

NAV-TV

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RAM C-CAM

8.4" RAM uConnect 4.0 Cargo Cam/Control in Motion Interface

NTV-KIT859



Compatible with 2018 Panasonic 8.4" uConnect radio



BHM
08/21/18
NTV-DOC313

Overview

The RAM C-CAM programs a rear camera *and Cargo Camera (OEM)* into the 8.4" uConnect system using the factory icon for switching. This module also features video in motion for passenger entertainment purposes.

Kit Contents



Plug & Play T-harness
NTV-HAR264



RAM C-CAM Module (KT2)
NTV-ASY245



USB Cable (updates)
NTV-CAB009



RAM Cargo Camera kit (*optional*)
NTV-KIT773

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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 (NOT USED)	Blue
4	INPUT 3 (NOT USED)	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 reverse 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



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.

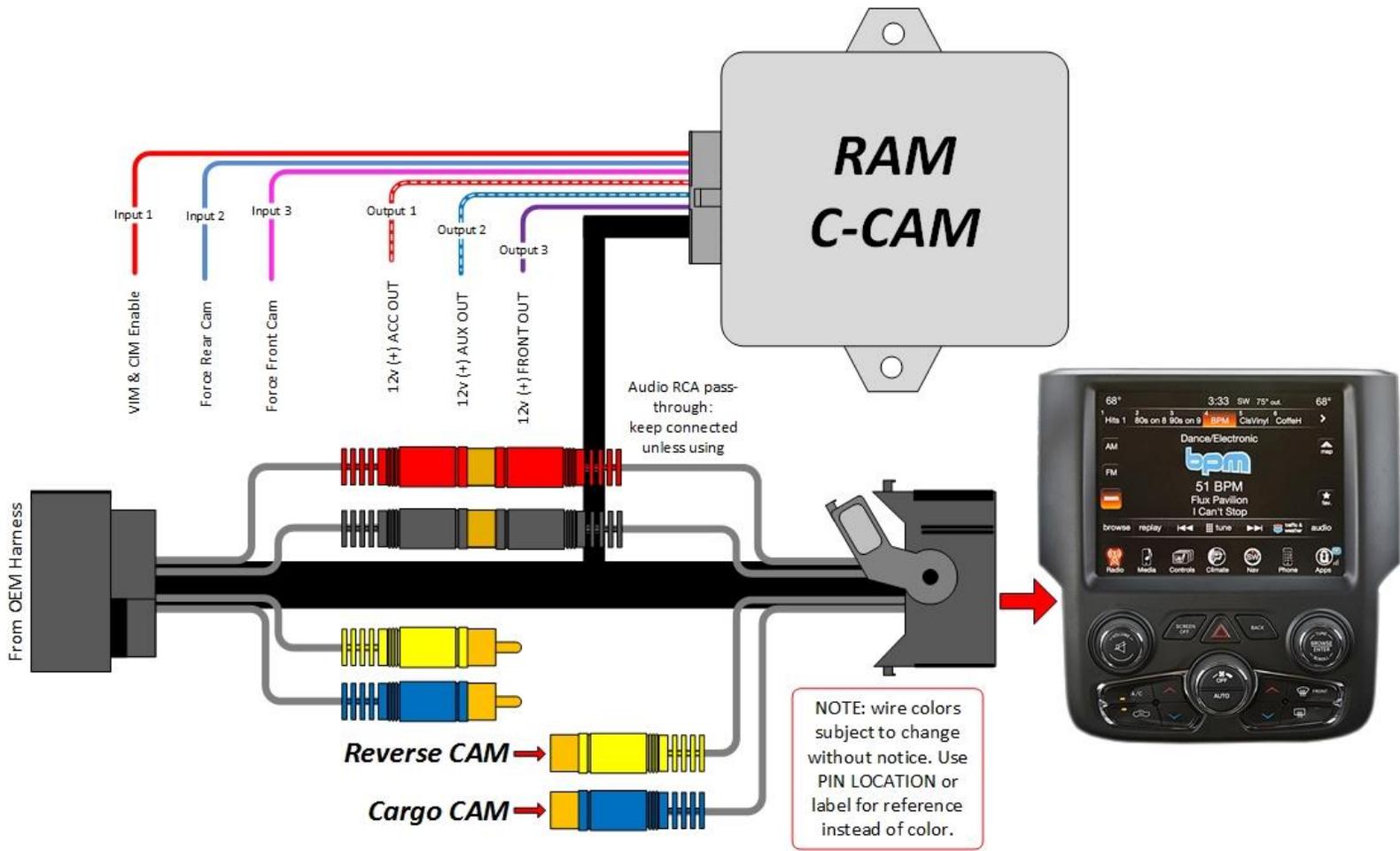


RAM C-CAM Module Installation

1. Start with vehicle off.
2. After removing the factory radio, grab the **Plug & Play T-harness** and connect the female side to the factory 44-pin plug. Make certain the lock connects together securely.
3. If 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. *NOTE: if this vehicle already has an OEM rear camera, skip this step and leave the yellow RCAs connected together to allow rear pass through normally.*
4. If installing a Cargo Camera, power it with an ACC 12v source (OUTPUT 1 provides ACC) and connect the signal RCA to the **blue female RCA** (side going into monitor) on the Plug & Play T-harness. Leave the male side RCA disconnected.
5. Keep the **red** and **black** RCAs connected together in the Plug & Play T-harness (otherwise you'll lose audio)
6. Connect the RAM C-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. **Perform a (2018) Panasonic radio reset:** before attempting to test, after all Plug & Play connections are made the Cargo Cam menu will not be emulated until this procedure is followed:
 1. Turn vehicle on
 2. Wait for radio to fully boot. Wait an additional 30 seconds.
 3. Shut vehicle down with key.
 4. *With key off and radio down, wait until OE splash screen shows once more.*
9. Start vehicle and test for proper operation (page 7).



RAM C-CAM Installation Diagram



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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. While in reverse, pressing the icons to the top left (now active) will cycle between the cargo camera (or front camera) and reverse camera. *



**NOTE: whenever Cargo or RVC is activated through this menu system, the vehicle's speed is ignored so the camera will remain until deactivated. This may affect the OEM navigation (while active only).*

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



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.**

Force Cargo/Front Camera: Going through the OEM tools icon now shows a 'Cargo Cam' option. Press this at any time to see the connected camera's image for a brief 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.

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