

**Multi Camera Interface
(Kit # 9002-6118)**

Please read thoroughly before starting installation and check that kit contents are complete.

Items Included in the Kit:

Interface module
Video input harness
These instructions

Tools & Supplies Needed:

Wire strippers
Wire cutters
Electrical tape
Zip ties
Plastic panel removal tools
Digital Volt Meter / BCM safe test light
Screwdriver
Socket set
Wrench

Safety Precautions:

- Work in well ventilated area that is clear of obstructions.
- Secure vehicle with tire chucks in both front and rear of tires.
- Turn vehicle accessories OFF and ensure ignition key is in OFF position.
- Wear safety goggles and snug fitting clothes.
- Use tools only for their intended purpose and which are in good repair.
- Only perform this task if confidence, skill, and physical ability permit.

NOTE: We strive to provide accurate and up-to-date installation instructions. For the latest full color instructions, as well as an installation video, please visit www.brandmotion.com



Installation for OEM screens

Note: This section of the installation is intended for OEM screens, which would normally require a separate reverse camera (RVC) interface with analog (wire) reverse trigger.

1. Remove the vehicle's radio/screen. You must gain access to the required location when installing an aftermarket rear camera. Refer to the installation manual of the RVC interface in use if necessary.
2. From the main 9002-6118 harness, connect the black wire to ground (-) and the red wire to an ACC 12v (+) source.
3. Connect the (male) 'VIDEO OUT' RCA from the provided CAM I/O Harness to the rear camera input port of the RVC interface.
4. Connect the Reverse OUTPUT wire (pin 21, blue) to the RVC trigger wire on the interface wire intended for RVC activation (often 'forced rear camera' input).
5. Mount and install all cameras (front, rear, trailer, aux video and blind-spot cameras) and run video signal/power leads to the location where the 9002-6118 will be mounted. ***Camera Installation Notes:***
 - a. Use a vehicle switched ACC 12v wire to power your cameras. Make sure the ACC source you're using has sufficient current to power all of your cameras. A thicker-gauge wire (constant 12v) can be used for power supply to a relay, and trigger the relay with an ACC source if you're not sure.
 - b. Connect each camera signal to each yellow RCA input per their specific labels (rear, front, right TSC, left TSC etc).
6. Connect the vehicle's OEM reverse wire to input 6 (pin 9, white/black). Note: if this wire was already connected to the existing interface's RVC trigger, disconnect it and connect it here (pin 9) instead. The

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interface's RVC trigger must connect to the 9002-6118 module at pin 21.

Note: If using an interface to gain a reverse camera and the reverse signal is over CAN data, this connection is not necessary.

7. Locate, test, splice and extend the left & right vehicle turn signal wires (wires will show 12v whenever the bulb is illuminated) to the location where the 9002-6118 will be mounted.

These wires can typically be found at the physical OEM turn signal lever harness beneath the steering wheel shroud. In some vehicles, you may find them at the BCM. Note: These triggers must be positive (+) polarity to the 9002-6118. If the signals are negative, use relays for pole reversal.

8. Connect the vehicle's left turn signal to input 5 (pin 10, purple). Connect the vehicle's right turn signal to input 4 (pin 11, pink).
9. If a front camera was installed, connect input 2 (pin 24, brown) to an accessory 12v (+) source through a toggle or momentary button (not included) for activation. Note: if using a momentary button, DIP Switch #4 must be in the UP position for 12 second Front-CAM time-out.

Optional: If adding an AUX video source to the AUX RCA input, connect input 3 (pin 23, gray/red) to an accessory 12v (+) source through a toggle (not included) for activation.

Optional: If adding a Trailer Camera source to the Trailer CAM input, any time this input RCA sees a video source, this video input will take priority over the regular RVC video input port. This is a great option if the user often connects a trailer for automatically displaying the proper camera while in reverse.

10. Connect the 9002-6118 module to the 24-pin plug and proceed to '9002-6118 Operation'

Installation for aftermarket screens

Note: This section of the installation is intended for aftermarket screens, equipped with a composite reverse camera (RVC) input & analog (wire) reverse trigger.

8. Remove the vehicle's radio/screen. You must gain access to the required location when installing an aftermarket rear camera. Refer to the installation manual of the head unit in use if necessary.
9. From the main 9002-6118 harness, connect the black wire to ground (-) and the red wire to an ACC 12v (+) source.
10. Connect the (male) 'VIDEO OUT' RCA from the provided CAM I/O Harness to the rear camera input port of the head unit.
11. Connect the Reverse OUTPUT wire (pin 21, blue) to the RVC trigger wire on the head unit (typically purple or purple/white).
12. Mount and install all cameras (front, rear, trailer, aux video and blind-spot cameras) and run video signal/power leads to the location where the 9002-6118 will be mounted. **Camera Installation Notes:**

- a. Use a vehicle switched ACC 12v wire to power your cameras. Make sure the ACC source you're using has sufficient current to power all of your cameras. A thicker-gauge wire (constant 12v) can be used for power supply to a relay, and trigger the relay with an ACC source if you're not sure.
- b. Connect each camera signal to each yellow RCA input per their specific

labels (rear, front, right TSC, left TSC etc).

13. Connect the vehicle's OEM reverse wire to input 6 (pin 9, white/black). Note: if this wire was already connected to the existing head unit's RVC trigger, disconnect it and connect it here (pin 9) instead. The head unit's RVC trigger must connect to the 9002-6118 module at pin 21. See diagram, page 7.
14. Locate, test, splice and extend the left & right vehicle turn signal wires (wires will show 12v whenever the bulb is illuminated) to the location where the 9002-6118 will be mounted.

These wires can typically be found at the physical OEM turn signal lever harness beneath the steering wheel shroud. In some vehicles, you may find them at the BCM. Note: These triggers must be positive (+) polarity to the 9002-6118. If the signals are negative, use relays for pole reversal.

Connect the vehicle's left turn signal to input 5 (pin 10, purple). Connect the vehicle's right turn signal to input 4 (pin 11, pink).

If a front camera was installed, connect input 2 (pin 24, brown) to an accessory 12v (+) source through a toggle or momentary button (not included) for activation. Note: if using a momentary button, DIP Switch #4 must be in the UP position for 12 second Front-CAM time-out.

Optional: If adding an AUX video source to the AUX RCA input, connect input 3 (pin 23, gray/red) to an accessory 12v (+) source through a toggle (not included) for activation or use a NAV-TV S2P. 11. Optional: If adding a Trailer Camera source to the Trailer CAM input, any time this input RCA sees a video source, this video input will take priority over the regular RVC video input port. This is a great option if the user often connects a trailer for automatically

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displaying the proper camera while in reverse.

12. Connect the 9002-6118 module to the 24-pin plug and proceed to '9002-6118 Operation'

Reverse Camera (Video 6): Placing the vehicle in reverse will display the connected reverse camera as usual, unless a Trailer camera is present, connected and powered on. In this case, the Trailer Cam RCA signal will have priority over the typical RVC RCA.

AUX Video (Video 5): Whenever input 3 receives 12v (+), the connected AUX video image will display on screen with lowest priority (see chart below).

Left & Right Turn Signal Cameras (Video 4 & 3): When connected properly, normal usage of the OEM turn signal stalk will display either left or right turn signal image, respectively.

☛ If the user desires the display screen to return to factory in 12 seconds, dip switch #2 must remain UP.

☛ If the user desires the Turn Signal Cameras to display (priority) over the RVC image, dip switch #3 must remain UP. **Front Camera** (Video 2): Whenever input 2 receives 12v (+), the connected front camera image will display on screen

with second-to-last priority (see chart below).

☛ If the user desires the Front Camera to display for 12 seconds only, use a momentary button instead of a toggle switch. For this function, dip switch #4 must remain UP.

☛ If the user is expecting to be able to automatically switch between reverse and front cam (when in and out of reverse gear), the front camera activation must be on a toggle switch, not a momentary button (using built-in 9002-6118 timer).

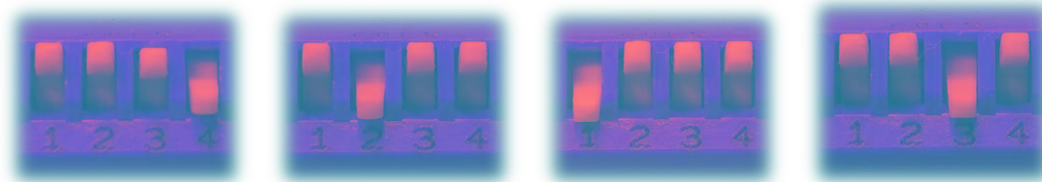
Trailer Camera (Video 1): This is a video-sensing input. If you have a video signal (such as a trailer or 5th-wheel camera) connected to this RCA input and the camera is powered, then this video signal will automatically take priority over the usual RVC input RCA signal. This condition will remain until the signal or power is disconnected from this video source.

Below is a chart for Video Input priority order.

Installation requirements will vary, adjust the DIP Switches to suit your needs. See page 5 for Dip Switch options.

Below is a chart for Video Input priority order. Installation requirements will vary, adjust the DIP Switches to suit your needs.

PRIORITY	VIDEO INPUT RCA	Condition
1 st	Trailer CAM	If used & when source is connected & powered
2 nd	Reverse CAM	If Trailer CAM is not used, RVC = 1 st
3 rd	Turn Signal CAM L & R	If DIP SWITCH 3 is UP, TSC = 2 nd
4 th	Front CAM	-----
5 th	AUX Video IN	-----



DIP SWITCH 1: UART CONTROL

UP: UART command control ONLY. For future use. DOWN: Analog triggers ONLY. Standard universal control.

DIP SWITCH 2: TURN SIGNAL CONTROL

UP: Turn signal cameras will only stay active for 12 seconds. DOWN: Turn signal cameras will display as long as there is a 12v signal to the module.

DIP SWITCH 3: TURN CAMERA OVER RVC

UP: When in reverse, if active, turn signals will display instead of RVC. DOWN: RVC has priority regardless of turn signal inputs.

DIP SWITCH 4: FRONT CAM ACTIVATION

UP: Using a momentary button to activate input 2 will display F-CAM for 12 seconds.

DOWN: Front CAM will display as long as there is a 12v signal to the module.

INPUT	LED 1	LED 2
Idle	Fade in/out	Fade in/out
RVC	ON	
FVC		ON
Right Turn		ON (blink)
Left Turn	ON (blink)	
AUX VID	ON (solid)	ON (solid)
Trailer CAM	ON (alternating)	ON (alternating)