

NAV-TV

INTERFACING THE FUTURE

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

MY TOUCH F-CAM

Video in Motion, Control in Motion, Forced Cam

NTV-KIT422



JR, BM
11/28/17
NTV-DOC155
rB10

Kit Content



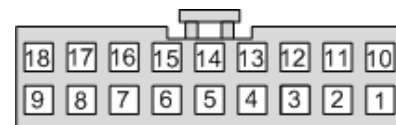
VIM modules A & B
(2x)NTV-ASY166

USB cable (updates)
NTV-CAB009

Plug n' Play VIM Harness
NTV-HAR241

VIM A Connector Pin outs

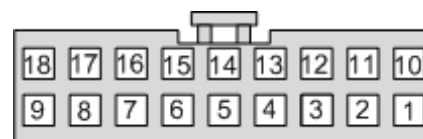
Pin #	Description	Color
1	12v Constant Power (+)	Yellow
2	Input 1	Red
3	Input 2 (Sending 12v will force rear camera)	Blue
4	External VIM Activation	Orange
6	LIN Break-Open wire (Camera Side)	Blue
8	CAN Hi (Radio Side)	Purple/Black
9	CAN Hi (Vehicle Side)	White/Black
10	Ground (-)	Black
11	12v Output to VIM module B (pin 4)	Orange
12	Output 2	Blue/White
13	Output 3	White
14	Looped to pin 15	Yellow
15	Looped to pin 14	Yellow
16	LIN Break-Open wire (BCM Side)	Orange
17	CAN Lo (Radio Side)	Purple
18	CAN Lo (Vehicle Side)	White



Wire side

VIM B Connector Pin outs

Pin #	Description	Color
1	12v Constant Power (+)	Yellow
4	Input from VIM module A (pin 11)	Orange
8	CAN Hi – Radio Side	Green
9	CAN Hi – Vehicle Side	Gray
10	Ground (-)	Black
17	CAN Lo (Radio Side)	Green/Black
18	CAN Lo (Vehicle Side)	Gray/Black



Wire side

Agreement: End user agrees to use this product in compliance with all State and Federal laws. NAV-TV Corp. would not be held liable for misuse of its product. If you do not agree, please discontinue use immediately and return product to place of purchase. This product is intended for off-road use and passenger entertainment only.

VIM & F-CAM Installation

1. Remove the factory My Ford Touch radio. This requires removing panels and various 7 & 8mm screws. The trim panels securing the center radio bezel do not need to be fully removed, just moved out of the way.
 - a. There are (2x) 7mm screws hidden beneath the airbag module and therefore the airbag module must be popped out (no need to disconnect entirely). **Apply tape for protection to the dashboard just beneath the airbag before you do this!**
 - b. Remove the passenger airbag assembly by removing the (3x) 8mm screws firing up from underneath the airbag. Access these screws by dropping the glove box down to the floor (again, no need to remove it entirely).
 - c. Remove (or pop free at the right bottom corner) the cluster surround, and pull aside the trim pieces that surround the radio.
2. Remove the (4x) 7mm screws holding the screen in place.
3. Disconnect all wiring and set the screen aside.
4. Gather the Plug & Play harness from the F-CAM kit.
5. Plug the main LCD harness (male) from the car into the female side of the F-CAM Plug & Play harness.
6. Gather the 'A' and 'B' modules, and connect them to their prospective, labeled connectors.



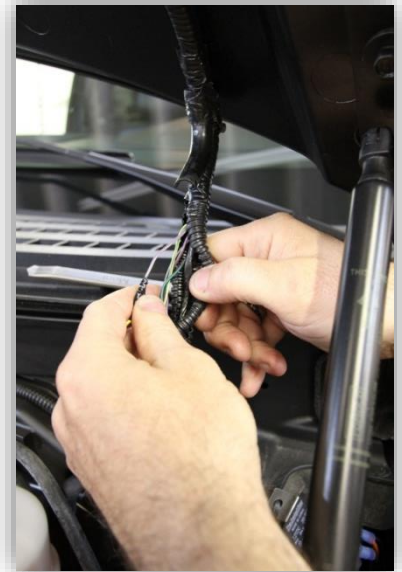
Steps 7-11 are intended for F150 Raptor's only, those with an OEM front camera. If are adding an aftermarket front camera to a standard F150, you must purchase NTV-KIT437 as well and should refer to that instruction set (pg 5&6) at this time before returning and completing the install here (begin again with step 12 upon returning).

7. Under the driver's dash, make a small incision in the rubber harness grommet going through the firewall on the driver's side.
8. Connect a 10' pair of wires to the F-CAM **module A**: connect one of the wires to pin 6 and the other to pin 16. Route the free end of the wire pair through the firewall (at your incision), into the engine bay of the vehicle. Use silicon or 3M strip caulk to seal the incision.

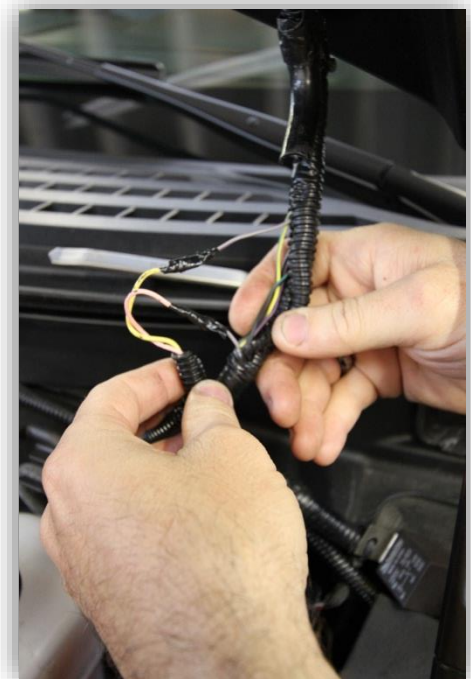
9. On the underside of the hood, traveling down the driver's side, is the camera harness. Cut the harness open at the bottom of the hood.



10. Locate the gray/violet wire and cut it in half.



11. Connect the extended wire labeled "Camera" (pin 6), to the camera side of the cut gray/violet wire. Connect the extended wire labeled "BCM" (pin 16) to the vehicle side of the cut gray/violet wire. Insulate and tape the connections when finished.



12. Plug the male end of the Plug & Play harness into the factory LCD and test for proper operation (refer to page 5 & 6 for operation instructions).

***Note: When the factory front camera is forced on, the active factory guidelines are not enabled. Only when the vehicle is in 4L will the active guidelines be available.**

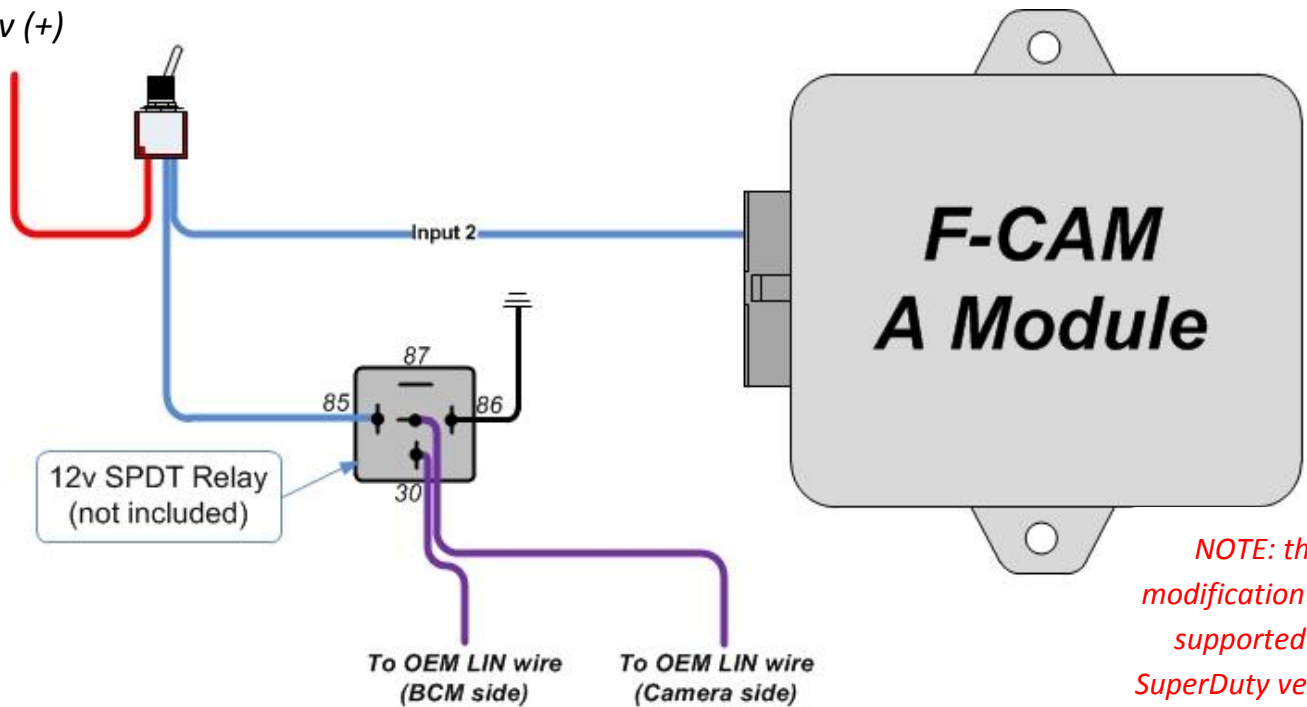
13. **Optional:** If you send 12v (through a toggle) to **Input 2 (Blue)**, it will force the rear camera.

14. **Optional:** If you send 12v (through a toggle) to **Input 3 (Orange)**, it will force VIM operation.

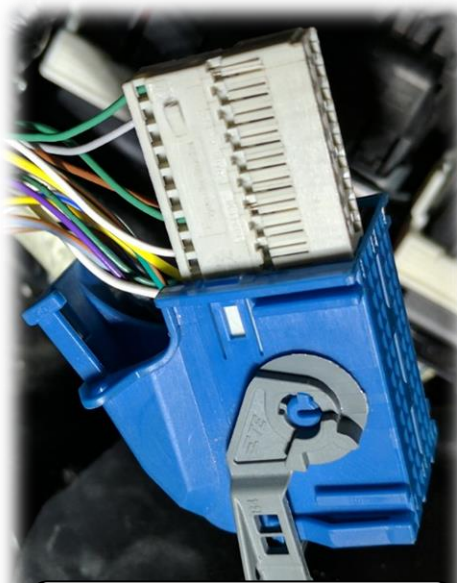
F Series OEM Reverse Camera Modification

- If this vehicle has an OEM reverse camera and you wish to display it at **any speed**, you must locate the OEM LIN (data) wire and install an SPDT Relay (not included) to break the (LIN) wire, whenever it is forced. *From the factory, the OEM reverse camera is only powered on until ~15 mph.* Wire a relay to break the LIN wire like shown below (2016 F150 example):

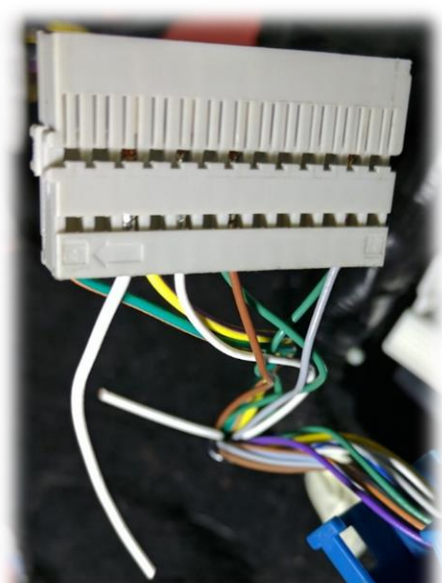
ACC
12v (+)



2016 F150: Blue connector at pass side BCM



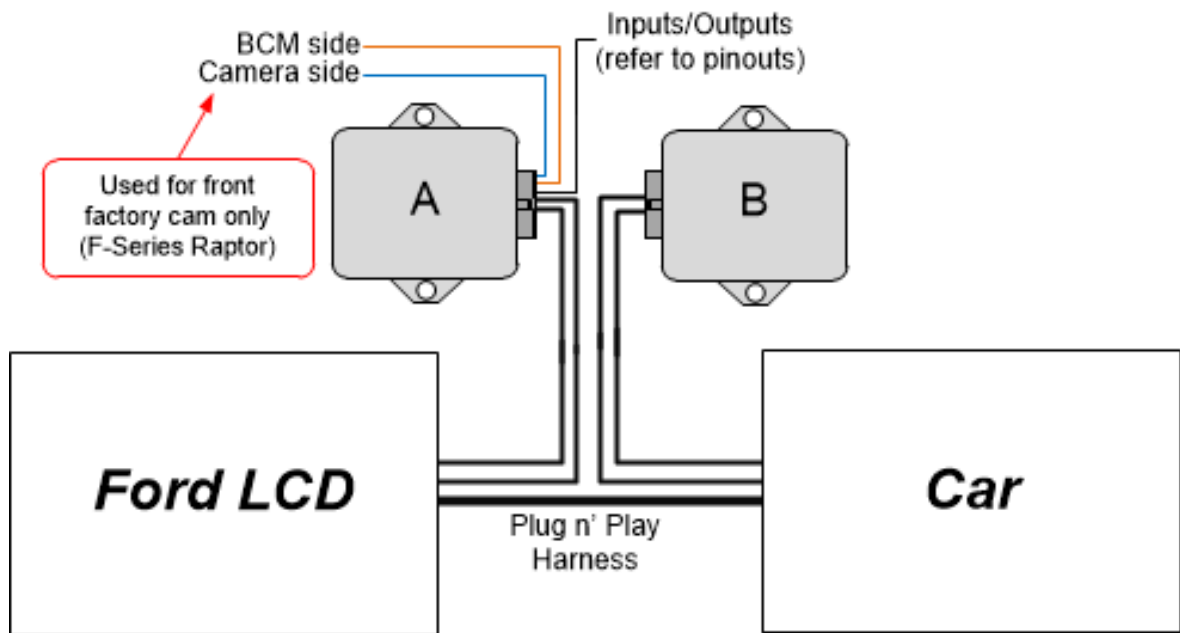
Slide gray inner connector out of blue shell



PIN 37 LIN wire: cut in half. Connect Relay

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VIM & F-CAM (Raptor) Install Diagram



VIM & F-CAM Kit Operation

Video in Motion

When VIM is activated, AUX video input can be viewed while vehicle is in drive. This feature has to be enabled every time the key is cycled.

Video in Motion (VIM): Press the **Front Defroster Button** 2 times within 1 second.

Additionally, if you send 12v (through a toggle) to **Input 3 (Orange)**, it will force VIM operation.

Double-Tap



Forced Rear Camera

This function allows the viewing of an aftermarket rear camera at any time.

Forced Rear camera: Press *Rear Defroster Button* 2 times within 1 second.

Additionally, if you send 12v (through a toggle) to **Input 2 (Blue)**, it will force the rear camera.

Double-Tap



Factory Front Camera Operation

The front camera can be viewed at any time using the factory procedure for activation.

***Note: Front camera will not display if VIM is enabled!**



1. Using the steering wheel controls scroll down to the **Truck Apps** function in the instrument



2. Scroll to the right until "Camera Disabled" is displayed.



3. Press the "OK" button on the steering wheel.



4. The front camera will display on the screen (the active steering lines will not be displayed), the cluster will display 'Press OK to disable'

5. To disable front camera:

- a. Make sure the cluster is on the Camera options screen
- b. Press OK.