Always keep a safe distance in all directions around your model to avoid collisions or injury. This model is controlled by a radio signal subject to interference from many sources outside your control. Interference can cause momentary loss of control.

Always operate your model in open spaces away from full-size vehicles, traffic and people.

Always carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.).

Always keep all chemicals, small parts and anything electrical out of the reach of children.

Always avoid water exposure to all equipment not specifically designed and protected for this purpose. Moisture causes damage to electronics.

Never place any portion of the model in your mouth as it could cause serious injury or even death.

Never operate your model with low transmitter batteries.

Always keep aircraft in sight and under control.

Always move the throttle fully down at rotor strike.

Always use fully charged batteries.

Always keep transmitter powered on while aircraft is powered.

Always remove batteries before disassembly.

Always keep moving parts clean.

Always keep parts dry.

Always let parts cool after use before touching.

Always remove batteries after use.

Never operate aircraft with damaged wiring.

Never touch moving parts.
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Specifications

<table>
<thead>
<tr>
<th></th>
<th>Length</th>
<th>Main Rotor Diameter</th>
<th>Tail Rotor Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>200mm</td>
<td>197mm</td>
<td>40mm</td>
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<table>
<thead>
<tr>
<th>Components</th>
<th>RTF</th>
<th>BNF</th>
</tr>
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<tbody>
<tr>
<td>Airframe</td>
<td>Blade Nano S2</td>
<td>Included</td>
</tr>
<tr>
<td>Motors</td>
<td>Brushed</td>
<td>Installed</td>
</tr>
<tr>
<td>Flybarless Unit</td>
<td>3-in-1 Control Unit with SAFE® technology</td>
<td>Installed</td>
</tr>
<tr>
<td>Battery</td>
<td>150mAh 1S 3.7V 45C Li-Po Battery</td>
<td>Included</td>
</tr>
<tr>
<td>Charger</td>
<td>1S USB Li-Po Charger, 300mA</td>
<td>Included</td>
</tr>
<tr>
<td>Transmitter</td>
<td>DSM2®/DSMX® Compatible Transmitter</td>
<td>MLP6DSM</td>
</tr>
<tr>
<td>Transmitter Batteries</td>
<td>4 AA</td>
<td>Included</td>
</tr>
</tbody>
</table>

Box Contents

- Blade Nano S2
- 150mAh 1S 3.7V 45C Li-Po Battery (EFLB1501S45)
- 1S USB Li-Po Charger, 300mA (EFLC1008)
- MLP6DSM Transmitter (RTF Only)
- 4 AA Batteries (RTF Only)

Visit www.bladehelis.com to register your helicopter.
The Battery Charger (EFLC1008) included with your hovercraft has been designed to safely charge the Li-Po battery.

**WARNING:** Failure to exercise caution while using this product and comply with the following warnings could result in product malfunction, electrical issues, excessive heat, FIRE, and ultimately injury and property damage.

- **NEVER LEAVE CHARGING BATTERIES UNATTENDED.**
- **NEVER CHARGE BATTERIES OVERNIGHT.**
- Never attempt to charge dead, damaged or wet battery packs.
- Never attempt to charge a battery pack containing different types of batteries.
- Never allow children under 14 years of age to charge battery packs.
- Never charge batteries in extremely hot or cold places or place in direct sunlight.
- Never charge a battery if the cable has been pinched or shorted.
- Never connect the charger if the power cable has been pinched or shorted.
- Never attempt to dismantle the charger or use a damaged charger.
- Always use only rechargeable batteries designed for use with this type of charger.
- Always inspect the battery before charging.
- Always keep the battery away from any material that could be affected by heat.

**USB Charging Warnings**

Always monitor the charging area and have a fire extinguisher available at all times.

- Always end the charging process if the battery becomes hot to the touch or starts to change form (swell) during the charge process.
- Always connect the positive leads (+) and negative leads (−) correctly.
- Always disconnect the battery after charging, and let the charger cool between charges.
- Always charge in a well-ventilated area.
- Always terminate all processes and contact Horizon Hobby if the product malfunctions.
- Charge only rechargeable batteries. Charging non-rechargeable batteries may cause the batteries to burst, resulting in injury to persons and/or damage to property.
- The USB outlet shall be installed near the equipment and shall be easily accessible.

**Battery Charging**

Your aircraft comes with a 1S 3.7V DC Li-Po battery charger and 1S 3.7V 150mAh 45C Li-Po battery. Refer to the charging warnings. It is recommended to charge the battery pack while you are inspecting the aircraft. The flight battery will be required to confirm proper aircraft operation in future steps.

**NOTICE:** 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.

1. Insert the charger into a USB port. The charger only uses power from the USB port, it will not connect to your computer. USB power supplies, such as those used to charge cellular phones, can also be used.
2. Slide the battery into the slot on the charger and press it into the charge jack/connector located at the bottom of the slot. The end cap of the battery is specifically designed to allow the battery to fit into the slot one way (usually with the label on the battery facing outward) to prevent reverse polarity connection, however, check for proper alignment and polarity.
3. Always disconnect the flight battery from the charger immediately upon completion of charging.

**CAUTION:** Once charging is complete, immediately remove the battery. Never leave a battery connected to the charger.

**LED Indications**

When you make the connection successfully, the LED on the charger turns solid red, indicating charging has begun. Charging a fully discharged (not over-discharged) 150mAh battery takes approximately 30–40 minutes. The light goes out when the charge is complete.

- **Solid Red:** Charging
- **OFF:** Max Charge

**CAUTION:** If at any time during the charge process the battery pack becomes hot or begins to puff, disconnect the battery immediately and discontinue the charge process as batteries can cause fire, collateral damage and injuries.
**TRANSMITTER SETUP TABLE (BNF)**

### DX6i

<table>
<thead>
<tr>
<th>SETUP LIST</th>
<th>TRAVEL ADJ LIST</th>
<th>D/R &amp; Expo</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model Type</strong></td>
<td>HELI</td>
<td><strong>Channel</strong></td>
</tr>
<tr>
<td><strong>Swash Type</strong></td>
<td>1 servo 90</td>
<td><strong>THRO</strong></td>
</tr>
<tr>
<td><strong>Reverse</strong></td>
<td></td>
<td><strong>AILE</strong></td>
</tr>
<tr>
<td><strong>D/R &amp; Expo</strong></td>
<td></td>
<td><strong>ELEV</strong></td>
</tr>
<tr>
<td><strong>Channel</strong></td>
<td></td>
<td><strong>RUDD</strong></td>
</tr>
<tr>
<td><strong>Direction</strong></td>
<td></td>
<td><strong>GYRO</strong></td>
</tr>
<tr>
<td><strong>Switch Pos</strong></td>
<td></td>
<td><strong>PITC</strong></td>
</tr>
</tbody>
</table>

**Modulation Type**
- AUTO DSMX-ENABLE

**D/R COMBI**
- D/R SW: AILE

**Timer**
- Down Timer: 4:00
- Switch: THR CUT

### Panic Mode Operation
- Gyro Switch: Pos 0 = Panic Mode Off, Pos 1 = Panic Mode On

### DX7s, DX8

<table>
<thead>
<tr>
<th>SYSTEM SETUP</th>
<th>FUNCTION LIST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model Type</strong></td>
<td>HELI</td>
</tr>
<tr>
<td><strong>Swash Type</strong></td>
<td>1 servo</td>
</tr>
<tr>
<td><strong>F-Mode Setup</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Flight Mode</strong></td>
<td>F Mode</td>
</tr>
<tr>
<td><strong>Hold</strong></td>
<td>Hold</td>
</tr>
<tr>
<td><strong>SW Select</strong></td>
<td></td>
</tr>
<tr>
<td>Trainer</td>
<td>Aux 2</td>
</tr>
<tr>
<td>F Mode</td>
<td>Gear</td>
</tr>
<tr>
<td>Gyro</td>
<td>INH</td>
</tr>
<tr>
<td>Mix</td>
<td>INH</td>
</tr>
<tr>
<td>Hold</td>
<td>INH</td>
</tr>
<tr>
<td>Knob</td>
<td>INH</td>
</tr>
<tr>
<td><strong>Frame Rate</strong></td>
<td>22ms</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mixing</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Panic Mode Operation**
- Trainer/Bind Button Pressed = Panic Mode On
- Released = Panic Mode Off

---

**PANIC MODE OPERATION**
- GYRO SWITCH: Pos 0 = Panic Mode Off, Pos 1 = Panic Mode On
**Channel Assign**

<table>
<thead>
<tr>
<th>Channel</th>
<th>Assigned to</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Throttle</td>
<td>Throttle</td>
</tr>
<tr>
<td>2 Aileron</td>
<td>Aileron</td>
</tr>
<tr>
<td>3 Elevator</td>
<td>Elevator</td>
</tr>
<tr>
<td>4 Rudder</td>
<td>Rudder</td>
</tr>
<tr>
<td>5 Gear</td>
<td>Switch B</td>
</tr>
<tr>
<td>6 AUX 1</td>
<td>INH</td>
</tr>
<tr>
<td>7 AUX 2</td>
<td>INH</td>
</tr>
</tbody>
</table>

**Mixing**

<table>
<thead>
<tr>
<th>Channel</th>
<th>Assigned to</th>
</tr>
</thead>
<tbody>
<tr>
<td>GER -&gt; GER</td>
<td></td>
</tr>
</tbody>
</table>

**Frame Rate**

- 22ms
- DSMX

---

**Model Type** HELI

**Swash Type** Normal

**F-Mode Setup**

<table>
<thead>
<tr>
<th>Switch 1</th>
<th>Switch B</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Hold Switch</th>
<th>Switch H</th>
</tr>
</thead>
</table>

**F-Mode Setup**

<table>
<thead>
<tr>
<th>Switch 1</th>
<th>Switch B</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Switch 2</th>
<th>Inhibit</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Hold Switch</th>
<th>Switch H</th>
</tr>
</thead>
</table>

**Model Type** HELI

**Swash Type** Normal

**F-Mode Setup**

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<thead>
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<th>Switch B</th>
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<table>
<thead>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Hold Switch</th>
<th>Switch H</th>
</tr>
</thead>
</table>

**Model Type** HELI

**Swash Type** Normal

**F-Mode Setup**

<table>
<thead>
<tr>
<th>Switch 1</th>
<th>Switch B</th>
</tr>
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</table>

<table>
<thead>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Hold Switch</th>
<th>Switch H</th>
</tr>
</thead>
</table>

**Model Type** HELI

**Swash Type** Normal

**F-Mode Setup**

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<tr>
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<th>Switch H</th>
</tr>
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</table>

**Model Type** HELI

**Swash Type** Normal

**F-Mode Setup**

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<table>
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<tr>
<th>Hold Switch</th>
<th>Switch H</th>
</tr>
</thead>
</table>

**Model Type** HELI

**Swash Type** Normal

**F-Mode Setup**

<table>
<thead>
<tr>
<th>Switch 1</th>
<th>Switch B</th>
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<th>Inhibit</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Hold Switch</th>
<th>Switch H</th>
</tr>
</thead>
</table>

**Model Type** HELI

**Swash Type** Normal

**F-Mode Setup**

<table>
<thead>
<tr>
<th>Switch 1</th>
<th>Switch B</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Switch 2</th>
<th>Inhibit</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Hold Switch</th>
<th>Switch H</th>
</tr>
</thead>
</table>

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**Function List**

**Throttle Curve**

<table>
<thead>
<tr>
<th>Channel</th>
<th>Assigned to</th>
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</thead>
</table>

**Pitch Curve**

<table>
<thead>
<tr>
<th>Channel</th>
<th>Assigned to</th>
</tr>
</thead>
</table>

**Timer**

- Mode: Count Down
- Time: 4:00
- Start: Throttle Out
- Over: 25%
- One Time: Inhibit
1. Lower the throttle and throttle trim to the lowest settings.
2. Power on the transmitter.
3. Install the flight battery in the battery holder. Connect the battery cable to the 3-in-1 control unit.

**NOTICE:** Do not allow the helicopter to move until the blue LED on the 3-in-1 control unit is solid.

**NOTICE:** Always disconnect the Li-Po battery from the 3-in-1 control unit of the aircraft when not flying. Failure to do so may result in over discharge.

### Installing the Flight Battery

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

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mode 1</strong></td>
<td>Aileron <em>(Left/Right)</em></td>
<td>Throttle <em>(Up/Down)</em></td>
<td>Aileron Trim</td>
<td>Rudder Trim</td>
<td>Elevator Trim</td>
</tr>
<tr>
<td><strong>Mode 2</strong></td>
<td>Aileron <em>(Left/Right)</em></td>
<td>Elevator <em>(Up/Down)</em></td>
<td>Aileron Trim</td>
<td>Rudder Trim</td>
<td>Throttle Trim</td>
</tr>
</tbody>
</table>

### Dual Rate Selection

The control sensitivity can be changed by pressing and releasing the right control stick. The LED on the transmitter will show solid for high sensitivity (default) and flashing for low sensitivity.

---

**Transmitter Control (RTF)**

---

- **Flight mode switch**
- **Bind switch**
- **Panic Recovery**
- **Dual rate switch**
- **Power LED/flight mode indicator**

---

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

If you purchased an RTF model, the transmitter is bound to the model at the factory. If for any reason you need to re-bind your Nano S2 to the MLP6DSM, follow the directions below:

**Binding Procedure for the MLP6DSM (RTF)**

1. Disconnect the flight battery from the helicopter.
2. Power off the transmitter and move all switches to the 0 position.
3. Connect the flight battery to the helicopter. The 3-in-1 Control unit LED flashes after 5 seconds.
4. Push and hold the bind/panic button/trigger and hold the rudder control stick to full left while powering on the transmitter.
5. Release the bind/panic button/trigger. Continue to hold the rudder control stick to full left until the LED on the 3-in-1 control unit is solid.
6. Release the rudder control stick.
7. Disconnect the flight battery and power the transmitter off.

**NOTICE:** If the swashplate moves up and down when the trainer switch is moved, the helicopter is in computer transmitter mode. Repeat the binding procedure.

To bind your Nano S2 to your chosen transmitter, follow the directions below:

**Binding Procedure for Computer Radios (BNF)**

1. Disconnect the flight battery from the helicopter.
2. Power off the transmitter and move all switches to the 0 position.
3. Connect the flight battery to the helicopter. The 3-in-1 Control unit LED flashes after 5 seconds.
4. Push the bind switch/button while powering on the transmitter.
5. After 2–3 seconds, release the bind switch/button.
6. Move the rudder control stick to full right. Continue to hold the rudder control stick to full right until the blue LED on the 3-in-1 control unit is solid.
7. Release the rudder control stick.
8. Disconnect the flight battery and power the transmitter off.

**NOTICE:** The throttle will not arm if the transmitter’s throttle control is not put at the lowest position and the stunt mode switch is not in the 0 position.

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

**Control Tests**

Ensure the throttle hold is ON when doing the direction control tests. Test the controls prior to the first flight to ensure the servos, linkages and parts operate correctly. If the controls do not react as shown in the illustrations below, confirm the transmitter is programmed correctly.
Understanding the Primary Flight Controls

If you are not familiar with the controls of your Nano S2, take a few minutes to familiarize yourself with them before attempting your first flight.
Flight Modes

The Nano S2 RTF comes with the Blade MLP6DSM transmitter. This transmitter has a flight mode switch that lets the pilot change among the following flight modes.

**Throttle Hold (switch position 0)**
Throttle hold is used to turn off the helicopter motors if the helicopter is out of control, in danger of crashing or both. Activate throttle hold anytime the helicopter is in danger to reduce the chance of damaging the helicopter in a crash.

**Stability Mode Z (switch position 1)**
- Stability Mode is typically preferred by pilots with less experience flying collective pitch helicopters.
- The helicopter will limit the bank angle, even with full control input, and return the aircraft to a level flight attitude when the controls are released.
- The yaw rate is slowed for ease of control.
- The Panic Recovery button returns the helicopter to upright, level attitude.
- The throttle mode is normal.
  Low throttle stick position = 0% throttle.
- The helicopter uses the stability sensor to help control ascent and descent rates.

**3D Mode (switch position 2)**
- 3D Mode is intended for pilots with experience with collective pitch helicopters.
- The model will NOT return to a level attitude position when you release the controls.
- The helicopter has no bank angle limit.
- Both the cyclic and yaw controls are at fast, aerobatic rate.
- The Panic Recovery button returns the helicopter to a level attitude, either upright or inverted, whichever is closer.
- The throttle mode is “Idle up.” The motor remains at a constant speed, regardless of the throttle stick position. The throttle stick controls the pitch of the main rotor blades.

If you choose to use a computer radio, programmed as shown in the Transmitter Setup Table section, the flight mode switch gives the pilot the choice between the following flight modes:

**Stability Mode Z (switch position 0)** as previously described.

**Stability Mode (switch position 1)**
- Stability Mode shares the same characteristics as Sability Z mode but without the stability sensor to help control the ascent and descent rates.

**3D Mode (switch position 2)** as previously described.

Activate **Throttle Hold** with the **Hold switch**.
Flying the Nano S2

Consult your local laws and ordinances before choosing a location to fly your aircraft. We recommend flying your aircraft outside in calm winds or inside a large gymnasium. 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.

It is best to fly from a smooth flat surface as this will allow the model to slide without tipping over. Keep the helicopter approximately 2 ft (600mm) above the ground. Keep the tail pointed toward you during initial flights to keep the control orientation consistent. Releasing the stick in Beginner Mode will allow the helicopter to level itself and activating the Panic Recovery button will level the helicopter quickly. If you become disoriented while in Beginner Mode, slowly lower the throttle stick to land softly. During initial flights, only attempt takeoff, landing and hovering in one spot.

Takeoff

Place the model onto a flat, level surface free of obstacles and walk back 30 feet (10 meters). Slowly increase the throttle until the model is approximately 2 ft. (600mm) off the ground and check the trim so the model flies as desired. Once the trim is adjusted, begin flying the model.

Hovering

Making small corrections on the transmitter, try to hold the helicopter in one spot. If flying in calm winds, the model should require almost no corrective inputs. After moving the cyclic stick and returning it to center the model should level itself. The model may continue to move due to inertia. Move the cycle stick in the opposite direction to stop the movement.

After you become comfortable hovering, you can progress into flying the model to different locations, keeping the tail pointed towards you at all times. You can also ascend and descend using the throttle stick. Once you’re comfortable with these maneuvers, you can attempt flying with the tail in different orientations. It is important to keep in mind that the flight control inputs will rotate with the helicopter, so always try to picture the control inputs relative to the nose of the helicopter. For example, forward will always drop the nose of the helicopter.
## Troubleshooting Guide

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helicopter will not initialize</td>
<td>Throttle at high position</td>
<td>Reset controls with throttle stick and throttle trim at center or lowest setting</td>
</tr>
<tr>
<td></td>
<td>Switches not in normal position</td>
<td>Set flight mode to OFF/0 and exit throttle hold</td>
</tr>
<tr>
<td></td>
<td>Pitch or throttle servo reversing improperly configured</td>
<td>Reset servo reversing Refer to “Programming your Transmitter”</td>
</tr>
<tr>
<td>Helicopter will not spool up</td>
<td>Throttle hold on</td>
<td>Turn off HOLD with throttle low and trim centered or low. Refer to “Throttle Hold”</td>
</tr>
<tr>
<td></td>
<td>Low battery voltage</td>
<td>Completely recharge flight battery</td>
</tr>
<tr>
<td>Motor power decreases during flight</td>
<td>Receiver uses default soft Low Voltage Cutoff (LVC)</td>
<td>Recharge the flight battery or replace if the battery performance is poor</td>
</tr>
<tr>
<td>Cannot turn off throttle hold</td>
<td>Stunt Mode switch still on</td>
<td>Set flight mode to OFF/0 and exit throttle hold</td>
</tr>
<tr>
<td></td>
<td>Throttle not at low position</td>
<td>Reset controls with throttle stick and throttle trim at center or lowest setting</td>
</tr>
<tr>
<td>Powers off when flying upside down (inverted)</td>
<td>Flight mode is set to Beginner Mode</td>
<td>Switch the flight mode switch to Intermediate or Experienced Mode before flying inverted</td>
</tr>
<tr>
<td>Will not bind properly to non-computer radio</td>
<td>Helicopter binds differently to non-computer radios</td>
<td>Release bind button/ switch after applying left rudder. Do not hold the bind button/ switch after applying left rudder</td>
</tr>
<tr>
<td>Poor tail authority</td>
<td>Tail boom is cracked</td>
<td>Replace tail boom</td>
</tr>
<tr>
<td></td>
<td>The tail rotor blade is warped or bent</td>
<td>Twist rotor blade back into position or replace</td>
</tr>
<tr>
<td>Climb out rate is greatly reduced</td>
<td>Main gear has slipped on the main shaft</td>
<td>Push main gear back into position</td>
</tr>
</tbody>
</table>

### Low Voltage Cutoff (LVC)

LVC decreases the power to the motors when the battery voltage gets low. When the motor power decreases and the red LED on the ESC flashes, land the aircraft immediately and recharge the flight battery. LVC does not prevent the battery from over-discharge during storage.

**NOTICE:** Repeated flying to LVC will damage the battery.

### Landing

To land, slowly decrease the throttle while in a low-level hover. After landing, disconnect and remove the battery from the aircraft after use to prevent trickle discharge. Fully charge your battery before storing it. During storage, make sure the battery charge does not fall below 3V per cell.
<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED on receiver flashes rapidly and aircraft will not bind to transmitter (during binding)</td>
<td>Transmitter is too near aircraft during binding process</td>
<td>Power off transmitter, move transmitter a larger distance from aircraft, disconnect and reconnect flight battery to aircraft and follow binding instructions</td>
</tr>
<tr>
<td></td>
<td>Bind switch or button was not held while transmitter was powered on</td>
<td>Power off transmitter and repeat bind process</td>
</tr>
<tr>
<td></td>
<td>Aircraft or transmitter is too close to large metal object, wireless source or another transmitter</td>
<td>Move aircraft and transmitter to another location and attempt binding again</td>
</tr>
<tr>
<td>LED on receiver flashes rapidly and aircraft will not respond to transmitter (after binding)</td>
<td>Less than a 5-second wait between first powering on transmitter and connecting flight battery to aircraft</td>
<td>Leaving transmitter on, disconnect and reconnect flight battery to aircraft</td>
</tr>
<tr>
<td></td>
<td>Aircraft is bound to a different model memory (ModelMatch™ radios only)</td>
<td>Select correct model memory on transmitter and disconnect and reconnect flight battery to aircraft</td>
</tr>
<tr>
<td></td>
<td>Flight battery/transmitter battery charge is too low</td>
<td>Replace/recharge batteries</td>
</tr>
<tr>
<td></td>
<td>Transmitter may have been bound to a different model (or with a different DSM® Protocol)</td>
<td>Select the right transmitter or bind to the new one</td>
</tr>
<tr>
<td></td>
<td>Aircraft or transmitter is too close to large metal object, wireless source or another transmitter</td>
<td>Move aircraft and transmitter to another location and attempt connecting again</td>
</tr>
<tr>
<td>Helicopter vibrates or shakes in flight</td>
<td>Damaged rotor blades, spindle or blade grips</td>
<td>Check main rotor blades and blade grips for cracks or chips. Replace damaged parts. Replace bent spindle</td>
</tr>
</tbody>
</table>

Drift Calibration

The helicopter has been calibrated in the factory before shipment, but it is possible that a crash will cause mechanical distortion of the frame, resulting in a slight drift in Stability mode. In this situation, please follow the calibration procedure.

Before beginning the calibration procedure, fully charge the flight battery and ensure the helicopter and transmitter are bound properly, per the binding instructions.

To calibrate the Blade Nano S2:

1. After initialization, move the transmitter sticks to the bottom, outside corners, as shown in the illustration.

   ![Diagram](image)

When the red and blue LEDs on the main control board flash slowly, calibration mode is active.

2. Release the sticks.

3. Slowly advance the throttle to bring the helicopter into a low hover. The red and blue LEDs flash rapidly to indicate the calibration process has begun. Hold the hover for approximately 15 seconds, using as little control input as possible to keep the helicopter steady.

4. Land the helicopter by slowly lowering the throttle.

5. After Landing, press the bind/panic button to complete the calibration process. The LED will show solid blue.
<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BLH1301 Nano S2 Main board</td>
</tr>
<tr>
<td>2</td>
<td>BLH2402 nCP S Main motor</td>
</tr>
<tr>
<td>3</td>
<td>BLH1302 Nano S2 Main plastic frame</td>
</tr>
<tr>
<td>4</td>
<td>BLH1304 Nano S2 Tail Fin</td>
</tr>
<tr>
<td>5</td>
<td>SPMH2027L DSV40LBC-35 Servo *1</td>
</tr>
<tr>
<td>6</td>
<td>SPMH2028L DSV40LBC-50 Servo *2</td>
</tr>
<tr>
<td>7</td>
<td>BLH1303 Nano S2 Canopy</td>
</tr>
<tr>
<td>8</td>
<td>BLH2406 nCP S Tail Boom</td>
</tr>
<tr>
<td>9</td>
<td>BLH3603 Tail Rotor</td>
</tr>
<tr>
<td>10</td>
<td>EFLH3004 Landing Skid &amp; Battery mount</td>
</tr>
<tr>
<td>11</td>
<td>BLH3306 Main Gear</td>
</tr>
<tr>
<td>12</td>
<td>BLH3307 Carbon Fiber Main Shaft with Collar &amp; Hardware</td>
</tr>
<tr>
<td>13</td>
<td>BLH3308 Servo Pushrod set with Ball Links</td>
</tr>
<tr>
<td>14</td>
<td>BLH3309 Complete Precision Swashplate</td>
</tr>
<tr>
<td>15</td>
<td>BLH1305 Main Rotor Blade Set: Nano S2</td>
</tr>
<tr>
<td>16</td>
<td>BLH3312 Main Rotor Hub with Hardware</td>
</tr>
<tr>
<td>17</td>
<td>BLH3313 Feathering Spindle with O-rings and Hardware</td>
</tr>
<tr>
<td>18</td>
<td>BLH3314 Main Blade Grips with Bearings</td>
</tr>
<tr>
<td>19</td>
<td>BLH3315 2 x 5 x 2 Bearings (2)</td>
</tr>
<tr>
<td>20</td>
<td>BLH3322 Rotor Head Linkage Set (4)</td>
</tr>
<tr>
<td>21</td>
<td>EFLB1501S4S 1-Cell 3.7V 45C LiPo Battery</td>
</tr>
<tr>
<td>22</td>
<td>BLH3324 Spindle Tool Set</td>
</tr>
<tr>
<td>BLH3323 Hardware Set</td>
<td></td>
</tr>
<tr>
<td>EFLC1008 1s USB LiPo charger, 300mAh</td>
<td></td>
</tr>
<tr>
<td>SPM6836 Replacement Servo Mechanics</td>
<td></td>
</tr>
<tr>
<td>EFLRMLP6H MLP6DSM Heli SAFE transmitter</td>
<td></td>
</tr>
<tr>
<td>BLH3021 Canopy Mounting Grommets (8)</td>
<td></td>
</tr>
<tr>
<td>BLH2507 Bearing m2.5x6x1.8 Apache AH-64</td>
<td></td>
</tr>
<tr>
<td>BLH2508 Bearing m2.5x6x2.5 Apache AH-64</td>
<td></td>
</tr>
</tbody>
</table>

### Optional Parts

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DX6i DSMX 6-Channel Transmitter Only</td>
<td></td>
</tr>
<tr>
<td>DX7s DSMX 7-Channel Transmitter Only</td>
<td></td>
</tr>
<tr>
<td>DX6 DSMX 6-Channel Transmitter Only</td>
<td></td>
</tr>
<tr>
<td>DX7 DSMX 7-Channel Transmitter Only</td>
<td></td>
</tr>
<tr>
<td>DX8 DSMX 8-Channel Transmitter Only</td>
<td></td>
</tr>
<tr>
<td>DX9 DSMX 9-Channel Transmitter Only</td>
<td></td>
</tr>
<tr>
<td>DX18 DSMX 18-Channel Transmitter Only</td>
<td></td>
</tr>
</tbody>
</table>
Limited Warranty

What this Warranty Covers
Horizon Hobby, LLC, (Horizon) warrants to the original purchaser that the product purchased (the "Product") will be free from defects in materials and workmanship at the date of purchase.

What is Not Covered
This warranty is not transferable and does not cover (i) cosmetic damage, (ii) damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or due to improper use, installation, operation or maintenance, (iii) modification of or to any part of the Product, (iv) attempted service by anyone other than a Horizon Hobby authorized service center, (v) Product not purchased from an authorized Horizon dealer, (vi) Product not compliant with applicable technical regulations, or (vii) use that violates any applicable laws, rules, or regulations.

OTHER THAN THE EXPRESS WARRANTY ABOVE, HORIZON MAKES NO OTHER WARRANTY OR REPRESENTATION, AND HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

Purchaser's Remedy
Horizon's sole obligation and purchaser's sole and exclusive remedy shall be that Horizon will, at its option, either (i) service, or (ii) replace, any Product determined by Horizon to be defective. Horizon reserves the right to inspect any and all Product(s) involved in a warranty claim. Service or replacement decisions are at the sole discretion of Horizon. Proof of purchase is required for all warranty claims. SERVICE OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY.

Limitation of Liability
HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY, REGARDLESS OF WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF HORIZON HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability. If you as the purchaser or user are not prepared to accept the liability associated with the use of the Product, purchaser is advised to return the Product immediately in new and unused condition to the place of purchase.

Law
These terms are governed by Illinois law (without regard to conflict of law principals). This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Horizon reserves the right to change or modify this warranty at any time without notice.

WARRANTY SERVICES
Questions, Assistance, and Services
Your local hobby store and/or place of purchase cannot provide warranty support or service. Once assembly, setup or use of the Product has been started, you must contact your local distributor or Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please visit our website at www.horizonhobby.com, submit a Product Support Inquiry, or call the toll free telephone number referenced in the Warranty and Service Contact Information section to speak with a Product Support representative.

Inspection or Services
If this Product needs to be inspected or serviced and is compliant in the country you live and use the Product in, please use the Horizon Online Service Request submission process found on our website or call Horizon to obtain a Return Merchandise Authorization (RMA) number. Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon is not responsible for merchandise until it arrives and is accepted at our facility. An Online Service Request is available at http://www.horizonhobby.com/content/_service-center_render-service-center. If you do not have internet access, please contact Horizon Product Support to obtain a RMA number along with instructions for submitting your product for service. When calling Horizon, you will be asked to provide your complete name, street address, email
Warranty and Service Contact Information

Warranty Requirements
For Warranty consideration, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be serviced or replaced free of charge. Service or replacement decisions are at the sole discretion of Horizon.

Non-Warranty Service
Should your service not be covered by warranty, service will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost. By submitting the item for service you are agreeing to payment of the service without notification. Service estimates are available upon request. You must include this request with your item submitted for service. Non-warranty service estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Horizon accepts money orders and cashier’s checks, as well as Visa, MasterCard, American Express, and Discover cards. By submitting any item to Horizon for service, you are agreeing to Horizon’s Terms and Conditions found on our website http://www.horizonhobby.com/content/_service-center_render-service-center.

ATTENTION: Horizon service is limited to Product compliant in the country of use and ownership. If received, a non-compliant Product will not be serviced. Further, the sender will be responsible for arranging return shipment of the un-serviced Product, through a carrier of the sender’s choice and at the sender’s expense. Horizon will hold non-compliant Product for a period of 60 days from notification, after which it will be discarded.

Warranty and Service Contact Information

<table>
<thead>
<tr>
<th>Country of Purchase</th>
<th>Horizon Hobby</th>
<th>Contact Information</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>Horizon Service Center (Repairs and Repair Requests)</td>
<td>servicecenter.horizonhobby.com/RequestForm/</td>
<td>2904 Research Rd Champaign, Illinois 61822 USA</td>
</tr>
<tr>
<td></td>
<td>Horizon Product Support (Product Technical Assistance)</td>
<td><a href="mailto:productsupport@horizonhobby.com">productsupport@horizonhobby.com</a> 877-504-0233</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sales</td>
<td><a href="mailto:websales@horizonhobby.com">websales@horizonhobby.com</a> 800-338-4639</td>
<td></td>
</tr>
<tr>
<td>EU</td>
<td>Horizon Technischer Service</td>
<td><a href="mailto:service@horizonhobby.eu">service@horizonhobby.eu</a></td>
<td>Hanskampring 9 D 22885 Barsbüttel, Germany</td>
</tr>
<tr>
<td></td>
<td>Sales: Horizon Hobby GmbH</td>
<td>+49 (0) 4121 2655 100</td>
<td></td>
</tr>
</tbody>
</table>

NOTICE: Do not ship Li-Po batteries to Horizon. If you have any issue with a Li-Po battery, please contact the appropriate Horizon Product Support office.
FCC Information

FCC ID: BRWDXMTX10
FCC ID: BRWBLH1301

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

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.

NOTICE: Modifications to this product will void the user's authority to operate this 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.

IC Information

IC ID: 6175A-BRWDXMT
IC ID: 6175A-BLH1301

This device complies with Industry Canada license-exempt RSS standard(s). 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.

Compliance Information for the European Union

EU Compliance Statement:

Horizon Hobby, LLC hereby declares that this product is in compliance with the essential requirements and other relevant provisions of the RED and EMC Directives.

A copy of the EU Declaration of Conformity is available online at: http://www.horizonhobby.com/content/support-render-compliance.

Instructions for disposal of WEEE by users in the European Union

This product must not be disposed of with other waste. Instead, it is the user’s responsibility to dispose of their waste equipment by handing it over to a designated collections point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or where you purchased the product.

E328