



Proprietary and Confidential

2022 T40 & T20P Repair Training

Contents

- **01** Product Introduction
- 02 Material Identification
- 03 Repair Strategy
- 04 Disassembly and Assembly Notes
- **O5** Principles Diagram and Board Introduction
- **O6 Test Plan and Fixture**
- 07 Malfunction Assessment and Analysis



01 Product Introduction



Product Name: T40/T20P Agras Drone

- Equipped with a coaxial twin-rotor design, the T40 boasts a spraying capacity of 40 kg.
- The lightweight and foldable T20P agricultural drone supports a spreading capacity of 25 kg and a spraying capacity of 20 kg.
- Equipped with dual atomization spraying system,
 DJI Terra, active phased array radar and binocular vision system, both new drones support aerial surveying and mapping functions.

01 Product Introduction — Product Comparison



- 40L Detachable Spray Tank
- Coaxial Twin-Rotor
- Active Phased Array Radar
- Dual Vision Sensors
- Weight Sensor (real-time remaining liquid amount)
- Single Point Liquid Level Gauge (Makes alert when tank is empty)
- Ultra HD Camera and Adjustable Gimbal Angle
- IPX6K (resist water jets of extremely high pressure)
- Dual Centrifugal Atomization Nozzle
- Magnetic Drive Impeller Pump
- Agricultural Application Scenarios such as Precision Spraying, Spreading, Aerial Surveying, and Mapping



T30

- 30L Fixed Spray Tank
- Spherical Omnidirectional Radar System
- Continuous Liquid Level Gauge (with real-time pesticide load detection and intelligent supply-point prediction)
- Dual FPV Cameras for Real-Time Monitoring
- IP67 Rating
- High-Pressure Nozzle
- Plunger Pump

01 Product Introduction — Product Comparison



T20P

- 20L Detachable Spray Tank
- Active Phased Array Radar
- Dual Vision Sensors
- Weight Sensor (real-time remaining liquid amount)
- Single Point Liquid Level Gauge (Makes alert when tank is empty)
- Ultra HD Camera and Adjustable Gimbal Angle
- IPX6K (resist water jets of extremely high pressure)
- Dual Centrifugal Atomization Nozzle
- Magnetic Drive Impeller Pump
- Agricultural Application Scenarios such as Precision Spraying, Spreading, Aerial Surveying, and Mapping



T10

- 10L Detachable Spray Tank
- Spherical Omnidirectional Radar System
- Single Point Liquid Level Gauge (Makes alert when tank is empty)
- Dual FPV Cameras for Real-Time Monitoring
- IP67 Rating
- High-Pressure Nozzle
- Diaphragm Pump

01 Product Introduction — Specifications

		T40	Т30
Features	Hourly Work Efficiency	57 acres	40 acres
	Total Weight (without batteries)	38 kg	26.3 kg
	Maximum Take-off Weight	90 kg (near sea level)	76.5 kg (near sea level)
	Maximum Rotor Distance	2160 mm	2145 mm
Drone Parameters	Dimensions		$0.2,858~\text{mm}\times2,685~\text{mm}\times790~\text{mm}$ (with arms and blades unfolded) $2,030~\text{mm}\times1,866~\text{mm}\times790~\text{mm}$ (with arms unfolded and blades folded) $1,170~\text{mm}\times670~\text{mm}\times857~\text{mm}$ (with arms folded)
	Hovering Precision (with good GNSS signal)	With D-RTK enabled: ± 10 cm (horizontal) and ± 10 cm (vertical) With D-RTK disabled: ± 0.6 m (horizontal) and ± 0.3 m (vertical) (with the radar function enabled: ± 0.1 m)	With D-RTK enabled: ± 10 cm (horizontal) and ± 10 cm (vertical) With D-RTK disabled: ± 0.6 m (horizontal) and ± 0.3 m (vertical) (with the radar function enabled: ± 0.1 m)
	Hovering Endurance	18.5 min (@30,000 mAh & takeoff weight of 50 kg) 7.5 min (@30,000 mAh & takeoff weight of 90 kg)	20.5 min (@29,000 mAh & takeoff weight of 36.5 kg) 7.8 min (@29,000 mAh & takeoff weight of 66.5 kg)
	Stator Size	100×33 mm	100×18 mm
Dower System	Maximum Power	4000 W/rotor	3600 W/rotor
Power System	Propeller Diameter	54 inch	38 inch
	Rotor Quantity	8	6
Operation Tank	Operation Tank Volume	40L at full load	30L at full load
Operation rank	Operation Load	40 kg at full load	30 kg at full load
	Nozzle Model	LX8060SZ: 12 L/min	SX11001VS (standard): 7.2 L/min SX110015VS (optional) 8 L/min Fruit tree drones: TX-VK04 (optional): 3.6 L/min
Nozzloc	Nozzle Quantity:	2	16
Nozzles	Atomized Particle Size	50 - 300 μm	SX11001VS: 130 - 250 μm SX110015VS: 170 - 265 μm TX-VK4: 110 - 135 μm
	Maximum Effective Spray Width	11 m (with a distance of 2.5 meters to crops)	4-9 m (with 12 nozzles and a distance of 1.5 to 3 meters to crops)
Water Division	Model	Magnetic Drive Impeller Pump	Plunger Pump
Water Pump	Maximum Flow	6 L/min x 2	4L/min ×1

01 Product Introduction — Specifications

		T20P	T10
Features	Hourly Work Efficiency	30 acres	15 acres
	Total Weight (without batteries)	25.2 kg	13 kg
	Maximum Take-off Weight	51 kg (near sea level)	26.8 kg (near sea level)
	Maximum Rotor Distance	2192 mm	1480 mm
Drone Parameters	Dimensions	2,800 mm \times 3,120 mm \times 640 mm (with arms and blades unfolded) 1,560 mm \times 1,910 mm \times 640 mm (with arms unfolded and blades folded) 1,087 mm \times 620 mm \times 685 mm (with arms folded)	1,958 mm \times 1,833 mm \times 553 mm (with arms and blades unfolded) 1,232 mm \times 1,112 mm \times 553 mm (with arms unfolded and blades folded) 600 mm \times 665 mm \times 580 mm (with arms folded)
	Hovering Precision (with good GNSS signal)	With D-RTK enabled: ± 10 cm (horizontal) and ± 10 cm (vertical) With D-RTK disabled: ± 0.6 m (horizontal) and ± 0.3 m (vertical) (with the radar function enabled: ± 0.1 m)	With D-RTK enabled: ± 10 cm (horizontal) and ± 10 cm (vertical) With D-RTK disabled: ± 0.6 m (horizontal) and ± 0.3 m (vertical) (with the radar function enabled: ± 0.1 m)
	Hovering Endurance	16 min (@13,000 mAh & takeoff weight of 31 kg) 7.5 min (@13,000 mAh & takeoff weight of 51 kg)	19 min (@9500 mAh & takeoff weight of 16.8 kg) 8.7 min (@9500 mAh & takeoff weight of 26.8 kg)
	Stator Size	100×33 mm	100×10 mm
Dower System	Maximum Power	4000 W/rotor	2000 W/rotor
Power System	Propeller Diameter	54 inch	33 inch
	Rotor Quantity	4	4
Operation Tank	Operation Tank Volume	20L at full load	10L at full load
Operation rank	Operation Load	20 kg at full load	10 kg at full load
	Nozzle Model	LX8060SZ: 12 L/min	SX11001VS (standard): 1.8 L/min SX110015VS (optional): 2.4 L/min XR11002VS (optional): 3 L/min
	Nozzle Quantity:	2	4
Nozzles	Atomized Particle Size	50 - 300 μm	SX11001VS: 130 - 250 μm SX110015VS: 170 - 265 μm XR11002VS: 190 - 300 μm
	Maximum Effective Spray Width	7 m (with a distance of 2.5 meters to crops)	3-5.5 m (with 4 nozzles and a distance of 1.5 to 3 meters to crops)
Water Pump	Model	Magnetic Drive Impeller Pump	Diaphragm Pump
water rump	Maximum Flow	6 L/min x 2	1.5 L/min x 1

01 Product Introduction - Specifications

		T40/T20P	T30/T10
	Model	RD2484R	RD2424R
	Height Hold and Terrain Following	Height Measurement Range: 1 - 45 m Height Hold Range: 1.5 - 30 m Maximum Slope in Mountain Mode: 45 °	Height Measurement Range: 1 - 30 m Height Hold Range: 1.5 - 15 m Maximum Slope in Mountain Mode: 35 °
Omnidirectional Obstacle Avoidance Radar	Perceivable distance: 1.5 - 30 m FOV: 360° (horizontal), ±45° (vertical Conditions of use: The relative flight height of the drone is above 1.5 the speed below 10 m/s Safe distance: 2.5 m (the distance between the of the blade and the obstacle after the drone is braked and hovering some Obstacle avoidance direction: Horizontally omnidirectional obstacle avoidance Perceivable distance: 1.5 - 30 m FOV: 45° Conditions of use relative distance between the aircraft and the obstacle above is greated 1.5 m during takeoff, landing, and ascending. Safe distance: 2.5 m (the distance between the top of the aircraft and the obstacle after the drop braked and hovering stably) Obstacle avoidance direction: Above the aircraft		$\pm 15^{\circ}$ (vertical) Conditions of use: The relative flight height of the drone is above 1.5 m and the speed below 7 m/s. Safe distance: 2.5 m (the distance between the tip of the
	Model	RD2484B	RD2414U
Backward Radar (T40/T20P) Upward Radar (T30/T10)	Obstacle Avoidance System	Perceivable distance: 1.5 -30 m FOV: Horizontal: ±60°, vertical: ±25° Conditions of use: The relative distance between the aircraft and the obstacle behind is greater than 1.5 m during takeoff, landing, and ascending Safe distance: 2.5 m (the distance between the tip of the blade and the obstacle after the drone is braked and hovering stably) Obstacle avoidance direction: Behind the aircraft Perceivable distance: 1-45 m FOV: 45° Conditions of use: The relative distance between the aircraft and the obstacle below is 2-10 m during landing. Safe distance: 1.5 m (the distance between the bottom of the aircraft and the obstacle after the drone is braked and hovering stably) Obstacle avoidance direction: Below the aircraft	Perceivable distance: 1.5 - 10 m FOV: 80° Conditions of use: The relative distance between the aircraft and the obstacle above is greater than 1.5 m during takeoff, landing and ascending. Safe distance: 2 m (the distance between the top of the aircraft and the obstacle after the drone is braked and hovering stably) Obstacle avoidance direction: Above the aircraft
	Measurement Range:	0.4 - 25 m	
Dual Vision Systems	Effective Sensing Speed:		
, ,	FOV:	Horizontal: 90°, Vertical: 106°	
	Operating Environment:	Surface with a clear pattern and adequate lighting	

01 Product Introduction — Material Recording (Repair)

Material Name Picture SN Position and Form SN Position: Outside the aluminum tube of the middle frame T40 Form: Sticker



T20P

SN Position: Outside the aluminum tube of the middle frame

Form: Sticker





02 Material Identification — T40/T20P Universal Materials









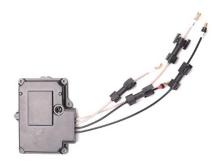
Forward Vision Sensor Module



Omnidirectional Radar Module



Backward Radar Module



RF Module



Aerial-Electronics System Module



Spraying System Module



10033 Propulsion Motor



Auxiliary Light Module



ESC Module



RTK Antenna Module



Load Sensor Module

02 Material Identification — T40/T20P Universal Materials









Impeller Pump



Centrifugal Spray Rod



Liquid Level Gauge



Liquid Level Gauge Sensor Module



Spraying Adapter Module

02 Material Identification — Specific Materials





Power Distribution Board Module



Cable Distribution Board Module

T40 Specific Materials



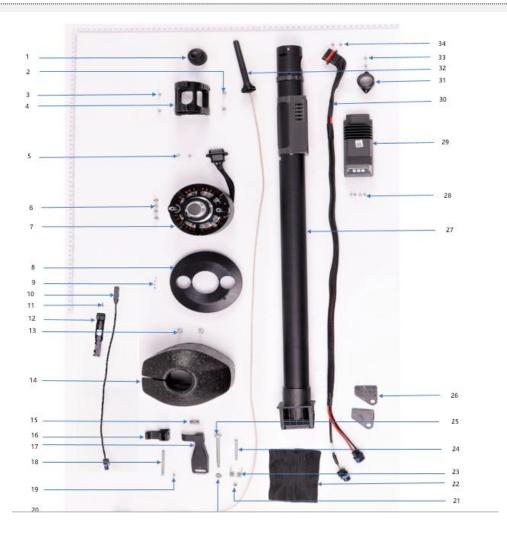
Power Distribution Board Module



Cable Distribution Board Module

T20P Specific Materials

02 Material Identification — BOM



Note: For more details, refer to the corresponding Product Material Information Compilation.

No.	物料编码/Material Nur	Material Name	15			
1	YC.JG.ZS002416	SDR Protective Sleeve	ĺ			
2	YC.WJ.LL000232	M40-HC01000100-072028-5103-N_01				
3	YC.JG.LD000032	Motor Locating Pin				
4	YC.JG.QX002037	Motor Fixing Base	Ÿ.			
5	YC.WJ.L00870	Screw M30-HC060060-55-85	į			
6	YC.ST.LL000148	M40-HC01400140-070039-4105-Y	[
7	BC.AG.SS000566	10033 Propulsion Motor				
8	YC.JG.ZS002379	Motor Upper Cover	Y-			
9	YC.ST.LL000208	M20-TC00700060-033010-0004-Y	Ï			
10	YC.XC.XX000834	Aircraft Arm In-Position Detector Signal Cab	le			
11	YC.WJ.L01213	Screw T25-HC080080-45-21				
12	YC.JG.ZS001306	On-Site Measurement Bracket	W.			
13	YC.WJ.LL000213	M30-HT01930060-110025-5103-Y				
14	YC.JG.FP000019	Motor Cover	1			
15	YC.JG.QX001243	Locking Piece_Handle Connecting Rod Shaft	200			
16	YC.JG.MY000353	Locking Piece_Handle Rubber Sleeve	37			
17	BC.AG.SS000605	Locking Piece Handle				
18	YC.JG.QX001242	Locking Piece_Connecting Rod				
19	YC.WJ.L00871	Screw M30-HC100100-55-85				
20	YC.ST.LM000030	Screw M50-HN080070-0003	Y.			
21	YC.WJ.L00961	M4 Stainless Locknut	Ï			
22	FL.SC.BB000001	Acetate Fabric				
23	YC.JG.TT000095	Locking Piece Spring				
24	YC.JG.LD000023	Left and Right Locking Piece Screw Bolt	7			
25	YC.JG.LD000026	Aircraft Arm Fixing Screw Bolt				
26	YC.JG.ZS002324	Aircraft Arm Friction Plate				
27	BC.AG.SS000571	M1 Aircraft Arm (Front Right)				
28	YC.WJ.L00870	Screw M30-HC060060-55-85	S.			
29	BC.AG.SS000563	ESC Module				
30	YC.XC.XS000014	M1&M2 Aircraft Arm ESC Composite Cable				
31	YC.JG.ZS002291	Spray Lance Fixing Base				
32	YC.DZ.AA000275	SDR Antenna	1			
33	YC.WJ.L00871	Screw M30-HC100100-55-85				
34	YC.ST.LL000122	Screw M25-HC00780040-040020-5108-N				



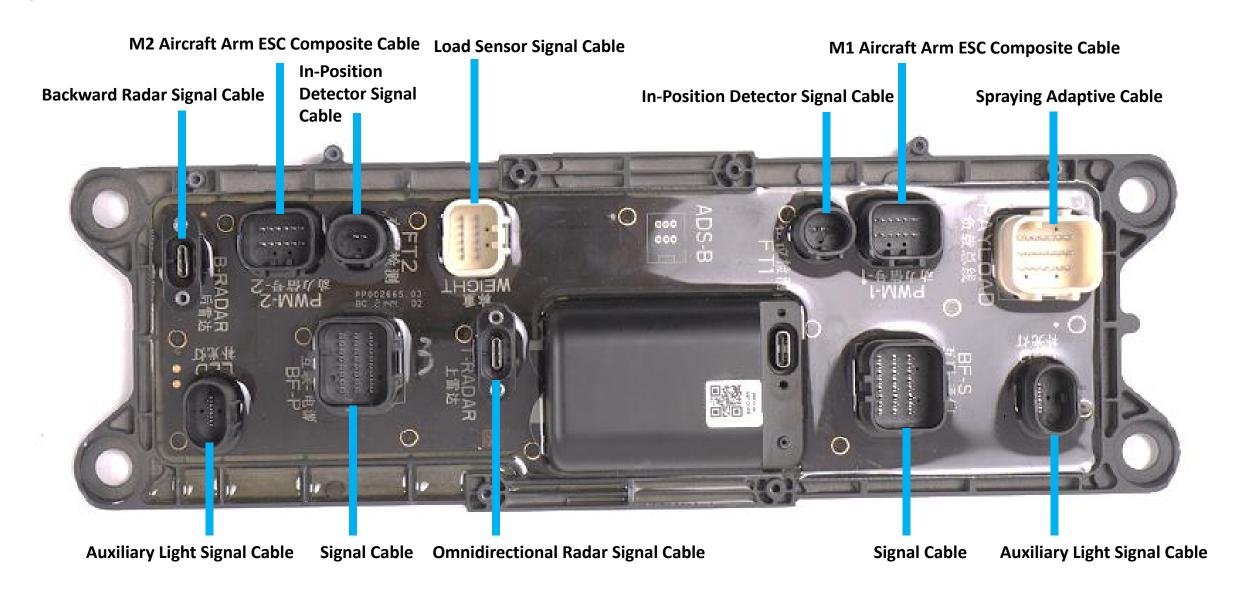


03 Repair Strategy

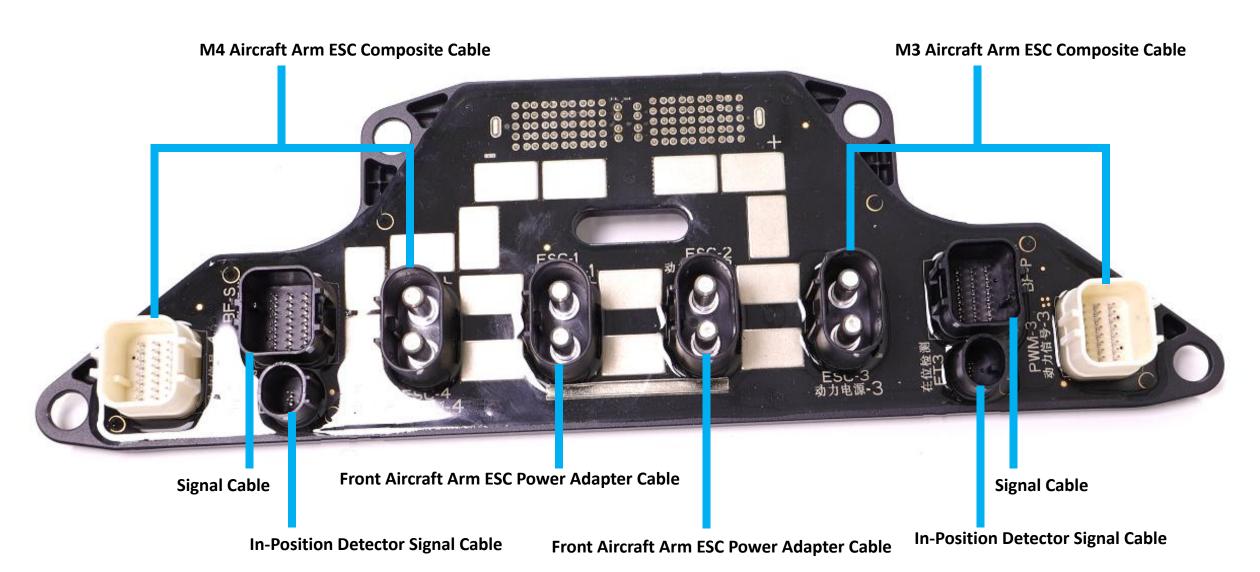
Product	Module	Repair Strategy for Dealers				
	Aerial-Electronics System Module	Replace the whole module.				
	Barometer	Replace the whole module.				
	Spraying System Module	Replace the whole module.				
	RF Module	Replace the whole module.				
	Cable Distribution Board Module	Replace the whole module.				
	Auxiliary Light Module	Replace the whole module.				
	Load Sensor Module	Replace the whole module.				
	Forward Vision Sensor Module	Replace the whole module.				
	FPV Module	Replace the whole module.				
		Replace the propulsion motor.				
	Aircraft Arm Module	Replace the ESC.				
		Repair the remaining components				
	Omnidirectional Radar Module	Replace the whole module.				
Aircraft	Backward Radar	Replace the whole module.				
Aircraft	Spray Tank-Flowmeter Module	Replace the whole module.				
	Spray Tank-Spraying Adapter Module	Replace the whole module.				
	Spray Tank-Impeller Pump	Repair the pump.				
	Spray Tank-Liquid Level Gauge	Replace the whole module.				
	Spray Tank-Liquid Level Gauge Sensor	Replace the whole module.				
	Spray Tank-Main Body	Repair the main body.				
	Power Distribution Module	Replace the whole module.				
	RTK Antenna Module	Replace the whole module.				
	Landing Gears	Repair the landing gears.				
	Centrifugal Spray Rod	Repair the spray rod.				
	Airframe	Repair the airframe.				
		If one of the two propellers on one motor is damaged, replace the two				
	CCW and CW Propellers	propellers. The corresponding propeller gasket needs to be replaced during the repair.				



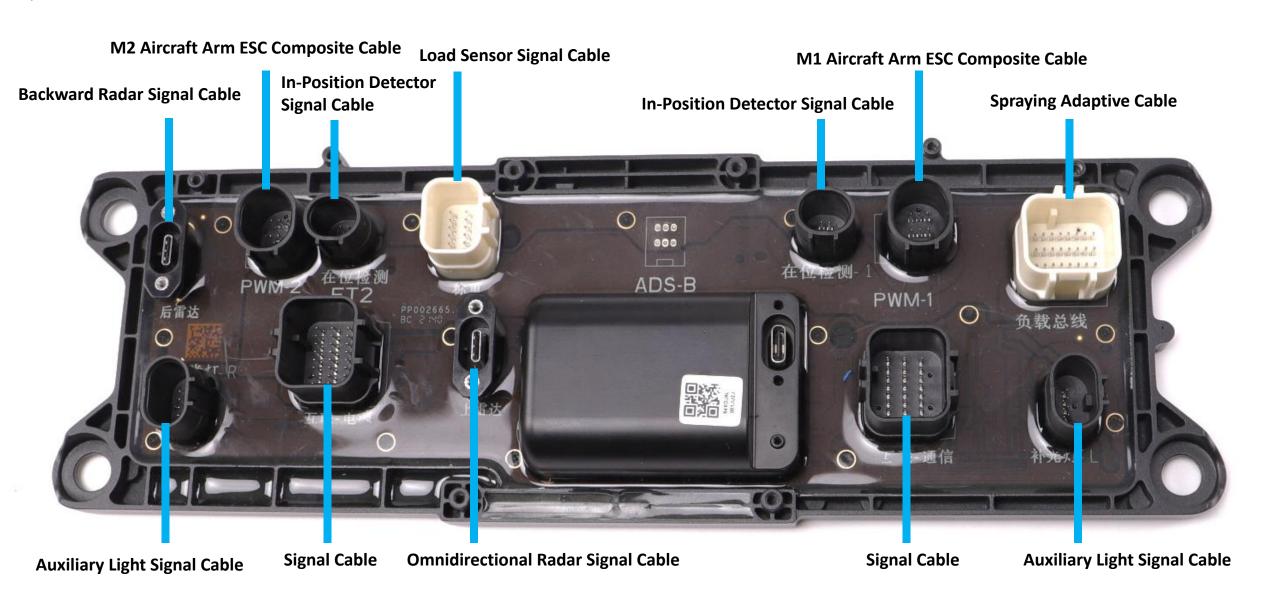
Cable Connectors on the T40 Cable Distribution Board:



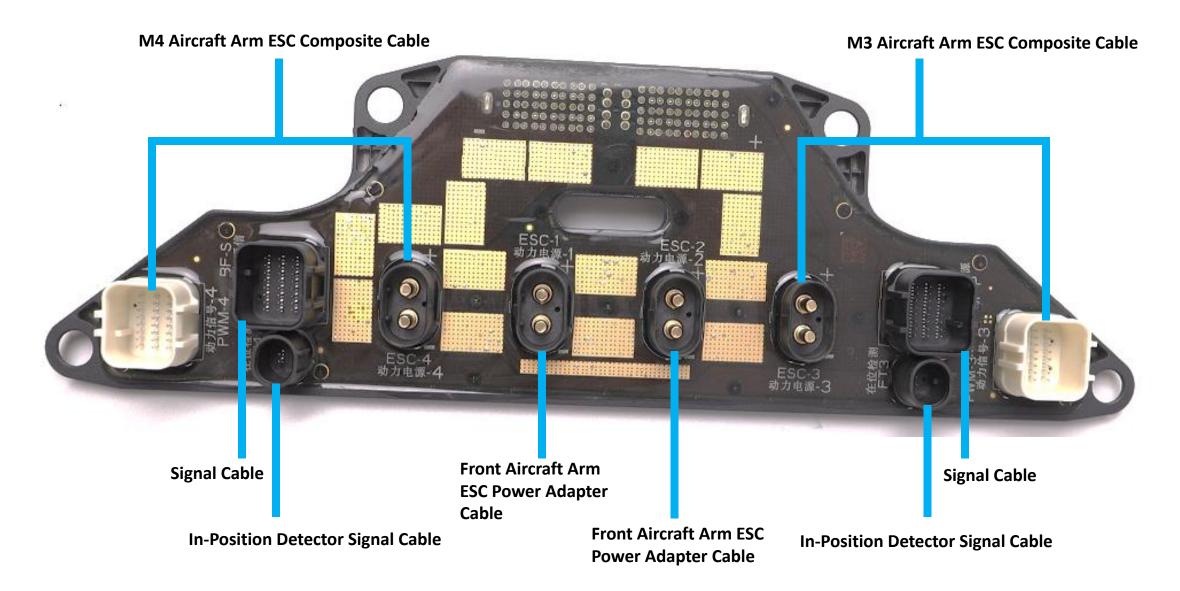
◆ Cable Connectors on the T40 Power Distribution Board:



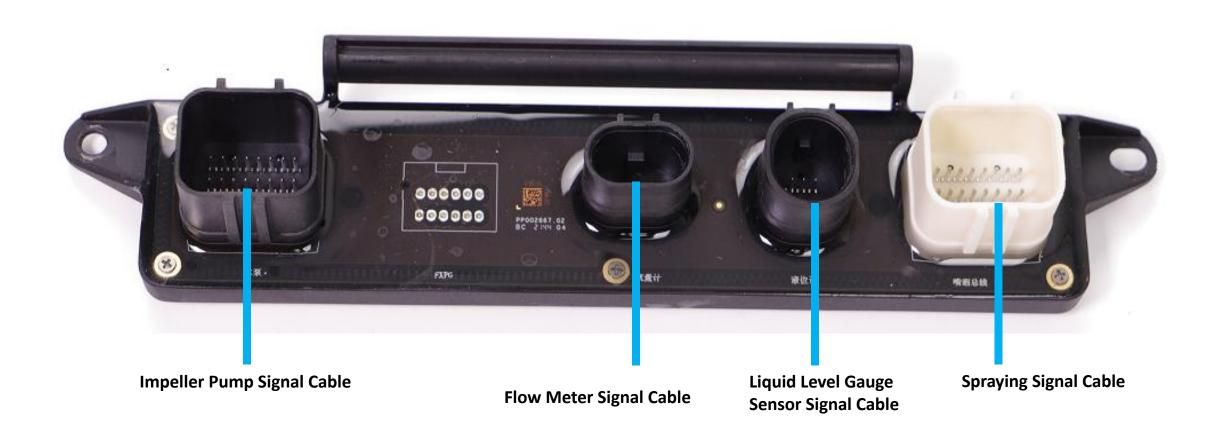
◆ Cable Connectors on the T20P Cable Distribution Board:



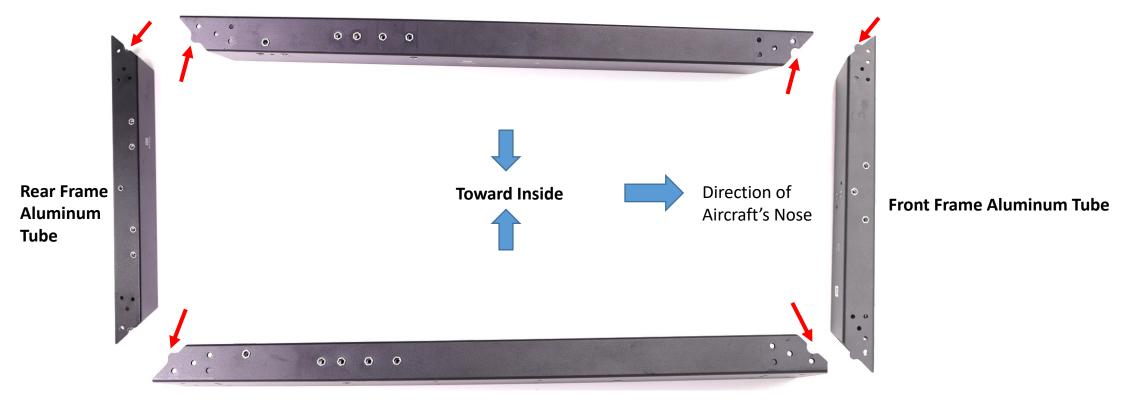
Cable Connectors on the T20P Power Distribution Board:



◆ Cable Connectors on the Spraying Adapter Module



Middle Frame Aluminum Tube (Left)



Middle Frame Aluminum Tube (Right)

T40 and T20P drones use the same material of the aluminum tube. Please note that the surface of the aluminum tube with slotted part and raised part is the front surface, and the left and right aluminum tubes with the slotted side face the direction of the aircraft's nose, and the front and rear aluminum tubes with the raised part are mounted to the front frame.



After the aircraft arm lock is replaced, fasten the lever. The tension value needs to be tested (acceptable tension range: $90 \pm 10N$).



Landing Gear Fixing Piece

T40 and T20P use the same materials of the landing gear fixing piece with the mark of M1-M4 that are mounted below the corresponding M1-M4 aircraft arms.



T40 M1 Aircraft Arm Connector

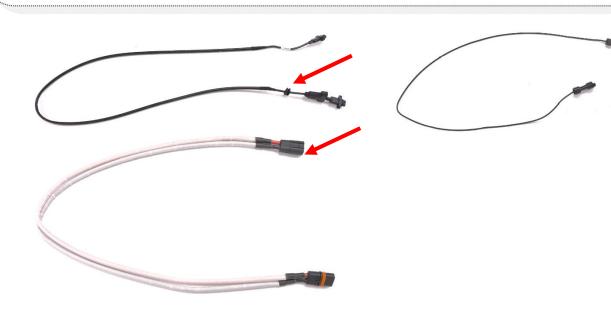


T20P M1 Aircraft Arm Connector

- 1. There is M1 CCW or M5 CW mark on the T40 aircraft arm connector.
- 2. There is M1 CCW mark on the T20P aircraft arm connector.



The ESC bracket of the T40 aircraft arm has different shapes of slots on both sides. Make sure that the side with the "petal" shape slot needs to face downwards, and the aircraft ESC composite cable connector should be passed through the slot.



When passing the cables through the left and right aluminum tubes, pay attention to the direction of the backward radar signal cable/RTK coaxial cable/the front aircraft arm ESC adapter cable (take T40 cables as an example as shown on the left).

- 1. The backward radar signal cable with the rubber stopper should face the direction of the rear frame.
- 2. The RTK coaxial cable/front aircraft arm ESC adapter cable "female" connector needs to face the direction of the front frame.



The spray rod adapter shaft and spray rod fixing nut are not easy to be removed after they are mounted.

- 1. If the spray rod fixing nut needs to be replaced separately, destructively remove it.
- 2. If the spray rod fixing nut needs to be replaced separately, replace the spray rod fixing nut together.



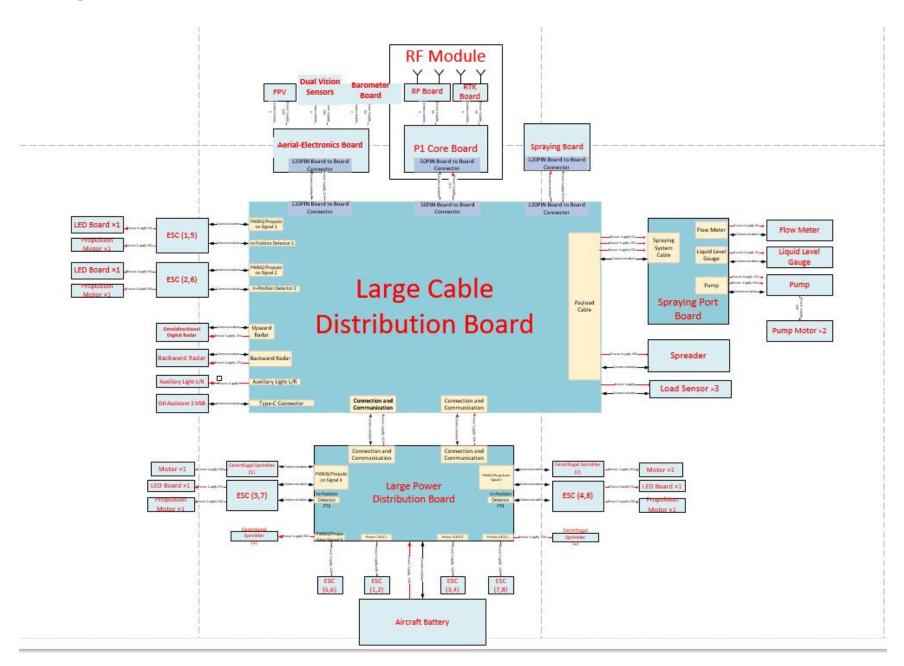
To use the T40 spray rod hose with the T20P drone, **the non-threaded end part** (close to the centrifugal motor) of the hose should be cut off about 8 cm. Otherwise, the spray rod hose cannot be connected to the aircraft arm hose.

04 Compatibility List

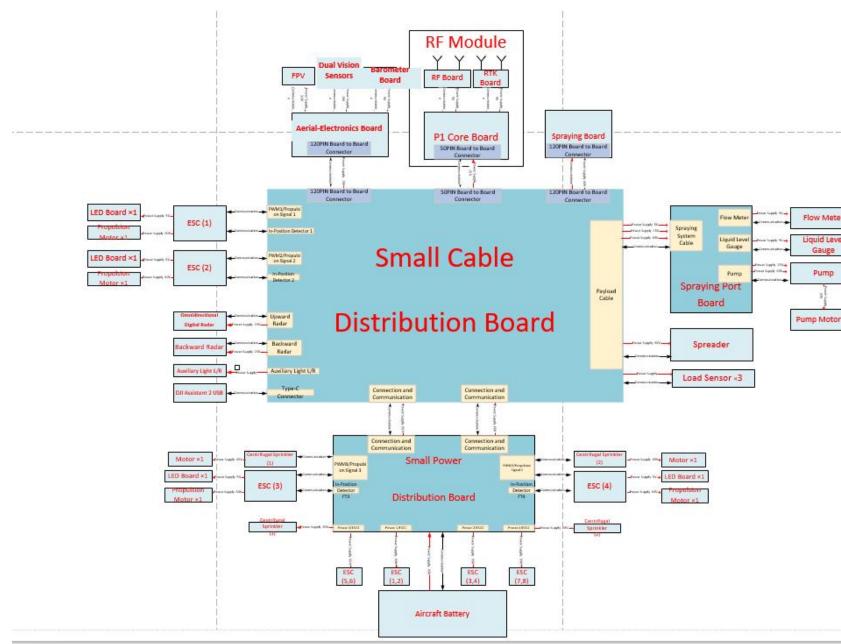
Flight Battery	T40	T20P	Т30
T40 Intelligent Flight Battery	Supported	Supported; Increase the flight time.	Supported; Increase the flight time.
T20P Intelligent Flight Battery	Not Supported	Supported	Not Supported
T30 Intelligent Flight Battery	Supported; needs to reduce the payload weight.	Supported; Increase the flight time.	Supported
Battery Station	T40 Intelligent Flight Battery	T20P Intelligent Flight Battery	T30 Intelligent Flight Battery
D12000iE Multifunctional Inverter Generator	Supported	Supported (power adaptation)	Supported (power adaptation)
T40 Battery Station	Supported	Supported (power adaptation)	Supported (power adaptation)
D6000i Multifunctional Inverter Generator	Supported; Slow charging	Supported	Supported; Slow charging
T20P Battery Station	Supported; Slow charging	Supported	Supported; Slow charging
DJI D9000i Multifunctional Inverter Generator	Supported; Slow charging (firmware update required)	Supported (firmware update required)	Supported
T30 Intelligent Battery Station	Supported; Slow charging (firmware update required)	Supported (firmware update required)	Supported
Remote Controller	T40	T20P	T30
T40 DJI RC Plus	Supported	Supported	Not Supported
T20P DJI RC Plus	Supported	Supported	Not Supported
Propellers	T40	T20P	Т30
T40 Drone Propellers (Upper)	Supported	Supported	Not Supported
T40 Drone Propellers (Lower)	Supported	Not Supported	Not Supported
T20P Drone Propellers	Supported (Upper Propellers)	Supported	Not Supported



05 Principles Diagram — T40



05 Principles Diagram — T20P



05 Boards Introduction

System	Module/Board	Function					
Aerial-Electronics System	Aerial-Electronics Module	The aerial-electronics module is the core module controlling the flight controller. It integrates the flight algorithm and flight controlling functions into one module, which contains the compass and barometer.					
	Barometer	Receives the current barometric pressure signal, sends the barometric pressure information to the aerial-electronics board, and detects the aircraft's current altitude information.					
	Motor	The motor works with propellers to blow wind downwards and make the aircraft fly upwards. It also helps with spraying.					
	ESC Module	The ESC module converts the throttle information to the motor's rotation speed information, controls the motor rotation, sends the motor information, and triggers the overcurrent protection.					
Propulsion System	LED	LED indicates the aircraft's current working condition of the aircraft. Users can know the aircraft's current working condition by the LED's color.					
	Power Distribution Board	Distributes the power to the four/eight motors, which is the transfer station for the battery and power supply.					
	Cable Distribution Board	Connects the cables and modules.					
	Spraying System Module	The control system of the aircraft's core spraying function. It controls the pump, centrifugal nozzle, and spraying volume.					
	Continuous Liquid Level Gauge	Works with the load sensor to measure the current liquid amount in the tank to notify the customer whether to add liquid.					
Spraying System	Load Sensor	Works with the liquid level gauge to measure the current liquid amount in the tank to notify the customer whether to add liquid.					
Spraying System	2-Channel Flow Meter	It is essential for high-precision spraying that detects the pump's spraying speed. Therefore, the pump's spraying accuracy can be controlled.					
	Delivery Pump	The impeller pump is the exerciser of the aircraft spraying system, which transmits pesticides to the centrifugal nozzle by rotating and sprays pesticides out.					
	Centrifugal Sprinkler	The liquid is atomized and sprayed from the spinner through the centrifugal force.					
Positioning System	RF Module (Baseband Board, RF Board, RTK/GPS Board)	As a flight controller system to provide the aircraft position, direction, and speed of the aircraft to ensure the flight stability, and the efficiency and accuracy of the operation. It can track GPS L1/L2, GLONASS F1/F2, BDS B1/B2, and Galileo E1/E5b frequency bands at the same time. It has positioning and orientation functions. The GPS module uses the antenna of RTK module to receive GPS L1, and Glonass F1 frequency band signals.					
	Active Antenna Board	Amplify and adjust the weak GPS signal so that the RTK/GPS board can get better satellite signals.					
	Omnidirectional Digital Radar	A sensor for obstacle avoidance and navigation of aircraft. Responsible for investigating the external environment to prevent the aircraft from hurting people and crash.					
Obstacle Avoidance System	Backward Radar	Detects the environment behind the aircraft to prevent collisions with obstacles.					
	Dual Vision Sensors	Detects obstacles through vision sensors and works with the radars to make the drone avoid obstacles, and provides the terrain following function.					
	FPV & Gimbal	Converts optical signals into digital signals, and transmits them to customers through image transmission. Aerial mapping is available that the fields captured by FPV are transmitted to the remote controller for reconstruction.					
Image Transmission system	Auxiliary Light	The auxiliary lights are installed on both sides of the front of the aircraft's nose, which is responsible for lighting in the dark environment.					
	RF Module (Baseband Board, RF Board, RTK/GPS Board)	Contains baseband board, RF board; RF module is used to process the image transmission signal, and connect the aircraft and remote controller.					
Battery System	Battery	Batteries are the source of energy for flight and spraying. It is an energy storage device.					



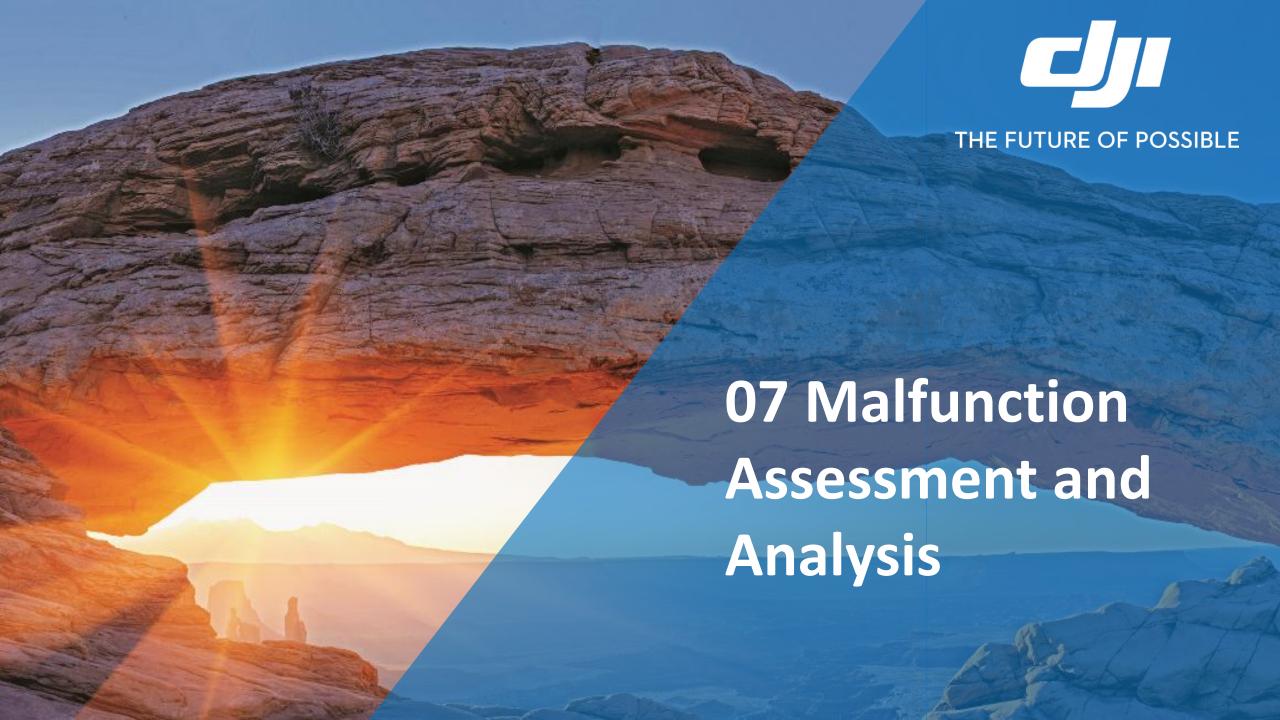
06 Test Plan and Fixture — Aircraft

No.	Module	Test Item	Content	Device/Fixture	Test Environment	Software	Damage Assessment Required	Repair Test Required
1			Connect the positive and negative poles to confirm whether there is a risk of short circuit.	Multimeter and Regulated Power Supply	/	/	Yes	Yes
2		Firmware	 Check whether all modules are mounted in place. Update the firmware to the latest version. 	/	Not related	DA2-MG	No	Yes
3	A i waya ft	I Sancare	Calibrate the vision sensors (if there is a prompt stating that the vision sensor is malfunctioning).	Vision Calibration Board YC.SJ.G00509.01 YC.BZ.J01205.01	DJI Assistant 2 software	DA2-MG	No	Yes
4	Aircraft	1. RTK satellite searching test 2. Vision sensor obstacle detection test App 3. Auxiliary light check Functionality 4. Load sensor data download Test 5. FPV camera data download 6. Aircraft arm in-position check 7. Water pump calibration		Not related	Not related	Арр	Yes	Yes
5 6		Flight Test	 Linking test Radar obstacle avoidance check Manual flight 	Not related	Not related	Арр	Yes	Yes
	Impeller Pump	Spray Test	 Check if the flow can reach 6 L/min. Check whether the impeller pump is water leakage. 	Not related	Not related	Арр	Yes	Yes
7	Centrifugal Spray Rod	Spray Test	 Check whether the spray button is functioning. Check the spraying speed and check whether the dial can be used to control the spraying normally. Check whether the spray rod is water leakage. 	Not related	Not related	Арр	Yes	Yes

1. After the gimbal and aerialelectronics system module are replaced, it is required to download the camera data. 2. Vision sensor calibration is required after the dual vision sensors module is replaced. 3. Download the load sensor data after the load sensor and aerialelectronics system module are replaced.

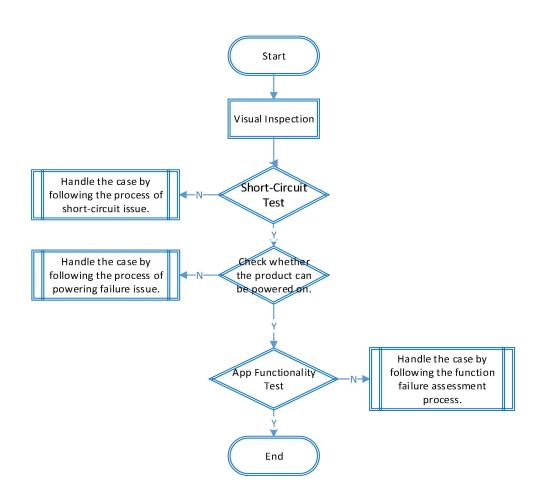
06 Test Plan and Fixture — Test Plan Requird After Component Replacement — Aircraft

				Items Need to be Tested after Part Replacement																			
Test	Module	Test Item	Auxiliary Light	FPV	Load Sensor	Distribution	Power	Omnidirectional Obstacle Avoidance Radar	Backwar d Radar	Aerial- Electroni cs System	Spraying System	Baromet er	Forward Vision Sensor	RTK Antenna	RF	ESC	Motor	Impeller Pump	Centrifugal Spray Rod	Flow Meter	Spraying Adapter Board	SDR Antenna	Liquid Level Gauge Sensor
		Short-Circuit Test	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧
		Firmware Update	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧
Aircraft Test	Aircraft	Dual Vision Sensors Calibration				٧				٧			٧										
		App Functionality Test	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧
		Flight Test	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧	٧

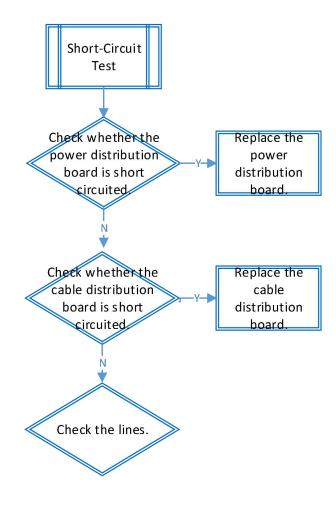


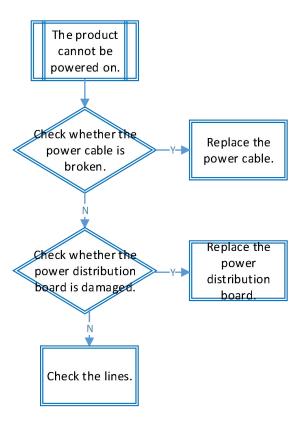
07 Malfunction Assessment and Analysis — Common Issues

Using the app for damage assessment.



07 Malfunction Assessment and Analysis — Common Issues

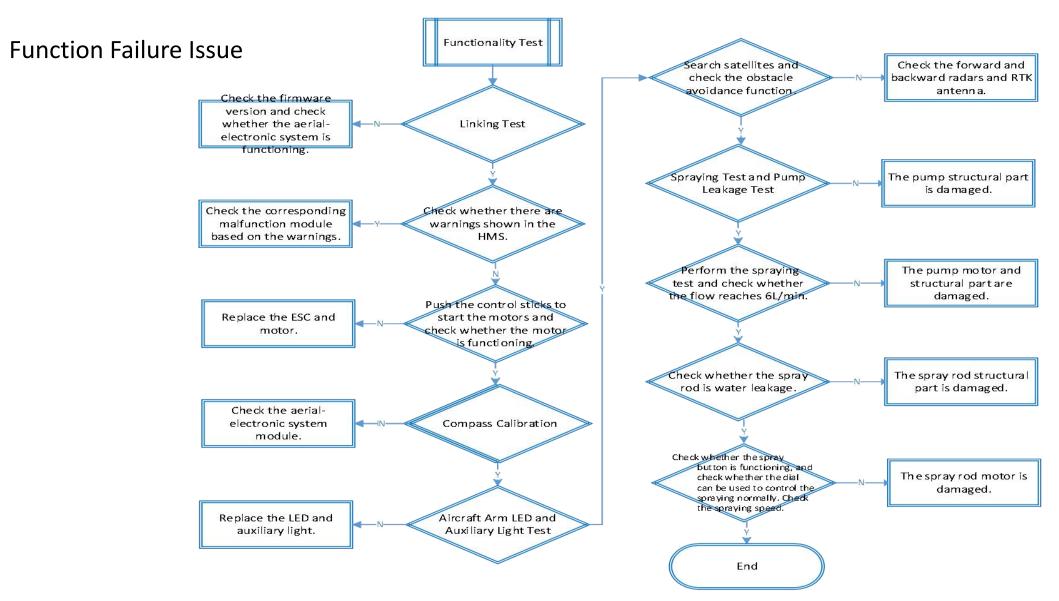




Short-Circuit Issue

Power on Failure Issue

07 Malfunction Assessment and Analysis — Common Issues



07 Malfunction Assessment and Analysis — Water Damage

Check if the liquid damage indicator has turned red, and if any boards are moldy.

Liquid Da	mage Indicator	Donal Chatus	Assessed a Water		
Liquid Damage Indicator	Liquid Damage Indicator	Board Status	Damaged or not?		
	Turned red	Corrosion/Water Stain/Water Mark	Yes		
With liquid damage	rurnea rea	No Corrosion/Water Stain/Water Mark	No		
indicator	Color unchanged/Not turned	Corrosion/Water Stain/Water Mark	Yes		
	White After Soaked in Liquid	No Corrosion/Water Stain/Water Mark	No		
		Corrosion/Water Stain/Water Mark	Yes		
Without liquid damage indicator	NA	No Corrosion/Water Stain/Water Mark	No		





Thank You