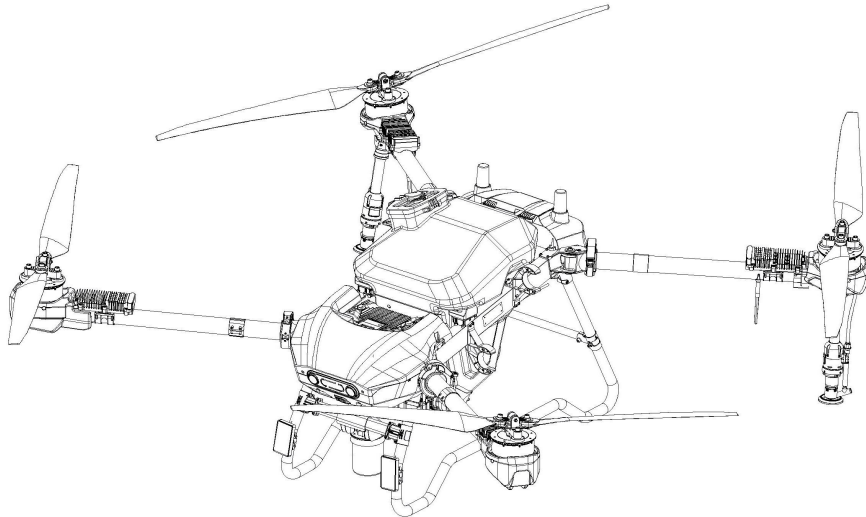




HD580 Agricultural UAV

Warranty Manual

V4.0 2025.12



Heilongjiang Huida Technology Co., Ltd.

December 2025

contents

1. Warranty Terms	1
1.1. Warranty Period Start Date	1
1.2. Warranty Period for the Complete Product	1
1.3. Warranty Period for Other, wear, and Consumable Components	2
1.4. Warranty Exclusions	4
1.5. Return and Exchange Policy	5
2. Product Maintenance Recommendations	8
2.1. Product Maintenance	8
2.2. Recommended Maintenance Intervals	10

1. Warranty Terms

1. 1. Warranty Period Start Date

The warranty period begins upon the occurrence of the first of the following three conditions:

- ◆ The product activation date.
- ◆ The first day after three calendar months (90 days) from the product delivery date.
- ◆ When the accumulated operation area reaches 10 hectares.

1. 2. Warranty Period for the Complete Product

The warranty period for the complete product unit (excluding consumables, wear parts, etc.) is covered by a one (1) year warranty.

The warranty periods for the main components are as follows (whichever comes first):

Main Components	Warranty Period
Avionics Module	12 months or 300 hours
Frame	12 months or 300 hours
Arm	12 months or 300 hours
Camera	12 months or 300 hours
Radar	12 months or 300 hours
Antenna (RTK, Video Transmission)	12 months or 300 hours
Interface Board	12 months or 300 hours
Power Distribution Board	12 months or 300 hours

Power Motor	12 months or 300 hours
Power Electronic Control	12 months or 300 hours

1. 3. Warranty Period for Other, wear, and Consumable Components

The warranty periods for the components are as follows (whichever comes first):

Flight Battery and Related Components	Warranty Period
Smart Flight Battery (Cell)	1500 cycles or 12 months
Smart Flight Battery (BMS)	18 months
Smart charger	12 months
Remote Controller Main Components	Warranty Period
Smart Remote Controller	12 months
External Battery of Remote Controller	12 months
RTK Point Marker	12 months
External Battery Charger	12 months
Wear Components	Warranty Period
Impeller Pump	3 months or 100 hours
Flow Meter	3 months or 100 hours
Centrifugal Nozzle	3 months or 80 hours
Weighing Assembly	3 months or 100 hours
Landing Gear	1 month
Tubing & Connectors	1 month
Aircraft Cables & Charger Cables	3 months
Spreader	3 months or 100 hours
Others	1 month
Consumables	Warranty Period
Propeller	15 days or 50 hours
Propeller Spacer	15 days or 50 hours

Swing Blade Clamp	15 days or 50 hours
Auger	15 days or 50 hours

Notes:

1. The warranty period for components not listed in the table is 1 month. Any quality-related issues within this period will be repaired or replaced free of charge.
2. Users must strictly follow the product User Manual for operation, storage, and maintenance.
3. When the operating speed exceeds 13.8 m/s, the product warranty period is automatically reduced by half.
4. Any user-initiated request to remove flight altitude restrictions (including modifying parameters through official channels or third-party tools) is considered a material change to the warranty terms. From the effective date of such modification, the product warranty service is automatically terminated, and the manufacturer will no longer assume any responsibility for repair, replacement, or compensation.
5. If an accident occurs during normal use of the complete unit, warranty liability determination requires a comprehensive assessment based on the warranty period of the component identified as the primary cause:
 - If the primary cause component is within its warranty period and the damage is directly related to a design or manufacturing defect, the manufacturer assumes responsibility for repair or replacement.
 - If the primary cause component is outside its warranty period, or the damage is caused by user misuse, improper operation, or external factors (e.g., collision, corrosion), it is not covered under warranty, and the user bears the cost of resolution.

1. 4. Warranty Exclusions

Warranty coverage does not apply under the following conditions:

- Damage caused by external factors rather than the product itself, such as collisions, crashes, fires, or similar incidents.
- Damage resulting from improper installation or disassembly not following the instructions in the official User Manual..
- Damage resulting from incorrect installation or misuse.
- Damage resulting from unauthorized modifications or misuse of batteries and chargers.
- Damage resulting from operation not following the instructions in the User Manual.
- Damage resulting from operation in adverse weather conditions (e.g., strong winds, sandstorms).
- Damage resulting from operation in environments with electromagnetic interference, such as mining areas, communication towers, high-voltage power lines, or substations.
- Damage resulting from operation in the presence of damaged or impaired wireless equipment (e.g., transmitters, video transmitters, Wi-Fi signals).
- Damage resulting from takeoff with a weight exceeding the safe maximum takeoff weight.
- Damage resulting from continuing flight despite a known component failure.
- Damage resulting from the use of unauthorized third-party components, resulting in stability or compatibility issues.
- Damage resulting from insufficient battery charge or the intentional use of a faulty battery.
- Damage to cosmetic or non-structural components (e.g., shell scratches, paint peeling, minor deformation) that do not affect the device's performance or flight safety, provided that core systems (flight control, propulsion, spraying, etc.) are fully functional.

- Damage resulting from operation beyond the device's performance limits (e.g., operating in areas with numerous or varied obstacles without proper obstacle planning, or relying solely on radar).

1.5. Return and Exchange Policy

Returns

Customers may contact the dealer from whom the product was purchased to request a return if the following condition is met:

- If the customer discovers a performance-related defect not caused by human damage within 7 calendar days of receiving the product.

The manufacturer or dealer reserves the right to refuse a return request under the following circumstances:

- Returns submitted more than 7 calendar days after the product has been received;
- Returned items are incomplete, including missing or damaged original packaging, accessories, gifts, or User Manual caused by human actions;
- Failure to provide valid proof of purchase or invoices for the return, or submission of forged or altered documents;
- Product defects resulting from external factors not related to product quality, including collisions, fire, unauthorized modifications, intrusion of foreign objects (e.g., water, oil, sand), improper installation, or operation not in accordance with the User Manual;
- Removal, tampering with, or alteration of labels, serial numbers, waterproof marks, anti-counterfeiting marks, or other identification markings;
- Products damaged as a result of force majeure events, including fire, flood, lightning, or traffic accidents;
- Failure to ship the product within 7 calendar days after confirming the return service with the dealer;
- Other circumstances specified in the policy.

Exchange

Customers may contact the dealer from whom the product was purchased to request an exchange if any of the following conditions is met:

- If the customer discovers damage to the product during transportation within 15 calendar days of receiving the product, a damage certificate issued by the carrier must be provided.
- If the customer discovers, within 15 calendar days of receiving the product, that the product significantly deviates from the original product description in one or more critical aspects;
- If, within 15 calendar days of receiving the product, the customer discovers a performance-related defect not caused by human damage.

The manufacturer or dealer reserves the right to refuse an exchange request under the following circumstances:

- Exchange requests submitted more than 15 calendar days after the product has been received;
- Failure to provide valid proof of purchase or invoices for the exchange, or submission of forged or altered documents;
- The replacement item is incomplete or damaged due to human error.
- The product has been inspected by Huida Technology's Technical Support Team, and no inherent quality issues were found.
- Product defects resulting from external factors not related to inherent quality issues, including collisions, fire, unauthorized modifications, intrusion of foreign substances (e.g., water, oil, sand), improper installation, or operation not in accordance with the User Manual.
- Removal, tampering with, or alteration of labels, serial numbers, waterproof marks, anti-counterfeiting marks, or other identification markings;
- Products damaged as a result of force majeure events, including fire, flood, lightning, or traffic accidents;

- After confirming the exchange service with the dealer, the item was not shipped within 7 calendar days;
- Requesting a replacement for product damage incurred during transportation, without providing a damage certificate issued by the shipping company;
- Other circumstances specified in the policy.

2. Product Maintenance Recommendations

2.1. Product Maintenance

Storage and Transportation

 **warning**

To avoid potential injury or damage, please strictly follow the instructions below:

- Keep children away from the aircraft's components, as wires and small parts may pose a hazard.
- Always remove the battery from the aircraft before transport.
- For long-term storage or long-distance transport, remove or empty the operation container, and store the aircraft in a cool, dry place.
- The aircraft should be stored in environments between -20°C and 40°C, with the operation container, flow meter, liquid pump, and hoses completely emptied of liquid.

Cleaning, Maintenance, and Care

 **warning**

To avoid potential injury or damage, please strictly follow the instructions below:

- Clean the aircraft only after it has returned to ambient temperature following daily operations. Do not clean immediately after completing a flight mission.

Fill the operation container with clean water or soapy water and spray completely. Repeat this process three times.

Remove the filter screen from the operation tank and clean it thoroughly to ensure it is free of blockages.

Clean the airframe with a soft brush or a damp cloth, then wipe dry with a clean cloth.

If sand, dust, or chemical residues are present on the motor or rotor blades, wipe the surfaces with a damp cloth, then dry thoroughly with a clean cloth.

Store the aircraft in a dry place.

- After each day of operation, wipe the remote controller and its display screen with a clean, damp cloth, then dry thoroughly.

- Every 20 flight hours or 100 takeoffs and landings:

Inspect the propeller for cracks and replace it if any are detected.

Inspect the propeller for looseness and replace the propeller and spacer if loose.

Inspect plastic and rubber parts for signs of aging.

Inspect the spray nozzle for proper atomization. If atomization is poor, thoroughly clean the nozzle's centrifugal disc, and replace it if necessary.

Clean the filter screen of the operation container.

Fill the operation container with clean water or soapy water and spray completely. Repeat this procedure three times.

- Do not repair the aircraft without authorization. If any damage occurs, contact Huida Technology's technical support team or an authorized Huida Technology agent.

Maintenance Precautions

- Keep the radar module protective cover clean. Wipe the surface with a soft, damp cloth, then allow it to air dry.

- Ensure the aircraft is powered off. Remove sand, dust, and other debris from the camera surface, then wipe with a clean, soft cloth.

- Inspect all aircraft components for signs of severe impact. If in doubt, contact Huida Technology technical support or an authorized agent.

2.2. Recommended Maintenance Intervals

The HD580 agricultural UAV requires scheduled maintenance after routine upkeep, within the specified interval—whichever occurs first of: calendar time, cumulative flight hours, or operational area.

The specific maintenance items and cycles are detailed in the table below.

Module	Component	Maintenance inspection recommendations	Recommended inspection interval	Recommended replacement interval
Consumable components	Propeller	Inspect for visible damage, wear at the hub, and looseness.	7 days/ 20 hours	12 months/ 300 hours
	Swing propeller clamp	Inspect for any visible damage or loose screws.	7 days/ 20 hours	12 months/ 300 hours
	Propeller spacer	Inspect for excessive wear	7 days/ 20 hours	3 months/ 100 hours
	Centrifugal disk assembly	Inspect the centrifugal nozzle for damage and looseness of the locking screws.	7 days/ 20 hours	12 months/ 300 hours
	Auger	Check for excessive wear	7 days/ 20 hours	12 months/ 100 hours
Airframe	Frame	Inspect front, rear, left, and right frame for cracks, damage, or structural looseness; check frame mounting	3 months/ 100 hours	24 months/ 500 hours

		screws for looseness or breakage		
	Joint	Inspect inner/outer joints and carbon tubes for cracks, damage, or structural looseness; check screws securing joints, carbon tubes, and shaft.	3 months/ 100 hours	24 months/ 500 hours
	Landing gear	Check screws securing landing gear to frame for looseness or breakage; inspect overall landing gear for deformation or severe wobble.	3 months/ 100 hours	24 months/ 500 hours
	Frame accessory	Inspect battery holder and propeller retaining bracket for severe wear or deformation; inspect frame wiring for damage, loose connectors, or deformed seals.	3 months/ 100 hours	24 months/ 500 hours
	Water	Inspect for abnormal	1 month/ 50	24 months/ 500

Operation system	pump	noise or leakage; inspect wiring connections for looseness.	hours	hours
	Flow meter	Inspect for foreign objects or leakage inside; inspect wiring for looseness or damage.	1 month/ 50 hours	24 months/ 500 hours
	Nozzle	Inspect for abnormal noise or leakage; inspect wiring connections for looseness or damage; check centrifugal disc for damage or severe wear.	7 days/ 20 hours	24 months/ 300 hours
	Weighing assembly	Inspect sensor appearance; inspect wiring for looseness or damage.	1 month/ 50 hours	24 months/ 500 hours
	Tubing & connectors	Inspect for damage or severe wear.	1 month/ 50 hours	24 months/ 500 hours
	Spreader	Inspect for abnormal noise and normal function; inspect wiring for looseness	7 days/ 20 hours	24 months/ 500 hours

		or damage.		
Sensing system	Camera	Inspect and clean for corrosion; verify power and normal function	7 days	24 months
	Radar	Inspect and clean for corrosion; verify power and normal function	1 month/ 50 hours	24 months/ 500 hours
Power system	Motor	Inspect screws for looseness; inspect motor terminals for breakage; check for misalignment or displacement; verify motor tilt; check motor bearings	1 month/ 50 hours	24 months/ 500 hours
	ESC	Inspect surface cleanliness; inspect mounting screws for looseness or breakage	1 month/ 50 hours	24 months/ 500 hours
Remote controller	Remote controller	Inspect and clean for corrosion; verify power and normal function	1 month	24 months
Charger	Charger	Inspect wiring integrity and function; inspect	1 month	24 months

		charging module fan for foreign objects		
Li-ion battery			Perform routine maintenance and scheduled upkeep according to Li-ion battery maintenance cycle.	

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