DJI Common Issues

Data Compiled from DJI Resources & Forums

General Repair Strategy:

Gimbal: Replace the whole module. Aircraft: Repair the damaged parts (excluding core board/GPS board (including IMU)/infrared sensing system and visual sensing module). Remote controller: Repair the damaged parts (excluding the remote controller main board).

Diagnostic Tests

Aircraft Connection Test and Version Check- Check if all parts' hardware connections are normal. This test is mainly used for damage assessment and aircraft version check (FCC/CE).

Aircraft Link & CSC Test- Check the app's error report, motor rotation, image transmission signal, photo/video shooting, and other functions.

IMU Calibration- Recalibrate the aircraft's IMU from six directions.

Compass Calibration- Recalibrate the compass.

Compass Interference Test- Check whether the compass has any interference.

Simple Flight Test- In damage assessment/after replacing propellers, check if the arms are shaking and if there are more patterns on the transmitted images.

Remote Controller Link & CSC Test- Check if the remote controller's buttons, control sticks, and dials are normal.

Flight Test- Check if the remote controller image transmission signal communication is normal.

Wi-Fi Power Attenuation and Coupling Test- Check whether the antenna is well connected or damaged.

Boards

1. **Core Board-** Flight controller algorithm implementation, vision obstacle avoidance, navigation system control, and image transmission baseband.
2. **ESC Board-** Motor control, core board power supply, PSDK and OSDK power supply, and 4G dongle power supply.
3. **Vision System Module-** 6 directional vision systems and infrared sensing systems for sensing and positioning; beacons and auxiliary lights; TOF distance measurement; compass heading
4. **RTK Board-** Obtains GNSS time service and IMU information
5. **RF Board-** Baseband and RF signal switch; signal transmission and receiving, signal multiplication, signal filtering; two transmitting and two receiving; long distance transmission under high power
6. **FPV Module-** FPV Module
7. **ADS-B Board Module-** ADS-B receiver, upper beacon control, fan connection, and battery locker
8. **Barometer Module-** Barometer
9. **Battery Port Board Module-** Connects battery and ESC board

Evaluation Process

1. **Motor Base**- check physical damage
2. **Motors-** Rotate the four motors and check whether they move smoothly. Check whether there are scratches on the motors and whether the motors are misshapen.
3. **Landing Gear-** Check whether the four landing gears are misshapen or damaged
    a. If there is damage check to see if it extends into other components such as the body
4. **Arms-** Check whether the four landing gears are misshapen or damaged.
    a. Check whether the left arm and right arm are broken and whether there are scratches on the arms.
    b. (if applicable) Check whether the left auxiliary arm, right auxiliary arm, left main arm and right main arm are broken and whether there are scratches on the arms.
    c. (if applicable) Check whether the connector of the auxiliary arms and the connector between the main arms and middle frame are misshapen or damaged.
5. **Upper Shell, GPS Cover and Nose Cover -** Check whether there are scratches or

cosmetic damage on the upper shell, GPS cover and nose cover and whether they are misshapen.

a. Check whether the power button and unlock button can spring back or not.

6. **FPV-** Check whether there are scratches on the FPV module and Forward Vision System module and whether they are broken or damaged. Turn the FPV camera and check whether the camera can pitch and roll normally.
    a. If the FPV camera is crooked but functional it may still need replacement
7. **Vibration Absorbing Board and Gimbal Quick-release Port-** Check whether the vibration absorbing board and gimbal quick release port are broken or misshapen.
8. **Lower Shell and Downward Vision System-** Check whether there are scratches on the bottom shell and Downward Vision System module and whether they are misshapen.
9. **Battery Compartment -** Check whether the battery compartment is misshapen or damaged.
    a. Check whether the pins on the battery port are misshapen or damaged.
10. **(If applicable) Compression Plate -** Check whether the left compression plate, right compression plate are misshapen or damaged.
11. **Middle Frame -** Check the screw rod on the middle frame is misshapen or damaged.
    a. For Inspire models, middle frame plastic washer may be worn out causing problems raising and lowering the landing gear into travel mode. Problem may be intermittent and present as limp arms
12. **Main Controller-** Check the main controller is misshapen or damaged.
13. **Central Board, Battery Compartment and Indicator Functional Check -** Place the aircraft on an even surface. Insert batteries. Power on the aircraft and check whether the indicators on the rear of the aircraft will flash
14. **(if applicable) Central Frame Functional Check-** Press the power button five times or more. (The battery level indicators will turn on one by one.)
    a. Check whether the aircraft exits Travel mode.
    b. Check whether the aircraft shakes when the aircraft transforms to how it looks during flight.
    c. If it shakes, the screw rod may be misshapen and damaged.
15. **Video Transmission -** If “Disconnected” is shown in the app, check whether the connection between the device and the USB port on the controller is good.
    a. If “No signal” is shown in the app, try with another gimbal and check whether the gimbal or the aircraft is malfunctioning.

b. Test using a different controller then device
c. Check gimbal for water damage

16. **App Data-** Move the aircraft backward and forward horizontally and check whether the Forward Vision System's parameters shown in the app are normal.
    a. Move the aircraft up and down vertically and check whether the height measured by the Downward Vision System in the app is normal.
    b. Switch to the FPV interface and press the C2 button and the Gimbal Dial at the same time.
    c. Check whether the FPV camera can pitch normally. Cover the Upward Infrared Sensor with an object and check whether the Upward Infrared Sensor works normally
    d. Check IMU
    e. Check Compass
    f. Check firmware versions on app, controller and aircraft
17. **Battery-** Check whether the batteries are swollen and whether the batteries are damaged by viewing the battery parameters (including the temperature, difference between battery cells, battery life and times charged) displayed under the Aircraft Battery menu in the app.
18. **Overall Status-** Check the overall status for the aircraft for any errors or warnings
19. **Navigation System-** to start the motors and check whether the four motors work well.
    a. Positive motors rotate counterclockwise and negative motors rotate clockwise.
    b. Check whether the two indicators on the front of the landing gears are solid red and the two indicators on the rear of the landing gears are solid green.
    c. Toggle the control sticks to change the speed, pitch, direction of the aircraft and check whether they emit abnormal sounds, rotate slowly, or are obstructed.
20. **Gimbal Appearance Check-** Check whether there are scratches on the Yaw- axis arm and Pitch-axis arm and whether they are misshapen.
    a. Check whether there are scratches or cosmetic damage on the flat cable cover, lens cover and UV filter.
    b. Check whether the gimbal does its calibration dance and if there is picture showing in the app
21. **3 Axis-** Rotate the Yaw-axis top cover horizontally and check whether the cover

can move smoothly and rotate in place.

   a. Rotate the Roll-axis vertically and check whether the axis can move smoothly
   b. Rotate the Pitch-axis up and down and check whether the axis can move smoothly.

22. **Gimbal Functional Check-** Power on the aircraft and check whether there is image transmission on the screen.
    a. Turn the camera settings dial and check whether the camera's exposure is normal.
    b. Check whether the camera can capture pictures and record video normally.
    c. Turn the gimbal dial and check whether the gimbal can pitch normally.

Common Gimbal Errors

- Gimbal vibration error
  - Check to see if the vibration absorption board and dampers are damaged
  - Check propellers
- Gimbal tilt error
  - IMU calibration
  - Gimbal calibration
  - Manually adjust gimbal roll

Common Firmware Errors

- Low battery
  - Make sure the battery level is at least 50% before updating.
- Battery signal error
  - Try to update again
  - Charge battery at least an hour before the update
- Connection error
  - Check wifi connection and make sure the file has been downloaded entirely
  - Attempt update with another USB cable
  - uninstall/reinstall app and attempt the update process again

    - Try another mobile device
    - If the update continues failing via the DJI GO connect the drone to DJI Assistant 2 (doesn't apply to Phantom 3 series and Inspire 1)
- SD card error
    - Make sure there is enough storage on the SD card
    - Download the corresponding firmware package. After extracting the file, export the BIN file to the SD Card. Please don't change the filename of the BIN file or add other BIN files to the root directory of the SD Card.
- Loose Gimbal Flat Cable
    - Phantom 3 series- Unplug and insert the cable and try to update again
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Mavic Mini

1. **Code 180016, 180031, 180030: sensor error. Contact DJI Support for assistance.** *Try restarting the drone. If it does not help, the sensors are broken and must be replaced.*
2. **Code 40021: Gimbal IMU data error. Contact DJI Support for assistance .** *Repair or replace GPS module. Watch the video how to do it.*
3. **Code 40012: Gimbal unable to connect. Repairs required. Contact DJI Support for assistance.** *Need to replace the gimbal. Watch the video how to do it.*
4. **Code 40002: Gimbal stuck. Check whether gimbal cover is removed and ensure gimbal can rotate freely.** *Be careful. You can burn the suspension motors, if you forget to remove the cover.*
5. **Code 40002: Gimbal stuck. Check whether gimbal cover is removed and ensure gimbal can rotate freely.** *Be careful. You can burn the suspension motors, if you forget to remove the cover.*
6. **Code 30226: Start failed. Restart aircraft and DJI Fly App.** *Follow the instructions of the DJI.*
7. **Code 30210: Power system hardware. Restart aircraft.** *Reboot helps. If not, update the firmware.*
8. **Code 30168: Aircraft power insufficient. Fly with caution.** *The error most often occurs in high winds, but it can be due to a worn battery or a faulty ESC module.*

9. **Code 30064: Unable to TakeOff.** *Make sure that nothing prevents the drone from taking off and that you are in the area where flights are allowed. If all conditions are met, but the error remains - restart mavic mini. Doesn't help - update the firmware. If again the error - need repair mavic mini (but here it is needed to understand which module is broken, the fastest is the problem in ESC module).*
10. **Code 30060: Compass error. Ensure there are no metal or magnetic objects near the aircraft and calibrate it before use.** *If there are definitely no metal objects around mavic mini and calibration does not help - repair or replace the gps module.*
11. **Code 30055: IMU not calibrated. Calibrate IMU.** *Repeat the same steps as with the Code 30050 error.*
12. **Code 30050: IMU calibration required. Calibrate IMU -** *In the settings, find the IMU calibration function and calibrate according to the instructions. If it does not help, repair or replace the gps module.*
13. **Code 30049: GPS Module Error. Restart Aircraft .** *Restart the mavic mini. If it does not help, repair or replace the gps module.*
14. **Code 30047: Barometer initialization failed. Restart aircraft.** *Follow the instructions of the DJI.*
15. **Code 30007 & 30008: No GPS signal. Unable to hover. Fly with caution.** *Repair or replacement of the gps module is required.*
16. **Code 10023: SD card malfunction. Change card.** *Try pulling and inserting back. It did not help - change the SD card.*
17. **Code 10022: No SD card. Insert sd card.** *Just insert or replace the card.*
18. **Code 10016: Camera not calibrated. Image quality can be affected. Contact DJI Support for assistance.** *Calibrate the camera, if the error persists - replace or repair the camera.*
19. **Code 10001: Camera malfunction. Repairs required. Contact DJI Support for assistance** *All you can do is restart the drone. If it doesn't help, replace or repair the Gimbal camera.*
20. *Code **10022** means they need to insert a SD Card.*
21. *Code **30008** means weak GPS signal and may be caused by the environment*

Battery Issues

- Check battery for water damage, signs of disassembly, if the buckles are loose, and/or the contact pins are misshapen
    - If the battery is water damaged or disassembled then it needs to be replaced
    - If the buckles are loose then the battery may fall out of the battery compartment
    - If contact pins are misshapen then the batter cannot connect to the aircraft normally
- Insert the battery into the aircraft to check if the battery level is normal
    - After pressing the buttons there is no response and the LEDs do not light up. It is possible that the battery has entered the shutdown low battery level protection mode. Charge battery on hub to resolve.
    - After pressing the buttons, there is no response. Battery may be in firmware update mode due to an update failure. To resolve mount battery to aircraft and update firmware
    - After pressing the power button, the aircraft can be powered on but the aircraft soon powers off. The battery needs to be charged
- The battery can be charged normally
    - If there is no response after pressing the button and the LED lights do not light up after being mounted into the charger it is most likely that it is in Permanent fail mode
    - The aircraft with an inserted battery can be powered on normally but the battery cannot be charged normally after inserting it into the two way charging hub and the LEDs blink in a specific pattern. The protection function is triggered and charging is forbidden
    - The aircraft can be powered on normally but the battery cannot be charged normally. The battery charging circuit is damaged
    - The battery can be charged normally but the charging hub and aircraft battery level indicators blink one by one. The update failed and the Battery is in FU mode
- The app shows that the battery is normal
    - Check if the voltage difference is large, communication failure, authentication failure or the battery is poorly mounted
    - If the battery cycle is over 200, old age may be the cause.

- The flight test in low altitude is normal
    - Check voltage difference

Remote Controller Issues

- Visual inspection
- Connect the remote controller to the aircraft to check if the remote controller's buttons are normal
    - Determine the corresponding damaged button,control stick, or button board
- Link the remote controller to the aircraft and check if the image transmission on DJI Fly is normal
    - Check if the antennas are properly connected, if yes the rc main board may be bad
- The flight test is normal
    - Check antennas
    - Check main board

DJI Assistant 2

- Make sure that it is the latest version of Assistant 2
    - Update
- Is the device manager able to detect the virtual port?
    - Download the latest version of assistant 2 and the virtual port driver
- Is only one port being detected?
    - Uninstall both virtual ports and reinstall

Aircraft fails to maintain altitude while flying

- Perform the connection test to see if the sensing system is normal.
    - Determine the corresponding damaged part
- Check to see if there is dirt obstructing any sensors
- Turn on aircraft and check if infrared sensor lights up
- Perform flight test
    - The downward facing sensors or core board may be damaged

Propeller/Arm

- Make sure the props are on their corresponding motors
- Check for physical damage
- Check esc board for water damage

Abnormal IMU

- Calibrate
    - If calibration repeatedly fails then the IMU is defective
- Flight test
    - Check propellers/compass

Abnormal Compass

- Calibration
    - If calibration fails multiple times then the compass is defective
- Have the aircraft take off and check if there are any error reports.
    - May be strong electrical interference or the compass is installed poorly

Image transmission signal issue

- can you see out of the camera via the DJI Go 4 App
    - Try another controller to determine which part is damaged
    - Check to see if the antennas are installed correctly
    - Aircraft core board or rc main board may be defective
- The image transmission signal transmits smoothly.
    - Perform the test outdoors where interference is weak.
    - Check firmware and make sure everything is updated
- flight test and distance flight test to see if the test result
    - Aircraft main board or rc main board is bad.

Gimbal

Image issue

- The pictures taken are defective
    - Check camera for physical damage
    - The camera or the coaxial cable may be defective
- Pictures are clear

    - Camera is defective
- dark dots or dots with abnormal colors on the pictures.
    - The issue may be due to image noise or dirt on the camera
    - If issue persists camera is defective

Camera error after replacement

- Download camera data
- Attempt to calibrate
- Check connection points

Rotation issue

- DJI Fly gimbal calibration
    - If there is an issue then there may be something wrong with the axis arm

Altitude Detection Error

1. Perform a link test to see if the infrared distance sensor and downward vision system is functioning normally
2. Check whether there is dirt on the downward vision system. If yes, clean off the dirt
3. Power on the aircraft, and check if the infrared distance sensor indicator on the right side of the aircraft light up. If not, the infrared distance sensor is malfunctioning.
4. Perform a flight test. If the aircraft still fails to detect the current altitude, it is possible that the downward monocular vision module or the core board is damaged.

Front LED Not Lighting Up

1. Disassemble the aircraft, and check if the front LED is damaged. If the aircraft cannot be disassembled, check if the ESC board can drive the motor normally. If yes, the front LED is damaged.
2. Check whether the front LED is connected to the ESC board normally. If not, reconnect it and see if the error still exists

3. Connect a normal front LED to the ESC board. If the LED does not light up, the ESC board is damaged.

Aircraft Not Making Sounds when Powered on

(The startup sounds are emitted by the motors.)

1. Connect each motor to the ESC board, and power on the aircraft to see if the motor can emit sounds normally. If not, the motor is damaged.
2. Replace the ESC board and test again. If this issue is fixed after the replacement, the ESC board is damaged.

Bluetooth/WIFI issues

1. Switch the aircraft to Wi-Fi mode, and check if the aircraft status indicator can blink correctly. If not, it is possible that the core board is damaged.
2. Connect the aircraft to the mobile phone, and check if the connection is successful on DJI Fly. If the Wi-Fi signals are weak, it is possible that the antennas are defective. If the Wi-Fi signals are totally unavailable, the core board may be damaged
3. Check if the aircraft can be controlled normally (supported in future). If not, it is possible that there is a firmware failure or core board hardware error.
4.

Phantom 4 V2

The aircraft cannot be powered on

a. Check whether the power supply is cut when a short circuit is detected.
    i. If issue occurred due to a short circuit find which board is short circuited
    ii. Disconnect the FPC flat cable between the power port board
b. Check whether the FPC cable between the power port board and 3 in 1 board
c. Replace the FPC cable between the flight controller and 3-in-1 board
d. disconnect the FPC flat cable between the power port cable between the

power port board and 3 in 1 board and check whether the aircraft can be powered on

i. **If yes, the power port board is short circuited**

e. Remove the FPC flat cable between the flight controller and 3 in 1 board, the FPC flat cable between the 3 in 1 board and the propulsion ESC and the camera and gimbal. Check whether the aircraft can be powered on.
   i. **If yes, the 3 in 1 board is short circuited**
f. Connect the flight controller only and check whether the aircraft can be powered on
   i. **If yes, the flight controller board is short circuited**
g. Connect the left and right escs and check whether the aircraft can be powered on
   i. **If yes, the esc board is short circuited**
h. Connect the camera and gimbal and check whether the aircraft can be powered on
   i. **If yes, the gimbal and camera are short circuited.**

Flight controller error

2. The air system encoder is malfunctioning
   a. Connect the aircraft to the internal assistant software and check whether firmware version is the latest
      i. **If no, upgrade the firmware to the latest version and test again**
      ii. **If yes, replace the 3 in 1 board and restart to check whether it works normally**
         1. **If yes, the 3 in 1 board is damaged.**
3. There is an ESC error
   a. Check whether the flexible flat cable connecting the 3 in 1 board and ESC board is connected well
      i. If no, reconnect the flexible flat cable between 3 in 1 board and ESC board and check the ESC firmware version in the internal assistant
      ii. If yes, flexible flat cable connecting the 3 in board and esc board and test again
         1. If yes, the flexible flat cable between the 3 in 1 board and esc board is damaged
      iii. If not, replace the left and right flexible flat cables connecting the 3 in board and flight controller and test again.
         1. If this works, the left and right flexible flat cables connecting

3 in 1 board and flight controller are damaged

iv. If not, replace the ESC board and test again
    1. If this works, the ESC board hardware is damaged
v. If not, replace the 3 in 1 board and test again
    1. If this works, the 3 in 1 board hardware is damaged

4. Camera Sensor Error
    a. Check whether the FPC cable connecting the camera's main board and lens sensor board is connected firmly
        i. If not, reconnect to the FPC cable
    b. Replace the FPC cable connecting the camera's main board and lens sensor board whether the issue is fixed
        i. If this works, the fpc cable connecting the camera's main board and lens sensor board is damaged.
    c. Replace the camera's main board and check whether the issue is fixed
        i. If this works, the camera's main board is damaged
5. No image transmission
    a. Replace the FPC cable connecting the camera and gimbal and 3 in 1 board and check whether the issue is fixed
        i. If this works, the FPC cable connecting the camera and gimbal and 3 in 1 board is damaged
    b. Replace the camera and gimbal and check whether the issue is fixed
        i. If this works, the camera and gimbal module is damaged
    c. Replace the 3 in 1 board and check whether the issue is fixed
        i. If this works, the 3 in 1 board hardware is damaged
6. Linking Failure
    a. Check whether the remote controller's and aircraft's firmware versions are the latest by using the assistant software
        i. If not, upgrade them to the latest version and test again
    b. Check whether the antenna connector of the 3 in 1 board is connected firmly
        i. If not, reconnect the connector and test again.
    c. Replace the 3 in 1 board and check whether the issue is fixed
        i. If this works, the 3 in 1 board hardware is damaged
7. The image transmission distance is short
    a. Perform the "coupling test and check whether the test passes
        i. Note DJI provides zero information as to what a "coupling test" is or how to perform

b. Disassemble the airframe and check whether the antenna is connected properly
    i. reconnect the antenna and perform the coupling test again
c. The landing gear's antenna board is damaged. Replace the corresponding landing gear and test again. If the issue persists, replace the 3 in 1 board.

8. Obstacle avoidance error
    a. Perform the connection test and check whether the ultrasonic sensor and forward vision sensor work normally
        i. **Note DJI provides zero information as to what a "connection test" is or how to perform**
        ii. The ultrasonic sensor or forward vision sensor is damaged. Replace it.
    b. Perform the vision calibration and check whether the issue is fixed
        i. If not the vision sensor module is damaged or not mounted properly.
    c. Perform the 3D TOF calibration and check whether issue is fixed
        i. **Note DJI provides zero information as to what a "3D TOF calibration" is or how to perform**
        ii. The TOF module is damaged. Replace the ESC board.
    d. Perform the vision sharpness test and check if issue is fixed
        i. The vision module is damaged or dirty. Replace it or mount it again.
    e. Perform the 3m test and check whether the issue is fixed
        i. **Note DJI provides zero information as to what a "3m test" is or how to perform**
        ii. The vision module is damaged or not mounted properly. Replace it or mount it again
    f. Replace the 3 in 1 board and test again.
9. Remote Controller Issue
    a. Perform the remote controller button test and check whether the issue is fixed
        i. The main board or button is damaged. Replace the board or button
    b. Link the remote controller and aircraft and perform the functionality test
        i. If this works, the remote controller is normally functioning
    c. Replace the damaged component

Mavic 2

1. **Sys warning + Check App.** *System warning. See DJI GO 4 app for more information*

2. **Unactivated + Check App.** *Aircraft not Activated. See DJI GO 4 app for more information*
3. **Mag interf + Check App.** *Compass Error. See DJI GO 4 app for more information.*
4. **Battery err + Check App.** *Battery Error. See DJI GO 4 app for more information.*
5. **SD err + Check App.** *Micro SD Card Error. See DJI GO 4 app for more information*
6. **Calibrating.** *IMU calibrating/Did not restart aircraft after calibration is complete.*
7. **Stick Err + Re-Ctr Stck.** *Control stick is not centered. Re center it.*
8. **Wheel Err + Re Ctr Whel.** *Left Dial on the remote controller is not centered. Re center it.*
9. **Stick Err.** *Control stick error. Calibrate control sticks in DJI GO 4 app.*
10. **Mech Err.** *Remote controller error. Calibrate the remote controller in the DJI GO 4 App. If this problem persists, contact DJI support*
11. **Stick EMI3+Auto RTH.** *Control Sticks are experiencing severe electromagnetic interference and cannot function. The aircraft will return to home and land immediately.*
12. **Stick EMI2+Manual RTH.** *Control sticks are experiencing electromagnetic interference and may not function. Use Smart RTH and land the aircraft as soon as possible.*
13. **Stick EMI1.** *Control Sticks are experiencing slight electromagnetic interference, fly the aircraft to another location.*
14. **SD Full.** *The Micro SD Card is full.*
15. **No Prop.** *No propellers attached.*
16. **Bat Temp Hi.** *Intelligent flight battery is too hot.*
17. **Battery Err.** *Intelligent flight battery error.*
18. **Bat Temp Lo.** *Intelligent flight battery is too cold.*
19. **Low Battery.** *Intelligent flight battery low battery.*
20. **RC Low Bat.** *Remote controller low battery.*
21. **No RC Signl.** *Remote controller signal lost.*
22. **RC Temp Hi.** *Remote controller too hot.*
23. **No RTH.** *Aircraft cannot Return to Home.*

Battery issues

The battery cannot be turned on after the power button is pressed.

Cause: The battery level is too low or there is an error with the battery, so Shutdown protection mode is triggered.

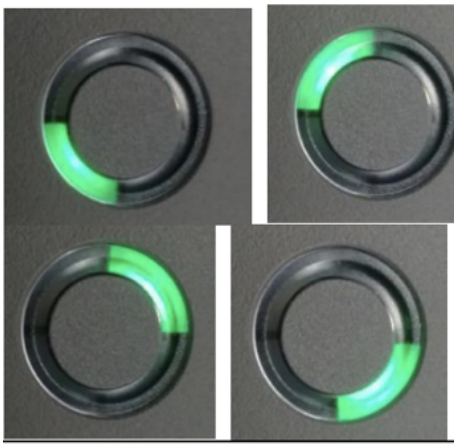
Assessment: Connect the charger and wait until the battery returns to normal and the

battery can be charged normally.

Solution: Use the charger to wake up the battery to confirm that the battery can be charged normally. Then mount the battery to the aircraft and check whether there is a warning shown in the app. (The communication fails, the authentication fails, or the voltage difference is larger.)

Cause: The battery's firmware update fails and the battery is in FU mode.

Assessment: Charge the battery with the charger and if the LEDs blinks in turn as shown, the battery is in FU mode.



Solution: Charge the battery with the charger for at least 30 minutes to ensure the battery's power level is enough. Update the battery with DJI Assistant 2. After the update, mount the battery to the aircraft and check whether there is a warning shown in the app.

Cause: The battery is in PF mode or the battery is damaged.

Assessment: Connect the charger and wait until the battery returns to normal and the battery can be charged normally.

Solution: Use the charger to wake up the battery to confirm that the battery can be charged normally. Then mount the battery to the aircraft and check whether there is a warning shown in the app. (The communication fails, the authentication fails, or the voltage difference is larger.)

Cause: The battery level is too low, and the battery cell's low voltage protection is triggered.

Assessment: After the battery is powered on, the battery will automatically turn off, but the battery can be charged by the charger.

Solution: Charge the battery for about 5 to 10 minutes, and check the battery again. Mount it to the aircraft and check whether there is a warning shown in the app.

Cause: The battery level is too low, and the battery cell's low voltage protection is triggered.

Assessment: After the battery is powered on, the battery will automatically turn off, but the battery can be charged by the charger.

Solution: Charge the battery for about 5 to 10 minutes, and check the battery again. Mount it to the aircraft and check whether there is a warning shown in the app.

The battery cannot be charged.

Cause: The battery level is high, and there is no need to charge the battery.

Assessment: Mount the battery to the aircraft and check whether the battery level is higher than 95% with the app, and the four LEDs light up.

Solution: Discharge the battery until the battery level is less than 95%. Then charge the battery again.

Cause: Overvoltage or overcurrent occurs, or the battery's temperature is too high or low during charging.

Assessment: Mount the battery to the aircraft and check whether the battery's temperature is between 5°C and 40°C with the app. During charging, check whether the LEDs report warnings (refer to the user manual).

Solution: Disconnect the battery from the charger. If the charging temperature is too high or low, get the battery to a suitable temperature (5 °C and 40°C). If Overvoltage or overcurrent occurs, let the battery stand for 5 to 10 minutes. Then mount it to the aircraft and check whether there is a warning shown in the app.

Battery communication fails. (A “Battery Communication Error” warning is shown, and the Battery Charging Hub cannot charge.)

Cause: The battery’s communication connector is not well connected.

Assessment: Remove and insert the battery again or replace the battery.

Solution: Check whether there is dirt or debris on the battery’s connector. If the issue is fixed, mount the battery to the aircraft and check whether there is a warning shown in the app.

Cause: The aircraft’s communication connector is not well connected.

Assessment: The warning still occurs after multiple batteries are used.

Solution: Check whether there is dirt or debris on the battery’s connector. If the issue is fixed, mount the battery to the aircraft and check whether there is a warning shown in the app.

Cause: The battery is damaged.

Assessment: The warning still occurs after the battery is removed and inserted several times. But the issue is fixed after another battery is used.

Solution: Select some batteries, contact the service manager and send back the battery for analysis. If the batteries cannot be sent back, export the flight logs and send them to the service manager for analysis.

The battery is not mounted in place.

Cause: The battery is not mounted firmly.

Assessment: Mount the battery again and make sure that the battery has been

locked firmly.

Solution: Mount the battery to the aircraft and check whether there is a warning shown in the app.

Cause: The battery position detection function does not work.

Assessment: Check whether the battery’s buckle is damaged, and whether the buckle can be pressed and springs back smoothly. If the issue persists after the battery is

mounted several times, and the issue is fixed after the battery is replaced, the battery position detection function does not work.

Solution: If the buckle can be locked firmly, and flight performance is not affected, the battery can be used as normal. If the buckle is damaged, replace the battery.

The battery is water damaged.

Cause: The battery is water damaged accidentally

Assessment: Remove the protective film at the top of the battery and check whether the liquid contact indicator has turned red. If yes, the battery is water damaged.

Solution: Replace the battery.

Further Battery Troubleshooting

Perform visual inspection.Check whether the battery is water damaged or disassembled the buckle is loose or the pin is misshapen.

- If yes, replace the battery if water damaged or disassembled. If the buckle is loose, the app will prompt that the battery is not mounted in place. If the pin is misshapen, the battery cannot connect well.
- If not, power on the battery and check whether the battery indicators display normally
    - If the button does not work or the LEDs do not light up, the battery may be in shutdown/low battery protection mode. Connect the battery to charger to activate it.
    - If the button does not work, LED1 and LED4 are off and LED2 and LED3 light up, the battery is in firmware update mode as the firmware update failed
    - If the battery can be turned on after the button is pressed but the battery powers off immediately, the battery's level is low. Charge the battery.
- Connect the charge and check whether it can be charged normally.
    - If the button does not work and the battery does not react after being connected to the charger and the LEDs are off then Battery PF (Permanent Fail) is triggered.

        - If the battery, can be turned on but it cannot be charged by the charger and the LEDs blinks then protection mode is triggered . Do not charge the battery.
        - If the battery, can be turned on but it can not be charged by the charger it is powered off, the battery's charging circuit is damaged
        - The battery can be charged normally but the LEDs blinks in turn. It indicates that the battery is in FU mode
- Check whether there is a warning shown in the app
    - The voltage difference is too large, the communication fails, the authentication fails and the battery is not mounties in place
- Check whether the low air flighting is passed
    - Check whether the voltage difference is too large

Remote controller issues

- Perform visual inspection
- Check whether the drone can be powered on
    - Check whether the remote controller's battery level is normal
    - If the battery cannot be charged the battery is malfunctioning
- Check whether the control stick and dial calibration and button test are passed
    - There may be an error with the control sticks, dial, or button board.
- Link with a normally functioning aircraft and check whether there is image transmission.
    - There may be an error with the main board
- Check whether the flight testing is passed
    - There may be an error with the image transmission
    - Check whether the antenna is damaged or not well connected
    - If the antenna is functioning the main board is damaged.

Obstacle Avoidance Failure

- Check Vision sensors for dirt
- Check whether the vision sensor obstacle avoidance option is turned on into DJI Go 4 App
- Check whether the single vision sensor calibration and vignetting test are passed
    - There may be an error with the vision module or core board.
- Check whether the dual vision sensors calibration is passed
    - There may be an error with the vision module or core board

Maintaining Height Failure

- Check the infrared sensing system
- Check whether the link test is passed
    - Replace the corresponding infrared module

Unsteady hovering

- Compass interference test
    - Under strong magnetic interference, the drone won't hover in place, flies in circle or crashes
- Perform a compass calibration with DJI Go 4 (Make sure that the test area is free of interference)
    - There is an error with the compass (GPS board)
- Perform a compass interference test with DJI Go 4
    - There is a large current near the compass

Gimbal

Mavic Air

Basic Troubleshooting

- Check if the drone can be powered on
    - If not, change the battery and try again
        - Battery may be damaged
    - Check whether the power board and core board flat cable is loose or damaged
        - Reattach or replace the flat cable
    - Replace the power board and check whether the aircraft can be turned on
        - Check for water damage
        - Power board may be damaged
    - Replace the core board and check whether the aircraft can be powered on
        - Check for water damage
        - Core board may be damaged
- Perform Link Test

Gimbal Issues

- The “self check” fails. The gimbal does not move/dance when drone is powered on
- The motor does not rotate and axis arm is obstructed
    - Hand rotate the gimbal joint to check whether it is obstructed. There may be debris in the gimbal or the joint is misshapen
- The gimbal rotates erratically
    - The hall magnet is loose causing the angle to be calculated wrongly. Replace the axis arm
    - Recalibrate the gimbal
    - Replace the camera module
- The motor is overloaded
    - There is debris on the motor
    - The motor FPC, cable coil, or driver tube is damaged resulting in it being unable to output torque normally. (replace the axis arm)
- The gimbal is tilted
    - The coaxial cable is connected incorrectly
    - Gimbal calibration in go 4 app
- The motor does not rotate
    - The coaxial cable is broken (pitch and roll axes).
    - The flat cable is broken (yaw axis)

There is no image transmission in the app

- Perform the link test and check whether there is an image transmission in the camera
    - There is an error with the core board Wifi
- Check whether the coaxial cable loose or damaged
    - Fasten or replace cable
    - Fasten or replace gimbal camera
- Replace the camera and check if the issue is fixed
    - replace the gimbal camera
- Replace the core board and check whether the issue is fixed
    - The core board is damaged

Vision test

- Check the infrared sensing system
- Check to see if the link test is passed

        - Replace the corresponding infrared sensing system

Compass interference (unsteady hovering)

- Compass calibration
    - If it fails multiple times there is an error with the compass (GPS board)

RC Fault

- Calibrate
    - Buttons are malfunctioning
- Link the rc with a normally functioning aircraft and whether there is image transmission
    - Main board is damaged
- Check whether the wireless performance test is passed
    - Check whether the antenna is loose or damaged
    - Replace the main board

Inspire 2

- Common Issue- Landing gear issue. Can’t rise or lower or trouble with converting travel mode
    - Middle frame replacement’

Misc Errors

- Gimbal motor overloaded. Check whether gimbal can rotate freely (Code: 40003)
- IMU not calibrated. Calibrate IMU (Code: 30055)
- IMU attitude restricted. Ensure aircraft is level (Code: 30082)
- Gimbal Yaw Limit Reached
- Compass error Solution: Move away from ground magnetic interference
- Compass Error. Compass data error. Please contact DJI Support.. Compass disconnected
- Compass Redundancy Switch
- Forward vision sensor error. Contact DJI Support for assistance (Code: 180018)
- Battery Alert Battery installation error. Please check the batteries are inserted correctly
- Battery installed incorrectly. Detach battery and reinstall it (Code: 30068)
- Battery error. Aircraft returning to home automatically (Code: 110024)

- Battery overheating. Stop flying and wait for battery temperature to return to normal (Code: 110002)
- Battery power low. Check battery status and charge or warm up battery (Code: 30078)
- Motor is idling (lost or missing propeller)
- Motor stuck. Check for objects blocking motor or contact DJI Support for assistance (Code: 30165)
- Warning:Motor Overloaded. Aircraft will decelerate to ensure safety
- Gimbal calibration error. Restart aircraft or contact DJI Support if the issue persists (Code: 40011)
- Aircraft max power load reached. Decrease altitude and fly with caution. If this issue persists, land immediately (Code: 30168)
- Gimbal stuck. Check whether gimbal lock is removed and ensure gimbal can rotate freely (Code: 40002)
- Not Enough Force/ESC Error
- Remote controller disconnected from aircraft (Code: 30029)
- Aircraft in Attitude mode. Unable to hover. Fly with caution (Code: 30004)
- Barometer Dead in Air
- Aircraft antenna satellite signal searching error. Fly with caution (0x1610008f)
- Battery cell broken, please replace the battery
- Camera Error (error code 01) Solution: Restart the aircraft, if the problem persists, contact DJI Support
- 10001 - Camera Malfunction
- 30226 - Takeoff failed
- 180016 - Downward vision sensor error
- 180031 - Vision Sensor Error
- 180030 - Vision Sensor Error
- 40021 - Gimbal IMU data error
- 10016 - Camera not calibrated

M210

Vision Sensors not working

- This can be cause of the rc signal is not being received, the vision board is damaged or the Forward Vision Sensor and Downward Vision Sensor are malfunctioning
    - Check whether the coaxial cable on the flight controller board is damaged.

If not replace the flight controller board
    - If the vision board's downward link is abnormal replace the vision board
    - If the forward vision sensors and downward vision sensors are malfunctioning replace them
- The forward vision sensor does not work while the downward vision sensor works the vision board works normally
    - Check the port for the forward vision sensor
    - Check the image transmission board
    - The coaxial cable between the image transmission board and vision processor is not connected well
    - The coaxial cable may be damaged

GPS issues

- Disconnect the 8 pin cable between the upper shell and GPS board. Connect an external GPS board and check whether the issue is fixed
    - The GPS module needs to be fixed
- Replace the 30 pin cable between the central board and expansion bay
- Replace the expansion bay
- Replace the central board

Remote Controller Beeping

- If the remote controller emits "DDD" sounds, check whether it is powered on when the control sticks are not centered.
- Check whether the remote controller can be powered off normally
- Press and hold the power button and then press it once while pressing and holding the flight pause button to power off the remote controller, restart the remote controller and update the firmware.
- Check whether the remote controller power is sufficient.
- Charge the remote controller.
- Check whether the control sticks are damaged and cannot be centered.
- If the status LED blinks twice and "DD" sounds are hearted, replace the main board.
- Replace the malfunctioning control stick