## Document Revisions

<table>
<thead>
<tr>
<th>Revision</th>
<th>Description of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Grammatical updates. Added sequence procedure for updating Garmin database.</td>
</tr>
<tr>
<td>()</td>
<td>Initial Release</td>
</tr>
</tbody>
</table>

### WARNING

The device described in this guide may not be sold to or possessed by any person other than (i) an Aspen authorized dealer or (ii) the owner, or a person authorized by the owner, of an aircraft in which this device has been properly installed and initialized by an authorized Aspen dealer. If the described device has come into your possession in any other way or under any other circumstances, immediately take this unit to the nearest authorized Aspen dealer or contact Aspen at the address shown herein, to arrange for return of the unit.

### NOTE

The device described in this guide contains trade secrets, copyrighted computer programs and protocols, and other copyrighted works which are not sold to you. Rather, they are licensed pursuant to the terms of the End User License Agreement.

### NOTE

All operators have the responsibility of maintaining security safeguards by ensuring that only authorized devices are linked to the Connected Panel system. Refer to Section 3.1 of the ICA (Instructions for Continued Airworthiness) for more details.

The EFD1000, EFD1000C3, EFD1000H, EFD500, and EFD500H, and derivatives thereof, are protected under U.S. Patent Number 8,085,168 and additional patents pending.
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Welcome!
Welcome and Introduction

Welcome to Connected™ Pilot, the first in the series of Aspen’s revolutionary Connected Panel™ product line that provides a wireless link between certified instrument panel avionics and portable smart devices.

This guide will walk you through the required steps to configure your Connected Pilot system.

Connected Pilot allows the operator to easily create and synchronize flight plans between the Garmin GNS400W/500W series navigator and Connected Panel Enabled™ flight planning apps.

Aspen’s Connected Panel partners continue to develop Connected Panel enabled hardware and software solutions that will increase functionality and integration capability for the Connected Panel product line.

Welcome to the next level of innovation and functionality for the Evolution Flight Displays.

For more information, visit www.connectedpanel.com
Figure A
Connected™ Pilot Diagram
Section 1

Pilot’s Initial Setup Process

1.1 Flight Connect app

The Flight Connect app is used to configure the CG100 Connected Gateway hardware after it has been installed in the aircraft. Flight Connect enables you to access and manage configuration settings for the CG100 and the Connected Panel system.

Install Flight Connect app (free download) on your mobile device (iPad). When the download is complete, “Connected” will appear below the Flight Connect icon (Fig 1-1).

1.2 Your Connected Panel Account

Your installer has established a Connected Panel account for you by using the email address that you provided.

You will receive via email

- A temporary password for your Connected Panel account (the Username is your email address)
- Update notifications for Connected Panel

Your account will enable you to:

- Receive update notifications for Connected Panel
- Download updates
- Change login password/Edit account information
- Personalize CG100 settings
- Add authorized user(s)

NOTE

All operators have the responsibility of maintaining security safeguards by ensuring that only authorized devices are linked to the Connected Panel system.

Refer to Section 3.1 of the ICA (Instructions for Continued Airworthiness) for more details.
Login to your Connected Panel account

1. a) Go to secure.connectedpanel.com using a web browser (Fig 1-2)

   -or-

   b) Launch Flight Connect and tap on the Connected Portal icon (Fig 1-3).
      (login information not required)

2. Enter your email address, temporary password and tap Log In (Fig 1-2)
3. Edit all password fields to change password (Fig 1-4)
4. Check the box, “I accept the Aspen Connected Panel License Agreement”
5. Tap Change Password

To view the End User License Agreement (EULA):

- Tap Aspen Connected Panel License Agreement
- Tap ‘x’ to close the License Agreement

**NOTE**

All authorized users of a company owned aircraft must have their own Connected Panel account.

Authorized users can be added at any time by following the procedures outlined in Section 1, Adding an Authorized User.
After successful change of your password, the **Dashboard** page of your Connected Panel account is presented (Fig 1-5).
Adding an Authorized User

From the Dashboard page

1. Tap **View Details** (Fig 1-5)
   The Connected Panel Gateway Information page is presented (Fig 1-6).
2. Tap the “+” symbol, **Add Authorized User** located above the NAME column (Fig 1-6)
3. Enter information (Fig 1-7)
4. Tap **Add This User** located at the top right (Fig 1-7)
   The new user appears on the Gateway Information page.
5. Tap **Return to Dashboard** to exit Gateway Information (Fig 1-6)
**Edit Your Account Information**

1. Tap **Account** *(Fig 1-8)*

2. Edit fields as necessary

3. Tap **Change Password** and edit all password fields to change your password (if required)

4. Tap **Save**

5. Tap **Logout**

*Fig 1-8*

Account Page - Change Password
### 1.3 Launching Flight Connect

Launching Flight Connect will automatically take you to the account login page. *(Fig 1-9)*. The following selectable icons are presented at the bottom of the screen; Radio, Configure, Account, and Connected Portal.

<table>
<thead>
<tr>
<th>FLIGHT CONNECT PAGE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio</td>
<td>Currently, there are no available radio functions. The Radio page will only display the following: radio frequencies from the MFD, the aircraft registration or tail number, and the active leg and next waypoint. Future applications to expand the Radio functionality for remote tuning are in development.</td>
</tr>
<tr>
<td>Configure</td>
<td>The Configure page displays the configuration fields for the CG100. <em>(Fig 1-18)</em>. The Configure icon is active only when the mobile device (iPad) is connected to the Connected Gateway WiFi.</td>
</tr>
<tr>
<td>Account</td>
<td>The Account page <em>(Fig 1-9)</em> is displayed whenever Flight Connect is launched. The mobile device (iPad) must be connected to the Connected Gateway WiFi to login.</td>
</tr>
<tr>
<td>Connected Portal</td>
<td>The Connected Portal will present the Connected Panel account login page <em>(Fig 1-2)</em>.</td>
</tr>
</tbody>
</table>

---

Table 1-1  
Flight Connect Pages
1.3.1 Downloading Updates

You will receive a notification (via email) whenever updates are available for Connected Panel. Download the available updates to your mobile device (iPad). Updates are downloaded via the Flight Connect app then pushed (transferred wirelessly) from your mobile device (iPad) to the CG100.

**Download Updates to your mobile device (iPad)**

1. Tap **Account** icon and login *(Fig 1-10)*
   
   The “Updates Available” message appears whenever there are updates for Connected Panel *(Fig 1-11)*.

2. Tap **Download** *(Fig 1-11)*
   
   The **Downloading File** status window appears *(Fig 1-12)*

3. Press **Home** button *(Fig 1-13)* to exit after the download is complete.
1.3.2 Updating the CG100 (at the aircraft)

The updates downloaded onto your mobile device (iPad) are now pushed (transferred wirelessly) to the CG100

**Connect to the CG100**

1. Tap **Settings** then **WiFi**
2. Select **Aspen CG100** -or- your personalized SSID to connect with the Connected Gateway WiFi
3. Enter password and Tap **Join** to connect to the CG100 (Fig 1-14) (if required)
4. Press **Home** button (Fig 1-13)
Push Updates from the mobile device (iPad) to the CG100

1. Power off the Garmin GPS unit(s)
2. Launch Flight Connect app (Connected icon)
   The “Updates Available” message appears whenever there are updates for the CG100 (Fig 1-15).
3. Tap Update (Fig 1-15) to transfer the permissions and index files
   “No Updates Available” appears whenever updates are not available (Fig 1-17).

NOTE
The Not Now button allows you to update the CG100 at a later time. “Update Now” also appears on the Update Files button.

The Update button will immediately push the updates from the mobile device (iPad) onto the CG100 (Fig 1-16).
1.4 Updating the Garmin Database

Installing an updated Garmin database prior to updating the CG100 database will trigger a “Database incompatible” message on the MFD Gateway VIEW. The following procedure will prevent the Database incompatible message from occurring.

Before installing new Garmin database updates:

- Wait for the automatic “Updates Available” email notification from your Connected Panel account.

**NOTE**

Connected Panel updates are available approximately 3 days after the Garmin updates are released, and several days before the old database expires.

- Download the Connected Panel updates onto your mobile device (iPad) and push the updates to the CG100. (See Section 1.3.2, Updating the CG100)
- After updating the CG100, install the new updates for your Garmin 400W/500W series navigator(s).

**NOTE**

Your Connected Pilot system is still operational whenever the “Database incompatible” message is presented, however the normal waypoint validation process will not occur until the databases are updated to the same cycle.

When the databases are out of sync, the flight plan waypoints are presented as user-defined waypoints (indicated by a “+” symbol appended to the waypoint name).
1.5 Personalizing your CG100 Settings

The Configure page (Fig 1-18) has edit fields to personalize your CG100 settings.

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft Ident</td>
<td>Updates the aircraft registration/tail number stored in the CG100</td>
</tr>
<tr>
<td>Wireless SSID</td>
<td>Updates the wireless SSID for your CG100. Once changed, you will have to reconnect your mobile device (iPad) to the CG100 using the new SSID</td>
</tr>
<tr>
<td>Flight Logging</td>
<td>Sets the interval between flight logging entries. This can be as short as one second, which will log every second. Set to 0 to disable flight logging</td>
</tr>
<tr>
<td>WiFi Password</td>
<td>Updates the WiFi password for your CG100. Once changed, you will have to reconnect your mobile device (iPad) to the CG100 using the new password</td>
</tr>
<tr>
<td>Gateway</td>
<td>Displays the CG100 serial number (Information only)</td>
</tr>
<tr>
<td>Update Files</td>
<td>Displays &quot;No Updates Available&quot; -or- &quot;Update Now&quot;</td>
</tr>
</tbody>
</table>

Table 1-2
Configure Page
To Personalize your CG100 Settings

Connect to the CG100

1. Tap **Settings** then **WiFi**
2. Tap **Aspen CG100** -or- your personalized SSID to connect with the Connected Gateway WiFi
3. Press **Home** button (**Fig 1-13**)

Edit the CG100 Settings

1. Launch **Flight Connect app** (Connected icon) and login (if required)
2. Tap **Configure** icon (**Fig 1-18**)
3. Tap on the desired field to edit the setting as required
4. Close **Flight Connect**
5. Power cycle the CG100 and the MFD to save the new settings

This completes the initial setup for your Connected Panel account, the Flight Connect app and configuring your CG100.
1.6 Connected Panel Enabled apps

Aspen has created the hardware and software environment to make the integration between smart devices and certified avionics work, however it is the Connected Panel Enabled development partners who really bring the Connected Pilot product to life.

New certified avionics hardware and mobile applications will continue to increase functionality and integration capability for you as a Connected Pilot owner.

Visit [www.connectedpanel.com/partners](http://www.connectedpanel.com/partners) to see the latest in available Connected Panel Enabled solutions.

**NOTE**

Aspen Avionics strongly recommends that users become familiar with the compatible flight plan app before flying with Connected Pilot.
Section 2

Flying with Connected Pilot

**NOTE**

All operators have the responsibility of maintaining security safeguards by ensuring that only authorized devices are linked to the Connected Panel system.

Refer to Section 3.1 of the ICA (Instructions for Continued Airworthiness) for more details.

2.1 Mobile Device (iPad)

**Prior to flight**

1. Open compatible flight plan app
2. Create a flight plan
   - Refer to the compatible flight plan app instructions such as Pilot’s Guide to ForeFlight Mobile.
3. Press **Home** button
In the aircraft

1. Tap Settings then WiFi
2. Tap Aspen CG100 -or- your personalized SSID (enter password if required)
3. Tap Join to connect to the CG100 (if required)

**NOTE**
A check mark symbol will appear next to the selected network whenever the mobile device (iPad) is connected to WiFi.

4. Press Home button
5. Open flight plan app
6. Tap Send to send the flight plan to the Gateway

- Gateway presents the flight plan as a “Candidate Flight Plan”. Pilot action is required to review and accept or reject the Candidate Flight Plan.
- Refer to the Connected Pilot Quick Reference Card (091-00035-001) for inflight information.

**NOTE**
Connected Pilot is intended to transfer enroute flight plans only. It does not load named procedures into the Garmin navigator such as SIDs, STARs, and approaches. The Normal Procedures must be added to the flight plan by name through the Garmin navigator as required in the Garmin instructions.
2.2 MFD (Gateway VIEW)

**NOTE**
The Gateway VIEW is presented from the Full Screen LAYOUT (Pg 1/3).

**Pilot Options when Candidate Flight Plan is presented**

1. Accept the Candidate Flight Plan
2. Reject the Candidate Flight Plan

**To accept the Candidate Flight Plan**

- Press GPS1, GPS2, or BOTH Hot Key (Fig 2-1) to accept the flight plan and send it to the desired GPS unit(s)

**To reject the Candidate Flight Plan**

- Press REJ Hot Key (Fig 2-1) to reject and delete the Candidate Flight Plan

Gateway is ready to receive a new or amended flight plan.
2.3 **Gateway VIEW Controls**

**Left Knob**
- Rotating the Left Knob selects the desired waypoint leg and the selected leg is centered in the Gateway VIEW
- Pushing the Left Knob enables/disables the Scroll Mode function

**Right Knob**
- Rotating the Right Knob selects a single waypoint
- Pushing the Right Knob toggles between the Gateway window and the FPL Review Map window

*A magenta border highlights the selected window.*
<table>
<thead>
<tr>
<th>GATEWAY HOT KEYS</th>
<th>LEGEND</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot Key 1</td>
<td>GPS1</td>
<td>Transfers the Candidate Flight Plan to the designated GPS1 navigation unit</td>
</tr>
<tr>
<td></td>
<td>CLR1</td>
<td>Clears the flight plan from GPS1</td>
</tr>
<tr>
<td>Hot Key 2</td>
<td>GPS2</td>
<td>Transfers the Candidate Flight Plan to the designated GPS2 navigation unit</td>
</tr>
<tr>
<td></td>
<td>CLR2</td>
<td>Clears the flight plan from GPS2</td>
</tr>
<tr>
<td>Hot Key 3</td>
<td>BOTH</td>
<td>Transfers the Candidate Flight Plan to both GPS1 and GPS2</td>
</tr>
<tr>
<td>Hot Key 4</td>
<td>REJ</td>
<td>Rejects the Candidate Flight Plan</td>
</tr>
<tr>
<td></td>
<td>CLR</td>
<td>Clears the flight plan from both GPS1 and GPS2</td>
</tr>
<tr>
<td>Hot Key 5</td>
<td>NAME</td>
<td>Displays the Waypoint Symbol, Waypoint Identifier, and Waypoint Name or &lt;Error message&gt;</td>
</tr>
<tr>
<td></td>
<td>CRS</td>
<td>Displays the Waypoint Symbol, Waypoint Identifier, Course, Distance and Error columns</td>
</tr>
<tr>
<td></td>
<td>LINK</td>
<td>Displays the Link Status</td>
</tr>
</tbody>
</table>
### Gateway Status Fields

<table>
<thead>
<tr>
<th>GATEWAY STATUS</th>
<th>ANNUNCIATION</th>
<th>COLOR</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG100</td>
<td>LINKED</td>
<td>GREEN</td>
<td>MFD is ready to receive flight plan from Gateway</td>
</tr>
<tr>
<td></td>
<td>RECEIVING FPL...</td>
<td>GREEN</td>
<td>MFD is receiving new flight plan</td>
</tr>
<tr>
<td></td>
<td>INVALID FPL RECEIVED</td>
<td>WHITE</td>
<td>MFD received invalid flight plan</td>
</tr>
<tr>
<td></td>
<td>Detecting Device...</td>
<td>GRAY</td>
<td>CG100 transitioning from NOT LINKED to LINKED</td>
</tr>
<tr>
<td></td>
<td>NOT LINKED</td>
<td>GREEN</td>
<td>MFD unable to communicate with Gateway</td>
</tr>
<tr>
<td></td>
<td>FPL PENDING</td>
<td>GRAY</td>
<td>Flight plan verification failed; CG100 lost link</td>
</tr>
<tr>
<td>GPS1 / GPS2</td>
<td>READY</td>
<td>GREEN (GPS avail)</td>
<td>GPS ready to receive a flight plan</td>
</tr>
<tr>
<td></td>
<td>SENDING FPL...</td>
<td>GREEN (GPS not avail)</td>
<td>Candidate Flight Plan accepted and is being sent to the GPS unit(s)</td>
</tr>
<tr>
<td></td>
<td>VERIFYING FPL...</td>
<td>GRAY</td>
<td>MFD is comparing the new GPS flight plan with the transmitted Candidate Flight Plan</td>
</tr>
<tr>
<td></td>
<td>FPL VERIFIED</td>
<td>GREEN (GPS ready)</td>
<td>Candidate Flight Plan and the new GPS flight plan match</td>
</tr>
<tr>
<td></td>
<td>FPL VERIFICATION FAILED</td>
<td>GRAY (GPS not ready)</td>
<td>Candidate Flight Plan does not match the new GPS flight plan</td>
</tr>
<tr>
<td></td>
<td>Waiting for CG100</td>
<td>WHITE</td>
<td>MFD waiting for Database info from the CG100</td>
</tr>
<tr>
<td></td>
<td>Databases Incompatible</td>
<td>WHITE</td>
<td>Gateway and Garmin Databases do not match</td>
</tr>
<tr>
<td></td>
<td>NOT AVAILABLE</td>
<td>GRAY</td>
<td>MFD and GPS unit(s) are not communicating. GPS is unable to receive a flight plan from the MFD</td>
</tr>
</tbody>
</table>

### INVALID FLIGHT PLAN EXAMPLES

- MFD received a partial flight plan
- Waypoint(s) entered without an identifier
- Missing leg(s)
- Conflicting leg information
- Invalid coordinates
- Identifiers with more than 5 characters
- Identifiers with invalid symbols (Letters and numbers only)

### Miscellaneous Status Field

- GPS1 and GPS2 Verification Failed: Use BOTH key to resend, CLR to Clear
- GPS1 Flight Plan Verification Failed: Use GPS1 key to resend, CLR to Clear
- GPS2 Flight Plan Verification Failed: Use GPS2 key to resend, CLR to Clear
- Invalid Flight Plan Received Resend the Flight Plan to try again
- Waiting for CG100 WHITE  MFD waiting for Database info from the CG100
- Databases Incompatible  WHITE  Gateway and Garmin Databases do not match
- NOT AVAILABLE  GRAY  MFD and GPS unit(s) are not communicating. GPS is unable to receive a flight plan from the MFD