

Autel Robotics XSPRMOR

Autel Robotics X-Star Premium Drone Instruction Manual

Model: XSPRMOR

1. INTRODUCTION

The Autel Robotics X-Star Premium is a sophisticated, easy-to-fly quadcopter designed for superb aerial imagery. It features a 4K camera with a 3-axis gimbal for crystal-clear Ultra HD videos and 12-MP photos, offering HD Live View up to 1.2 miles away. This drone is equipped with an intelligent flight control system, dual GPS and GLONASS satellite navigation, and the Starpoint Positioning System for stable flight indoors or at low altitudes. SecureFly technology enhances safety by helping the drone return home in case of magnetic interference.

2. WHAT'S IN THE BOX

Your Autel Robotics X-Star Premium Drone package includes the following components:

- X-Star Premium Drone with Gimbal-Stabilized 4K/12MP Camera
- Remote Controller
- 14.8V 4900-mAh Intelligent Battery with Charger
- 64GB Class10 MicroSD Card
- Premium Semi-hard Splash-proof Zippered Case
- 2 Sets of 4 Propellers (8 total)
- Accessory Kit
- Documentation Packet



Image: All components of the Autel Robotics X-Star Premium Drone package, including the drone, remote controller, battery, propellers, and case.

3. SETUP

3.1. Initial Preparation

Before your first flight, ensure all components are ready.

1. **Charge Batteries:** Ensure both the intelligent flight battery and the remote controller are fully charged. The intelligent battery provides up to 25 minutes of flight time. To check the battery level, short press the power button on the battery.
2. **Install Flight Battery:** Squeeze the tabs on both sides of the intelligent flight battery and insert it into the aircraft's battery slot until it clicks securely.
3. **Remove Gimbal Holder:** Carefully remove the clear plastic gimbal holder from the camera.
4. **Install Propellers:** Read the warning cards on the motors before removing them. Match the propellers with red caps to the motors with red dots and rotate them counter-clockwise to fasten. Fasten the black-capped propellers onto the remaining motors by screwing them on clockwise.



Image: The Autel Robotics X-Star Premium Drone, remote controller, and hard case, ready for setup.

3.2. Controller and App Connection

1. **Power On Remote Controller:** Ensure the flight mode is set to GPS mode. Press and hold the power button on the remote controller for 2 seconds to power it on.
2. **Connect Mobile Device:** Download the Starlink app on your mobile device (iOS or Android). Clamp your mobile device to the remote controller. For X-Star (standard), enable Wi-Fi on your mobile device and select your X-Star from the Wi-Fi list. For X-Star Premium, connect your mobile device to the controller with the provided USB cable.
3. **Launch Starlink App:** After connecting your mobile device, launch the Starlink app.

3.3. Compass Calibration

Compass calibration is crucial for accurate flight. Perform this outdoors in an open area, away from magnetic or metal objects.

1. In the Starlink app, go to **Settings > Flight Control Settings > Compass Calibration**. Tap 'Calibrate'.
2. The four LEDs on the aircraft will flash in yellow. Hold the aircraft horizontally by its arms and turn around 360 degrees until the LEDs flash green.
3. With the aircraft's nose pointing downwards, rotate another 360 degrees until the LEDs light up in solid green for 5 seconds.
4. If the LEDs light up in yellow again, repeat the calibration process.

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Video: A detailed guide on setting up the Autel Robotics X-Star Premium Drone, including battery installation, propeller attachment, controller connection, and compass calibration.

4. OPERATING THE DRONE

4.1. Powering On and Takeoff

1. **Power On Aircraft:** Press and hold the power button on the intelligent flight battery for 3 seconds.
2. **Start Motors:** On the remote controller, push both command sticks (joysticks) simultaneously either 'toe-in' (towards each other) or 'toe-out' (away from each other). Alternatively, press and hold the motor starter button.
3. **Automatic Takeoff:** Press and hold the auto takeoff and landing button for 3 seconds to command the aircraft to automatically take off and hover at an altitude of 4 meters.

4.2. Basic Flight Controls

Use the remote controller's command sticks to maneuver the drone:

- **Ascend:** Push the left command stick forward.
- **Descend:** Pull the left command stick backward.
- **Rotate Counter-clockwise:** Push the left command stick leftward.
- **Rotate Clockwise:** Push the left command stick rightward.
- **Move Forward:** Push the right command stick forward.
- **Move Backward:** Pull the right command stick backward.
- **Move Left:** Push the right command stick leftward.
- **Move Right:** Push the right command stick rightward.

4.3. Flight Modes

The X-Star Premium offers various flight modes:

- **GPS Mode:** Provides stable flight with GPS/GLONASS positioning.
- **IOC Mode (Intelligent Orientation Control):** Locks the control direction of the aircraft relative to your position.
- **ATTI Mode (Attitude Mode):** Should only be used when the GPS signal is weak.

4.4. Camera Operation

The remote controller allows for direct camera control:

- Turn the dial on the left to adjust the gimbal's pitch angle.
- Turn the dial on the right to adjust camera settings (ISO, Shutter, EV).
- Take photos with the shutter button.
- Record videos with the record button.
- Play back videos or images anytime by pressing the playback button.

4.5. Landing and Return to Home

- **Automatic Landing:** Press and hold the takeoff and landing button to land the aircraft at its current location.
- **Return to Home (RTH):** Press and hold the Go Home button to command the aircraft to return and land at its home point.
- **Pause Autopilot:** Pressing the pause button will pause the aircraft's autopilot function and keep the aircraft hovering at its current location.

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Video: Demonstrates the basic flight operations of the Autel Robotics X-Star Premium Drone, including takeoff, ascent, descent, rotation, and forward/backward movement.

5. MAINTENANCE

Regular maintenance ensures the longevity and safe operation of your X-Star Premium Drone.

- **Cleanliness:** Keep the drone, camera, and sensors clean. Use a soft, dry cloth to wipe surfaces. Avoid harsh chemicals.
- **Propeller Inspection:** Regularly check propellers for cracks, bends, or damage. Replace any damaged propellers immediately.
- **Battery Care:** Store batteries in a cool, dry place. Do not overcharge or over-discharge. Follow charging instructions carefully.
- **Firmware Updates:** Periodically check the Autel Robotics website or Starlink app for firmware updates to ensure optimal performance and access to new features.
- **Storage:** When not in use, store the drone in its premium hard case to protect it from dust and physical damage.

6. TROUBLESHOOTING

If you encounter issues with your X-Star Premium Drone, refer to the following common troubleshooting tips:

- **Drone Not Powering On:** Ensure the intelligent flight battery is fully charged and correctly inserted. Press and hold the power button for 3 seconds.
- **Remote Controller Not Connecting:** Verify the remote controller is powered on and in GPS mode. Check the mobile device connection (Wi-Fi for X-Star, USB for X-Star Premium) and ensure the Starlink app is open.
- **GPS Signal Issues:** Fly in an open area away from tall buildings, trees, or strong magnetic interference. Perform a compass calibration if prompted or if flight stability is affected.
- **Unstable Flight:** Check for damaged propellers and replace if necessary. Ensure the compass is calibrated. Verify that the gimbal holder has been removed.
- **Camera Not Recording/Taking Photos:** Check the MicroSD card for proper insertion and sufficient storage space. Ensure camera settings are correctly configured in the Starlink app.
- **App Freezes/Crashes:** Restart the Starlink app and your mobile device. Ensure your mobile device's operating system is up to date.

For further assistance, contact Autel Robotics customer support.

7. SPECIFICATIONS

Feature	Detail
Brand	Autel Robotics
Model Name	RC DRONR
Special Feature	FPV-capable, GPS, Image-stabilization, Integrated-camera

Age Range (Description)	Adult
Color	Orange
Video Capture Resolution	4K
Connectivity Technology	iOS or Android
Skill Level	Professional
Item Weight	3.2 Pounds
Video Capture Format	4K, 2.7K, 1080p, 720p
Remote Control Technology	Wi-Fi
Control Type	Remote Control
Maximum Range	1.2 Miles
Wireless Communication Technology	Wi Fi
Battery Cell Composition	Lithium Polymer
Are Batteries Included	Yes
Supported Image Format	JPEG, MP4
Video Output Resolution	4 megapixels
Remote Control Included?	Yes
Optical Sensor Technology	CMOS
Rechargeable Battery Included	Yes
UPC	889520010108 793456223085
Manufacturer	Autel Robotics USA, LLC
Product Dimensions	19.5 x 19.5 x 8.5 inches
Item model number	XSPRMOR

8. WARRANTY & SUPPORT

Your Autel Robotics X-Star Premium Drone is backed by Autel Robotics customer support, available seven days a week in the U.S.

For any questions, technical assistance, or warranty claims, please refer to the contact information provided in your Documentation Packet or visit the official Autel Robotics website.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question