AVIDYNE™

**IFD100 Tablet Application
& IFD Training Simulator**

Quick Reference Guide

Revision History

Rev Number	Date of Release	Reason for Release
00	Feb 2017	Initial Release of document that coincided with Software Release 10.2.0.0
01	July 2017	Added IFD simulator & MK10 instructions

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IFD100 System Overview

Avidyne strongly recommends that pilots use the IFD100 system only under VFR conditions until completely familiar with its operation and use.

To learn about the app functions and how to use those functions, refer to the pilot guide for the panel mounted IFD that this app is connected to.

This quick reference guide is only intended to highlight some of the layout or behavioral differences that were made to optimize it for mobile touch only devices.

IFD100 Integrated Flight Display

INTENDED FUNCTION

The Avidyne IFD100 is a mobile application that is a non-certified PED (Portable Electronic Device) that is running similar software as the panel mounted IFD Series of Navigators. It is a non-required, supplemental app that is designed as a convenience for

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the pilot. It should be considered to be a second instantiation of the panel mounted IFD, as it uses that systems data.

<table>
<tr><td>NOTE</td></tr>
<tr><td>No Internal GPS Use
The IFD100 does not make use of the internal iPad GPS. In order for the IFD100 app to receive GPS position, it must be connected to a panel mounted IFD.</td></tr>
</table>

Functional Overview

CONNECTION CONFIRMATION

There are a few visible indications that the user has a connection between the panel mounted IFD and the IFD100. One example is the frequency datablock will go from the red X'd (failed state) to populated with the frequencies currently displayed on the panel mounted IFD550/540/440. If you are connecting to an IFD550 or IFD545, the button for the SVS page will appear. For IFD410 or IFD510 users, a tone will sound (similar to the TOD chime) when you have sucessfully transferred flight plan data.

OFFLINE USE

The IFD100 will have limited functionality offline (not connected to a panel mounted IFD). The user will be able to save routes for later upload to the panel mounted IFD. The IFD100 adds saved stored routes to the route list found on the panel mounted IFD. For more information regarding how to save stored routes, see the appropriate pilot guide for the panel mounted IFD installed in the aircraft.

The IFD100 is not desgined as a preflight application. The application does not have capabilities to connect to the internet for services such as preflight weather briefings, flight plan filing or weather radar display.

INITIAL CONFIGURATION

Power on the panel mounted IFD and acknowledge the startup screens. If Wifi is enabled in the settings, a large green message box will be displayed giving you the choice to Allow WiFi interactions. Once Allow is pressed, the WiFi signal symbol will be displayed in the top right corner of the IFD display. Next, go into the iPad settings (i.e. where you normally switch your Wi-Fi host). In the iPad settings, scroll the left side navigation bar until you see a list of applications installed on your iPad. From that list, select the "IFD100" app (see image below). This is where you will configure the IFD100 to match the IFD that is installed in your panel. An important note, the IFD Chassis ID* must match the panel "Sys ID". The iPad ID # is for users electing to use multiple iPads (a maximum of 2 iPads can be connected to a single panel IFD).

IFD100 Settings
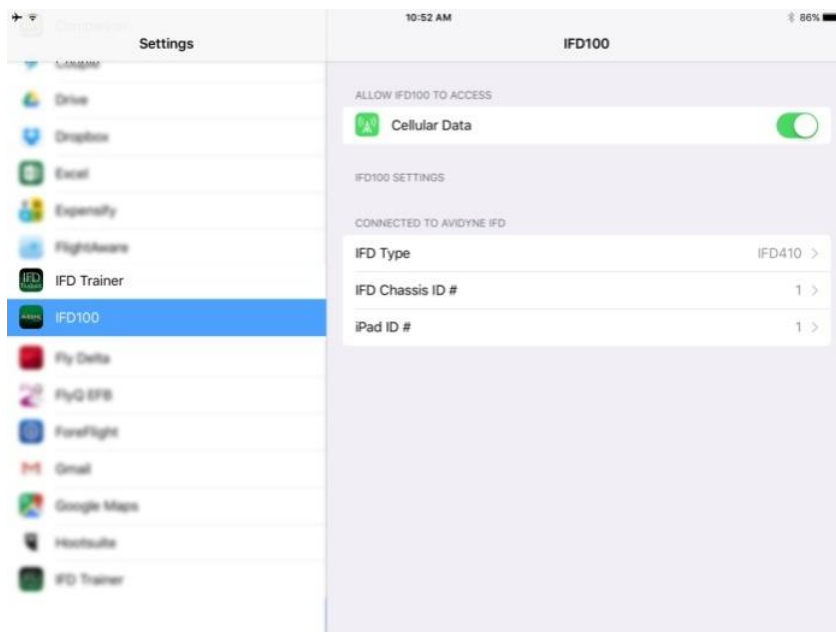
TIP
How do I find my IFD Chassis ID?
While your panel mounted IFD is on, go to the AUX page and select the SYS tab. The "Sys ID" on this tab is the IFD Chassis ID #.

NOTE
Where is the WiFi logo?
If the green box does not appear, then the WiFi may not be enabled in the user settings. Check that WiFi selection on the AUX page user settings is set to "on". If the WiFi user setting is not shown (greyed out), the IFD might not have the WiFi option.

START-UP SEQUENCE

The startup sequence of the IFD is as follows:

- A Jeppesen log in screen appears. This application requires equivalent database cycles to those loaded on your panel mounted IFD. Use the same account information that you use for your panel mounted IFD databases. For this step, you must have an internet connection to access the Jeppesen servers. Demo databases are available for familiarization only (log in with no username or password).

JEPPESEN LOG IN SCREEN

- If there are 3rd party weather or traffic sensors connected to the IFD, then a vendor mandated disclaimer page is presented advising the pilot that those products are installed.

- The IFD100 is now ready for use.

DATABASE DOWNLOAD PAGE

After logging in, you will see a list of databases that can be downloaded with this serial key. Available databases will be shown with a blue cloud and those that are already installed will be shown with a green checkmark. Base Map and Terrain data is available on all accounts. Terrain data takes a lot of storage space and regions that are not flown over do not need to be downloaded.You can only have one Nav region and one Obstacle region loaded at a time.

UPDATE DATABASE SETTING

Touching the setting icon in the top right corner will flip the display to this setting page. Here you can see what serial key you have activated and you can deactivate it by tapping Deactivate. This will free up a device and erase all currently installed databases! There is also a log of all the interactions that have occurred in this session and any errors that may have happen. This log can be copied and pasted into an email to tech support.

DOWNLOAD A DATABASE

Touch the row of the database you wish to download and tap Download at the bottom right to start the download. Once the download starts, it can be cancelled by tapping Cancel. All other interactions are suppressed. There is a download progress bar located at the bottom. Any error that occurs during the download will be shown below it and in the activity log on the flip setting page.

MERGE CHARTS

Multiple Chart regions can be merged and used together in the App. This requires a extra step after the download completes. Once all the desired databases are downloaded you can Exit.

At this point you want to close the App if it didn't close itself or send it to the background. You will need to switch the WiFi network to the IFD.

FIRST TIME CONFIGURATION

The very first time the IFD100 connects to a new IFD it will read the IFD sensor setup and configuration. If there is a change to the current configuration of the IFD100 a CAS message will be displayed asking you to restart the IFD100 App. You must do so in order for the sensor data to be read correctly. There will be another CAS message in the case that the Nav databases do not match between the IFD100 and IFD. In that case, the automatic FPL transfer will be disabled.
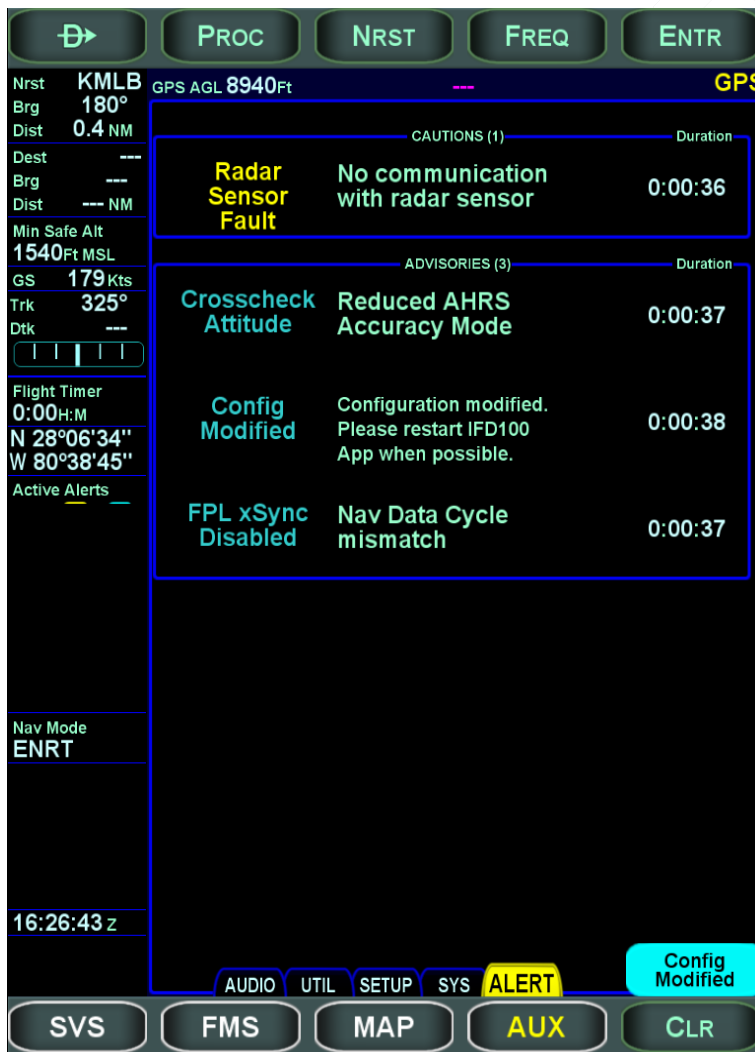
PAGE FUNCTION KEYS

To learn more about the information on the PAGEs and TABs, refer to the appropriate Pilot Guide for the IFD that is installed in your aircraft.

GENERAL IFD100 OPERATIONS

The IFD100 Integrated Flight Display (IFD) is a touch screen display that has been designed to work with all panel mounted IFDs.

SCREEN LAYOUT (LANDSCAPE)

Persistent Frequency Slot (n/a IFD545/510/410)

Configurable Datablock(s)

Line Select Keys (LSK)

Bezel Keys

Pages

Bezel Key

SCREEN LAYOUT (PORTRAIT)

Bezel Keys

Configurable Datablock(s)

Persistent Frequency Slot (n/a IFD545/510/410)

Configurable Datablock(s)

Line Select Keys

⊅	PROC	NRST
	FREQ	ENTR

WITCH
Dtk 070°
TkDist 8.6 NM
ETE 0:03 H:M
Nrst KLWM
Brg 346°
Dist 5.5 NM
Dest KPWM
Brg 043°
Dist 69.0 NM
Min Safe Alt
1880 Ft MSL
GS 157 Kts
Trk 116°
Dtk 070°

Flight Timer

124.400
Boston App
124.900
Boston App
116.50
112.90

VOR ---
RAD ---
DIS ---
Nav Mode
TERM

View
Expanded

Insert

18:35:57 Z   GPS AGL 2100 Ft   GPS

Origin
↳ KBED   Brg: 240°   14.2 NM
Hanscom

Fly Direct (070°)   To: 8.6 NM   3:16 M:S
↳ WITCH   At: 6:39 PM

Fly Direct (020°)   To: 24.2 NM   9:12 M:S
↳ PSM   At: 6:48 PM

Fly Direct (019°)   To: 11.8 NM   4:29 M:S
↳ YUKES   At: 6:52 PM

Fly Direct (060°)   To: 12.4 NM   4:42 M:S
↳ ENE   At: 6:57 PM

Fly Direct (060°)   To: 18.7 NM   7:08 M:S
↳ KPWM   At: 7:04 PM

FPL | INFO | ROUTE | WPT | NRST

FMS	MAP	AUX		CLR

Pages   **Bezel Key**

DISPLAY DIFFERENT PAGES

The IFD100 and the panel mounted IFD that the IFD100 is connected to do not have to be on the same page or tab while functioning. An example, a user has programmed an approach at an airport on their panel IFD. The user wants to recall the minimums for that particular approach, instead of leaving the FMS page, FPL tab that they are on, they can select the CHART tab on their IFD100 (assuming they are connected to an IFD5XX). Another example, a user has limited panel space so they opted for the IFD4XX series. The user also utilizes a flexible arm mount for their iPad that displays the IFD100 app. The user wants to have the FMS page with the FPL tab open on their IFD4XX and the MAP page open on their IFD100.

DIFFERENT NAV DATABASES

The IFD100 and the panel mounted IFD do not have to have the same cycle navigation database however, the panel mounted IFD will not share flight plan information with the IFD100 (or vice versa).

RADIO TUNING

The IFD100 has the capability to tune the standby VHF radio slot of both the Com and Nav. The capability is limited to tuning, pressing the flip-flop key on the panel mounted IFD bezel is needed to move the standby frequency into the active.

COOL FEATURE
Have two iPads? You can connect your IFD100 to the IFD Trainer app. When the IFD100 and the IFD Trainer app are on the same network, they will exchange information back and forth. This is a great feature to help the user visualize the functions of the IFD100 in flight.

NOTE
Have two IFDs? It is highly recommended that only one IFD have WiFi turned on in a dual IFD installed aircraft.

IFD iPad Simulator System Overview

INITIAL OPERATION

Similarly to the IFD100, the IFD iPad simulator uses a Jeppesen database for Navigation, Charts, Terrain, Obstacles and MapData. For maximum realism while training, if the user has a Jeppesen subscription for their aircraft, they can enter in their Jeppesen credentials so that they can match the databases to what they have in their aircraft.

DOWNLOADING A DATABASE

To download a database, the iPad must be connected to a network (either wifi or cellular). Touch the row of the database you wish to download and tap "Download" at the bottom right to start the download. Once the download starts, it can be cancelled by tapping Cancel. All other interactions are suppressed. There is a download progress bar located at the bottom. Any error that occurs during the download will be shown below.

DEMO SET OF DATA

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Once you have downloaded the data set you want, you can press exit and the app will automatically boot into the simulator.

In the simulator, the aircaft speed, heading and altitude can be controlled using the sliders on the bottom and side of the app window. The simulation can also be paused by toggling the "Simulator" slider at the bottom of the app from "FLY" to "STOP".

SWITCHING IFD MODELS

The switching of IFD types (IFD550, IFD540, IFD440), can be found in the iPad settings, similarly to where the IFD100 settings, previously mentioned are located.

MK10 Bluetooth Keyboard Overview

INTENDED FUNCTION

The Avidyne MK10 is a Bluetooth® keyboard is a non-certified PED (Portable Electronic Device) that aides the user with data entry into the panel mounted IFD Series of Navigators. It is a non-required, supplemental product that is designed as a convenience for the pilot.

INITIAL CONFIGURATION

Power on the panel mounted IFD and acknowledge the startup screens. If Bluetooth is enabled in the settings, a large green message box will be displayed giving you the choice to Allow Bluetooth interactions. Once Allow is pressed, the Bluetooth signal symbol will be displayed in the top right corner of the IFD display. Next, go into the panel IFD Maintenance mode settings

(i.e. where you update NavData on your unit) and follow the below steps:

1. Ensure the supplied keyboard has adequate charge;turn it on using the left side switch (Avidyne supplied unit);

2. Ensure Bluetooth is turned on in the User Options page of the IFD;

3. Ensure the IFD has been powered on for at least one minute, and is in Maintenance Mode with the Bluetooth® Pairing page displayed;

4. Activate the pairing control on the keyboard (make it "discoverable") to put the keyboard into pairing mode by pressing the button on the back of the Avidyne supplied keyboard;

5. Press the "Start Scan" line select key
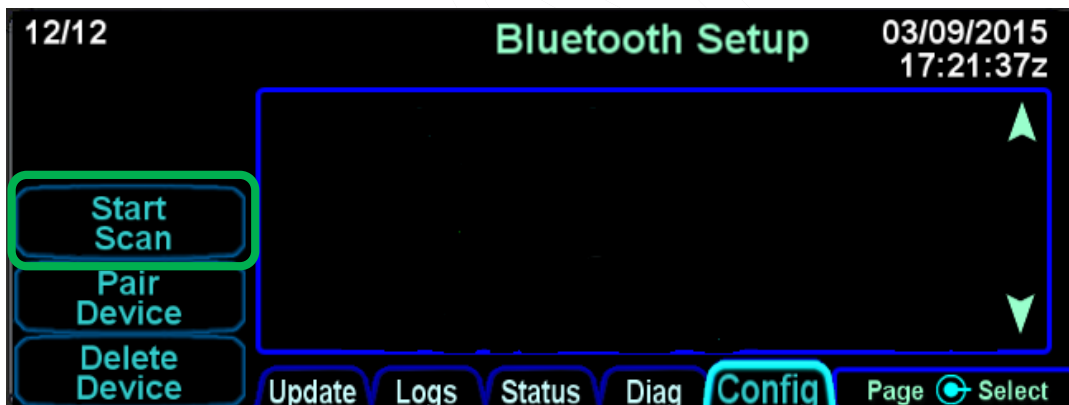
6. Press the "Stop Scan" line select key once the keyboard is discovered.
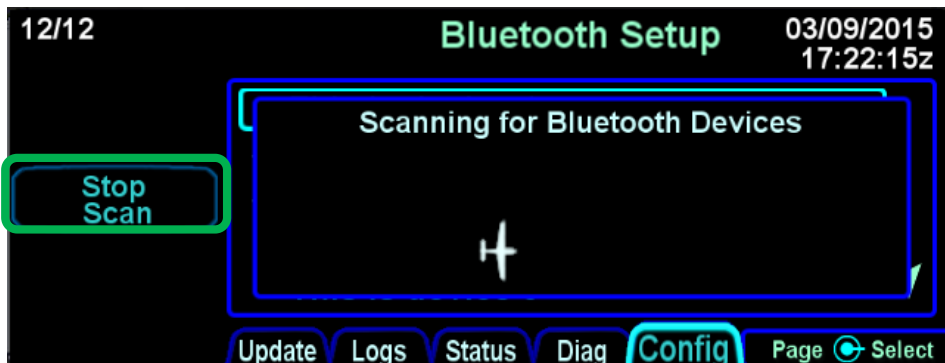
7. Select the device you want to pair with by using the bottom right IFD knob to put the cyan wraparound cursor on the desired device;

8. Press the "Pair Device" line select key and wait for the PIN code to appear;

9. Enter the PIN code using the external keyboard and press "ENTER" on the keyboard;
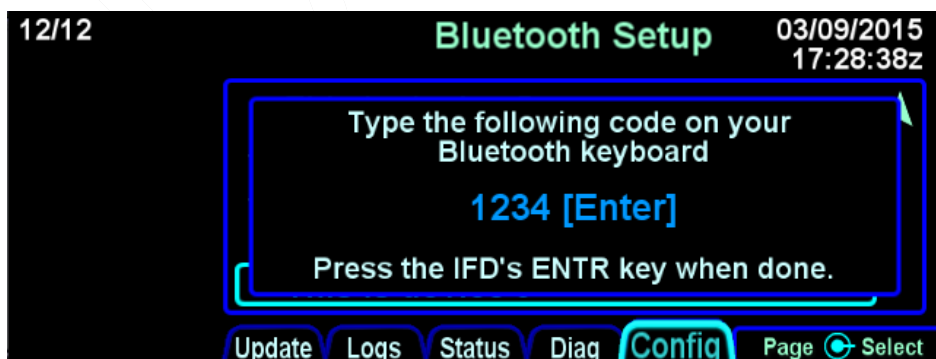
10. The selected device in the list will turn green if pairing was successful.
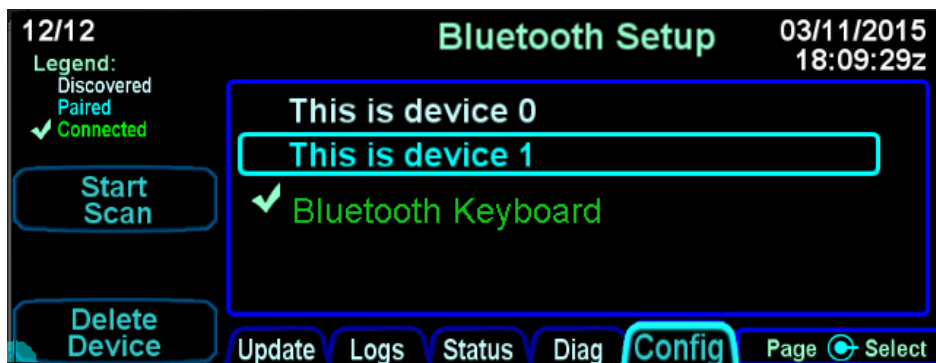
11. If the device name does not turn green or disappears, retry the procedure from step 4;

12. Put the IFD back into flight mode;

13. Press ALLOW to enable WiFi and Bluetooth interactions;
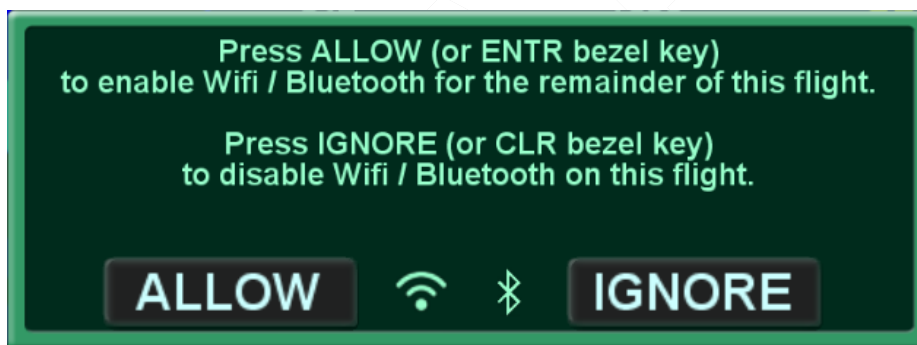
14. On the Bluetooth® keyboard, type in a new com frequency and verify the value on the IFD updates accordingly. If it did, pairing was successful and complete.

KEYBOARD LAYOUT

1. Keyboard Status lights

    a. Flashes Yellow when keys are pressed (paired)

    b. Solid Red when charging

    c. Flashes Green during pairing, Solid Green when paired

    d. Not supported

2. When paired, press this key for backlighting of keys

3. Com/Nav flip flop

4. Audio volume and mute controls

5. Navigation and Frequncey buttons

6. OBS toggle

7. Com preset cycle button

8. Map zoom

9. Com/Nav/Transponder (when AXP322 installed) toggle

10. IFD Pages selection

RECOMMENDED IPADS/SOFTWARE LEVEL

For the best experience we highly recommend that the IFD100 and the IFD simulator be run on an iPad 2 or later, running IOS 9.1 or later.

Website There is a dedicated website that provides more information on this product at: http://www.avidyne.com/products/ifd/ifd100.html

FAQs http://www.avidyne.com/files/downloads/literature/IFD540-FAQ.pdf

Service Hotline A hotline has been established to service questions or issues regarding Avidyne products. The U.S. Toll Free number is 1-888-723-7592. International toll free numbers are listed at http://www.avidyne.com/contact/intphones.html

Email Customer/product support issues can be emailed as well at techsupp@avidyne.com

When calling or emailing for product-related help, please have the following information available, if able:

- Customer Name/Account Information
- Aircraft tail number, IFD serial number, and software versions.
- iPad model, storage size and iOS version
- A good description of the problem or question.
- A copy of your data logs.

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