

Protocol 6182-4R

Protocol Axis Drone (Model 6182-4R) Instruction Manual

1. INTRODUCTION

This manual provides essential information for the safe and effective operation of your Protocol Axis Drone (Model 6182-4R). Please read it thoroughly before operating the drone and retain it for future reference. The Protocol Axis Drone is designed for intermediate skill levels and utilizes radio frequency technology for control.

2. SAFETY GUIDELINES

- **Adult Supervision:** Always operate the drone under adult supervision, especially for younger users.
- **Flight Environment:** Fly in open, clear areas away from people, animals, buildings, and power lines. Avoid flying in strong winds or adverse weather conditions.
- **Propeller Safety:** Keep hands, face, and hair away from rotating propellers. Propellers can cause injury.
- **Battery Safety:** Use only the specified lithium polymer battery. Do not overcharge, puncture, or expose batteries to extreme temperatures. Dispose of batteries responsibly.
- **Visual Line of Sight:** Always maintain visual line of sight with your drone during flight.
- **Water and Moisture:** Do not expose the drone or remote control to water or moisture.
- **Pre-Flight Check:** Before each flight, ensure all components are securely attached and functioning correctly.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- Protocol Axis Drone Unit
- Remote Control (requires separate batteries, not included)
- Rechargeable Lithium Polymer Drone Battery
- USB Charging Cable
- Replacement Propellers
- Instruction Manual (this document)

4. COMPONENT IDENTIFICATION

Familiarize yourself with the various parts of your Protocol Axis Drone and its remote control.

4.1 Drone Components



Image: Top-down view of the Protocol Axis Drone. The drone features a dark grey frame with four propeller arms extending outwards. Each arm has a black propeller and a semi-circular protective guard. The central body is sleek and black with a red stripe, housing the electronics. Small warning labels are visible on the propellers.

- **Propellers:** Four rotating blades that provide lift.
- **Propeller Guards:** Protective frames around the propellers to prevent damage and injury.
- **Motor:** Powers each propeller.

- **Main Body:** Houses the battery, circuit board, and other internal components.
- **LED Indicator Lights:** Located on the drone for status indication (e.g., power, pairing, low battery).
- **Battery Compartment:** Area where the rechargeable drone battery is inserted.

4.2 Remote Control Components

- **Left Control Stick:** Typically controls throttle (up/down) and yaw (rotate left/right).
- **Right Control Stick:** Typically controls pitch (forward/backward) and roll (left/right).
- **Trim Buttons:** Used to fine-tune the drone's stability.
- **Power Button:** Turns the remote control on/off.
- **Special Function Buttons:** May include buttons for flips, headless mode, or speed settings (refer to remote markings).
- **Battery Compartment:** For installing the remote control batteries.

5. SETUP

5.1 Charging the Drone Battery

1. Remove the rechargeable lithium polymer battery from the drone.
2. Connect the drone battery to the USB charging cable.
3. Plug the USB charging cable into a USB power source (e.g., computer USB port, USB wall adapter).
4. The charging indicator light on the USB cable will illuminate during charging and turn off or change color when fully charged.
5. Charging time typically takes 60-90 minutes. Do not leave batteries unattended while charging.

5.2 Installing Remote Control Batteries

1. Open the battery compartment on the back of the remote control.
2. Insert the required number of fresh batteries (e.g., AA or AAA, typically 3-4, not included) according to the polarity indicators (+/-).
3. Close the battery compartment securely.

5.3 Installing the Drone Battery

1. Ensure the drone's power switch is in the OFF position.
2. Carefully insert the fully charged drone battery into its compartment.
3. Connect the battery connector to the drone's power port. Ensure a secure connection.
4. Close the battery compartment cover.

5.4 Propeller Installation/Replacement

If propellers are not pre-installed or need replacement:

1. Identify the correct propeller for each motor. Propellers are typically marked 'A' or 'B' and must match the corresponding motor arm.
2. Gently push the propeller onto the motor shaft until it is seated firmly. Do not force it.
3. Ensure propeller guards are securely attached to the drone frame.

6. OPERATING INSTRUCTIONS

6.1 Pairing the Drone and Remote Control

1. Place the drone on a flat, level surface.
2. Turn on the drone's power switch. The LED lights on the drone will flash.
3. Turn on the remote control.
4. Push the left control stick (throttle) all the way up, then all the way down.
5. The drone's LED lights will stop flashing and remain solid, indicating successful pairing.

6.2 Take-off and Landing

- **Manual Take-off:** After pairing, slowly push the left control stick (throttle) upwards to make the drone ascend.
- **Manual Landing:** Slowly pull the left control stick (throttle) downwards until the drone lands gently. Once landed, hold the stick down for a few seconds until the propellers stop.

6.3 Basic Flight Controls

- **Throttle (Left Stick Up/Down):** Controls altitude.
- **Yaw (Left Stick Left/Right):** Rotates the drone horizontally.
- **Pitch (Right Stick Up/Down):** Moves the drone forward or backward.
- **Roll (Right Stick Left/Right):** Moves the drone sideways (strafe left or right).

6.4 Trimming

If the drone drifts in any direction when hovering, use the trim buttons on the remote control to adjust its stability. Press the trim button opposite to the direction of drift until the drone hovers steadily.

7. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the drone and remote control. Do not use harsh chemicals or solvents.
- **Propeller Inspection:** Regularly check propellers for damage (cracks, bends). Replace damaged propellers immediately using the provided spares.
- **Battery Care:** Store batteries in a cool, dry place. Do not store fully charged or completely depleted batteries for extended periods.
- **Storage:** When not in use, store the drone and remote control in a safe, dry place away from direct sunlight and extreme temperatures.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Drone does not respond to remote.	Not paired; low remote battery; drone battery low.	Re-pair drone and remote; replace remote batteries; charge drone battery.

Problem	Possible Cause	Solution
Drone drifts during flight.	Needs trimming; uneven surface at take-off.	Adjust trim settings; ensure drone is on a level surface before take-off.
Propellers do not spin.	Drone not powered on; battery not connected; damaged motor/propeller.	Ensure drone is on; check battery connection; inspect for damage and replace parts if necessary.
Short flight time.	Battery not fully charged; old battery.	Ensure battery is fully charged; consider replacing the battery if it's old.

9. SPECIFICATIONS

- **Model Name:** Axis
- **Model Number:** 6182-4R
- **Brand:** Protocol
- **Color:** Black
- **Material:** Plastic
- **Control Type:** Remote Control
- **Connectivity Technology:** Radio Frequency
- **Skill Level:** Intermediate
- **Battery Cell Composition:** Lithium Polymer (for drone)
- **Item Weight:** Approximately 2.1 pounds (0.95 kg)
- **Package Dimensions:** 22.76 x 15.51 x 3.31 inches (57.8 x 39.4 x 8.4 cm)

10. WARRANTY AND SUPPORT

For warranty information, technical support, or replacement parts, please refer to the official Protocol website or contact their customer service directly. Keep your purchase receipt as proof of purchase.

Website: [Visit the Protocol Store on Amazon](#)