Protocol 6182-2W BI

Protocol Manta Drone User Manual

Model: 6182-2W BI

INTRODUCTION

Welcome to the Protocol Manta Drone user manual. This guide provides comprehensive instructions for the safe operation, setup, maintenance, and troubleshooting of your Protocol Manta Drone. Please read this manual thoroughly before operating the drone to ensure proper function and to prevent damage or injury.

Image: The Protocol Manta Drone, showcasing its sleek design with a grey body and yellow propellers, enclosed within protective propeller guards.

SAFETY PRECAUTIONS

Adhering to these safety guidelines is crucial for safe operation and to prevent damage to the drone or injury to individuals.

- Always operate the drone in open, clear areas, away from people, animals, and obstacles.
- Do not fly near airports, restricted airspace, or sensitive facilities.
- Ensure the battery is fully charged before each flight.

- Avoid flying in strong winds or adverse weather conditions.

- Keep fingers, hair, and loose clothing away from rotating propellers.

- Supervise children during operation.

- Do not attempt to modify or disassemble the drone or its components.

- Turn off the drone and remote control when not in use.

Package Contents

Verify that all items listed below are present in your package:

- Protocol Manta Drone

- Remote Control

- Rechargeable Battery (for drone)

- USB Charging Cable

- Spare Propellers (if included)

- User Manual (this document)

Image: The retail packaging for the Protocol Manta Drone, showing the drone and its remote control visible through the clear plastic window.

COMPONENTS OVERVIEW

Familiarize yourself with the key components of your Protocol Manta Drone and its remote control.

Drone Components:

- **Propellers:** Four rotating blades for lift and thrust.
- **Propeller Guards:** Protective frames around the propellers.
- **Main Body:** Houses the electronics and battery.
- **Landing Gear:** Provides stable landing.
- **LED Indicators:** Lights to indicate status (e.g., power, pairing, low battery).

Remote Control Components:

- **Left Stick (Throttle/Yaw):** Controls altitude and rotation.
- **Right Stick (Directional):** Controls forward, backward, left, and right movement.
- **Trim Buttons:** Adjust for stable hovering.
- **Power Button:** Turns the remote on/off.
- **Flip Button:** Initiates 360-degree flips.
- **Speed Mode Button:** Toggles between different flight speeds.

Image: Top-down view of the Protocol Manta Drone, highlighting the four propellers (two green, two black) and the central body.

SETUP

1. Charging the Drone Battery:

1. Connect the drone's rechargeable battery to the USB charging cable.
2. Plug the USB cable into a USB power source (e.g., computer USB port, USB wall adapter).
3. The indicator light on the USB cable will illuminate during charging and turn off when fully charged. Charging typically takes 60-90 minutes.
4. Do not overcharge the battery. Disconnect once charging is complete.

2. Installing Remote Control Batteries:

1. Open the battery compartment on the back of the remote control.
2. Insert 4 x "AA" batteries (not included), ensuring correct polarity (+/-).
3. Close the battery compartment securely.

3. Pairing the Drone and Remote Control:

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

OPERATING INSTRUCTIONS

Basic Flight Controls:

Control	Action
Left Stick Up/Down	Increase/Decrease Altitude (Throttle)
Left Stick Left/Right	Rotate Left/Right (Yaw)
Right Stick Up/Down	Move Forward/Backward (Pitch)
Right Stick Left/Right	Move Left/Right (Roll)

Take-off and Landing:

- **Take-off:** After pairing, slowly push the left (throttle) stick up to lift the drone off the ground.
- **Landing:** Slowly pull the left (throttle) stick down until the drone gently lands. Release the stick once landed.

Calibration:

If the drone drifts during flight, it may need calibration. Place the drone on a flat surface, then simultaneously pull both control sticks down and to the right until the LED lights flash and then become solid, indicating successful calibration.

Performing Flips:

To perform a 360-degree flip, fly the drone to a height of at least 6 feet. Press the dedicated "Flip" button on the remote control, then immediately push the right directional stick in the desired flip direction (forward, backward, left, or right).

MAINTENANCE

Cleaning:

Gently wipe the drone's body with a soft, dry cloth. Do not use harsh chemicals or immerse the drone in water.

Propeller Replacement:

If a propeller is damaged, carefully remove it by pulling it straight up from the motor shaft. Replace it with a new propeller, ensuring it is pressed firmly onto the shaft. Match the propeller type (A or B) to the corresponding motor as indicated on the drone.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Drone does not respond to remote.	Not paired; low battery (drone/remote); out of range.	Re-pair drone; charge drone battery; replace remote batteries; ensure drone is within range.
Drone drifts during flight.	Not calibrated; uneven surface at take-off; wind interference.	Perform calibration on a flat surface; avoid flying in windy conditions.
Propellers do not spin.	Obstruction; damaged motor/propeller; low battery.	Check for obstructions; replace damaged propellers; charge battery.
Short flight time.	Battery not fully charged; aging battery.	Ensure full charge; consider replacing battery if performance degrades significantly.

SPECIFICATIONS

- **Brand:** Protocol
- **Model Name:** Manta
- **Model Number:** 6182-2W BI
- **Color:** Yellow
- **Video Capture Resolution:** 1080p
- **Connectivity Technology:** USB
- **Skill Level:** Intermediate
- **Remote Control Technology:** Radio Frequency
- **Material:** Metallic armor
- **Item Weight:** 1.65 pounds
- **Package Dimensions:** 14.2 x 12.9 x 7.4 inches
- **Battery Cell Composition:** Lithium Polymer

- **UPC:** 658531618715

- **First Available:** May 8, 2014

WARRANTY AND SUPPORT

For warranty information, technical support, or replacement parts, please contact Protocol customer service. Refer to the product packaging or the official Protocol website for the most current contact details.
Website: Visit the Protocol Store on Amazon

Related Documents - 6182-2W BI

	Protocol Aero 2.0 Drone with Live Streaming Camera Instruction Manual Comprehensive instruction manual for the Protocol Aero 2.0 Drone with Live Streaming Camera, covering setup, operation, safety precautions, troubleshooting, and warranty information.
	Protocol Travel-Drone™ Pilot's Handbook and User Manual Comprehensive pilot's handbook for the Protocol Travel-Drone™. Learn about safety precautions, operation, charging, flying, stunts, troubleshooting, and warranty for your radio-controlled drone.
	Protocol Slipstream Wifi Drone with Live Streaming Camera Instruction Manual This manual provides comprehensive instructions for operating the Protocol Slipstream Wifi Drone with Live Streaming Camera, including setup, flight controls, safety precautions, and troubleshooting.
	Protocol TerraCopter EVO RC Car/Drone Instruction Manual Comprehensive instruction manual for the Protocol TerraCopter EVO RC Car/Drone, covering setup, operation, safety, and maintenance for this versatile remote-controlled vehicle.

	[Protocol Aero 2.0 R/C Drone Instruction Manual](#) This instruction manual provides detailed guidance for operating the Protocol Aero 2.0 R/C Drone, including safety precautions, setup, flight controls, troubleshooting, and maintenance. Learn how to safely fly and enjoy your drone.
	[Protocol Slipstream S RC Stunt Drone Instruction Manual](#) Comprehensive instruction manual for the Protocol Slipstream S RC Stunt Drone, covering safety, operation, troubleshooting, and maintenance for optimal flight experience.