

AX-ADDCAM

INTERFACE FEATURES

- (4) Camera inputs
- Programmable 12V 5-amp switched output (configured through the Axxess Updater program)
- Reverse signal trigger generated via CAN bus communication of the vehicle
- Turn signal trigger generated via CAN bus communication of the vehicle
- (4) Programmable camera control wires (configured through the Axxess Updater program)
- Can also be manually controlled, and used along with an aftermarket radio
- VSS (Vehicle Speed Sense) input and output
- Micro “B” USB updatable

INTERFACE COMPONENTS

- AX-ADDCAM interface
- AX-ADDCAM harness

TOOLS REQUIRED

- Wire cutter • Crimp tool • Solder gun • Tape
- Connectors (example: butt-connectors, bell caps, etc.)

TABLE OF CONTENTS

| | |
|---------------------------------|-----|
| Introduction..... | 2 |
| Connections to be made | 2 |
| Configuring the AX-ADDCAM..... | 3-5 |
| Installing the AX-ADDCAM..... | 5 |
| Programming the AX-ADDCAM..... | 6 |
| Connector pin-out (20-pin)..... | 7 |

CAUTION! All accessories, switches, climate controls panels, and especially air bag indicator lights must be connected before cycling the ignition. Also, do not remove the factory radio with the key in the on position, or while the vehicle is running.

INTRODUCTION

The Axxess AX-ADDCAM interface is a camera switching interface that will provide up to (3) additional camera inputs to the factory radio, while still retaining the factory camera. With this interface a front camera, and also side cameras can be added to the factory radio. The cameras function automatically*, no human interaction required, unless desired to do so. Axxess has also created a line of vehicle specific "Plug & Play" harnesses for the AX-ADDCAM. These harnesses must be used along with the AX-ADDCAM. The AX-ADDCAM can also be used if the factory system does not originally come equipped with a backup camera, adding up to (4) cameras in this instance. In addition, the AX-ADDCAM can be used along with an aftermarket radio as well. Pending that the aftermarket radio has an input designated for a backup camera.

** Only applicable vehicles listed in the drop down menu in the Axxess Updater program will retain this feature.*

Note: Some vehicles may not have the turn signal, and/or reverse signal available on the vehicles CAN-bus. For vehicles that do not have those signals available, or when an aftermarket radio will be used instead of the factory radio, the interface will need to be manually controlled by analog triggers.

CONNECTIONS TO BE MADE

12-volt switched output

The **Red** wire labeled "Camera 12V" will be used in applications where a 12-volt switched output is required. In the Axxess Updater there are two options for this feature, "CAN Detection", or "Camera Active". If an aftermarket radio will be used instead of a factory radio, this wire must be connected to the wire designated for a reverse trigger.

- **Accessory Out:** Will provide a 12-volt switched output when the interface detects a CAN bus signal. Pending that the vehicle is supported under vehicle selection.
- **Camera Active:** Will provide a 12-volt switched output if a camera has been activated.

Camera input/output

The RCA jacks labeled "Camera 1 – 4" are the camera inputs. The RCA jack labeled "Camera output" will go to the factory radio (or aftermarket radio). Camera 1 should only be used for a backup camera as it takes priority over the other cameras. Camera 2 and 3 can be used for either a left side camera, or a right side camera, as they are programmable within the Axxess Updater program. Camera 4 is only for use with a front camera due to how the camera switching functions.

Analog control wires (available with the "Plug & Play" harness)

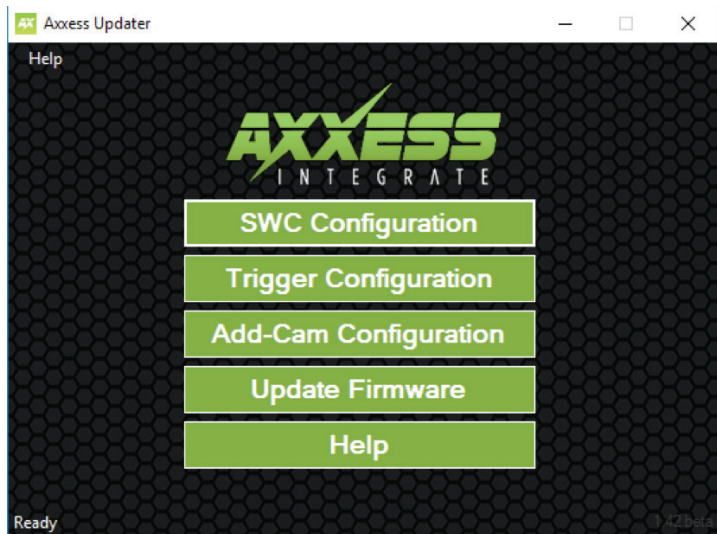
There are (4) control wires for activating the cameras manually. The control wires can be configured in the Axxess Updater for either a negative or positive trigger. The control wires can also be assigned to any camera.

VSS (vehicle speed sense) (available with the "Plug & Play" harness)

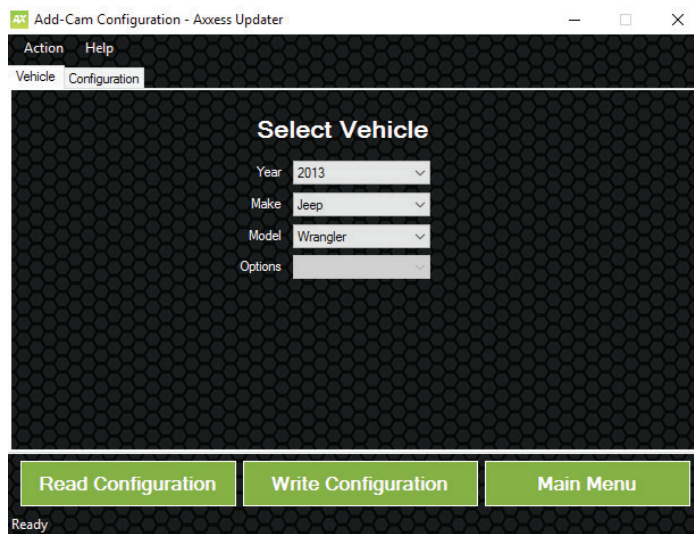
The AX-ADDCAM will generate a VSS signal for applicable vehicles listed in the drop down menu in the Axxess Updater. Pending that the vehicles CAN bus has that signal available. For vehicles that do not have that signal available, the VSS wire will need to be manually wired to the vehicle. But only if that feature is required.

- **Blue/Green** - VSS in.
- **Green/Blue** - VSS out.

CONFIGURING THE AX-ADDCAM



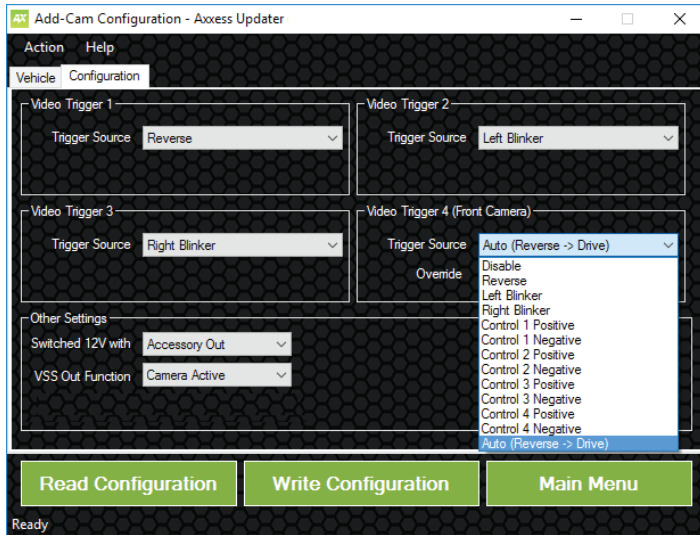
- Download and install the Axxess Updater program available at: axcessinterfaces.com
- Open the Axxess Updater and wait until the word **“Ready”** is listed in the bottom left of the screen.
- Select “Add-Cam Configuration”.



- Select the vehicle in the drop down list. If the vehicle is applicable, a tab labeled “Configuration” will appear.
- Under “Make” and “Model”, there will be an option labeled “Other (Generic)”. This option is for aftermarket radio installations where the AX-ADDCAM will be controlled via analog triggers.

Continued on the next page

CONFIGURING THE AX-ADDCAM (CONT.)



Video trigger legend

- Disable (will turn off the input)
- Backup Camera (dedicated backup camera)
- Left Blinker (will be used for activation)
- Right Blinker (will be used for activation)
- Control 1 (positive trigger activation)
- Control 1 (negative trigger activation)
- Control 2 (positive trigger activation)
- Control 2 (negative trigger activation)
- Control 3 (positive trigger activation)
- Control 3 (negative trigger activation)
- Control 4 (positive trigger activation)
- Control 4 (negative trigger activation)
- Auto (Reverse -> Drive) will activate once that sequence is seen (only available for video trigger 4)

- Under “Configuration”, configure the (4) video trigger inputs to the desired settings. Refer to “Video trigger description” for more information.
- Under “Other Settings” located at the bottom of the page, configure switched 12V and VSS to the desired settings.
- Once all selections have been configured, press “Write Configuration” to save the settings.

Continued on the next page

CONFIGURING THE AX-ADDCAM (CONT.)

Video trigger description

- **Backup camera:** Dedicated by default to Video Trigger 1. Will activate the backup camera while the vehicle is in reverse.
- **Left blinker:** Activation of the left turn signal will activate the left camera. *
- **Right blinker:** Activation of the right turn signal will activate the right camera. *
- **Auto (reverse -> drive):** Available only for Video Trigger 4, when installing a front camera. With this feature selected, the camera will activate automatically once a reverse-then-drive sequence is seen from the vehicle. Example of this scenario would be while parallel parking the vehicle. As an alternative, a control wire can be used instead to manually activate the camera.

Note: Auto (Reverse -> Drive) will disable the camera once 15 MPH is reached. A control wire activated will also disable the camera.

Note: If the control wire is activated while driving, the camera will activate and deactivate during stop-and-go traffic.

- **Control 1-4 (positive or negative) trigger activation wires:** Can be used as a positive or negative trigger to manually activate a camera via a toggle switch, or similar device.

* Not available for Fords with a 4-inch display screen radio.

Other settings

Switched 12V with

- **Disable:** On by default.
- **Accessory Out:** 12-volt out when CAN data is detected.
- **Camera Active:** 12-volt out if a camera has been activated.

VSS out Function

- **Disable:** On by default.
- **Camera Active:** Active while camera is on.

INSTALLING THE AX-ADDCAM

With the key in the off position:

- Connect the AX-ADDCAM harness into the interface, and then to the “Plug & Play” harness (sold separately).
- Connect the “Plug & Play” harness (sold separately) to the wiring harness in the vehicle.

Note: If the “Plug & Play” harness (sold separately) includes any secondary harnesses, connect those as well.

- Connect the cameras to the appropriate RCA jacks.

PROGRAMMING THE AX-ADDCAM

For models with a factory backup camera:

- Turn the key (or push-to-start button) to the ignition position and wait until the L.E.D. inside the AX-ADDCAM interface comes on.
- **For Mazda vehicles only:** After the vehicle is in the ignition position, and the Mazda logo is present (dim), put the vehicle in reverse to activate the camera. Wait until 'Please Check Surroundings For Safety' is shown on the radio display, then put the vehicle in the park position. This process should take within 30 seconds.

Note: If the L.E.D. doesn't come on within a few seconds, yet blinks instead, turn the key to the off position, disconnect the interface, check all connections, reconnect the interface, and then try again.

- Test all functions of the installation for proper operation, before reassembling the dash.

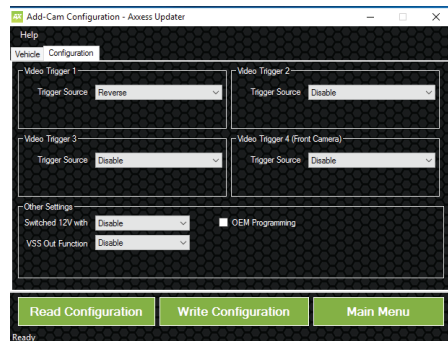
For models without a factory backup camera:

Chrysler, Dodge, Jeep

- These vehicles will require two 5-minute key cycles for the radio to accept the AX-ADDCAM interface. Programming will be complete after the second 5-minute key cycle.
 - With all the doors of the vehicle shut, wait until the domelight goes out, then cycle the key (or push-to-start button) to the ignition position for 30-seconds.
 - Cycle the key (or push-to-start button) off and wait until the domelight goes out, then wait 5-minutes.
 - Cycle the key (or push-to-start button) to the ignition position for 30-seconds.
 - Cycle the key (or push-to-start button) off and wait until the domelight goes out, then wait 5-minutes.
- Turn the key (or push-to-start button) to the ignition position and test all functions of the installation for proper operation, before reassembling the dash.

Ford

- Configure the AX-ADDCAM in the Axxess Updater first. In the Axxess Updater there will be an option box labeled "OEM Programming" under the "Configuration" tab after the vehicle type has been entered. Check this box to allow the AX-ADDCAM configure the camera settings for the vehicle. (Figure A)



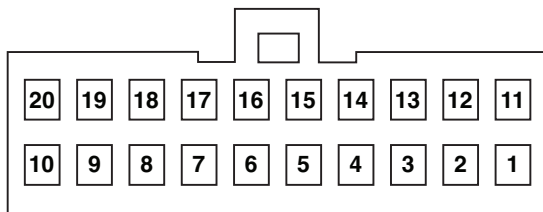
(Figure A)

- Turn the key (or push-to-start button) to the ignition position and wait until the L.E.D. inside the AX-ADDCAM interface comes on. The radio will reboot and may show a diagnostic screen during this process.

Note: If the L.E.D. in the interface doesn't come on within a few seconds, yet blinks instead, turn the key to the off position, disconnect the interface, check all connections, reconnect the interface, and then try again.

Note: Ensure that the Video 1 input in the interface is set to "reverse camera".
- Test all functions of the installation for proper operation, before reassembling the dash.

CONNECTOR PIN-OUT (20-PIN)



Wire view of harness

- | | |
|---|---|
| 1. Yellow - Battery | 11. Black - Ground |
| 2. Blue/Green - VSS in | 12. Green/Blue - VSS out |
| 3. Gray/Blue - Control 1 trigger | 13. Gray/Red - Control 2 trigger |
| 4. Yellow - Camera output | 14. Red - 12-volt out |
| 5. Yellow - Camera 2 input | 15. Yellow - Camera 1 input |
| 6. Yellow - Camera 4 input | 16. Yellow - Camera 3 input |
| 7. White/Green - CAN LOW to radio | 17. White/Red - CAN HIGH to radio |
| 8. Blue/Pink - CAN LOW from vehicle | 18. Pink - CAN HIGH from vehicle |
| 9. Blue/Black - Secondary CAN LOW from vehicle | 19. Blue/Red - Secondary CAN HIGH from vehicle |
| 10. Orange - Control 3 trigger | 20. Orange/White - Control 4 trigger |



AX-ADDCAM

INSTALLATION INSTRUCTIONS



IMPORTANT

If you are having difficulties with the installation of this product, please call our Tech Support line at 1-800-253-TECH. Before doing so, look over the instructions a second time, and make sure the installation was performed exactly as the instructions are stated. Please have the vehicle apart and ready to perform troubleshooting steps before calling.



KNOWLEDGE IS POWER

Enhance your installation and fabrication skills by enrolling in the most recognized and respected mobile electronics school in our industry. Log onto www.installerinstitute.com or call 800-354-6782 for more information and take steps toward a better tomorrow.



Metra recommends MECP certified technicians