

SYNC® – Diagnostics and APIM Reset Job Aid

SYNC System Identification

SYNC Basic	SYNC with Optional Navigation	SYNC with MyFord 4.2-Inch (107 mm) Screen	SYNC with MyFord/MyLincoln Touch 8-Inch (203 mm) Touchscreen
			

SYNC System Diagnostic Procedure

A general overview of the diagnostic process for identifying and resolving a customer reported concern with SYNC is provided below.
Complete diagnostic procedures are listed in WSM, Section 415-00.

1. Verify the customer's concern (*see Diagnostic Tips*).
2. Visually check the vehicle / SYNC related components for any signs of system damage.
3. Check the related functions of the SYNC system, including the steering wheel controls, voice recognition, Media Hub function, phone pairing, call functions, navigation (if equipped), climate control, etc., to verify the scope of the customer's reported concern.
4. Run OASIS to find any service publications that may apply to the customer's reported concern.
5. Refer to the appropriate Workshop Manual, SYNC System Symptom Charts.
 - a. If directed by the Symptom Chart, perform an APIM reset, which consists of:
 - A Power Reset / Battery Disconnect
 - A Master Reset
 - Test system functionality with the Rotunda Multi Media Interface (MIT) tester
 - b. Perform the following diagnostic steps only if directed by the Workshop Manual:
 - Using IDS, check the APIM for DTCs
 - Perform a Pinpoint test to diagnose a specific SYNC component
 - Perform a APIM Hardware Test, only if directed by the Workshop Manual

Diagnostic Tips

• When possible, try to have the customer's device available when attempting to verify the concern. The root cause of many concerns maybe the customer's device itself and not the result of the vehicle or a SYNC system issue. • Have the customer verify that their device has the latest firmware available. Certain compatibility issues may be resolved by installing updated firmware. • To check for compatibility issues refer to the Phone Compatibility Chart. This chart is available on SyncMyRide.com and PTS and can be used when concerns arise on a certain phone features as not all phone features are supported by SYNC.	• There are several Ford websites that provide important information on the SYNC system and device compatibility and can be accessed by the customer: ○ www.syncmyride.com ○ www.ford.com/technology/sync ○ www.lincoln.com/technology/sync • The Rotunda Multi Media Interface Tester (MIT) can be used to verify the functionality of the SYNC system which in turn will help to identify root cause. • The In-Vehicle Technology Team (IVT) is a good resource for information on customer device compatibility concerns with SYNC. You or the customer can contact them directly. Please refer to the Resource Section on the following page of this Job Aid for their contact information.	• Reprogramming of an APIM, in an attempt to resolve a customer reported concern is not recommended unless specifically directed by a Ford communication, TSB, FSA, EFC, or Technical Hotline direction. • Swapping in a "known good" APIM from a donor vehicle in an attempt to resolve a concern is not recommended. Follow the published service procedures as outlined in the appropriate WSM, TSB SSM, etc. to determine root cause of the concern and only replace the APIM if specifically directed to do so. • After a repair, it is recommended that the operation of the various SYNC features be checked to insure they function normally. This can be done by manually exercising each feature and using the MIT to check the SYNC system inputs and pairing.
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Accessory Protocol Interface Module (APIM) Reset Procedure

NOTE: Carrying out an APIM Reset consists of a battery disconnect and a SYNC system, Master Reset.

NOTE: This procedure will clear all CMDTCs. The DTCs must be recorded now if other (non-SYNC) diagnoses are to be performed after this procedure.

1. Remove any devices connected to the USB port(s), audio input jack (if equipped), or media hub (if equipped).

2. NOTE: After the APIM reset procedure has been completed the customer should be advised to reset their device following the manufacturer's instructions. Refer to the device's owner's manual and/or website for information on how to perform a Manual / Master Reset or Clear. Devices can be powered off and back on for a simple re-boot. In some cases the device's battery may also need to be removed and re-installed to complete a re-boot. In addition, cell phones may need to have SYNC deleted from the Bluetooth menu prior to re-pairing the phone to the SYNC system. Customer devices may affect the operation of SYNC, this should be understood to prevent unnecessary diagnosis or repairs to the system.

Disconnect the negative battery cable for 1 minute, then reconnect it. Refer to Section 414-01.

3. NOTE: Performing a Master Reset returns all preference settings to the factory defaults, erases all phone book and call histories, and deletes any devices paired with the SYNC system. On vehicles equipped with MyFord Touch or MyLincoln Touch and navigation, the customer's saved destination points (home address and points of interest) and preferences will also be lost with a Master Reset.

Carry out a SYNC system Master Reset. Refer to the owner's literature

4. Using the Multi-Media Interface Tester 105-00120, test the audio output for the audio input jack/socket (if equipped), USB port(s), and Bluetooth. If equipped, use the RCA Adapter 105-00121 to test the audio output for the RCA jacks.

5. If a concern is still present return to the Symptom Charts.

Note – This procedure is found in Section 415-00 of the WSM along with other information related to the SYNC / MyTouch System, including the SYNC Symptom Charts and Pin-Point tests.

Power Reset / Battery Disconnect	Master Reset	Customer Device Reset
What is it? - A Power Reset / Battery Disconnect is simply the removal of the 12 volt power supply to the APIM for a short period of time, about one minute. Why would this be necessary? - This may be needed to restore full functionality to the module. This procedure is similar to a re-boot of a personal computer or other electronic device. What would be the result of this action? – This action can resolve certain customer reported concerns with SYNC. It may also delete DTCs stored in the APIM and in other vehicle modules, so it should be done only after any other, non-SYNC customer concerns, have been resolved.	What is it? - A Master Reset completely erases all inputted information stored in the APIM, including the phone book, call history log, text messages, navigation points of interest, etc., as well as all previously paired phones and other devices. It also returns the system to the factory default settings. Why would this be necessary? – This action restores the APIM to its factory default settings and allows the system to start fresh and may resolve certain customer reported concerns. What would be the result of this action? - This action returns all settings to the factory defaults, deletes all the phone book, call histories, and any devices paired with the system. For vehicles with MyTouch and optional navigation, customer saved address data and points of interests will be deleted as well.	What is it? - A Manual/Master Reset or Clear action for customer devices is similar to the APIM Power and Master Reset Why would this be necessary? - This action may be necessary to again allow the device to connect and function with SYNC What is the result of this action - A reset for customer device re-boots the device and may return it to its factory default settings and/or clear inputted / stored information How is it done? - Refer to the device's owner's manual and/or website for information on how to perform a Manual/Master Reset or Clear. Devices may be powered off and on to perform a simple re-boot. In addition, the device may need to have 'SYNC' deleted from the Bluetooth menu prior to re-pairing to the SYNC system

SYNC Resources

These resources are covered in detail in the SYNC & MyFord / MyLincoln Touch Service Information Modules listed under the "Service Tips" tab on PTS.

Professional Technician Society (PTS)	FMCDdealer	Consumer Facing Websites	In-Vehicle Technology Team
- Workshop Manual – Section 415-00 - Wiring Diagram - Owner Manuals and Guides - Technical Service Bulletins / Field Service Actions / Special Service Messages - SYNC related Service Tips and Job Aids	- Electronic Field Communications - MyFord Touch/MyLincoln Touch Resource Center - SYNC Central	http://support.ford.com/ www.ford.com/technology/sync www.lincoln.com/technology/sync	- Dealerships call: 1-877-945-3648 - Customers Call: 1-800-392-3673 (Option 3)