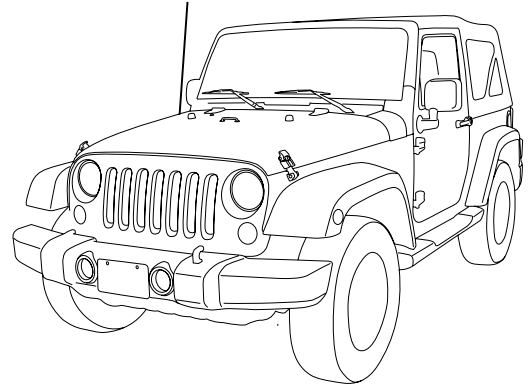


Jeep Wrangler SGS-CH01 Factory Radio Camera Interface with Active Guideline system Installation Manual



- Model: Wrangler
- Model Year: 2011-2018

	Model	Year	Active Guidelines	Static Guidelines
Jeep	Wrangler (JK)	2007-2010	✗	✓
	Wrangler (JK)	2011-2018	✓	✓

DISCLAIMER: The active guideline feature of this product is calibrated for use with JEEP WRANGLER model years 2011-2018. The accuracy of the active guideline system cannot be guaranteed if used in conjunction with other vehicles or those which contain non-factory parts which may affect the turning radius of the vehicle.

* The specified vehicles have been tested and have met compatibility specs at the time of testing. Compatibility is not guaranteed if the manufacturer has made production changes to the listed vehicles above.

⚠ Warning: Before you begin wiring, remove the ground wire from the negative terminal of the battery. Failing to do so can lead to electric shock, injury or damage to equipment.

Introduction

- Congratulations on purchasing the SGS-CH01. This installation manual is designed to take you through the installation of SGS-CH01. Please familiarize yourself with the owners manual and if you still have additional questions please call 1-800-TECH-101.

Note

- Design and specifications are subject to change without notice for improvement.





To Ensure Safe Use, Always Follow These Precautions

- The installation of this product requires specialized skills and experience. We recommend that you have the product installed by an Alpine authorized dealer.
- Before you use this product, be sure to carefully read this installation manual and the separate user's manual so that you can use the product correctly. Alpine Electronics bears no responsibility for problems that arise as a result of failure to follow the instructions in the manuals.
- This manual includes a number of symbols that are intended to help you use the product safely, to prevent harm to you and others, and to protect against damage to property. These symbols and their meanings are listed below. Make sure you fully understand these symbols before you begin reading the main text.

Explanations of Injury and Damage That May Result from Incorrect Use

Warning	Ignoring the content marked by this indication and using the product incorrectly is expected to lead to death or serious injury.
Caution	Ignoring the content marked by this indication and using the product incorrectly is only expected to lead to injury or property damage.

Types of Precautions

 Forbidden	Indicates actions that are forbidden (must not be performed)
 Forbidden	Indicates that disassembly is forbidden.
 Mandatory	Indicates actions that are mandatory (must be performed)
 Warning	Marks content that should receive your full attention.

 **Warning**

Do not disassemble or modify the product. Doing so could lead to an accident, fire, or electric shock.



Store screws and other small objects where small children cannot reach them. If one of these small objects is swallowed, consult with a doctor immediately.



When replacing fuses, be sure to use fuses with the specified current rating. Failing to do so could lead to an accident or fire.



Forbidden



Mandatory

Only connect the product to a 12 VDC negative ground car. Failing to do so could lead to an accident or fire.



Mandatory

Before you begin wiring, remove the ground wire from the negative terminal of the battery. Failing to do so could lead to electric shock or injury.



Do not cut the insulation on a cord and take power from another device. Doing so could lead to fire or electric shock.



Forbidden

Do not install the product in a location where it will obstruct the driver's forward view; interfere with the operation of the steering wheel, gearshift, or the like; or pose a threat to passengers. Doing so could lead to an accident or injury.



Forbidden

When making a hole in the vehicle body, be careful to avoid damaging pipes, the fuel tank, electrical wiring, and the like. This kind of damage could lead to an accident or fire.



When installing and grounding the product, do not use any of the bolts or nuts of the steering wheel, brakes, fuel tank, or the like. Doing so could make the brakes stop working or lead to fire.



Forbidden

Do not install the product near the passenger-side airbag. Doing so could interfere with the operation of the airbag and lead to an accident or injury.



Forbidden

Bundle cords so that they don't interfere with driving. Wrapping cords around the steering wheel, gearshift, brake pedal, or the like, could lead to an accident or damage equipment.

 **Caution**

Connect the product properly according to the instructions. Failing to do so could lead to fire or an accident.



Forbidden

Do not sandwich cords between the seat railing or allow them to touch protrusions. Resulting breaks or shorts could lead to electric shock or fire.



Do not block vents or heat sinks. Doing so could lead to fire or damage equipment.



Use the accessories according to the instructions, and attach them securely. Failing to do so could lead to an accident or damage equipment.



Forbidden

Do not install the product where it may be exposed to water or in a place with high levels of humidity or dust. Doing so could lead to fire or damage equipment.



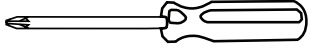
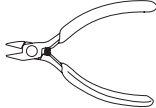
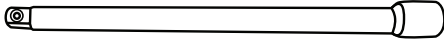
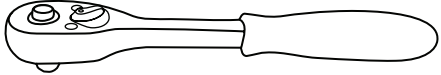





Forbidden

The installation and wiring of this product requires specialized skills and experience. Have the product installed by an Alpine authorized dealer.

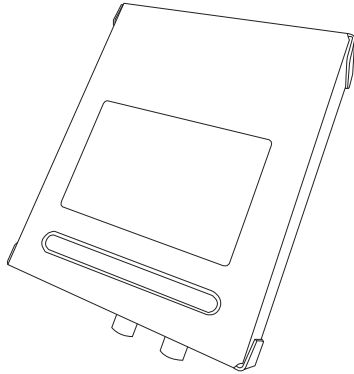
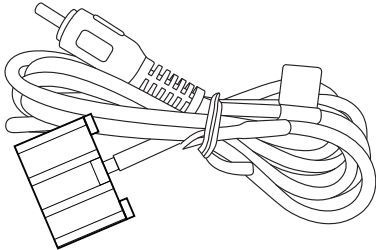
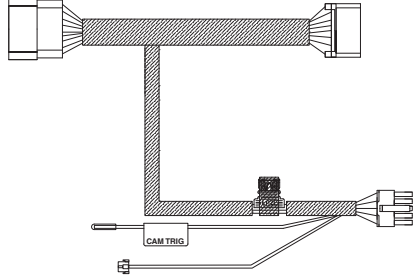

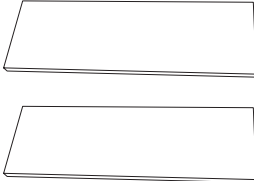


Tools Possibly Required (This Will Vary Depending On The Vehicle)

Panel Removing Tool 	Sockets 	Phillips Screwdriver 
Wire Cutters 	Extension 	Ratchet 
Crimpers 	Pliers 	Torx Screwdriver 

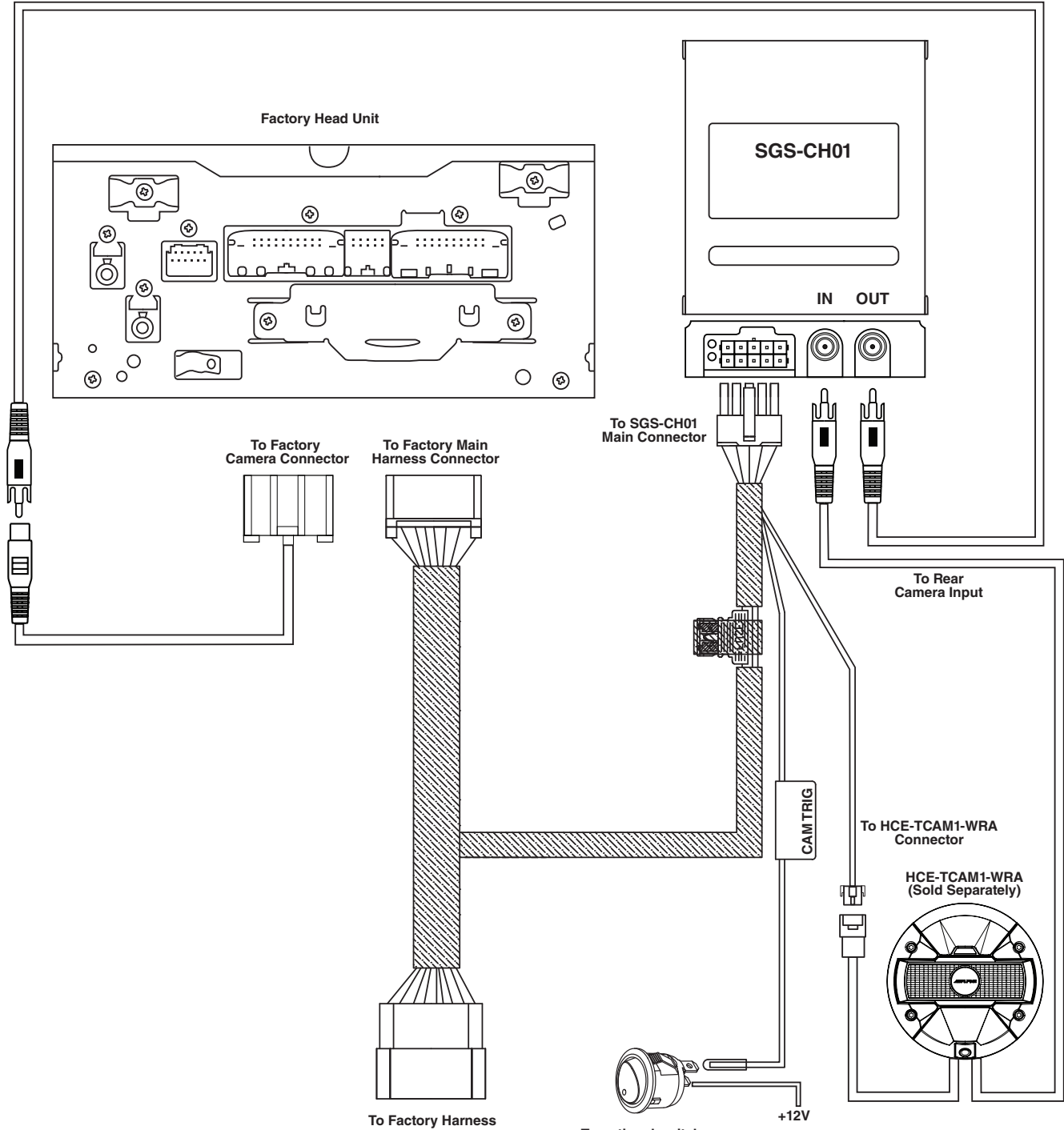
Accessory List

Installation Kit Parts

Interface Module 	Camera Harness 	Main Harness 
Cable Ties x 2 	Velcro x 2 	

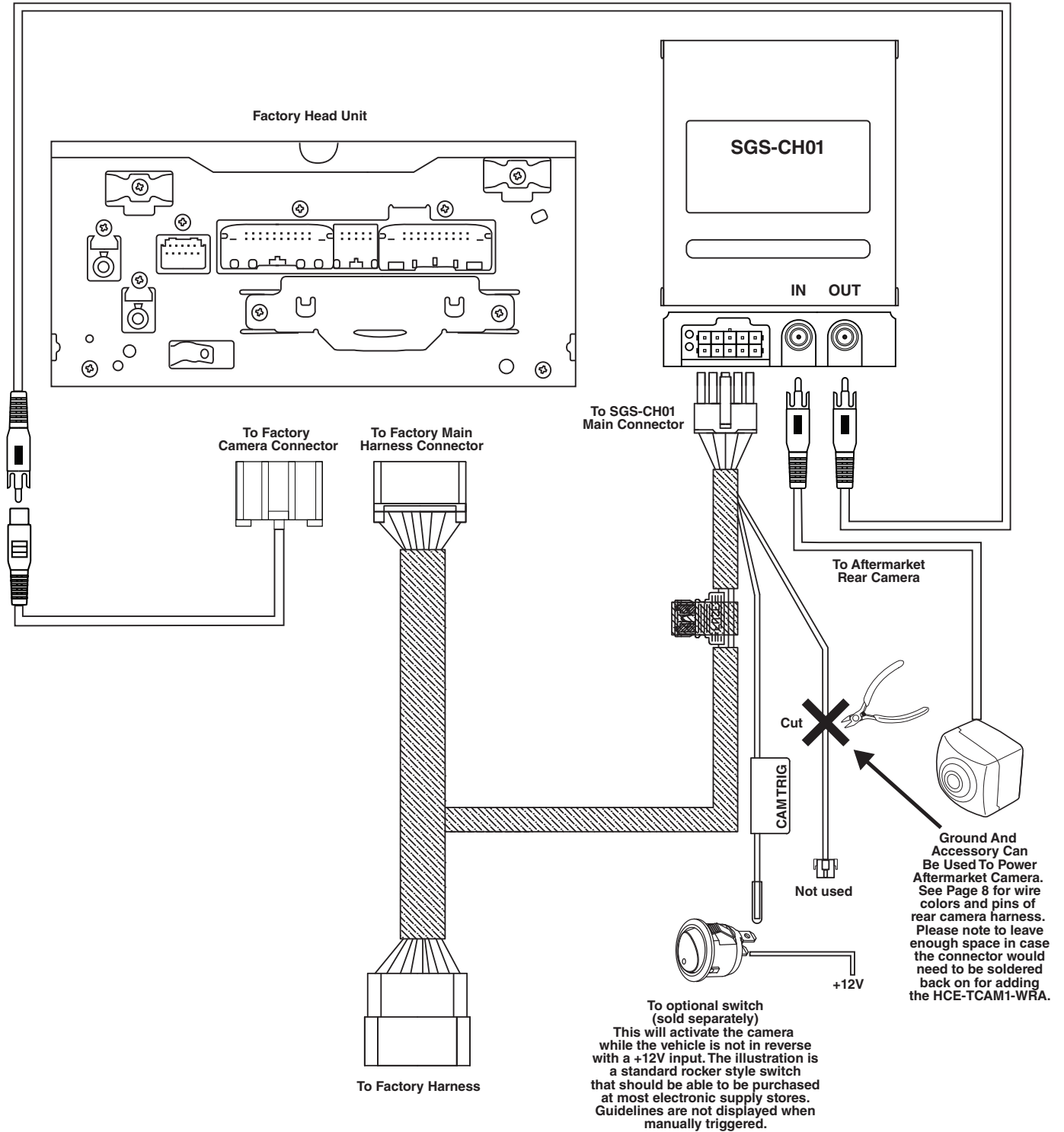
⚠ Warning: Before you begin wiring, remove the ground wire from the negative terminal of the battery. Failing to do so can lead to electric shock, injury or damage to equipment.

SGS-CH01 Wiring Diagram: OEM Head Unit With HCE-TCAM1-WRA

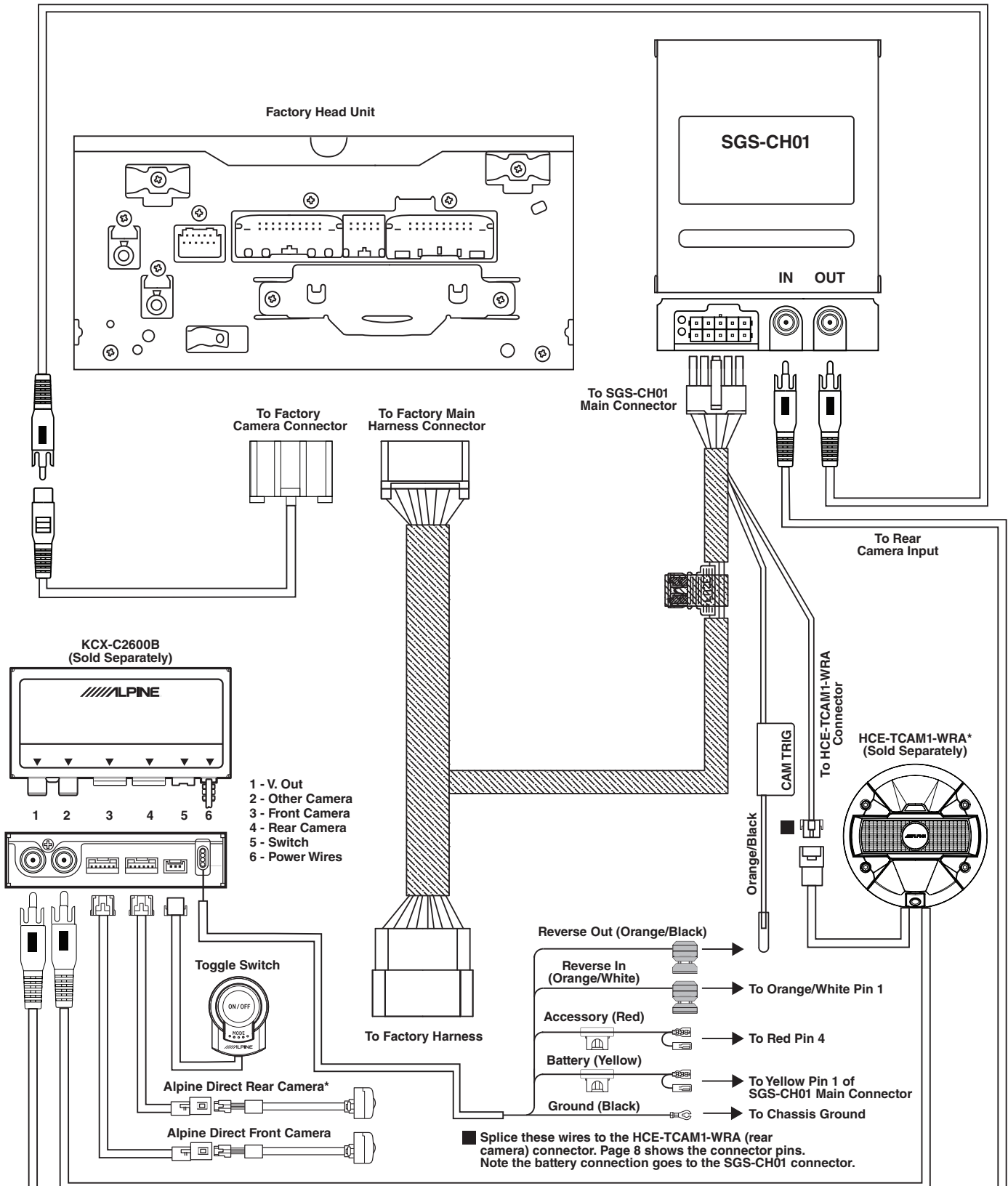


To optional switch
(sold separately)
This will activate the camera while the vehicle is not in reverse with a +12V input. The illustration is a standard rocker style switch that should be able to be purchased at most electronic supply stores. Guidelines are not displayed when manually triggered.

SGS-CH01 Wiring Diagram: OEM Head Unit With Aftermarket Camera

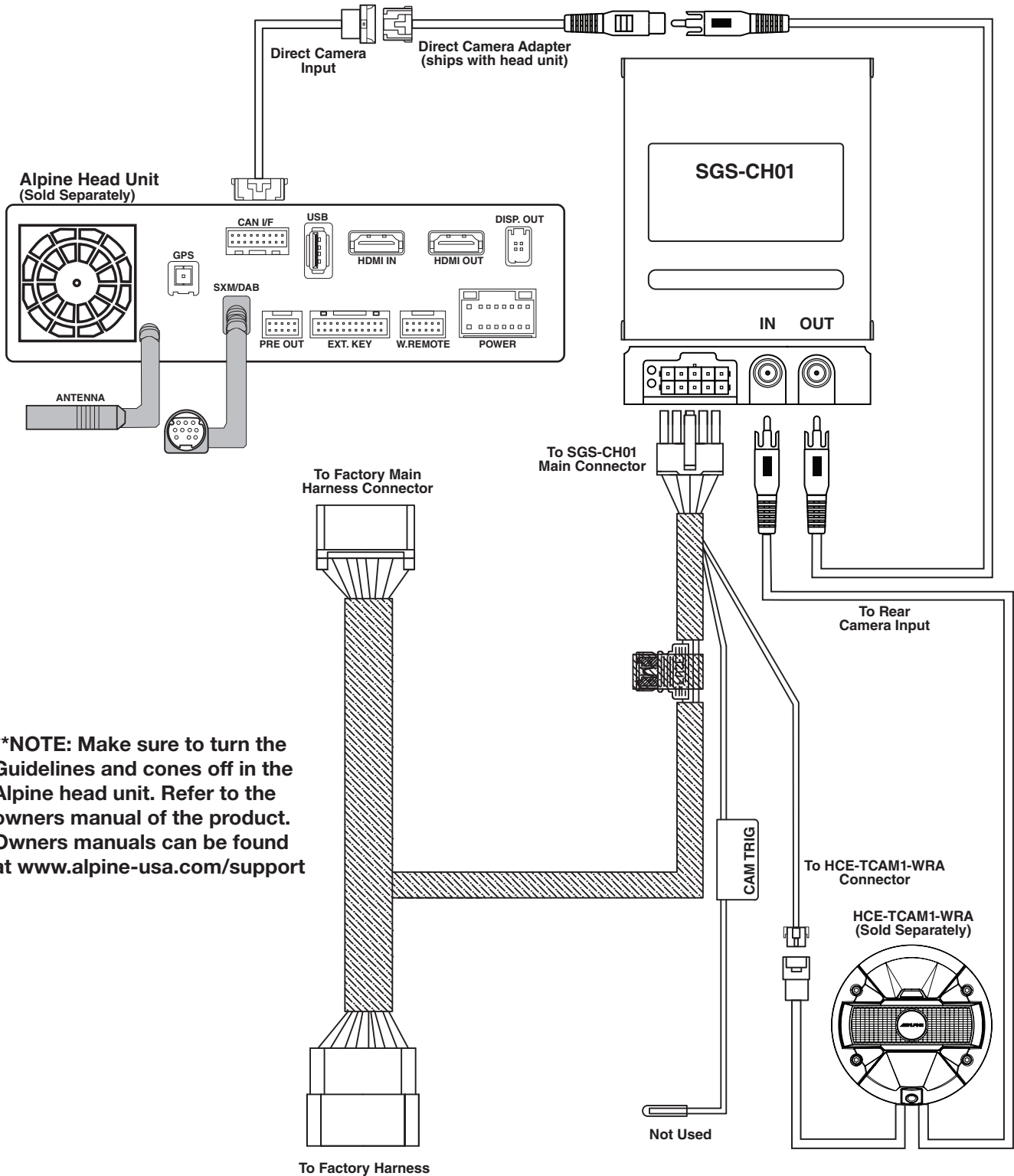


SGS-CH01 Wiring Diagram: OEM Head Unit With KCX-C2600B (Sold Separately)



*Only one rear camera can be used for a total of 2 cameras (one front and one rear). The direct input will always take precedence over the RCA input. The HCE-TCAM1-WRA must be plugged into the RCA input for "Other Camera". A direct camera to RCA adapter will not work.

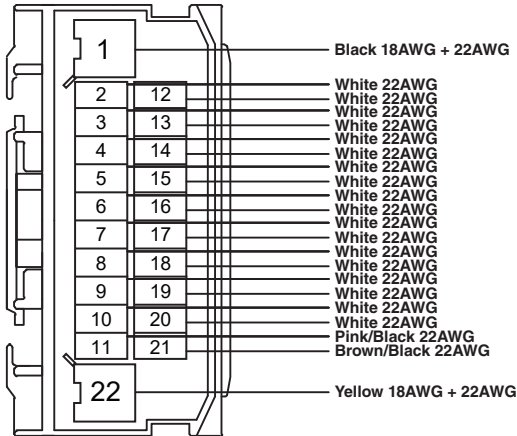
SGS-CH01 Wiring Diagram: Alpine Head Unit With HCE-TCAM1-WRA



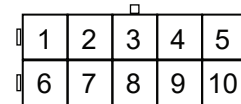
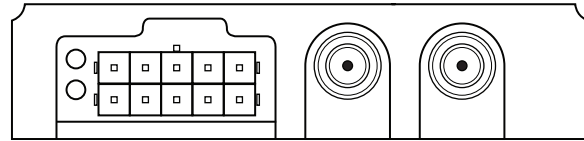
****NOTE:** Make sure to turn the Guidelines and cones off in the Alpine head unit. Refer to the owners manual of the product. Owners manuals can be found at www.alpine-usa.com/support

Wire Harness Pin Outs

Jeep T-Harness Male

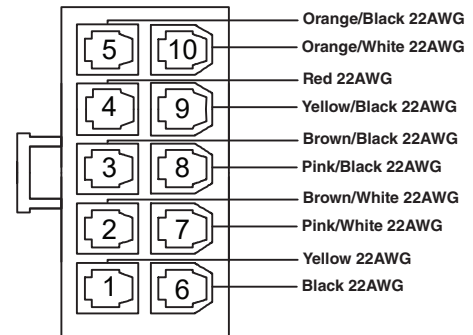
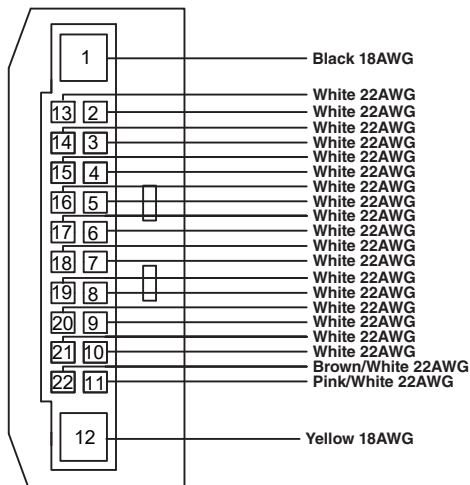


SGS-CH01 Connector

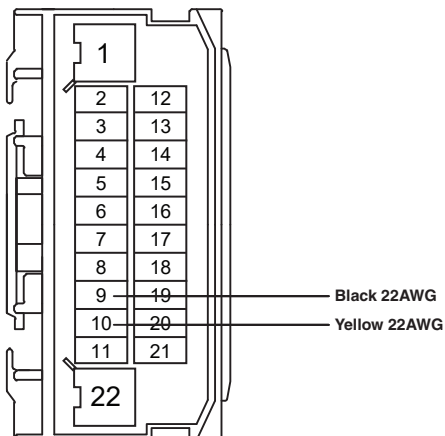


Pin 1	Battery	Pin 6	Ground
Pin 2	CAN-IN +	Pin 7	CAN-IN -
Pin 3	CAN-OUT +	Pin 8	CAN-OUT -
Pin 4	ACC OUT (12V, 3A)	Pin 9	Foot brake Output (12V, 3A)
Pin 5	Camera Trigger	Pin 10	Reverse Light Output (12V, 3A)

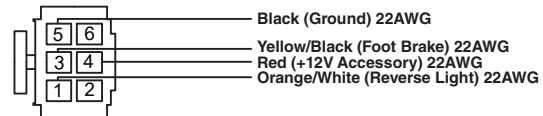
Jeep T-Harness Female



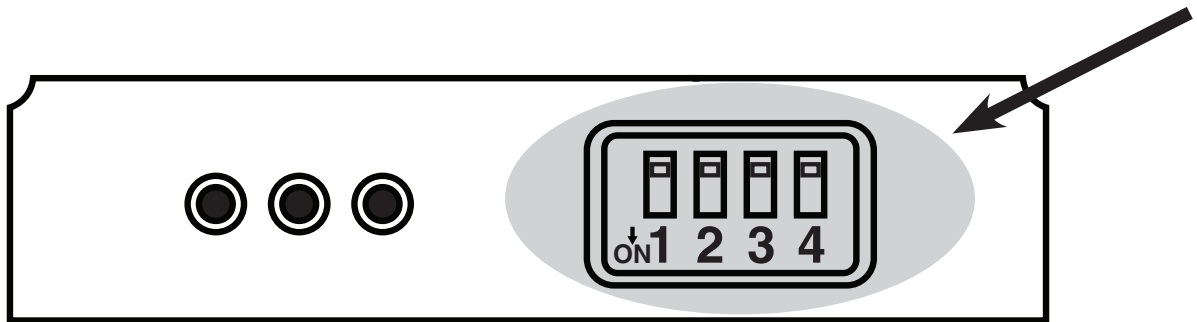
Camera Harness



Rear Camera



Dip Switch Settings

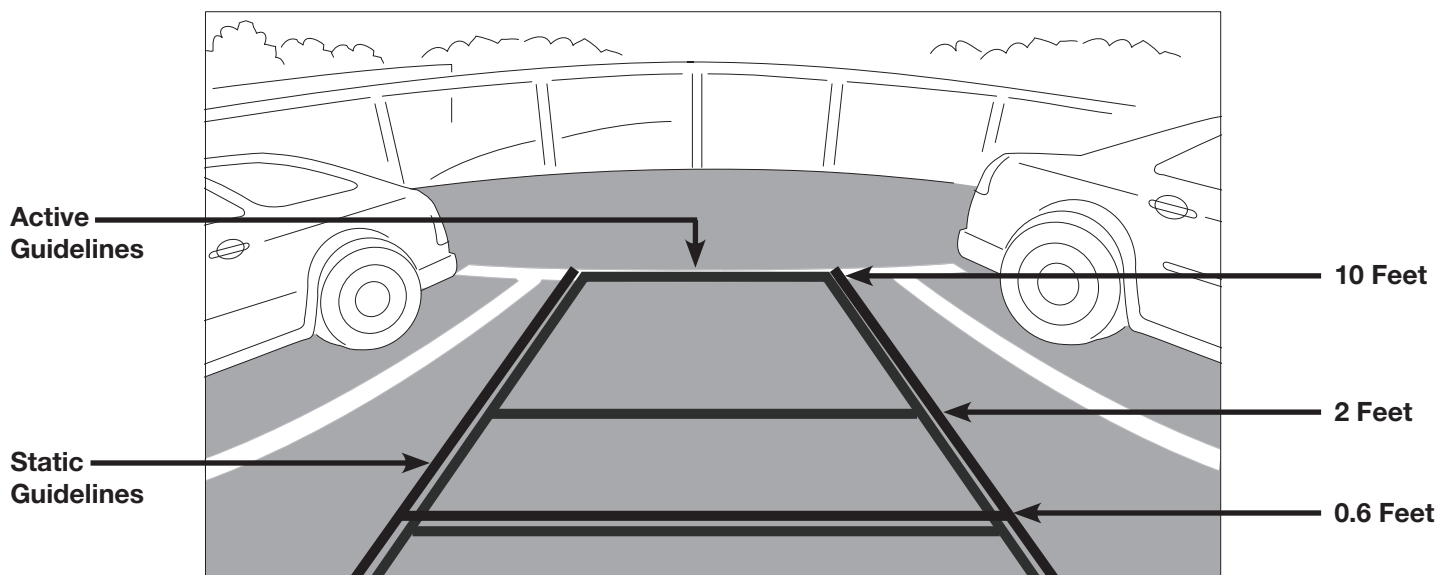


2007-2010 Jeep Wrangler JK- Remove power by unplugging the main connector to the SGS-CH01. To enable static guidelines dip switch 1 must be **DOWN** (On position) and dip switches 2, 3, and 4 must be **UP** (Off position).

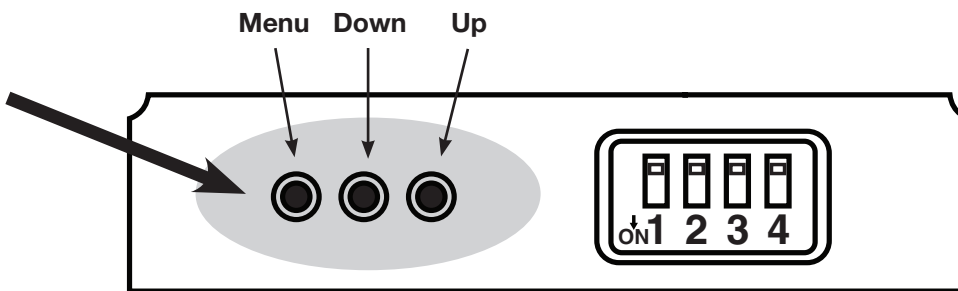
2011-2018 Jeep Wrangler JK- All dip switches must remain **UP** (Off position). If any dip switches are in the wrong position the interface will not function properly.

Product Usage (Active Guidelines)

- 1 Engage vehicle in reverse gear.
- 2 Reverse camera will turn on automatically.
- 3 The Active Guidelines will appear only after the steering wheel is turned and move according to the steering wheel position.
- 4 After shifting out of reverse position the screen on the head unit will show it's normal information.



Using On-Screen Display (OSD) Interface To Turn Off Guidelines



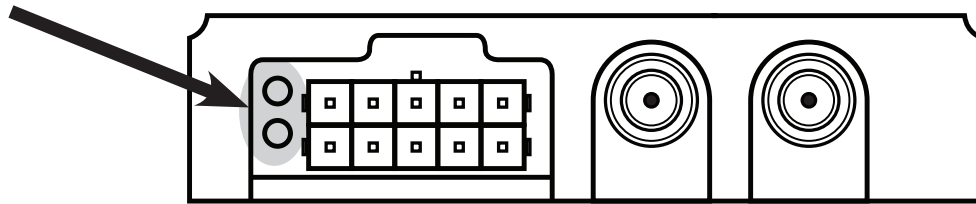
- 1 Engage vehicle in reverse gear.
- 2 The 3 buttons on the side of the module are used to make selections with the On-Screen Display. Press the "Menu" button to bring up the OSD illustrated below.
- 3 Press the "Menu" button again to navigate down to the "Guide-CNTRL" option. After scrolling through the final selection the OSD will close.
- 5 Toggle the function on or off using the "Up" and "Down" keys. Select the preference accordingly.
- 6 Press the "Menu" button to scroll through the rest of the options until the OSD menu disappears from the screen. Disengage the reverse gear, then put the vehicle back in reverse to make sure the changes are working.

Contrast..... 50	
Brightness..... 50	
Saturation..... 62	
Position H..... 9	
Position V..... 11	← Not Used
IR AV1..... DVR	
IR AV2..... None	
Guide-L..... 60	
Guide-R..... 3	
Guide-CNTRL.. ON	← Toggle between "ON" & "OFF" to turn the guidelines ON or OFF.
H-Size..... 16	
V-Size..... 16	← Not Used

****NOTE:** Make sure to set the Guidelines to be ON or OFF before putting the vehicle dash back together as this option can only be changed from the OSD menu.

If any of the other parameters are selected and changed it will not change the parameter in the system.

LED Functions



- 1 The top LED will flash when CAN data is being read by the SGS-CH01
- 2 The bottom LED will remain on solid when vehicle CAN data is active. It will turn off when the vehicle CAN data turns off.

Specifications

Spec	Parameter
Front Cam Video, Reverse Cam Video	0.5 - 2Vpp with 75 ohm impedance
Reverse Control Wire	>5V will force into camera mode
Normal Power Consumption	4.32W (0.36A @ 12V)
Standby Current Draw	<20mA
Reverse Trigger Threshold	>5V Trigger
Working Temperature	-40C to +85C
Dimensions	10.5 x 8.5 x 2.2cm

Troubleshooting

Symptom	Possible Cause	Remedy
1 Headunit only shows guidelines in reverse.	The aftermarket camera is not outputting a picture.	Check to make sure the camera is being powered on with a digital multimeter.
		Test camera with a different display. Plug the RCA of the camera into a display with a RCA input.
		Alternatively, you can use a different RCA source into the RCA input. For example, an old DVD player with a RCA output would show a picture with the vehicle in reverse. This will eliminate if the issue is with the head unit or the camera installation.
2 Nothing happens when vehicle is in reverse	The SGS-CH01 is not installed properly.	Make sure all of the dip switches are in the off position.
		There is a harness that was not plugged in correctly. Using page 5 or 6 of this manual check each connection to ensure every harness is plugged in.
3 Static Guidelines not showing	The #1 dip switch was not moved down as shown on page 9.	Remove power and move dip switch position as shown on page 9.