



# *Super Decathlon BL Instruction Manual*



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**Charge-and-Fly™ Park Flyer**

Wingspan: 35.4 in (900mm)  
Overall Length: 25.3 in (640mm)  
Weight: 16 oz (450 g)  
Motor: PKZ 370-size outrunner brushless, 1500Kv  
FM Radio System: ZX10 3 proportional channels  
Battery: 7.4V 800mAh Li-Po





# Super Decathlon BL

## Introduction

Congratulations on your purchase of the ParkZone® Super Decathlon BL. Your Super Decathlon BL has come with everything to get you in the air—all in one box. You will only need to attach the wing and landing gear, as well as charge the battery prior to flight.

We at ParkZone are committed to giving you the most enjoyable flight experience you can have. In order to have a safe and successful flight, we ask that you do not fly until you have read these instructions thoroughly.

The Super Decathlon BL comes with a fully proportional 3-channel FM radio system, providing full control of throttle, elevator and rudder. If you are not experienced at flying one of HobbyZone's 3-channel aircraft, or any other 3-channel radio controlled aircraft, we recommend that you do not fly this aircraft. If you still choose to fly, you will need to seek the help of an experienced radio control pilot during your first several flights. **Crash damage is not covered under the warranty.**

## Step 1 – Charging the Aircraft Battery

This charger uses unique circuitry that ensures an accurate charge every time and protects your Li-Po batteries from the dangers of overcharging. This charger continually monitors the battery and automatically stops charging when the battery is fully charged. The balance charger will help avoid damaging Li-Po cells.

DC Li-Po Balancing Charger Features:

- Charges 2-cell lithium polymer battery packs
- LED charge status indicator
- LED cell balance indicator
- 12V outlet power cord

BATTERY CAPACITY	800mAh 7.4V 2S Li-Po
MAX. CHARGE RATE	.8 amps
CHARGE TIME	60 minutes

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 properly follow the instructions could result in a fire. When charging, make certain the battery is on a heat-resistant surface. It is recommended to charge the Li-Po battery immediately, as it will be used in future assembly steps.

The ParkZone Super Decathlon BL is equipped with the exclusive ZX10 radio system which utilizes 10-bit, 1024-step processing for high-fidelity control. It uses a 6-channel FM receiver with industry-standard 3-wire servos.

The ZX10 system also features dual rates, allowing you to fly how you feel most comfortable. Low rate limits the travel of the control surfaces and offers smooth and relaxing flight. High rate allows for full control at all times for those craving the maximum performance of their aircraft.

### Charging the Aircraft Battery

1. The 12V DC 2S Li-Po balancing charger provides a charge current of .8 amps. The typical charge time for the included 7.4V 800mAh Li-Po is approximately 40 minutes to 1 hour.
2. Locate the balancing charge lead on the battery pack. Connect the battery pack to the charger. Charge through the balance lead on the battery pack.
3. Connect the charger to the 12V power outlet in your automobile. Please note that some 12V outlets require your vehicle to be running for the outlet to be operational. It is not recommended to charge batteries while the vehicle is in motion. The LED will continually blink while the battery charges.
4. Charging is finished when the LED indicator glows steadily.

**Note:** *Damage to the charger and battery will occur if you exceed the recommended maximum charge rate. For charging outside of the vehicle, you may wish to purchase a 12V DC extension with alligator leads (HBZ6513). This will allow you to connect the charger to a 12V battery or power supply.*

## Step 2 – Installing the Transmitter Batteries

1. Insert 8 new AA batteries (supplied) into the transmitter, observing proper polarity.
2. Turn the power switch on to ensure the batteries have been installed correctly. Once this is confirmed, turn the transmitter off.

## Step 3 – Installing the Landing Gear

1. Locate the landing gear within the packaging.
2. Slide one half of the landing gear into the allotted slot in the fuselage until it locks into place. Slide the other half of the landing gear into the fuselage as you have done with the previous one. Look into the fuselage to make sure the two gear halves are pressed in snug against the center of the landing gear support.
3. Make sure both parts of the landing gear are secure and properly in place. They should feel snug inside the fuselage when attached properly.



## Step 4 – Attaching the Wing

1. Locate the wing and wing strut screws.
2. Place the wing on the top of the fuselage, making certain it is centered properly. Attach the wing with four rubber bands that are included. Stretch two of the rubber bands from the front to the rear attach points. Stretch the last two diagonally across the middle to the attach points.
3. Attach the wing struts to the fuselage. Locate the two small Phillips screws and attach the strut to the fuselage as shown. Once the screw is tightened into the fuselage, you can loosen it slightly to allow the slack of the strut to be adjusted as needed.
4. Make sure that prior to each flight the wing is properly centered on the fuselage. If the wing is not centered properly, it is impossible to have correct flight.



## Step 5 – Motor Test

1. Make sure the throttle slider is in the OFF position.
2. Turn on the transmitter.
3. Remove the battery door from the bottom of the fuselage.
4. Plug flight battery into the ESC inside of the fuselage. The ESC has been preset for 2S Li-Po low voltage cutoff.
5. Secure the battery inside the fuselage cavity and replace the battery door.
6. Your Super Decathlon BL has a built-in throttle-arming feature which needs to “see” the throttle slider in the OFF position before it will spin the propeller.

**Caution:** Make sure that you, as well as loose objects and hair, are away from the propeller at all times.

Grasp the rear of the fuselage with the nose of the Super Decathlon facing away from you. Advance the throttle forward and the propeller should spin at a high speed. The throttle-arming feature will need to be activated each time the battery is plugged into the airplane.

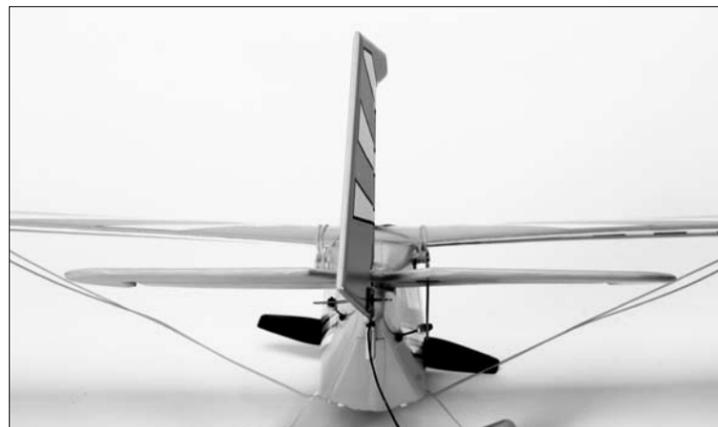
7. When finished with the motor test, continue to the Tail Control Test on the next page.

**Note:** It is important to always turn on the transmitter prior to plugging in the flight battery. Plugging in the flight battery first may cause undesired operation due to interference, potentially resulting in damage to the aircraft or personal injury.

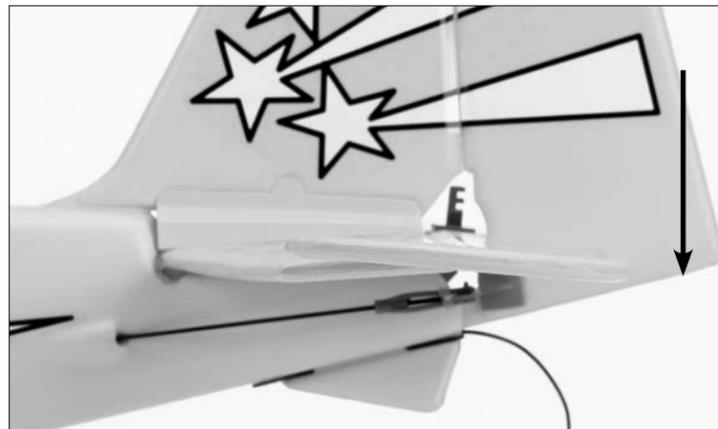
## Step 6 – Tail Control Test

**Warning:** Keep everything clear of the propeller before starting the control test in the event that you accidentally turn on the motor.

1. Be certain that the throttle slider is in the OFF position. Make certain both trim levers are centered.
2. Move the stick from side to side. The rudder should move per your transmitter input.

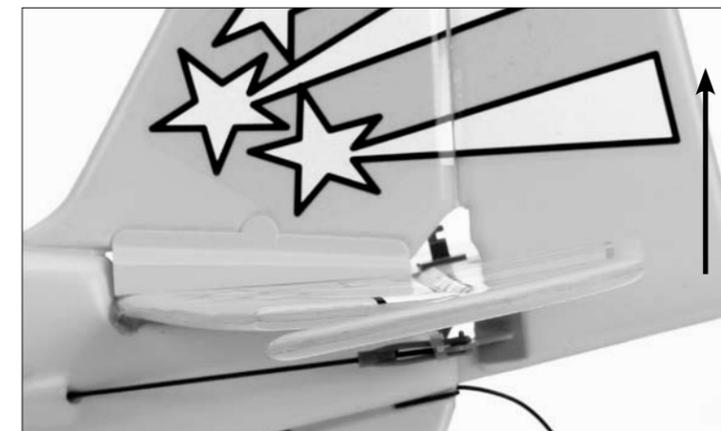


3. Move the stick full forward. When this is done, the elevator control surface should move down.



## Step 6 – Tail Control Test (continued)

4. Pull the stick back and the elevator control surface should move up.



5. **If your airplane is not responding correctly to the transmitter input, do not fly.** Some correction is needed. Call the Horizon Support Team at 1-877-504-0233.
6. When the test is complete, be sure to disconnect the flight battery first, then turn off the transmitter. This should be done each time you turn off the airplane.

**Note:** It is very important to make sure that the control surfaces (rudder and elevator) are at 0 degrees when the transmitter control stick and trim levers are centered.

## Step 7 – Control Surface Adjustments

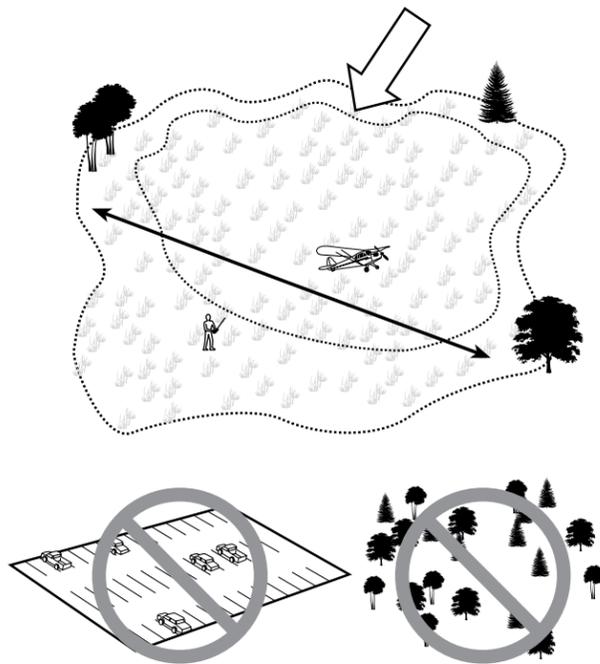
1. Any changes necessary to bring both the rudder and elevator to neutral (0 degrees) when the transmitter stick is centered should be possible using the trim levers.
2. If you find this is not the case, do not fly until this has been corrected.
3. If corrections are needed, you may have to adjust the length of the pushrod by removing the clevis from the control surface horn and turning the plastic clevis as necessary. Prior to doing this, make certain the trim levers and stick are centered.

If you have any questions regarding these adjustments, please contact the Horizon Support Team at 1-877-504-0233.

## Step 8 – Flying

### Choose a Large, Open Flying Site

- A large, open grassy field is recommended to fly your Super Decathlon BL. The Super Decathlon BL covers ground quickly. The larger the field, the better.
- It is essential to have a minimum of 300 feet of clear space in all directions from the pilot. Ignoring this direction could result in a flyaway airplane.
- Make certain that you do not fly near trees, buildings or other areas that can restrict your view or interfere with your flying.
- Always keep the plane upwind from you to avoid flyaways. This is essential.

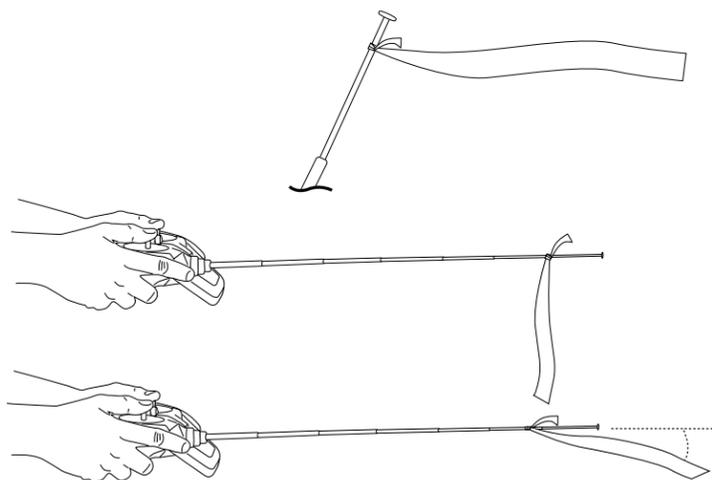


## Step 9 – Choose a Calm Day

You want to fly. However, you need to make sure that you fly in the conditions that will allow you to have the best success. This is when there is little to no wind (less than 7 mph).

To check wind conditions:

1. Tie the included red ribbon to the transmitter antenna.
2. Hold the transmitter antenna so that it is parallel to the ground and note how much the ribbon moves in the wind. If the ribbon hangs down, conditions are right to fly. However, if the angle between the antenna and the ribbon is less than 20 degrees, it is too windy to fly.



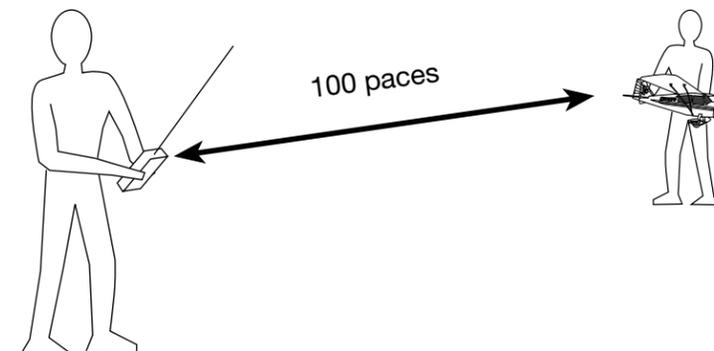
## Step 10 – Range Test

You will need two people to perform the range test: one to hold the plane and the other to give the transmitter input.

**Warning:** The person holding the plane should hold it in a way so the propeller does not come into contact with anything loose on his/her clothing or body.

1. One person holds the transmitter, while the other person walks 100 paces away with the airplane.
2. Be sure the throttle slider is in the OFF position.
3. Extend the transmitter antenna completely and turn the transmitter on.
4. Plug the airplane battery into the fuselage and replace the battery door.
5. As soon as the throttle slider is advanced, the propeller should spin quickly.

6. As the first person moves the transmitter controls at the same time, the other person watches to be sure the airplane's motor and tail controls operate smoothly.



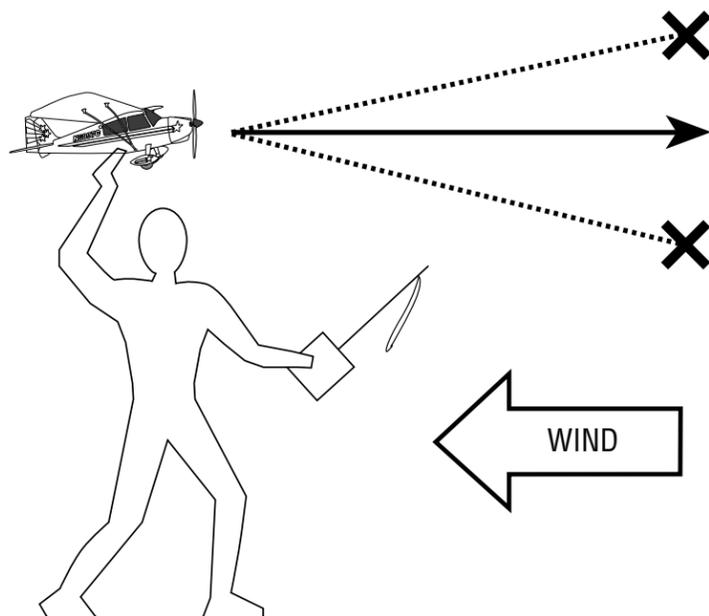
## Step 11 – Seek Assistance from an Experienced Radio Control Pilot

**VERY IMPORTANT:** The 3-channel control system is designed for the experienced radio control pilot and is not intended for the first-time flier. It is best to have HobbyZone Zone 2 experience. First-time pilots of the ParkZone Super Decathlon BL should seek the assistance of an experienced RC flier until the additional third channel, pitch control, has been competently mastered. **Crash damage is not covered under the warranty.**

**Important:** Initial flights should always be done with the airplane in low rate mode.

## Step 12 – Hand Launching the Super Decathlon BL

1. Make certain that the aircraft battery is fully charged.
2. Turn on the transmitter.
3. Plug in the flight battery.
4. Arm the motor and test the motor controls.
5. While holding the transmitter in one hand, push the throttle to full on (up) with your thumb.
6. Take a couple of steps back and launch directly into the wind. Keep the wings level. **Use medium force; do not throw it up or down.** Point the Super Decathlon BL level (parallel) with the ground when releasing.
7. Keep steering into the wind and hold at full throttle in a slight climb until you have reached an altitude of at least 50 feet.
8. When you have reached this altitude, it is safe to steer in the desired direction.



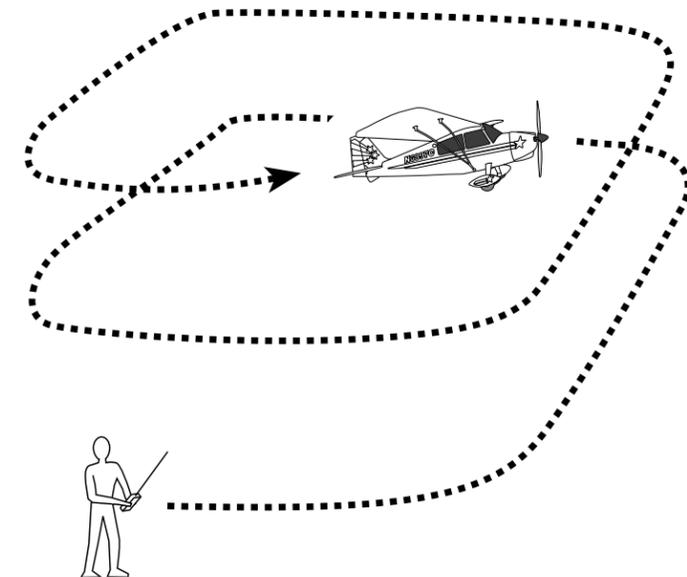
## Step 13 – Runway Takeoff

1. Prior to attempting a runway takeoff, you should have had several successful flights of hand-launching the Super Decathlon BL.
2. Make certain the aircraft battery is fully charged.
3. Turn on the transmitter.
4. Plug in the flight battery.
5. Stand behind the Super Decathlon BL and take note of the wind direction, pointing the Super Decathlon BL directly into the wind. Make certain you are on smooth asphalt or concrete.
6. Apply full throttle and adjust the stick so that you keep your Super Decathlon BL headed directly into the wind.

7. If the battery is fully charged, you should be able to lift off the ground in approximately 30-40 feet. As you notice the back of the plane beginning to lift a bit off the ground, apply some “up” elevator by pulling back on the stick. Do not give too much “up” elevator, or you can cause the airplane to enter into a stall.

## Step 14 – Flying

1. After launching, your Super Decathlon BL will climb at full throttle. Keep the throttle full on until you have reached an altitude of about 50 feet. At this same time, make sure that you are continuing to keep the airplane directed into the wind.
2. Make right and left adjustments as necessary to keep the plane headed directly into the wind. After you have reached 50 feet of altitude, you can begin to make the directional changes you desire.
3. **Remember—control range is 2,500 feet.** Do not allow the plane to get too far away from you. When the plane is further away in the air, it is harder to see and the winds are stronger as well.
4. Always keep the plane upwind from you. This way, the airplane will not be carried away from you by the wind.
5. Flying in too much wind is by far the number one reason for those who are inexperienced to crash or have flyaways.
6. Avoid holding the stick full right or left for more than two seconds, as this will cause the plane to enter a spiral and could threaten your Super Decathlon BL.
7. Do not try to climb too fast by pulling all the way back on the elevator stick, or your plane may enter into a stall. Instead, climb by applying throttle and giving small amounts of elevator.
8. Damage/bends to the wings or tail can greatly affect flight control. Replace the damaged parts immediately.



## Step 14 – Flying (continued)

### Sharp Turns

In order to make a sharper turn, move the stick in the desired direction and add some up elevator (pull back on the elevator stick). The plane will make a sharper banking turn.

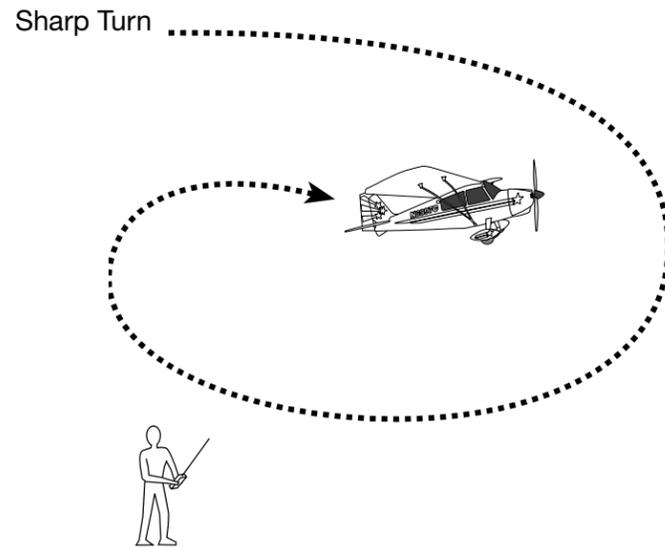
**Note:** *With the throttle set at low or off (gliding), the plane will not turn as fast as when you are flying at or near full throttle.*

### Rudder Trim

If the model wants to constantly turn to one direction, use the trim lever to correct (see drawing). Your Super Decathlon BL should fly straight with the control stick at neutral.

### Elevator Trim

If your Super Decathlon BL wants to go up or down, use the trim lever located at the left of the stick to correct (see drawing). The model should fly straight with the control stick at neutral and should have a steady, shallow climb at full throttle.



## Step 15 – Throttle Adjustment

1. Climb to an altitude of 100 feet or more with full throttle.
2. To achieve and maintain a level “cruising” altitude, reduce the power by moving the throttle down to approximately 50%. The throttle is proportional, so you can add or reduce throttle in small increments as needed to maintain the altitude that you desire.
3. To reduce altitude, reduce throttle.
4. To increase altitude, increase throttle.

## Step 16 – Using Elevator

Your Super Decathlon BL is equipped with a third channel for elevator (pitch control). Pulling back on the stick provides up elevator. This allows for shorter takeoffs, better flares for landing, better climb rates and more effective turns. Pulling too far back on the elevator to climb too quickly will result in the airplane entering a stall, causing the nose to drop down.

**To avoid crashing from a stall, always maintain enough altitude to recover.**

Just after a stall has occurred, the nose of the airplane will fall and the plane will look like it is diving. To recover from a stall, simply pull back slowly on the elevator stick once your Super Decathlon BL has built up airspeed. Remember, pulling back too quickly or for too long will once again cause the airplane to enter a stall. Effectively avoiding and recovering from stalls requires experience. Always seek the help of an experienced radio control pilot if you are not familiar with pitch control. Failure to do so could result in a crash and significant damage to your airplane.

## Step 17 – Landing Your Super Decathlon BL

When you begin to notice that your Super Decathlon BL no longer climbs well under full power (normally after approximately 15 minutes), the battery is getting low and it is time to land. Bring in your Super Decathlon BL directly into the wind and toward the desired landing spot. Gradually reduce throttle (as well as giving a small amount of down elevator if you choose) to reach an altitude of approximately 10 feet. At this point, reduce even more throttle and your Super Decathlon BL should glide in softly for a landing.

**Note:** *Your Super Decathlon BL should be landed on a smooth surface (such as asphalt or concrete) so that the landing gear can work effectively. You can land in short grass, but it is less than ideal.*

**Expert Tip:** As you get better and more experienced at flying, try adding a bit of up elevator just prior to landing to “flare” the plane. With some practice, your landings should become smooth and on target.

**Warning:** *Do not attempt to catch the airplane or injury may occur. Remember, there is a spinning propeller on the front of the plane that can cause injury. Also, remember to cut power to the motor right before you land to prevent damage to the propeller.*

## Step 18 – Aerobatic Flight

Your Super Decathlon BL comes out of the box with the controls set for softer responses and at the outer holes of the control surfaces. Once you get used to the flight characteristics and want to perform more aerobatic maneuvers, you can change the amount of throw that is permitted by moving to the inner holes of the control horns.

After making any adjustments, always turn on the transmitter and center the transmitter trim levers, making sure the control surfaces are adjusted evenly.

**Note:** *By making these changes, the controls will be much more responsive. This makes the airplane much less forgiving and easier to stall. Remember, crash damage is not covered under the warranty.*

## Step 19 – Repairing Minor Damage

If you happen to crash and part of the tail or wing breaks, it can be repaired by using packing tape to cover the missing pieces. If the damage is severe, or if the wings and/or tail are bent, replace the damaged parts prior to flying again. Refer to the back of this manual for a complete list of replacement parts for your Super Decathlon BL.

## Step 20 – Programming the E-flite 10A Pro Brushless ESC

The E-flite® 10A Pro Brushless ESC controller has been designed for use in radio control aircraft and to support continuous currents of up to 10 amps when using 2-3 cell Li-Po battery packs and up to four sub-micro servos. Standard features include advance BEC and safe power arming along with programmable features such as low voltage cutoff, braking, timing and throttle input range. **The ESC has been preset for 2S Li-Po low voltage cutoff.**

Features:

- Up to 10 amps continuous current with proper air flow
- Programmable motor braking
- Safe power-arm mode prevents accidental starts
- Programmable low voltage cutoff with settings for 2-cell Li-Po (6V), 3-cell Li-Po (9V) or 70% of battery starting voltage
- Programmable throttle input range (1.1-1.9ms or Auto Select)
- Soft start
- Auto motor shutdown if signal is lost or there is interference
- Programmable timing—2 user-selectable ranges for use with a large variety of brushless motors
- Pre-wired connectors—JST on battery input and 2mm female gold bullets on motor output leads

Specifications:

- Continuous Current: 10A
- Max Burst Current: 12A (15 sec)
- Length: 30mm (1.2 in)
- Width: 17.5mm (.7 in)
- Height: 10mm (.4 in)
- Weight: 10 g (.35 oz)
- Cells: 2-3S Li-Po or 6-10 Ni-MH/Ni-Cd
- Battery Input Leads: 20 AWG with JST Connector
- Motor Output Leads: 20 AWG with 2mm Female Gold Bullet Connectors

\*\* Sub-Micro servos tested 4 at a time include E-flite S-60, and S-75, JR 241, and ParkZone 3W servo. Some other brands of servos have significantly higher current draw. Digital sub-micro servos, micro and mini-servos have higher current draw, use the 'standard servos' column. Always be sure to position the ESC for maximum airflow since cooling can significantly aid in the performance of the BEC.

Before first use, please refer to Chart A for BEC usage and input voltage/cell count guidelines. You must follow these guidelines for safe operation. If you are

## Step 20 – Programming the E-flite 10A Pro Brushless ESC (continued)

please remove the propeller to prevent any potential injury. You should always treat the motor and propeller as live and dangerous, remembering that it could start at any time, and keep any body parts, clothing and tools clear of the propeller arc. **NEVER LEAVE THE BATTERY CONNECTED WHEN NOT FLYING THE AIRCRAFT AND ALWAYS REMOVE THE BATTERY FROM THE MODEL BEFORE CHARGING AND WHEN FINISHED FLYING.**

When flying in hot weather, we recommend checking on the condition of the ESC, battery and motor after each flight, and you may want to consider letting the electronic components cool to near ambient temperature between flights.

We also recommend throttle management when running near maximum levels of current draw. It is not recommended that you fly an entire flight at full throttle. If this is done, it is possible to cause permanent damage to your motor, battery and ESC.

### Using Your 10-Amp Pro Brushless Controller:

This controller is very simple to use, and for safety, will not arm the motor until the throttle stick has been held in the Idle/OFF position for more than 1 second. The controller will indicate the soft cutoff voltage setting every time you plug the battery in by first emitting a low, long tone, to show start-up. You will then hear 2 (for 2-cell Li-Po) or 3 (for 3-cell Li-Po) medium length, mid tones to indicate the cell count (or 7 beeps if 70% Smart Cut is selected), helping you to confirm the setting before every flight.

### Connecting the ESC to the Motor:

The three wires from your motor connect to the three female gold bullet connectors on the ESC. The order of connection to the motor is not important; you can plug any motor wire into any connector. If, when you test the system, the motor runs backwards you can simply unplug and switch any two of the motor wire plugs connected to the ESC.

### Mounting the ESC:

Choose a location that has good airflow and offers good protection. The plastic case area next to the small BEC heat sink is designed to accept Velcro® or 2-sided tape. Do not cover the heat sinks as this will greatly reduce their effectiveness.

Mount the ESC with a combination of Velcro®, 2-sided foam tape, and/or tie wraps.

### Starting Your Power System:

1. Turn on your transmitter and ensure the position of the throttle stick is set to Idle/Off.

2. Plug in the flight pack to the controller and listen for the tones to indicate voltage cutoff.
3. After the controller has indicated the cell count, you will hear a series of 3 medium length rising tones to indicate the controller is armed and ready to fly.
4. When you move the throttle stick upward, the motor will run. If you continue to move the throttle stick upward to full throttle (high position), the motor will run faster. If you lower the throttle stick below the start-up position, the motor will stop running.
5. Check servo motion as part of your preflight check. It is very important you make sure linkages are free-moving with no binding.

### Entering the Programming Mode:

1. With the battery disconnected from the controller, and the transmitter turned on, first move the throttle stick to full throttle (>1.7ms) position. Leave it in this position and then connect the battery to the controller.
2. Wait for 5 seconds, and the ESC will give two sets of fast ringing tones to indicate you have successfully entered the programming mode.
3. Once you hear these tones, move the stick to center (between 1.4 and 1.6ms), and the controller will beep 1 time; this indicates menu item 1.
4. The controller will now wait 5 seconds for you to make your selection; your programming options are either full throttle (>1.7ms), or idle (<1.3ms).
5. When you have made a valid selection the control will beep once with a lower tone, and you can move the stick back to center for the next menu item (2 beeps, 3 beeps and so on). If you do not make a selection within 5 seconds, the controller will move to the next menu item.

6. Please note that if you do not need to program every menu item, you can simply exit the programming mode after you have made the required selections. You can do this by moving the throttle stick straight to idle, after making your selection, or leaving it in the idle position if you made no selection (for approximately 8 seconds), until you hear one set of 3 medium length rising tones that indicate the controller has armed the motor, or by simply unplugging the battery.

using four servos with higher current draw, or more than four servos for a quad flap option (for example), you will need to disable the BEC. If you wish to disable the BEC, you must remove the red receiver wire lead and connector from the receiver lead housing, and then insulate it properly to prevent shorting.

When operating with the BEC disabled, E-flite recommends the use of a separate, high-power, external, BEC (like the Ultimate BEC), or receiverpack and switch using the following items to ensure trouble-free operation:

1. Expert 720mAh Ni-MH 4.8V receiver battery (EXRB100), or similar
2. Expert Standard Switch (EXRA050), or similar

### PLEASE READ THESE INSTRUCTIONS IN THEIR ENTIRETY BEFORE USE

Before you connect your ESC and begin flying, take a moment to look it over. The input power side has a black (negative) and red (positive) wire along with a female JST Connector. The motor side has three, 2mm female gold bullet connectors.

The black and red wires with the female JST connector will connect to your power battery. The red wire connects to the red wire on your battery pack, the black wire to the black wire on your battery pack. If the wires are reversed, the ESC may be damaged. **YOU MUST ENSURE THAT YOU CONNECT THE BATTERY POLARITY PROPERLY TO PREVENT DAMAGE TO THE ESC.** Reversing polarity will void your warranty, so always double-check this connection. You may need to solder a male JST Connector (EFLA242) to the battery so it matches this speed control. The throttle lead connects to the throttle channel on your radio receiver. **WARNING:** For your safety, when checking the start-up function of the ESC or making programming changes,

## Step 20 – Programming the E-flite 10A Pro Brushless ESC (continued)

### Remember, when in the programming mode:

Full Throttle = Stick Up

Idle = Stick Down

The default settings (from the package) for your E-flite 10-Amp Pro ESC are as follows:

- 3S (9V) auto cutoff for Li-Po
- Brake Off
- 4-pole and greater timing (outrunner or 6-pole motors)
- Throttle input range set to Auto Select Mode (1.2ms–1.8ms)

### Programming Menu 1 – Voltage Cutoff:

Use this option to set the voltage at which the controller will shut down the motor to prevent damage to your battery, when it reaches the cutoff voltage. You will know that your battery pack has reached auto cutoff when you hear the motor “pulse” repeatedly.

1. 3S Li-Po voltage cutoff – Full Throttle
2. 2S Li-Po or Ni-Cd/Ni-MH voltage cutoff – Idle
3. 70% Smart Cut soft cutoff (See below for Smart Cut information)

**NOTE:** To access the 70% Smart Cut option, leave the stick at full throttle for 7 seconds while in menu item 1, until 7 beeps are heard, then continue through the program normally. This option will activate the soft cutoff at 70% of start-up voltage. For example, if your pack measures 10.0 volts at start-up, then the soft cut will occur at 7.0 volts. The Smart Cut option will check the start-up voltage every time you plug the battery into the controller, so beware of using partially charged packs, as the system cannot protect your Li-Po batteries if you are using Smart Cut and connect a partially charged pack.

You will know your battery pack has reached soft auto cutoff when you hear the motor “pulse” repeatedly. We recommend you land your model as soon as you hear the motor pulse (indicating the pack voltage has dropped to the cutoff voltage level) to prevent over discharge of the Li-Po battery pack and to prevent sudden power loss.

### Programming Menu 2 – Braking:

This option gives you the choice to have the ESC stop the propeller during flight (Brake on) or allow it to windmill (Brake off). Use the brake-on option for gliders.

1. Brake Off – Full Throttle (>1.7ms)
2. Brake On – Idle (<1.3ms)

### Programming Menu 3 – Timing:

Please refer to your motor instructions and specifications for an indication of the number of poles.

1. 4-pole and greater motors timing mode – Full Throttle
2. 2-pole motors timing mode – Idle

### Programming Menu 4 – Throttle Input Range:

This option is to allow for proper operation of the ESC with many different radios on the market. Most radios, and all the computer radios we have tested, work well with the auto-set option, but some radios have a wider output range, and may give a more linear response with the 1.1 to 1.9ms range. If you feel there is too much “dead” area in the stick movement near Full Throttle, try adjusting the end points in your radio, or change to the wider input range.

Be aware that if these settings are not correct, it may be impossible to arm the controller. If this happens, return the input range setting to the default auto learning setting. The auto setting option learns the minimum position of your throttle (between 1.1 and 1.3ms) and stores this value at each start-up, and then adds a value of 0.6ms for the full throttle setting.

1. Throttle Range 1.1ms to 1.9ms – Full Throttle
2. Auto Select – Idle

### Error Codes:

The controller will beep continuously if the input voltage is below the cut voltage (beep...beep...beep) when the battery is connected. Check the voltage of the battery pack to see if it is correct, or the programmed cutoff setting if the input voltage is set incorrectly for the voltage of the pack being used.

If you have trouble arming the controller (and the throttle trim has been set to minimum), enter the programming mode and try the auto setting in Programming Menu 4 to see if it helps correct your problem. If it is a computer radio, you may alternatively increase your high and low throttle ATV (endpoint) percentages.

Some systems, including many Futaba systems, may require the throttle channel to be “reversed” for proper operation.

## Success Tips

1. **Don't fly in winds over 7 mph.** First-time pilots should get help from an experienced radio control pilot during first flights.
2. Choose your flying field carefully—grass and soft ground with 600-foot diameter of open space is optimal for flying and will lengthen the life of the Super Decathlon BL. Make sure there are no obstacles that will get in your way when flying, such as trees or buildings. Make sure you do not fly where there are pedestrians who could be hurt by the airplane.
3. Remember that holding the stick full over for too long can cause the airplane to spiral dive and crash. At the very first sign of the Super Decathlon BL beginning to spiral down, immediately release the stick and give the opposite turn control to the spiral, then pull back on the elevator gently to level flight and level the wings.
4. Don't attempt to fly or do maneuvers beyond your flying abilities without seeking the assistance of an experienced pilot.
5. If you're gliding with the motor off, allow the Super Decathlon BL more area for turns.
6. Position yourself at your flying field to keep the sun at your back and out of your eyes. Wear sun-glasses on bright days.
7. Keep the Super Decathlon BL upwind, especially on windier days, to prevent it from “flying away.” The wind is normally stronger at higher altitudes than it is on the ground.
8. Keep your plane in front of you so you don't have to turn in circles as you fly. Try to avoid flying directly overhead.

## Warnings and Safety

1. Read and follow this manual completely, observing all instructions and safety directions. Otherwise, serious injury and damage can occur. Think safety first.
2. Keep propeller away from body parts, even when it isn't spinning, as it could be turned on by accident. Beware of hair becoming entangled in the propeller, especially while launching the Super Decathlon BL.
3. Do not fly when it's too windy or you may lose control and crash, causing injury or damage. Never fly near people, vehicles, train tracks, buildings, power lines, water, hard surfaces or trees. Never allow any one to attempt to catch the airplane while it's in flight or serious injury can result.
4. Adult supervision is recommended for ages 14 and under.
5. Battery charging: Only use a battery charger intended for use with the flight battery. Never leave charger unattended while charging. This will help prevent overcharging. While charging, place the battery on a heat resistant surface. Do not lay it on carpet or upholstery while charging.
6. Never cut into the battery charger or airplane wires or serious injury can occur. Causing the battery to “short out” (crossing negative and positive bare wires) can cause fire, serious injury and damage.
7. Hold the plane securely, and keep all body parts away from the propeller when the flight battery is plugged in. When you finish flying the Super Decathlon, always unplug the battery before you turn off the transmitter.
8. Never fly on the same frequency as another RC aircraft in your area. The frequency of the Super Decathlon BL is shown on stickers on the back of the transmitter.

### Warning

Though your ParkZone Super Decathlon BL comes ready to fly, this aircraft is for experienced RC pilots only and is not a toy. It can cause serious bodily harm and damage to property.

### FCC Statement

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.

## Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
Unit does not operate	<ol style="list-style-type: none"> <li>1. Transmitter AA batteries are depleted or installed incorrectly, indicated by a dim or unlit LED on transmitter or the low battery alarm.</li> <li>2. No electrical connection.</li> <li>3. Flight battery not charged.</li> <li>4. Crash has damaged the radio inside.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check polarity installation or replace with fresh AA batteries.</li> <li>2. Push connectors together until they click.</li> <li>3. Charge battery fully.</li> <li>4. Replace the fuselage or receiver.</li> </ol>
Aircraft keeps turning in one direction	<ol style="list-style-type: none"> <li>1. Rudder or rudder trim is not adjusted correctly.</li> <li>2. Wing is not centered over the fuselage.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust rudder and/or rudder trim.</li> <li>2. Center wing prior to each flight.</li> </ol>
Aircraft is difficult to control	<ol style="list-style-type: none"> <li>1. Wing or tail is damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace damaged part.</li> </ol>
Aircraft will not climb	<ol style="list-style-type: none"> <li>1. Battery is not fully charged.</li> <li>2. Elevator trim may be incorrect.</li> </ol>	<ol style="list-style-type: none"> <li>1. Charge battery fully shortly before flying.</li> <li>2. Adjust elevator trim.</li> </ol>
Aircraft keeps pitching up steeply	<ol style="list-style-type: none"> <li>1. Wind is too gusty or strong.</li> </ol>	<ol style="list-style-type: none"> <li>1. Postpone flying until the wind calms down.</li> </ol>

## Warranty

### 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:

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

(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 goods 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).

### Safety Precautions:

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

### Questions, Assistance, and Repairs:

Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the Product has been started, you must contact Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please direct your email to [productsupport@horizonhobby.com](mailto:productsupport@horizonhobby.com), or call 877.504.0233 toll free to speak to a service technician.

### Inspection or Repairs:

If this Product needs to be inspected or repaired, please call for a Return Merchandise Authorization (RMA). 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. A Service Repair Request is available at [www.horizonhobby.com](http://www.horizonhobby.com) on the "Support" tab. If you do not have internet access, please include a letter with your complete name, street address, email address and phone number where you can be reached during business days, your RMA number, a list of the included items, method of payment for any non-warranty expenses and a brief summary of the problem. Your original sales receipt must also be

## Warranty (continued)

included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

### Warranty Inspection and Repairs:

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

### Non-Warranty Repairs:

Should your repair not be covered by warranty the repair will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost. By submitting the item for repair you are agreeing to payment of the repair without notification. Repair estimates are available upon request. You must include this request with your repair. Non-warranty repair estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Please advise us of your preferred method of payment. Horizon accepts money orders and cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards. If you choose to pay by credit card, please include your credit card number and expiration date. Any repair left unpaid or unclaimed after 90 days will be considered abandoned and will be disposed of accordingly. Please note: non-warranty repair is only available on electronics and model engines.

### United States:

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Service Center  
4105 Fieldstone Road  
Champaign, Illinois 61822

All other products requiring warranty inspection or repair should be shipped to the following address:

Horizon Support Team  
4105 Fieldstone Road  
Champaign, Illinois 61822

Please call 877-504-0233 or e-mail us at [productsupport@horizonhobby.com](mailto:productsupport@horizonhobby.com) with any questions or concerns regarding this product or warranty.

### United Kingdom

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Hobby UK  
Units 1-4 Ployters Rd  
Staple Tye  
Harlow, Essex  
CM18 7NS  
United Kingdom

Please call +44 1279 641 097 or e-mail us at [sales@horizonhobby.co.uk](mailto:sales@horizonhobby.co.uk) with any questions or concerns regarding this product or warranty.

### Germany

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Technischer Service  
Otto Hahn Str. 9a  
25337 Elmshorn  
Germany

Please call +49 4121 46199 66 or e-mail us at [service@horizonhobby.de](mailto:service@horizonhobby.de) with any questions or concerns regarding this product or warranty.

## Replacement Parts

Make sure that you keep your Vapor flying. Replacement parts are available at your local hobby store or from Horizon Hobby ([www.horizonhobby.com](http://www.horizonhobby.com)). Please try your local hobby store first. By supporting them, they will be there when you need them.

Item #	Description
PKZ1013	Prop Adapter & Spinner Set
PKZ1014	Propeller (8.25 x 5.5)
PKZ1032	7.4V 800mAh Li-Po Battery
PKZ1041	2S DC Li-Po Balancing Charger
PKZ1771	Ch. 1 Tx (ZX10) 26.995
PKZ1772	Ch. 2 Tx (ZX10) 27.045
PKZ1773	Ch. 3 Tx (ZX10) 27.095
PKZ1774	Ch. 4 Tx (ZX10) 27.145
PKZ1775	Ch. 5 Tx (ZX10) 27.195
PKZ1776	Ch. 6 Tx (ZX10) 27.255
PKZ1751	Ch. 1 Rx (ZX10) 26.995
PKZ1752	Ch. 2 Rx (ZX10) 27.045
PKZ1753	Ch. 3 Rx (ZX10) 27.095
PKZ1754	Ch. 4 Rx (ZX10) 27.145
PKZ1755	Ch. 5 Rx (ZX10) 27.195
PKZ1756	Ch. 6 Rx (ZX10) 27.255
PKZ4516	PKZ 370 Outrunner BL motor
PKZ4518	Motor Shaft: PKZ 370 Outrunner
PKZ4802	Decal Sheet: Decathlon BL
PKZ4806	Landing Gear w/Tires: Decathlon BL
PKZ4808	2 Wing Hold Down Rods: Decathlon BL
PKZ4810	Yellow Rubber Bands (5): Decathlon BL
PKZ4812	Battery Door w/Latch: Decathlon BL
PKZ4814	Firewall w/Screws: Decathlon BL
PKZ4820	Standard Wing: Decathlon BL
PKZ4822	Wing Struts w/Screws: Decathlon BL
PKZ4824	Complete Tail w/Accessories: Decathlon BL
PKZ4826	Cowl: Decathlon BL
PKZ4867	Bare Fuselage: Decathlon BL
EFLA1010	E-flite(R) 10A Pro Brushless ESC

## Option Parts

Item #	Description
SPM6600	DX6I 6-Channel Full Range Radio
SPM6100	AR6100 DSM2 6-Channel Microlite Receiver
SPMP300	Spektrum Neck Strap
SPM9525	Spektrum 1500mAh AA (4) NiMH
SPM9526	Spektrum Wall Charger 150mA w/Tx Adapter

Register your product and receive ParkZone updates at [www.parkzone.com](http://www.parkzone.com)