

NAV-TV

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FORD 4" UNI-CAM KT2

Dual Camera Integration kit for Ford 4" screens

NTV-KIT593

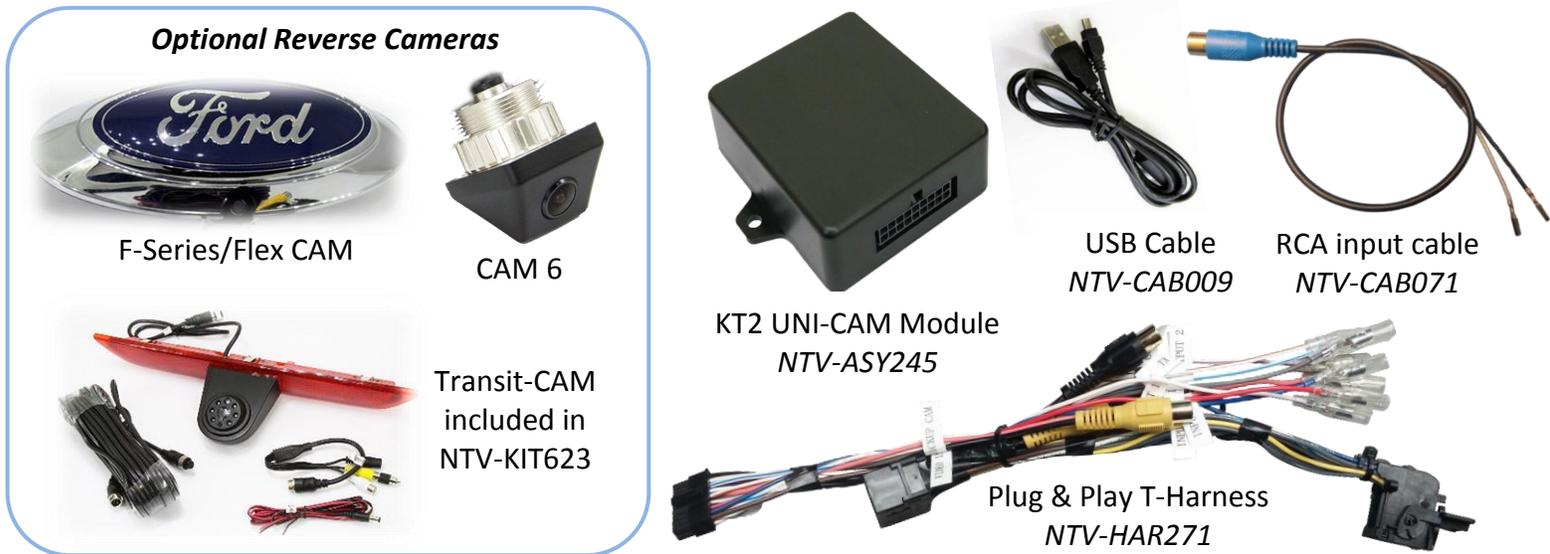


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10/25/18
NTV-DOC257

Overview

The FORD 4" UNI-CAM KT2 kit interfaces an aftermarket rear (and optional front) camera into Ford vehicles equipped with the OEM 4" media screen. No dealership programming is required and this kit is fully Plug & Play behind the factory media screen. **Note: before installing this module, VERIFY 75 ohms exists across pins 6 & 12 with a multimeter at the 4" screen connector.**

Kit Contents



Ford 4" UNI-CAM pin out

PIN #	Description	Color
1	12v (+) constant input	Yellow
2	Input 1: Force RVC	Red
3	Input 2: Force FVC/AUX VID	Blue
4	Input 3: --Not Used--	Pink
6	VIDEO OUT RCA	Orange/White
7	RCA Shield	Orange
8	CAN HI (Radio Side)	White/Blue
9	CAN HI (Car Side)	Brown/Black
10	Ground (-)	Black
11	Output 1: ACC (+)	White/Red
12	Output 2: Reverse (+)	White/Blue
13	Output 3: Front CAM power	White/Purple
15	Front RCA Video IN	White
16	Rear RCA Video IN	Yellow
17	CAN LO (Radio Side)	Blue
18	CAN LO (Car Side)	Brown



Wire side

Any additional wires not mentioned here are not used for this install.

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.

Module Installation

1. Remove the 4" media screen from the dashboard, above the CD player.
2. Connect the provided **Plug & Play T-Harness** to the OEM ford 12-pin plug previously connected to the radio.
3. After installing and running your reverse camera to the dash opening, connect your RVC signal to the **Yellow RCA** found on the **Plug & Play T-Harness**. **Power your camera with an ACC source (OUTPUT 1 provides 12v ACC @ 1 amp MAX).**
4. Connect the UNI-CAM module to the 18-pin harness on the Plug & Play T-Harness.
5. Connect the male end of the Plug & Play T-Harness to the screen and proceed to the next section.



Ford 4" UNI-CAM Programming & Testing

Programming for the 4" UNI-CAM is automatic. After all connections are properly made and the module is connected, turn the car on to **IGNITION**, wait for the radio to fully boot and settle before testing functionality.

NOTES:

- The radio **may or may not** visually reboot with a 'Diagnosis' message. It may appear that the radio just boots slowly (only the first time, in which case it took programming before the display appeared).
- Place the car into reverse, the screen should automatically display the connected reverse image.
NOTE: you must have a camera powered and connected (for Ford systems)!
- **This module VIN-LOCKS to the vehicle it is connected to and cannot be used on any other vehicle once installed.**
- **This module will NOT de-program rear camera, once this modification is made to the system, it will remain forever!**

While programming, refer to the chart below for LED flash representation.

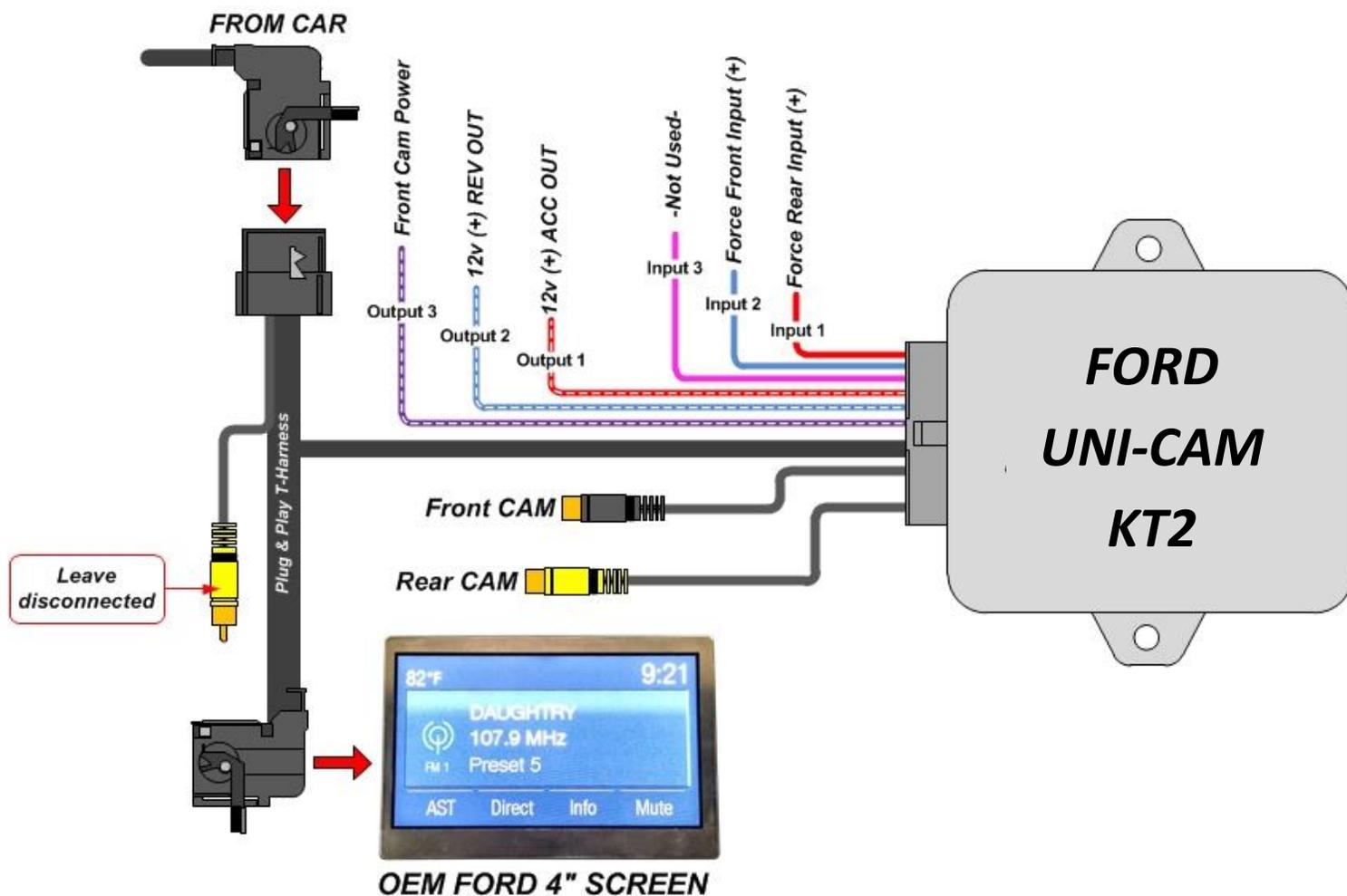
LED Response	Description
1 flash	Waiting for Ignition... (Turn ignition to ON)
2 flashes	Waiting for Vehicle VIN...
3 flashes	Query Vehicle (Reading/decoding the VIN and vehicle components)
4 flashes	Programming...
5 flashes	Programming Complete
6 flashes	No Programming Needed (Already programmed)
7 flashes	Radio Not Supported
8 flashes	Out of Licenses (Contact NAV-TV to purchase more licenses)

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Ford 4" UNI-CAM Operation

- After all connections are made and programming is complete, placing the vehicle in reverse will automatically display the connected rear camera's image.
- If **forced rear camera** is desired, connect **input 1** (red) to 12v (+) **through a toggle** (not included) and the rear image will show whenever activated.
- If a front camera was added, **force this camera** by connecting **input 2** (blue) to 12v (+) **through a toggle** (not included).

Installation Diagram



NOTES:

- Any wires not shown here are not needed for this installation.
- Not all wires shown here will be used for every installation.

The reverse image will have rounded edges and the OEM radio screen showing behind the reverse image is OEM Ford operation and is normal.

Some vehicles may retain the reverse image while in drive until ~5 mph, this is also normal Ford operation.

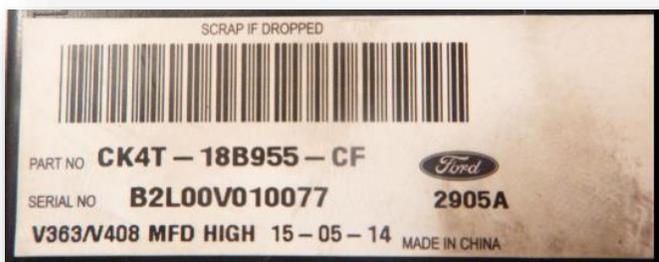


Ford 4" Screen Compatibility list

Due to the large variety of different 4" screen part numbers, it is strongly advised to verify the screen compatibility by removing the screen and measuring a 75 ohm termination across pins 6 and 12. NAV-TV cannot assure compatibility unless this step has been taken.

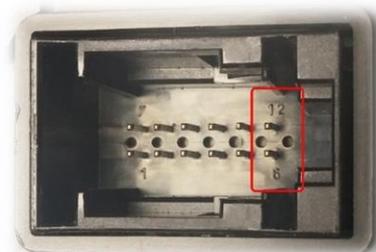
Incompatible Display PART #'s		
EM5T-18B955-CB	CM5T-18B99-AD	CJ5T-18B955-GF
EM5T-18B955-CA	CM5T-18B955-GF	CJ5T-18B955-GE
EJ5T-18B955-GB	CM5T-18B955-CE	CJ5T-18B955-GC
DM5T-18B955-CD	CM5T-18B955-AD	CE8T-18B955-AD
DA6T-18B955-BE	CM5T-18B955-AB	CE8T-18B955-AA
D2BT-18B955-BE		BB5T-19C116-CJ

Compatible Display PART #'s				
FG1T-18B955-CA	EJ5T-18B955-GA	DT4T-19C116-GB	DL3T-18B955-CC	CM5T-18B955-GB
FB5T-19C116-GA	EJ5T-18B955-CC	DT4T-19C116-CD	DG1T-18B955-CD	CM5T-18B955-CF
FB5T-19C116-CA	EG1T-18B955-CD	DT4T-19C116-CC	DB5T-19C116-GB	CK4T-18B955-CD
ET4T-19C116-GG	EG1T-18B955-CA	DT4T-19C116-CB	DB5T-19C116-GA	CK4T-18B955-CF
ET4T-18B955-CC	EB5T-19C116-CD	DT4T-19C116-CA	DB5T-19C116-CBT	CB5T-19C116-GD
ES7T-18B955-CB	EB5T-19C116-CA	DS7T-18B955-CF	DB5T-19C116-CA	CB5T-19C116-GC
ES7T-18B955-CA	EB5T-18B955-GC	DS7T-18B955-CE	DA8T-18B955-CF	CB5T-19C116-CD
EM5T-18B955-JB	EB5T-18B955-GA	DL3T-18B955-CG	DA8T-18B955-CD	CB5T-19C116-CC
EM5T-18B955-CE	EA8T-18B955-CB	DL3T-18B955-CF	CM5T-18B99-GG	BT4T-19C116-CP
EL3T-18B955-CE	DT4T-19C116-GD	DL3T-18B955-CD	CM5T-18B955-GE	BB5T-19C116-CK
			CM5T-18B955-GD	BT4T-19C116-CN



Find the PART number on the back of the main 4" media screen.

Verify 75ohms on pins 6 & 12 on the back of the main 4" media screen.



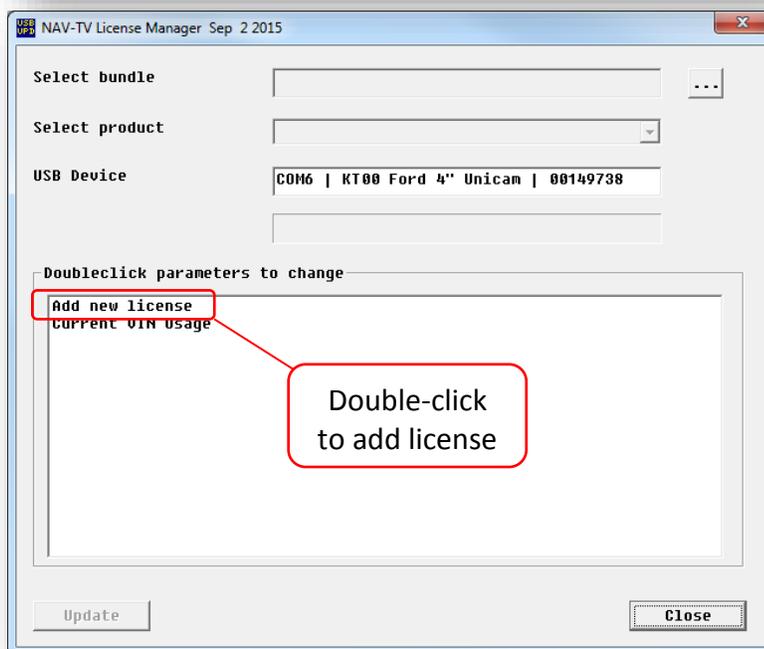
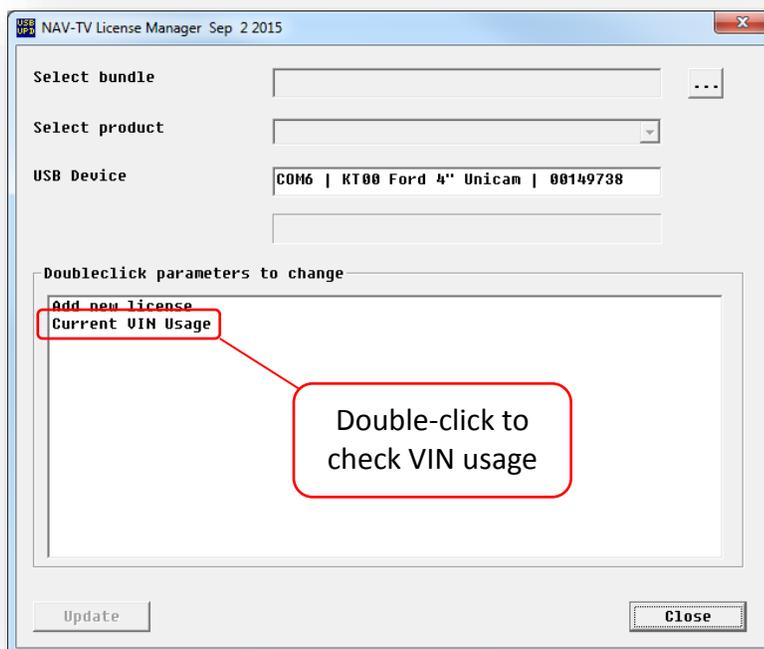
FORD 4" UNI-CAM KT2 USB Updater/Additional Licenses

- To verify that this module has been installed previously, you may download the NAV-TV License USB-Updater to check stored VIN's used previously, if any. The downloadable ZIP file is located on the NAV-TV website on the FORD 4" UNI-CAM KT2 product page: <https://navtv.com/products/NTV-KIT593/ford-4-uni-cam-kt2.html>

Click on the  button at the bottom to download the zipped folder.

- The FORD 4" UNI-CAM KT2 line features an option for NAV-TV dealers to purchase licenses instead of multiple pieces of hardware, reducing time & overhead costs. **Contact NAV-TV** (561-955-9770) for more information regarding purchasing one single programmer, allocated for use in 5, 10, 20 or more vehicles. Additional licenses may also be sent via email.

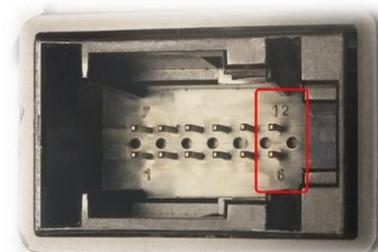
- To add a purchased activation license to your Ford 4" KT2 module, copy and paste the entire code you were sent (usually via email). Paste this code into the **'Add new license'** section of the USB License Manager with the module connected and loaded properly (USB-UART drivers must be installed. 'USB Device' must be populated with connected module information).



Connecting single camera to screen (expeditors)

- *When using the KT2 kit to program multiple vehicles, the install/programming steps remain the same, but the harness and module (entire kit) must be removed and the video input must be populated to the screen manually (after being flashed – the radio program will remain). This process is outlined below:*

1. If wires already exists on **pins 6 & 12 at the screen**, cut wires (in half) and solder the provided female RCA end (**NTV-CAB071**) onto these wires (screen side, cut pins off of CAB071) for camera input (ACC power for camera will need to be found in the vehicle to power the camera – cigarette adapter is typically used). Isolate the other side of the pair of cut wires (vehicle side).



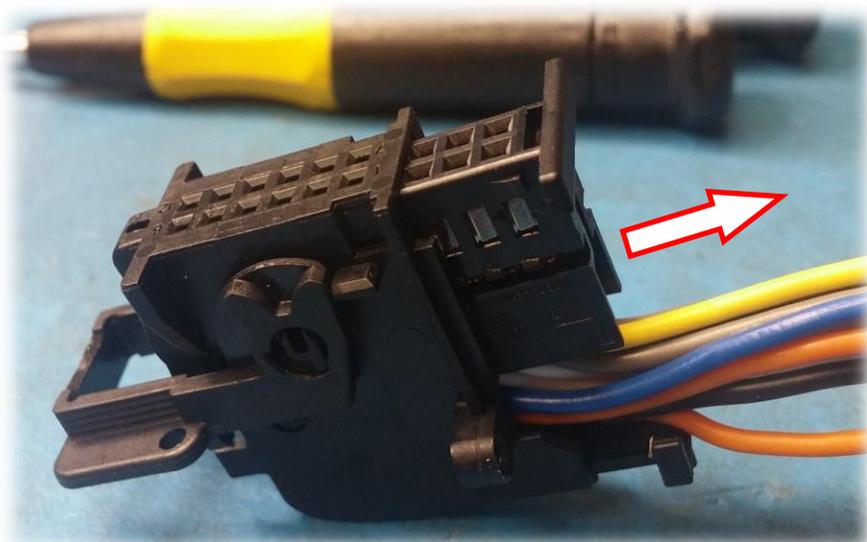
2. For all other vehicles with no wires populated on **pins 6 & 12 at the screen connector**, use the provided video input cable **NTV-CAB071** and populate the OEM screen connector as follows:

- A. Cut the zip tie off of the connector (replace when this section is complete)
- B. Using pick tools, pry both lock tabs to free the inner 12-pin connector from the outer sleeve.

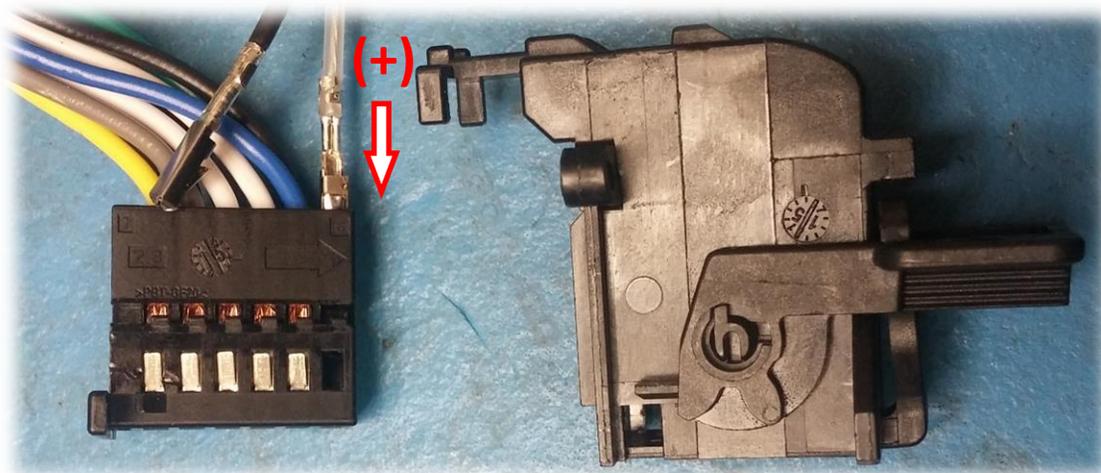


Lock tab

- C. Slide the inner connector out of the outer cam-lock connector.



- D. Locate pins **6 & 12** (labeled on inner connector). Populate **pin 6** with the signal (+) and **pin 12** with the shield (-) from **NTV-CAB071** RCA like shown.



- E. Reconnect the inner connector to the outer sleeve and connect a zip tie to prevent stress to the wires.
- F. Reconnect the harness to the screen, connect reverse camera signal to the newly populated RCA and test for functionality.

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