



Typhoon 3D Instruction Manual

PLUG-N-PLAY™



Charge-and-Fly™ Park Flyer

Wingspan: 39.5 in (1000mm)
Overall Length: 34 in (862mm)
Flying Weight: 26 oz (740 g)
Motor: ParkZone BL400-15T
brushless with gearbox

Required: 4-channel transmitter (minimum)
4-channel receiver (minimum)
3S 2100mAh Li-Po battery **or**
9-cell 1000mAh Ni-MH battery



Typhoon 3D Plug-N-Play Instruction Manual

Congratulations on your purchase of the ParkZone® Typhoon™ 3D Plug-N-Play airplane (PKZ4175). We at ParkZone are committed to giving you the most enjoyable flight experience possible. In order to have a safe and successful flight, we ask that you do not fly until you have read these instructions thoroughly.

This airplane comes almost fully assembled in order to allow you to get in the air quickly. Your Typhoon 3D Plug-N-Play (PNP) already has the 3-wire servos, a ParkZone (BL400-15T) brushless motor, and a brushless ESC installed. The decals have already been applied, as well. You will only need to add your own battery (a 3S 2100mAh Li-Po or 9-cell 1000mAh Ni-MH are recommended), as well as a receiver and transmitter.

Note: Although the airplane can function with a 4-channel radio system, we suggest that you use a computer radio system with at least 6 channels so you can use dual rates and make end-point adjustments. These features will greatly add to the flying capabilities of the aircraft.

In as little as a few hours, you can be ready for your first flight with the Typhoon 3D PNP. This means you can spend your time refining your 3D flying skills, not your building skills. Your ParkZone Typhoon 3D PNP will allow you to do such maneuvers as harriers, blenders, hovering, knife edges, and more.

Warning

Although your ParkZone Typhoon 3D PNP comes almost ready to fly, this aircraft is for experienced RC pilots only and is not a toy! Misuse of the plane can cause serious bodily harm and damage to property. Therefore, only an experienced RC pilot should fly it.

Advancing your Flying Skills

Once you have begun to fly your Typhoon and are looking for more ideas on maneuvers, visit:

<http://www.horizonhobby.com/Explore/Article.aspx?ArticleID=1022>

<http://www.horizonhobby.com/Explore/Article.aspx?ArticleID=1033>

<http://www.horizonhobby.com/Explore/Article.aspx?ArticleID=1044>

Step 1

Charging Your Flight Battery

We recommend that you choose either the 9-cell 10.8V Ni-MH battery pack (PKZ1027), or the Thunder Power 2100mAh 3S Li-Po (THP21003SPL) to power your Typhoon 3D PNP. If you choose to use a Li-Po battery, it must be charged with a charger that is specifically designed to handle Li-Po batteries, such as the E-flite™ Celectra™ 1- to 3-Cell Li-Po Charger (EFLC3005). Regardless of the battery you choose, always follow the charger and battery instructions in order to avoid any damage to the battery, charger, property or yourself.

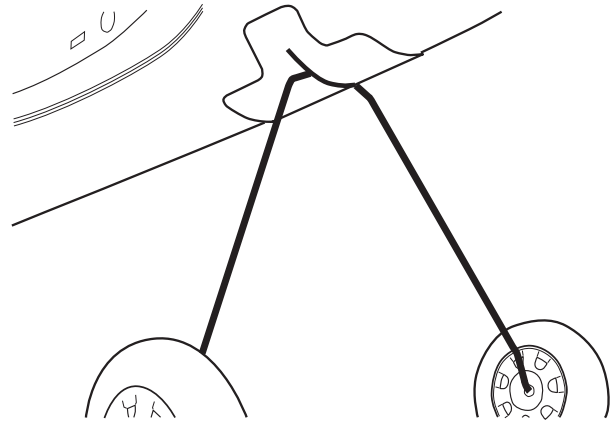
Warning

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. Please use caution when charging Li-Po batteries.

Step 2

Installing Landing Gear

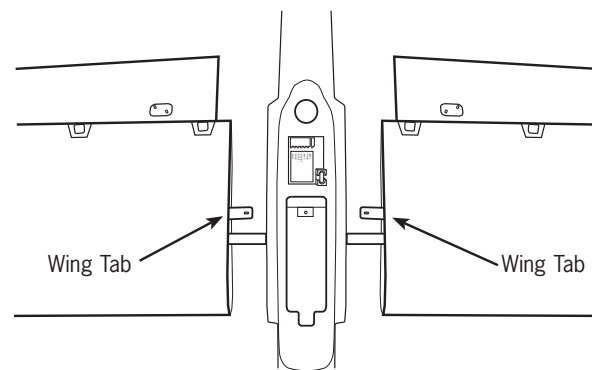
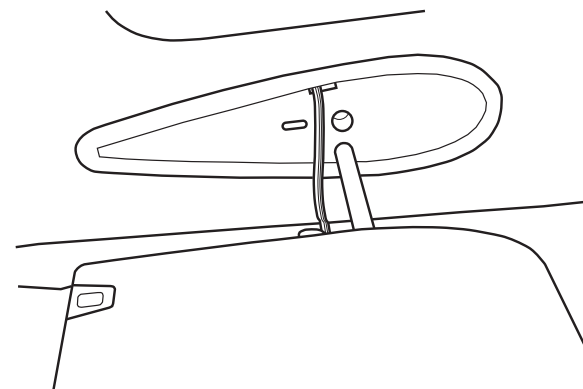
1. Slightly squeeze together the legs of the landing gear while sliding it into the allotted space on the fuselage undercarriage.
2. The fit should be snug, so it will not easily pull out.
3. Gently tug on the landing gear to ensure that it is inserted all the way into the fuselage and will not come out when the plane is in use.



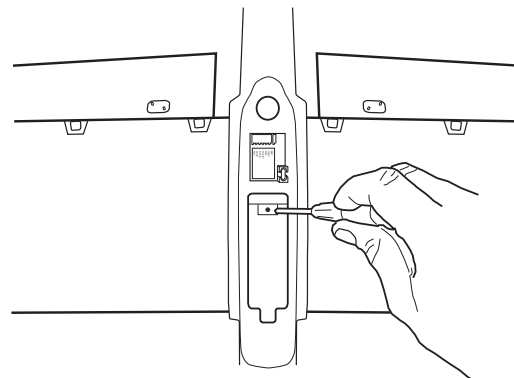
Step 3

Attaching the Wing

1. Locate the wing set. Note that the servos are located in the bottom of the wing.
2. Select a wing half and slide in fuse, making sure that you slide aileron servo lead in first (in allotted hole in side of fuse). Pull aileron lead carefully through fuse in order to allow wing tab and spar to go into their allotted holes. Do the same with the other wing half.
3. Carefully slide wing halves toward each other until the wing tabs overlap.
4. Match up the holes on each tab and secure with included screw.
5. Plug in the aileron connectors into receiver. Left aileron should plug into allotted space of receiver (directly below elevator). Right aileron lead should plug into second space of Rx allotted for aileron.
6. Attach the clevis of the aileron linkage to the bottom (outermost) hole of the aileron horn. Once you gain more experience, you can insert the clevis into holes on the aileron horn that are higher in order to do more extreme maneuvers with your Typhoon 3D PNP.



Always check ailerons prior to flight to make sure they are not reversed! Trim adjustments to the ailerons may be necessary prior to flight.

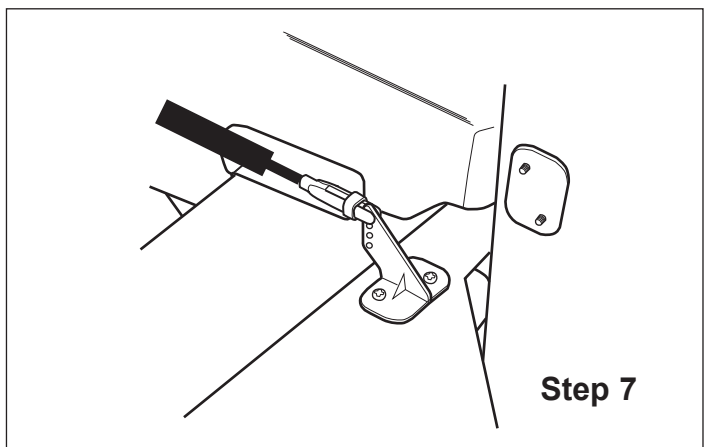
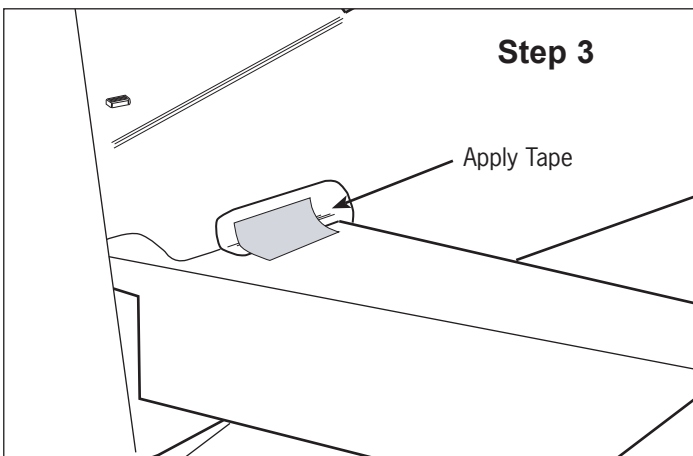
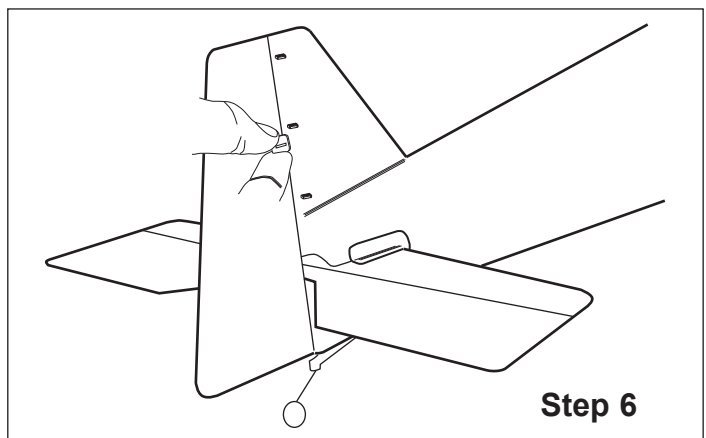
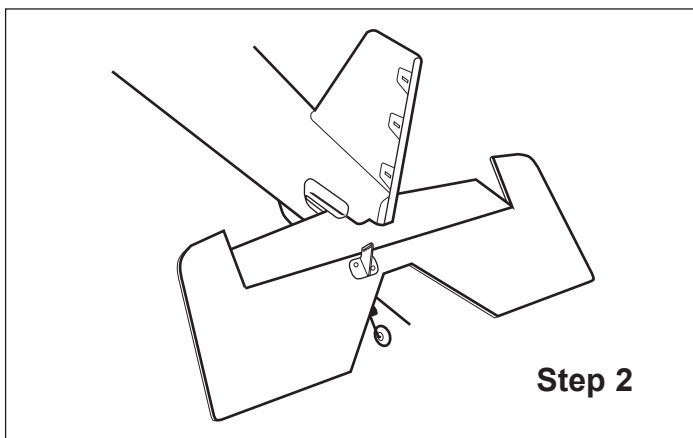
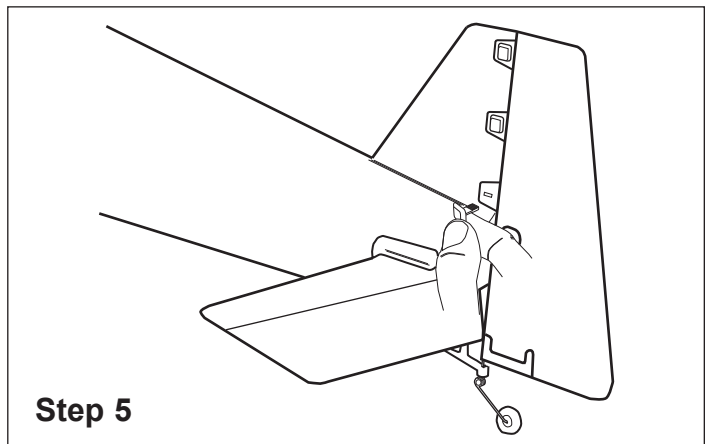
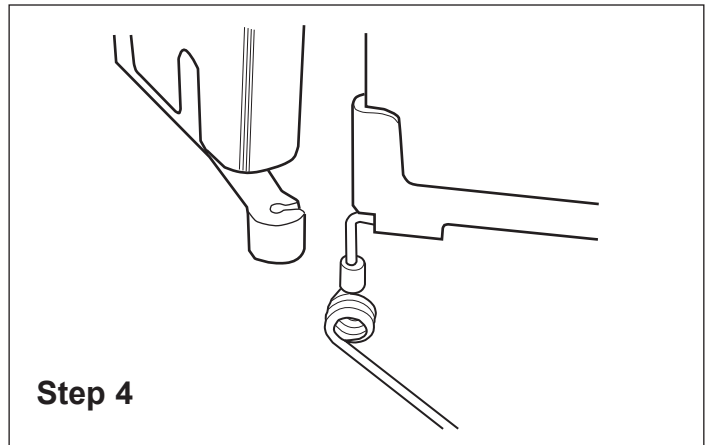


Step 4

Attaching the Horizontal Stabilizer and Rudder

1. Locate horizontal stab.
2. Carefully slide horizontal stab into fuselage, making sure control surface horn is on top.
3. Use included strips (4 pieces) of clear tape to secure stab to tail fillet. You should use 1 strip for top and bottom of each side.
4. Locate rudder. Carefully snap tail wheel wire into the clip on bottom of fuse, as shown.
5. Use the three pins that are supplied to connect rudder to stab, as shown. Do this by pushing pins in carefully.
6. Install keepers on backside to secure pins, as shown.
7. Attach rudder and elevator pushrods to respective control horns (outer holes of control horns for both).

Note: It may be necessary to re-trim control surfaces prior to flight.



Center of Gravity Information

Your ParkZone® Typhoon™ 3D Plug-N-Play™ aircraft can be powered by either a 9-cell Ni-MH 1000mAh battery pack (PKZ1027), or by the Thunder Power 3S 2100mAh battery pack (THP21003S).

The center of gravity (CG) for your Typhoon 3D PNP, with the 9-cell Ni-MH pack, is approximately 3.50 inches (90mm) back from the leading edge of the wing. The CG with the 3S 2100mAh Li-Po is approximately 3.70 inches (95mm) back from the leading edge of the wing.

Additionally, you may choose to make the first several flights with the included spanner (prop wrench) taped to the inside or bottom of the cowl. This will add .3 ounces

(8.5 g) and may help you to get used to the flight characteristics of this 3D airplane.

Aileron, Elevator, and Rudder Throws

The recommended throws in low rate are:

Ailerons: +/- .75 inches (20mm)

Elevator: +/- 1.40 inches (35mm)

Rudder: +/- 1.00 inch (25mm)

The recommended throws in high rate are:

Ailerons: +/- 1.25 inches (30mm)

Elevator: +/- 2.00 inches (50mm)

Rudder: +/- 2.00 inches (50mm)

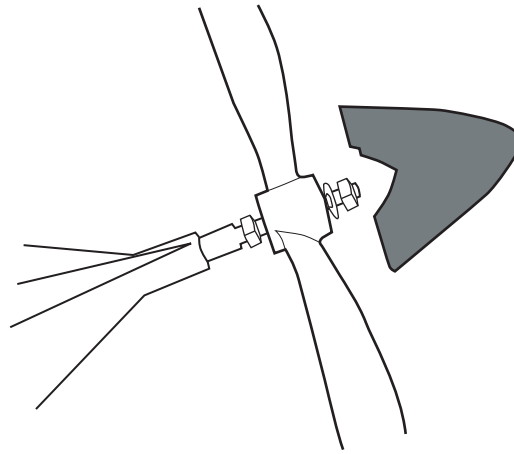
Your Typhoon™ 3D PNP should fly great between these ranges.

Step 5

Installing the Propeller and Spinner

Your Typhoon 3D PNP has two props that are included. You can select the prop that best works with your flying style.

- A. 13.5 x 7 (PKZ1006): This prop is recommended for the first several flights on your plane. This prop will allow your plane to fly a bit slower, but is also the setup for maximum vertical power (especially with the 9-cell Ni-MH pack).
- B. 12 x 8.75 (PKZ1007): This prop will allow you to fly at faster speeds and help with certain aerobatic maneuvers. This propeller is ideal for the Thunder Power 3S 2100mAh Li-Po battery pack. When you have selected the propeller that best works for you, install and secure it making sure not to forget any of the necessary hardware.



1. Slide propeller on. Make sure pitch numbers on prop are visible from front of airplane.
2. Slide washer on first. Next, screw the nut on and tighten securely.
3. Attach spinner.

Step 6

Installing the Receiver

Carefully plug in the servo leads into the corresponding channels of the receiver you have chosen. The servo plugs may have to be trimmed carefully with a hobby knife if you are using a JR® or HiTec radio system in order to fit correctly into the receiver.

Confirm that the servo leads/plugs are in the correct channel of the receiver. Do this by:

1. Turning on the transmitter
2. Installing a charged flight battery
3. Turning on receiver switch.

4. Check all functions to ensure proper setup. Keep all body parts away from the propeller. You can also make any trim adjustments to the control surfaces at this time. Once you are satisfied that the channels are functioning correctly, you can turn off the radio system.

Install the receiver into the allotted space within the fuselage. Make sure it is secure.

Carefully route the antenna so it exits the fuselage just behind the canopy. It should then simply fall along the fuselage and can be secured through the vertical stab. When the antenna is routed correctly, it should hang several inches (5"–7") below the fuselage.

Step 7

20 Amp ESC:

The Typhoon™ 3D PNP™ can be powered by either a 9-cell 10.8V 1000mAh Ni-MH or a 3S 11.1V 2100mAh Li-Po battery pack. Using the Thunder Power 3S battery will greatly increase the power, performance, and flight time of your Typhoon 3D PNP.

The ESC comes with the auto-cut voltage set for the 9-cell Ni-MH battery pack. You must reprogram the voltage automatic cutoff if you are planning to fly with the 3S Li-Po battery. Failure to do this will result in permanent damage to your battery pack.

Reminder: All Li-Po battery packs must be charged by Li-Po specific chargers only!

Failure to follow these instructions may result in a fire!

Programming Your ESC:

1. To enter the programming mode, the controller must be powered up with the throttle in full position and held there for 5 seconds.
2. When this is done, the ESC will be in the setup mode and will beep three times indicating this.
3. Once in this programming mode, return the throttle to mid-stick within 3 seconds, and the ESC will scroll through the menu.

When in the programming mode, select yes (up) or no (down) as follows:

- Yes: Move throttle stick to full for approximately 1 second (controller will beep once), then return to mid-stick.
- No: Move throttle stick to low throttle for 1 second (controller will beep once), and then return to mid-stick.

A. Menu Item 1: Voltage Auto Cutoff

1 beep – auto cutoff

* Need to act within 5 seconds:

Li-Po – up (see above)

Ni-MH – down (stock setting)

After the setting of this parameter, the controller will wait approximately 3 seconds before moving to next menu item.

B. Menu Item 2: Brake Setting

2 beeps – brake setting

* Need to act within 5 seconds:

Brake off – up (stock setting)

Brake on – down

C. Menu Item 3: Motor Timing

3 beeps – motor timing

* Need to act within 5 seconds:

Outrunner (and 4-pole or greater motors) – up

Inrunner (2-pole motors) – down (stock setting)

After setting the desired parameters, simply power down the ESC and then rearm the controller.

Motor Arming:

The ESC will not arm the motor until the throttle stick is moved to low throttle and held there for 1 second or more. Three consecutive beeps will indicate this.

Step 8

Range Checking Your Radio System

After you have finished the assembly, it is time to range check the radio system within the Typhoon™ 3D PNP™.

Prior to each flying session:

- Make sure that no one around may be flying, or is getting prepared to fly, on the same channel that you are on. After this is confirmed, turn on transmitter with antenna down. Next, turn on receiver (switch on the plane). With airplane on the ground and motor running, you should walk away approximately 100 feet and still have full control of all functions. If this is not the case, do not fly! Call Product Support at 1-877-504-0233.

- Always make sure that all controls are functioning per the transmitter input that you are giving. This includes ailerons, rudder, elevator, and throttle.
- Always make sure that you have fully-charged Tx batteries.

Always remove the flight battery from the airplane when you are done flying, or when you are on the way to the flying field. The switch on the fuselage is for short-term use only (when you are at the field). Leaving the battery plugged in the airplane for an extended time could cause permanent damage to your battery (especially if you are using a Li-Po battery).

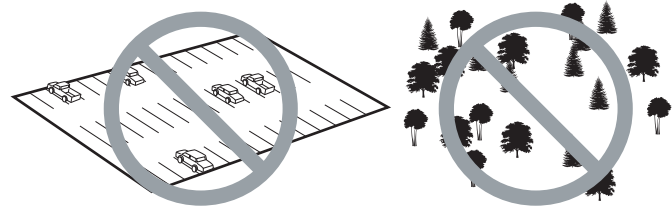
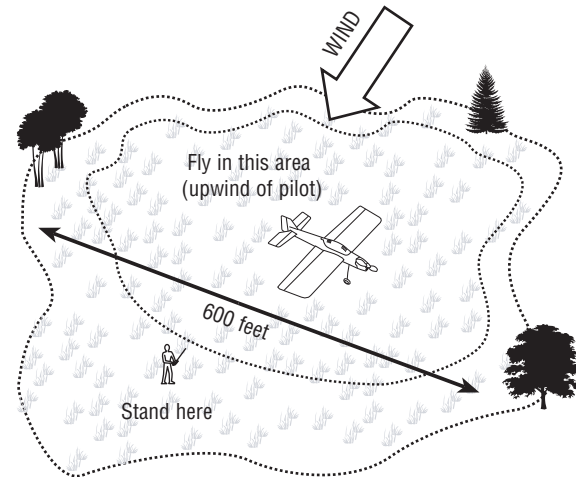
Step 9

Flying

Always choose a wide-open space to fly your ParkZone® Typhoon 3D PNP. It is ideal for you to fly at an AMA sanctioned flying field. If you are not flying at an AMA approved site, 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 or school yards. Always follow local ordinances. We recommend only flying your Typhoon in light winds.

Prior to each flight:

- Always make sure that your Typhoon 3D PNP is properly trimmed. From time to time, it may be necessary to re-trim your airplane. Simply turn on the radio system, with the flight battery plugged into the battery port and check all control surfaces. Most trim changes should be able to be made using the trim levers on the transmitter. Greater changes will need to be made by removing the clevis from the control horn and turning in on the pushrod in the appropriate direction.
- Always make sure the receiver, ESC, and battery are properly secured.
- Always verify the propeller is on securely.
- Always ensure the servo reversing switches on the Tx are set correctly.
- Always verify the dual rates switch is set at the level where you plan on flying. We recommend LOW rates for your initial flights. The Typhoon 3D PNP is VERY maneuverable on high rates and requires a lot of experience to handle properly.



Warranty and Follow-Up Procedures

Horizon Hobby, Inc. guarantees this merchandise to be free from defects in material and workmanship at the date of purchase. This warranty does not cover any component parts, or damage by use or modification. In no case shall Horizon Hobby's liability exceed the original purchase cost of this item. Further, Horizon Hobby reserves the right to change or modify this warranty without notice.

This warranty covers only those products purchased from an authorized Horizon Hobby dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for warranty claims. Due to the nature and operation of your Typhoon™3D PNP™, the warranty does not extend beyond the initial pre-use testing. Carefully check the parts and operation BEFORE your first use. If you discover defects during pre-use testing, please call our Product Support Team toll-free at 1-877-504-0233 for technical support.

In that Horizon Hobby has no control over the final assembly, or material used for final assembly, no liability shall be assumed nor accepted for any damage resulting from use by the user of the final user-assembled product. By the act of using the user-assembled product, the user accepts all resulting liability. Please note that once assembly has been started, you must contact Horizon Hobby, Inc. directly regarding any warranty questions. Please do not contact your local hobby shop regarding warranty issues. This will enable Horizon to better answer your questions and service you in the event you need warranty assistance.

Horizon Hobby, Inc. 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 Hobby, Inc. Collateral damage is not covered under this warranty. If you, as the buyer or owner, are not prepared to accept the liability associated with the use of this product, you are advised to return it immediately in new and unused condition to the place of purchase.

If you have any questions concerning your ParkZone® Typhoon 3D PNP, please contact our Product Support staff toll-free at 1-877-504-0233.

If your plane requires inspection, please follow these steps in order to return it to us:

1. Call our Product Support team for return authorization.

2. Use the "Service and Repair Checklist" from www.horizonhobby.com under the support tab or write a detailed letter that includes:
 - Your name, address, home phone number, and daytime phone number;
 - A list of the products being shipped for inspection or repair;
 - A detailed account of the type of problems you are incurring; and
 - The payment method you wish to use for any purchases or charges, including credit card type, number, expiration date and your name as it appears on the card.
3. Submit proof of purchase, including purchase date and retailer information.
4. Make sure that the batteries are unplugged and removed. Please use packing material to separate them from your Typhoon 3D PNP.
5. Pack all components and accessories in the original box, and then pack it in a sturdy box with packing materials for safe shipping.
6. For inspection and/or repair, please ship your product to:

Horizon Service Center
Attn: ParkZone Department
4105 Fieldstone Road
Champaign, IL 61822

We suggest you ship your Typhoon 3D PNP via a carrier that provides package tracking and/or signature required. Horizon Hobby, Inc. is only responsible for product once it arrives and is accepted at our facility. Most carriers require optional insurance to cover damage or loss in transit, so please consider this when shipping merchandise.

Warranty Service

Providing all warranty conditions have been met, defective parts will be repaired or replaced without charge and shipped to you via ground freight prepaid. Again, crash or other collateral damage or expense is not covered under warranty. Proof of purchase date and location is required for all warranty service.

Non-Warranty Service

If our inspection finds the repair cost exceeds \$50 or more than 50% of the value of your product, we will contact you with a repair estimate and advise you of the available options.

If you have any warranty questions that have not been answered by the information listed above, please call our Product Support staff at 1-877-504-0233.

Replacement Parts

Make sure that you keep your Typhoon™3D PNP™ flying! Replacement parts are available at your local hobby shop or from Horizon Hobby (www.horizonhobby.com). Please try your local hobby shop first. By supporting them, they will be there when you need them.

Item #:	Description:	Retail:
PKZ1006	13.5 x 7 Propeller: Typhoon 3D	\$3.49
PKZ1007	12 x 8.75 Propeller: Typhoon 3D (Aerobatic)	\$3.49
PKZ1027	10.8V 9-Cell Battery: P-51D, Typhoon 3D	\$32.99
PKZ1519	1.8A Variable Rate DC Peak Charger	\$29.99
PKZ4102	Decal Set: Typhoon 3D	\$4.99
PKZ4104	Prop Shaft with Hardware: Typhoon 3D	\$2.29
PKZ4107	Spinner: Typhoon 3D	\$2.29
PKZ4113	Canopy: Typhoon 3D	\$3.29
PKZ4114	Firewall with Screws: Typhoon 3D	\$2.19
PKZ4116	Brushless Motor with Pinion: Typhoon 3D	\$46.99
PKZ4117	Brushless Controller (20 Amp): Typhoon 3D	\$49.99
PKZ4120	Wing Set: Typhoon 3D	\$21.99
PKZ4121	Control Horns with Hardware: Typhoon 3D	\$4.99
PKZ4122	Pushrod and Clevis Set: Typhoon 3D	\$2.59
PKZ4123	Ailerons (2) with Parts: Typhoon 3D	\$9.99
PKZ4124	Vertical Tail with Parts: Typhoon 3D	\$9.99
PKZ4125	Horizontal Tail with Parts: Typhoon 3D	\$9.99
PKZ4126	Cowl: Typhoon 3D	\$2.49
PKZ4128	Gearbox with Pinion: Typhoon 3D	\$8.99
PKZ4130	Mini Servo (3W) with Arms: Typhoon 3D	\$12.99
PKZ1131	Servo Gear with Accessories	\$2.49
PKZ4167	Bare Fuselage with Tube and Parts: Typhoon 3D	\$28.99
PKZ4176	Instruction Manual: Typhoon 3D PNP	\$.99

Optional Parts

THP21003SPL	Thunder Power 3S 2100mAh Li-Po Battery Pack	\$84.95
EFLC3005	Celectra™ 1- to 3-Cell Li-Po Charger	\$53.99
HBZ1083	Large Battery Connector	\$.79
HBZ1081	Charger Connector with Wire	\$1.00
PKZ4141	4-Channel Tx: CH 17, 72.130: Typhoon 3D	\$32.99
PKZ4142	4-Channel Tx: CH 19, 72.170: Typhoon 3D	\$32.99
PKZ4143	4-Channel Tx: CH 21, 72.210: Typhoon 3D	\$32.99
PKZ4144	4-Channel Tx: CH 50, 72.790: Typhoon 3D	\$32.99
PKZ4145	4-Channel Tx: CH 52, 72.830: Typhoon 3D	\$32.99
PKZ4146	4-Channel Tx: CH 54, 72.870: Typhoon 3D	\$32.99
PKZ4151	Rx: CH 17, 72.130: Typhoon 3D	\$28.99
PKZ4152	Rx: CH 19, 72.170: Typhoon 3D	\$28.99
PKZ4153	Rx: CH 21, 72.210: Typhoon 3D	\$28.99
PKZ4154	Rx: CH 50, 72.790: Typhoon 3D	\$28.99
PKZ4155	Rx: CH 52, 72.830: Typhoon 3D	\$28.99
PKZ4156	Rx: CH 54, 72.870: Typhoon 3D	\$28.99

PKZ4176



ParkZone® products are distributed exclusively by
Horizon Hobby, Inc.
4105 Fieldstone Road
Champaign, IL 61822
©2005 Horizon Hobby, Inc.
www.parkzone.com
7899.1

