NAV TOOL

NAVSGF3.0-HDMI INSTALLATION MANUAL

STOP

IMPORTANT
Please Read
Before You Continue

DOWNLOAD THIS MANUAL IN COLOR WWW.NAVTOOL.COM/MANUALS/NAVSGF3.PDF

Rev. 5.0 060216

PROUDLY MADE IN USA

COMPATIBLE PLUG & PLAY WIRING HARNESSES

HAGRY

Tech Support: 877-NAV-TOOL WWW.NAVTOOL.COM

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IMPORTANT WARNING

This product includes instructions for installation which must be carefully followed. The instructions are worded in such a manner to assume that the installer is capable of completing these type of electronic installations. If you are unclear as to what you are instructed to do or believe that you do not understand the instructions so as to properly and safely complete the installation you should consult a technician who does have this knowledge and understanding.

Failure to follow these instructions carefully and to install the interface as described could cause harm to the vehicle or to safety systems on the vehicle. Interference with certain safety systems could cause harm to persons as well. If you have any questions in this regard please call the NavTool Help line at 1-877-628-8665
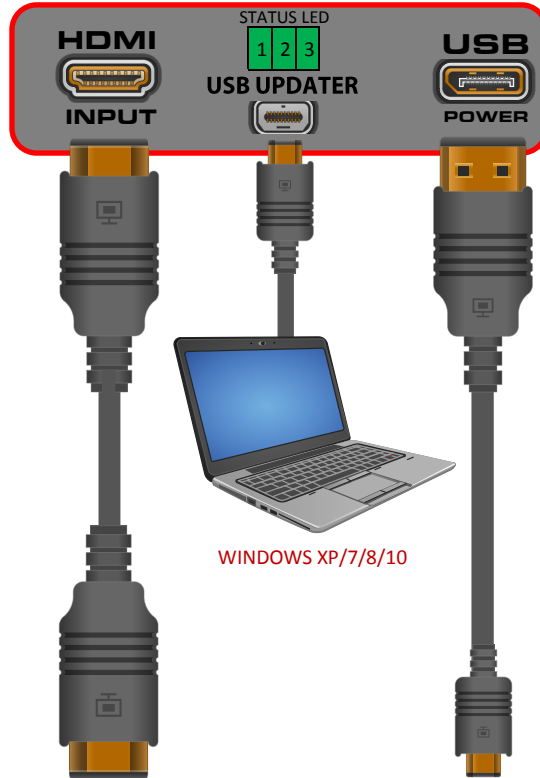
PRECAUTIONS: Please read before you start the installation.

- Please study these instructions carefully before installing NavTool interface.

- Many new vehicles use low-voltage or data-bus systems that can be damaged by test lights and logic probes. Test all circuits with a digital multi-meter before making connections.

- If installing an external push button switch, check with the customer about where to install the switch.

- To avoid accidental battery drainage turn off the interior lights or re-move the dome light fuse.

- Roll down a window to avoid being locked out of the car.

- Use of this product in a manner different to its intended way of opera-tion may result in property damage, personal injury, or death.

- Set Parking brake.

- Remove the negative battery cable.

- Protect fenders before starting.

- Using protective blankets cover front seats, interior of the vehicle and center console.

- Always install a fuse 6-12 inches away from NavTool interface, 2 amp fuse should be used.

- Always secure NavTool interface with Velcro or double side tape to prevent rattling inside of the interface.

- When securing NavTool interface make sure that panels can be closed back easily.

- Use electrical tape on all you connections and splices, do not leave any exposed connections.

- Route all wires along factory harnesses, try not to drill or make any unnecessary holes.

- Make sure you are not connecting to any data wires; always check your connections with a multi-meter.

- Always use help of a professional installer to prevent any damage to the vehicle or NavTool interface.

NAVTOOL SIDE A CONNECTION DIAGRAM
FOR DETAILED DESCRIPTION PLEASE SEE PAGE 6

PLEASE NOTE: HDMI AND USB CABLES ARE SOLD SEPARATELY

HDMI
INPUT

STATUS LED
1 2 3
USB UPDATER

USB
POWER

WINDOWS XP/7/8/10

iPhone lightning to HDMI

dash
connect+

HDMI
OUTPUT

USB
CHARGER

Android Miracast wireless adapter
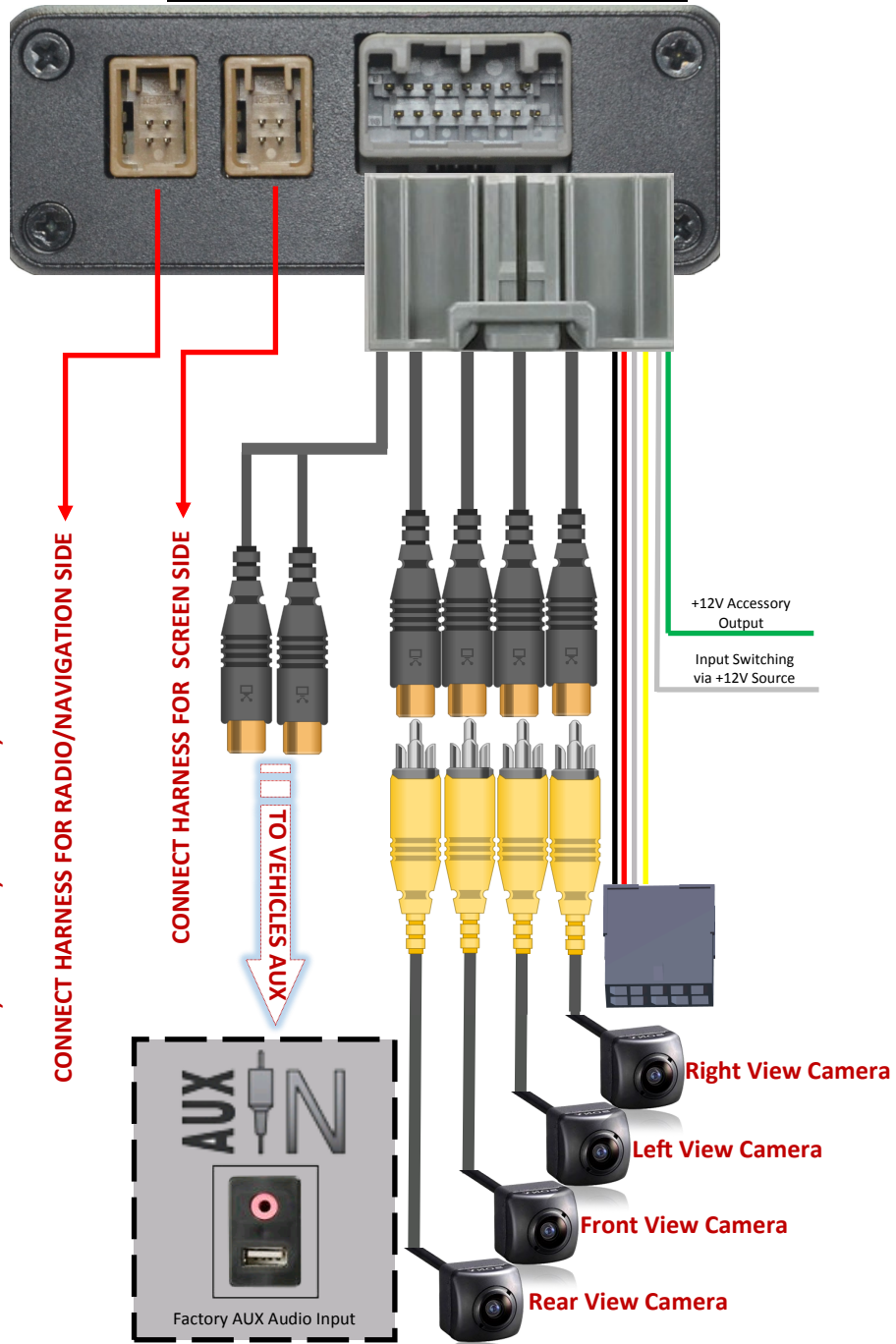
EXAMPLE: NETGEAR PTV3000

POWER   HDMI   RESET

OTHER DEVICES YOU CAN CONNECT TO
NAVSGF3.0-HDMI

1. Android phone hardwired via MHL

2. Android phone hardwired via HDMI

3. Apple TV for limitless wireless iOS mirroring

4. Laptop Computer

5. Android/windows USB/HDMI stick

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![NAVTOOL]

NAVTOOL SIDE B CONNECTION DIAGRAM
FOR DETAILED DESCRIPTION PLEASE SEE PAGE 7

PLEASE NOTE: AUX CABLE, CAMERAS, RSE SCREEN, AUX AUDIO ADAPTER AND FM MODULATORS ARE SOLD SEPARATELY

CONNECT HARNESS FOR RADIO/NAVIGATION SIDE

CONNECT HARNESS FOR SCREEN SIDE

TO VEHICLES AUX

+12V Accessory Output

Input Switching via +12V Source

Right View Camera

Left View Camera

Front View Camera

Rear View Camera

AUX IN

Factory AUX Audio Input

5

WIRING LEGEND & DESCRIPTION—SIDE A

See page 4 for the diagram.

HDMI Input: Connect any video source that has HDMI output, most popular application is smartphone/tablet connection.

All iOS Apple device will require lightning to HDMI adapter made by Apple.

Android smartphone video output options: check your smartphones website for a list of available options for your specific phone model.

-Micro HDMI or MHL adapters allows for wired MIRRORING of the screen.

-Miracast receivers - Miracast is a wireless screen-mirroring protocol, all phones and tablets with Android 4.2 Jelly Bean or later have access to Miracast.

Some of the best wireless Miracast receivers we tested are NETGEAR Push2TV and Microsoft Wireless Display Adapter.

WHEN PLACING NAVSGF3.0-HDMI BEHIND PANELS, AVOID ANY PRESSURE APPLIED ON THE HDMI CONNECTOR. IT MAY BREAK OFF THE BOARD IF TOO MUCH FORCE IS APPLIED.

Micro USB update port: see page 8-11 for possible configuration of features and settings that may need to be adjusted prior to interface installation.

USB power/charger port: provides 2 AMP power output. Output is only activated when HDMI input is activated.

STATUS LED:

1st LED:

green LED = HDMI link established.

Blinking Red LED = HDMI input shutting down.

LED off = HDMI source not connected .

2nd LED:

green LED = accessory output is on.

Red LED = accessory output is short to ground or overloaded.

3rd LED:

Blinking green LED = CAN BUS/GM LAN DATA communication established OK.

Blinking Red LED = entering sleep mode.

Solid Red LED = return for repair.

WIRING LEGEND & DESCRIPTION—SIDE B

See page 5 for the diagram.

Green Wire: 1 AMP +12V Accessory power output, can be used to power on cameras or any other device that requires accessory power. Must use relay if current draw of connected devices combined more than 1 AMP.

White Wire: +12V trigger video input switching via external push button, push button requires +12Volt Source. Use normally open push button, connect one end of push button to a +12V accessory source and the other end to white wire of the video interface.

Rear Camera/Video Input 1: Composite video input for an aftermarket rear view camera any external video source. Aftermarket camera turns on automatically in reverse or can be turned on manually at anytime. If vehicles is equipped with factory rear view camera , no change is operation will occur.

(We recommend asking your customer if they plan to use camera while driving, in this event you will connect the camera to a +12V accessory power instead of +12V reverse trigger. Factory camera can be routed via this interface to allow customer watching camera while driving)

Front Camera/Video Input 2: Composite video input for an aftermarket front camera or any external video source. Front camera is activated after reverse gear and stay on the screen up to the speed of 10MP/H. Front camera can be turned on manually at anytime.

(If installing front camera make sure that the camera doesn't not have reverse image enabled, otherwise left and right view one the screen will be reversed.)

Left Lane Watch Camera/Video Input 3: Composite video input for an aftermarket left lane watch camera or any external video source. Left lane watch camera is automatically activated when left turn signal is activated, or can be manually turned on at anytime. Left lane watch camera can be programmed to activate with a left turn signal at any speed or only at speeds above 15MP/H or above.

Right Lane Watch Camera/Video Input 4: Composite video input for an aftermarket right lane watch camera or any external video source. Right lane watch camera is automatically activated when right turn signal is activated, or can be manually turned on at anytime. Right lane watch camera can be programmed to activate with a right turn signal at any speed or only at speeds above 15MP/H or above.

Stereo Audio Output: Outputs audio signal of the connected HDMI video sources to the vehicle AUX audio input or FM modulator.

INTERFACE PROGRAMMING

Programming of the interface required prior to the installation.

INSTALL VEHICLE SPECIFIC SOFTWARE AND ADJUST SETTING

Download and install NavTool online software updater on your widows based computer. Download from www.NavTool.com

NavTool online updater is only compatible with Microsoft Windows based PC.

After installation is complete go to your start menu locate the folder with NavTool software updater and run the program.

We have built Team Viewer feature and live chat for tech support in case you have any question during update and require immediate support.

On the bottom left corner of the NavTool software updater you will find a button for remote support.

Click remote support button and TeamViewer will open

It will generate one time ID and Password (ID and password changes every time program is open)

Provide us with this information and we will be able to help you remotely if such help is required

Allow Remote Control

In this area, you will find your TeamViewer ID and your temporary password. If you share this information with your partner, he or she will be able to connect to your computer. When you click inside the Password field, a context menu appears, allowing you to change the temporary password or copy it to the clipboard (Windows copy & paste function). You can also enter a permanent password here.

The password is one time use only, once initiated session is   disconnected password is changed. We will never be able to access your computer without you providing us password first.

How can I restrict access for TeamViewer connections to my computer?

In general, **it is only possible to access your computer if you share your TeamViewer ID and the associated *random* password** with another person. Without knowing the ID and password, it is not possible to access your computer. Do not share your ID and password with a person you do not trust.
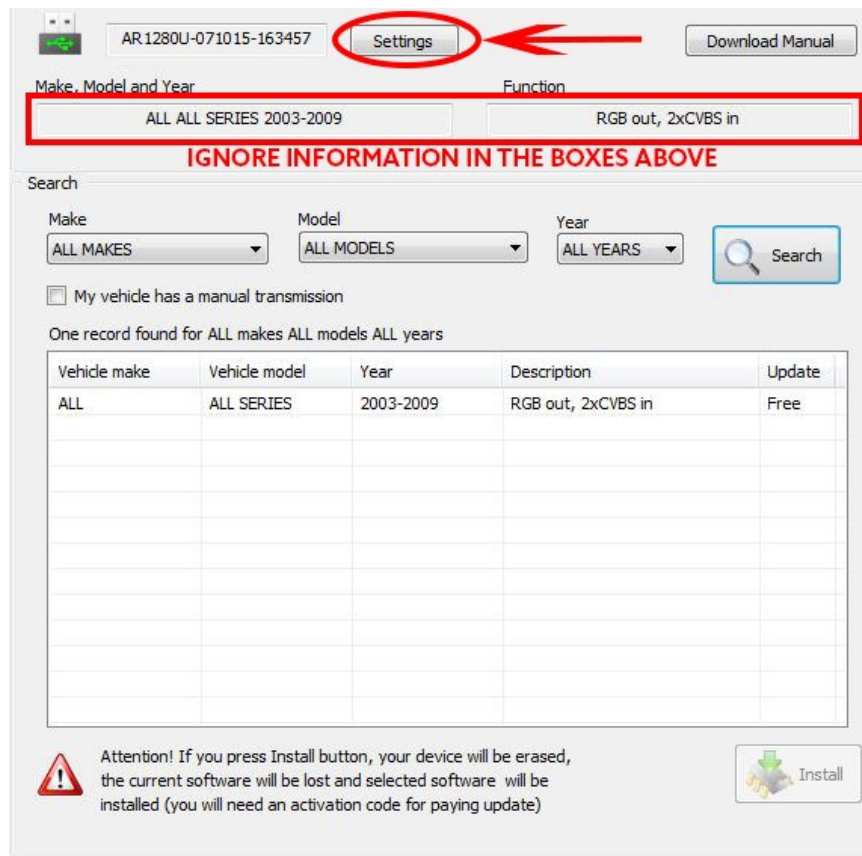
DEVICE PROGRAMMING

Connect NAVSGF3.0-HDMI to your PC with micro USB cable. (USB cable not supplied, must be purchased separately)

Step One: Select make model year or click search to show all vehicles.

Step Two: Select to highlight required vehicle software for installation.
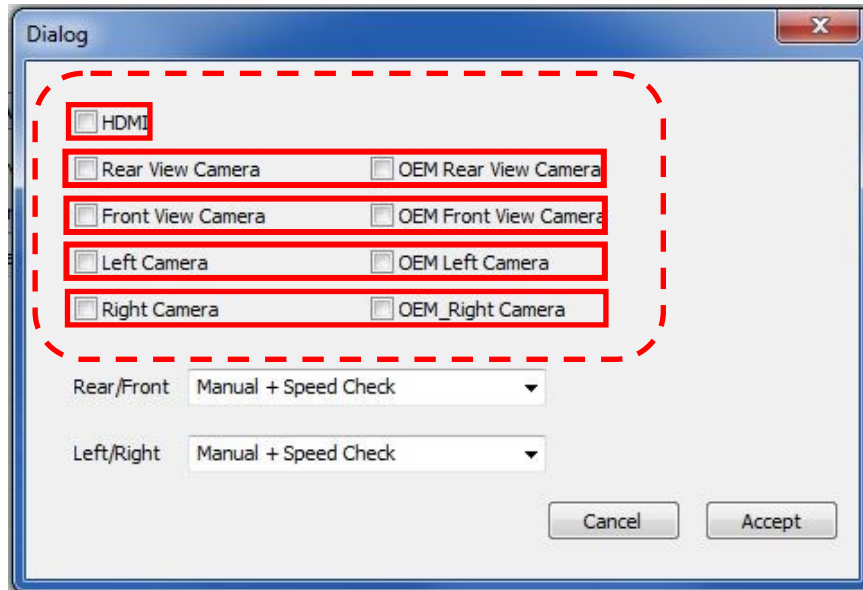
Step Three: Click install.

Fig.5

Step Four: Adjust Device Settings—please see page 10 for details.

Please see fig .6 on page 10-12

DEVICE SETTINGS

Please set check mark next to feature required to be turned ON

HDMI: Place check mark to turn on HDMI input.

Rear View Camera:

Select one:

Rear View Camera: Place check mark if installing aftermarket rear camera. Aftermarket camera connected to the rear camera video input will turn on automatically in reverse.

OEM Rear View Camera: Place check mark if the vehicle is equipped with factory rear view camera. Factory installed rear view camera will turn on automatically in reverse.

Select both:

If vehicle is equipped with a factory rear view camera and a second rear view camera or a DVD player is being installed, place both check marks next to the Rear View Camera and OEM Rear View Camera. When both check marks are set, when vehicle is shifted in reverse factory rear view camera will display on the screen , video source connected to the rear view camera RCA input can be turned on manually at anytime.

Front View Camera:

Select one:

Front View Camera: Place check mark if installing aftermarket front camera. Aftermarket camera connected to the front camera video input will turn on automatically in reverse.

OEM Front View Camera: Place check mark if the vehicle is equipped with factory rear view camera. Factory installed rear view camera will turn on automatically in reverse.

Select both:

If vehicle is equipped with a factory front view camera and a second front view camera or a DVD player is being installed, place both check marks next to the Front View Camera and OEM Front View Camera. When both check marks are set, when vehicle is shifted in Drive factory front view camera will display on the screen , video source connected to the front view camera RCA input can be turned on manually at anytime.

Left Lane Watch Camera:

Select one:

Left Lane Watch Camera: Place check mark if installing aftermarket left lane watch camera. Aftermarket camera connected to the left lane watch camera video input, will turn on automatically with left turn signal.

OEM Left Lane Watch Camera: Place check mark if the vehicle is equipped with factory left lane watch camera. Factory installed left lane watch camera will turn on automatically with left turn signal.

Right Lane Watch Camera:

Select one:

Right Lane Watch Camera: Place check mark if installing aftermarket right lane watch camera. Aftermarket camera connected to the right lane watch camera video input, will turn on automatically with left turn signal.

OEM Left Lane Watch Camera: Place check mark if the vehicle is equipped with factory left lane watch camera. Factory installed right lane watch camera will turn on automatically with right turn signal.

DEVICE SETTINGS

| Rear/Front | Manual + Speed Check | ▼ |
| Left/Right | Manual + Speed Check | ▼ |

Rear/Front View Camera:

Select one from drop down menu:

Manual:

Rear camera turns on automatically in reverse or can be turned on manually by the user at anytime (manual camera activation is only possible with aftermarket camera, or if factory camera is re-routed via the interface).

Front camera can be only turned on manually by the user at anytime.

Manual + Speed check:

Rear camera turns on automatically in reverse or can be turned on manually by the user at anytime (manual camera activation is only possible with aftermarket camera, or if factory camera is re-routed via the interface).

Front camera is activated after vehicle is shifter in Drive out of Reverse and stay on the screen up to 10 MP/H.

Front camera can be turned on manually by user at anytime.

Left/Right Lane Watch Camera:

Select one from drop down menu:

Manual:

Left and Right Lane watch cameras can be only turned on manually by the user at anytime.

Manual + Speed check:

Left and Right Lane watch cameras turn on automatically when turn signal are activated and vehicle is moving at speed of above 15 MP/H.

Left and Right Lane watch cameras can be turned on manually by the user at anytime.

Manual + W/O Speed check:

Left and Right Lane watch cameras turn on automatically when turn signal are activated at any speed

Left and Right Lane watch cameras can be turned on manually by the user at anytime.

What is the difference between Manual + Speed check & Manual + W/O Speed check?

The only difference is that "

Manual + Speed check : cameras turn on automatically with turn signals only when traveling at **speeds of 15 MP/H**

Manual + W/O Speed check: cameras turn on automatically with turn signals only when traveling at **any speed**
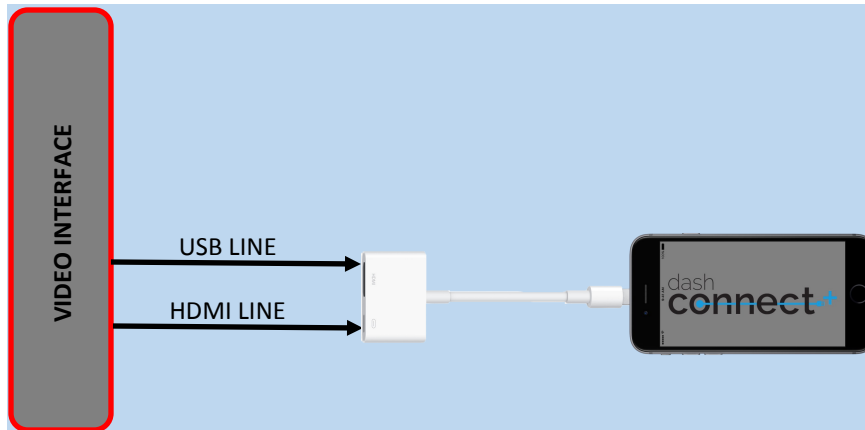
TIPS & TRICKS

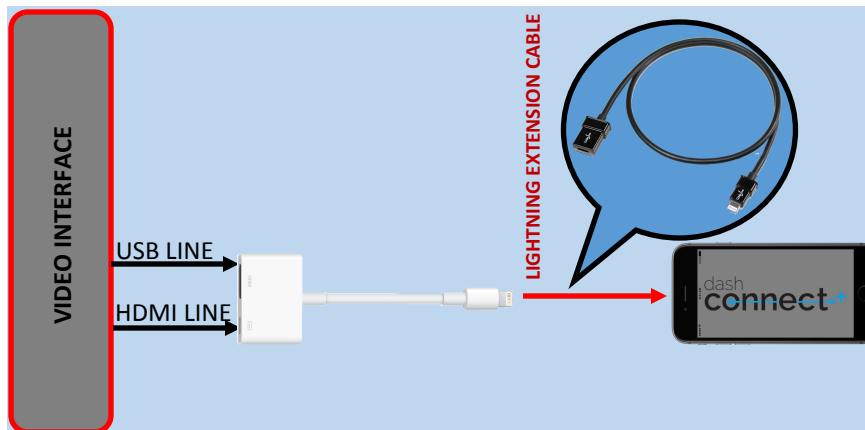**When installing lighting to HDMI Apple iPhone adapter:**

Some customer prefer not to have bulky lightning to HDMI adapter plugged in directly into their phone.

Instead you can have lightning to HDMI adapter hidden behind the panels, and only have lightning connector connected into the phone connector.

Typical installation:

Recommended Installation:

FAQ/TROUBLESHOOTING

Q: Image of factory information/navigation screen is shown perfectly, when switching to video input of NAVSGF3.0-HDMI video image is distorted?

A: Please make sure all your components are NTSC standard.

Q: When HDMI input is selected image on the screen scrolls?

A: This is normal, without any source connected to HDMI input image will scroll.

Q: When pressing the push button switch nothing happens on the screen?

A: Make sure that one end of the push button switch is connected to NAVSGF3.0-HDMI gray wire and other end of the push button switch is connected to a +12V accessory power source.

Q: When I try to use the aftermarket rear view camera while driving, the screen goes blank and no camera image is shown?

A: Make sure the camera is connected to Video Input 2, and camera power is connected to +12 volt accessory source.

Q: When I try to use OEM camera while driving screen goes blank but no camera is showing?

A: Make sure the camera is connected to +12V Accessory power and factory camera is re-routed via the interface

Q: When I try using push button or reverse gear nothing happens on the screen?

A: Before starting any work check installation location of wiring harness, when using plug and play harness be careful as many connectors in the vehicle may repeats through-out the vehicle. Connecting plug and play harness in the wrong location will result in damage to vehicle and the video interface.

Q: Customer came back complaining that the battery has drained overnight?

A: Interface is specifically designed to shut off when vehicle enters sleep mode, close all doors and observe all LED's on the interfaces shut off, if all LED lights are off battery drain is caused by a different components installed in a vehicle.

QUICK START GUIDE

Thank you for purchasing NavTool video Interface NAVSGF3.0-HDMI

Push button operation: When you first start the vehicle, color/ navigation screen will display factory image.

- First press of the push button switch will activate HDMI input.
- Every press of the push button after that will cycle between HDMI, Video 1, Video 2, Video 3 and Video 4 inputs.

Press and hold the push button for 2 second or longer to return back to the factory display image.

HDMI Input: If you have connected smartphone tablet or any other HDMI video source, you can activate HDMI video input by pressing and releasing push button until your HDMI source is displayed on vehicles screen.

Rear Camera/Video Input 1: If you have installed an aftermarket back-up camera, your aftermarket back-up camera will turn on automatically in reverse.

Front Camera/Video Input 2: If you have installed front view camera , you can activate video 1 by pressing and releasing the push button switch until front camera or navigation is displayed on vehicles screen. Front camera will stay on the screen up to 10 MP/H when properly set.

Left Lane Watch Camera/Video Input 3: If you have installed left lane watch camera , you can activate video 3 by pressing and releasing the push button switch until front camera is displayed on vehicles screen. Left lane watch camera will stay on the screen while turn signal is activated.

Right Lane Watch Camera/Video Input 4: If you have installed right lane watch camera , you can activate video 4 by pressing and releasing the push button switch until front camera is displayed on vehicles screen. Right lane watch camera will stay on the screen while turn signal is activated.

You can use any aftermarket camera while in drive, press and release the push button switch until camera you want to see is displayed on vehicles screen.

(NAVSGF3.0-HDMI interface and Rear-View Camera in-drive must be configured by your installer for this feature to operate as described above)

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