

Installation Guide

FCTP-MB1101

Sprinter Tow Package

For Sprinters equipped with the 'Radio Delete' option





Whats in the box



*For programming and electrical connection information refer to RP4.2-MB11 guide included in kit.

Illustrations are typical and may not match exact vehicle detail

FCTP-MB1101
Sprinter Tow Package




Parts Description

FCTP-MB1101			
For Sprinters equipped with the “Radio Delete” option			
Image	Part Number	Description	Qty
1	BSCM-MB1101	Side Mirror Cap Camera Mounts (L&R)	1
2	CAM-EXT50-HAR	50 Inch Camera Connection Harness	1
3	CAM-EXT70-HAR	70 Inch Camera Connection Harness	1
4	MB11-VS41-HAR	Camera Switcher Harness	1
5	P-CAM-MB2	OEM Reverse Camera Adapter	1
6	P-RP4.2-MB11	Radio Replacement Interface	1
7	P-VS41-B	Camera Switcher	1
8	RP4.2-MB21-HAR	Radio Interface Harness	1
9	SVC-01	Side Cameras	2
10	CAM-EXT4PRCA	Front Camera Adapter Harness	1

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Important

Please read and follow the instructions carefully. To emphasize special information, the symbol  and the words **Warning**, **Caution** and **Note** have special meanings. Pay special attention to messages highlighted by these signal words.

Note: Indicates special information to make installation easier or instructions clearer.

These instructions are designed as a guide to help make the installation of this product successful. Always use caution and ask for assistance if you are not sure how to proceed.

AAMP Global & EchoMaster is not responsible for any damage that may occur during installation or any changes to the vehicle interior.



WARNING

Indicates a potential hazard that could result in a death or serious injury



CAUTION

Indicates a potential hazard that could result in vehicle damage

NOTE

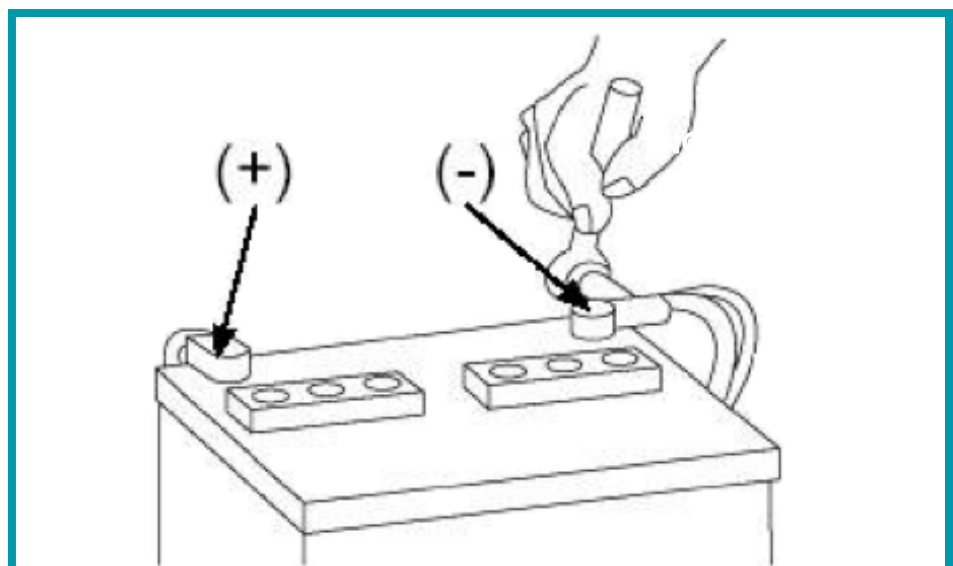
Indicates a potential hazard that could result in vehicle or equipment damage

Consult Vehicle owners guide before disconnecting negative battery cable



WARNING

DO NOT TOUCH the positive terminal with any tool when removing the negative battery cable



Illustrations are typical and may not match exact vehicle detail

FCTP-MB1101
 Sprinter Tow Package



Tools required



Prior to Installation

Cover all surfaces with tape or plastic protection film to protect against scratching and damage. AAMP is in no way responsible for any damage that may occur during installation.

This product has been validated in the vehicles listed on the application guide only.

Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure proper installation. Read entire instructions thoroughly before starting.

This document covers such items as:

- ▶ Vehicle Protection (use of covers and blankets, cleaning chemicals, etc)
- ▶ Vehicle Disassembly / Reassembly (panel removal, part storage, etc)
- ▶ Electrical Component Disassembly / Reassembly (battery disconnection, connector removal, etc)

NOTE

Removed Parts - Inspect the vehicle and parts for any damage
 Place all removed parts on a protected surface in an area they will not get damaged
 Connectors: When disconnecting connectors, do not pull on the wires, pull by holding the connectors

Illustrations are typical and may not match exact vehicle detail



Vehicle Preparation & Protection

CAUTION

Consult your vehicle owner's manual to disconnect the battery. Do not disconnect ANY airbag connectors or indicators. Doing so may result in activating a diagnostic code. These codes will require the dealer to perform the reset procedure which may incur a reset fee. If you are unsure of any vehicle trim removal process consult the OEM service manual.

Removing vehicle trim panels in extreme hot and/or cold climate could result in damage. Use care when removing all vehicle trims. Using painters Blue tape on the vehicle trim panels can help limit any scratches and / or marring. Use a nylon trim panel removal tool whenever possible.

Dash Disassembly

Step 1

Carefully tape the dash trim piece around the radio display.



Step 2

Carefully remove the dash trim pieces from around the radio display. Using a nylon pry tool start from the top corners. Pry out towards the back of the vehicle. Recommended tool (Nylon pry tool).



NOTE

Once dash piece is removed, place in safe area to avoid damage.

Illustrations are typical and may not match exact vehicle detail

FCTP-MB1101
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Dash Disassembly (continued)

Step 3

Once the lock tabs have been released disconnect the dash trim panel and place in a safe area.

Recommended tool (Nylon pry tool).



Step 4

Remove the four Torx T20 screws securing the radio display in place.

Recommend covering the climate controls with painters tape before removing the radio display.

Recommended tool (Torx T20).



Step 5

Remove the radio display, disconnect the radio display and set it in a safe area to avoid damage.

Refer to the installation guide for the RP4.2-MB11 / 21 or BCI-MB11 for programing information and electrical connections depending on which kit you are installing.



Once the radio display is removed, place in safe area to avoid damage.

Illustrations are typical and may not match exact vehicle detail



Door Disassembly

Step 1

Open the lower pocket on the door by unlocking the two cam locks.

Once it is open, remove the pocket by lifting it off the hinges.



Step 2

Remove the four Torx T20 screws from around the door.

Remove the cover from the door pull using a nylon pry tool. Pry from the bottom of the door pull to reveal the two Torx T30 screws.

Remove the two Torx T30 screws. Pry the door panel off the door. There are several snaps behind the panel. Disconnect the door latch and any connectors behind the door panel.



NOTE

Once the door panel is removed, place in a safe area to avoid damage

Illustrations are typical and may not match exact vehicle detail

FCTP-MB1101
Sprinter Tow Package



Mirror Disassembly

Step 1

Push the bottom of the top mirror glass in to gain access to the lower mirror glass.

Using even pressure, pull the bottom mirror glass off towards you. The mirror will pop off.



Step 2

Disconnect the defroster connector.

Not all models will have the defroster.



NOTE

Once the mirror glass is removed, place in safe place to avoid damage

Illustrations are typical and may not match exact vehicle detail

Mirror Disassembly (continued)

Step 3

Tilt the top mirror glass so you can place both hands up under the glass to get to the center of the back of the glass.

Applying even pressure, pop the glass off.



Step 4

Disconnect the defroster connector.

Not all models will have the defroster.

NOTE

Once the mirror glass is removed, place in safe area to avoid damage



Step 5

Remove the four Torx T20 screws around the mirror housing.



Illustrations are typical and may not match exact vehicle detail

FCTP-MB1101
Sprinter Tow Package



Mirror Disassembly (continued)

Step 6

Remove the outer trim ring.

Support the back cover while removing the outer trim ring.

Place in a safe area to avoid damage.



Step 7

Remove the back cover of the mirror housing.



Step 8

The turn signal indicator snaps off the back cover.

Place the back cover in a safe area to avoid damage.



Illustrations are typical and may not match exact vehicle detail

Mirror Disassembly (continued)

Step 9

Disconnect the turn signal indicator.

Place the turn signal indicator in a safe area to avoid damage.



Cable Routing

Step 1

For the tow mirror, fold the arm in towards the door to gain access to the inner hinge area. Feed a long wire tie or similar fish tool through the lower outside portion of the tow mirror arm. Tape the camera cable to the end of the wire tie you are using to feed the wire through.

Tow Mirror



Step 2

Feed a long wire tie or similar fish tool through the mirror where the factory wires come through. Tape the camera cable to the end of the wire tie you are using to feed the wire through.

Non-Tow Mirror



NOTE

Removing the mirror assembly is not absolutely necessary but makes the installation easier.

Illustrations are typical and may not match exact vehicle detail

FCTP-MB1101
 Sprinter Tow Package



Cable Routing (continued)

Step 3

Remove the three Torx T30 screws holding the mirror to the door of the truck.

One of the Torx T30 screws has a small cap covering it. Use something slim to pry the cover off to access the screw.

The mirror arm will still be held on with a clip on the outside.



Step 4

Using a nylon pry tool, insert it (approximately as shown - above the hook) then pull it out and push the mirror assembly up to disengage.



NOTE

Removing the door speaker makes it easier to route the wires in the door.

Step 5

Feed a long wire tie or similar fish tool through the door to where the factory wires come through the boot.



Illustrations are typical and may not match exact vehicle detail



Cable Routing (continued)

Step 6

Unsnap the door boot, and feed the wire tie with the camera cable taped to the end. Do not remove the boot from the black snap ring. Only the door side of the boot needs to be removed.

NOTE

Once the cable is routed into the door jamb reinstall the three Torx T30 screws that hold the mirror frame on to the vehicle to avoid damage.



Step 7

Feed a long wire tie or similar fish tool through the boot then into the vehicle as shown.

The boot does not need to be removed from the vehicle side.



Step 8

Once inside the vehicle route the cables avoiding any moving parts.

Drivers side shown.



Illustrations are typical and may not match exact vehicle detail

FCTP-MB1101
Sprinter Tow Package



Cable Routing (continued)

Step 9

Once inside the vehicle route the cables avoiding any moving parts.

Passenger side shown.

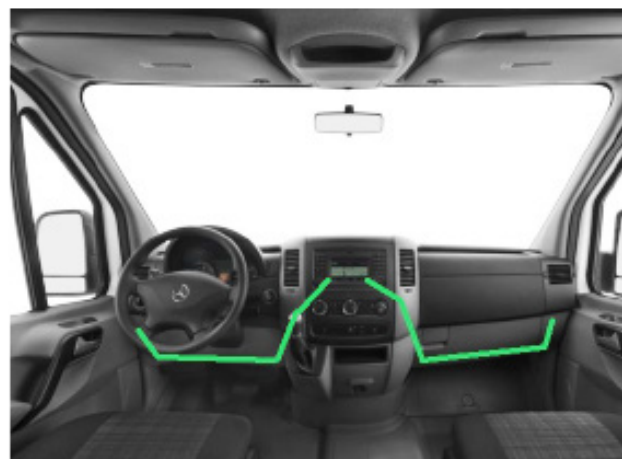


Step 10

Avoiding any moving parts, secure the cables using cable ties.

For the driver's side you will need to use the **CAM-EXT70-HAR.**

For the passenger side you will use the **CAM-EXT50-HAR.**



Mirror Assembly

Step 1

With the cables routed, you can assemble the mirror caps with the cameras.



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Mirror Assembly (continued)

Step 2

There are two sets of camera inserts per side.

- RH** Right hand side
- RH-T** Right hand side trailer
- LH** Left hand side
- LH-T** Left hand side trailer

The trailer inserts are for the mirrors that extend out farther from the vehicle.



Step 3

Select the inserts you are going to be installing.

There is a small notch on the camera; this notch needs to be on the same side as the lettering on the insert.



Step 4

Once the camera is snapped into place, slide the locking mount over the camera. There is a locking rib which needs to be lined up with the notch on the camera. You can adjust the camera using the locking mount by twisting the camera so the screw holes line up. Once the holes line up, using a No. 1 Phillips screwdriver install the supplied screws.



NOTE

DO NOT OVER TIGHTEN

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FCTP-MB1101
Sprinter Tow Package



Mirror Assembly (continued)

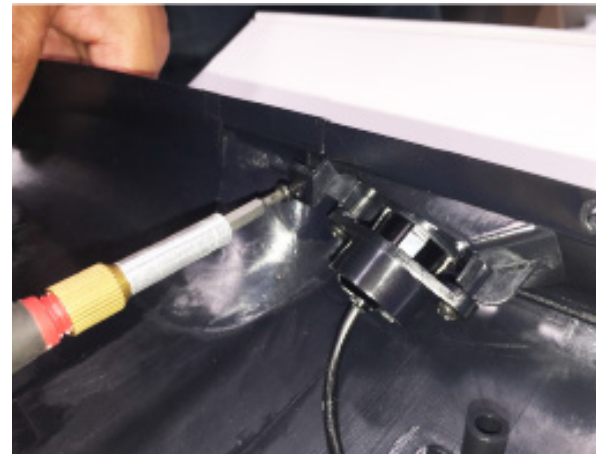
Step 5

When installing the camera insert on to the mirror caps, the locating tab will line up with a small hole on the front of the camera insert.



Step 6

Once the camera insert is installed in place, use a number 1 Phillips screwdriver to mount the camera insert.



NOTE

DO NOT OVER TIGHTEN

Step 7

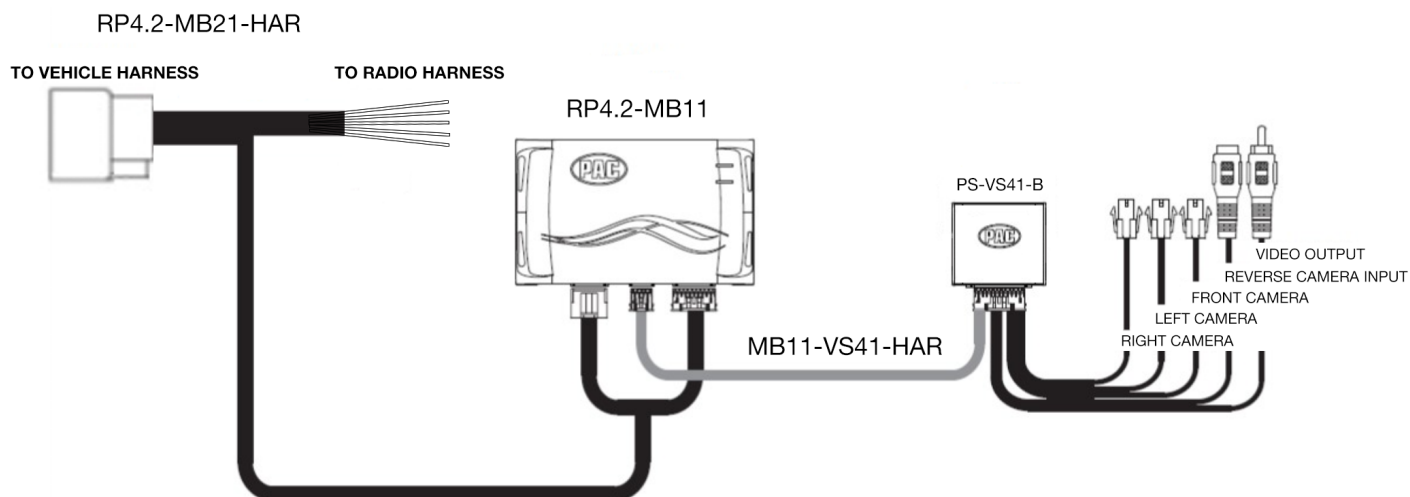
Once the camera insert is installed, snap the turn signal in place. Reinstall the mirror caps, in the reverse order they were removed.

Make sure all connections in the mirror are fully seated and secure when reinstalling everything.



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Wiring Diagram



Testing

Reconnect the negative battery cable.

Turn the ignition switch to ON, when the display of the unit comes on, follow the steps for set up.

Place your foot on the brake and place the vehicle in reverse. The rear camera will display on the screen.

NOTE

ONLY IF CAMERA IS INSTALLED AND ACTIVATED

Place the vehicle back in park to go to the source selection screen. Ensure all components are in working order (Navigation, steering wheel controls, HVAC, dome lights, etc.)

NOTE

Check to ensure the unit, steering wheel controls, AM/FM tuner are properly working. Double check all the functions of the vehicle are working correctly.

If the unit does not power up

- Check the vehicle's fuse first.
- Check that the connectors on the back of the unit are fully seated and locked.
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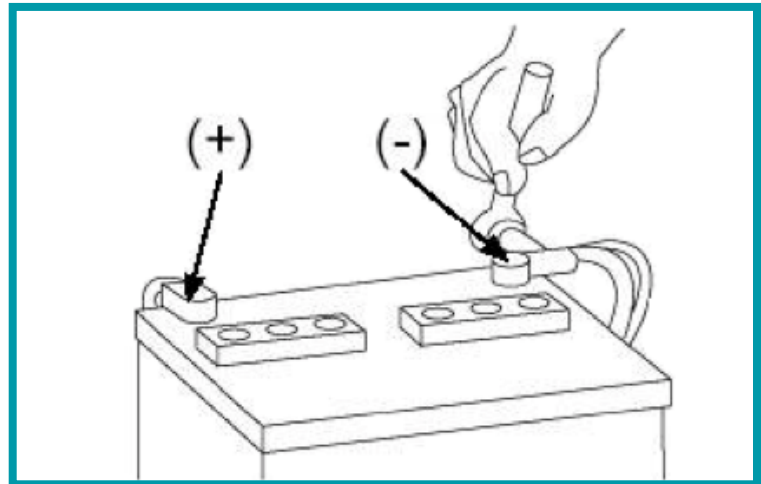
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FCTP-MB1101
Sprinter Tow Package



WARNING

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NOTICE OF INTENDED USE

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This product must be properly installed and used in accordance with all laws for your safety. AAMP Global does NOT assume liability for any bodily injury or property damage that might result from any improper or unintended use.

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What's in the box



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FCTP-MB1101-KN1/KN2

Sprinter Tow Package



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FCTP-MB1101-KN1/KN2			
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5	P-CAM-MB2	OEM Reverse Camera Adapter	1
6	P-RP4.2-MB11	Radio Replacement Interface	1
7	P-VS41-B	Camera Switcher	1
8	RP4.2-MB21-KEN-HAR	Radio Interface Harness	1
9	SVC-01	Side Cameras	2

Optional Accessory




Optional Accessory			
10	CAM-EXT-4PRCA-HAR	Front Camera Adapter Harness	1

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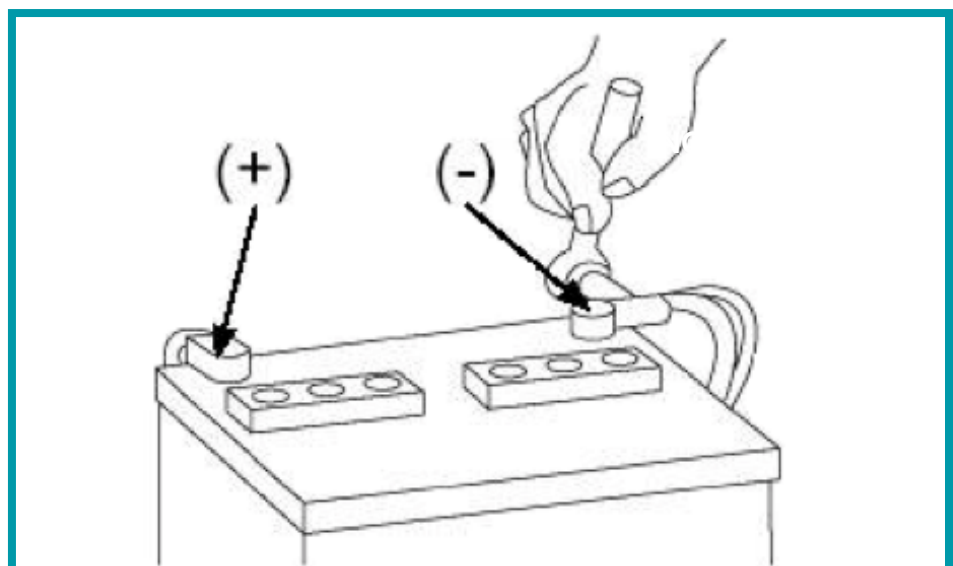
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FCTP-MB1101-KN1/KN2

Sprinter Tow Package



Tools required



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Vehicle Preparation & Protection

CAUTION

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Removing vehicle trim panels in extreme hot and/or cold climate could result in damage. Use care when removing all vehicle trims. Using painters blue tape on the vehicle trim panels can help limit any scratches and / or marring. Use a nylon trim panel removal tool whenever possible.

Dash Disassembly

Step 1

Carefully tape the dash trim piece around the radio display.



Step 2

Carefully remove the dash trim pieces from around the radio display. Using a nylon pry tool start from the top corners. Pry out towards the back of the vehicle. Recommended tool (Nylon pry tool).



NOTE

Once dash piece is removed, place in safe area to avoid damage.

Illustrations are typical and may not match exact vehicle detail

FCTP-MB1101-KN1/KN2

Sprinter Tow Package



Dash Disassembly (continued)

Step 3

Once the lock tabs have been released disconnect the dash trim panel and place in a safe area.

Recommended tool (Nylon pry tool).



Step 4

Remove the four Torx T20 screws securing the radio display in place.

Recommend covering the climate controls with painters tape before removing the radio display.

Recommended tool (Torx T20).



Step 5

Remove the radio display, disconnect the radio display and set it in a safe area to avoid damage.

Refer to the installation guide for the RP4.2-MB11 / 21 or BCI-MB11 for programing information and electrical connections depending on which kit you are installing.



NOTE

Once the radio display is removed, place in safe area to avoid damage.

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Door Disassembly

Step 1

Open the lower pocket on the door by unlocking the two cam locks.

Once it is open, remove the pocket by lifting it off the hinges.



Step 2

Remove the four Torx T20 screws from around the door.

Remove the cover from the door pull using a nylon pry tool. Pry from the bottom of the door pull to reveal the two Torx T30 screws.

Remove the two Torx T30 screws. Pry the door panel off the door. There are several snaps behind the panel. Disconnect the door latch and any connectors behind the door panel.



NOTE

Once the door panel is removed, place in a safe area to avoid damage

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FCTP-MB1101-KN1/KN2

Sprinter Tow Package



Mirror Disassembly

Step 1

Push the bottom of the top mirror glass in to gain access to the lower mirror glass.

Using even pressure, pull the bottom mirror glass off towards you. The mirror will pop off.



Step 2

Disconnect the defroster connector.

Not all models will have the defroster.



NOTE

Once the mirror glass is removed, place in safe place to avoid damage

Illustrations are typical and may not match exact vehicle detail

Mirror Disassembly (continued)

Step 3

Tilt the top mirror glass so you can place both hands up under the glass to get to the center of the back of the glass.

Applying even pressure, pop the glass off.



Step 4

Disconnect the defroster connector.

Not all models will have the defroster.

NOTE

Once the mirror glass is removed, place in safe area to avoid damage



Step 5

Remove the four Torx T20 screws around the mirror housing.



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FCTP-MB1101-KN1/KN2

Sprinter Tow Package



Mirror Disassembly (continued)

Step 6

Remove the outer trim ring.

Support the back cover while removing the outer trim ring.

Place in a safe area to avoid damage.



Step 7

Remove the back cover of the mirror housing.



Step 8

The turn signal indicator snaps off the back cover.

Place the back cover in a safe area to avoid damage.



Illustrations are typical and may not match exact vehicle detail



Mirror Disassembly (continued)

Step 9

Disconnect the turn signal indicator.

Place the turn signal indicator in a safe area to avoid damage.



Cable Routing

Step 1

For the tow mirror, fold the arm in towards the door to gain access to the inner hinge area. Feed a long wire tie or similar fish tool through the lower outside portion of the tow mirror arm. Tape the camera cable to the end of the wire tie you are using to feed the wire through.

Tow Mirror



Step 2

Feed a long wire tie or similar fish tool through the mirror where the factory wires come through. Tape the camera cable to the end of the wire tie you are using to feed the wire through.

Non-Tow Mirror



NOTE

Removing the mirror assembly is not absolutely necessary but makes the installation easier.

Illustrations are typical and may not match exact vehicle detail

FCTP-MB1101-KN1/KN2

Sprinter Tow Package



Cable Routing (continued)

Step 3

Remove the three Torx T30 screws holding the mirror to the door of the truck.

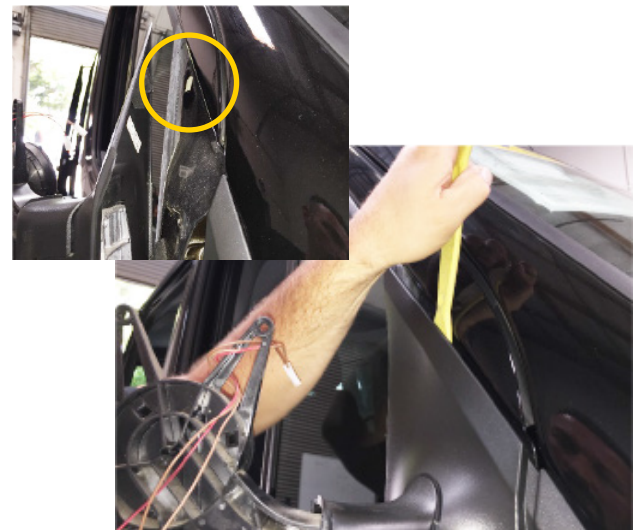
One of the Torx T30 screws has a small cap covering it. Use something slim to pry the cover off to access the screw.

The mirror arm will still be held on with a clip on the outside.



Step 4

Using a nylon pry tool, insert it (approximately as shown - above the hook) then pull it out and push the mirror assembly up to disengage.



NOTE

Removing the door speaker makes it easier to route the wires in the door.

Step 5

Feed a long wire tie or similar fish tool through the door to where the factory wires come through the boot.



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Cable Routing (continued)

Step 6

Unsnap the door boot, and feed the wire tie with the camera cable taped to the end. Do not remove the boot from the black snap ring. Only the door side of the boot needs to be removed.

NOTE

Once the cable is routed into the door jamb reinstall the three Torx T30 screws that hold the mirror frame on to the vehicle to avoid damage.



Step 7

Feed a long wire tie or similar fish tool through the boot then into the vehicle as shown.

The boot does not need to be removed from the vehicle side.



Step 8

Once inside the vehicle route the cables avoiding any moving parts.

Drivers side shown.



Illustrations are typical and may not match exact vehicle detail

FCTP-MB1101-KN1/KN2

Sprinter Tow Package



Cable Routing (continued)

Step 9

Once inside the vehicle route the cables avoiding any moving parts.

Passenger side shown.

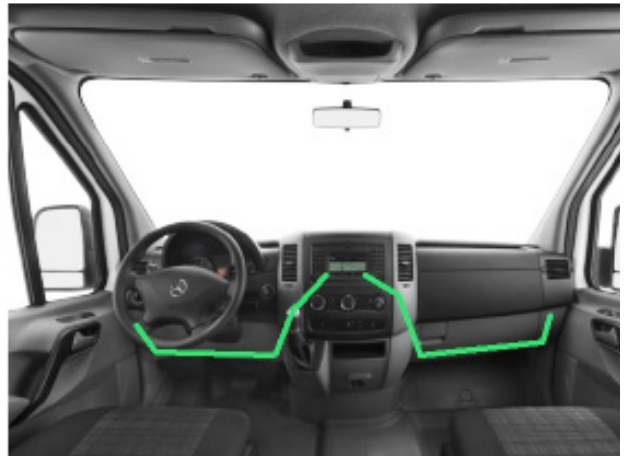


Step 10

Avoiding any moving parts, secure the cables using cable ties.

For the driver's side you will need to use the **CAM-EXT70-HAR.**

For the passenger side you will use the **CAM-EXT50-HAR.**



Mirror Assembly

Step 1

With the cables routed, you can assemble the mirror caps with the cameras.



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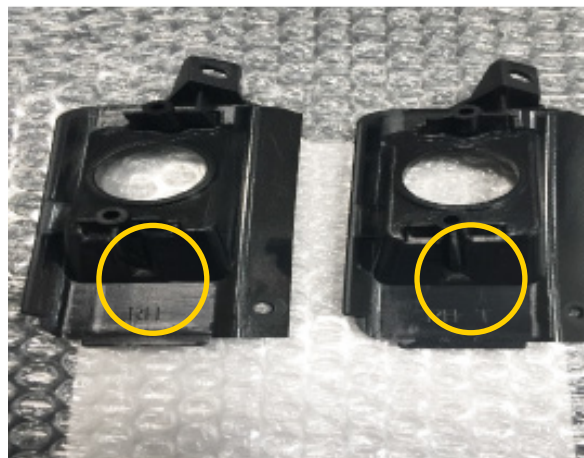
Mirror Assembly (continued)

Step 2

There are two sets of camera inserts per side.

- RH** Right hand side
- RH-T** Right hand side trailer
- LH** Left hand side
- LH-T** Left hand side trailer

The trailer inserts are for the mirrors that extend out farther from the vehicle.



Step 3

Select the inserts you are going to be installing.

There is a small notch on the camera; this notch needs to be on the same side as the lettering on the insert.



Step 4

Once the camera is snapped into place, slide the locking mount over the camera. There is a locking rib which needs to be lined up with the notch on the camera. You can adjust the camera using the locking mount by twisting the camera so the screw holes line up. Once the holes line up, using a No. 1 Phillips screwdriver install the supplied screws.



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DO NOT OVER TIGHTEN

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FCTP-MB1101-KN1/KN2

Sprinter Tow Package



Mirror Assembly (continued)

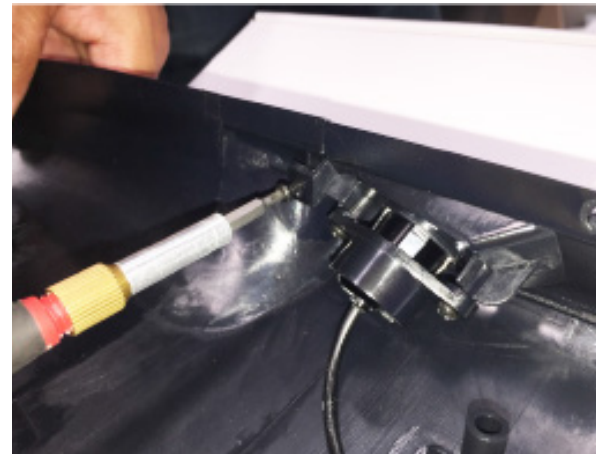
Step 5

When installing the camera insert on to the mirror caps, the locating tab will line up with a small hole on the front of the camera insert.



Step 6

Once the camera insert is installed in place, use a number 1 Phillips screwdriver to mount the camera insert.



NOTE
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Step 7

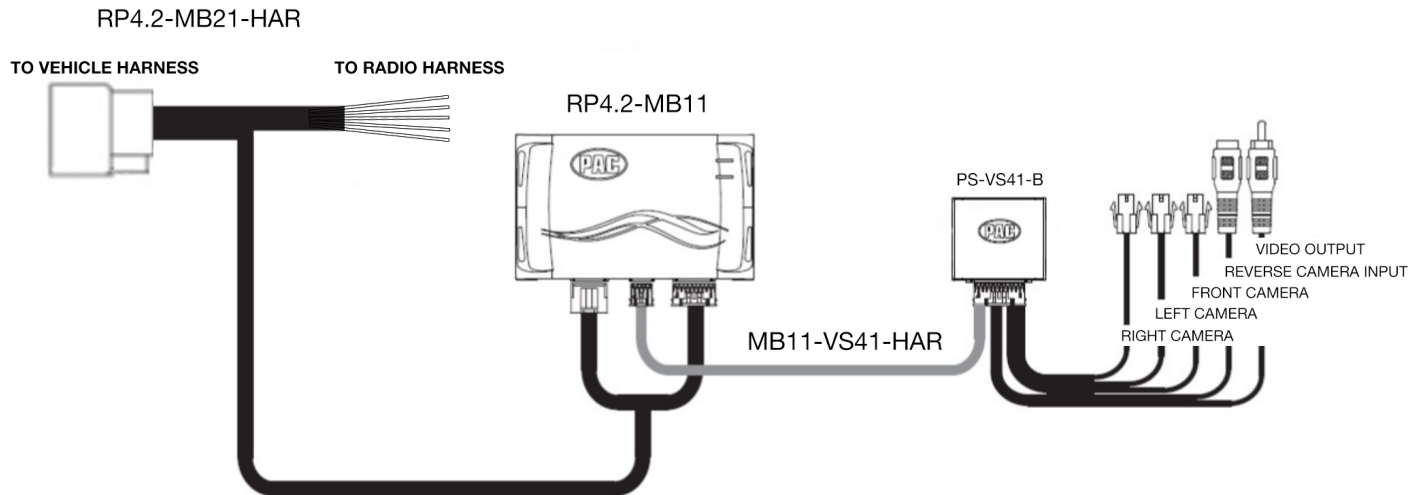
Once the camera insert is installed, snap the turn signal in place. Reinstall the mirror caps, in the reverse order they were removed.

Make sure all connections in the mirror are fully seated and secure when reinstalling everything.



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Wiring Diagram



Testing

Reconnect the negative battery cable.

Turn the ignition switch to ON, when the display of the unit comes on, follow the steps for set up.

Place your foot on the brake and place the vehicle in reverse. The rear camera will display on the screen.

NOTE

ONLY IF CAMERA IS INSTALLED AND ACTIVATED

Place the vehicle back in park to go to the source selection screen. Ensure all components are in working order (Navigation, steering wheel controls, HVAC, dome lights, etc.)

NOTE

Check to ensure the unit, steering wheel controls, AM/FM tuner are properly working. Double check all the functions of the vehicle are working correctly.

If the unit does not power up

- Check the vehicle's fuse first.
- Check that the connectors on the back of the unit are fully seated and locked.
- Check that no PINS have gotten bent in the connectors during installation.

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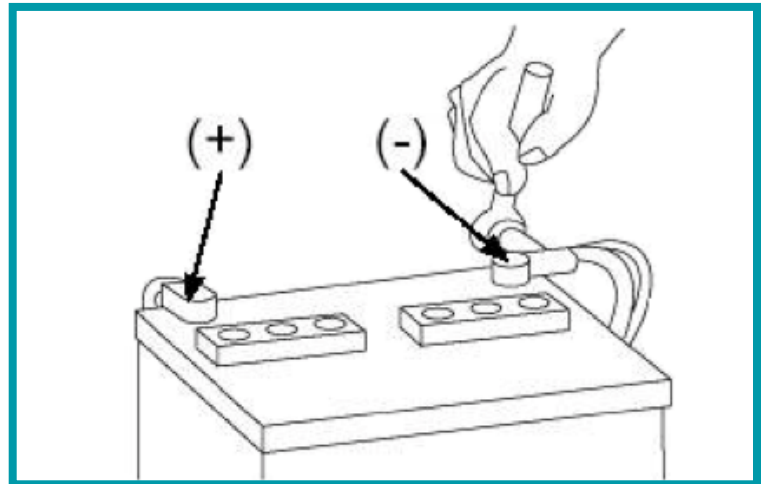
FCTP-MB1101-KN1/KN2

Sprinter Tow Package



WARNING

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NOTICE OF INTENDED USE

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RP4.2-MB11

Radio Replacement & Steering Wheel Control Interface
for 2014 - 2016 Mercedes Sprinter Vehicles
Equipped with a Factory Radio

Introduction & Features

The RP4.2-MB11 interface allows the replacement of a factory radio in a 2014 - 2016 Mercedes Sprinter vehicle equipped with a factory radio. Using this interface will retain the factory steering wheel controls (SWC) and reverse camera. Use of this interface also allows you to program two radio functions to each SWC button by using short press long press dual command functionality. The RP4.2-MB11 also provides data bus driven outputs such as retained accessory power (RAP), vehicle speed signal (VSS), illumination, reverse and parking brake.

Important Notes

1. The RP4.2-MB11 is ONLY compatible with the 2014 - 2016 Mercedes Sprinter vehicle when the vehicle is equipped with a factory radio. Vehicles equipped with the radio delete package will need to use the RP4.2-MB21.
2. The VS41 can be connected to the RP4.2-MB11 to add left, right and front camera inputs. When the VS41 is connected, the RP4.2-MB11 will send the proper signals to the VS41 so that the left and right cameras are triggered when the turn signals are active. The front camera can be triggered by using the supplied 3-way toggle switch.
3. The front camera, when triggered via the supplied 3-way toggle switch, will only be active at speeds below 6 mph.

Wiring Connection Chart

Interface Connector 1

Red	Accessory Output (10 amp)
Yellow	12v+ Constant
Black	Ground

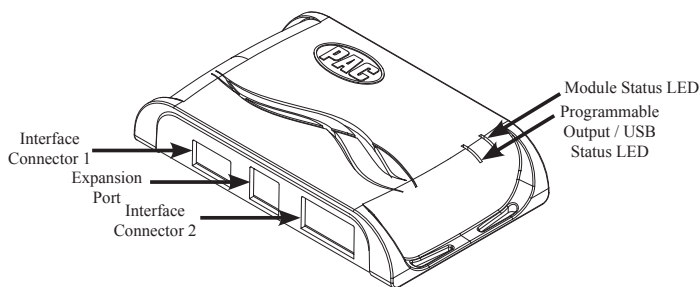
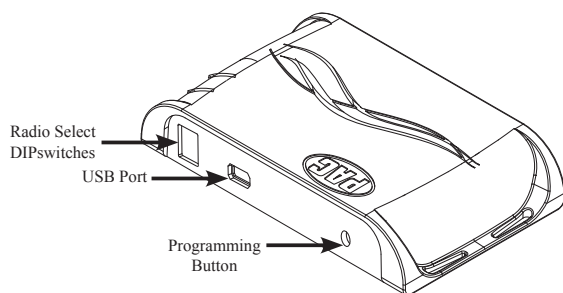
Interface Connector 2

3.5mm Jack	Steering Wheel Control Output
Pink	MS-CAN + Input
Pink / Black	MS-CAN - Input
Blue / Yellow	Steering Wheel Control Output
Orange / White	Illumination Output
Pink	Vehicle Speed Signal Output
Violet / White	Reverse Output
Light Green	Parking Brake Output (-)

Vehicle Connector

Yellow	+12v Constant
Black	Ground
Blue	Powered Antenna Turn On
White	Front Left + input
White / Black	Front Left - input
Grey	Front Right + input
Grey / Black	Front Right - input
Green	Rear Left + input
Green / Black	Rear Left - input
Purple	Rear Right + input
Purple / Black	Rear Right - input

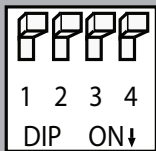
Module Layout



RP4.2-MB11

Radio Replacement & Steering Wheel Control Interface
for 2014 - 2016 Mercedes Sprinter Vehicles
Equipped with a Factory Radio

Installation Steps



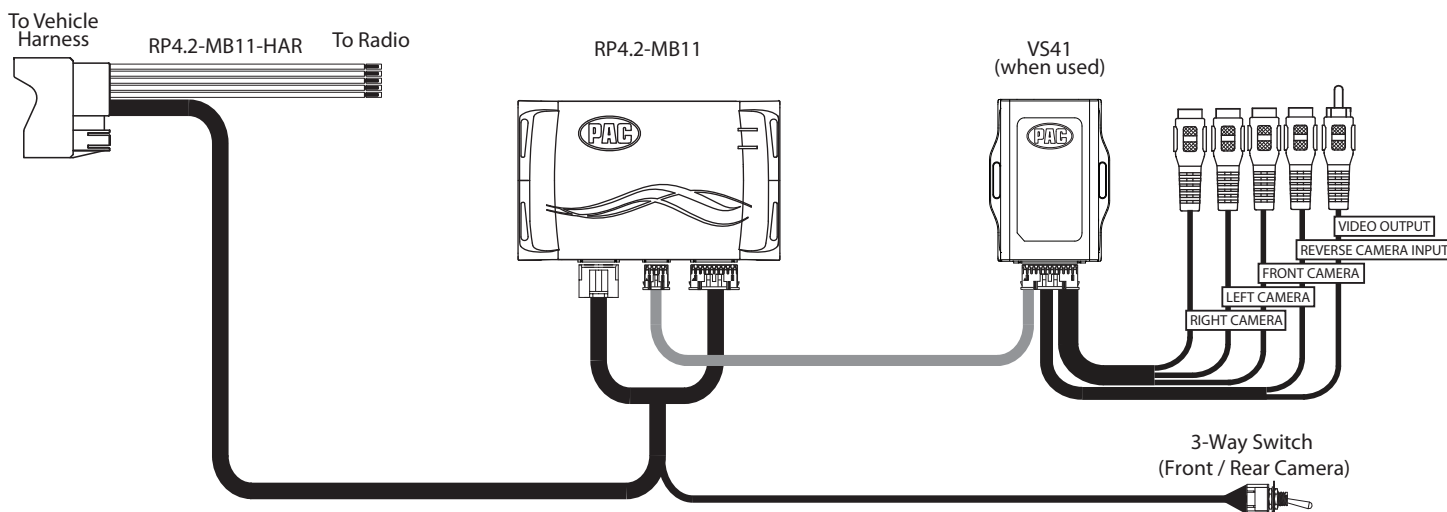
SET RADIO DIPSWITCHES (ON = DOWN)

Alpine	JVC	Kenwood	Clarion	Pioneer / Other	Sony	Fusion
None	1	2	1 & 2	3	1 & 3	2 & 3

Other = Advent, BOYO, Dual, Lightning Audio, Rockford Fosgate, Visteon

- The radio select DIP switches on the side of the interface must be adjusted to the proper radio setting before plugging the interface into the vehicle.**
- Make all connections as described in the connection chart on the previous page.
- Connect the SWC wire or 3.5mm jack to the aftermarket radio (aftermarket radio must support a wired remote input).
- If using the VS41, connect the 10-pin connector from the VS41-HAR to the RP4.2-MB11's expansion port.
- If using the VS41, connect the cameras to the proper inputs on the VS41-HAR.
- Mount the supplied 3-way switch, which will force both the front camera (when using the VS41) and rear camera, where it is easily accessible.
- The blind spot cameras will be activated with the use of the turn signal stalk. The passenger side camera will be active when the right turn signal is active. The driver side camera will be active when the left turn signal is active. If more control is needed to activate the side cameras, simply flip DIP Switch 4 down (ON). With DIP Switch 4 on it will require a double tap of the turn signal within 2 seconds to activate either the right or left camera. The turn signal will need to remain in the on position for the camera to remain active.
- Once the DIP Switches have been set and all connections have been made, plug the interface into the vehicle.
- If you wish to reassign functions to the SWC, or utilize short press long press dual command functionality follow the optional programming instructions on the next page.

Module Wiring Overview



RP4.2-MB11

Radio Replacement & Steering Wheel Control Interface
for 2014 - 2016 Mercedes Sprinter Vehicles
Equipped with a Factory Radio

Steering Wheel Controls

Default Steering Wheel Control Programming

IMPORTANT! The interface comes pre-programmed for all of the vehicle's factory SWC functions and does not require programming unless you wish to re-assign the SWC functions, or utilize short press long press dual command functionality. The SWC can always be restored to default settings by pressing and releasing the program button on the side of the interface once then wait 7 seconds for the LED to flash 3 times.

Default SWC Button Assignments

	Alpine	JVC	Kenwood	Clarion	Pioneer / Other	Sony	Fusion
Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +
Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -
Arrow Up	Track +	Track +	Track +	Track +	Track +	Track +	Track +
Arrow Down	Track -	Track -	Track -	Track -	Track -	Track -	Track -
Answer	Receive	Receive	Off Hook	Send	Answer	Answer	Power
End	End	Reject	On Hook	End	End	Reject/Source	N/P



Optional Steering Wheel Control Programming

If you wish to re-assign the SWC functions, or utilize short press long press dual command functionality, the interface must be programmed in the specific order shown in the chart on page 3. If you come across a function in the chart that your steering wheel does not have, or you do not want to program, press and release the programming button on the side of the interface to skip that function. The LED will flash off and on confirming that you have successfully skipped that function and are ready to proceed to the next one.

Short Press Long Press Dual Command Functionality

This feature allows you to assign two aftermarket radio functions to each of the vehicle's SWC buttons. It can be used with as many of the buttons as the user likes, or none at all. When this functionality is implemented, quickly pressing and releasing a SWC button will initiate the short press command, while pressing and holding a SWC button for longer than two seconds will initiate the long press command. Please note that no long press commands are programmed by default. If you wish to assign dual command functionality to the SWC please follow the programming steps on the next page.









Steering Wheel Controls (cont.)

Optional SWC Programming Procedure

1. Turn the key to the ignition position.
2. Put the Driver Information Center (DIC) in the vehicle's instrument cluster into the Audio or Telephone mode using the Page Up or Page Down buttons on the steering wheel. Failure to do this will not allow the Arrow Up and Arrow Down buttons to be programmed.
3. Press and release programming button on the side of the interface. The Status LED will turn green.
4. Within 7 seconds, press the button that is to be learned on the steering wheel. The LED will turn red when the button is pressed.
At this point you have two options:
 - A. For short press functionality:** Release the button within 1.5 seconds. The LED will turn back on.
 - B. For long press functionality:** Hold the button until the LED starts blinking. Release the button and the LED will go back to solid green.
5. If you need to program more buttons, repeat step 3 for each additional audio function on the steering wheel.
6. If you come across a function in the chart that your steering wheel does not have, or you do not want to program, press and release the program button on the side of the interface to skip that function.
7. Once programming is completed, wait seven seconds. The LED will flash three times indicating end of programming.
8. Test the interface for proper functionality. Whenever a SWC button is pressed the LED on the interface should blink. If any function does not work, repeat the programming steps.

Optional Programming Order

	Alpine	JVC	Kenwood	Clarion	Other 	Pioneer	Sony	Fusion
1	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +
2	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -
3	Mute	Mute	Mute	Mute	Mute	Mute	Mute	Mute
4	Preset +	Source	Source	Source	Preset +	Preset +	Preset +	Source
5	Preset -	Track +	Play	Search +	Preset -	Preset -	Preset -	Track +
6	Source	Track -	Track +	Search -	Source	Source	Source	Track -
7	Track +	Band / Disc +	Track -	Band	Track +	Track +	Track +	Audio
8	Track -	Preset / Disc -	Disc / FM +	Send / End	Track -	Track -	Track -	Power
9	Power	Select	Disc / AM -	Send	Band	Band	Band	
10	Enter / Play	Attenuation	Answer	End	Answer 	Phone Menu	Reject Call / Source (Bluetooth equipped radios only)	
11	Band / Program	Phone Receive	Voice Dial		End 	Answer Call	Answer / End Call	
12	Receive	Phone Reject	On Hook		PTT 	End Call		
13	End	Voice Dial	Off Hook			VR		
14	VR	Power	Mute (Multimedia units only)					
15			Preset +					

 - Advent, Boyo, Dual, Lightning Audio, Jensen, Rockford Fosgate & Visteon  - Jensen & Advent ONLY

Testing and Verification

1. Turn the key to the ignition position. The LED on the interface will turn on & the +12v accessory wire will turn on.
2. Turn on the radio and check balance and fade.
3. Verify that all SWCs are functioning properly. The LED will flash whenever a SWC button is pressed, even if a function is not assigned to the button.
4. Verify that all data driven navigation outputs are functioning properly.
5. When using the VS41 to add left, right, front and rear cameras, be sure to trigger them with either the turn signals or the supplied switch and ensure proper operation.
6. The LED and radio will turn off when the ignition is turned off.