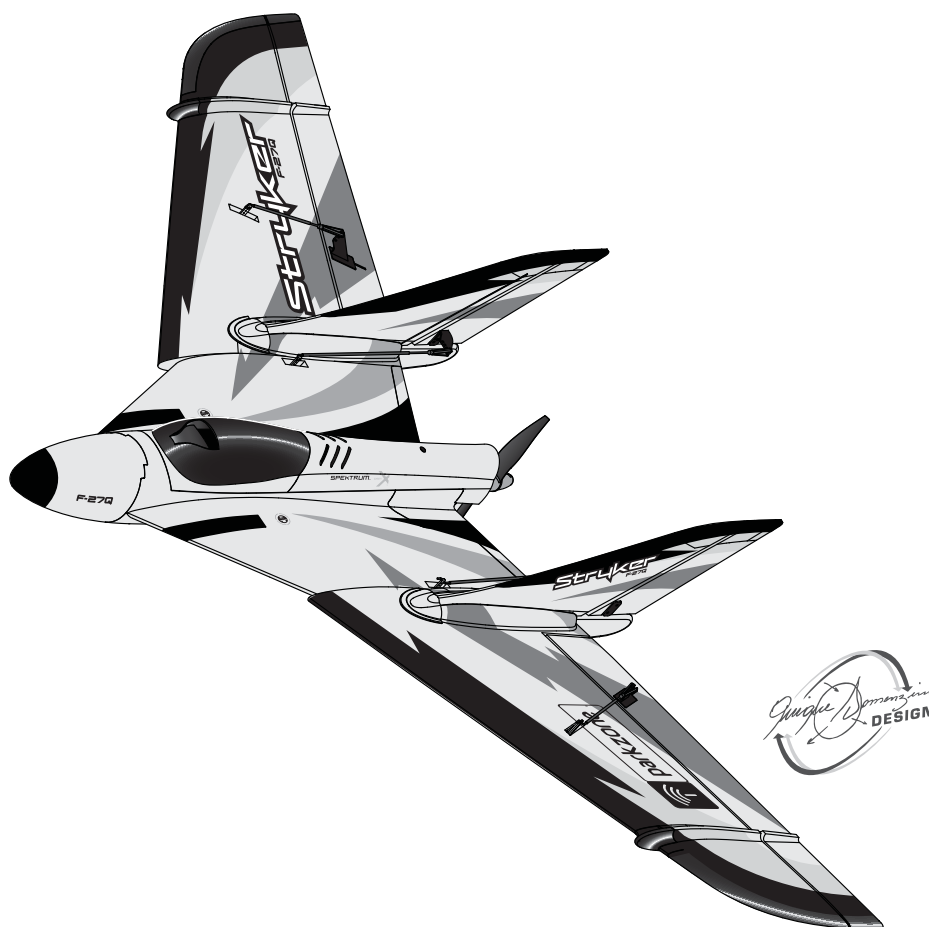




F-27Q Stryker

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



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 www.horizonhobby.com and click on the support tab for this product.

Meaning of Special Language:

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

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

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

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



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

This is a sophisticated hobby product. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision. Do not 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.

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

- 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.

Battery Warnings

The Battery Charger included with your aircraft is designed to safely charge the Li-Po battery.

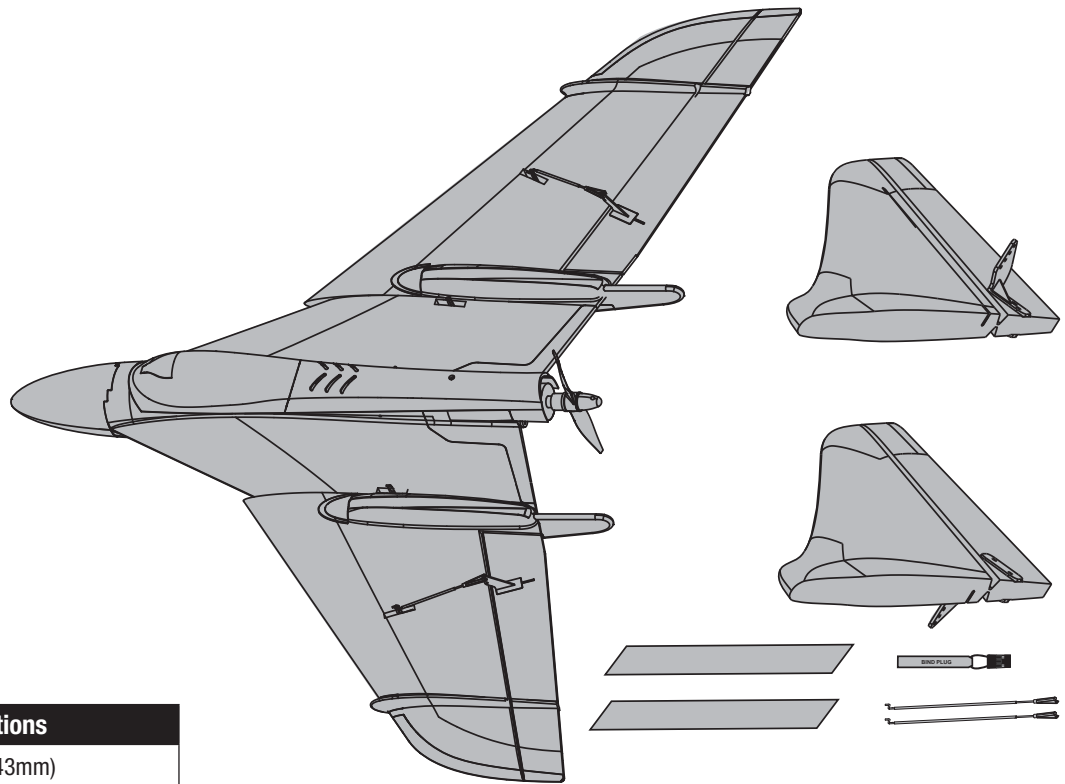
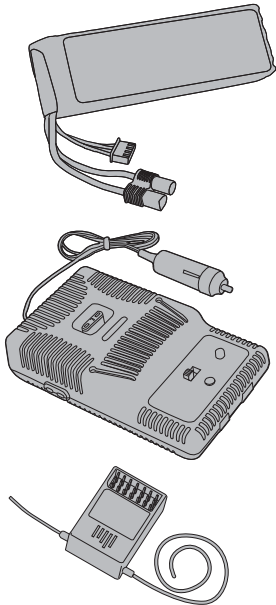
CAUTION: All instructions and warnings must be followed exactly. Mishandling of Li-Po batteries can result in a fire, personal injury, and/or property damage.

- By handling, charging or using the included Li-Po battery you assume all risks associated with lithium batteries.
- If at any time the battery begins to balloon or swell, discontinue use immediately. If charging or discharging, discontinue and disconnect. Continuing to use, charge or discharge a battery that is ballooning or swelling can result in fire.
- Always store the battery at room temperature in a dry area for best results.
- Always transport or temporarily store the battery in a temperature range of 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.
- NEVER 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.
- Never discharge Li-Po cells to below 3V under load.
- Never cover warning labels with hook and loop strips.
- Never leave charging batteries unattended.
- Never charge batteries outside safe temperature range.
- Never charge damaged batteries.

Thank you for purchasing the ParkZone® Stryker F-27Q. You are about to take flight with one of the hottest flying wings ever built. Its potent one-two punch of sizzling speed and amazing precision aerobatic ability will make every flight one to remember. Before you blast off, though, you must take time to read through this manual. With the F-27Q Stryker things happen fast and it can cover a lot of ground in a hurry. The better understanding you have of its performance and systems prior to your first flight, the better that flight will be.



Includes:



Stryker Specifications

Wingspan	37.1 in (943mm)
Length	24.1 in (612mm)
Weight (RTF)	30 oz (855 g)

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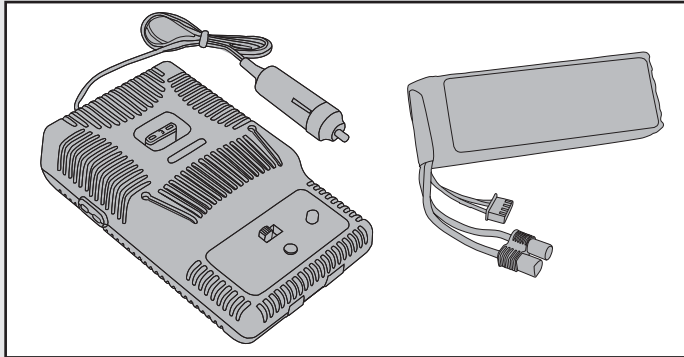
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To register your product online, visit www.parkzone.com



Charging the Flight Battery

Your Stryker comes with a DC balancing charger and 3S Li-Po battery. You must charge the included Li-Po battery pack with a Li-Po specific charger only (such as the included charger). Never leave the battery and charger unattended during the charge process. Failure to follow the instructions properly could result in a fire. When charging, make certain the battery is on a heat-resistant surface. Charge the flight battery while assembling the aircraft. Install the fully charged battery to perform control tests and binding.



DC Li-Po Balancing Charger Features

- Charges 2- to 3-cell lithium polymer battery packs
- Variable charge rates from 300mAh to 2-amp
- Simple single push-button operation
- LED charge status indicator
- LED cell balance indicator
- Audible beeper indicates power and charge status
- 12V accessory outlet input cord

Specifications

- Input power: 12V DC, 3-amp
- Charges 2- to 3-cell Li-Po packs with minimum capacity of 300mAh

3S 11.1V 2200mAh 25C Li-Po Battery Pack (PKZ1029)

The ParkZone® 3S Li-Po battery pack features a balancing lead that allows you to safely charge your battery pack when used with the included ParkZone Li-Po balancing charger.

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. Attach the input cord of the charger to the appropriate power supply (12V accessory outlet).
3. When the Li-Po charger has been correctly powered up, there will be an approximate 3-second delay, then an audible “beep” and the green (ready) LED will flash.
4. Turn the control on the Amps selector so the arrow points to the charging rate required for the Battery (see chart, for example the Stryker’s 2200mAh Li-Po battery will charge at 2.0 amps). DO NOT change the charge rate once the battery begins charging.
5. Move the cell selector switch to 2-cell or 3-cell for your battery.
6. Connect the Balancing Lead of the Battery to the 2-cell (it has 3 pins) or 3-cell (it has 4 pins) charger port.
7. The green and red LEDs may flash during the charging process, when the charger is balancing cells. Balancing prolongs the life of the battery.
8. When the battery is fully charged, there will be an audible beep for about 3 seconds, and the green LED will shine continuously.
9. Always unplug the battery from the charger immediately upon completion of charging.

CAUTION: Overcharging a battery can cause a fire.

Note: Attempting to charge an over-discharged battery will cause the charger to repeatedly flash and beep, indicating an error has occurred.

Battery Capacity	Maximum Charge Rate
300-400mAh	300mA
500-1000mAh	500mA
1000-1500mAh	1A
1500-2000mAh	1.5A
2000mAh +	2.0A

CAUTION: Only use a charger specifically designed to charge a Li-Po battery. Failure to do so could result in fire causing injury or property damage.

CAUTION: Never exceed the recommended charge rate.

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 supply from the motor. Power to the motor pulses, showing that some battery power is reserved for flight control and safe landing.

When the motor pulses, land the aircraft immediately and recharge the flight battery. Disconnect and remove the Li-Po battery from the aircraft after use to prevent trickle discharge. Fully charge your Li-Po battery before storing it. During storage make sure battery charge does not go below 3V per cell.



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™/DSMX™ technology equipped aircraft transmitter to the receiver for proper operation.

Note: Any JR® or Spektrum full range DSM2™/DSMX™ transmitter can bind to the Spektrum AR600 receiver. Please visit www.bindnfly.com for a complete list of compatible transmitters.

BIND PLUG



Note: When using a Futaba transmitter with a Spektrum DSM module, you must reverse the throttle channel.

✓	Binding Procedure Reference Table
	1. Read transmitter instructions for binding to a receiver (location of transmitter's Bind control).
	2. Make sure transmitter is powered off.
	3. Move the transmitter controls to neutral (flight controls: rudder, elevators and ailerons) or to low positions (throttle, throttle trim, and flight control trims).*
	4. Install a bind plug in the receiver bind port extension.
	5. Connect the flight battery to the ESC.
	6. Power on the ESC switch. The receiver LED will begin to flash rapidly under the rear hatch.
	7. Power on the transmitter while holding the transmitter bind button or switch. Refer to your transmitter's manual for binding button or switch instructions.
	8. When the receiver binds to the transmitter, the light on the receiver will be solid and the ESC will produce a series of sounds. The series of sounds is a long tone, then 3 short tones that confirm the LVC is set for the ESC.
	9. Remove the bind plug from the bind port extension.
	10. Safely store the bind plug (some owners attach the bind plug to their transmitter using two-part loops and clips).
	11. The receiver should keep the binding to the transmitter until another binding is done.

* The throttle will not arm if the transmitter's throttle control is not put at the lowest position.

If you encounter problems, obey binding instructions and refer to transmitter troubleshooting guide for other instructions. If needed, contact the appropriate Horizon Product Support office.

Installing Battery

1. Remove front canopy (A) from fuselage.
2. Loosen hook and loop straps (B).
3. Put fully charged battery (C) in hook and loop straps in fuselage.
4. Tighten hook and loop straps around battery.
5. Connect battery connector to ESC power connector only when preparing to fly the model.

Note: Power on ESC switch (D) only when ready to fly the model. This switch powers on the receiver to receive throttle signal for the motor.

6. Put front canopy tabs under rear hatch, align front canopy with fuselage and close canopy.

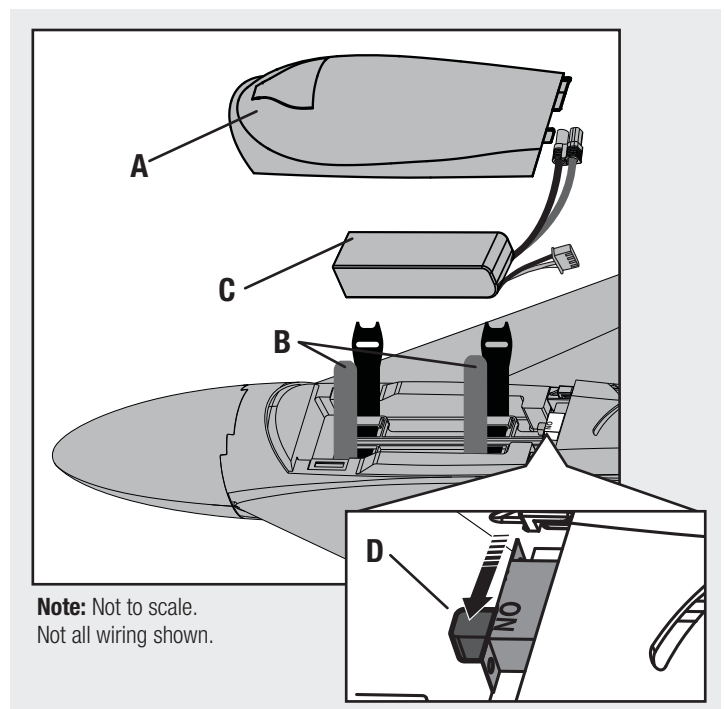
Note: Always disconnect the Li-Po from the receiver of the aircraft when not flying. Failure to do so will render the battery unusable.

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

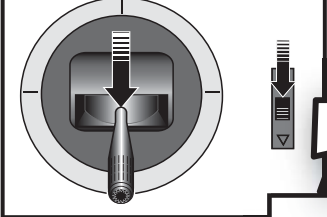
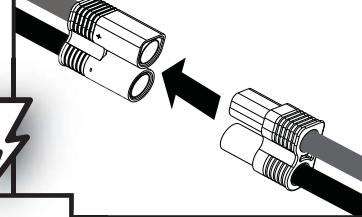
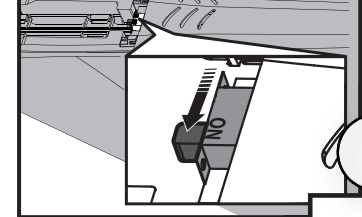
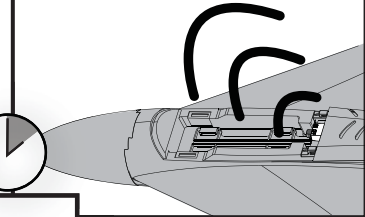
ESC Switch Use

- The ESC switch must be powered on to bind the receiver to a transmitter and to do a Control Test of the model.
- The ESC switch powers off the model's receiver/radio system to prevent accidental powering of the motor.
- Disarm the motor by powering off the ESC switch.
- Arm the motor by moving the bound transmitter's throttle to idle/off position and powering on the ESC switch.
- The ESC switch does not stop the ESC from consuming battery power.

CAUTION: Leaving a battery connected to the ESC could cause permanent damage to your battery by overdischarging (especially a Li-Po battery). Even if the ESC switch is powered off.



Before Flight

<p>1</p> 	<p>2</p> 	<p>3</p> 	<p>4</p> 
<ul style="list-style-type: none"> • Lower throttle and throttle trim to lowest settings. 	<p>Power on Transmitter</p> <ul style="list-style-type: none"> • Connect battery to ESC. 	<ul style="list-style-type: none"> • Power on ESC switch. 	<p>Wait 5 seconds</p> <ul style="list-style-type: none"> • Continuous LED • Series of tones

PLUG-N-PLAY

Installing a Receiver

1. Install your park flyer or full range receiver in the fuselage using hook and loop tape or double-sided servo tape.
2. Attach right aileron to elevator channel of your receiver. Left aileron goes to aileron channel of your receiver. You will also need to activate the delta wing/elevon configuration of your transmitter.

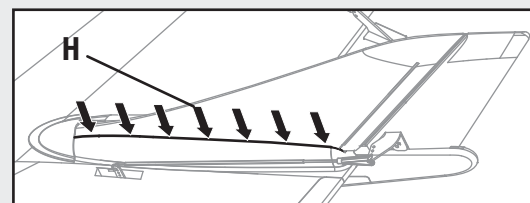
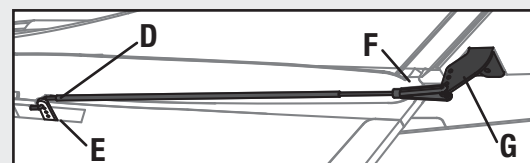
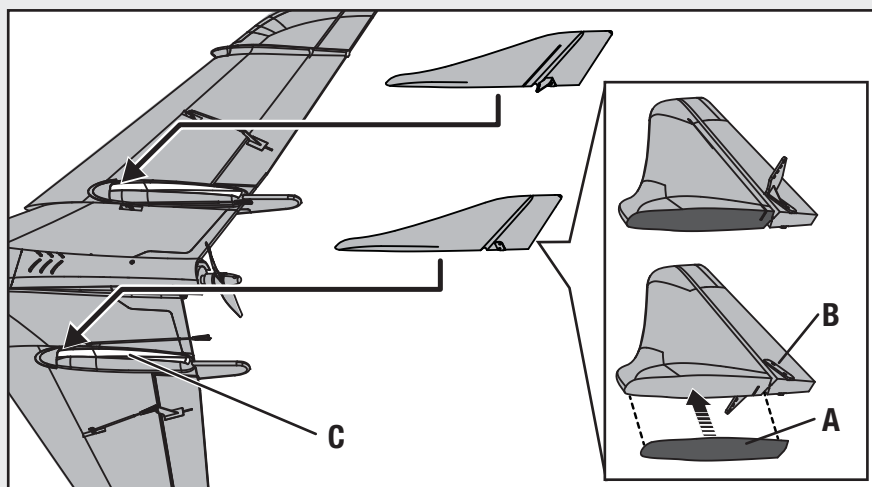
Note: If using a DX5e or DX4e transmitter, this is the 'mix' function on the front of the transmitter. For specific set-ups for JR/Spektrum 6+ channel transmitters, see "Transmitter and Model Set Up" section.

3. Attach the ESC connector to the throttle channel of the receiver.

Battery Selection and Installation

1. We recommend the ParkZone 2200mAh 11.1V 25C Li-Po battery (PKZ1029).
2. If using another battery, the battery must be at least a 25C 2100mAh battery.
3. Your battery should be approximately the same capacity, dimensions and weight as the ParkZone Li-Po battery to fit in the fuselage without changing the center of gravity a large amount.

Installing Vertical Fins



Note: Before flying the model in extreme high-speed maneuvers, apply CA (H) where the vertical fin connects with the fuselage housing.

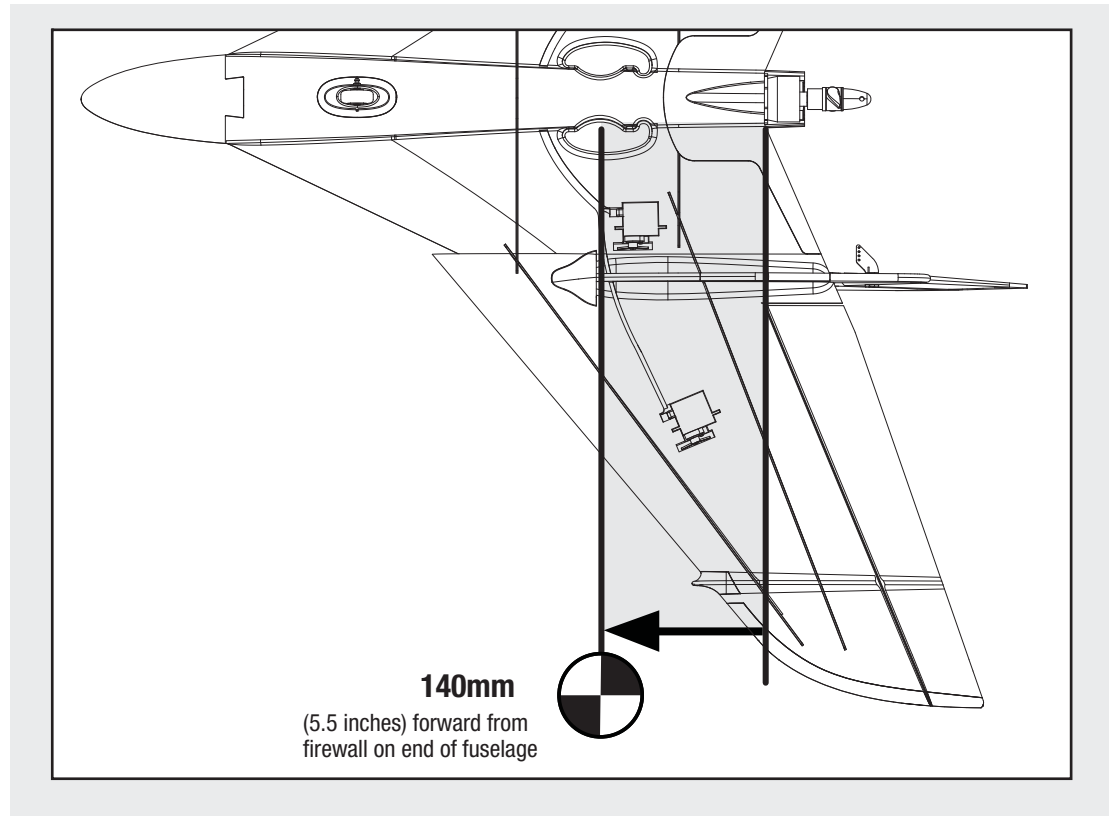
NOTICE: Use of CA accelerant on your model can damage paint. DO NOT wipe accelerant from model, but let accelerant evaporate.

Assembly

1. Apply double-stick tape (A) to the bottom of each vertical fin (B), in front of the rudder hinge.
2. Carefully trim the excess tape (using a sharp hobby knife blade or scissors).
Note: Make sure tape does not go past rudder hinge.
3. Carefully put left vertical fin under fairing and in left housing (C) on the fuselage. Rudder control horn is on inner side and Stryker decal is on outer side of vertical fin.
4. Install right vertical fin using double-stick tape.
5. Install linkages (D) on servos (E) then attach clevises (F) to control horns (G).

Center of Gravity (CG)

Install included battery in the fuselage using the hook and loop straps.

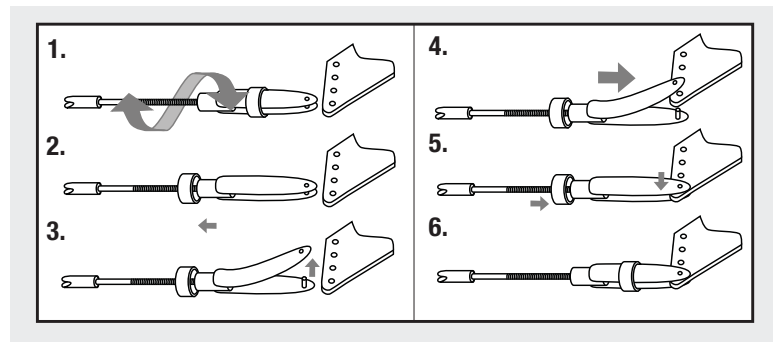


Installing Clevises on Control Horns and Control Centering

Tip: Turn the clevis clockwise or counterclockwise on the linkage.

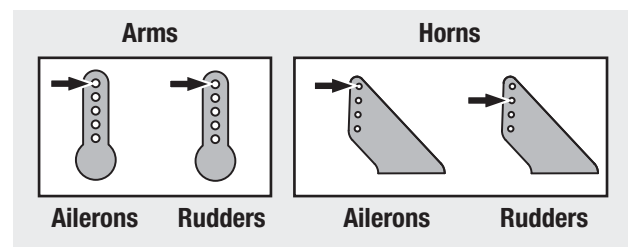
- Pull the tube from the clevis to the linkage.
- Carefully spread the clevis and put the clevis pin in a selected hole in the control horn.
- Move the tube to hold the clevis on the control horn.

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



Factory Settings

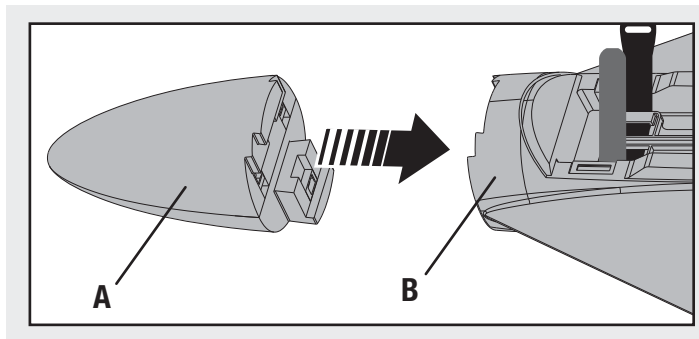
Fly the model at factory settings before making changes. For pilots who wish to fly model for unlimited aerobatics, adjust position of linkages on servo arms and control horns for increased travel.



Installing Nose

1. Align magnets and install nose (A) on fuselage (B).

Note: Always repair or replace the nose when it is damaged to keep the model flying correctly.



Transmitter and Model Setup

Transmitter Set up

Flying wings are controlled by elevons (moveable surfaces on the wing). Elevons take the aileron control (move opposite directions), and elevator control (move up/down same direction) and mixes them together electronically through the transmitter.

Make sure both elevons move up and down (travel) the same amount. This model tracks well when the left and right ailerons travel the same amount in response to the control stick.

- For the Spektrum DX4e and DX5e transmitter: Set trim to neutral, and make sure servo arm is fully vertical. If not, adjust servo arm. Then adjust linkage length so both ailerons travel the same amount.
- For computerized transmitters (such as the Spektrum DX6i, DX7 and DX8): Set trim and sub-trim to 0. Make sure each servo arm is fully vertical. Adjust each servo/channel sub-trim as needed to make each servo arm fully vertical. Then adjust servo travel so both control surfaces travel the same amount.
- This model does not require use of aileron differential programming in the transmitter.

Model Set up

- At first flight, fly the model in low rate. The first time you use high rate, fly at low to medium speed.
Note: High rate, as listed, is only for EXTREME maneuvering.
- Use a ruler and measure the surface's travel at the root of each control surface.

NOTICE: When using a DSMX non-computer transmitter (DX4e/DX5e) with multiple aircraft, always re-bind and set a model's failsafe before each flight. Please refer to your transmitter's manual for failsafe instructions.

We recommend this setup for servo channel reversing for DX4e, DX5e, DX7 and DX8 transmitters (Same for JR9303/9503, 11X and 12X):

Throttle: Normal	Aileron: Reverse
Elevator: Reverse	Rudder: Normal

For the DX6i we recommend this setup for servo channel reversing:

Throttle: Normal	Aileron: Reverse
Elevator: Normal	Rudder: Normal

Note: When setting up model for control using a spectrum DX6i transmitter, swap servo connections between aileron and elevator ports on receiver (from factory settings). Do a control test to make sure model operates correctly.

Recommended Computerized Transmitter Dual Rates and Expo

	High Rate	Low Rate	Expo
Elevator	**35-40mm up/down	13mm up/down	High-50%, Low-5%
Aileron	**35-40mm up/down	17mm up/down	High-50%, Low-10%
Rudder	35-40mm left/right		5%

****Note:** Higher values (listed above) require moving a clevis one hole closer to the base of the control horn or moving a linkage one hole closer to the base of a servo arm.

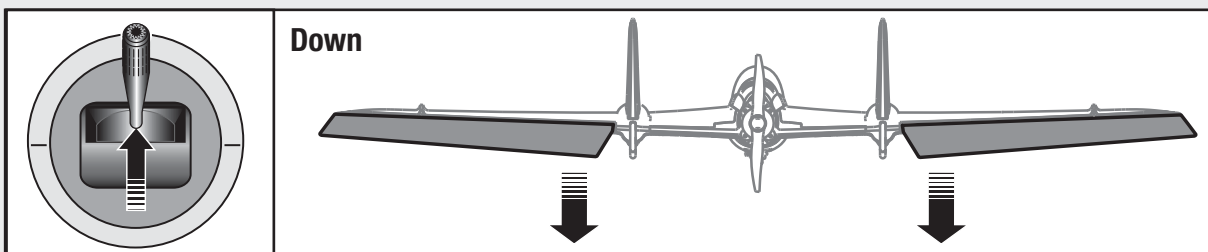
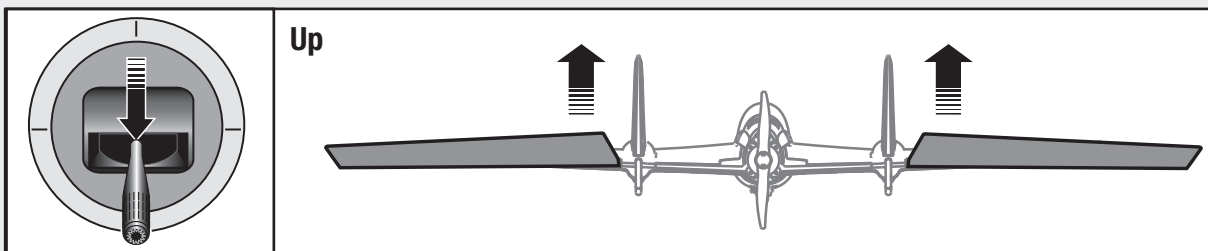
Spektrum DX4e and DX5e Dual Rates (No Expo)

	High Rate	Low Rate
Elevator	16mm up/down	12mm up/down
Aileron	12mm up/down	12mm up/down
Rudder	35mm left/right	35mm left/right

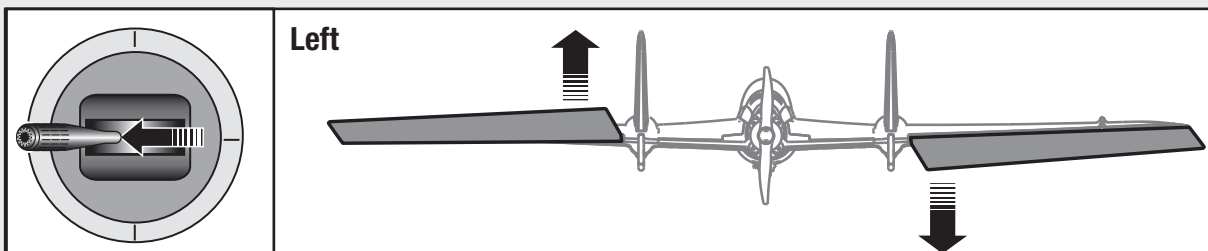
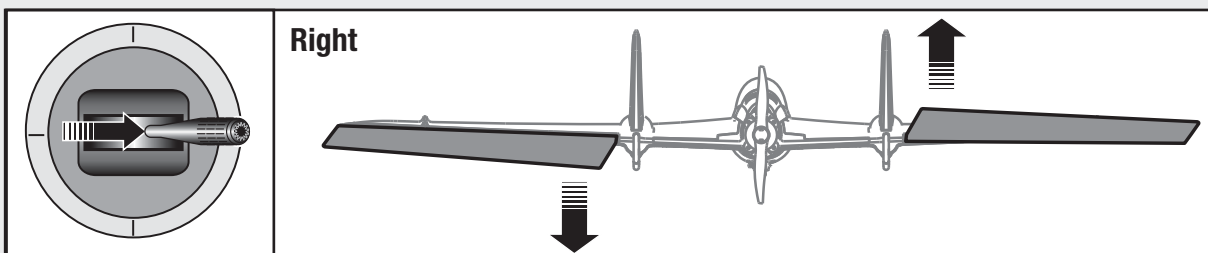
Control Direction Test

Bind your aircraft and transmitter before doing these tests. Move the controls on the transmitter to make sure aircraft control surfaces move correctly.

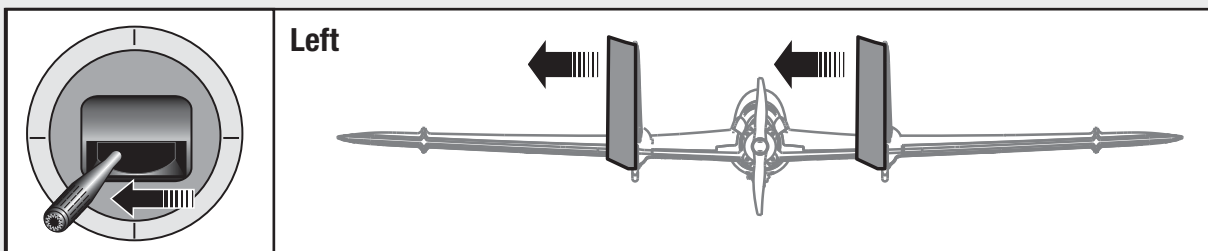
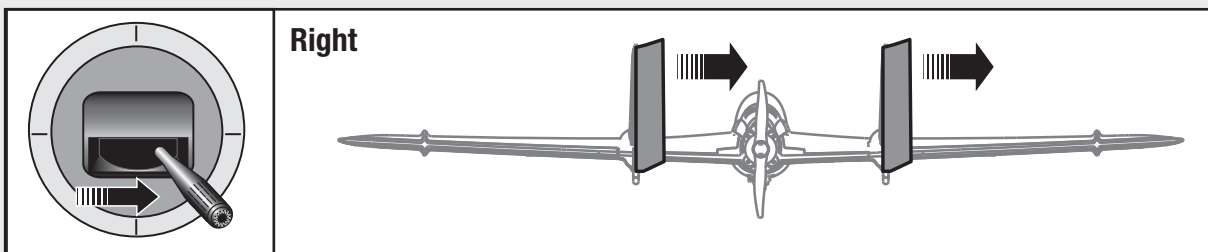
Elevator



Aileron



Rudder



Service of Power Components

Disassembly

1. Remove front canopy (A) from fuselage.
2. Disconnect battery from ESC.
3. Remove battery from hook and loop straps in fuselage.
4. Loosen screw (B) and remove rear hatch (C) from fuselage.
5. Disconnect 3 bullet connectors of motor from ESC connectors (motor wire colors align with ESC wire colors).

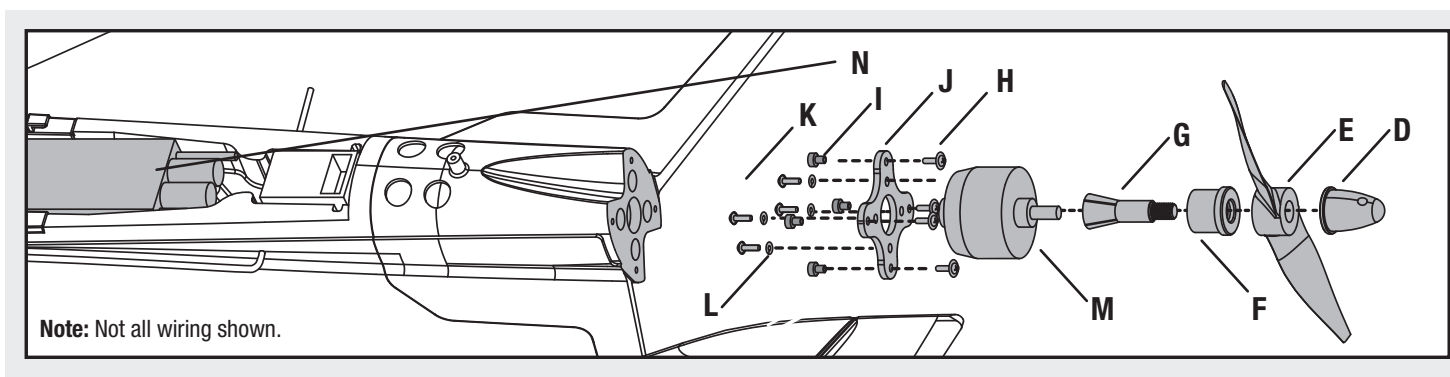
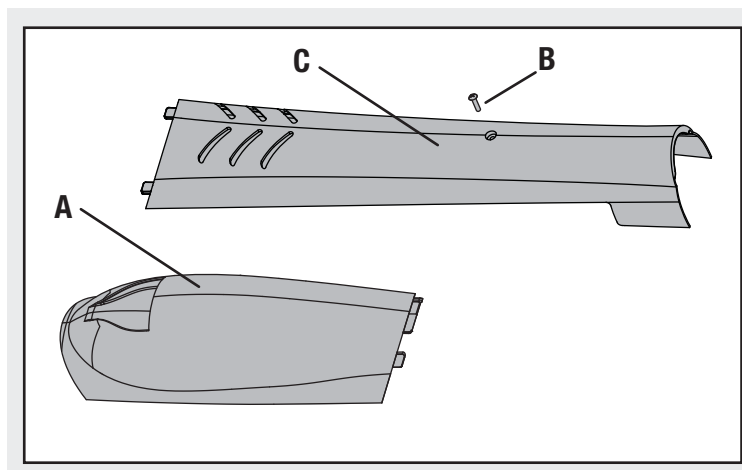
6. Remove spinner nut (D), propeller (E), backplate (F) and collet (G) from motor shaft.

Note: A tool may be needed to turn spinner nut.

7. Remove 4 screws (H) and 4 silicone spacers (I) from motor mount (J) and firewall of fuselage.

8. Remove 4 screws (K) and 4 lock washers (L) from motor mount (J) and motor (M).

9. Remove ESC (N) from hook and loop strap and fuselage.



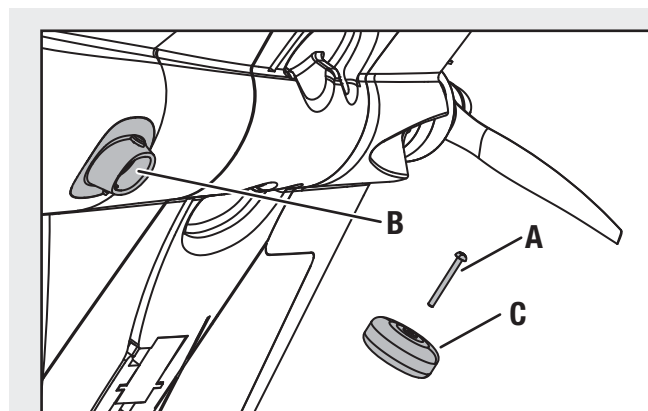
Assembly

1. Assemble model by obeying instructions above in reverse.
2. Make sure propeller size numbers (6 x 6) face the motor.
3. Use a small amount of clear tape to hold the motor wires on the fuselage.
Make sure no wires are pinched or damaged when the rear hatch is installed on the fuselage.

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

Nose Wheel

1. Remove and retain screw (A) from nose wheel part (B) and nose wheel (C).
2. Remove wheel from nose wheel part.
3. Install wheel and screw in nose wheel part.



Flying Tips and Repairs

Range Check your Radio System

After final assembly, range check the radio system with the Stryker. Refer to your specific transmitter instruction manual for range test information.

CAUTION: Keep hands away from the propeller. Always assume the motor is powered on and that propeller blades may turn at any time.

Launching

Always inspect and repair model before flying. Any damage or loose linkages decrease control a large amount in high-speed flight.

CAUTION: Always launch the model with the throttle set at 0% to avoid injury from the pusher propeller. When the model is safely free of your hand, increase throttle to between 60 and 100%.

Always launch your model at a very small upward angle and directly into the wind, even in a light breeze.

Hand Launching

To hand launch the Stryker, hold the airplane in the finger grips on the underside of the airplane. Give a firm throw **directly into the wind** slightly up (5–10 degrees above the horizon) with the throttle all the way down and the propeller not spinning. After release, when the propeller is clear of your hands, throttle up to climb out.

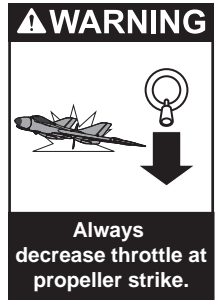
Flying

Always choose a wide-open space for flying your ParkZone Stryker. It is ideal for you to fly at a sanctioned flying field. If you are not flying at an 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, schoolyards, or soccer fields. Consult local laws and ordinances before choosing a location to fly your aircraft.

Landing

Land the model when you hear the motor pulsing (LVC) or if you notice a reduction in power. If using a transmitter with a timer, set the timer so you have enough flight time to make several landing approaches.

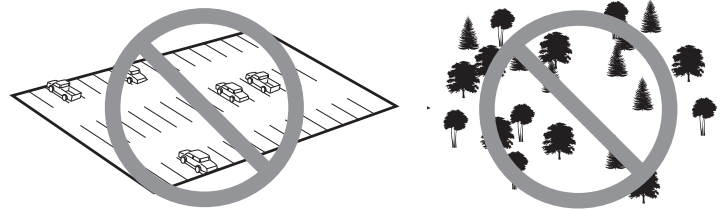
Recharge the battery and repair the model as needed. The model's nose wheel and bottom fin skids let the model land on hard surfaces when needed (which may damage the propeller). Align model directly into the wind and fly down to the ground. Fly the airplane down to the ground using 1/4 - 1/3 throttle to keep enough energy for a proper flare. Before the model touches down, always fully decrease throttle to avoid damage to propeller, motor, ESC or other components.



Repairs

Thanks to the Z-foam™ construction of the Stryker, repairs to the foam can be made using virtually any adhesive (hot glue, regular CA, epoxy, etc). When parts are not repairable, see the Replacement Parts List for ordering by item number.

NOTICE: Use of CA accelerant on your model can damage paint. DO NOT wipe accelerant from model, but let accelerant evaporate.



First Flight Preparation

- Remove and inspect contents
- Charge flight battery
- Read this instruction manual thoroughly
- Fully assemble model
- Install the flight battery in the aircraft (once it has been fully charged)
- Power on ESC switch
- Bind aircraft to your transmitter
- Make sure linkages move freely
- Perform the Control Direction Test with the transmitter
- Adjust flight controls and transmitter
- Perform a radio system Range Check
- Find a safe and open area
- Plan flight for flying field conditions

Maintenance After Flying

- Power off ESC switch
- Disconnect flight battery from ESC (Required for Safety and battery life)
- Power 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

AMA National Model Aircraft Safety Code

Effective January 1, 2011

A. GENERAL

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

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

Exceptions:

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

B. RADIO CONTROL

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

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

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
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
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 may be low for flight conditions	Replace battery or use a larger capacity battery
Aircraft will not Bind 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 will not bind to transmitter	Aircraft or transmitter is too close to large metal object
	Bind plug is not installed correctly in bind port extension	Install bind plug in bind port extension and bind aircraft to transmitter
	Flight battery/Transmitter battery charge is too low	Replace/recharge batteries
	ESC switch is off	Power on ESC switch
Aircraft will not link to transmitter	Transmitter too near aircraft during linking process	Move powered transmitter a few feet from aircraft, disconnect and reconnect flight battery to aircraft
	Aircraft will not bind to transmitter	Aircraft or transmitter is too close to large metal object
	Bind plug left installed in bind port extension	Remove 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
	ESC switch is off	Power on ESC switch
	Transmitter may have been bound to a different model (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 not bound correctly or incorrect model selected	Re-bind or select correct model in transmitter
	Control trim out of adjustment	Adjust trims to restore full control
	ESC switch is off	Power on ESC switch
Controls reversed	Transmitter settings reversed	Do the Control Direction Test and adjust controls on transmitter appropriately
Motor loses power	Damage to motor, propeller shaft or power components	Do a check of batteries, transmitter, receiver, motor and wiring for damage (replace as needed)
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 C rating might be too small	Use recommended 25C battery

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, 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.

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 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.

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 Online Repair Request: visit www.horizonhobby.com/repairs
	Horizon Product Support (All other products)	4105 Fieldstone Rd Champaign, Illinois 61822 USA	877-504-0233 productsupport@horizonhobby.com
United Kingdom	Horizon Hobby Limited	Units 1-4 Ployters Rd Staple Tye Harlow, Essex CM18 7NS United Kingdom	+44 (0) 1279 641 097 sales@horizonhobby.co.uk
Germany	Horizon Technischer Service	Hamburger Str. 10 25335 Elmshorn Germany	+49 4121 46199 66 service@horizonhobby.de
France	Horizon Hobby SAS	14 Rue Gustave Eiffel Zone d'Activité du Réveil Matin 91230 Montgeron	+33 (0) 1 60 47 44 70 infofrance@horizonhobby.com

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. HH2011042201

Product(s): PKZ F-27Q Stryker BNF
Item Number(s): PKZ5680
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 and EMC Directive 2004/108/EC

EN 301 489-1 V1.7.1: 2006
EN 301 489-17 V1.3.2: 2008

EN55022: 2006,
EN55024: 1998+A1: 2001+A2: 2003



Signed for and on behalf of:
Horizon Hobby, Inc.
Champaign, IL USA
April 22, 2011

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

Declaration of Conformity

(in accordance with ISO/IEC 17050-1)

No. HH2011042801

Product(s): F-27Q Stryker PNP
Item Number(s): PKZ5675
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:

EN 301 489-1 V1.7.1: 2006
EN 301 489-3 V1.4.1: 2008



Signed for and on behalf of:
Horizon Hobby, Inc.
Champaign, IL USA
April 28, 2011

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 collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or where you purchased the product.

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

Part # Nummer Numéro Codice	Description	Beschreibung	Descrizione	Descrizione
PKZ4421	Clevis set (4)	ParkZone Gabelkopfsatz (4)	Jeu de clavettes (4)	Set di maniglie (4)
PKZ5318	Control horn set (5)	ParkZone Ruderhorn Set (5)	Jeu de guignols (5)	Set di antenne di controllo (5)
PKZ5602	Prop Adapter: F-27Q	ParkZone Propeller Adapter: F27Q	Adaptateur d'hélice	Adattatore dell'elica: F-27Q
PKZ5603	Propeller: 6 X 6	ParkZone Propeller 6 x6	Hélice 6x6	Elica: 6 X 6
PKZ5610	Nose Wheel: F-27Q	ParkZone Bugrad: F-27Q	Roulette de nez	Ruota della prua: F-27Q
PKZ5611	Nose Wheel Pant: F-27Q	ParkZone Bugrad Halter F-27Q	Carénage de roue de nez	Copriruota della prua: F-27Q
PKZ5612	Painted Nose: F-27Q	ParkZone lackierte Bugnase: F27Q	Nez peint	Prua verniciata: F-27Q
PKZ5613	Front Canopy: F-27Q	ParkZone Kabinenhaube: F27Q	Verrière	Portello anteriore: F-27Q
PKZ5614	Rear Hatch: F-27Q	ParkZone hintere Abdeckung: F27Q	Trappe arrière	Calotta posteriore: F-27Q
PKZ5616	480 BL Outrunner: 2200Kv	ParkZone 480 BL Außenläufer: 2200 Kv	Moteur 480 BL à cage tournante 2200Kv	Outrunner 480 BL: 2200Kv
PKZ5620	Vertical Fin/Rudder Set: F-27Q	Leitwerks/ Ruder Set: F-27Q	Set de dérives	Ala verticale/set timone: F-27Q
PKZ5621	Fin Bottom with Land Skids: F-27Q	ParkZone Leitwerksboden mit Landekufen: F-27Q	Patins d'atterrissage et dérives inférieures	Parte inferiore dell'ala con pattini di atterraggio: F-27Q
PKZ5622	Pushrod Set: F-27Q	Gestänge Set: F27Q	Set de tringleries	Set asta di spinta: F-27Q
PKZ5623	Hardware Set: F-27Q	ParkZone Kleinteile Set F-27Q	Set de visserie	Set ferramenta: F-27Q
PKZ5628	Motor Mount with Screws: F-27Q	ParkZone Motorhalter mit Schrauben F27Q	Support moteur avec vis	Montante del motore con viti: F-27Q
PKZ5667	Painted Bare Fuselage: F-27Q	ParkZone Rumpf lackiert F-27Q	Fuselage nu peint	Fusoliera semplice verniciata: F-27Q
PKZ1090	DSV130 3-Wire Digital Servo Metal Gear	ParkZone DSV130 Digitalservo MG	Servo numérique avec pignons en métal DSV130 à 3 cables	Servo metallico digitale a 3 fili DSV130
PKZ1029	11.1V 2200mAh Li-Po battery	11.1V 3S 25C 2200mAh LiPo Akku	Batterie Li-Po 11,1 V 2200 mAh	Batteria Li-Po 11,1 V 2200 mAh
PKZ1040	2-3S Variable Rate Balancing Fast Charger	ParkZone 12V 2-3S LiPo Balancer Lader	Chargeur équilibreur rapide 2-3S à intensité de charge réglable	Caricabatterie rapido bilanciamento tensione variabile 2-3S
EFLA1040	40-Amp Pro SB Brushless ESC	E-flite 40-Amp Pro Brushless Regler	Contrôleur brushless 40A pro SB	ESC senza spazzole 40 amp Pro SB

Optional Parts • Optionale Bauteile • Pièces optionnelles • Pezzi opzionali

Part # Nummer Numéro Codice	Description	Beschreibung	Descrizione	Descrizione
EFLAEC302	EC3 Battery Connector, Female (2)	EC3 Akkukabel, Buchse (2)	Connecteur de batterie EC3, femelle (2)	Connettore batteria EC3, femmina (2)
EFLAEC303	EC3 Device/Battery Connector, Male/Female	EC3 Kabelsatz, Stecker/Buchse	Connecteur de batterie EC3, mâle/ femelle	Connettore dispositivo/batteria EC3, maschio/femmina
EFLC505	1- To 5-cell Li-Po battery charger with balancer	E-flite 1-5 Zellen Lipo Lader mit Balancer	Chargeur équilibreur Li-Po 1à5S	Caricabatterie Li-Po 1-5 celle con bilanciamento
SPMAR600	AR600 6-Channel Sport DSM2/DSMX Receiver	Spektrum AR600 DSMX 6 Kanal Sport Empfänger	Récepteur AR600 6 voies DSM2/ DSMX	Ricevitore sportivo a 6 canali DSM2/DSMX AR600
SPMR5510	DX5e DSMX 5-Channel Transmitter Only Mode 2	Spektrum DX5e DSMX 5 Kanal Sender ohne Empfänger MD 2	DX5e émetteur seul DSMX mode 2	Solo trasmettitore DX5e DSMX a 5 canali modalità 2
SPMR55101	DX5e DSMX 5-Channel Transmitter Only Mode 1	Spektrum DX5e DSMX 5 Kanal Sender ohne Empfänger MD 1	DX5e émetteur seul DSMX mode 1	Solo trasmettitore DX5e DSMX a 5 canali modalità 1
SPMR6610	DX6i DSMX Transmitter Only Mode 2	Spektrum DX6i DSM X Sender ohne Empfänger MD2	DX6i émetteur seul DSMX mode 2	Solo trasmettitore DX6i DSMX modalità 2
SPMR66101	DX6i DSMX Transmitter Only Mode 1	Spektrum DX6i DSM X Sender ohne Empfänger MD1	DX6i émetteur seul DSMX mode 1	Solo trasmettitore DX6i DSMX modalità 1
SPMR6610E	DX6i DSMX Transmitter Only Mode 2 Int'l	Spektrum DX6i DSM X Sender ohne Empfänger MD2	DX6i émetteur seul DSMX mode 2 Int'l	Solo trasmettitore DX6i DSMX modalità 2 internazionale
SPMR66101E	DX6i DSMX Transmitter Only Mode 1 Int'l	Spektrum DX6i DSM X Sender ohne Empfänger MD1	DX6i émetteur seul DSMX mode 1 Int'l	Solo trasmettitore DX6i DSMX modalità 1 internazionale
*SPMR8800	DX8 DSMX Transmitter Only Mode 2	DX8 nur Sender MD2	DX8 émetteur seul DSMX mode 2	Solo trasmettitore DX8 DSMX modalità 2
*SPMR8800EU	DX8 DSMX Transmitter Only Mode 2 Int'l	Spektrum DX8 nur Sender Mode 1-4	DX8 émetteur seul DSMX mode 2 Int'l	Solo trasmettitore DX8 DSMX modalità 2 internazionale
*SPMR88001EU	DX8 DSMX Transmitter Only Mode 1 Int'l	DX8 nur Sender MD1 int.	DX8 émetteur seul DSMX mode 1 Int'l	Solo trasmettitore DX8 DSMX modalità 1 internazionale
*SPMR88001AU	DX8 DSMX Transmitter Only Mode 1 AU	DX8 DSMX Transmitter Only Mode 1 AU	DX8 émetteur seul DSMX mode 1 AU	Solo trasmettitore DX8 DSMX modalità 1 AU

*Note: All Spektrum DX8 transmitters can be set up for modes 1-4 *Hinweis: Alle Spektrum DX8 Sender können für die Modes 1 - 4 eingestellt werden.

*Remarque : Tous les émetteurs Spektrum DX8 peuvent être paramétrés dans les 4 modes *Nota: Tutti i trasmettitori Spektrum DX8 possono essere configurati per i modelli 1 - 4

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Patents Pending

www.ParkZone.com

PKZ5680, PKZ5675

Created 04/11 30155

