# **iFly EFB Aviation Tablet** User Manual



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## **Safety Instructions**



This symbol of "CAUTION" indicates that there is a danger of injury to the user or a risk of damage to the product, should warning notices be disregarded.



Read the safety instructions carefully and thoroughly. All cautions and warnings on the equipment or user's manual should be noted.



The openings on the enclosure are used for air convection and to prevent the equipment from overheating. Do not cover the openings.



Make sure the correct voltage(8-36VDC) is connected to the equipment.

If the equipment will not be used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.



Keep this equipment away from humidity.

Disconnect this equipment from the A/C outlet before cleaning it. Use a moist cloth. Do not use liquid or sprayed detergent for cleaning.

Never use any of the solvents, such as Thinner Spray-type cleaner, Wax, Benzene, Abrasive cleaner, Acid, or Alkaline solvent, on the display. Harsh chemicals may cause damage to the cabinet and the touch sensor.



For pluggable equipment, the socket outlet should be near the equipment and should be easily accessible.



Place this equipment on a reliable surface when installing. Dropping it or letting it fall may cause damage.



Do not scratch or rub the screen with a hard object.

If one of the following situations arises, reach out to Adventure Pilot Support:

- The power cord or plug is damaged.
- Liquid has penetrated the equipment.



- The equipment has been exposed to moisture.
- The equipment does not work well, or you cannot get it to work according to the user's manual.
- The equipment has been dropped or damaged.
- The equipment has obvious signs of breakage

# Warnings

- Do not over-torque screws on the back of the device to avoid puncturing the battery
- Do not install the iFly EFB Aviation Tablet where it obstructs the pilot's field of view or interferes with operating controls.
- The flight indicators shown on the iFly EFB app are based on GPS-derived data and may differ from the aircraft's instruments.
- The altitude shown on the iFly EFB app may differ from the altitude displayed by pressure altimeters. Always use the pressure altitude displayed by your aircraft's altimeter for determining aircraft altitude.
- The iFly EFB app is intended to supplement other navigation data sources and should be considered only as an aid to enhance situational awareness. This app is not intended for use as a primary reference for navigation or obstacle/terrain avoidance. It is the pilot's sole responsibility to be aware of the aircraft and surrounding conditions. Aircraft position, ground elevation, bearing, speed, and all other elements of flight that may be displayed on this unit should be verified by the pilot using redundant external sources.
- Data utilized by the iFly EFB app comes from government and other third-party sources. It is provided without express or implied warranty as to the accuracy, completeness, reliability, or suitability. Adventure Pilot, LLC shall not be liable for any errors, inaccuracies, omissions, or other defects in the software or data contained on this device.
- TFR and other airspace data may change. Contact FSS prior to each flight for the latest information.
- ADS-B/NEXRAD data should be used for long-range planning only. Weather information on this device, regardless of the source, is not appropriate for use in short-range weather avoidance.
- The terrain awareness features in this device are aids for terrain avoidance, but should not be used as a primary reference for terrain avoidance. This device is not certified for use in situations requiring a

certified terrain awareness system. Terrain data is from third-party sources and may contain inaccuracies.

- Interference from GPS repeaters operating inside nearby hangars can cause an intermittent loss of altitude and heading displays while the aircraft is on the ground.
- Do not use outdated data. Aviation databases, charts, and plates must be updated regularly to ensure that the information is accurate. Pilots using outdated data do so at their own risk.
- Traffic information is provided to aid in situational awareness. It is the pilot's responsibility to see and avoid. Be aware that it is quite possible for there to be additional air traffic that is not being displayed by iFly EFB.
- Do not use the Instruments Panel as a replacement for aircraft gauges. The Instruments Panel is for situational references only, not primary navigation

## **Rechargeable Battery Safety**

With very little care, you can optimize the battery life and maximize the lifespan of the battery. Most importantly, use only the equipment at its ideal operating temperature – do not leave it in a hot trunk during the summer.

• Using the Equipment for the First Time Be sure to fully charge (approx. 4 hours) the equipment when charging the equipment for the first time.



• Long-Term Storage & Maintenance

If you are putting away the battery for more than three months, it is recommended that the battery should be stored separately and fully charged, and get recharged every three months. If you store an uncharged battery, it could fall into a deep worn-out state which would render it incapable of holding any charge. Be sure to store the equipment and battery at the proper temperature.

#### Warranty

This product is warranted to be in good working order during the warranty period. Should this product fail to be in good working order at any time during this period, we will, at our option, replace or repair it according to Adventure Pilot after-sale service terms. This warranty does not apply to products damaged by misuse, modifications, accidents, or disasters.

Adventure Pilot assumes no liability for any damages, lost profits, lost savings, or any other incidental or consequential damage resulting from the use, misuse of, or inability to use this product. Adventure Pilot will not be liable for any claim made by any other related party.

Return authorization must be obtained from Adventure Pilot before returned merchandise will be accepted. Authorization can be obtained by calling or emailing Adventure Pilot and requesting a Return Merchandise Authorization (RMA) number. Returned goods should always be accompanied by a clear problem description.

## 1. Introduction

#### **1.1. Product Highlights**

- Qualcomm Cortex-A53 64-bit Quad-Core Processor 2.0 GHz
- Android 12 Operation System
- IP67 water rating
- WIFI, Bluetooth, LTE, GNSS, and 5000mAh rechargeable battery supported
- 7 Inch IPS Display, physical 1280x800 resolution, 800cd/m<sup>2</sup>, multi-point capacitive touch
- Portable with Docking Station



#### **1.2.** Parts of the Device

## **1.3. Docking Station**



# 1.4. Specifications

System	CPU	Qualcomm Cortex-A53 64-bit Quad-Core Processor 2.0 GHz	
	OS	Android 12	
	GPU	Adreno <sup>™</sup> 702	
	RAM	LPDDR4 4GB	
	Storage	eMMC 64GB	
Display	LCD	7 Inch Digital Touch Screen IPS Panel, 1280 x 800, 800 nits	
Audio	Integrated speaker 8Ω/2W		
	Integrated Microphone		
Communication	GNSS	GPS/BeiDou/GLONASS/G alileo/QZSS/SBAS/NavIC L1 + L5 Antenna	
	WIFI	802.11a/b/g/n/ac; 2.4GHz&5GHz	
	Bluetooth	2.1 EDR/3.0 HS/4.2 BLE/5.0 BLE	
Sensor	Acceleration, Gyro, Compass, Ambient Light		
Ports/Interfaces	USB	Type-C(USB Type-A and	
		USB Type-C cannot be	
		used simultaneously)	
	Micro SD Slot	1 x Micro SD card slot, up to 512GB	
	SIM Socket	1 x Micro SIM Card slot	

	Earphone Jack	3.5mm headphone jack compliant with CTIA standard
	Docking Connector	POGO PIN x24
Camera	Front 5.0 Megapixel	
	Rear: 16.0 Megapixel	
Power	Power	DC 8-36V
	Battery	3.7V, 5000mAh battery
Environmental	Vibration test	MIL-STD-810G
	IP Rating	IP67
	Drop Test	1.2 Meters
	Operating temperature	-10°C ~ 65°C (14°F ~ 149°F)
	Storage Temperature	-20°C ~ 70°C (-4°F ~ 158°F)

Extended Interface (Docking Station)		
Serial Port	COM2	1 x RS232 (Optional with RTS & CTS)
ACC Power	DC8-36V, DC Connector is 5.5mm x 2.1mm x 1mm (8-36V)	

## 2. Getting Started

## 2.1. Powering On/Off and Sleeping/Waking

This Chapter describes how to power on/off the device, put the device into

sleep mode (screen saver), and force restart.

Proper operation of power on/off the device will be beneficial to ensure the stability of the system. The device status shown by the color of the light indicator is as described in the following table for the iFly EFB Aviation Tablet.

Device and Light Indicator Guide

Power status	Power On	Shutdown
DC input	Fully charged: Green	Fully charged: Off
	Not fully charged: Orange	Not fully charged: Red
No DC input	Green	Light off
No internal battery	Green	Light off

When a red or green light flashes, this can indicate an error. Please unplug the device and try turning the tablet on again. If the device doesn't power on or experiences more issues, contact Adventure Pilot Support.

## 2.1.1. Powering on the Device

- 1. To power on the device, long press the power button for more than 2 seconds. It takes roughly 35 seconds to start the system. The light indicator will be on when the device starts up normally.
- 2. To power on the device by connecting ACC, see the details in Chapter "3.2.3 Using ACC".
- 3. Standby Power: 5W

## 2.1.2. Powering off the Device

- 1. To power off the device, long press the power button for more than 2 seconds until the shutdown prompt pops up. Then click the "Power off" option.
- 2. To power off by ACC, see the details in the Chapter "3.2.3 Using ACC".

## 2.1.3. Sleeping and Waking the Device

- a. Auto sleep, the sleep time can be set up in the settings.
- b. Short press the power button to sleep.
- c. Sleep by ACC, see the details in Chapter "3.2.3 Using ACC"

- d. Short press to wake
- e. Wake by ACC, see the details in Chapter "3.2.3 Using ACC"
- f. The average power consumption in sleep status:
- g. Powered by DC power supply or USB: 0.78W

## 2.2. Installing a Micro SD Card and a Micro SIM Card

To install the micro SD card or Micro SIM card:

- a. Find the Micro SIM card slot or the Micro SD card slot. The following graphics illustrate the correct card orientation, which the card chips are facing into the display orientation:
- b. To install the Micro SIM card or the Micro SD card, orient the card as indicated, and fully insert the card into the slot until it locks into place.
- c. Lock the interface cover with screws.



## 2.3. Charging the Battery

During transportation, the battery will become partially discharged, so it is important to fully charge the device before turning it on for the first time.

#### Tips:

Please keep the taablet from being plugged in for an extended period by an

external DC supply while the device is in use. This helps ensure the life and performance of the battery. If you plan on storing the device for an extended period of time, make sure the battery is fully charged, and also be sure to recharge it once every 3 months to maintain a healthy battery.

## 2.3.1. Charging with the Power Adapter

To charge the battery with the provided power adapter:

- a. If you plan on using the Docking Station, mount the iFly EFB Aviation Tablet in the docking station and connect the power adapter to the DC port of the Docking Station.
- b. The iFly EFB Aviation Tablet can be powered by a 5V charger adapter through a type-C cable.
- c. The DC power supply voltage input range of the docking station is 8-36V, and the DC power supply of the tablet is 5V. Please note that the adapter must be of the corresponding specification when supplying power to the tablet or the docking station.

#### Note:

The power supply of the docking station has priority over the Type-C power supply. When both power sources are present, the tablet will automatically switch to be powered by the docking station

## **Checking the Battery Level**

When charging the device, a battery indicator will appear in the status bar showing the charging percentage. To view the charge percentage, swipe down the Status Bar and you will see the charging percentage.



## 2.3.2. Installing/Replacing the Battery

In case you need to install or replace the battery, follow the steps below to access the battery chamber and replace the battery.

- 1. Place the device on a flat surface, with the rear side facing up. Loosen the retaining screws on the back cover by using a Hexagon socket screwdriver with a flat head
- 2. Before you re-install or replace a battery, the pin definition and direction of the battery connector must be checked, to make sure the contact pins are aligned correctly.



3. Assemble the battery cover and secure the retaining screws by using a Hexagon socket screwdriver with a flat head.



## 2.4. Optimizing Battery Life

If the iFly EFB Aviation Tablet is unable to keep charging by DC power supply, to optimize the operating time of the battery, it is recommended that you do the following:

- 2 Decrease the LCD display brightness.
- 2 Set a shorter timeout of inactivity to allow the screen to enter sleep mode.
- 2 Turn off the display if you are not using it.
- <sup>2</sup> Turn off Wi-Fi, Bluetooth, or GPS function if you are not using it.
- 2 Set a battery protection plan to automatically turn on battery protection when the battery is below the set threshold.



## 3. Using the iFly EFB Aviation Tablet

## 3.1.Software Functions

## 3.1.1. Virtual Buttons/Home Buttons

Find the "System navigation" switch button in "Settings $\rightarrow$ Accessibility $\rightarrow$ Navigation switch". This can be used to control the display or hide the virtual

buttons on the right side of the screen.

You can use gestures or three virtual buttons to return, return to the main interface, and switch app operations in the background.



## 3.1.2. Button Backlight

Find the Lights switch in "Settings $\rightarrow$ Accessibility $\rightarrow$ Button backlight". If the switch is turned on, the screen wakes up/turns off and the button backlight is on/off at the same time; if the switch is turned off, the button backlight is off whenever the screen is woken up or turned off.

## 3.1.3. Using Type-C Interface

You can transfer files, such as pictures or audio files, between your computer and your device using the provided USB cable.

#### 3.1.3.1. File Transfer

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 Connect the device to a computer by using the Type-c cable to enter the USB debugging mode of the tablet. It will open the prompt message on the status bar. Referring to the following figure, click "charging this device via USB" to expand other options.



2. Then select "File Transfer".



3. On the computer, find the "Device" under "This PC"

# 3.2. Hardware Functions

#### 3.2.1. Docking Station

When placing the device on the docking station, it's recommended to disconnect the DC power of the docking station first, and then reconnect the DC power of the docking station after installation.

## 3.2.2. Using the Serial Port Connection

PIN 2 is transmit and PIN 5 is ground. The COM port can be selected within the iFly EFB app by going to Menu > Setup > NMEA Output > Send to COM Port. This to be checked and Normal, Extended, or Custom has to be selected. Selecting Custom allows you to change to Baud Rate and NMEA sentence types. Please refer to the documentation of the device you are connecting to the docking station for the correct Baud rate and sentence types.

The Simulation Mode option allows for testing of the NMEA output for the Docking Station. Tap on Menu > Start Simulation Mode > Show Simulation Controls > Default Alt. Tap on the arrows for speed and altitude. Now observe on the device connected to the docking station that data is being transmitted.

Note: The docking station requires DC power to send data from the Serial port.

## 3.2.3. Using ACC

#### 3.2.3.1. ACC Connection Instruction

Connect the tablet with the vehicle power supply through an extended cable or the docking station. Connect the ACC wire on the extended cable of the tablet with the ACC plug of the aircraft/vehicle. Go to the settings application and open the ACC Setting.

From here, turn the Use ACC option ON. When using the docking station, this will turn the Aviation Tablet On from sleep and when fully powered off.



## 3.2.4. System Root Switch Usage Guide

Root switch setting path: setting>Accessibility>System root

9:14 🖯 🔳	<b>N</b>
← Accessibility	
<ul> <li>Image: Audio adjustment</li> </ul>	
General	
Accessibility shortcuts	
Text-to-speech output	
Functions	
System root Off	
Debug uart <sup>Off</sup>	

The root switch setting interface is as follows.

- 1. The Root permission (on/off) switcher. Initial password: qwertyuiop
- 2. Modify the switch password of the root state.

#### Note:

If you restore the tablet to factory settings, the root switch state will be reset to OFF, and the password will be restored to the initial password, or none.



Once any software will have the highest permissions after the system root, choose carefully whether to open root.

## 3.2.5. Connecting devices over Wi-Fi

Connecting the Aviation Tablet to the internet, ADSB-IN, or other device, is done in the Settings app.

Open the Settings app on the home screen and open the Network & Internet option. Now select Wi-Fi, and turn the Use Wi-Fi switch to the ON or right position. Then, select the Wi-Fi network you would like to connect to. Enter the password if prompted.

12:10 @		0 🗣 🗎
Wi	-Fi	
Us	e Wi-Fi	
<b>7</b> 4	AdventurePilot_Guest	۲
<b>*</b>	DG1670AD2	⋳
<ul><li>€</li><li>€</li></ul>	DG1670AD2 MySpectrumWiFiB3-5G	⋳

To Disconnect from a Wi-Fi network, tap on the current connected Wi-Fi network and select disconnect. To remove a Wi-Fi network from the memory, select forget.

## 4. Docking Station Usage Instructions

#### 4.1. Docking Station Installation Steps

- 1) Align the iFly EFB Aviation Tablet to the limit slot of the docking station (Figure 1)
- 2) Pull the Buckle on the Docking Station up (Figure 2)
- 3) Push the iFly EFB Aviation Tablet to make it attached to the docking station via a snap joint (Figure 3)
- 4) Release and finish the installation (Figure 4)





Figure 2





#### 4.2. Docking Station Disassembly Steps

- 1) Stretch the buckle upwards to release it from the device (Figure 5)
- 2) Take out the device (Figure 6)





Figure 6

## **5.** Accessories



Quantity	Accessory
1	USB Type - A to USB Type - C Cable
1	USB Type - A AC Adapter
1	Allen Wrench
4	Screws for RAM Mount
1	RAM 1" Ball Mount (Optional Add-On, Order Online)
1	RAM 1" Double Ball Mount with Backing Plate (Optional Add-On, Order Online)
1	Docking Station (Optional Add-On, Order Online)