

## CS9100 Installation in Toyota & Lexus Cars (Produced After 2005) Using the NAV2NAV Adaptor

**⚠️ Disconnect the negative terminal of the accumulator before installing the CS9100 to avoid errors in the ECU. In order to install CS9100, remove the original navigation system.**

Remove the original navigation system (**Fig. 1, 2**). You can find it at one of the following locations:

- Under the front passenger seat;
- In the glove compartment (top right corner);
- In the trunk (e.g. in the Lexus RX series);
- Below the multi-display.

In some cases the original navigation system will differ from the illustrations below. If the original navigation system connectors don't fit, consult the service manual for your car and connect the device according to the pin layout, or contact **Car Solutions** Technical Support.



Figure 1



Figure 2

Before you connect the device, be sure to activate the appropriate protocol of the **NAV2NAV** adaptor using the **DIP** switches (**Fig. 3, 4**).



Figure 3



Figure 4

Set the **DIP** switches (**Fig. 4**) on your **NAV2NAV** adaptor according to the following table 1.

Table 1

DIP Switch #	1	2	3	4	5	6	7	8
Switch Setting	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF

Connect the **CS9100** navigation system to the **NAV2NAV** adapter (**Fig. 3**), to the GVIF interface, and to the original navigation system connectors' wiring\* (**Fig. 5**), according to **Table 2** or the connection diagram (**Fig. 9**).

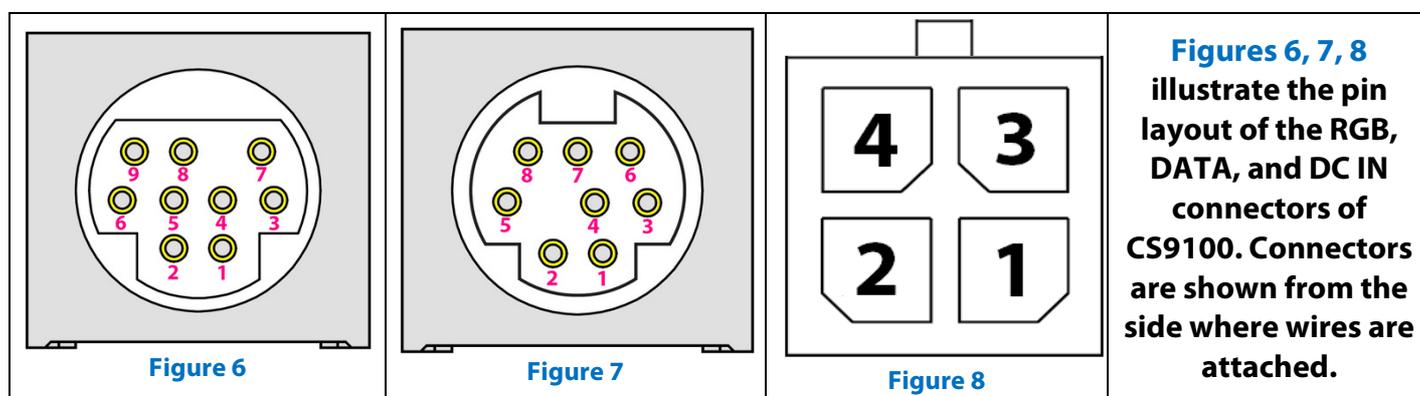
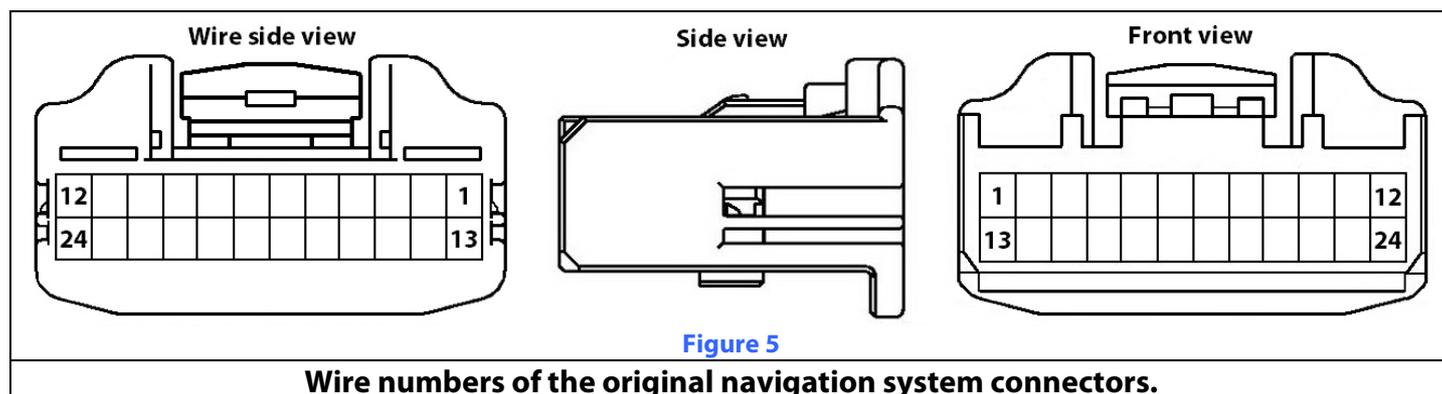
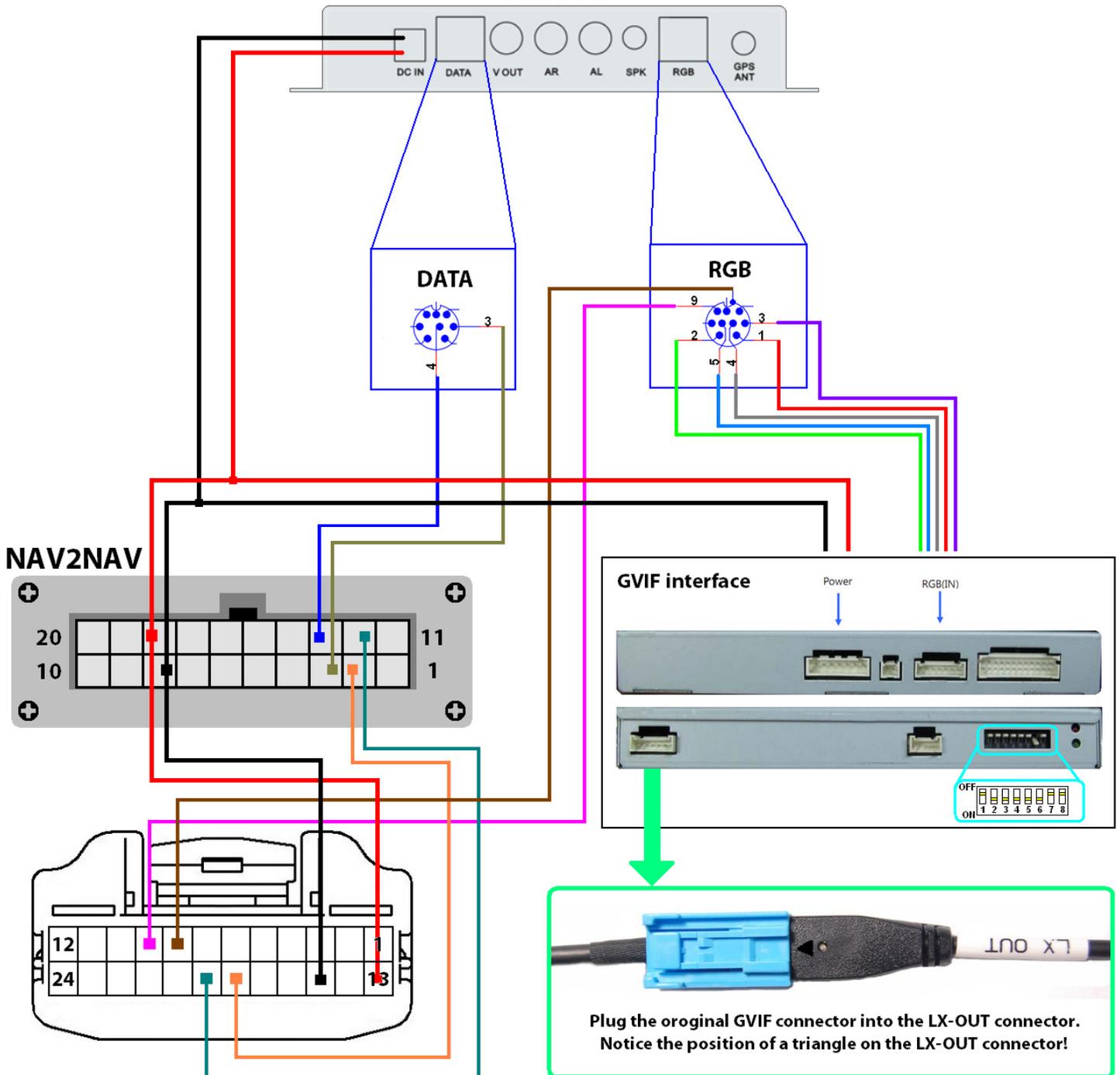


Table 2

Contact purpose	GVIF interface <i>(not included in CS9100 package)</i>	Original navigation system connector <b>(Fig. 5)</b>	NAV2NAV adaptor connector <b>(Fig. 3)</b>	CS9100 connectors <b>(Fig. 6, 7, 8)</b>
<i>Tx (from CS9100)</i>			3	3 <b>(Fig. 7)</b> White
<i>Rx (from CS9100)</i>			13	4 <b>(Fig. 7)</b> Brown
<i>LAN Tx-</i>		18	2	
<i>LAN Tx+</i>		19	12	
<b>ACC</b>	Red wire (Power)	13	18	4 <b>(Fig. 8)</b> Red
<b>GND</b>	Black wire (Power)	15	8	2 <b>(Fig. 8)</b> Black
<b>AUX+</b>		9		9 <b>(Fig. 6)</b> Brown
<b>AUX-</b>		8		Shield <b>(Fig. 6)</b> Black
<b>RED</b>	Red wire (RGB IN)			1 <b>(Fig. 6)</b> Pink
<b>GREEN</b>	Green wire (RGB IN)			2 <b>(Fig. 6)</b> Green
<b>BLUE</b>	Blue wire (RGB IN)			5 <b>(Fig. 6)</b> Yellow
<b>SYNCHRO</b>	White wire (RGB IN)			4 <b>(Fig. 6)</b> Gray
<b>VGND</b>	Black wire (RGB IN)			3 <b>(Fig. 6)</b> Black

### CS9100

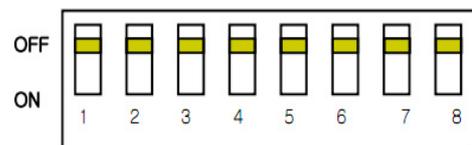


**Figure 9. The wire connection diagram for CS9100, NAV2NAV adapter and GVIF video interface**

Be sure to properly set the DIP switches (**Fig. 10**) of the GVIF Interface depending on the added equipment and originally installed equipment. **Table 3** explains the meaning of the DIP switches. For more information download a detailed manual from our website.

**Table 3**

DIP Switch #	Function in ON position
1	RGB-in disabled ( <b>OFF</b> – enabled)
2	AV1-in disabled ( <b>OFF</b> – enabled)
3	AV2-in disabled ( <b>OFF</b> – enabled)
4	AV3-in disabled ( <b>OFF</b> – enabled)
5	Car make: <b>ON</b> – Lexus, <b>OFF</b> – LandRover
6	Original navigation system is in use
7	External rear view camera is in use
8	Switch not in use



**Figure 10**

**⚠ The wire coloring on the diagram is used for illustration purpose only, and does not match the actual coloring of CS9100 wires.**

## How to install the GPS antenna

Removal of the original navigation system allows you to connect **CS9100** to the car's original GPS antenna. The best way to do this is to desolder the plastic socket (**Fig. 11**) from the original wiring and solder a 10cm coaxial cable fitted with a SMA Male connector (**Fig. 12**) with the wiring. The **CS9100** navigation system is fully compatible with the original antenna in all specifications.

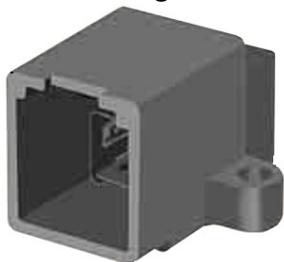


Figure 9



Figure 10

On the other hand, you can use **CS9100** with the GPS antenna that comes with it. For better signal pickup, install the new GPS antenna in the rear spoiler (**Fig. 13**) (cable length allows for such installation). If there is no rear spoiler, a fin-shaped antenna (**Fig.14**) can be used (it is not included with **CS9100**). You can also install the **CS9100** antenna (**Fig. 15**) under the windshield, over or under the plastic panel (**Fig. 13**).

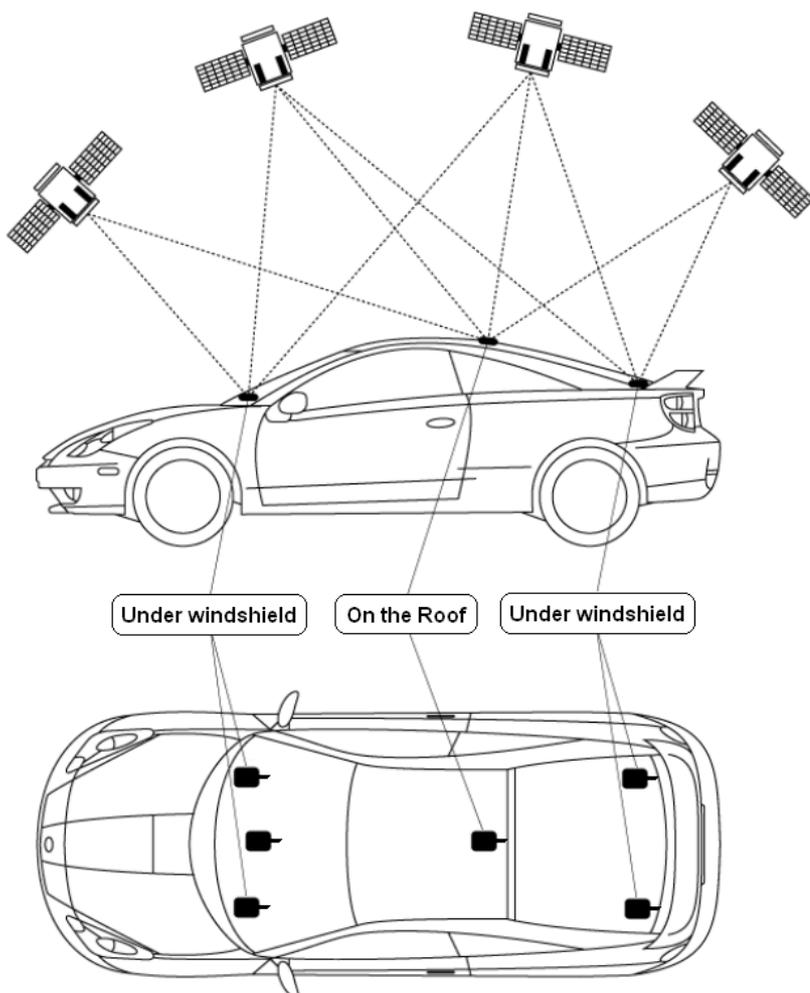


Figure 11

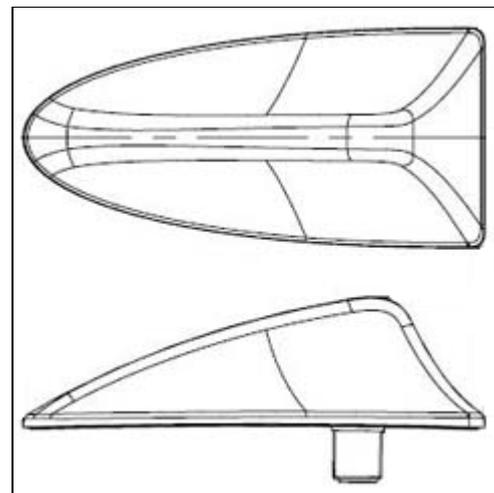


Figure 12



Figure 13

- ⚠ When installing the GPS antenna in a concealed position, make sure there is no metal above it.
- ⚠ Installed the GPS antenna with the magnetic base down. (**Fig. 15**).
- ⚠ If your windshield and windows are made of thermal glass, install the GPS antenna on the roof or rear spoiler.

When you switch on the **CS9100** navigator for the first time, handle all setup procedures using the remote control or a USB mouse. If **CS9100** doesn't respond to the remote control, you'll need to synchronize them. Press **Return** and **Home** simultaneously and hold for 1s. Synchronous flashing of LEDs indicates a successful synchronization.

For correct operation of the navigation system, activate an appropriate control protocol:

1. Use the remote control to enter **Settings** in the main menu.
2. Choose **System Config** (Fig. 17).
3. Go to the **Panel I** tab.
4. Choose the **Toyota** protocol (Fig. 18).
5. Press **SAVE**.



Figure 14

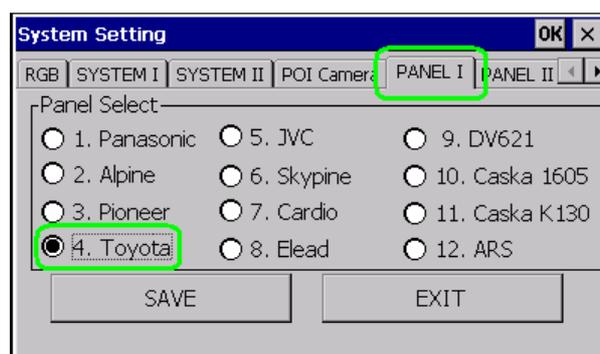


Figure 15

To be able to control the navigation system using the original touch panel without the remote control, you'll need to calibrate it:

1. Use the remote control to enter **Settings** in the main menu.
2. Choose **Calibration**.
3. Use a stylus from a PDA or any other non-sharp object to click on the marks that appear on the screen. (Fig. 18)
4. Press **EXIT**.

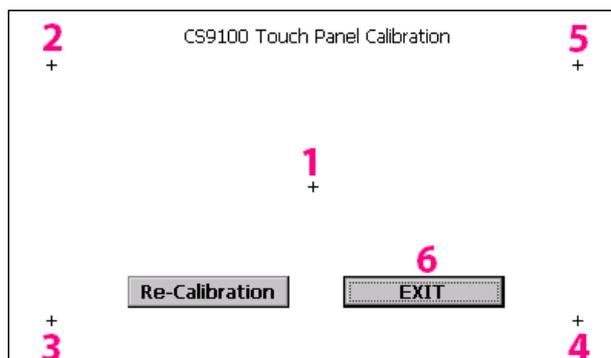


Figure 16

Once you finish all setup procedures you can activate **Autorun** of the navigational software (or any other software) in the **Settings** menu (Fig. 16).

- ⚠ \*** You don't have to cut off the wire connectors of the original navigation system. It is sufficient to cut into the original wires.
- ⚠** This type of connection works only for cars with an external navigation system.
- ⚠** GVIF is not included in the CS9100 package.
- ⚠** Navigation systems shown on the **Figures 1, 2 and 3** have several modifications, which may differ from the illustrations.
- ⚠** Disconnecting the original navigation system will remove the service calendar from the menu.