

ALLSYNC AV

2009 and up Ford vehicles with Sync Navigation System

Overview:

- Forced Rear Camera
- Rear Camera Programming
- 2 Audio Video inputs (SYNC AVSW required)
- Video in Motion (VIM)
- Navigation/Bluetooth input Control in Motion (CIM)

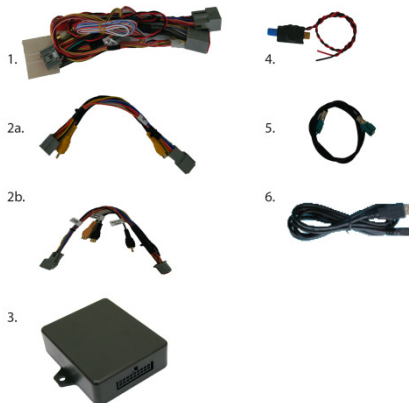
Forced Rear Camera: Allows the viewing of the rear view camera at any time.

Rear Camera Programming: If the vehicle doesn't have a factory installed camera, the radio can be programmed to accommodate an aftermarket camera system.




Audio/Video inputs: Provides an input for 2 external audio/video devices to be displayed on the navigation screen. If the vehicle is equipped with factory Rear Seat Entertainment, allows the radio to accept video in from rear system (requires a send in modification of the rear system).


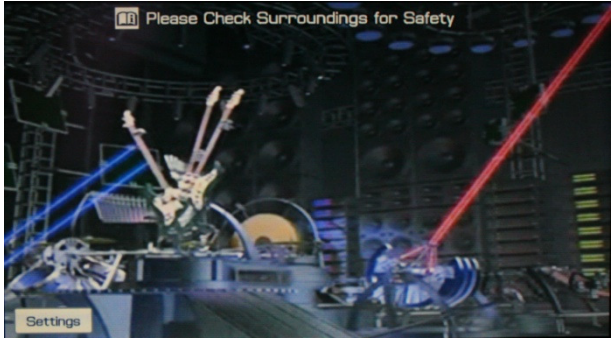
Video in motion (VIM): Allows the video to be unlocked for the passenger's enjoyment of the entertainment system while in motion.

Control in Motion (CIM): Bluetooth, Navigation entry and DVD control can be used without the need to stop the vehicle or slow down below 5 mph. (Only needed on select vehicles.)

What's in the box	
<ol style="list-style-type: none"> 1. CAN FILTER/AUDIO T-harness 2. Video T-harness <ol style="list-style-type: none"> a. Single chassis radio (screen and radio controls in same chassis) b. 2 piece radio (screen, radio chassis and radio controls are separate) 3. CAN Filter 4. GPS antenna break relay (for CIM only) 5. GPS antenna patch cable (for CIM only) 6. USB cable 	

Operation:

Video In Motion (VIM)	
<p>When VIM is activated, DVD's playing in the front player can be viewed while vehicle is in drive. The feature has to be enabled every time the key is cycled. This mode is not needed if using RSE emulation for a video source.</p> <p>* Requires radio to be equipped with factory in-dash DVD player.</p>	
Forced Rear Camera	
<p>This function allows the viewing of the rear camera at any time. Forced rear camera will show in all sources except in REAR DVD or REAR AUX (explanation below).</p> <p>Forced Rear camera is enabled/disabled by double pressing the radio power button or front defroster button (depending on vehicle) within 1 second.</p> <p>* Requires a factory or aftermarket rear camera to be installed.</p>	
Control In Motion (CIM)	
<p>CIM will allow input of navigation information, DVD menu control, and Bluetooth use while in motion. When this function is active, GPS navigation/position as well as SAT radio is disabled. Once de-activated, GPS/SAT radio information will return.</p> <p>To activate CIM, press the "PHONE" button on the steering wheel for 5 seconds.</p> <p>To restore Navigation/SAT radio, de-activate CIM by holding "PHONE" button for 5 seconds.</p>	 <p>Note: Phone button may vary between vehicle types.</p>

Audio/Video in (no RSE)	
<p>AV input is achieved by emulating the factory Rear Seat Entertainment (RSE). When "Media" button is pressed, 3 new source icons will appear: REAR DVD, REAR AUX and REAR ZONE. REAR DVD and REAR AUX control a switcher that selects 2 external A/V sources (i.e. game console, DVD player, etc). REAR ZONE serves no purpose and therefore is disabled. (Optional A/V switcher required.)</p> <p>The video from these 2 external sources will not automatically be displayed on the screen; user interaction is required. The video is viewed in the backup camera mode, so it will require the same operation as forced backup camera. When in either REAR DVD or REAR AUX mode, the radio will display external sourced video, not rear camera. <i>*Since A/V is the same input as the backup camera, the "Settings" icon and disclaimer will still be displayed on the screen while viewing.</i></p> <ul style="list-style-type: none"> • When this input is selected for viewing, VIM is not required to view image. • Reverse takes precedence over any image. After shifting out of Reverse, video input mode must be activated to view video again. • Image cannot be displayed while in accessory position; the vehicle must be in ignition position or running. <p><i>* To enable/disable video for REAR DVD and REAR AUX, double press the radio power button or front defroster (varies by vehicle) 2 times within 1 second.</i></p> <p><i>* Requires factory or aftermarket rear camera to be installed.</i></p>	 

Factory RSE	
<p>If the vehicle has factory RSE, video from rear system can be displayed up front in the same manner as the AV input. Requires a send in modification to the rear overhead.</p>	

By selecting the appropriate source, i.e. REAR DVD, the audio will play through system as usual. To view the video, double press the radio's power button or front defroster 2 times within 1 second. The same operation is required for REAR AUX.

While video is being displayed from RSE, video in motion does not need to be enabled.






*With factory RSE, rear passengers and front passenger can watch different sources, i.e., front screen displays source plugged into REAR AUX, while rear seat watches REAR DVD.

**Since A/V uses the same input as the backup camera, the "Settings" icon and disclaimer will still be displayed on the screen while viewing.*

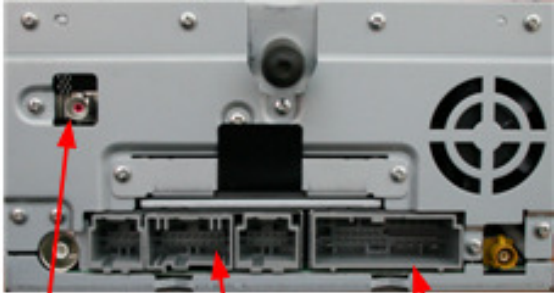
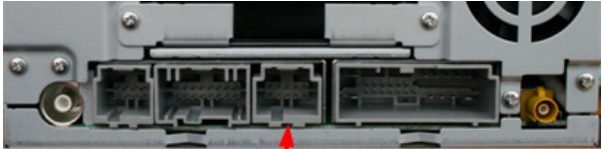
* Video will be interrupted if the radio button is double pressed or the vehicle is placed into reverse.

* Requires rear camera to be installed factory or aftermarket.



Description	Button Designation
<p>Video in Motion (VIM): Press HVAC power button 2 times in 1 second , OR</p> <p>(SUV's and Truck's:) Press the vehicles power door "LOCK" button 2 times in 1 second.</p> <p>VIM can also be activated manually by connecting a switch to Input 3 to +12v. When the switch is on, VIM is enabled.</p>	 
<p>Control in Motion (CIM): To enable/disable CIM, press and hold the "PHONE" button on the steering wheel for 5 seconds.</p>	
<p>Forced Rear Camera/External AV video:</p> <p>All: To enable/disable this function, double press the radio's power button 2 times in 1 second.</p> <p>Vehicle specific (non-SUV/truck): To enable/disable this function, double press the front defroster button 2 times in 1 second.</p>	 

Installation:

Main filter box connection	
<p>Installation of this product is very simple. It utilizes Plug-n-Play harnesses to make installation quick and easy.</p> <ol style="list-style-type: none"> 1. Remove radio from dash and unplug all harnesses from behind the radio. 2. Plug factory power and CAN plugs into CAN filter T-harness. <ul style="list-style-type: none"> • <i>Make sure the audio RCA's (White and Red) on wire harness are joined together. If adding external AV input, refer to separate switcher box instructions.</i> 3. Plug the other ends into the radio. <p><i>If the vehicle needs an antenna break for navigation input.</i></p> <ol style="list-style-type: none"> a. Find the factory GPS antenna cable. Will have a Pink FAKRA end attached. Plug this into the Blue connector on the supplied GPS antenna relay board. b. Take the GPS antenna patch cable and plug it into the Tan connector on the relay board. The other end plugs into Pink FAKRA port on the radio. c. The Black wire from the relay board goes to ground. The Red wire goes to the wire marked "OUTPUT 3" on harness. <ol style="list-style-type: none"> 4. Reconnect all other harnesses to radio, plug in filter box and reinstall. 5. Test all functions and verify operation. 	 <p>GPS Ant CAN Harness Main Power</p>
Backup Camera Input	
<p>This cable is used if an aftermarket camera and/or video input for RSE and/or AV input is being installed.</p> <p>The radio type will determine which harness is going to be used.</p> <p>Single Chassis Radio (Video T-harness A):</p> <ol style="list-style-type: none"> 1. When radio chassis is removed from dash, plug factory backup camera plug into video T-harness A. <ul style="list-style-type: none"> • <i>This plug will only be there if the vehicle is equipped with a factory backup camera; and only 2 wires will be populated.</i> 2. a. If installing an aftermarket backup camera, plug video out of camera into female RCA of Video T-harness. 	<p>Single Chassis Radio:</p>  <p>Back up camera</p>

- b. If installing AV switcher, refer to SYNC AVSW installation manual.
 3. Plug other end of T-harness into radio.
- 2 Piece radio (Video T-harness B):
1. Gain access to the back of the radio **screen**.
 2. Remove the 12 pin connector from behind the screen, and plug into video T-harness B.
 3.
 - a. If installing aftermarket backup camera, plug video out of camera into (Black) female RCA, labeled "Back-up Camera In", of video T-harness B.
 - b. If installing AV switcher refer to SYNC AVSW installation manual.
 4. Plug other end of T-harness into screen, reassemble and verify operation.
 - *When installing an aftermarket camera, be sure to power it using an Accessory wire instead of the Reverse lights, so Forced Backup image will work properly.*
 - *Video T-harness B has a "DVD OUT" RCA used for external monitors. This output **REQUIRES** a video amplifier to work properly.*



Backup Camera Programming	
<p>Programming of the backup camera is only needed if an aftermarket camera is being installed. To program radio:</p> <ol style="list-style-type: none"> 1. Press the Menu button on the radio. 2. Then touch the System Setting on the radio touch screen. 3. In the System Settings Menu, touch the English, Metric button back and forth 6 times. i.e., Metric-English-Metric-English-Metric-English. (You need to touch each button 3 times in a back and forth sequence, 6 Button presses total.) 4. After approximately 5 seconds, "MS-CAN Diagnostics" will appear on the screen while the module programs the radio. DO NOT turn off the radio during this process. 5. The Radio will then reboot. 6. Once the radio reinitializes, place vehicle into reverse. Backup camera image should be displayed (as long as a camera is connected, otherwise you'll get a blank screen). <ul style="list-style-type: none"> Once backup camera has been programmed, you cannot reuse that module to program another radio. 	

Module Programming	USB UPDATER IMAGE
<p>All options on the ALLSYNC are programmable using a downloadable package found online at www.navtv.com under support, then downloads. (Make sure that the AllSync Gen 2 Updater package is used.)</p> <p>To enable or disable any tagged option, just double click the line for that option. In the ON position the selected function will be enabled on the radio.</p> <ul style="list-style-type: none"> Rear view Camera ON is only for backup camera programming. This option isn't needed if vehicle already has Factory camera installed. By default, VES is OFF, and should only be enabled when there is no factory RSE installed and the AllSync A/V switcher is used. 	

ALLSYNC pin out	18 Way connector
<ol style="list-style-type: none"> 1. 12v+ Continuous Power 2. Input 1 – NOT USED 3. Input 2 – NOT USED 4. Input 3 – VIM manual trigger (+) 5. RX – NOT USED 6. Relay 1 – Common - NOT USED 7. Empty 8. CAN HI – Radio Side 9. CAN HI – Vehicle Side 10. Ground 11. Output 1 – AllSync A/V switcher 12. Output 2 – AllSync A/V switcher 13. Output 3 – GPS antenna break relay 14. TX – NOT USED 15. Relay 1 - N/C (normally closed) - NOT USED 16. Relay 1 – N/O (normally open) - NOT USED 17. CAN LOW – Radio Side 18. CAN LOW – Vehicle Side 	