

EX600 EX500 EX5000

MULTI-FUNCTION DISPLAY



Data Update Guide

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Document Revision History

Date	Revision	Description
Nov. 4, 2005	00	Initial Release per ECO-05-201
April 12, 2007	01	Updated per ECO-07-112
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System Configuration

The following are the Minimum System Requirements to install and run the CMax Data Extractor with the Jeppesen JeppView package:

- Windows XP 32-bit: Home SP3, Pro SP3, Windows MCE, Tablet PC SP3 Edition
- Windows Vista 32-bit: Home Basic, Home Premium, Business Edition, Enterprise Edition and Ultimate Edition
- 1 GHz or faster processor
- 800 X 600 resolution display or larger
- 512 MB RAM or more
- 2.75 GB available hard drive space or more
- 64 MB video card or more
- 8x CD-ROM drive
- Broadband Internet connection for online download of program updates
- USB Flash Memory Drive, 512MB-2GB in size.

See the following website for a list of approved USB devices:

<http://www.avidyne.com/products/ex500/usb-drives.asp>.

You can use a portable USB-compatible Zip® Drive, such as Avidyne part number 200-00048-000 or another USB Zip® device.

Note for Zip Disk Users: Avidyne recommends using a 250MB Zip® drive and disk. The 250MB disk and drive will allow you to load Jeppesen chart subscriptions up to and including coverage of the entire United States and Canada. Users subscribing to a region smaller than the entire United States may be able to use a 100MB disk and drive. A 250MB drive can use 100MB disks for smaller coverage areas, but a 100MB drive will not function with 250MB disks. A 750MB drive may also be used with 250MB or 750MB disks, but requires external power.

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1 Introduction

This guide describes how to update CMax™ Chart data and NavData on your Avidyne EX600, EX500, or EX5000 Multi-Function Display (MFD).

- **CMax™ Chart Data** is an optional Avidyne feature that allows you to view JeppView Electronic Chart Data. If your aircraft has the CMax feature, the Chart tab will be available on your MFD.

Chart data is provided through a subscription service with Jeppesen Sanderson, Inc. This subscription is different from a normal NavData or Jeppview for PC subscription and must be purchased specifically. The CMax coverage area does not need to match the NavData coverage area. All CMax Electronic Charts are copyright protected by Jeppesen Sanderson.

- For information to get started with CMax, see Section 2, "Getting Started With CMax" on page 5.
- For information to download CMax Data, see Section 4, "Extracting CMax Data" on page 21.

- **NavData** is for the Map and Nearest Pages. Avidyne uses NavData from Jeppesen Sanderson, Inc. It is your duty as the pilot in command to ensure that your flight data remains up to date.

Your MFD is delivered with a current database of public-use airports, navaids, airways, navigational fixes and obstacles. This data is displayed on the moving map for situational awareness, as well as to provide information such as runway layouts and radio frequencies.

The NavData database is stored within the MFD and is not updated in any way by information coming from a GPS. Updates to the MFD database are available from Jeppesen Sanderson, Inc. every 28 days and may be purchased individually or on a subscription basis.

Database updates can be downloaded directly from Jeppesen using the Jeppesen Services Update Manager (JSUM) or can be mailed to you in CD format. Loading the update into the MFD is a two-step process that requires a PC running Windows XP or

Windows Vista and a portable USB device (250MB Zip Drive or USB Flash Memory Drive).

The navigation data for the MFD includes copyrighted data compilations that are owned by Jeppesen Sanderson, Inc. Avidyne has been granted a limited, non-exclusive license to use this navigational data. The copyrighted subject matter may be used only in connection with the ordinary and intended use of the MFD as described in this manual. Use for any other purpose, or reproduction or copying of any portion of said copyrighted subject matter, is strictly prohibited.

For more information on downloading NavData, refer to Section 6, "Downloading NavData" on page 31.

You can also download **EMax™ Total Engine Management Data** for some EX5000-equipped aircraft from your MFD to your portable USB device (See Section 7, "Downloading EMax Data From the MFD" on page 33). From there, you can copy the engine and other data to your PC for analysis.

You can use a Zip Drive or USB Flash Memory Drives to move data between your PC and the MFD. USB Flash Memory Drives come in many sizes and configurations. For a list of approved USB Flash Memory Drives, see the Avidyne website:

<http://www.avidyne.com/products/ex500/usb-drives.asp>.

Note: The term *portable USB device* refers to a USB Flash Memory Drive or a Zip Drive.

Notes for Zip Disk and USB Flash Memory Drive users:

If your Zip drive ejects the Zip disk without reading the update, the most likely reason is that the disk has been formatted as “FAT 32.”

- Your Zip Disk or USB drive must be in “FAT” format. If you purchase portable media that is formatted as “FAT 32,” you must reformat it.
- When you reformat the disk, you **MUST** select the “FAT” file system as a format option. Windows XP defaults to “FAT 32”, which is not compatible with the EX600, EX500, or EX5000.
- **For Iomega Zip Disk Users:** Do not install the Iomega Tools disk on your PC. The Iomega tools will not allow you to use the “FAT” file system format. Uninstall Iomega tools if installed.

Notes for USB Flash Memory users:

- You cannot upload both CMax Chart Data and NavData from the same USB Flash Memory device at the same time. Therefore, Avidyne suggests that you keep one USB Flash memory drive for CMax and another for NavData (and, if your aircraft is equipped with EMax, one more USB device to download EMax data from your MFD).
- Many USB Flash Memory Drives are now delivered with U3 Launchpad installed. This application, from U3, prevents any Jeppesen data (NavData or CMax Charts) from loading. If your USB Flash Memory Drive has U3 Launchpad, you must uninstall it. For information about uninstalling U3 Launchpad, see www.u3.com/uninstall/.
- Avidyne recommends using a USB 2.0 Flash Memory drive with a size of 512 MB, 1 GB, or 2 GB. Use of a USB Flash Memory drive larger than 2 GB is not recommended for data updates. Please visit <http://www.avidyne.com/products/ex500/usb-drives.asp> for a complete list of Avidyne tested 2.0 USB Flash Memory devices.

When your CMax Chart Data or NavData has been loaded on to your portable USB devices bring the portable USB devices to your aircraft and follow the instructions in the Avidyne *Pilot's Guide* for your aircraft.

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2 Getting Started With CMax

You have to complete the following preliminary steps before loading your CMax data:

- 1) Obtain a subscription from Jeppesen.
- 2) Register your MFD at www.MyAvidyne.com.
- 3) Obtain your CMax Key Code.

These steps need to be completed only once, when your subscription is first issued.

2.1 Step 1: Obtain a subscription from Jeppesen

Call Jeppesen at 303-328-4274 or 800-621-JEPP (5377), or visit their web site at www.jeppesen.com. When you order a subscription, Jeppesen will send you the following:

- One or two CDs containing Chart Data.
- Your **Jeppesen Software Serial Number** (subscriber number). This number is unique to your subscription. It is the key to unlocking the Chart Data for the coverage area you have purchased.
- A program CD that installs the JeppView PC program on your computer for pre-flight chart reviews.

During your initial subscription period, and any time you add or alter your chart coverage area, Jeppesen must provide you with at least one coverage code. The coverage code(s) allow you to access new coverage areas before your subscription number becomes active for those areas, which might take one data cycle.

2.2 Step 2: Register your MFD at www.MyAvidyne.com

Register your MFD at www.MyAvidyne.com if you have not done so already. If your MFD is already registered, but you want to begin using CMax, see Section 2.3, "Step 3: Obtain your CMax Key Code" on page 13.

To register your MFD, you will need your MFD serial number. To find your MFD serial number, power up the MFD and go to the Aux Page. The serial number is an eight-digit number displayed on the screen,

for example, 00001850 or 20498214. If your aircraft has a PFD, MLB700, or MLX770 installed, write down those serial numbers, as well. You can usually find the serial numbers in the aircraft maintenance records.

- 1) Return to your computer and go to www.MyAvidyne.com to display the Avidyne Login window (see Figure 1).

AVIDYNE
The Integrated Flight Deck Company

FlightCenter Flight Associate
Login Here

New Account Signup
Register Your Warranty and Open Your Account
Enroll Now

MyAvidyne.com is your direct line to Avidyne and to the many services available for your aircraft including:

- Multilink Service
- FLEX Extended Warranty Service
- Text Messaging
- Flight Tracking
- CMAX Management

For more information on these services and products offered by Avidyne, please visit:
www.Avidyne.com

Return Account Users

User ID:
[Text Field]

Password: (case sensitive)
[Text Field]

Login

Remember my User Name and Password.

User ID & Password Help

Figure 1. MyAvidyne Login Window

- 2) If you do not have a MyAvidyne account, click *Enroll Now* to begin the registration process (see Figure 2). If you have already registered, login in under *Return Account Users*.

Monday, October 24, 201

AVIDYNE

Welcome

The Integrated Flight Deck Company

Create New User

What You Will Need Before You Begin:

- Unit Serial Number of each unit (PFD and/or MFD) installed in your aircraft.
- Valid Email Account.
- Aircraft Make, Model and Tail Number.
- A valid Visa/Mastercard/Discover credit card number and expiration date, if signing up for Avidyne services.
- **NOTE: For security reasons, this page and ALL OTHER PAGES will "timeout" after 15 minutes of inactivity.**

>> Create new user logon. For more information, see notes below.

USERNAME (4-20 characters - no spaces)

PASSWORD (6-20 case sensitive characters - no spaces)

CONFIRM PASSWORD (must exactly match above)

PASSWORD QUESTION [What's This?](#)

PASSWORD QUESTION ANSWER (Case sensitive)

Figure 2. Create New User Window

3) Use the Helpful Hints on the webpage shown in Figure 3 to create your Username and Password.

Note: To ensure your privacy, Avidyne recommends that you do not use your actual password for the Password Question Answer.

The **UserName** provides a means of uniquely identifying you to MyAvidyne.

All of your personal information, Avidyne installed equipment, aircraft information, billing data and flight history is linked to the **UserName** you initially setup. Therefore it is **important** that you **write down your UserName and Password** and store it in a **safe place** that is easily accessible.

Helpful Hints:

- The **Password** is case sensitive, which means that **JohnSmith** is different than **johnsmith**, **johnSmith** or **Johnsmith**.
- The **UserName** must be at least 4 characters long and cannot contain spaces. Special characters (@, \$, etc.) should not be used either.
- The **Password** must be at least 6 characters long and cannot contain spaces. Special characters (@, \$, etc.) should not be used either.
- If you try to create a **UserName** that someone else has already used, then you will receive an error: **Password does not match Username** and will need to choose another **UserName**. For example, assume that **Smith** is already taken, then try **Smith1**.
- Although your aircraft's tail number ('N' number) may seem like a good choice for a **UserName**, you may have second thoughts, if you sell your aircraft in the future.

The purpose of the **Password Question and Answer** is to provide an alternative means of validating your credentials in the event you should forget your password. If this should happen, the system will display your **Password Question** and provide you with an opportunity to input the **Password Question Answer**.

The answer you supply will be compared against the answer you had provided previously on the Logon Info form. If there is an exact match, your credentials will be flagged as validated.

Helpful Hints:

- The answer to the question you ask should be obvious to you and not very obvious to others. For example, **"What color is the sky?"** may not be an appropriate question to use.
- **"What is your mother's maiden name?"** is a common password question that provides a reasonable level of protection in most cases.

Figure 3. New UserName and Password Helpful Hints

- 4) Click **Continue Enrollment**. The Enter Contact Information window is displayed (Figure 4).

Monday, October 24, 2005

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Enter Contact Information

>> Enter Your Contact Information. * marks required fields

FIRST NAME Joe *

LAST NAME Biggs *

COMPANY NAME

ADDRESS LINE 1 123 High St *

ADDRESS LINE 2

CITY Phoenix *

STATE Arizona *

ZIP CODE 95009 *

COUNTRY United States *

PHONE NUMBER 800-555-1234 *

EMAIL ADDRESS BigJoe@hotmail.com *

Continue Enrollment

Figure 4. Enter Contact Information Window

- 5) Enter your name, address, telephone, and E-mail address. This information will be kept private. It is only used by Avidyne to contact you, if necessary.
- 6) Click *Continue Enrollment*. The Add New Aircraft window is displayed (Figure 5).

Tuesday, April 12, 2005

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Add New Aircraft

>> Please Enter Your Aircraft Information * marks required fields

AIRCRAFT MAKE Cirrus *

AIRCRAFT MODEL SR22 *

AIRCRAFT TAIL NUMBER N425RV *

COMPANY NAME

CONTINUE ENROLLMENT

Figure 5. Add New Aircraft Window

- 7) Enter the information to describe your aircraft. If you have more than one aircraft, you can enter them after your account is initially established by clicking on the *ACCOUNT* link.

- 8) Click *Continue Enrollment*. The Select Unit Types window is displayed (Figure 6).

Select Unit Types for Tail: N11111

Please select all applicable Avidyne equipment installed in your aircraft:

MFD - Multifunction Display (choose one option): [What Is This](#)

None
 EX500
 EX5000 Landscape
 EX5000 Portrait

EXP5000 PFD - Primary Flight Display (choose one option): [What Is This](#)

None
 1 Primary Flight Display
 2 Primary Flight Displays

MLB700 Broadcast Datalink Receiver: [What Is This](#)

None
 1 MLB700 Receiver

MLX770 Datalink Transceiver: [What Is This](#)

None
 1 MLX770 Receiver

Figure 6. Select Unit Types Window

- 9) Select the option that applies to the model of MFD that you own.

Note: All MFD displays are landscape orientation except for Columbia. For Columbia aircraft, select EX5000 Portrait MFD.

If you have an Avidyne Entegra EXP5000 PFD, MLB700 Broadcast Datalink Receiver, or MLX770 Datalink Transceiver, please register them at the same time by selecting the other products.

Note: You must have the MFD and other device serial numbers available for this registration to work for all units. If you do not have your non-MFD serial numbers available, do not check the those boxes at this time. Additional Avidyne units can always be added at a later time once the serial number is identified.

- 10) Click *Continue* to display the Enter Unit Info window (see Figure 7).

Monday, October 24, 2005

AVIDYNE Welcome The Integrated Flight Deck Company

Enter Unit Info

» Please enter the Unit Serial Number for the Equipment listed below. When you have filled in all blank fields press "Finish Enrollment".

EX5000 LANDSCAPE MFD
Unit Serial Number

[CONTACT US](#)

Figure 7. Enter Unit Info Window

11) Enter the serial number for the equipment selected.

Do not enter leading zeros (for example, for 00001850, enter 1850).

12) Click *Finish Enrollment*.

Your MyAvidyne account will be created and the Warranty Registration Confirmation window will be displayed (see Figure 8).

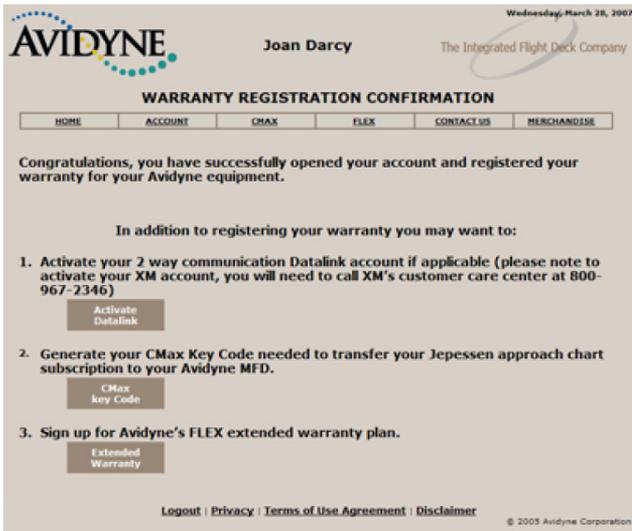


Figure 8. Registration Confirmation Window

Note: If you need to register a PFD or MFD for the same aircraft, please do so before signing up for the Extended Flex Warranty.

2.3 Step 3: Obtain your CMax Key Code

The CMax Key Code links your Jeppesen subscription number to your MFD Serial number. It is required to load CMax data to your MFD.

➤ To obtain your **Avidyne CMax Key Code**, do the following:

From the Registration Confirmation window,

- 1) Click on **CMax Key Code**. The CMax Authorization window is displayed (see Figure 9).
- 2) If you choose to activate CMax at a later time, log into www.MyAvidyne.com with your User ID and Password. Select the CMAX tab to display the CMax Authorization page.

Wednesday, March 28, 2007

AVIDYNE Joan Darcy The Integrated Flight Deck Company

CMax Authorization

HOME ACCOUNT **CMAX** FLEX CONTACT US MERCHANDISE

To enable your CMax Account you must obtain a "KEY". The key is generated from your Jeppesen Software Serial Number.

To obtain your Jeppesen Software Serial Number, contact Jeppesen at 1 (800) 621 5377

Please enter your Jeppesen Software Serial Number below and press "Generate key Code". Be sure to enter your Jeppesen Software Serial Number without dashes or spaces. This number is also case-sensitive, so enter it exactly as issued by Jeppesen. The "Key" will appear in the field labeled: "CMax Key Code". **If your CMax Key Code begins with 'x', be sure to include this symbol as part of your key.**

When you receive your Jeppesen chart data and software, you will also receive the CMax Data Extractor utility, which will use the key generated here from your Jeppesen Software Serial Number and MFD serial number to enable the downloading of the CMax data.

Aircraft Tail Number: N123EZ
Unit Serial Number: 20025057
Jeppesen Software Serial Number: 12A3 - JC45 - KE7F - BQH8

CMax Key Code:

To minimize error with entering the CMax key code, you can copy the key code to your clipboard and paste it into the Jepp CMax Extraction software.

To copy the CMax Key Code to clipboard, highlight the key code by dragging your mouse over the CMax key code with the left button depressed.

With the CMax Key Code highlighted, click on the [Copy to Clipboard] button below.

When prompted to enter the CMax Key Code in the CMax Data Extractor, click on and hold the Control button and the letter 'V' button at the same time.

Figure 9. CMax Authorization Window

- 3) On the CMax Authorization Page, enter your Jeppesen Software Serial Number. Be sure to type in the entire number (without spaces or dashes), or your dataload will be unsuccessful.

Note: It is crucial that you type the serial number correctly for a successful download to occur. Be aware that the letter “O” is different from the number “0,” and the letters capital “I” and small “i” are different from the number “1.”

- 4) Click *Generate Key Code* to create your CMax Key Code. Copy the CMax Key Code to a secure place.

Once you have generated the CMax Key Code, Avidyne suggests that you use the Copy to clipboard button to copy this number to a file. You will need to use it later.

- Follow the directions on the CMax Authorization Page to copy the Key Code.
- Open an external text editor (such as Notepad), create a new file, and copy the Key Code into the file.
- Save the file on your computer with an identifiable name.
- Print a paper copy and store it in a secure place.

Note: Your Avidyne CMax Key Code is valid as long as your Jeppesen Software Serial number and your Avidyne MFD Serial Number do not change. If either the Jeppesen Software Serial Number or MFD Serial Number changes, you will need to regenerate the CMax Key Code. This can occur if your MFD is replaced by an Avidyne service center.

To receive Jeppesen Materials, install the CMax Data Extractor or Jeppesen Services Update Manager (JSUM) on your computer, as described in the following section.

3 Selecting a Download Method

To download Chart Data use one of the following procedures:

- **JSUM (Jeppesen Services Update Manager)**—JSUM allows you to download both Chart and NavData directly from the Jeppesen website (recommended), or
- **CMax Data Extractor**—The CMax Data Extractor allows you to copy Chart Data from a CD-ROM. See Section 3.3, "Installing the CMax Data Extractor" on page 18 for installation information.

3.1 Installing JSUM

You can download and install the Jeppesen Services Update Manager (JSUM) from Jeppesen Sanderson, Inc. For more information, see the Jeppesen Technical Support website at www.jeppesen.com. JSUM creates a Jeppesen Services icon on your computer desktop.

➤ To set up and use JSUM for the first time:

- 1) Plug your portable USB device into the USB port on your PC.
- 2) After installing Jeppesen Electronic Charts Disk 1 & 2, open JSUM on your PC (click on the Jeppesen Services icon or open Jeppesen Services from your Programs Menu).
- 3) The JSUM Login window is displayed. Make sure the version is V2.1.5 or later.
- 4) Enter your Jeppesen Login and Password and click OK. If you do not remember your Login or Password, contact Jeppesen.
- 5) The Jeppesen Services Update Manager is displayed with your new updates.
- 6) Update the CMax Key Code:
 - Right-click the mouse key and select Set Avidyne Key.
 - The Avidyne CMax Key Code window is displayed.

Selecting a Download Method

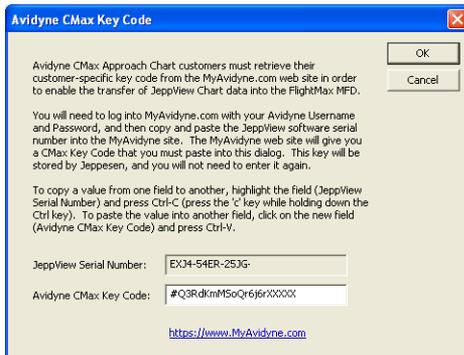
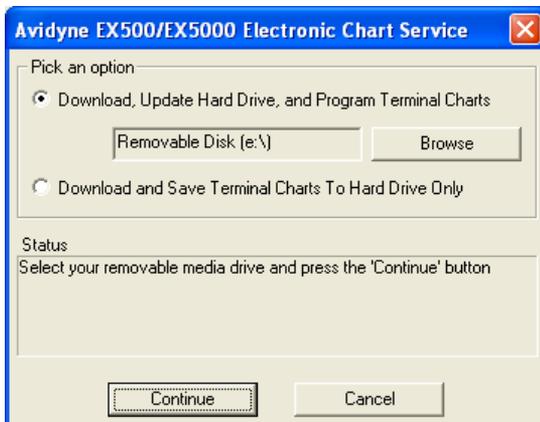


Figure 10. CMax Key Code

- Enter the CMax Key Code that you saved into the Avidyne CMax Key Code box.
 - Click OK. The new Key Code is saved.
- 7) Double-click on one of your waiting updates. The following message is displayed.



- 8) Click Yes. The following window is displayed.



- 9) If JSUM does not automatically detect your portable USB device, click on Browse and select the device.
- 10) When the portable USB device is selected, click *Continue*. JSUM begins downloading the Chart Data to your portable USB device.

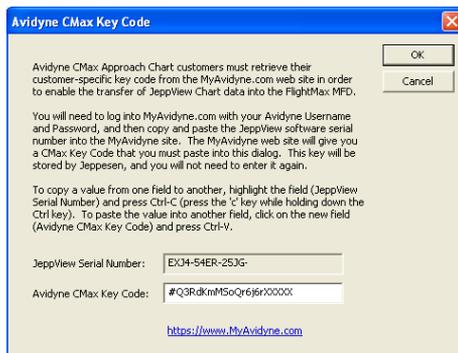
For more information about downloading nav data using JSUM, see Section 6.1, "Downloading NavData Using JSUM" on page 31.

3.2 Updating the CMax Key Code in JSUM

If your MFD Serial Number or Jeppesen Serial Number changes (that is, if you receive a new MFD from Avidyne or change your Jeppesen services), you will need to update your CMax Key Code.

➤ To update your Key Code:

- 1) Login to MyAvidyne.com.
- 2) If you have received a replacement MFD from Avidyne, the new MFD Unit Serial Number should be displayed. If the new Serial Number is not displayed, call Avidyne Technical Support.
- 3) Then, follow the instructions in Section 2.3, "Step 3: Obtain your CMax Key Code" on page 13 to obtain a new CMax Key Code and copy it to the clipboard. Be sure to save and print a copy of the new Key Code.
- 4) Open JSUM and select the Avidyne Electronic Chart Service.
- 5) Right-click the mouse key and select Set Avidyne Key.
- 6) The Avidyne CMax Key Code window is displayed.



- 7) Enter the CMax Key Code into the Avidyne CMax Key Code box. For information about the CMax Key Code, see Section 2.3, "Step 3: Obtain your CMax Key Code" on page 13.
- 8) Click OK. The new key code has now been saved and you can begin downloading the Electronic Chart Data as described in Section 4.1, "Downloading Data Using JSUM" on page 21.

3.3 Installing the CMax Data Extractor

The CMax Data Extractor program prepares the JeppView Chart Data for use in your MFD and copies it to your portable USB device. In general, the CMax Data Extractor is installed automatically with a JeppView installation.

Note for existing CMax users: You do not need to re-install the CMax Data Extractor unless you have upgraded to EX500 Release 3 (Software P/N 530-00193-000) or EX5000 Release 6 (P/N 530-00180-XXX) or later from a previous release. Confirm your CMax Data Extractor version by starting the Extractor in the normal manner and observing the version number at the top of the program window. You must have version 1.2.1 or later to work with Release 3 or Release 6 MFD software. If you do not need to re-install the CMax Data Extractor, go to Section 1, "Extracting CMax Data from a JeppView CD" on page 22.

Note: These instructions are for installing an independent copy of the CMax Data Extractor on your PC. You may already have the Data Extractor on your PC from your JeppView3 installation. Use these instructions to install an additional copy on the same PC or another PC. You can install multiple copies of the CMax Data Extractor.

3.3.1 Determining Your CMax Data Extractor Version

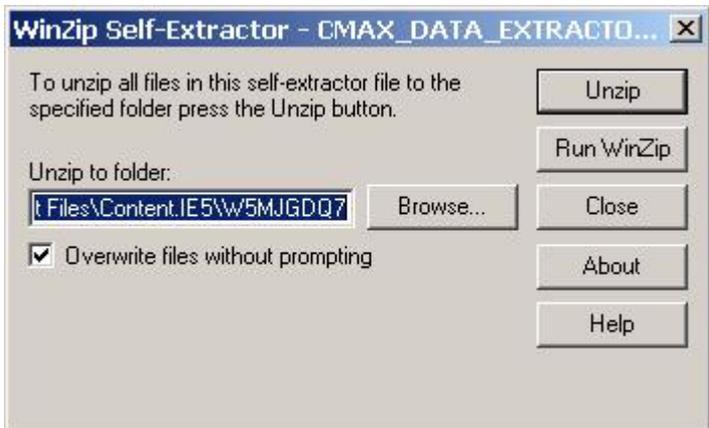
To determine the version of the CMax Data Extractor that is currently installed on your PC, start the CMax Data Extractor following the normal procedure. From the CMax Data Extractor main window, look at the version number at the top of the window. If the version number is not 1.2.1 or later, you must update the CMax Data Extractor, as described in *Updating or Installing the Data Extractor*, below.

3.3.2 Updating or Installing the Data Extractor (Optional)

The CMax Data Extractor will be updated by your JeppView Data Update CD-ROM, automatically. However, you can alternatively download the CMax Data Extractor from the Avidyne website if you want an extra or an alternate installation of the CMax Data Extractor.

➤ To download and install the Data Extractor, do the following:

- 1) Find the directory that contains the CMax Data Extractor on your PC. For regular JeppView3 installations, this is typically C:\Programs\FliteStar\Jeppesen3\Extractor.
- 2) Delete all of the files in this folder **except** *extractor.cfg*. This configuration file stores your subscription number so you do not have to re-enter it.
- 3) Open an internet browser window from your PC, and go to: <http://www.avidyne.com/Support/downloads/cmax.asp>
- 4) Under CMax Data Extractor Utility, click *Download*. The WinZip Self-Extractor begins the download and the WinZip Self-Extractor window is displayed.



- 5) Click *Browse* and go to the original file location, C:\jeppesen\JeppView3\Extractor (or to another location that you have selected), and click *Unzip*.

Note: If you install the CMax Data Extractor to a different location, be sure to copy the *extractor.cfg* file to your new location.

- 6) The WinZip Self-Extractor displays the following window.



- 7) Click *OK* to close this window and then click *Close* to close the WinZip Self-Extractor.
- 8) Open a Windows Explorer window and browse to the location where you installed the new files. Double-click on *AviJeppDataExtractor.exe* (or *AviJeppDataExtractor*).
- 9) Verify that the version number at the top of the window is 1.2.1 or later.
- 10) At this point, you might want to create a desktop shortcut to the CMax Data Extractor utility, as described in the following section.



For information about using the Data Extractor Utility, see Section 4.2, "Extracting CMax Data From a JeppView CD" on page 23.

3.3.3 Creating a Desktop Shortcut

Avidyne suggests that you create a desktop shortcut to make the CMax Data Extractor easy to find.

To create a shortcut, do the following:

- 1) From an Explorer window, browse to the location where you extracted the CMax Data Extractor files. Go to:
C:/Jeppesen/Jepp Views/Extractor.
- 2) Right-click on *AviJeppDataExtractor.exe* (or on *AviJeppDataExtractor*).
- 3) From the right-click menu, select *Create Shortcut*.
- 4) A file called, *Shortcut to AviJeppDataExtractor.exe*, is created in the same directory.
- 5) Drag the *Shortcut to AviJeppDataExtractor.exe* file from the directory to your desktop. You can now double-click on the shortcut to start the CMax Data Extractor.

4 Extracting CMax Data

You can extract CMax Chart data and NavData from a JeppView Electronic Chart Data CD or extract it online using the Jeppesen Service Update Manager (JSUM).

Before you can load CMax Chart Data onto your MFD, you must have one of the following:

- JSUM installed on your PC and an internet connection (for access to the Jeppesen website), or
- The CMax Data Extractor application installed on your PC and a JeppView Chart Data CD from Jeppesen.

You must also have the following:

- Your Avidyne CMax Key Code
- A portable USB device (USB Flash Memory Drive or Zip Drive)

4.1 Downloading Data Using JSUM

After JSUM has been installed and set up, you can use it to download your CMax Chart Data and Nav Data as follows:

- 1) Open JSUM on your PC (on your desktop, it might be an icon called Jeppesen Services). The JSUM Login window is displayed.
- 2) Enter your Jeppesen Login and Password and click OK. If you do not remember your Login or Password, contact Jeppesen. The Jeppesen Services Update Manager is displayed with your updates (see Figure 11).

Note: You must use JSUM V2.1.5, or later.

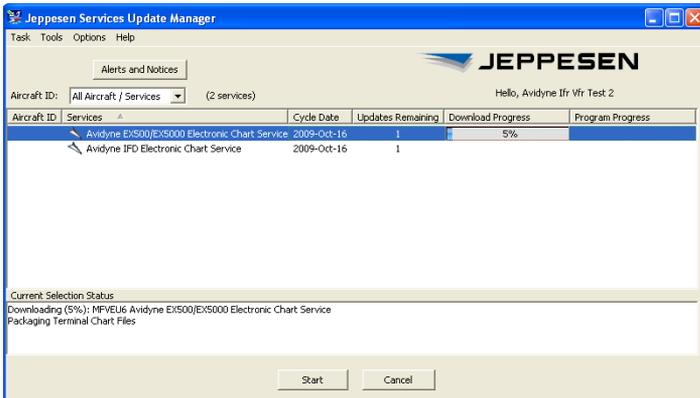


Figure 11. Jeppesen Services Update Manager

- 3) Left-click on the Service you want to download: the Electronic Chart Service, CMax, or NavData.
- 4) Click *Start* and select the location of your portable USB device then click *Continue*.



Wait until the popup window says that the service has been programmed successfully. Do not pull out the USB device until the load has completed and a message is displayed that says the card is ready for use.

- 5) Do not remove the USB device from USB port until you have been prompted that the download is complete. When the download has finished, the JSUM Download Progress bar will read 100%. At this point, you can close JSUM, remove your portable USB device from the USB port, and bring it to your airplane.
- 6) Refer to your aircraft's *Multi-Function Display Pilot's Guide* for Instructions on downloading data from your portable USB device to your MFD.

Note: CMax Data and NavData must be placed on different USB devices.

4.2 Extracting CMax Data From a JeppView CD

➤ To extract CMax Data to your portable USB device using the Jeppesen Electronic Chart Data CD, do the following:

- 1) Load the Jeppesen Electronic Chart Data CD in the CD-ROM drive of your PC.
- 2) Connect your portable USB device to a USB port on your PC. If you are using a Zip Drive, insert a Zip disk after you plug in the Zip Drive.
- 3) On your PC, use one of the following paths to start the CMax Data Extractor:
 - Click on the shortcut you created in Section 3.3.3, "Creating a Desktop Shortcut" on page 20.
 - Find and double-click on the *AviJeppDataExtractor.exe* file where it is stored on your PC. Go to:
C:/Jeppesen/JeppViews/Extractor.

The CMax Data Extractor starts up and displays a window similar to one shown in Figure 12.

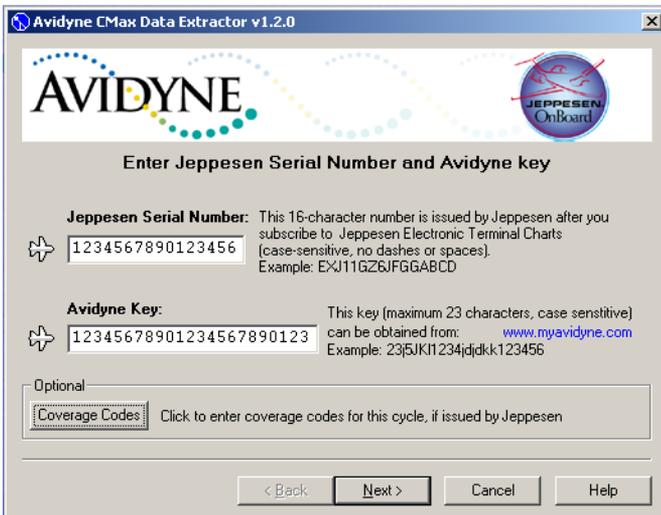


Figure 12. Serial Number Input Window

- 1) If needed, enter your Jeppesen Software Serial Number and Avidyne CMax Key Code into the fields in the CMax Data Extractor window.

If you have installed the JeppView PC application on your computer, the Jeppesen Software Serial Number should already be filled in for you. The CMax Data Extractor will store both of these numbers. You will not have to re-enter them the next time you run the extractor.

When both the Jeppesen Serial Number and Avidyne CMax Key Code are in a valid format, the *Next* button becomes Active.

- 2) If you have installed JeppView on your PC, the coverage code fields should already be filled in.

To check or update the Coverage Codes, click on the *Coverage Codes* button to display the Coverage Code fields on the right side of the extractor window. If you need to add the coverage codes, add them here.

- 3) Click *Next*. The Connect and Enter Path window is displayed (see Figure 13).

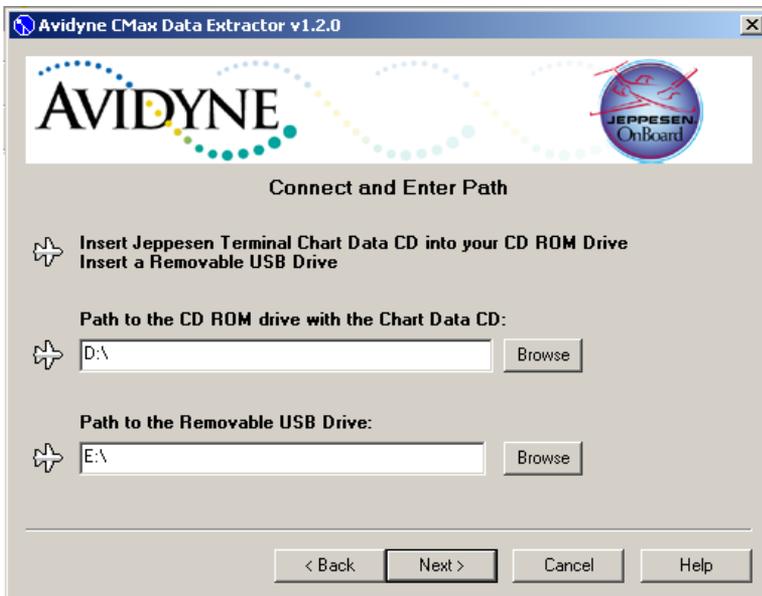


Figure 13. Connect and Enter Path Window

- 1) Specify the drive location of the Jeppesen Chart Data CD by typing it into the text box or using the *Browse* button.
- 2) Enter the drive location of your portable USB device (USB Flash Memory Drive or Zip Drive) or use the *Browse* button to locate it. When both paths are valid, the *Next* button will become active.
- 3) Click *Next*. This will start the data extraction and display a progress screen.

The Data Extractor reports its progress as it transfers the data to the portable USB device (see Figure 14). When the transfer has been completed, a message will appear indicating transfer was successful.

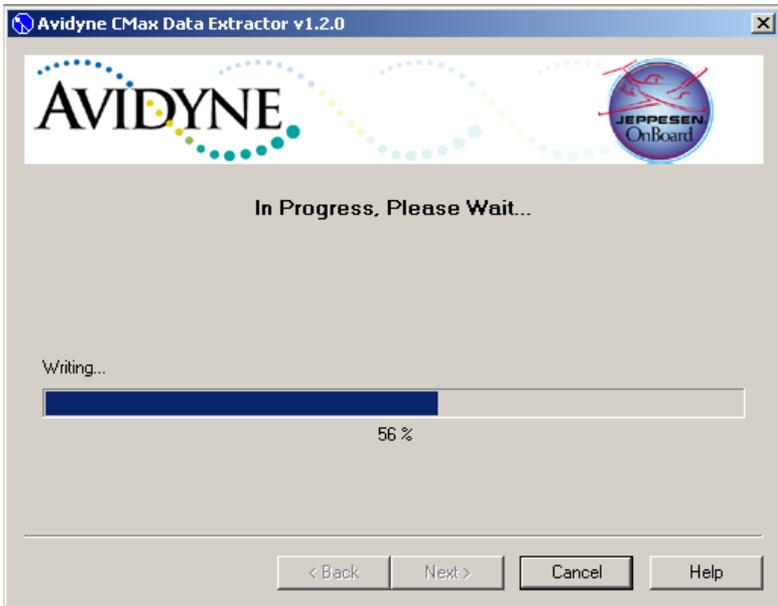


Figure 14. Data Transfer Window

Extracting CMax Data

- 4) Click *Finish* to complete the Data Extraction Process. (When the Data Extraction has been completed, the *Cancel* button changes to *Finish*.) You can safely remove your portable USB device.

Note for Zip Disk Users: The Zip Disk will usually eject automatically when it has finished. If it does not, you can safely eject it yourself after you have clicked the *Finish* button.

- 5) Now, load the data into your MFD as described in the Reference section of your Avidyne MFD Pilot's Guide.

4.3 Selecting a Subset of Charts (JSUM Only)

If using Jeppesen Service Update Manager (JSUM) to download and program charts to a USB device, a subset or portion of the available charts can be selected for loading on the MFD. This may be necessary if the available charts are larger than the space available on the MFD.

To select a subset of charts prior to programming the USB device:

- 1) Open JSUM on your PC (on your desktop, it might be an icon called Jeppesen Services). The JSUM Login window is displayed.
- 2) Enter your Jeppesen Login and Password and click OK. If you do not remember your Login or Password, contact Jeppesen.
- 3) Select Options, Preference (see Figure 15)

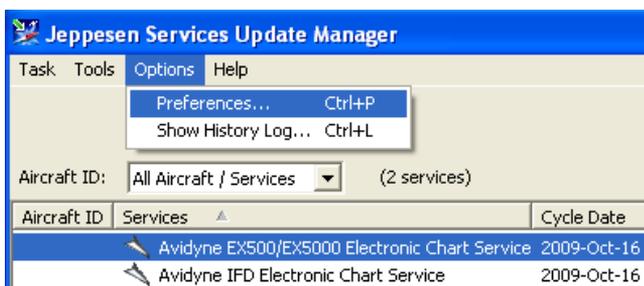


Figure 15. Selecting Options/Preferences in JSUM

- 4) Select “Terminal Charts” on the left side menu under General Setup (A in Figure 16).
- 5) Select “Copy charts from the area shown above to the datacard” below the world map (B in Figure 16).
- 6) Select the region of charts you wish to load on the MFD using the black square on the world map (C in Figure 16).

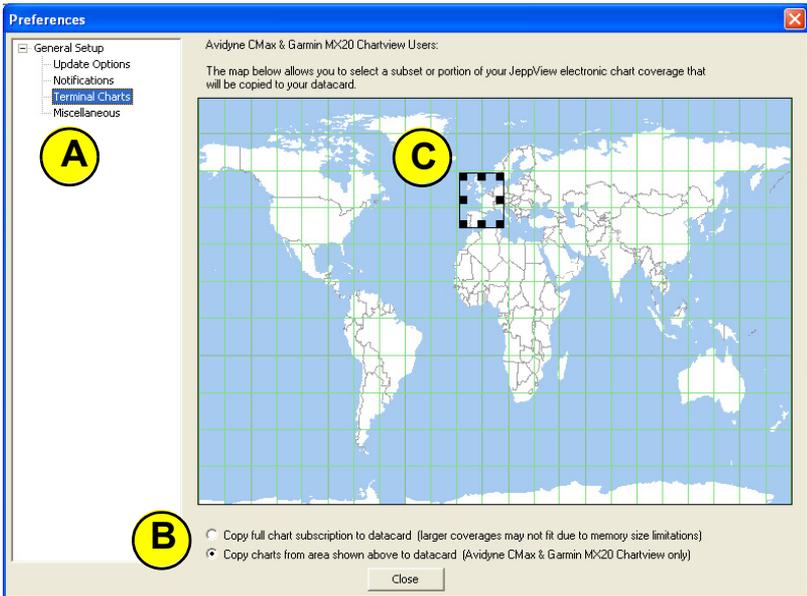


Figure 16. Selecting a subset of charts

- 7) Click "Close"
- 8) Proceed with the loading of charts as described in Section 4.1, "Downloading Data Using JSUM" on page 21.

5 Uploading Data to the MFD



Do not let the portable Zip drive dangle by its cable. It can result in damage to the MFD or the drive, as well as a dataload failure.



Do not insert the Zip disk into the drive until the first FlightMax logo screen is displayed on the MFD. The disk might be damaged if it is already in the Zip drive when power is first applied.



Do not unplug the drive from the MFD or power off the MFD until the data loader Zip disk has been ejected from the drive and the CMax data has been loaded into your MFD. Neglecting this step could damage the Zip disk.

5.1 Uploading CMax Chart Data to the MFD

After JSUM has been installed and set up, you can use it to download your CMax Chart Data as follows:

- 1) With the MFD power off, connect the portable Zip drive cable or the USB flash memory drive to the USB port on the front of the MFD.
- 2) Turn on the MFD. When the initial FlightMax logo screen is displayed, insert the Zip disk into the drive if using a Zip drive. The Dataloader screen is displayed.

Note: If this is the first-ever CMax Chart Data update, you might see a warning that you are about to load older data than what the MFD already contains. This warning is normal because the preloaded demo charts are set to expire in the year 2020. Press, “Proceed” to start the loading of the chart data into the MFD.

- 3) The Dataloader displays its progress as it loads the charts data into the MFD. After the charts have been loaded, the Dataloader performs an integrity check on the data and, if all data is valid, it displays a message that says the data load was successful.
- 4) When the data load operation has been completed, the MFD continues to the normal Startup Screen.
- 5) Confirm the valid data of the Chart data as reported on the Startup Screen.
- 6) Go to the Chart page and select a chart from an airport that is in your subscription area. Confirm that the chart is available and can be displayed.
- 7) Refer to the Troubleshooting section at the end of the Guide if you encounter any errors.

5.2 Uploading NavData to the MFD

After JSUM has been installed and set up, you can use it to download your NavData as follows:

- 1) With the MFD power off, connect the portable Zip drive cable or the USB flash memory drive to the USB port on the front of the MFD.
- 2) Turn on the MFD. When the initial FlightMax logo screen is displayed, insert the Zip disk into the drive if using a Zip drive. The Dataloader screen is displayed.
- 3) The Dataloader displays its progress as it loads the charts data into the MFD. After the NavData have been loaded, the Dataloader performs an integrity check on the data and, if all data is valid, it displays a message that says the data load was successful.
- 4) When the data load operation has been completed, the MFD continues to the normal Startup Screen.
- 5) Confirm the valid data of the NavData as reported on the Startup Screen.
- 6) Refer to the Troubleshooting section at the end of the Guide if you encounter any errors.

6 Downloading NavData

It is your duty as the pilot in command to ensure that your flight data is up to date. NavData updates can be purchased directly from Jeppesen Sanderson, Inc. Contact Jeppesen at 800-621-5377 or visit their website at www.jeppesen.com.

You can extract NavData from a CD or online using the Jeppesen Service Update Manager (JSUM). For information about using JSUM, see Jeppesen Technical Support at www.jeppesen.com.

6.1 Downloading NavData Using JSUM

Follow the directions for downloading data in Section 4.1, "Downloading Data Using JSUM" on page 21.

Note: Keep in mind that you must download NavData and CMax Electronic Chart Data to separate Zip Disks or USB Flash Memory Drives.

6.2 Downloading Data from CD

➤ To download NavData from CD:

- 1) Connect a portable USB device (USB Flash Memory Drive or Zip Drive) to a USB port on a PC running Windows XP or Vista.

If you are using a Zip Drive, insert a Zip Disk (at least 100MB) into the Zip Drive.

- 2) Insert the database update CD obtained from Jeppesen into the PC's CD-ROM drive. The "Avidyne Navigation Data" window should appear automatically.

If it does not, click on *Start->Run->Browse*, then select the drive letter for your CD-ROM drive, double-click on *FlightMaxInstall.exe* and click OK.

- 3) Click on the button labeled, *Install Flightmax Navigation Data Disk to ZIP-100*.
- 4) The system copies all the necessary update files from the CD-ROM into the portable USB device.

Note: If you are using a Zip Drive, remove the Zip Disk before disconnecting the Zip Drive from the PC when the download is finished.

- 5) When the download has completed, load the data into your MFD as described in Section 5.2, "Uploading NavData to the MFD" on page 30 or the Reference section of your Avidyne MFD Pilot's Guide.

7 Downloading EMax Data From the MFD

For EX5000 users only, EMax™ Total Engine Management is a feature that might be available for your aircraft as part of your MFD package or as an option.

EMax provides a number of features, including real-time recording of time, position, and critical engine performance parameters. EMax records engine and position data for the last 100 hours of flight. The data is recorded every six seconds whenever the MFD is operating.

The output, which you can download via the MFD data port, is in the following files:

- An ASCII text file (.txt) contains the engine performance data. It can be opened by most spreadsheet programs for analysis.
- A Jeppesen Track file (.log) contains position data that is compatible with Jeppesen FliteStar. For more information about the FliteStar track file, see www.Jeppesen.com.

For information about downloading EMax data from your MFD, see the Avidyne Pilot's Guide for your aircraft.

When the data is on your portable USB device, you can copy the files to an appropriate location on your PC.

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8 Troubleshooting

8.1 Data Extractor

Error	Solution
The Jeppesen serial number is invalid.	<ul style="list-style-type: none"> ■ Verify that the serial number was correctly entered. This number is case sensitive. Be aware that the letter “O” is different from the number “0,” and the letters capital “l” and small “l” are different from the number “1.” Use Copy and Paste to avoid these types of errors. ■ Verify your subscription information is correct at www.jeppesen.com
The CMax key is invalid.	Verify that the CMax key was entered correctly. This number is case sensitive. The key is available at www.MyAvidyne.com . Be aware that the letter “O” is different from the number “0,” and the letters capital “l” and small “l” are different from the number “1.” You can use Copy and Paste to avoid these types of errors.

8.2 MFD Data Load Errors

Error	Solution
The MFD data load reports corrupt data file.	<ul style="list-style-type: none"> ■ Power down MFD and verify the data load cable is connected properly. ■ The file stored on the USB device might be corrupted. Re-format the USB device FAT then re-load the data on the PC.
This Jeppesen Chart Update is not authorized for use on this MFD.	<ul style="list-style-type: none"> ■ Verify the data was created for this MFD. ■ If you are using JSUM, verify that the CMax Key Code is correct. Jeppesen does not verify the CMax Key Code during download. ■ Chart data for different MFDs is not interchangeable. ■ Regenerate the Key Code as described in Section 2.3, "Step 3: Obtain your CMax Key Code" on page 13.
The MFD indicates no chart data after reboot.	Reload the data and watch for errors. Be sure the MFD indicates a successful data load before powering down.
Chart data on MFD does not match subscribed regions.	<ul style="list-style-type: none"> ■ If this is a new subscription or the regions in this subscription have been modified, check your Jeppesen information for coverage codes. If necessary, run the extractor again and add the coverage codes as described in Section 4.2, "Extracting CMax Data From a JeppView CD" on page 23. ■ Ensure the correct subset is selected in JSUM. See Section 4.3, "Selecting a Subset of Charts (JSUM Only)" on page 27 ■ Contact Jeppesen billing support.
The update has failed without affecting the unit.	Your Zip disk or USB Flash Memory Device might be corrupt. Reformat the portable USB device to FAT and try again.
Failure Handler called with unexpected state (##)	Contact Avidyne Technical Support. Be sure to write down the state number.
Invalid disk	Your Zip disk or USB Flash Memory Device might be corrupt. Reformat the portable USB device to FAT and try again.
Error writing files	Try updating your data again. If you still encounter problems, call Avidyne Technical Support.

Error	Solution
Not enough space when putting charts on USB device	<ul style="list-style-type: none"> ■ Your portable USB device is too small. For CMax Chart Data, ensure that you are using a 250MB Zip Disk or 256MB or larger USB Flash Memory Device.
Not enough space reported on MFD when CMax charts are loaded	<ul style="list-style-type: none"> ■ Your selected charts are too large for the MFD ■ Select a subset of CMax charts in JSUM, then reload the Chart files to the USB device then to the MFD. See Section 4.3, "Selecting a Subset of Charts (JSUM Only)" on page 27.
Internal error: #	<ul style="list-style-type: none"> ■ Try updating your data again. ■ If you still encounter problems, call Avidyne Technical Support. ■ Be sure to have the error number available.
CMax Data Update Failed Verifying CRC Error	<ul style="list-style-type: none"> ■ If you are updating CMax Chart Data using JSUM online, then download the latest JSUM version online at www.Jeppesen.com/JSUM and retry the update. ■ Try using the Jeppesen Electronic Chart Disk CD with the CMax Data Extractor.
Zip Disk ejects from Zip Drive Dataloader and the MFD goes into a normal Startup sequence.	<ul style="list-style-type: none"> ■ Zip Disk is in the incorrect Format. Re-format Zip Disk to format "FAT" and upload updates.
Updating with a USB Flash Memory Drive the MFD goes into a normal Startup sequence.	<ul style="list-style-type: none"> ■ USB Flash Memory Drive is in the incorrect Format. Re-format USB Flash Memory Drive to format "FAT" and upload updates.
Failure Handler called with unexpected state (##)	<ul style="list-style-type: none"> ■ Contact Avidyne Technical Support. Be sure to write down the state number.
The MFD indicates Ready to Write Engine/Broadcast Data to Removable Media when trying to upload Database updates	<ul style="list-style-type: none"> ■ Either the USB Flash Memory Drive or Zip Disk is blank or has incorrect files. Upload the Database updates again using either JSUM or the Data Extractor.

If you encounter one of these types of data load problem, follow the recommended steps. If the data still cannot be properly loaded, contact the appropriate Technical Support at one of the numbers listed in Section 8.3, "Contacts" on page 38.

The aircraft might still be dispatched even after an unsuccessful data load operation. However, if the chart data is not available on the MFD at the time of dispatch, make sure that you have the appropriate information on board to complete the flight. Contact the appropriate Technical Support if the problem is not resolved.

For details on Map Page or CMax functions, consult your Avidyne MFD Pilot's Guide.

In the unlikely event of data corruption during normal flight operations, the MFD might exhibit one of the following symptoms:

- MFD reports that no chart data is available at all.
- Chart page is not accessible.
- Expected airports are not available for chart selection.

If any of these conditions are observed, reload the CMax Chart Data from your portable USB device. If problems continues, contact your dealer or Tech Support.

8.3 Contacts

8.3.1 Contacting Jeppesen

- Website: www.Jeppesen.com
- Tech support: 800-732-2800
- Billing and subscription support: 800-621-5377

8.3.2 Contacting Avidyne

- Website: www.Avidyne.com
- Tech support: 888-723-7592

9 Glossary of Terms

Avidyne CMax Key Code—a unique number that ties your Jeppesen Serial Number to your MFD Serial Number. This code is required for loading chart data.

CMax Data Extractor—PC based program that extracts your chart data from the Jeppesen CD-ROM and stores in on your MFD Dataloader.

Coverage Area or Coverage Region—The geographic region that incorporates your chart subscription coverage. Examples are Eastern U.S., Western U.S., etc. See www.jeppesen.com for definitions of available coverage regions.

Coverage Codes—Optional codes issued by Jeppesen that allow you to access additional chart data coverage areas immediately, without waiting for the changes to become available through your Jeppesen serial number. Coverage codes typically change every month.

Jeppesen Serial Number—Your unique subscription number issued by Jeppesen.

JSUM—Jeppesen Services Update Manager—A Jeppesen online utility that allows you to download CMax and NavData directly from the Jeppesen website.

MFD Serial Number—The unique serial number of your MFD hardware.

Portable USB Device—Allows you to bring new data to your aircraft and update your MFD. A portable USB device can be either a Zip Drive with Zip Disk (Dataloader) or an Avidyne-approved USB Flash Memory Drive. The list of approved drives is available from the Avidyne website on the following webpage:

<http://www.avidyne.com/products/ex500/usb-drives.asp>.

The portable USB device plugs into the MFD data port on the front of MFD.

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