

Once the diagnostic scan tool programming and USB flash drive programming are complete, reinstall the flash drive into the diagnostic scan tool and select "OK." This initiates the remaining automated configuration steps and reports the software installation to the Ford online database. Failure to do so results in the loss of features such as navigation (if equipped) and SYNC® Services.

21.



NOTE: Calibrate the touchscreen.

Refer to: Touchscreen Calibration .

GENERAL PROCEDURES > SYNC MODULE [APIM] REPLACEMENT PROGRAMMING

Special Tool(s) / General Equipment

SYNC USB 2.0 A Male to A Male Cable

SYNC USB 2.0 A Female to Mini B Female 5-Pin Adapter

Activation

1.



WARNING: Before beginning any service procedure in this article, refer to Health and Safety Precautions in GENERAL INFORMATION . Failure to follow this instruction may result in serious personal injury.

Refer to: Health and Safety Precautions .

2.



NOTE: Use this procedure to program and provision the module when a new APIM is being installed. For additional information about choosing the correct APIM programming procedure, see Accessory Protocol Interface Module (APIM) Programming.

Refer to: Information and Entertainment System - System Operation and Component Description .

3.

Install the new APIM before performing this procedure. Refer to: SYNC Module [APIM] .

4.

To prevent timeout errors and to minimize programming time, a hardwired Internet connection is strongly recommended when programming.

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

Some programming files are large (greater than 2GB). 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.

The diagnostic scan tool is required.

Ensure that the IDS version and patch software levels are up to date.

During programming, the vehicle display may momentarily go blank.

5.

Connect a battery charger to the vehicle and select the low charge setting. The negative battery charger lead must be connected to a clean chassis ground, not the negative battery post.

6.

Plug the diagnostic scan tool into a power supply due to the length of time the programming requires.

7.

Connect the diagnostic scan tool to the VCM, and the VCM to the DLC.

8.

Close the IDS software program.

9.

Place the ignition in the ON/RUN position. For ON/RUN position information with Push Button Start vehicles, Refer to: Steering Wheel and Column Electrical Components - System Operation and Component Description .

10.

Using the diagnostic scan tool, open Internet Explorer and access the technician service publication website.

Run OASIS using "Read VIN & DTCs."

If the "Read VIN & DTCs" button is green with a red VCM icon, refer to the "SYNC - Software Programming" document under the "Service Tips" tab.

If the "Read VIN & DTCs" button is red with a grey VCM icon, ensure pop-ups are enabled, follow the Internet Explorer pop-ups, and then refer to the "SYNC - Software

Programming" document under the "Service Tips" tab.

If the "SYNC - Software Programming" document is not followed, the programming may stop or encounter errors due to improperly configured Internet browser settings.

11.

 **NOTE:** This procedure clears all Continuous Memory Diagnostic Trouble Codes (CMDTCs). The Diagnostic Trouble Codes (DTCs) must be recorded now if other diagnoses are to be performed after this procedure.

Select "Toolbox" from the technician service publications website to retrieve and record all Continuous Memory Diagnostic Trouble Codes (CMDTCs).

12.

From the OASIS tab, select the "SYNC" button. The Last Recorded State - Software is displayed.

13.

Scroll to the bottom of the screen, select "Module Replacement," and select the "Read SYNC" button. The current APIM assembly, Vehicle Interface Processor (VIP), Consumer Interface Processor (CIP), and Application software levels are compared to the last recorded state in the Ford online database, and the diagnostic scan tool automatically selects the latest software for 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 reinstallation is required).

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 Consumer Interface Processor (CIP), choosing this option requires additional programming time and is not recommended unless directed by a TSB or FSA.

14.

 **NOTE:** Only Applications on a flash drive may be loaded into the APIM through the media hub.

 **NOTE:** If not performing a Full Flash/Force Consumer Interface Processor (CIP), go to step 17.

Disconnect the vehicle's USB cable by removing the media hub. Refer to: Media Hub .

If the USB cable cannot be accessed by removing the media hub, access and disconnect the USB inline connector. Refer to: SYNC Module [APIM] to Universal Serial Bus (USB) Port Cable .

15.

Connect the USB adaptor (female type A 4-pin to female type Mini-B 5-pin) to the vehicle's USB cable. Use the General Equipment: SYNC USB 2.0 A Female to Mini B Female 5-Pin Adapter

Connect one end of the USB cable (male type A 4-pin to male type a 4-pin) to the diagnostic scan tool's USB port, and the other end to the USB adaptor. Use the General Equipment: SYNC USB 2.0 A Male to A Male Cable

16.



*NOTE: Do **not** disconnect the VCM or USB cable during APIM programming unless directed by the diagnostic scan tool on-screen prompts.*

17.



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.

18.



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 to download Service Pack and Application files onto the USB flash drive. (If the diagnostic scan tool does not have an available USB port, the USB cable that is connected to the vehicle's USB 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).