



## SERVICE BULLETIN

**Document Number:** 601-00004-104

**Title:** MFD Configuration Save and Restore for Release 4.1.1 and 8.1.1

**Revision:** 01

**Date:** 09 March 2012

### 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 partners	✓
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 or Avidyne authorized OEM partners.

#### 1.2 Effectivity/Compatibility

This Service Bulletin applies to Avidyne Multi-Function Displays (MFD), part number 700-00004-(), 700-00007-(), 700-00030-(), or 700-00167-(), installed in a variety of aircraft, with software part numbers listed below.

<b>Eligible MFD Software Part Numbers</b>
530-00201-800 Rev 00, Rev 01
530-00201-900 Rev 00, Rev 01
530-00201-000 Rev 00, Rev 01



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Eligible MFD Software Part Numbers
530-00201-002 Rev 00, Rev 01
530-00201-100 Rev 00, Rev 01
530-00201-200 Rev 00, Rev 01
530-00201-500 Rev 00, Rev 01
530-00201-502 Rev 00, Rev 01

The software part number can be determined by powering up the MFD and checking the software part number on the startup screen that displays, "Press any bezel key to continue", or on the AUX page of the MFD.

The hardware part number can be verified by removing the MFD from the aircraft and examining the TSO label on the MFD.

### 1.3 Concurrent Requirements

None

### 1.4 Reason

The procedure in this service bulletin is to be used to save and restore MFD configuration settings when replacing the MFD hardware (700- part) as part of a maintenance action.

### 1.5 Description

This Service Bulletin provides the procedure for saving and restoring MFD configuration settings such as sensor type and port selection, aircraft model and engine sensor port selection, fuel calibration, etc. This procedure is to be used in conjunction with the instructions for the removal and replacement of the MFD. It makes use of a Configuration Save and Restore (CSR) utility that is run from the MFD USB data port. The save portion of the procedure should be run on the MFD hardware to be replaced. The restore portion of the procedure is to be run on the newly installed MFD. This Service Bulletin is only to be used when replacing a MFD with the software listed in the table above with a MFD containing the same software part number. Configuration data saved from a Rev 00 system from the above table can be restored to a Rev 00 or Rev 01 system, but data saved from a Rev 01 system can only be restored to a Rev 01 system. If the save is attempted with an MFD with incompatible software, the CSR utility will give an error message. Likewise, if a restore is attempted on an MFD with incompatible software or with software that isn't the same as used during the save operation (subject to the Rev restrictions given above), the CSR utility will give an error message.

If the MFD to be replaced has software that is incompatible with the CSR utility, the MFD software will need to be upgraded before doing the save and restore. Contact Avidyne for the applicable software upgrade kit.



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### **1.6 Compliance**

This Service Bulletin is optional. The removal and replacement of a MFD can be done without performing the procedure in this Service Bulletin. However, if this procedure is not performed when replacing a MFD, all configuration settings and calibrations must be redone.

### **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.

### **1.8 Time Required**

The save and restore portions of this procedure take approximately 10 minutes each. The time to remove and replace an MFD varies depending on the installation.

### **1.9 Weight and Balance**

Not Applicable

### **1.10 Electrical Load Data**

Not Applicable

### **1.11 Software Accomplishment**

This service bulletin describes use of the CSR utility to save and then restore configuration settings and, if applicable, calibration data. The use of this utility does not alter the approved software.

### **1.12 Reference**

Not Applicable

### **1.13 Publications Affected**

None

## **2. Material – Cost and Availability**

Cost: No charge.

Availability: The utility required to perform this Service Bulletin is made available on Avidyne Dealer Support Center website:

<http://dealers.avidyne.com/index.asp>

The file retrieved will be called "570-00128-000 Rev 01.zip".



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### 3. Accomplishment Instructions

#### 3.1 Required Materials

1. \_\_\_\_\_ USB Keyfob formatted to FAT (not FAT32)

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 2GB

2. \_\_\_\_\_ **570-000128-000 Rev 01.zip** downloaded from the Avidyne Dealer Support Center website.
3. \_\_\_\_\_ Entegra EX5000 Series MFD Installation Manual p/n 600-00073 Rev 23 or later or EX500/EX600 MFD Installation Manual p/n 600-00175-000 Rev 05 or later, hereafter referred to as the "Installation Manual".

#### 3.2 Create the Update Media

1. \_\_\_\_\_ Insert the USB fob into a PC running Windows
2. \_\_\_\_\_ Extract and save the six files from **570-000128-000 Rev 01.zip** to the USB fob. The files must be in the top level folder of the USB fob, not in a subfolder. It is recommended that the USB fob with utility files be labeled:

"570-00128-000 Rev 01 MFD CSR Utility for Release 4.1.1 and 8.1.1".

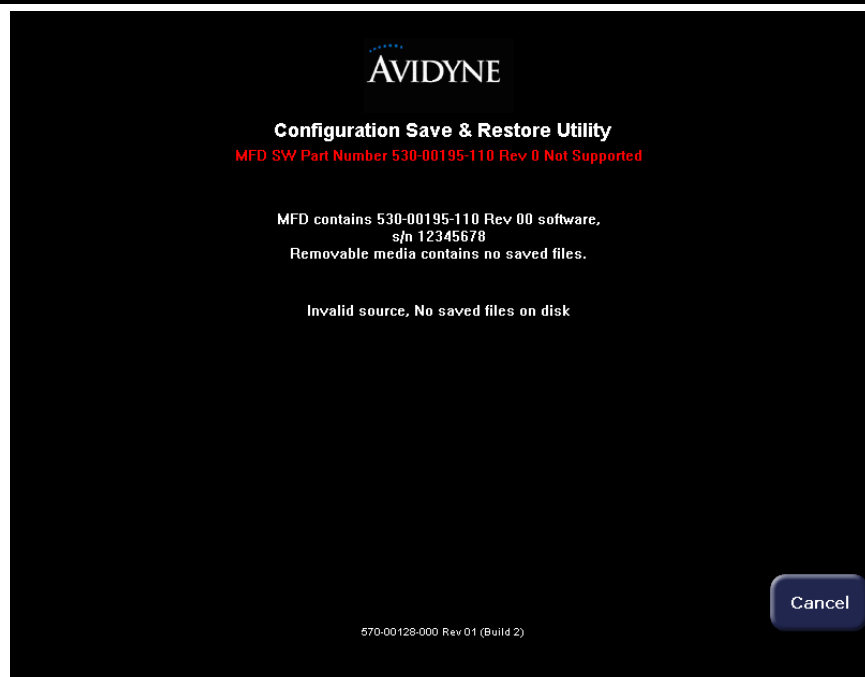
#### 3.3 Accomplishment Procedure

##### 3.3.1 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, will be displayed.



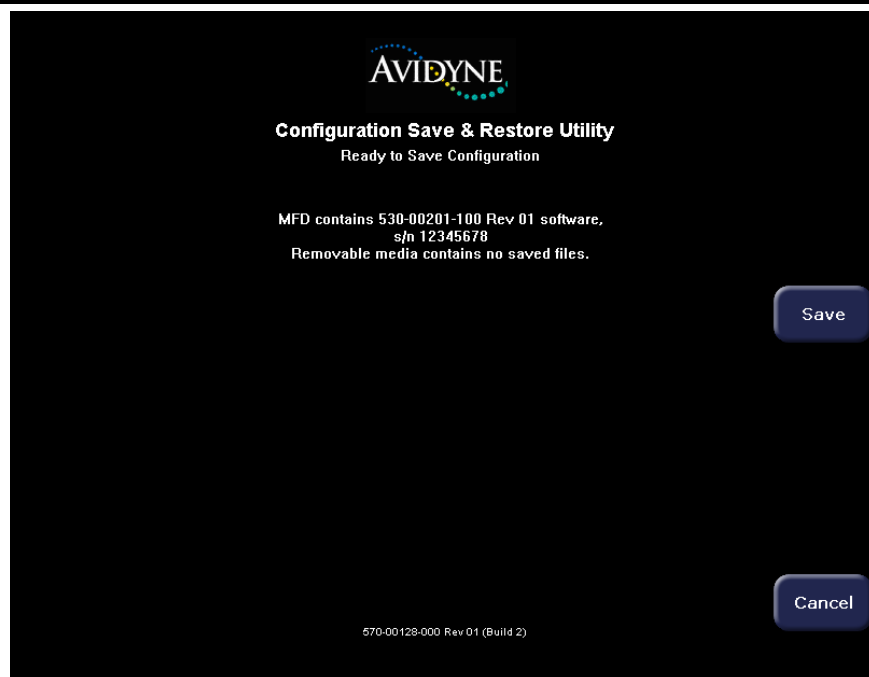
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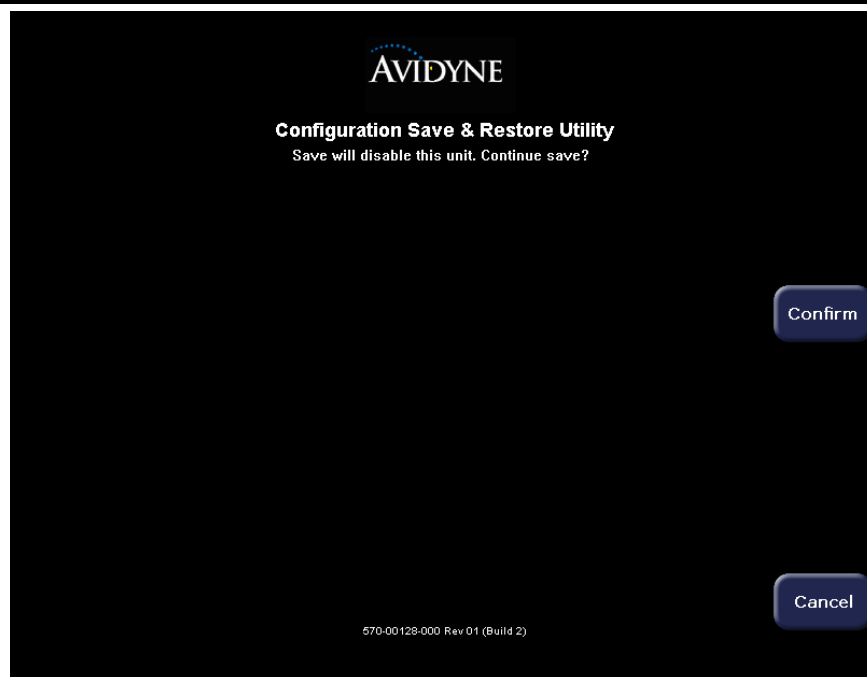
3. \_\_\_\_ If the MFD is running an eligible software version for use as a Source card, the following (or similar) will be displayed:



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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 a replacement MFD ready.**

**Selecting “Confirm” will disable the original MFD (or Compact Flash) and will render it unusable.**

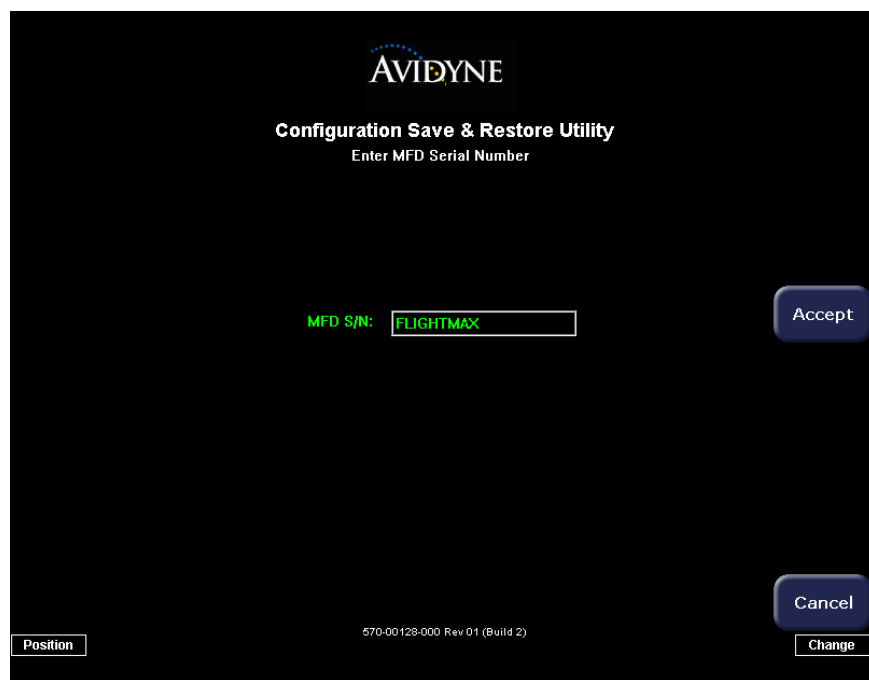
7. \_\_\_\_ In most cases, the CSR Utility will then begin transferring all saved configuration data to the USB Flash drive.

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:



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Use the knobs to enter the serial numbers into the text box as shown. The CSR will not accept serial numbers with less than 4 characters or more than 10 characters.

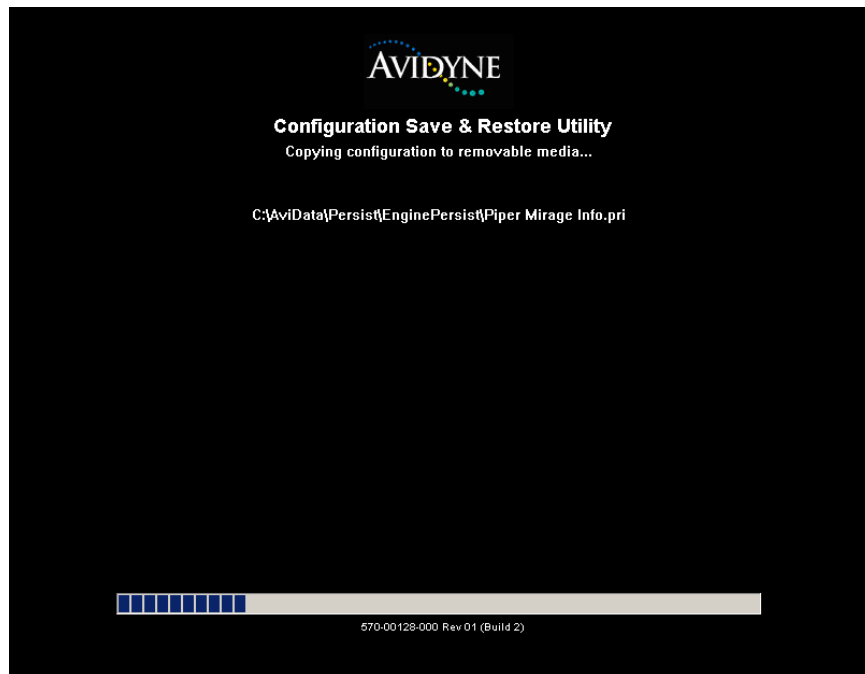
Press "Accept" to enter the MFD serial number and proceed with the Save operation, or "Cancel" to discontinue the entire operation and allow the MFD to power up normally.

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:





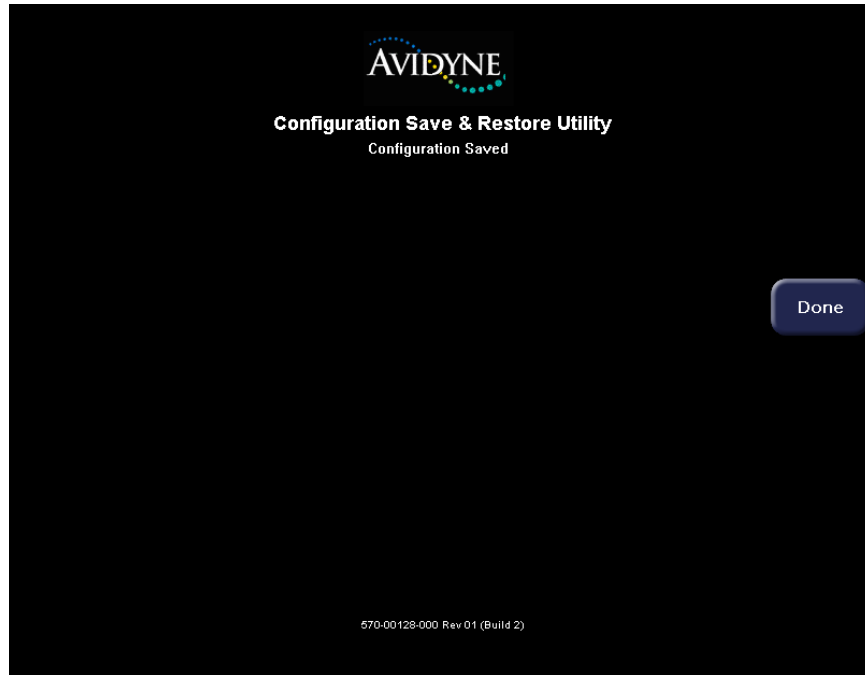
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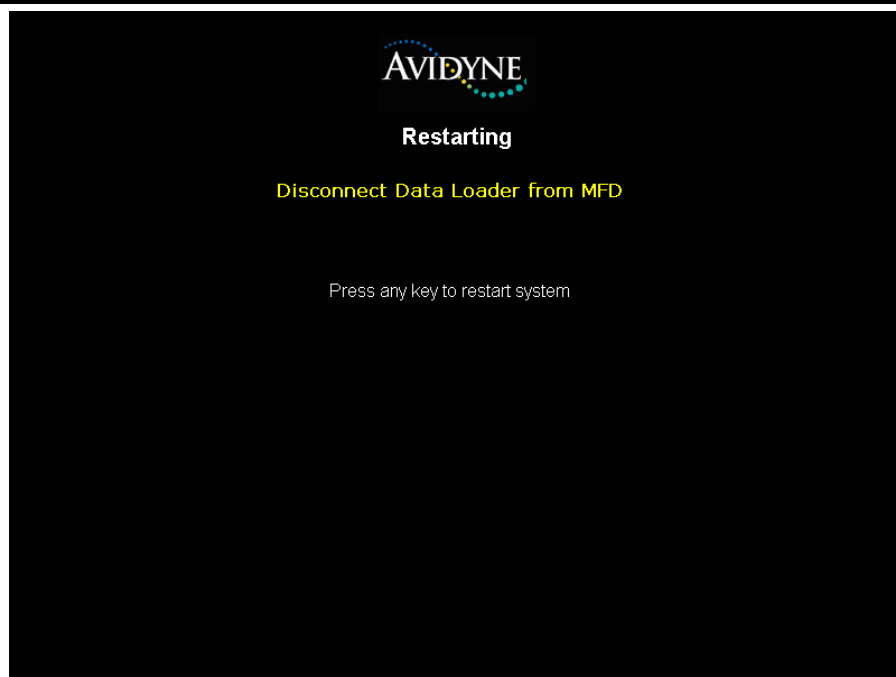
9. \_\_\_\_\_ After all the data has been saved a display similar to the following will be shown:



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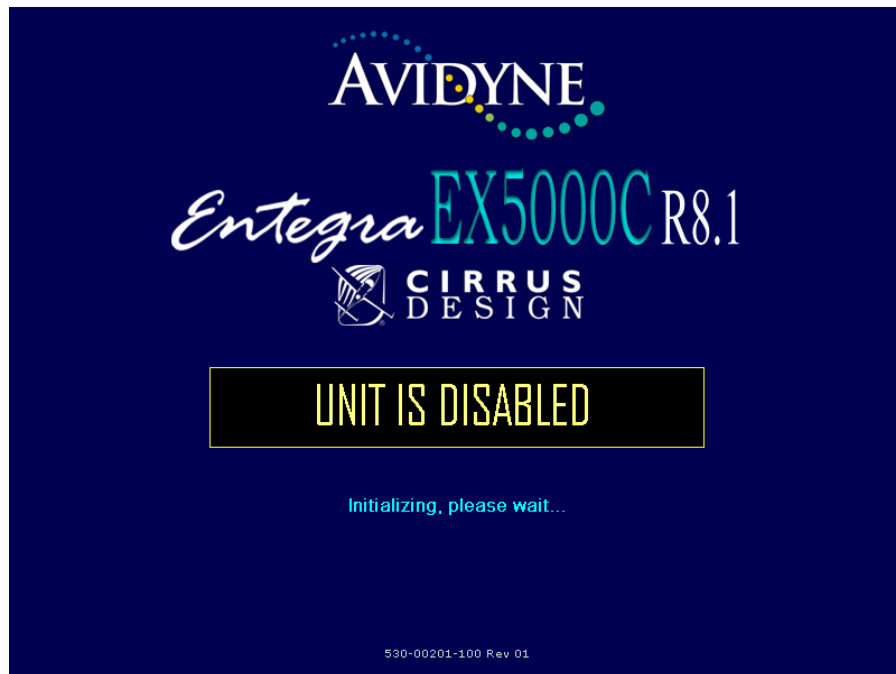


10. \_\_\_\_\_ Press "Done." The following screen will be shown.



11. \_\_\_\_\_ Remove the CSR Utility USB Flash drive from the MFD and press any bezel key.

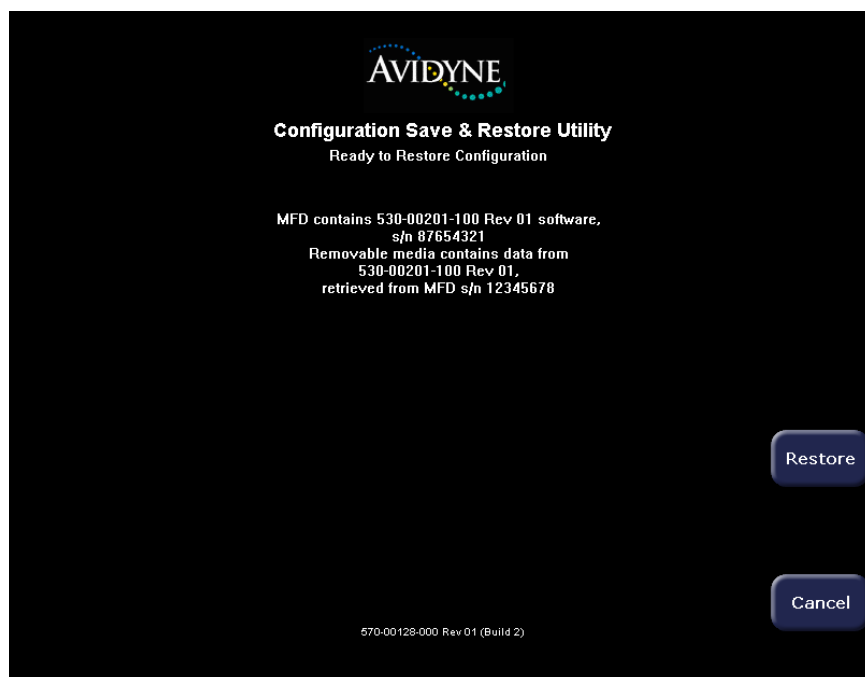
At this point, the original MFD or Source Compact Flash has been disabled and cannot be used in an aircraft. A disabled MFD will display a screen similar to following upon startup:



12. \_\_\_\_ Power down the MFD. The MFD can now be removed from the aircraft and replaced.

### 3.3.2 Restoring Configuration Data to a new MFD or Compact Flash card

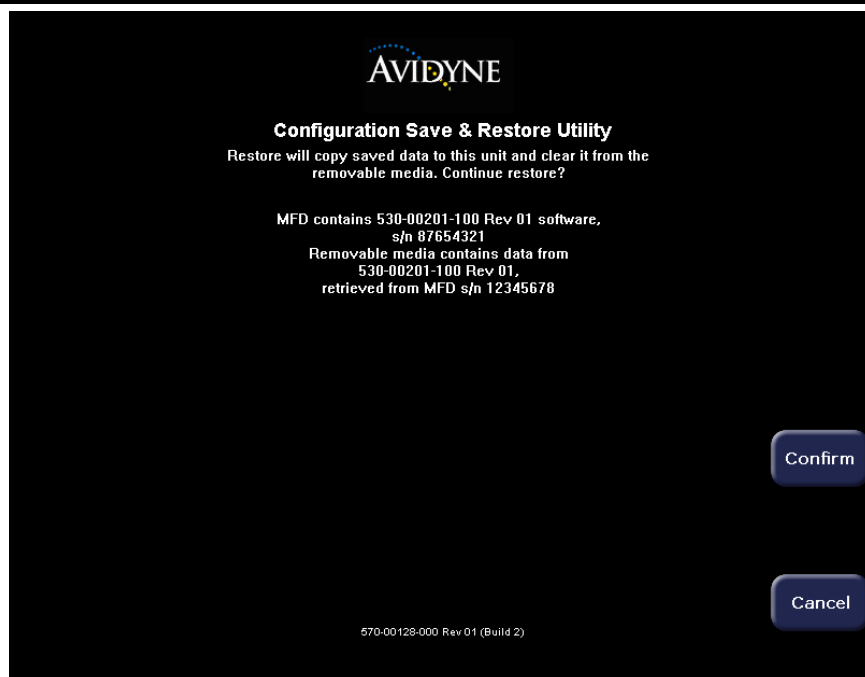
13. \_\_\_\_ With the MFD installed in the aircraft and powered off, attach the CSR Utility USB Flash drive used in Section 3.3.1 to the USB port on the MFD.
14. \_\_\_\_ Apply power to the MFD.
15. \_\_\_\_ If the MFD is running a software version and revision eligible for use as a Destination of the configuration data saved on the USB Flash Drive, the following (or similar) will be displayed:



16. \_\_\_\_ Press “Restore” to continue with the restore operation, or “Cancel” to discontinue the operation and allow the MFD to boot normally.
17. \_\_\_\_ 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:



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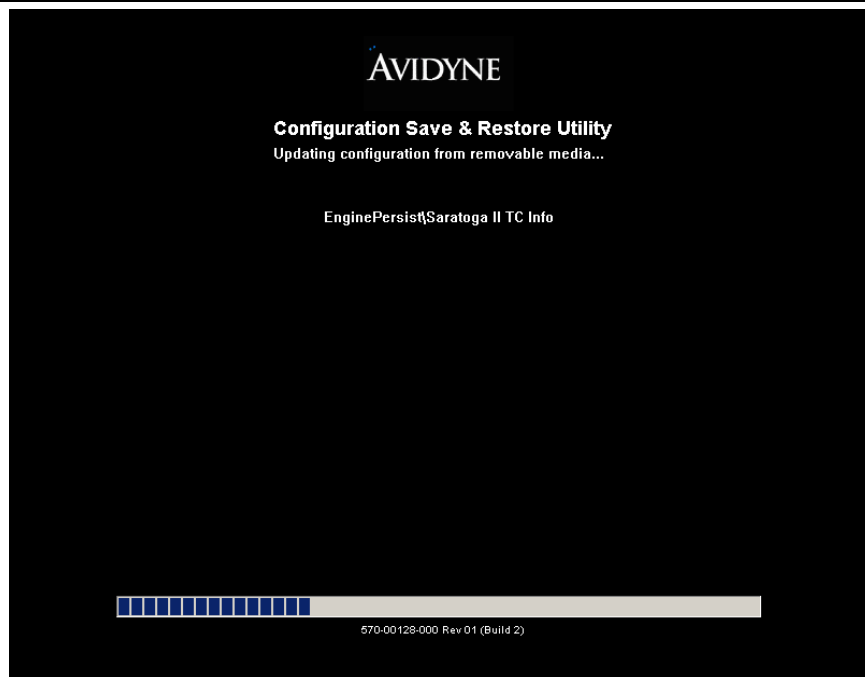


18. \_\_\_\_\_ Press "Confirm" to proceed with the Restore process, or "Cancel" to discontinue the operation.

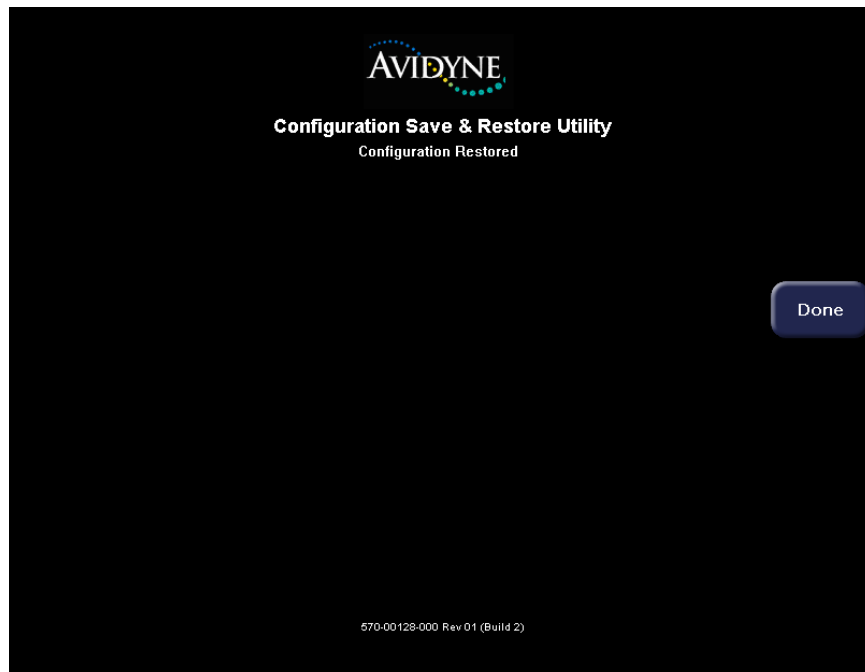
If you press "Confirm" the configuration data from the USB flash drive will be transferred to the new MFD or Compact Flash. The following screen, containing a status display and a progress bar, will be shown while the transfer is taking place:



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19. \_\_\_\_\_ When the transfer process is complete, the following screen will be shown:

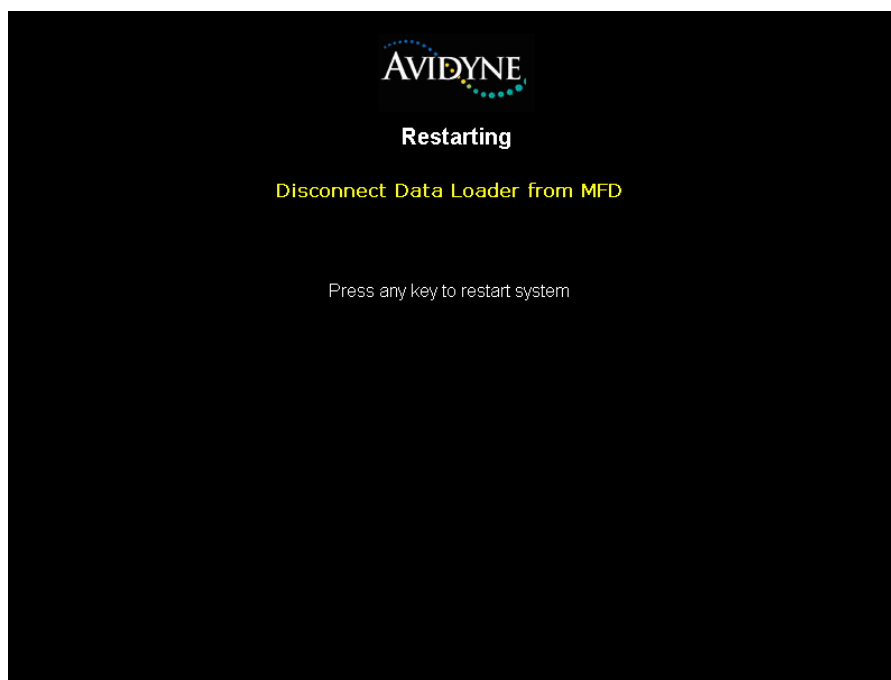




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20. \_\_\_\_\_ Press "Done". The following screen will be shown:



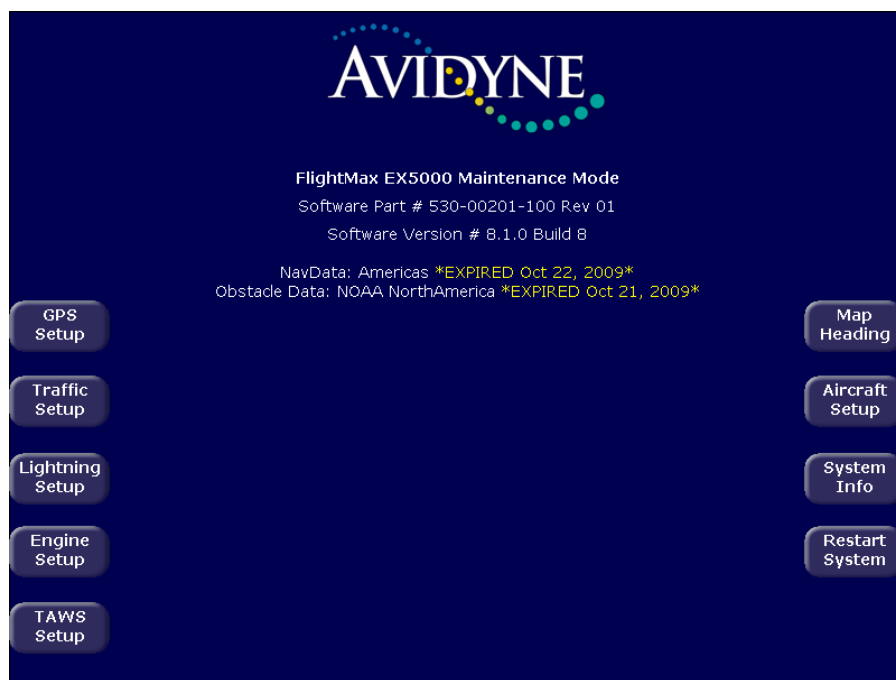
When

21. \_\_\_\_\_ 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:





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22. \_\_\_\_ Press "Restart System" to restart the MFD in normal flight mode.
23. \_\_\_\_ The save and restore procedure is now complete. Using the Installation Manual, verify proper operation of the MFD with respect to other interfaced aircraft systems.

**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 570-00128-000 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 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.