

# Micro Attack

**RC** Helicopter





### **INSTRUCTION MANUAL**

MMATAKB190914E

### **Safety Precautions**



**CHOKING HAZARD** - Small parts, keep out of reach of small children.



- Keep hands, hair and loose clothing away from the rotors when the power switch is turned on.
- Always lift off from a flat surface. Never hold the flying helicopter in your hand when lifting off.

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- Stay away from electrical hazards.
- Keep your helicopter within line of sight if line of sight to the controller is lost, you may lose control
  of the helicopter.
- Turn off the controller and helicopter when not in use.
- Read and obey all warnings and safety guidelines in this manual.

#### **Battery Safety Information**

- Controller requires 6 x 1.5V AA alkaline batteries (not included).
- Installing/Replacing batteries must be undertaken by a competent adult.
- Do not mix new and old batteries or types of batteries (i.e. alkaline/standard).

#### **LiPo Battery Information**

The helicopter is equipped with a Lithium Polymer • battery. This battery type is light and powerful as their chemistry is based on lithium, a light and extremely • volatile metal. The battery must be disposed of responsibly. •

- Never completely exhaust the battery. When the helicopter starts to lose power, turn it off and charge it as soon as practicable.
- Never charge battery unattended.
- Charge battery in an isolated, controlled environment. Keep far away from flammable materials.



the running rotors or fly over someone's head.

- The supplied USB charger is specifically designed to charge the LiPo battery. Never use other charging equipment.
- The helicopter is not intended for use by children under fourteen (14) years old. Adult supervision is required at all times.
- Regularly examine for any damage to the plugs, enclosure, rotors and other parts. Replace any damaged or loose parts before attempting to fly.
- Promptly remove exhausted batteries. Battery leakage and corrosion can damage the controller. Dispose of used batteries responsibly.
- Do not expose to direct sunlight; there is a risk that the battery may overheat, ignite and/or explode.
- Do not disassemble, modify, heat, or short circuit.
- Do not subject it to strong impacts.
- Do not allow the battery to get wet.
- Only charge the battery with the supplied charging equipment. Using other charging equipment will void your warranty, may damage the battery and poses a risk of fire or explosion.
- In the unlikely event of leakage or explosion, use sand or a chemical fire extinguisher to extinguish the batteries.

### **Getting to know your Micro Attack**



### Getting to know your Controller



### **Preparing for Flight**





Open the charging lead compartment located on the underside of the remote control and extend the lead to charge.

- Before the helicopter can be charged, it must be switched off - make sure the ON/OFF switch is in the OFF position.
- If charging with the computer, make sure it is turned on.
- The charging plug only fits into the helicopter one way. Do not force it in.
- You'll know the helicopter is fully charged once the red indicator light glows on the USB connector. Promptly remove the charging plug once charging is complete.
- Charge time varies depending on the helicopter's battery conditions. It typically takes 45 to 60 minutes to fully charge from empty.
- It may take longer to charge the helicopter with the controller. This method relies on the controller's remaining battery power capacity.
- You do not have to fully charge the helicopter to fly. Shorter charge time will result in reduced flying time.

## **Preparing for Flight**





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Select a frequency using the band selector switch. Push the throttle stick down and aim the controller's IR transmitter at the helicopter. Move the throttle stick up then down again. Pairing is now complete.

#### **Controlling your Micro Attack**



Moving Up & Down: The helicopter moves up and down by varying the speed of its main rotors (those two big things that spin). You can control how fast these spin by using the left stick on the controller. Pushing the stick up will increase the throttle. To get good results, be gentle and subtle. Small adjustments made slowly and carefully are the best way to get the helicopter to fly well. Be careful when easing off the throttle – if the helicopter stalls it'll fall, and might not be able to recover in time, even if you jam the throttle back on.

**Forward & Backwards:** The right stick on the controller affects the helicopter's direction, kind of like the right stick on a video game controller. Pushing the right stick up will pitch the helicopter forwards. Whilst pitched in this way, the main rotors will push the helicopter along forwards. The opposite is also true – moving the right stick down will pitch the helicopter backwards and move it in reverse.

**Rotate:** To rotate the helicopter, move the right stick to either side. This will cause the main rotors to change their speeds, causing the body of the helicopter to spin on the spot. By using the right stick at different angles and positions, you can design and execute some graceful, arcing turns. On the other hand, quick thrusts of the stick in different directions can create some unique tricks or stunts. Practice makes perfect!

### **Controlling your Micro Attack**

This helicopter features counter-rotating coaxial rotors (a fancy way of saying two rotors which spin in opposite directions). If you're any kind of expert on helicopters, you'll know that this is not the same way that full-scale helicopters are usually made – they've got a uni-directional main rotors with a vertical tail rotor. We think that this coaxial design works best for these scale models because:

- It's more stable than a single rotor. Because the rotors move in opposite directions, the helicopter has less of a tendency to spin the other way.
- It is way easier to set up. There are only two trim settings to get right, as opposed to the three trim settings that are required for the more conventional helicopter design.
- More rotors mean more lift, which means an easier to fly and more manoeuvrable helicopter.

However, because the tail rotor is horizontal rather than vertical, the helicopter has a tendency to ascend whilst moving forwards, and descend whilst reversing. This isn't really a problem if you ease off on the throttle whilst moving forward and increase the throttle whilst moving backwards. You'll get a feel for it pretty quick.

### Adjusting the Trim Control

Trim (Rotation): If you find that the helicopter is turning slowly left or right when you're not using the right stick on the controller, then you'll need to adjust the trim. The trim knob is located in the centre of the controller, between and just below the primary sticks.

You'll probably have to do this every couple of flights, but it only takes a moment. Basically, the trim 'fine-tunes' the speed of the rotor blades, and will help keep the helicopter flying straight.

If the helicopter is rotating clockwise (it's turning right from the imaginary miniature pilot's perspective) then rotate the trim knob counter-clockwise.

If the helicopter is rotating counter-clockwise (turning left from the imaginary miniature pilot's perspective) then rotate the trim knob clockwise.



#### **FLYING GUIDE**

Wind: Basically, these are (approximately) 1/40th scale helicopters. Full sized helicopters can't fly in high winds – and neither can the models. If a full sized helicopter has difficulty overcoming 50mph winds, then the model will have the same difficulty with 1~2 mph winds (i.e. 1/40th as much). There's nothing that can be done about this, it's just physics.

**Air conditioning:** Hot air rises and cool air falls – this creates movement in the air, leading to an effect called "wind shear". Basically, this is when there's a column of hot air going up next to cold air going down. Many full-scale aircraft accidents have been caused by wind shear. Air conditioners create heaps of wind shear. If the helicopter flies through wind shear, it will seem to suddenly fly up or down (depending on the direction of the wind shear).

**The Ground Effect:** When the helicopter is near the ground, the air it pushes down with its rotor has nowhere to go – the ground is in the way. Some of this air bounces back, this pushes the helicopter up. When the helicopter is near the ground, it will get slightly more lift than it normally would. This is something to keep in mind when landing.

The Ceiling Effect: Conversely to the ground effect, when you fly too close to a ceiling, a small pocket of low pressure is created above the helicopter, and it will be sucked upwards. This could be bad – if you hit the ceiling, the helicopter will stall, fall and possibly be damaged.

**Places to Fly:** Because high winds can be a problem, we recommend flying indoors. However, you really do need a bit of space to get the most out of the helicopter. Some places which are good for flight include large garages (whilst the car's not parked there), indoor sports areas, aircraft hangars, secret underground submarine pens and so on (though why you'd fly a toy helicopter in your secret underground submarine pen is beyond us). Or a large lounge room with delicate items stashed somewhere out of the way - whatever you've got.

#### **TECHNICAL SUPPORT DETAILS**

#### All Countries E-mail: Telephone Helpdesk USA Toll Free USA Parts & Warranty

AUSTRALIA NEW ZEALAND Toll Free UK tech@swann.com

1-800-627-2799 1-800-627-2799 (M-F, 9am-5pm US PT) 1300 138 324 0800 479 266 0203 027 0979

#### FCC COMPLIANCE INFORMATION STATEMENT(FOR U.S.A.)

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.

**Warning**: Modifications not approved by the party responsible for compliance could void user's authority to operate the equipment.