spektrum AR631 6 canali sport
SPMSA381L	9g Sub-Micro Servo: 400mm Lead	9 g digitaler-Servo	mini servo de 9 g	Servo digitale 9 grammi
SPMSA382	15g MTL Gear Servo, 120mm Lead	15 g digitaler Metallgetriebe-Servo	mini servo numérique à engrenages métalliques de 15 g	Servo digitale con ingranaggi in metallo 15 grammi
SPMXAM1700	3226-930Kv 14-Pole Brushless Motor	Motorwelle T-28 3226-930Kv 14-Pole	Moteur Outrunner ; 3226-930Kv 14-Pole	Albero del motore: 3226-930Kv 14-Pole a cassa rotante

Optional Parts • Optionale Bauteile • Pièces optionnelles • Pezzi opzionali

Part # I Nummer Numéro I Codice	Description	Beschreibung	Description	Descrizione
DYN1400	LiPo Charge Protection Bag,Small	LiPo Ladeschutzbeutel, klein	Sac de protection du chargeur de batterie Li-Po, petit	Sacchetto di protezione per batteria LiPo, piccolo
DYN1405	LiPo Charge Protection Bag,Large	LiPo Ladeschutzbeutel, groß	Sac de protection du chargeur de batterie Li-Po, large	Sacchetto di protezione per batteria LiPo, grande
EFLA250	Park Flyer Tool Asst, 5 pc	Parkflyer-Tool Asst, 5 pc	Assortiment d'outils Park Flyer 5 pièces	Assort. utensili Park Flyer, 5 pz.
SPMX22003S30	11.1V 3S 30C 2200mAh Li-Po	11.1V 3S 30C 2200mAh LiPo	Li-Po 3S 11,1V 2200mA 30C	11.1V 3S 30C 2200MAH Li-Po
SPMX22004S30	14.4V 4S 30C 2200mAh Li-Po	14.4V 4S 30C 2200mAh LiPo	Li-Po 4S 14,4V 2200mA 30C	14.4V 4S 30C 2200MAH Li-Po
SPMXC1000	Smart S1200 DC Charger, 1x200W	Smart S1200 DC Charger, 1x200W	Smart S1200 DC Charger, 1x200W	Smart S1200 DC Charger, 1x200W
SPMXC1010	Smart S2100 AC Charger, 2x100W	Smart S2100 AC Charger, 2x100W	Smart S2100 AC Charger, 2x100W	Smart S2100 AC Charger, 2x100W
SPMXBC100	Li-Po Cell Voltage Checker	Li-Po Cell Voltage Checker	Testeur de tension d'éléments Li-Po	Voltmetro verifica batterie LiPo
SPM6775	NX6 DSMX 6-Channel Transmitter	Spektrum NX6 DSMX 6-Kanal Sender	Emetteur NX6 DSMX 6 voies	NX6 DSMX Trasmettitore 6 canali
SPMR6775	NX8 DSMX 8-Channel Transmitter	Spektrum NX8 DSMX 8-Kanal Sender	Emetteur NX8 DSMX 8 voies	NX8 DSMX Trasmettitore 8 canali
SPMR10100	NX10 DSMX 10-Channel Transmitter	Spektrum NX10 DSMX 10 Kanal Sender	Emetteur NX10 DSMX 10 voies	NX10 DSMX Trasmettitore 10 canali
SPMR12000	iX12 DSMX 12-Channel Transmitter	Spektrum iX12 DSMX 12 Kanal Sender	Emetteur iX12 DSMX 12 voies	iX12 DSMX Trasmettitore 12 canali
SPMR20100	iX20 DSMX 20-Channel Transmitter	Spektrum iX 20 DSMX 20 Kanal Sender	Emetteur iX20 DSMX 20 voies	iX 20 DSMX Trasmettitore 20 canali