

Document Number: 601-00004-107
Title: EX5000 MFD Release 8.2.2 Software Upgrade
Revision: 04
Date: 18 December 2019

1. Planning Information

1.1 Distribution/Eligibility

This Service Bulletin may be distributed only to those groups indicated below with a check mark:

<i>Group</i>	<i>Distribution?</i>
Avidyne internal	√
Avidyne-authorized Service Facility	√
Avidyne Web Post	√
Avidyne-authorized Installer	√
Avidyne OEM customers	√
End-use customers, owners and operators	

The Accomplishment Instructions contained in Section 3 may only be performed by appropriately authorized Avidyne Service or Manufacturing Facilities, Avidyne authorized OEM customers, or Avidyne-authorized Installers with appropriate repair station authorization or repairman certificate.

1.2 Effectivity/Compatibility

This Service Bulletin applies to Avidyne Multi-Function Displays (MFD), part number 700-00004-XXX or 700-00030-X0X, installed in a variety of aircraft. MFDs with software part numbers listed below are eligible to perform the update using the Avidyne Save and Restore feature. All other software versions are eligible for update to 8.2.2, but cannot use the Save and Restore utility. **All Piper models not utilizing the Save and Restore will require a fuel calibration after the update with the exception of the Meridian PA46-500TP. Note using the Save and Restore Utility is only recommended for use on Piper Aircraft that will require a fuel calibration. It is recommended that all other aircraft make and models record the MFD configuration settings and restore them manually at completion of the Release 8.2.2 update.**

Save and Restore Eligible MFD Software Part Numbers
530-00201-000 Rev 01
530-00201-002 Rev 01
530-00201-100 Rev 01
530-00201-200 Rev 01
530-00201-500 Rev 01
530-00201-502 Rev 01
530-00235-000 Rev 00, Rev 01, Rev 02
530-00235-002 Rev 00, Rev 01, Rev 02
530-00235-100 Rev 00, Rev 01, Rev 02
530-00235-200 Rev 00, Rev 01, Rev 02
530-00235-500 Rev 00, Rev 01, Rev 02
530-00235-502 Rev 00, Rev 01, Rev 02

1.3 Concurrent Requirements

None.

1.4 Reason

The procedure in this service bulletin will modify the software in the MFD to provide all existing functionality of previous MFD software levels, including optional functions, except as described below. It will remove support for the MLX770 Two-Way Datalink Transceiver System and WSI In-flight Datalink weather for MFD Software Part Numbers 530-00201-XXX Rev 01 and earlier. For all MFDs, except MFD Software Part Numbers 530-00235-XXX which already have the capability, it will add capability to display FIS-B weather data and traffic received by an external ADS-B network receiver. Ability to receive traffic data from a Garmin GTX345 will also be added.

NOTE: The MLX770 Narrowcast Datalink function is not supported by the MFD Release 8.2.x. If the MFD being considered for upgrade makes use of the MLX770 Narrowcast Datalink function, the upgrade described in this service bulletin should not be performed.

NOTE: The WSI Inflight Datalink / Sirius Radio function is not supported by the MFD Release 8.2.x software. If the MFD being considered for upgrade makes use of the WSI Inflight Datalink / Sirius Radio function, the upgrade described in this service bulletin should not be performed.

NOTE: Some installations of EX5000 MFDs have been made with Garmin 400 and 500 series GPS units connected via RS-232 under previous revisions of the 600-00073-

000 installation manual. Those installations are known, non-compliant installations with respect to TSO-C165 as curved paths from the GPS are depicted as straight lines on the MFD. Avidyne recommends customers with Garmin 400 and 500 series GPS units connected via RS-232 switch to an ARINC 429 connection, otherwise the following warning must be added to the pilot's guide: *"Warning: The EX5000 MFD will display straight lines instead of curved lines when curved paths are in the flight plan of a Garmin 400 or 500 series GPS unit."* For more information see the EX5000 Installation Manual, 600-00073-001 Rev 00 or greater.

1.5 Description

This Service Bulletin describes the procedures to field-install the new Release 8.2.2 software part number 530-00235-XXX Rev 02 into an EX5000 MFD.

1.6 Compliance

This Service Bulletin is optional.

1.7 Approval

The engineering data underlying the accomplishment instructions contained in Section 3 are FAA approved. No other portion of this service bulletin is FAA approved.

NOTE: The actions of this service bulletin DO NOT transfer navigation or chart databases, or checklist data. These databases must be updated through the normal update procedures to be current.

1.8 Time Required

The time required to comply with this Service Bulletin varies depending on the installation.

1.9 Weight and Balance

No change.

1.10 Electrical Load Data

No change.

1.11 Accomplishment

This service bulletin describes the installation of software, which has been developed with a DO-178B level D compliant process. Avidyne has assessed this update to be a minor alteration allowing performance of this service bulletin by appropriately rated repairman/repair station with a logbook entry.

1.12 Reference

Refer to the EX5000 MFD Installation Manual part number 600-00073-001 Rev 01 or later for details about MFD software setup instructions.

1.13 Publications affected

The EX5000 MFD Pilot's Guide and MFD Pilot's Guide Addendum contains setup and operating information for all functions included in software part number 530-00235-XXX. Applicable pilot guide part numbers are listed below.

Pilot Guide Document Number	Applicable Aircraft
600-00108-003 Rev 00 or later	All Cirrus
600-00121-001 Rev 00 or later	Piper PA34 or PA46
600-00105-001 Rev 00 or later	Piper PA28, PA32, and PA44
600-00102-002 Rev 00 or later	All Cessna (formerly Columbia)
600-00151-001 Rev 00 or later	Aftermarket, non-radar
600-00152-001 Rev 00 or later	Aftermarket, radar
MFD Pilot Guide Addendum	
600-00248-001 Rev 01 or later	All

The pilot guide appropriate for the intended aircraft and addendum must be delivered to the operator. These documents are available for download at <https://www.avidyne.com/support/downloads.asp?prod=ex5000>.

The EX5000 MFD Installation Manual part number 600-00073-001 Rev 01 or later contains information on installation, setup and checkout of all functions included in software part number 530-00235-XXX. The Installation Manual part number 600-00073-001 Rev 01 or later is available for download at http://dealers.avidyne.com/files/downloads/600-00073-001_2.pdf. Entegra and Envision Release 8.2 Installation Manual.

2. Material – Cost and Availability

Cost: For systems currently running releases prior to 8.2, there is a fee for a Compact Flash with the software preloaded. Contact Avidyne Sales for current pricing and lead time at 800-AVIDYNE (800-284-3963) in the United States or +1-321-751-8520 outside the United States to order the applicable kit part number.

850-00013-510 RELEASE 8.2, PIPER PA46/PA34 (4 KNOB)
 850-00013-511 RELEASE 8.2, PA28/PA32/ PA44 (2 KNOB)
 850-00013-512 RELEASE 8.2, CIRRUS (2 KNOB)
 850-00013-513 RELEASE 8.2, COLUMBIA (2 KNOB)
 850-00013-514 RELEASE 8.2, LANDSCAPE AFTERMARKET WITH RADAR (4 KNOB)
 850-00013-515 RELEASE 8.2, LANDSCAPE AFTERMARKET WITHOUT RADAR (2 KNOB)

Please note that the material and labor to apply the software is not covered by Avidyne Warranty. The cost for this update is the responsibility of the aircraft owner.

Availability: The documents and required material to perform this Service Bulletin are available from Avidyne. Contact Avidyne Sales at +1-800-AVIDYNE (800-284-3963) inside the United States or +1-321-751-8520 outside the United States.

The utilities required to perform this upgrade are made available on Avidyne Dealer Support Center website: (<http://dealers.avidyne.com/index.asp>)

For MFD's currently at software P/N 530-00201-XXX **Rev 01** or 530-00235-XXX Rev 00 the file retrieved will be called "570-00145-000 Rev 02.zip".

Configuration Save and Restore Utility for 530-00235-XXX MFD Software.

Note using the Save and Restore Utility is only recommended for use on Piper Aircraft that will require a fuel calibration. It is recommended that all other aircraft make and models record the MFD configuration settings and restore them manually at completion of the Release 8.2.2 update.

For MFD's currently at software P/N 530-00201-XXX **Rev 00** or earlier or MFDs not using the Configuration Save and Restore Utility: The file retrieved will be called 570-00147-000 "OEM SETUP for EX5000 Release 8.2."

3. Accomplishment Instructions

3.1 Required Materials

1. _____ Replacement Compact Flash card, one of which must appear in the following table.

Table 1: Compact Flash Media Part Numbers

Replacement Compact Flash media part number	Corresponding Software part number
053-00235-000 Rev 02	530-00235-000 Rev 02
053-00235-002 Rev 02	530-00235-002 Rev 02
053-00235-100 Rev 02	530-00235-100 Rev 02
053-00235-200 Rev 02	530-00235-200 Rev 02
053-00235-500 Rev 02	530-00235-500 Rev 02
053-00235-502 Rev 02	530-00235-502 Rev 02

2. _____ Entegra EX5000 Series MFD Installation Manual part number 600-00073-001 Rev 01 or later, hereafter referred to as the "Installation Manual".

3. _____ USB flash drive formatted to FAT (not FAT32) 2GB or less.

Below is a list of USB flash drives that have been tested and shown by Avidyne to be compatible with the MFD.

- Kingston Data Traveler 512MB, 1GB, and 2 GB
- SanDisk Cruzer Micro 1GB and 2GB
- Transcend JF V30 1GB and 2GB4

4. _____ A configuration "Save and Restore" utility is available for MFDs currently at software P/N 530-00201-XXX **Rev 01** or 530-00235-XXX Rev 00-01. The utility **570-00145-000 Rev 02.zip** may be downloaded from the Avidyne Dealer website <http://dealers.avidyne.com/>. Once logged in to the dealer website scroll down and click on the Find it here link under Download Technical Documentation section bottom left side of the page. Then click on the EX5000 R.8.2 & EX500/EX600 R. 4.2 Upgrade button. **Note using the Save and Restore Utility is only recommended for use on Piper Aircraft that will require a fuel calibration. It is recommended that all other aircraft make and models record the MFD configuration settings and restore them manually at completion of the Release 8.2.2 update.**



Download Technical Documentation

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[Find it here](#)

**EX5000 R. 8.2 & EX500/
EX600 R. 4.2 Upgrade**

- 5._____ For MFDs currently at software P/N 530-00201-XXX **Rev 00** or earlier or MFDs not using the Configuration Save and Restore Utility download 570- 00147-000.zip "OEM SETUP for EX5000 Release 8.2." from the Avidyne Dealer website. See directions above in section 4 to access the OEM SETUP utility.

3.2 Procedure

3.2.1 Record MFD Settings

- 1._____ Apply power to the MFD as installed in the aircraft.
Circle the appropriate answer if the following tabs are present at the bottom of the MFD

TAWS:	YES	NO
CHARTS:	YES	NO
RADAR:	YES	NO
- 2._____ Go to the Aux page and Record the MFD serial number here _____
Note for MFDs with a serial number showing as 0000XXXX make sure that you record the preceding zeros. The MFD must have eight digits or the CMAX charts will not load to the MFD. From the AUX page access maintenance mode by simultaneously pressing the left top and left third buttons for ~5 seconds. (See Installation Manual for detailed procedure.)
- 3._____ Access each Maintenance Mode sub-page and record the setup values. These values will be reset in the new software once installed. Record settings accurately in the table on the next pages to ensure a trouble-free setup of the new software and return of the aircraft to service in the case of a failed attempt using the MFD Configuration Save and Restore Utility or in the case of MFDs not using the Configuration Save and Restore Utility.

NOTE: Some of the sub-pages may not be available on all software versions. Some of the sensors may be set to Not Installed. Not all data elements are present for all sensor selections.

NOTE: Fuel Tank Sensor Calibration cannot be entered manually in the MFD, so if the aircraft on which the MFD is being upgraded requires fuel tank calibration, it may be necessary to re-perform that calibration after this upgrade is complete if the MFD Configuration Save and Restore for Release 8.2.1 fails or cannot be used due to the MFD having software not eligible for use with the Configuration Save and Restore Utility.

3.2.1.1 Remove Unsupported Datalink Configurations

If the MFD is configured for MLX770 Narrowcast Datalink or WSI Inflight Datalink / Sirius Radio, go to the Maintenance Mode aircraft setup page and set the configurations for Narrowcast and/or Broadcast to "Not Installed" as appropriate. Press the Restart button in the main page of Maintenance Mode and then regain access to Maintenance

Mode after the MFD restarts as described above. If neither of these is configured, skip this section and continue recording setup values on the next page.

MFD Maintenance Mode Settings

Sensor	System Type	Item	Setting
GPS/FMS 1		Receiver 1	
		Port	
		Speed	
GPS/FMS 2		Receiver 2	
		Port	
		Speed	
Lightning Sensor		Sensor	
		Operation Mode	
		Port	
		Stab Type	
		<input type="checkbox"/> Enabled Warning <input type="checkbox"/> Antenna on Top	
Map Heading		Map Heading	
		Data Valid	
TAWS		Sensor	
		ARINC429 Port	
		ARINC453 Port	
		<input type="checkbox"/> Altitude Annunciation On	

Sensor	System Type	Item	Setting
Traffic		Sensor	
		Port	
		TAS Type/Model	
		<input type="checkbox"/> External Controller	
Aircraft Setup		Checklists Model (Cirrus/Columbia)	
		Broadcast	
		Port	
		Aux Data	
		Port	
		Brightest Dimming Voltage	
		Darkest Dimming Voltage	

3.2.1.2 Maintenance Mode Settings for Engine function

If the MFD is configured for the Engine function, go to the Maintenance Mode engine setup page and write down the settings there in the following table. Most Aircraft Model selections do not offer all the other choices. If Aircraft Model "Not Installed" skip this section.

Sensor Type (Cirrus & Columbia only) DAU or SIU	
Aircraft Model	
Port/Serial Port/Left Engine Port	
Right Engine Port (some Piper Only)	
DAU ARINC Port (Piper Meridian only)	
Electrical (some Cirrus Only) SIU equipped	
Electrical/Rudder Trim Port (some Piper only)	
Fuel Quantity Port (some Piper Only)	
Fuel Units (some Piper Only)	
Fuel Tank Size (some Cirrus only)	
Fuel to Tabs (some Cirrus only)	
Voltage (Columbia only)	
<input type="checkbox"/> Vacuum System installed (some Piper only)	
<input type="checkbox"/> Show Oil Temp? (Columbia only) It is recommended that this be unchecked due to poor grounding on the SIU/DAU mount plate in the Columbia.	

3.2.1.3 Radar Maintenance Mode Settings

If the MFD is configured for the Radar function, go to the Maintenance Mode radar setup page and write down the settings there in the following table. Some radar sensor choices do not offer all the other choices. If Radar Sensor is “Not Installed” skip this section.

Radar Sensor	
Park Position	
Beam Width	
Beam Height	
<input type="checkbox"/> Enable Gain Control	
<input type="checkbox"/> Enable VP	
<input type="checkbox"/> Enable Auto-Tilt Control	
<input type="checkbox"/> Primary Indicator (1)	
<input type="checkbox"/> Disable Stabilization	
<input type="checkbox"/> Enable Automatic Standby	

Change the Radar sensor selection to “Not Installed” and press “Save”. Re-enter the Radar Setup page and select the Radar Sensor the sensor that was previously selected, which you wrote down in the above table. Write down the following selections which now appear:

Radar Sensor (same as above)	
ARINC 429 port	
ARINC 453 port	

Press Save

For MFD's currently at software P/N 530-00201-XXX **Rev 00** or earlier or MFDs not using the Configuration Save and Restore Utility skip ahead to Section 4 of this SB.

3.2.2 Saving the MFD Settings From Software Version 530-00201-XXX Rev 01 or 530-00235-XXX Rev 00, Rev01

3.2.2.1 Required Materials

1. _____ USB flash drive formatted to FAT (not FAT32) 2GB or less as annotated from Section 3.1 with no other files on the flash drive.
2. _____ [570-00145-000 Rev 02](#).zip downloaded from the Avidyne Dealer Support Center website.

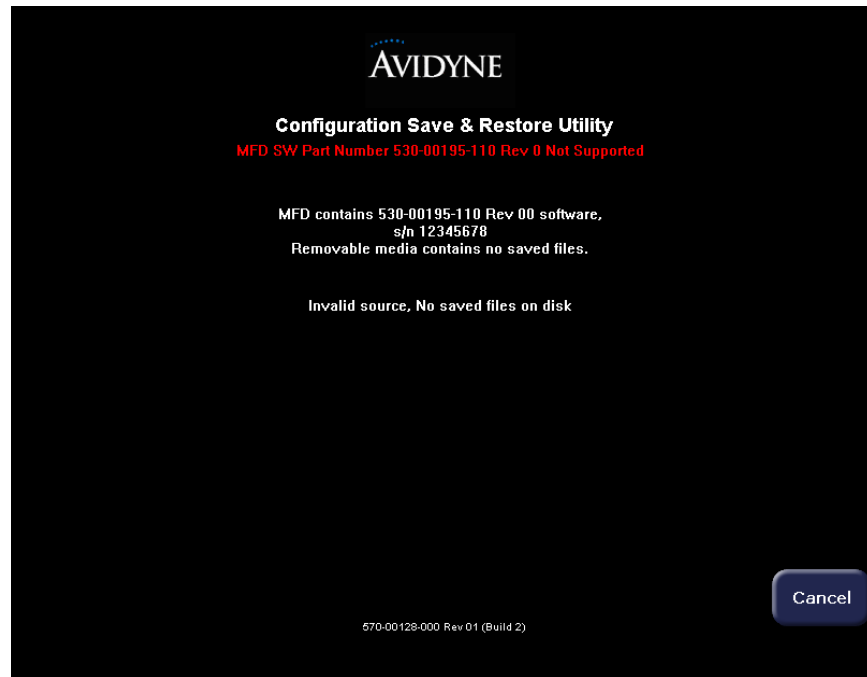
3.2.2.2 Create the Update Media

1. _____ Insert the USB flash drive into a PC running Windows
2. _____ Extract and save the six files from [570-00145-000 Rev 02](#).zip to the USB flash drive. The files must be in the top level folder of the USB flash drive, not in a subfolder. It is recommended that the USB flash drive with utility files be labeled: "[570-00145-000 Rev 02](#)MFD CSR Utility for Release 4.2.2 and 8.2.2".

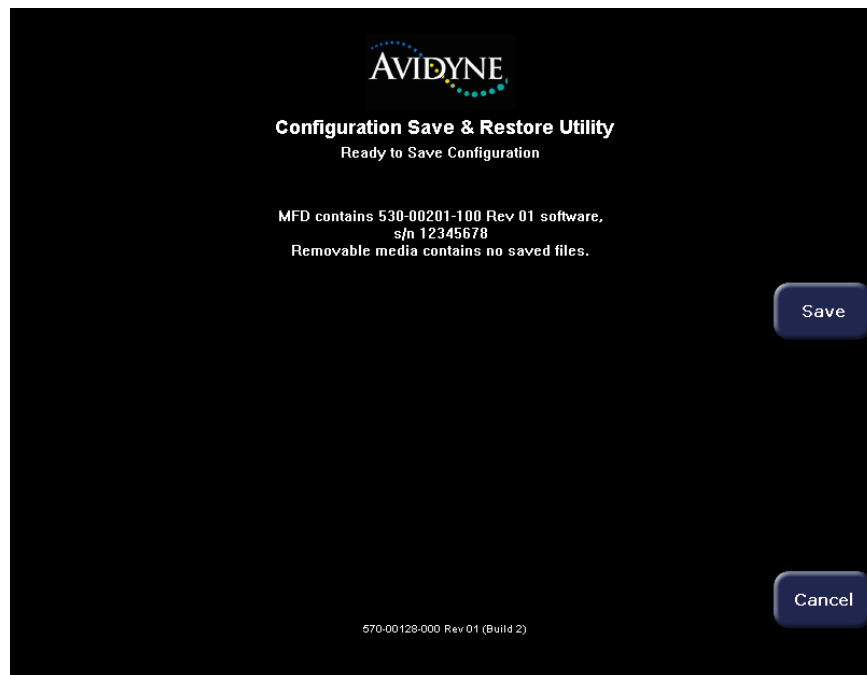
3.2.2.3 Accomplishment Procedure

3.2.2.3.1.1 Saving Configuration Data

1. _____ With the MFD to be replaced installed in the aircraft and powered off, attach the USB flash drive with the CSR utility into the USB port on the MFD.
2. _____ Apply power to the MFD. If the MFD software is not compatible with the CSR, an error screen, such as shown below (or similar), will be displayed.

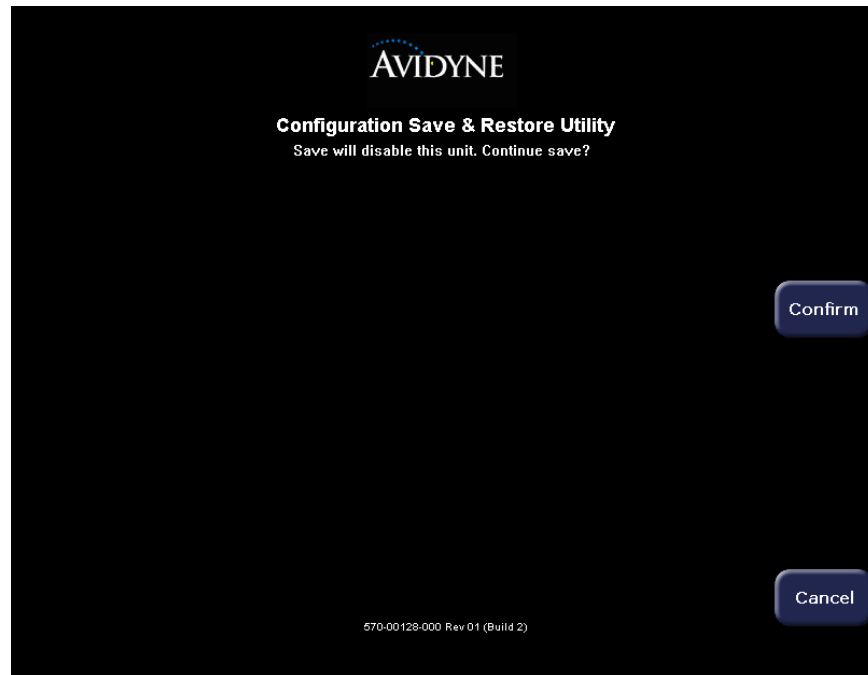


3. _____ If the MFD is running an eligible software version for use as a Source card, the following (or similar) will be displayed:



4. _____ Press "Save" to proceed with saving the configuration data to disk, or "Cancel" to discontinue the operation and allow the MFD to boot normally.

5. ____ After "Save" is selected, a final confirmation must be made that a Save is desired. The following confirmation screen (or similar) will be displayed:



6. ____ Press "Confirm" to begin the Save operation, or "Cancel" to discontinue.

WARNING: Do not select "Confirm" unless you have the upgrade MFD Compact Flash ready and have confirmed the upgrade compact flash is the correct part number for the make and model aircraft being upgraded. Selecting "Confirm" will disable the original MFD Compact Flash and will render it unusable. Once "Confirm" is selected it cannot be undone.

7. ____ In most cases, the CSR Utility will then begin transferring all saved configuration data to the USB Flash drive.

In some instances, however, the CSR Utility will first prompt for the MFD serial number to be entered. This will occur if the serial number for the MFD was not entered at the factory.

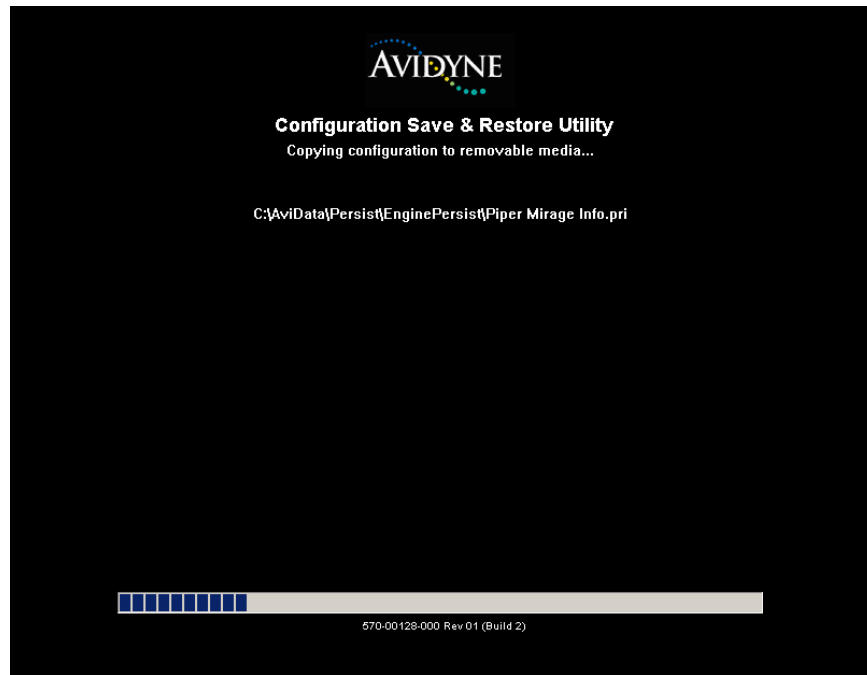
If a serial number entry is required, the utility will display a screen like:



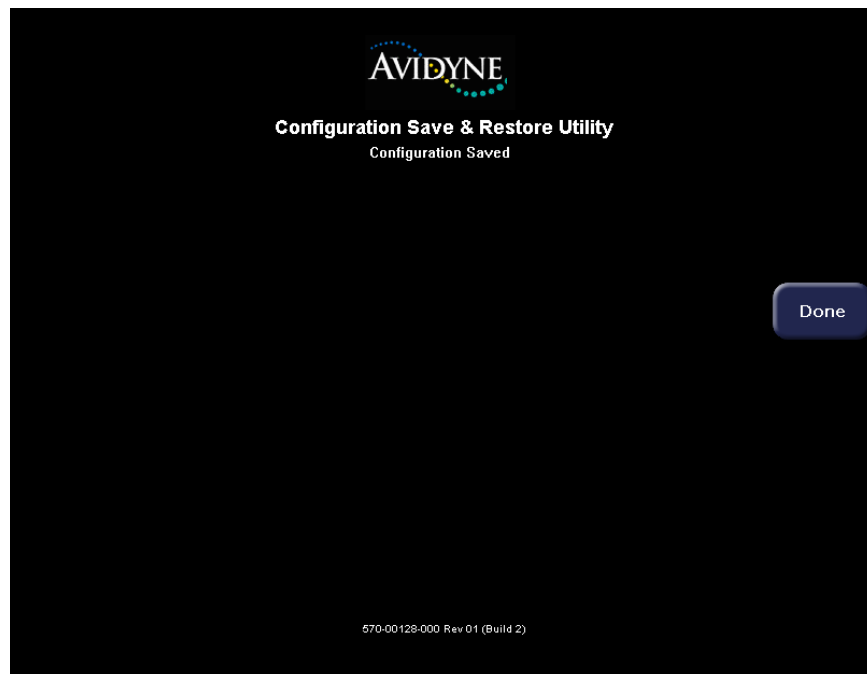
Use the knobs to enter the serial number into the text box as shown that was recorded above. The serial number must contain eight digits. In the case where the MFD serial number contains only four digits such as serial number 1652 enter four preceding zeros so that the serial number entered contains exactly eight digits. A MFD with serial number 1652 would be entered as 00001652. Failure to use a serial number eight digits in length will prevent the loading of future CMAX chart updates.

Press “Accept” to enter the MFD serial number and proceed with the Save operation, or “Cancel” to discontinue the entire operation and allow the MFD to power up normally.

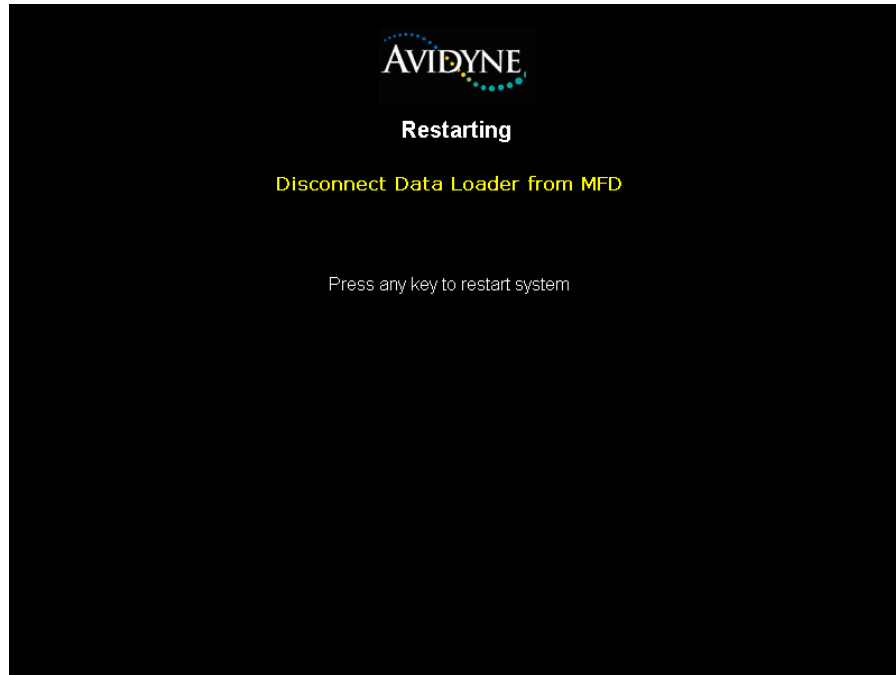
8. _____ After the MFD serial number has been entered or if no serial number entry was required, the CSR Utility will transfer all saved configuration data to the USB flash drive. A status display and a progress bar will be shown, similar to the following:



9. _____ After all the data has been saved a display similar to the following will be shown:

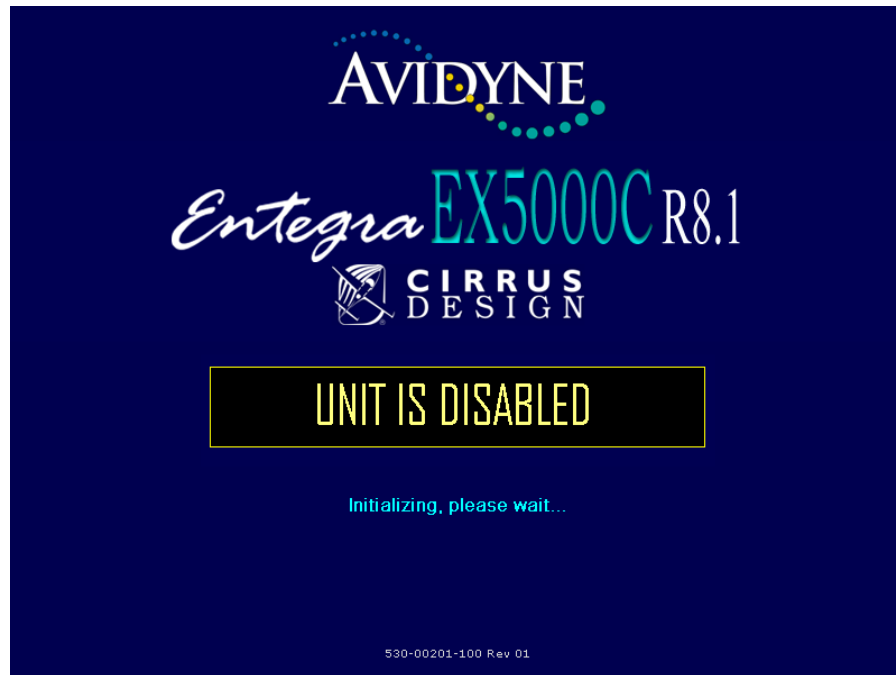


10. _____ Press "Done." The following screen will be shown (or similar).



11. _____ Remove the CSR Utility USB flash drive from the MFD and press any bezel key.

At this point, the original Source Compact Flash has been disabled and cannot be used in an aircraft. A disabled Source Compact Flash will display a screen similar to following upon startup:



12. _____ Power down the MFD. The MFD can now be removed from the aircraft and the upgrade Compact Flash replaced.

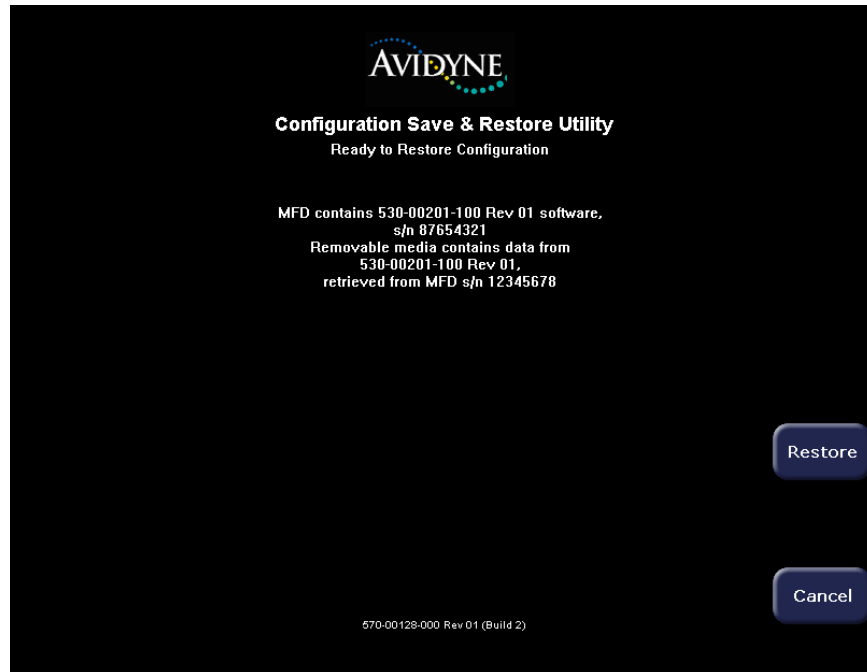
3.2.3 Replacing the Compact Flash Card

1. _____ Carefully remove the EX5000 MFD from the aircraft instrument panel per the Installation Manual.
2. _____ Remove the screws or nuts on either the side panel or top panel access cover of the MFD and carefully pull straight out the original Compact Flash card.
3. _____ Insert the Release 8.2.2 Compact Flash card P/N 053-00235-XXX Rev 02. **Caution: The compact flash card is keyed and can only be inserted one way. DO NOT FORCE!** Reassemble either the side panel or top panel access cover with either the screws or nuts.
4. _____ Reinstall the EX5000 MFD back into the aircraft instrument panel per the Installation Manual. Power up the EX5000 MFD and verify the MFD software level is Software P/N 530-00235-XXX Rev 02.

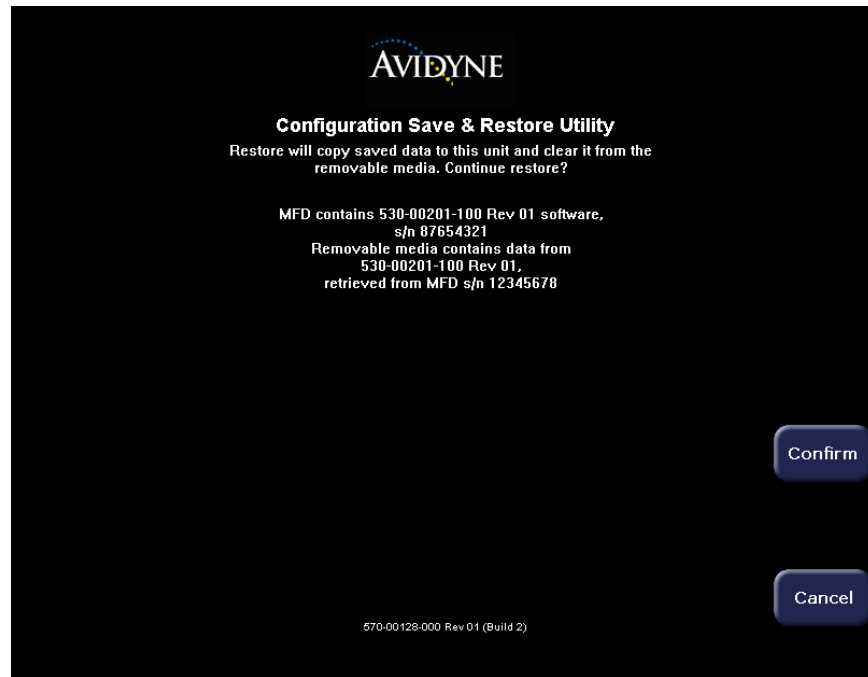
3.2.4 Restoring the MFD Settings

1. _____ Apply avionics power and allow the MFD to fully initialize.
2. _____ Verify that the software version number matches the software on the card you have installed. The SW version number will appear at the bottom of the initialization screen. If the software version is incorrect, verify that you have installed the upgrade Compact Flash correctly. Contact Avidyne if the correct part number is not displayed.

3. _____ With the MFD installed in the aircraft and powered off, attach the CSR Utility USB flash drive used in Section 3.2.2 to the USB port on the MFD.
4. _____ Apply power to the MFD.
5. _____ If the MFD is running a software version and revision eligible for use as a Destination of the configuration data saved on the USB flash drive, the following (or similar) will be displayed:

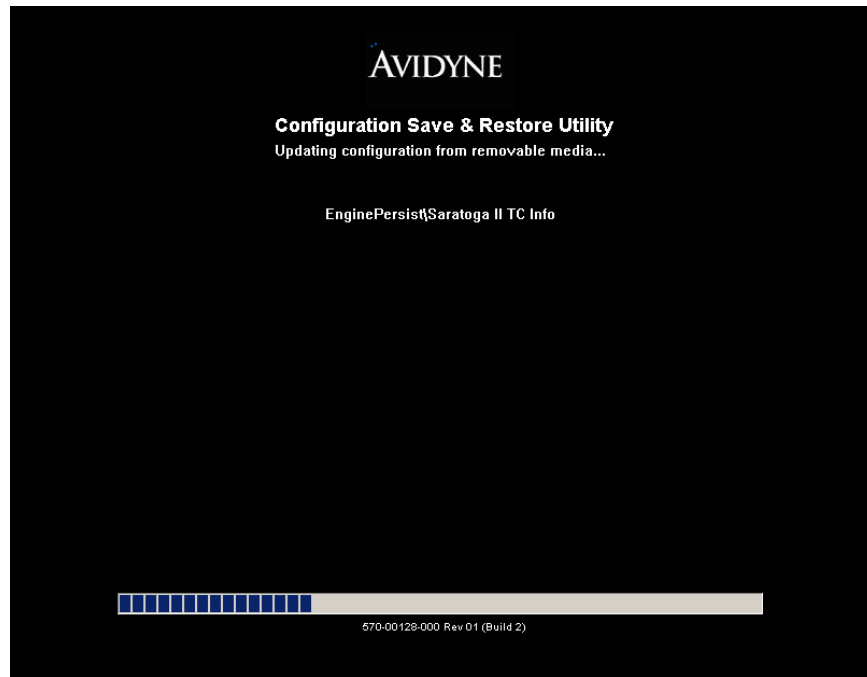


6. _____ Press “Restore” to continue with the restore operation, or “Cancel” to discontinue the operation and allow the MFD to boot normally.
7. _____ Pressing “Restore” will allow the CSR Utility to copy the saved configuration data from the USB flash drive onto the Compact Flash card. Doing so will overwrite the existing configuration and will also clear the saved data from the USB flash drive, so the operation must be confirmed before it will begin. The Restore confirmation screen will appear, similar to this:

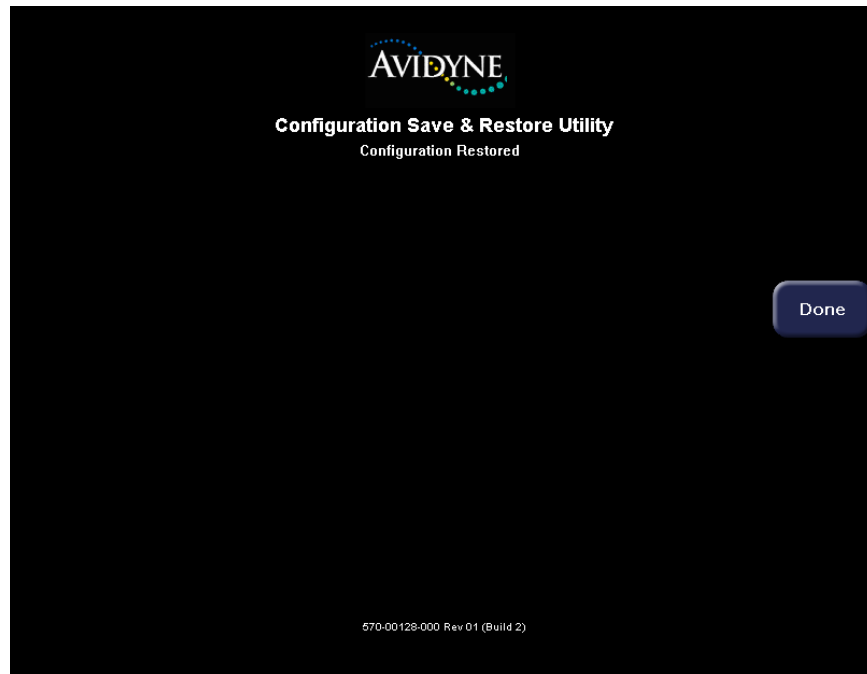


8. _____ Press “Confirm” to proceed with the Restore process, or “Cancel” to discontinue the operation.

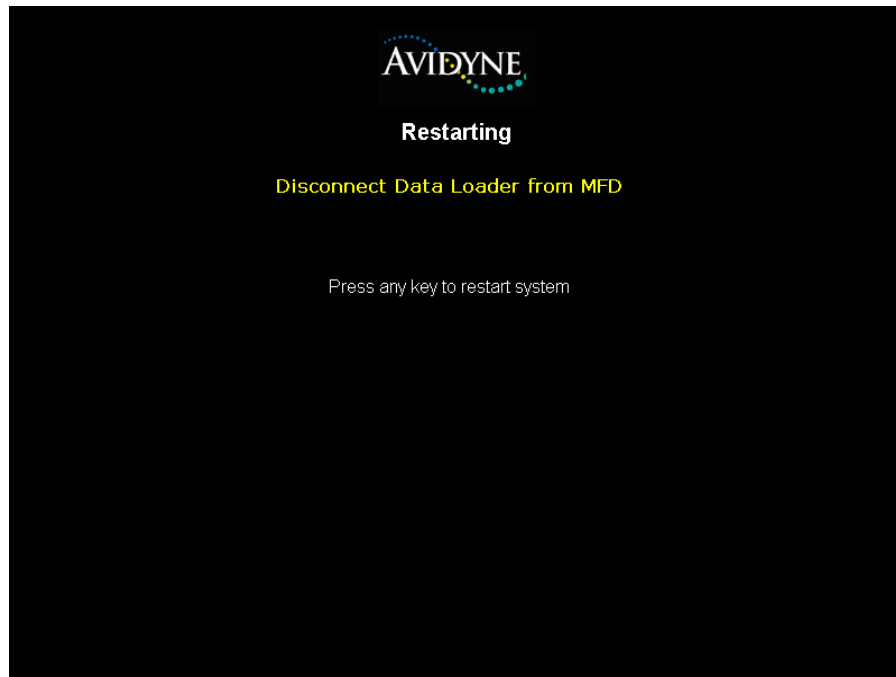
If you press “Confirm” the configuration data from the USB flash drive will be transferred to the new MFD or Compact Flash. The following screen, containing a status display and a progress bar, will be shown while the transfer is taking place (or similar):



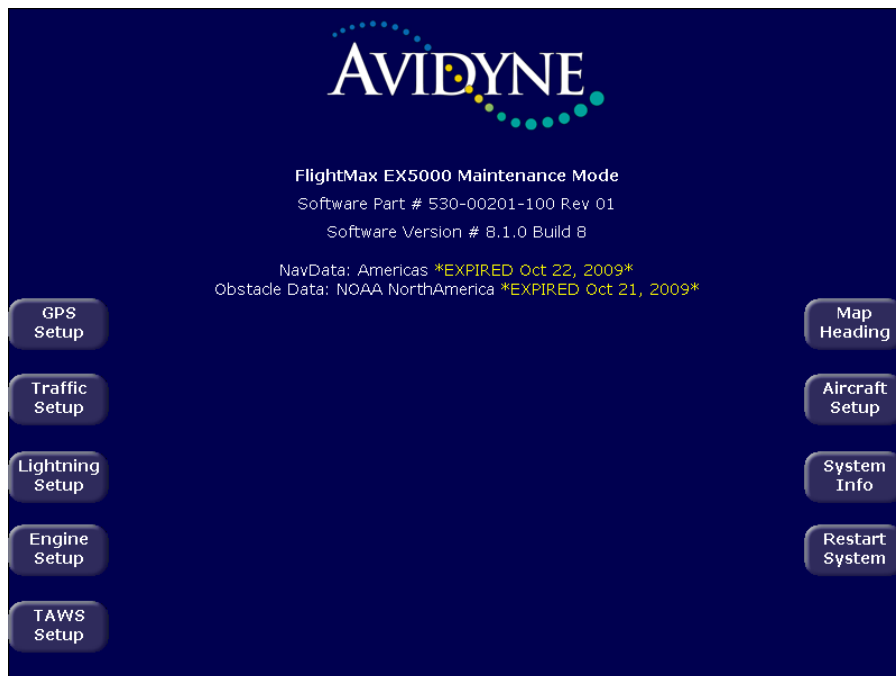
9. _____ When the transfer process is complete, the following screen will be shown (or similar):



10. _____ Press "Done". The following screen will be shown (or similar):



11. _____ Remove the CSR Utility USB flash drive from the MFD and press any bezel key to restart the system. After a few seconds the Maintenance Mode screen will appear as below (or similar):



12. ____ Press "Restart System" to restart the MFD in normal flight mode.
13. ____ The restore procedure is now complete.
14. ____ Access Maintenance Mode main page by going to the Aux page and simultaneously pressing the left top and left third button for ~5 seconds. (See the Installation Manual for detailed procedure.)
15. ____ Access each Maintenance Mode sub-page and verify each setup value by comparing the values shown to those recorded in Section 3.2.1 to ensure a trouble-free setup of the new software and return of the aircraft to service.
16. ____ (Applicable only to Cirrus and Cessna/Columbia aircraft) Re-enter Maintenance Mode and select Aircraft Setup. Select the checklists appropriate for the Aircraft make/model/serial number. **After selecting the appropriate model use the knob to change to a different model and then change back to the appropriate model. Failure to follow this procedure will result in the checklists not displaying on Cirrus models and the incorrect checklists showing on Columbia MFDs.**
17. ____ Confirm that the MFD Serial Number is the same as recorded in Step 4 of Section 3.2.1. If it does not match, contact Avidyne Technical Support.

NOTE: The actions of this service bulletin DO NOT update navigation or chart databases. These databases must be updated through the normal update procedures to be current.

NOTE: The CSR utility 570-00145-000 does not transfer the checklist data for those parts that support the checklist function. Nor does it retain the checklist setup. The latest Cirrus checklist data may be obtained from Cirrus. After loading the latest checklists, complete the checklist setup per the Installation Manual.

NOTE: If optional software functions had been activated on the MFD installation, they may need to be re-activated on the new software Compact Flash. See the appropriate software function activation service bulletins for instructions.

NOTE: If fuel tank sensor calibration is required for the aircraft, it may be necessary to re-perform that calibration for the new software compact flash if the restore failed.

NOTE: If any anomalous or unexpected behavior is seen on the MFD during post-upgrade checkout, contact Avidyne before returning the MFD to service. Call Avidyne Technical Support at 1-888-723-7592.

4. For MFD's Currently At Software P/N 530-00201-XXX Rev 00 or earlier or MFD's Not Using the Configuration Save and Restore Utility (Continued from section 3.2.2.1)

All Piper models not utilizing the Save and Restore will require a fuel calibration after the update with the exception of the Meridian PA46-500TP.

4.1 Required Materials

1. ____ Release 8.2.2 Compact Flash card P/N 053-00235-XXX Rev 02.
2. ____ USB flash drive formatted to FAT (Not FAT32) 2GB or less as annotated in section 3.1.
3. ____ 570-00147-000.zip OEMSETUP FOR EX5000 RELEASE 8.2 downloaded from the Avidyne Dealer Support Center website.

4.1.1 Create the Update Media

1. ____ Insert the USB flash drive into a PC running Windows
2. ____ Extract and save the AviUtility.exe file from 570-00147-000.zip OEMSETUP FOR EX5000 RELEASE 8.2 to the formatted USB flash drive. The AviUtility.exe file must be the only file on the USB flash drive.

4.2 Accomplishment Procedure

4.2.1 Replacing the Compact Flash Card

1. ____ Carefully remove the EX5000 MFD from the aircraft instrument panel per the Installation Manual.
2. ____ Remove the screws or nuts on either the side panel or top panel access cover of the MFD and carefully pull straight out the original Compact Flash card.
3. ____ Insert the Release 8.2.2 Compact Flash card P/N 053-00235-XXX Rev 02. **Caution: The compact flash card is keyed and can only be inserted one way. DO NOT FORCE!** Reassemble either the side panel or top panel access cover with either the screws or nuts.
4. ____ Reinstall the EX5000 MFD back into the aircraft instrument panel per the Installation Manual. Power up the EX5000 MFD and verify the MFD software level is Software P/N 530-00235-XXX Rev 02.

4.2.2 Running OEM Setup for 8.2

1. ____ Power Off the MFD if not previously powered off.
2. ____ Insert USB flash drive that has been loaded with OEM Setup for 8.2 per section 4.1step 2 above.
3. ____ Apply power to the MFD.
3. ____ You will see a page that reads, "OEM Setup Utility." Verify the software part number displayed at the top of the screen is 570-00147-000 Rev 00. You will also see setup options for the following:
 - a. MFD Serial Number:
 - i. If the serial number is set incorrectly it will disable the customer's chart subscription. Enter the 8 digit MFD serial number previously recorded in section 3.2.1.4
 - b. Aircraft Serial Number:
 - i. The aircraft SN is immaterial to the operation of the MFD, but must be six digits even if they are all zeros. You can enter your serial number if you prefer, but it is not necessary as long as there are six digits in this field.
 - c. Installer
 - i. This is not a required field
 - d. Broadcast:

- i. XM Radio - This option will allow configuration for XM weather only.
 - ii. ADSB - This option will allow for configuration of ADSB weather only.
 - iii. XM & ADSB - This option will allow configuration of either XM or ADSB it is suggested that you choose XM & ADSB.
- e. Charts - Refer to previously recorded data at section 3.2.1; Step 1; and set accordingly either Installed or Not Installed.
- f. TAWS - Refer to previously recorded data at section 3.2.1; Step 1; and set accordingly either Installed or Not Installed.
- 5. ____ Review the selections and when you are sure they are all correct depress the top right bezel button next to the Save soft key.
- 6. ____ The MFD will restart and when you get the Press any bezel key to continue message do so. The next page is a port setting page. Remove the USB flash drive.

4.2.3 Restoring MFD Settings

- 1. ____ Put the MFD into maintenance mode if not already.
- 2. ____ Reconfigure all items previously recorded in section 3.2.1

5. Post-Accomplishment Checkout

All Piper models not utilizing the Save and Restore will require a fuel calibration after the update with the exception of the Meridian PA46-500TP.

To confirm proper operation after accomplishment of this Service Bulletin:

- 1. ____ Apply avionics power and allow the MFD to fully initialize.
- 2. ____ Verify that the software part number and media part number pair are listed in Table 1.
- 3. ____ Turn to the Map page and wait five seconds. If a yellow message bar appears with the message "Engine Display Failed", this means the system is incorrectly configured and must *not* be released to service. If this occurs go into Maintenance Mode, press Engine Setup and set Engine Sensor to "Not Installed". Press "Save", cycle power to the MFD and restart this section at step 1.
- 4. ____ Verify proper operation of MFD with respect to other interfaced aircraft systems.
- 5. ____ Document the installation of the new MFD software part number in the aircraft maintenance logbook.
- 6. ____ If necessary, perform the procedures specified in the service bulletins for activating software options.
- 7. ____ Deliver the appropriate Pilot's Guide to the aircraft operator.
- 8. ____ Please scan and email a copy of pages 7, 8 and 9 to techsupport@avidyne.com