

NAV-TV

INTERFACING THE FUTURE

3950 NW 120th Ave, Coral Springs, FL 33065 TEL 561-955-9770 FAX 561-955-9760

CHRY UNI-CAM v2

Chrysler/Dodge/Jeep uConnect (RA4/RA3/RA2)

Dual Camera/Control in Motion Interface

NTV-KIT759



Compatible with select 8.4" & 5" uConnect radios



BHM
10/05/18
NTV-DOC263

Overview

The CHRY UNI-CAM v2 system interfaces up to 2 aftermarket cameras to the factory 8.4" or 5" touch screen in compatible 2013+ Chrysler, Dodge and Jeep vehicles. Additionally, the user can force either camera to display on screen at any time, in any gear*. *OEM rear camera force not supported.

Kit Contents



Plug & Play T-harness
*NTV-HAR246 or
NTV-HAR264*



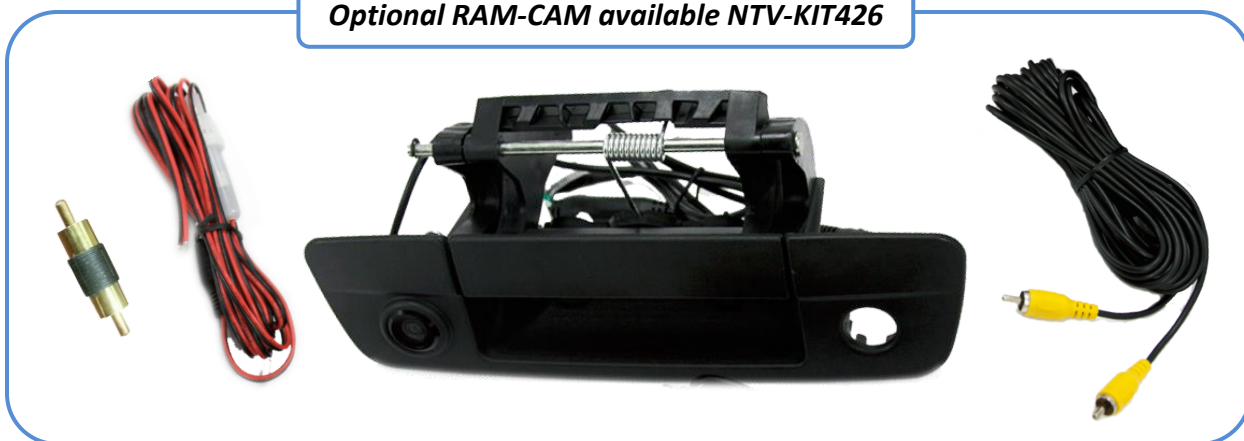
UNI-CAM v2 Module (KT2)
NTV-ASY245



USB Cable (updates)
NTV-CAB009

| Compatibility (RA4/RA3/RA2: 8.4" or 5" Radios) | | | |
|---|--------------|----------------|---------------------|
| | 2013+ | 2014+ | 2015+ |
| CHRYSLER | | | 300 (8.4" only) |
| DODGE | RAM, VIPER | DURANGO | CHALLENGER, CHARGER |
| JEEP | | GRAND CHEROKEE | |

Optional RAM-CAM available NTV-KIT426



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CHRY UNI-CAM v2 pin out

| PIN # | Description | Color |
|-------|--|--------------|
| 1 | 12v (+) Constant | Yellow |
| 2 | INPUT 1 (CIM & VIM activation) | Red |
| 3 | INPUT 2 (Force Rear Camera) | Blue |
| 4 | INPUT 3 (Force Front Camera) | Pink |
| 6 | RCA MALE | -- |
| 7 | RCA Shield | -- |
| 8 | CAN HI (Radio Side) | Brown/White |
| 9 | CAN HI (Car Side) | Blue/White |
| 10 | Ground (-) | Black |
| 11 | OUTPUT 1 (Provides 12v (+) ACC) | White/Red |
| 12 | OUTPUT 2 (Provides <i>reverse</i> 12v (+)) | Blue/White |
| 13 | OUTPUT 3 (Follows internal relay) | White/Purple |
| 15 | RCA Female (Normally Open) | -- |
| 16 | RCA Female (Normally Closed) | -- |
| 17 | CAN LO (Radio Side) | Brown |
| 18 | CAN LO (Car Side) | Blue |



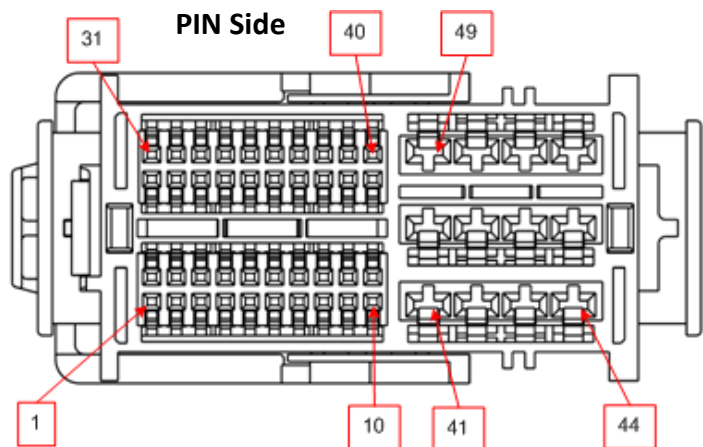
Wire Side

*Note: Vehicles equipped with a **monochrome screen** are not full color LCD screens and are not compatible with the CHRY UNI-CAM.*



2013+ Dodge/Jeep Radio LCD connector pin out

| Pin # | Description | Color |
|-------|----------------|--------------|
| 2 | CAN HIGH | Dark Blue |
| 12 | CAN LOW | White |
| 31 | DIFF Video (+) | Green/Brown |
| 32 | DIFF Video (-) | Green/Orange |
| 33 | Shield | |
| 43 | Ground | Black |
| 44 | Constant 12v | Red |



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Dash Disassembly (RAM)

1. Remove the Torx t20 screw at the right rear of the pocket on the right side of the dash.



2. Remove (2x) Torx t20 at the top of the dash. They are hidden beneath a rubber mat.



3. The face should be free now, pull straight outwards (towards you) with medium force. Use plastic panel tools if necessary.



4. Remove (4x) 7mm screws that secure the LCD touchscreen.



CHRY UNI-CAM Module Installation

It is strongly advised to install this data module while no other installations are being performed simultaneously, as the CAN network must be reset before testing.

1. After removing the factory radio, gather the **Plug & Play T-harness** and connect the female side to the factory 44-pin plug. Make certain the lock connects together securely.
2. If installing NAV-TV's optional **RAM-CAM**:
 - a. The factory tailgate handle must be removed
 - b. The factory key slot (in the tailgate handle) must be swapped over to the RAM-CAM's handle
 - c. Mount the RAM-CAM with the provided hardware
 - d. Connect signal (RCA) and power harness (extend) and run forward to the dash opening.
3. After installing a rear camera, connect the signal RCA to the **yellow female RCA** (side going into monitor) on the Plug & Play T-harness. Leave the male side RCA disconnected (see **FIG 1**, page 6).
4. Connect the **red** and **black** RCAs together in the Plug & Play T-harness (otherwise, you'll lose audio)
5. **Optional:** If installing a secondary front camera, connect video signals like shown in **FIG 2** on page 6 instead of **FIG 1**.
6. Connect the CHRY UNI-CAM module to the 18-pin connector found in the Plug & Play T-harness.
7. Connect the monitor to the male side of the Plug & Play harness. Reconnect all other plugs to the monitor.
8. **Let the vehicle perform a CAN reset:** before attempting to test, after all Plug & Play connections are made, close all doors and leave ignition key out of the ignition for 5 minutes.
9. Test for proper operation (see 'Operation', pg. 7).



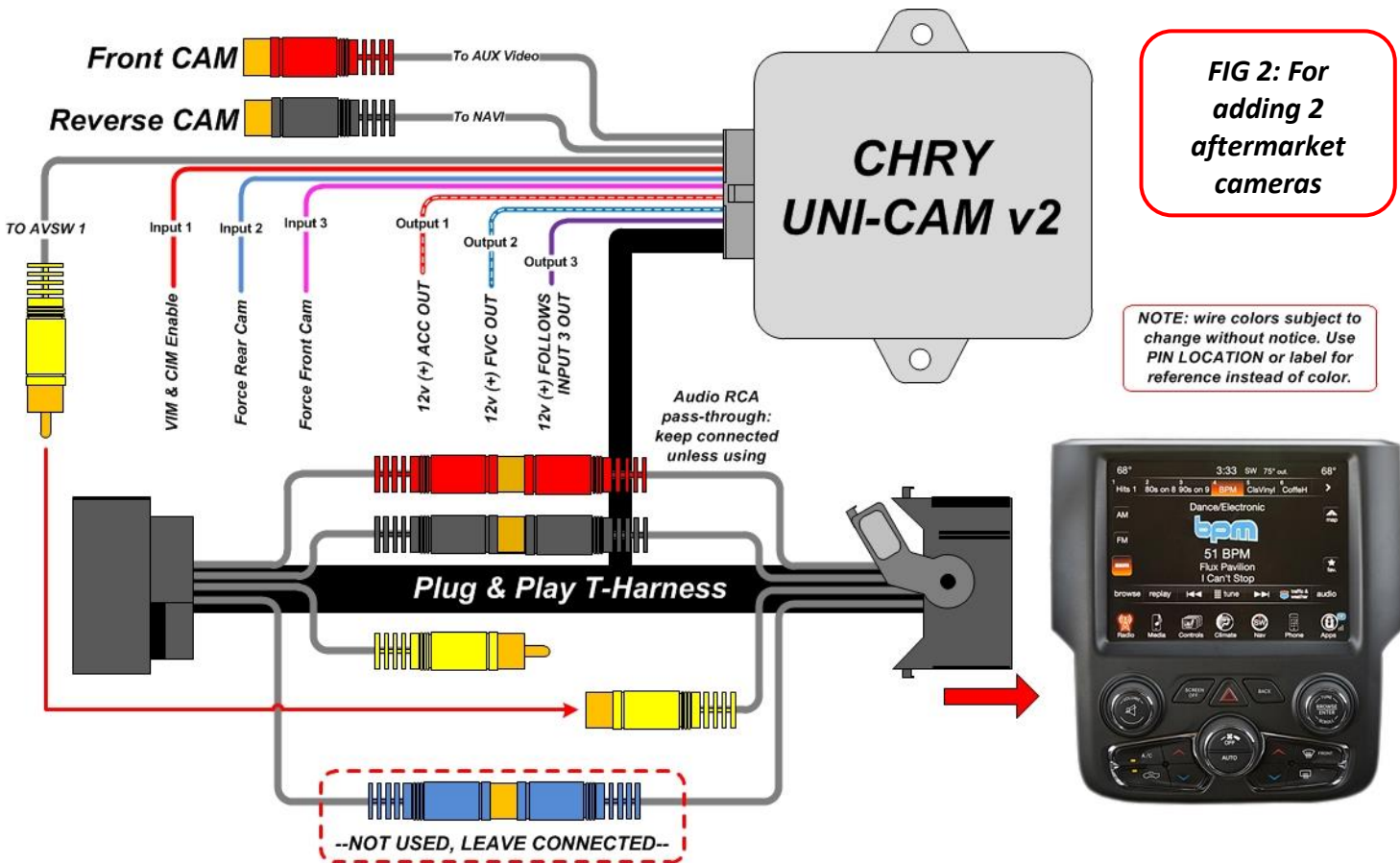
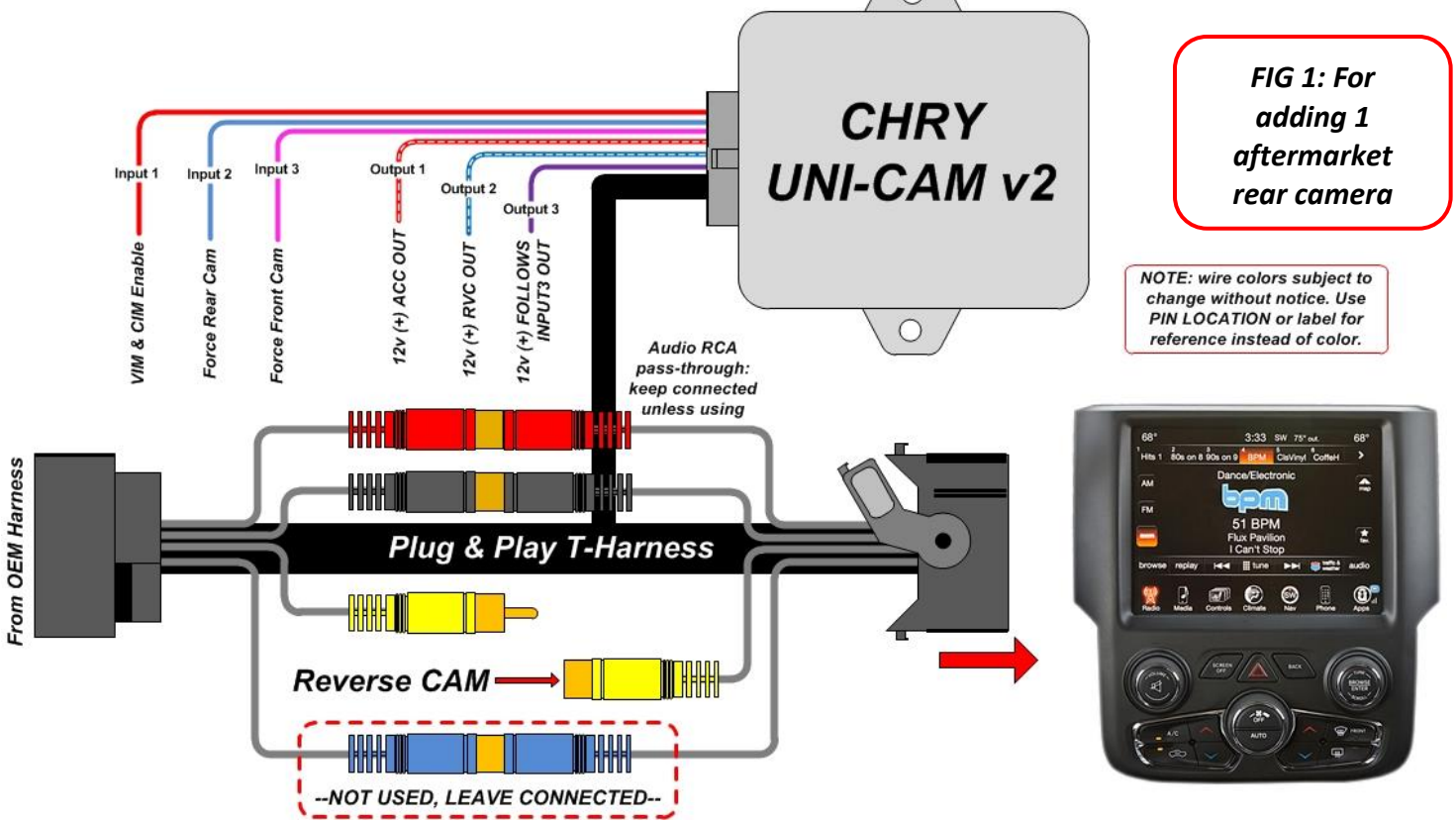
Programming for 2016+ Vehicles equipped with Panasonic Radios (CarPlay/Android Auto)

- For 2016+ vehicles equipped with the new *Panasonic* radio, the method for activating rear-camera has changed and requires additional (startup/shut down) steps. Follow the procedure below ***after programming desired options in the NAV-TV cluster menu*** in these vehicles:
 1. Open the driver's door and leave it open until step 4.
 2. After Installing the kit and adjusting the menu for desired options, shut down the vehicle with the key (or push button). ***Wait for the LED on the module to go out – the CAN bus must remain undisturbed for 2 minutes at this point (starting from after the LED is out).***
 3. Turn the vehicle on and wait for the radio to boot fully (able to control volume/adjust radio). ***Wait 1 minute with normal operation.***
 4. Turn the car off and perform a ***full CAN reset***: Close all the doors, lock the car with the remote and walk away for at least 10 minutes. ***Do not disturb the car whatsoever for 10 minutes.***
 5. Return to the vehicle and start the car (run), place the vehicle into reverse to verify that the system received the programming.

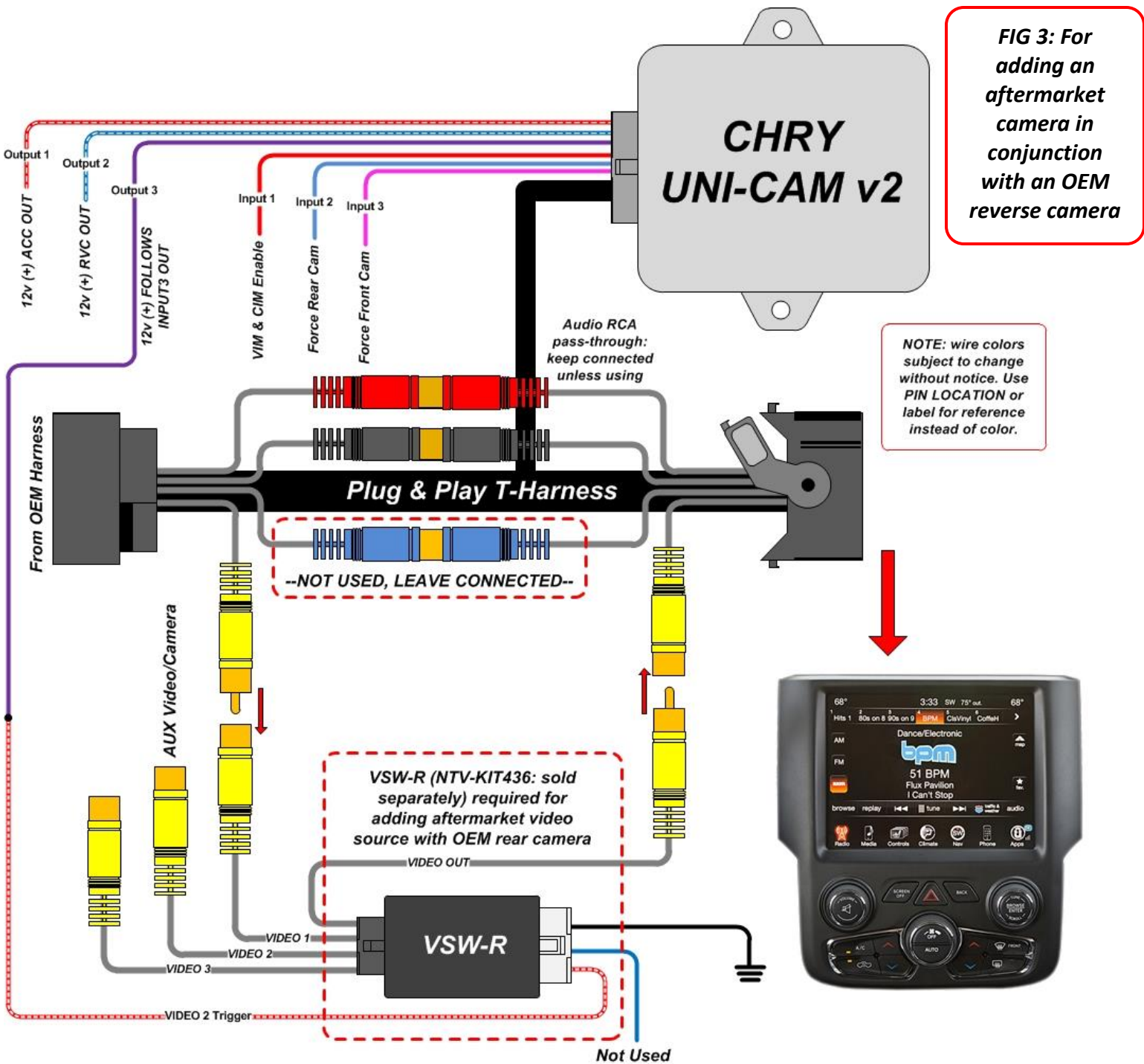
For further information on this process and video reference, see our YouTube video here:

<https://www.youtube.com/watch?v=XOtkOUCLXik>

Installation Diagrams



Installation Diagrams (continued)



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CHRY UNI-CAM Operation

Placing the vehicle in REVERSE will automatically transition the screen to display the connected camera's image.



CIM: Hold (3 sec) to activate (NAV-equipped radios only)

Force rear camera: Press & hold **BACK** (2 sec)
Or
Send 12v (through toggle) to INPUT 2 (Blue)

Force Rear Camera: To force rear camera, press and hold radio '**BACK**' button for 2 seconds. To exit forced rear camera, press and release radio '**BACK**' button. **Note: this function is NOT supported on vehicles equipped with a factory reverse camera.**

Additionally (or for 5" screens), sending 12v to INPUT 2 (Blue) through a toggle switch (not included) will force the rear camera in any gear, at any time.

Force Front Camera: Sending 12v to INPUT 3 (Pink) through a toggle switch (not included) will force the front camera in any gear, at any time.

Activate CIM (Control in Motion): To activate CIM for navigation-equipped vehicles, press and hold the 'Volume' button for 3 seconds (CIM will disable automatically after 3 minutes). **This function will reset upon every key cycle.**

Additionally, sending 12v to INPUT 1 (Red) through a toggle switch (not included) will activate CIM as well.

FAQs

Q1. I hear no audio when my auxiliary source is playing.

A1. Verify that the audio RCAs are connected together in the Plug & Play T-Harness.

Q2. When I place the vehicle into reverse, I get a black/blue screen.

A2. Make sure the camera is getting sufficient power and the RCA is connected to the YELLOW RCA behind the screen, NOT to the RCA on the CHRY UNI-CAM.

Q3. The camera image is displayed properly when the vehicle is in reverse, but there's only a black/blue screen when the camera is forced.

A3. Make sure the camera power is not connected to the reverse lamps for power. Camera power needs to be connected to an accessory wire (cigarette lighter or OUTPUT 1).

Q4. When I force my OEM reverse camera, the image disappears after some time when traveling down the road.

A4. Forcing the factory camera is not supported with the CHRY UNI-CAM as it is data-controlled. Aftermarket reverse cameras will stay on provided the camera is powered with ACC.

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