

CAM-SYNC2/3

Rear Camera Input

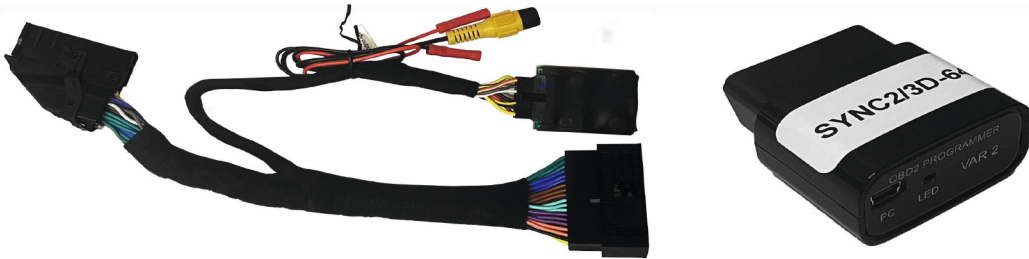
FORD CARS with SYNC2 or SYNC 3



Overview

This interface allows you to install an **NTSC** aftermarket rear camera on the SYNC 2/3 system installed in the FORD KUGA, MONDEO, RANGER, C MAX, S MAX, FOCUS, MUSTANG

Kit Contents



Plug & Play DIFF Cam Harness with DIFF-CAM board and programming box

Installation

- Using plastic panel tools, remove the dash trim pieces surrounding the LCD to expose the screws securing the LCD panel in place.
- Remove the screen from the dash, disconnect all the connectors & set the screen to the side.
- Gather the Plug & Play DIFF Cam harness from the My Touch Cam kit. Connect the main Ford LCD harness (male end) into the female end of the Plug n' Play harness.
- Connect the DIFF-CAM II board to the 14-pin connector (may be already connected).
- Plug the factory 54 pin connector back into the monitor. (**see page 3**)
- Leave all connections accessible and skip to the programming section (page 4).
- After completing the above tasks, go to programming section. program and test then, run the RCA and power connection from your rear view camera to the video interface. Plug the RCA from your rear view camera into the female RCA connection at the video adapter. **The RED wire of the video interface will output 12 Volt + Accessory to power your camera. The output is limited to 1 AMP. If your camera requires more than 1 AMP to function, make sure to use a relay.**

DIFF-CAM II pin outs

Pin	Description	Color
1	12v (output)	Red
3	GROUND (-) (output)	Black
7	CAN HI	Yellow/Black
8	Constant (+) IN	Yellow
9	CAM RCA shield	Black
10	CAM RCA positive	Yellow
12	DIFF VIDEO (-)	White
13	DIFF VIDEO (+)	Gray/Black
14	CAN LO	Orange/White



Wire Side

SYNC 2

NOTE 2: THE FORD SYNC PROGRAMMER CAN ONLY BE USED TO ACTIVATE THE REAR VIEW CAMERA ON ONE VEHICLE AND MUST REMAIN WITH THAT VEHICLE. FACTORY FORD UPDATES MAY DELETE THE REAR VIEW CAMERA OPTION AND PUT THE VEHICLE BACK TO AN "AS BUILT" STATE. IF THIS HAPPENS THE UNIT WILL NEED TO BE REACTIVATED BY COMPLETING THE PROGRAMMING STEPS AGAIN. WE RECOMMEND THAT THE PROGRAMMER BE KEPT WITH THE VEHICLE IN THE GLOVE BOX OR OTHER COMPARTMENT AT ALL TIMES.

1. BE SURE THE WHITE/BLUE WIRES ARE **NOT CONNECTED**.
2. Turn the key to the RUN position and keep it in the RUN position until the radio is completely booted and settled to a source screen (ie: FM, CD).
3. With the ignition and radio ON, Plug the Programmer CAM module harness into the factory Ford OBD plug (**see page 3**)
4. Leave the module connected to the OBD until the programming sequence is complete (**see below for a description**).
5. The radio will program and restart in approximately 20 seconds, the screen will go blank don't be alarmed this is normal. Once restarted, the radio will go into a self-diagnostics screen (**see page 3**). It will take approximately 1-2 minutes to boot into the radio screen.
6. Once the radio restarts, place the vehicle into reverse and verify the radio displays the rear view camera image or goes to a blank screen if a camera is not installed yet. **NOTE: IF THE REAR VIEW CAMERA IS NOT ALREADY CONNECTED TO THE RADIO THE SCREEN MAY TAKE AS LONG AS 15 SECONDS TO GO TO A BLACK SCREEN AND MAY GIVE YOU A WARNING THAT SAYS "CAMERA FAULT"**.
7. Disconnect the programmer module from the factory OBD2 plug.
8. Verify that the screen displays a rear view camera image once the vehicle is placed into reverse. If the image is displayed correctly, reassemble the vehicle and place the **PROGRAMMER INTO THE GLOVE BOX OF THE VEHICLE**.
Reassemble the vehicle.

SYNC 3

NOTE 2: THE FORD SYNC PROGRAMMER CAN ONLY BE USED TO ACTIVATE THE REAR VIEW CAMERA ON ONE VEHICLE AND MUST REMAIN WITH THAT VEHICLE. FACTORY FORD UPDATES MAY DELETE THE REAR VIEW CAMERA OPTION AND PUT THE VEHICLE BACK TO AN "AS BUILT" STATE. IF THIS HAPPENS THE UNIT WILL NEED TO BE REACTIVATED BY COMPLETING THE PROGRAMMING STEPS AGAIN. WE RECOMMEND THAT THE PROGRAMMER BE KEPT WITH THE VEHICLE IN THE GLOVE BOX OR OTHER COMPARTMENT AT ALL TIMES.

1. IGN on
2. Wait for screen to fully load
3. Plug in the supplied programming dongle into the OBD port
4. Screen goes blank for 5-10secs
5. Ford logo appears
6. Ford logo disappears
7. Radio then boots up (with no task bar)
8. Wait for screen to fully load
9. IGN off
10. Remove supplied programming dongle
11. Open the drivers door (radio then goes off)
12. Close door and lock car
13. Unlock car
14. IGN on
15. Allow the screen to fully load

Various Images

Factory OBD Port



Rear Screen 54 way plug



Diagnostics screen SYNC 2



FAQ

Q. The radio went through the programming sequence but I have a blank screen or distorted view of the camera image when I place the vehicle into reverse.

A. Verify that the video adapter and the rear view camera have sufficient power and ground. If using the reverse lamps to power the camera, a relay is required. The lamp output has a low current rating and will not drive a camera. The red wire on the video adapter provides a 1 AMP accessory output for your convenience.

Q. The rear view camera image is distorted and lacks color.

A. Check that the video adapter violet and white/violet wires are populated in the proper pin locations, and that the camera has sufficient voltage and a proper ground.

Q. The system went through the programming sequence, but the screen doesn't go into rearview camera mode.

A. Close all doors, lock the car and wait 15 minutes, then try again.

Q. I programmed the wrong vehicle or the customer backed out of the sale. What steps do I need to take to ensure that I can still use this PROGRAMMER on a different vehicle?

A. When the car has been programmed the process can't be reversed. The programmer has one use only.

Notes

- **THIS MODULE LOCKS TO THE VEHICLE'S VIN NUMBER AND CAN ONLY BE USED TO PROGRAM A REVERSE CAMERA ON ONE VEHICLE.**
- **AFTER PROGRAMMING THE MODULE SHOULD REMAIN WITH THE VEHICLE IN THE GLOVE BOX OR OTHER COMPARTMENT IN CASE OF A SOFTWARE UPDATE.**