



GENERAL SERVICE BULLETIN

SYNC Programming

23-7035

25 May 2023

This bulletin supersedes 21-7088.

Summary

This article supersedes [GSB 21-7088](#) to update the vehicle model years affected and the Service Information.

The [APIM](#) may require programming to add system enhancements/upgrades, improve system reliability and/or address consumer issues. The following information is intended to help determine when programming is necessary and address common programming issues using the [FDRS](#).

Service Information

When Is APIM Programming Necessary?

[PMI](#) is required with any [APIM](#) replacement. Each replacement module comes with the latest software.

Upgrades and service messages - updates to resolve performance issues or upgrades to include Android Auto and Apple CarPlay, any applicable [SSM](#), [TSB](#) or [GSB](#).

NOTE: Gen2 equipped hybrid vehicle powertrain modules require the latest software in order to download the latest [APIM-SYNC](#) software.

[APIM](#) Configuration programming app is an [FDRS](#) option. When a concern is present with the [APIM](#) as-built data, [DTC](#) U2100 or U2101 is set in the [APIM](#), the configuration programming option can be used. Server corrections may be required prior to programming the module again. If SYNC has latest software installed, standard programming performs the same function as [APIM](#) configuration programming.

NOTE: Some vehicles may have a standard [APIM](#) programming option in [FDRS](#) only while others have an software update option. The software update option only downloads the latest available software. Once the update completes successfully, the [FDRS](#) removes it from the software update list.

APIM Programming Tips Using FDRS programming

Prior to performing any [APIM](#) programming, confirm SYNC function by pressing the phone button on the steering wheel or on the instrument panel. If no SYNC function is present, the [APIM](#) will not program. Follow normal [WSM](#) diagnostics.

Refer to [WSM](#), Section 418-01 – General Procedures – Module Programming or Section 415-00 – General Procedures – SYNC Module Programming for detailed programming steps.

NOTE: For vehicles that now use [FDRS](#) programming, continue with starting a vehicle session using the [FDRS](#) scan tool > Go to the Toolbox Tab > Select APIM > Choose the appropriate [APIM](#) programming procedure. [PMI](#), Module Replacement Programming, or Standard Programming will be available.

It is recommended to install a battery charger when performing programming steps. Low/poor battery voltage during [APIM](#) programming will induce various SYNC, center display screen, or Bluetooth related concerns. Make sure the battery charger is set to maintain 12.8v-13.5v. Confirm the [BCM](#) 12v battery [SOC](#) percent is greater than 80%. Lower than usual [SOC](#) % will affect module programming and [APIM](#) programming. Low [SOC](#) % will activate the battery management system message disabling the audio system or activate deep sleep mode.

A hard-wired internet connection is strongly recommended. If a hard-wired internet connection is not available, higher speed Wi-Fi connections are strongly recommended. Using a slower Wi-Fi source will result in programming errors. Recommend using Mobile Hotspot as needed when internet provider connections issues are suspected. Refer to programming error chart below.

Make sure the proper SYNC [USB 2.0](#) A-Male to A-Male cable and SYNC [USB 2.0](#) A-Female to Mini B Female 5-pin adaptor is being used for SYNC Gen1 and Gen2. This is recommended for [APIM](#) replacement programming and [APIM](#)/ [CIP](#) programming.

Effects Of Not Having An APIM Programmed Properly

- Future map updates will cause errors and will not complete.

- Missing features such as climate, various settings for vehicle, and SiriusXM.
- Inaccurate navigation or compass.
- Connected Services may not work properly such as incomplete software updates via Over-the-Air, Connected Navigation inoperable, and enhanced voice recognition failures.
- Applink, FordPass or Lincoln Way features may not operate properly.
- Loss of navigation, navigation voice prompts, or SYNC voice prompts.
- Erratic Apple CarPlay and/or Android Auto operation.
- General inability for SYNC to communicate to the Ford back-end cloud.

USB Drive Size

For SYNC 4 vehicles, a 64GB or larger USB 3.0+ flash drive is required for APIM software update. The USB drive must be formatted to exFAT. Using a smaller drive such as a 16GB flash drive or incorrectly formatted drive will induce SYNC programming issues potentially resulting in APIM failure.

For SYNC 3 vehicles, recommended size for the USB drive is 32GB or larger. The USB drive must be formatted to exFAT. Using a 16GB, 8GB, 4GB, or incorrectly formatted flash drive will induce SYNC programming issues potentially resulting in APIM failure.

For Gen 2 SYNC equipped vehicles, recommended size for the USB drive is 16GB. The USB drive must be formatted to FAT32. Using a 4GB, 8GB, or incorrectly formatted flash drive will induce SYNC programming issues potentially resulting in APIM failure.

USB Flash Drive Formatting

Make sure the USB flash drive being used is formatted correctly. To see the available drives, hold down the Windows icon keyboard key and press the E keyboard key. Right click on the USB flash drive and select Properties. If File System under the General tab is not exFAT, the drive must be formatted to exFAT for SYNC 3 and SYNC 4 systems only. If File System under the General tab is not FAT32, the drive must be formatted to FAT32 for Gen 2 systems only.

To format the USB flash drive, right click on the USB flash drive, select Format, select exFAT for the File System, and select Default Allocation Size for the Allocation Unit Size. Do not de-selecting Quick Format as it will result in a lengthier operation. To fully format the drive, de-select Quick Format and continue.

NOTE: Full format can take up to 15 minutes to complete.

NOTE: If all normal WSM, TSB, SSM and/or GSB diagnostics have been performed, there may be a SYNC server issue preventing SYNC programming. If all above diagnostics, as well as all below diagnostics, have been performed, it may be necessary to contact the Ford TAC to restore the SYNC server information.

Windows 10/11 (HIDDEN FILES)

In order to access the SYNC cache folder, the hidden files function needs to be enabled:

1. Use the magnifying glass in the bottom left hand corner of the Windows bar, search for This PC. This will show the This PC application.
2. Select the application and a new window will open titled This PC. Select the View tab at the top of this window.
3. Find the Hidden Items check box at the upper right corner of the window and check the box. This will show hidden files.

SYNC Cache Folder

Press the Windows Key located in lower left hand corner of the keyboard. Select This PC (or My Computer) > C:Drive > Program Data > Ford Motor Company > SYNC > Cache.

SYNC/APIM Reboot-Reset Procedure (Gen 1 SYNC, Gen 2 SYNC, and SYNC 3)

The SYNC reset/reboot procedure is performed by pressing and holding the seek forward/seek up button (> >) while pressing and holding the radio power button located on the center display screen. Release both buttons after 3-4 seconds and allow the reset to complete.

SYNC/APIM Reboot-Reset Procedure (SYNC 4)

Vehicles equipped with a volume/power and right seek button, press and hold both the volume/power and right seek button for 10 seconds and the system will reboot. For vehicles not equipped with a volume/power button, holding the seek right and volume down buttons on the steering wheel controls will reboot the SYNC 4 system.

FDRS APIM – Reset SYNC Module Option (available for some vehicles)

Start vehicle session using the FDRS scan tool > Go to the Toolbox Tab > Select APIM > APIM – Reset the SYNC Module.

NOTE: An APIM/SYNC reset/reboot consists of an APIM software cold boot. It may not be necessary to perform a master reset after performing a cold boot if the concern is resolved. The SYNC reset/reboot procedure does not remove or delete any stored user information that occurs when performing an APIM master reset.

NOTE: The flash drive full format method can take up to 10 minutes for completion. This method is recommended to ensure all bad files are completely removed from the flash/USB drive used.

RVC Requirements

Refer to the Components Requiring A Repair Validation Code form located on PTS homepage - Technical Assistance dropdown. SYNC 3 and newer generations of SYNC requires an RVC only using the FDRS. An RVC is no longer required for any Gen 1 or Gen 2 SYNC equipped vehicle. When attempting to manually generate an RVC, a message displays stating The RVC Assistance Form Is Not Available For This Vehicle And Market. Contacting Technical Assistance is not required.

APIM Programming Concerns or Issues After APIM Replacement – SYNC 4 Equipped Vehicles

Error State/Message	Possible Causes	Solution
<ul style="list-style-type: none"> • Procedure Unsuccessful – ValidateFlashActionDIDsAgainstModule/ • Procedure Unsuccessful – GetConfigDataFromGIVIS Modified Configuration data is missing from Ford server/GetVehicleNodeInfo Direct configuration data is missing. • Procedure Unsuccessful - UpdateSoftwareOverUSB Unable to program module, process aborted • Procedure Unsuccessful - GetFilesForPMI Exception getting flash action part numbers • Unable to Obtain Software Binary File • Blank screen after APIM programming • Center display screen stays on after programming attempt. Stays on with ignition off 	<ul style="list-style-type: none"> • USB update was unsuccessful • APIM data missing on server • APIM Programming tab closed during PMI or software update • Backend APIM data error • APIM Programming tab closed during PMI or software update. • Battery voltage, configuration issue • APIM is in programming mode. Programming was stopped or was not completed. 	<ul style="list-style-type: none"> • Retry SYNC programming • Contact TAC for assistance. Follow FDRS directions. • Check SOC per the directions above. Perform network test and confirm APIM pass. APIM reset, APIM configuration programming, confirm screen operates.

APIM Programming Concerns or Issues After APIM Replacement – SYNC 3 Equipped Vehicles

Error State/Message	Possible Causes	Solution
<ul style="list-style-type: none"> • Repeat MEM_ERR, LST_ERR, PKG_ERR, 	<ul style="list-style-type: none"> • Incorrect USB format, faulty 	<ul style="list-style-type: none"> • Perform a master reset and retry programming

Error State/Message	Possible Causes	Solution
<p>INSTL_ERR, or VER_ERR</p> <ul style="list-style-type: none"> • Replacement APIM with MEM_ERR, LST_ERR, PKG_ERR, INSTL_ERR, or VER_ERR • Invalid Software/Incompatible Hardware • Data Corrupted, ErrorReturn, GetVehicleNodeInfo Direct configuration data is missing, or Error during programming • Reduced, incorrect, or half screen display/FDIM after programming 	<p>USB flash drive, or SYNC software concern with the original module</p> <ul style="list-style-type: none"> • Concern with the replacement module • Replacement APIM is incorrect for the vehicle • APIM data missing from the server. Incorrect APIM data on the server • Customer modified APIM data using aftermarket tool. Incorrect APIM data. 	<p>or try Universal USB Updater method to update SYNC. Replacement required for either repeat error message. (SIGN_ERR – redownload files, retry programming).</p> <ul style="list-style-type: none"> • Contact the TAC. • Select On-line 1878 at the bottom of PTS after entering the VIN. If replacement module is correct, contact TAC for assistance.
<ul style="list-style-type: none"> • Procedure Unsuccessful - MainUpdateProcess Failed to restore module configuration • Procedure Unsuccessful - FlashSoftware Failed to flash ****_14*****_** • Procedure Unsuccessful – FlashSoftware CHECK VALID APP FAIL 	<ul style="list-style-type: none"> • APIM data missing from the server. Incorrect APIM data on the server. • Backend APIM data error/part number software doesn't match database 	<ul style="list-style-type: none"> • Contact the TAC to have server corrections made
<ul style="list-style-type: none"> • Warning: Applications are currently not loaded - follow Custom programming and select the current assembly indicated by the check marks current on SYNC page. 	<ul style="list-style-type: none"> • Applications missing from the SYNC server or missing from the SYNC page • USB drive was not re-inserted into the scan tool when prompted at the end of the SYNC programming 	<ul style="list-style-type: none"> • Start EDRS session. Perform a network test to update the SYNC server and refresh the SYNC page. • Contact the TAC to have server corrections made.
<ul style="list-style-type: none"> • Update does not start automatically when inserting the USB into the vehicle and 5 minutes have elapsed. 	<ul style="list-style-type: none"> • USB not properly formatted • Downloaded files are still compressed (double zipped) 	<ul style="list-style-type: none"> • Verify operation of the USB port using the MIT. • Verify 32GB USB drive is properly formatted to exFAT • Verify the autoinstall.lst file is present on the USB drive

Error State/Message	Possible Causes	Solution
	<ul style="list-style-type: none"> • The autoinstall.lst file is missing from the <u>USB</u> drive 	<ul style="list-style-type: none"> • Verify all downloaded files are extracted/ decompressed • Access the <u>USB</u> drive, open the SyncMyRide Folder and AutoInstall File to confirm gz Archive file (tar.gz.) is displayed • Full format the flash drive and retry the SYNC programming
<ul style="list-style-type: none"> • Select/No/Flash, blank SYNC page, or MainUpdateProcess Failed 	<ul style="list-style-type: none"> • Poor internet connection • Missing SYNC software on the server. SYNC software flashing concern 	<ul style="list-style-type: none"> • Use an alternate internet source and retry the SYNC programming • Contact the <u>TAC</u> to have server corrections made
<ul style="list-style-type: none"> • Module stuck in bezel diagnostics mode 	<ul style="list-style-type: none"> • Concern occurred during programming or software update attempt • Non-responsive center display screen 	<ul style="list-style-type: none"> • Perform SYNC reboot by pressing and hold the power button with the seek forward (if equipped) up to 10 seconds • Perform the <u>APIM</u> configuration programming using <u>FDRS</u> • Follow <u>WSM</u>, Section 415-00 for not responsive to touch
<ul style="list-style-type: none"> • Unable to find\USB Disk\VIN.lst 	<ul style="list-style-type: none"> • The autoinstall.lst file is missing from the <u>USB</u> drive • Downloaded files are still compressed (double zipped) • <u>USB</u> drive not properly formatted • Poor internet connection 	<ul style="list-style-type: none"> • Verify the autoinstall.lst file is present on the <u>USB</u> drive • Attempt an alternate internet source • Use a new <u>USB</u> flash drive and verify formatting • Access the <u>USB</u> drive, open the SyncMyRide Folder and AutoInstall file to confirm gz Archive file (tar.gz.) is displayed • Full format flash drive properly, and retry SYNC programming

Error State/Message	Possible Causes	Solution
<ul style="list-style-type: none"> • Repeat message stating Installation In Progress populates after SYNC programming attempt • Repeat message stating Voice Recognition Not Ready • Center display screen stays on after programming attempt. Stays on with ignition off. 	<ul style="list-style-type: none"> • Error occurred during programming or with software update • <u>APIM</u> stuck in programming mode or step(s) skipped during programming process • <u>APIM</u> is in programming mode. Programming was stopped or was not completed 	<ul style="list-style-type: none"> • Perform SYNC reboot according to this article, <u>APIM</u> master reset, turn off automatic updates. Complete <u>APIM</u> configuration programming or standard programming without any applications selected. • Perform SYNC reboot according to this article 2x, <u>APIM</u> master reset, and complete <u>APIM</u> programming again • Check <u>SOC</u>. Attempt <u>PMI</u> or <u>APIM</u> configuration programming and reevaluate.

APIM Programming Concerns or Issues after APIM Replacement – Gen 2 SYNC and Gen 1 SYNC Equipped Vehicles

Error State/Message	Possible Causes	Solution
<ul style="list-style-type: none"> • Screen display Module Is Not Provisioned after programming the replacement <u>APIM</u>. (Gen 2 SYNC) • Center display screen stays on after programming attempt. Stays on with ignition off. 	<ul style="list-style-type: none"> • Applications were not installed on the new module using the <u>USB</u> flash drive • Service Provisioning app was not selected during <u>PMI</u>-Module Replacement programming (<u>FDRS</u>) • <u>APIM</u> is in programming mode. Programming was stopped or was not completed. 	<ul style="list-style-type: none"> • Format 16GB or 32GB <u>USB</u> drive to FAT32. Retry <u>APIM</u> programming • Perform standard programming to add factory equipped applications • Open <u>FDRS</u> and click on <u>PMI</u> or <u>CIP</u>. Select the application titled BT4T-14D546-DA (service provisioning only select when a new module is installed). Complete the <u>APIM</u> programming and retest. • Check <u>SOC</u>. Attempt <u>PMI</u> or <u>APIM</u> configuration programming and reevaluate.
<ul style="list-style-type: none"> • Wireless provisioning is not functional or Wireless Access 	<ul style="list-style-type: none"> • Wireless Provisioning button 	<ul style="list-style-type: none"> • Wait approximately 40

Error State/Message	Possible Causes	Solution
Points is displayed on the center display screen. (Gen 2 SYNC)	was selected during provisioning. This is for in-plant use only.	minutes <u>KOEO</u> . The <u>APIM</u> will deactivate the wireless provisioning automatically. An <u>APIM</u> soft reset or power reset will not reset or alter the internal timer.
<ul style="list-style-type: none"> • Provisioning Error (Gen 2) 	<ul style="list-style-type: none"> • Partially zipped/compressed SYNC files on the <u>USB</u> drive • Faulted <u>USB</u> drive • Incorrect <u>CIP</u> files • SYNC server concern 	<ul style="list-style-type: none"> • Verify all downloaded SYNC files are extracted/ decompressed • Use a different <u>USB</u> drive • Perform <u>PMI</u> and select Force CIP (<u>FDRS</u>) • Contact the Ford <u>TAC</u> to have corrections made
<ul style="list-style-type: none"> • Data Corrupt, GetVehicleNodeInfo Error, or StatusCode: 500 Error VM-PB-E07-Unable to resolve Variant ID during APIM programming (Gen 2 SYNC and Gen 1 SYNC) 	<ul style="list-style-type: none"> • <u>APIM</u> data missing from server. Incorrect <u>APIM</u> data on server. 	<ul style="list-style-type: none"> • Contact the <u>TAC</u> to have server corrections made
<ul style="list-style-type: none"> • Module stuck in bezel diagnostics mode • Sirius Not Equipped after programming. Gen 1 SYNC equipped with center display screen. 	<ul style="list-style-type: none"> • Concern occurred during programming or software update attempt. • Configuration concern with <u>APIM</u>, <u>ACM</u>, or <u>FCDIM</u> 	<ul style="list-style-type: none"> • Perform SYNC reboot by pressing and hold the power button with seek forward (if equipped) up to 10 seconds • Format 16GB or 32GB <u>USB</u> drive to FAT32 only. Perform <u>PMI</u> and select Force CIP (<u>FDRS</u>) • As-built programming <u>FCDIM</u> and <u>ACM</u>. Standard or configuration <u>APIM</u> programming and retest
<ul style="list-style-type: none"> • Applications Desktop Error during or after SYNC update. 	<ul style="list-style-type: none"> • Occurred during software update 	<ul style="list-style-type: none"> • Format flash drive to FAT32

Error State/Message	Possible Causes	Solution
(Gen 2 SYNC)	<ul style="list-style-type: none"> • Outdated or faulty SD card causing indexing issue 	<p>then proceed with standard APIM programming</p> <ul style="list-style-type: none"> • Remove SD card and perform SYNC reboot. If error is resolved, SD card replacement is required
<ul style="list-style-type: none"> • Center display screen response/calibration. (Gen 2 Only) 	<ul style="list-style-type: none"> • Center display screen not calibrated • Configuration error during APIM programming 	<ul style="list-style-type: none"> • Configure touchscreen per general procedures in WSM, Section 415-00 • Perform Force CIP (FDRS) and click on the Touchscreen Calibration option
<ul style="list-style-type: none"> • Any of the following messages: Unsupported / Corrupt Device / Installation Has Run Out Of Space / Does Not Work With This Version 	<ul style="list-style-type: none"> • Master reset not performed prior to the attempted installation of software • Standard programming performed while APIM is already at the latest level; applications are attempted to be installed twice 	<ul style="list-style-type: none"> • Perform an APIM master reset as per the appropriate WSM, Section 415-00 • (Gen 2) Perform standard APIM programming (FDRS)
<ul style="list-style-type: none"> • Invalid or unsigned file - your package may have corrupted, the package signature may have failed or the signature may have been revoked 	<ul style="list-style-type: none"> • The Global Navigation Application requires a second, hidden application to be loaded in the background during APIM programming. (SYNC Gen 2 MyTouch) 	<ul style="list-style-type: none"> • Perform standard APIM programming per the appropriate WSM, Section 415-00; only select App To Correct Modules That Report Null ESN. Complete APIM programming. • Perform Standard APIM programming again and only select Global Navigation Application and complete APIM programming

Error State/Message	Possible Causes	Solution
<ul style="list-style-type: none"> Select/noPreinstallRestore – unable to program replacement <u>APIM</u>. (Gen 1 SYNC) 	<ul style="list-style-type: none"> Incorrect <u>APIM</u> installed Updating from v1 <u>APIM</u> to v2 <u>APIM</u> to support 911 Assist Incorrect vehicle data on the SYNC server 	<ul style="list-style-type: none"> Verify the correct <u>APIM</u> is installed Make sure the <u>RCM</u> and <u>IPC</u> are updated to latest software level to support 911 Assist with v2 replacement <u>APIM</u>, retry <u>APIM</u> Programming Contact the <u>TAC</u> if the correct module is installed
<ul style="list-style-type: none"> <u>VIP</u> / <u>CIP</u> missing on the SYNC page in <u>OASIS</u> <u>BEV VIP</u> / <u>CIP</u> software installed in a non- <u>BEV</u> vehicle. (Gen 1/Gen 2) 	<ul style="list-style-type: none"> Information was not uploaded to the SYNC database Hybrid powertrain modules not updated (<u>PCM</u>, <u>BECM</u>, <u>DCDC</u>, <u>ACCM</u>, <u>SOBDM</u>, <u>TCM</u>/ <u>SOBDMC</u>) Incorrect <u>VIP</u> / <u>CIP</u> software installed 	<ul style="list-style-type: none"> Perform the Read VIN and DTC function. If missing still, contact the <u>TAC</u> to have corrections made. Reprogram the hybrid powertrain modules and retry SYNC programming (as directed in <u>FSA</u>) Contact the <u>TAC</u> to have corrections made
<ul style="list-style-type: none"> Install ActiveSync, ActiveSync Is Present message (Gen 1 and Gen 2) 	<ul style="list-style-type: none"> Incorrect <u>APIM</u> is installed SYNC server data is incorrect Turn off/disable-ActiveSync 	<ul style="list-style-type: none"> Select On-line 1878 at the bottom of <u>PTS</u> after entering the <u>VIN</u>. If the replacement module is correct, contact <u>TAC</u> for assistance. Disable active SYNC and retry SYNC programming

Map Software Updating/Map Software Errors - Gen 1, Gen 2, Sync 3

Error State/Message	Possible Causes	Solution
<ul style="list-style-type: none"> Installation Error. (SYNC 3) Message stating SYNC Must Be Updated Before This Map Update Can Be Applied. Please Remove The USB Drive 	<ul style="list-style-type: none"> Error with map software or SYNC 3 software installed Attempting to add update map software with outdated SYNC software (v2.2 or earlier) 	<ul style="list-style-type: none"> Perform an <u>APIM</u> master reset as per the appropriate <u>WSM</u>, Section 415-00, turn off automatic updates, and attempt the map software update again

Error State/Message	Possible Causes	Solution
<p>VER_ERR01-06 (SYNC 3)</p>	<ul style="list-style-type: none"> • <u>USB</u>/drive connected to <u>USB</u> port after update completed 	<ul style="list-style-type: none"> • Complete standard programming to update SYNC software and attempt maps software update again • Contact <u>CRC</u> or refer to the Owner's Manual for the map supplier to receive a new <u>USB</u>/drive that contains updated map software
<ul style="list-style-type: none"> • Installation Failed: BGMAP_ERR01-05. (SYNC 3) 	<ul style="list-style-type: none"> • <u>USB</u>/drive connected to the <u>USB</u> port after update completed • Map software/hardware has incorrect version • Concern with map software/hardware installed on <u>USB</u>/drive • Vehicle is not equipped with navigation 	<ul style="list-style-type: none"> • Perform an <u>APIM</u> master reset as per the appropriate <u>WSM</u>, Section 415-00, turn off automatic updates, and attempt the map software update again • Contact <u>CRC</u> or refer to the Owner's Manual for the map supplier to receive a new <u>USB</u>/drive that contains updated map software • Verify the vehicle was built with navigation from the factory
<ul style="list-style-type: none"> • Installation Failed : (SYNC 3) 	<ul style="list-style-type: none"> • <u>USB</u>/drive connected to <u>USB</u> port after update completed • Incorrect <u>USB</u> format or concern with the <u>USB</u> flash drive • <u>USB</u> connection interrupted • SYNC or <u>USB</u>/drive storage limitation • Corrupted software/hardware installed on <u>USB</u>/drive 	<ul style="list-style-type: none"> • Format or full format the 32GB <u>USB</u> drive to ExFAT, re-download map software per the navigation site or receive a new <u>USB</u> drive • Perform <u>APIM</u> master reset, turn off automatic updates, retry software update, leave <u>USB</u> connected to the <u>USB</u> port for at least 5 minutes • Replace the map software <u>USB</u> drive again

Error State/Message	Possible Causes	Solution
<ul style="list-style-type: none"> Navigation voice stopped after map software update. Message stating Installation In Progress populates after SYNC programming or map software update (stay on after programming). 	<ul style="list-style-type: none"> Error occurred with map software or with SYNC 3 software installed Error occurred during software update, APIM stuck in programming mode 	<ul style="list-style-type: none"> Perform SYNC reboot according to this article, APIM master reset, turn off automatic updates, and complete standard programming without any applications selected Perform SYNC reboot according to this article 2x, APIM master reset, and complete standard programming without any applications selected
<ul style="list-style-type: none"> Navigation missing after programming or module replacement (Gen 2) SD card concern after replacement. (Gen 2) 	<ul style="list-style-type: none"> Nav app EA5T-14F657-AG wasn't selected during programming (Gen 2) Vehicle not built with navigation (Gen 2) Outdated SYNC software Concern with SD card 	<ul style="list-style-type: none"> Confirm vehicle was built with navigation (Gen 2) Perform Force CIP (FDRS) standard programming, select correct Nav app 14F657 and retest. (Gen 2). Then proceed installing latest v3.10. Replace SD card as needed. (Gen 2).

FDRS Programming Issue

Error State/Message	Possible Causes	Solution
<ul style="list-style-type: none"> One of the following messages: <ul style="list-style-type: none"> - Application has ended in an error state - Application request to Ford server. The application has not been able to retrieve data from the Ford server. Please report this to the technical hotline. 	<ul style="list-style-type: none"> Poor internet connection Missing SYNC software on server 	<ul style="list-style-type: none"> Use an alternate internet source Attempt APIM configuration programming/check APIM ESN in vehicle and compare to ESN on the SYNC page
<ul style="list-style-type: none"> FDRS states Module Has Been Replaced during software update while original APIM is installed 	<ul style="list-style-type: none"> 32GB or 64GB USB drive incorrectly formatted APIM was replaced 	<ul style="list-style-type: none"> Contact the TAC to have corrections made Format 32GB flash drive to ExFAT and retry SYNC programming
<ul style="list-style-type: none"> FDRS states Vehicle Data Missing, APIM 	<ul style="list-style-type: none"> FDRS database 	<ul style="list-style-type: none"> Contact the TAC. A SYNC server concern is not the

Error State/Message	Possible Causes	Solution
Programming Options Missing, or Data Unavailable	concern. Missing information from FDRS database.	root cause.

Universal SYNC 3 USB Updater Issues

Error State/Message	Possible Causes	Solution
<ul style="list-style-type: none"> • Corrupt <u>USB</u> tool detected 	<ul style="list-style-type: none"> • Outdated version of the desktop tool being used to update thumb drives • Missing file from the universal <u>USB</u> tool 	<ul style="list-style-type: none"> • Make sure that the desktop application being used is 1.0.2.8 or higher • Update the universal <u>USB</u> thumb drive with the updated desktop application and it will resolve any missing files
<ul style="list-style-type: none"> • <u>USB</u> tool inserted provided no indication of programming on the screen 	<ul style="list-style-type: none"> • Vehicle in transport mode • Master reset was performed before <u>USB</u> was inserted without a key cycle • Missing file in the universal <u>USB</u> thumb drive 	<ul style="list-style-type: none"> • Make sure that the desktop application being used is 1.0.2.8 or higher • Update the universal <u>USB</u> thumb drive with the updated desktop application and it will resolve any missing files • Verify that the vehicle is out of transport mode • Shut the vehicle off, open the door, restart the vehicle, verify that SYNC is fully booted and reinsert the <u>USB</u> thumb drive
<ul style="list-style-type: none"> • Incompatible SYNC version indicated on the screen 	<ul style="list-style-type: none"> • Universal <u>USB</u> updater was overwritten by a different process such as FDRS, map update or consumer website update 	<ul style="list-style-type: none"> • Make sure that the desktop application being used is 1.0.2.8 or higher • Update the universal <u>USB</u> thumb drive with the updated desktop application and it will resolve any missing files