

Accessory Protocol Interface Module (APIM) Custom Programming

Special Tool(s)

 ST2834-A	Vehicle Communication Module (VCM) and Integrated Diagnostic System (IDS) software with appropriate hardware, or equivalent diagnostic scan tool.
 ST3256-A	SYNC® Re-Flash Kit CCMSYNC-KIT or equivalent [Tools are also available individually CCMUSB2-AM-AM-10 (cable) and CCMUSB-AF-BF5 (adapter)]

NOTE: Use this procedure to show all available software options, including Applications, that can be programmed into the APIM when upgrades become available, or as directed by a TSB. For additional information about choosing the correct APIM programming procedure, refer to [Information and Entertainment System](#), APIM Programming.

NOTE: A USB flash drive with a minimum storage size of 1 gigabyte (GB) may be required for this procedure.

NOTE: Some programming files are large (greater than 2 gigabytes). It is important that the diagnostic scan tool has enough available hard drive space to accommodate the programming file download. If a "Disk Space Error" is received, create additional free space on the hard drive.

NOTE:

- To prevent timeout errors and to minimize programming time, a hardwired Internet connection is strongly recommended when programming.
 - During programming, the vehicle display may go blank momentarily.
 - Make sure the diagnostic scan tool is plugged into a power supply due to the length of programming time.
 - Close the IDS program before attempting to perform this procedure.
1. Connect a battery charger set on low.
 - When connecting the charger, the negative battery charger lead must be connected to a clean chassis ground, not the negative battery post.
 2. Place the ignition in the ON/RUN position.
 3. Connect the diagnostic scan tool and VCM to the vehicle.

4. Open Internet Explorer on the diagnostic scan tool and go to the technician service publications web site. On the [OASIS](#) tab, select "Read VIN & DTCs," and select "Go."
5. **NOTE:** This procedure clears all [CMDTCs](#). The [DTCs](#) must be recorded now if other diagnoses are to be performed after this procedure.

Select "Toolbox" from the technician service publications web site to retrieve and record all [CMDTCs](#).

6. **NOTE:** If unable to complete programming because the operation stops or errors are received, the web browser settings may need to be configured. Refer to "Software Programming v1.1" on the technician service publications web site under the Service Tips tab.

From the [OASIS](#) tab, select the "SYNC" button. The Last Recorded State — Software is displayed.

7. Scroll to the bottom of the screen, select "Custom," and select the "Read SYNC" button to compare the current [APIM](#) Vehicle Interface Processor (VIP), Consumer Interface Processor (CIP), and Application software levels to the last reported state in the Ford online database.
 - After the comparison is performed, the diagnostic scan tool displays a list of available software. Select the software level needed as indicated by the [TSB](#). If the software level is not known, stop this procedure and perform standard programming, which automatically selects the latest software levels. Refer to [Accessory Protocol Interface Module \(APIM\) Standard Programming](#).
 - Applications may require selection for installation. Applications with a green check mark next to them indicates the [APIM](#) already has the latest level installed (no re-installation required). All Applications can be selected for installation.
 - Depending on the software level required, the diagnostic scan tool automatically selects either the Service Pack or Full Flash programming method.
 - Although there may be an option available to override the Service Pack installation and perform a Full Flash/Force [CIP](#), choosing this option requires additional programming time and is not recommended unless directed by a [TSB](#).
8. Select the customer-requested upgrade or the Application directed by the [TSB](#).
9. **NOTE:** Only Applications on a flash drive may be loaded to the [APIM](#) through the media hub.

NOTE: If not performing a Full Flash/Force [CIP](#), go to Step 11.

Remove the media hub. REFER to [Media Hub](#).

10. **NOTE:** Do not disconnect the diagnostic scan tool or cable from the [APIM](#) during programming unless directed by the diagnostic scan tool on-screen prompts.

Connect the SYNC® Re-Flash Kit cable and adapter between the diagnostic scan tool [USB](#) port and the vehicle [USB](#) cable.

11. **NOTE:** Diagnostic scan tools that have never been used to program SYNC® may encounter a Hardware Wizard pop-up requesting a "WMA SBOOT" driver installation. If this request is encountered, install the driver and select the diagnostic scan tool "retry" button to continue programming.

NOTE: This step may take 20 minutes or longer.

Select the "Program SYNC" button to begin the [APIM](#) programming process.

- When prompted by the diagnostic scan tool, disconnect the battery charger, start the engine, and select "OK." Once "OK" is selected, do not interrupt this step, which may take 20 minutes or longer.

- The updates are downloaded to the diagnostic scan tool or USB flash drive.

12. **NOTE:** If the diagnostic scan tool does not have an available USB port, the Re-Flash Kit cable can be unplugged at this time to make room for the USB flash drive. Do **not** disconnect the VCM from the diagnostic scan tool.

NOTE: This step may take 20 minutes or longer.

Connect the USB flash drive to the diagnostic scan tool and follow the on-screen instructions for downloading service packs and Applications onto the USB flash drive.

13. **NOTE:** If the media hub was removed, install it before connecting the USB flash drive to the vehicle. Refer to [Media Hub](#).

This step may take 20 minutes or longer.

When prompted by the diagnostic scan tool, remove the USB flash drive and connect it to the media hub to install the Applications into the APIM.

- The update should start automatically, and may take 20 minutes or longer.
- It is normal for the APIM to reset during this step.

14. **NOTE:** Re-installing the USB flash drive into the diagnostic scan tool initiates the remaining automated configuration steps. Failure to do so results in the loss of feature functionality such as navigation and SYNC® traffic, directions, and information services.

Once diagnostic scan tool programming and USB flash drive programming are complete, re-install the flash drive into the diagnostic scan tool and select "OK" to report software installation to the Ford online database.

15. Calibrate the touchscreen. Refer to [Touchscreen Calibration](#).
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