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Toyota CS6EP Installation Manual

Thank you for purchasing the Beat-Sonic CS6EP Front Camera Selector. You have purchased from Japan`s leading supplier of car audio interface adapters and accessories. Designed and made in Japan, this product represents our commitment to quality and excellence. Please read this manual carefully prior to installing this product to ensure correct operation.

■ Features
- Provides input connection for aftermarket front camera to factory display screen.
- Compatible with a wide range of 2014+ Toyota factory head units. Please visit the Beat-Sonic website for the latest compatibility information.
- Selector button to activate front camera with programmable timer duration.
- Factory backup camera can be activated at any time without engaging reverse gear.
- Programmable to automatically display front camera at parking speed.
- Made in Japan.

■ Important
- Vehicles equipped with factory option navigation systems will experience temporary loss of vehicle GPS accuracy and in some cases the vehicle may appear to travel backwards on the map screen while the front camera is activated.
- This product requires the installation of a front camera with cables to pass through the vehicles firewall. Accordingly, this product should be installed by an experienced motor vehicle technician or automotive electrical professional.
- The user assumes all responsibility for any damages and/or injuries caused as a result of improper installation.
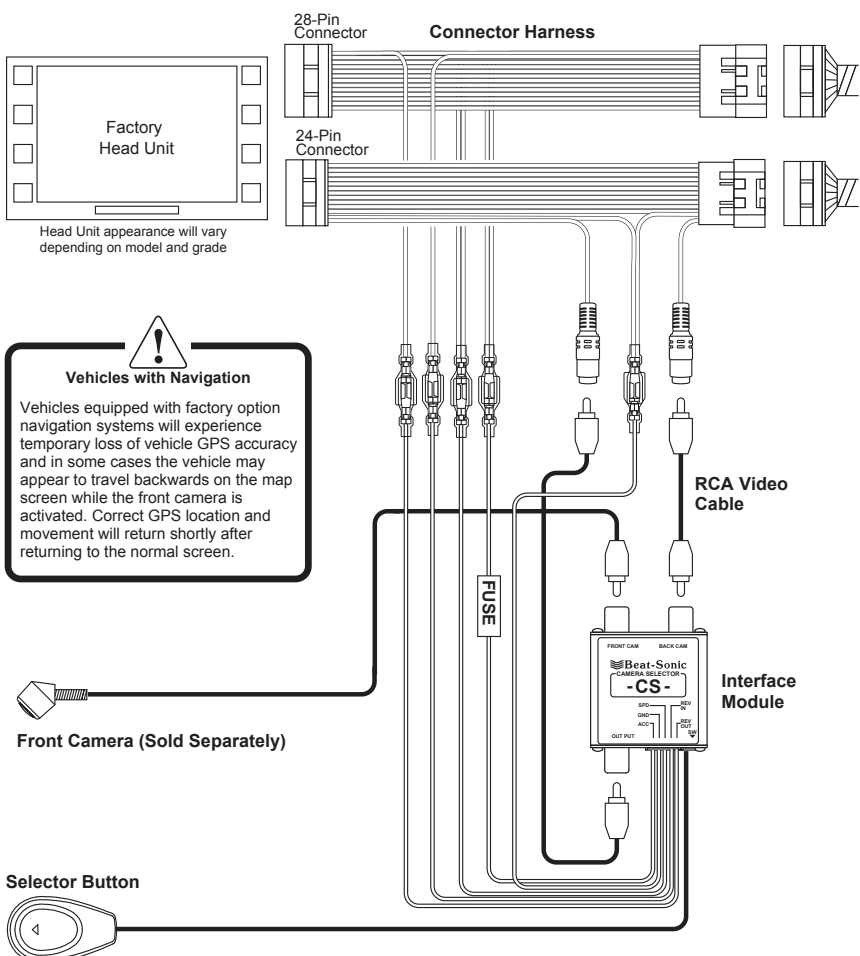
■ Precautions
- Perform installation with patience and due care to prevent damage to this product or any part of the vehicle.
- Do not use pointed objects or apply excessive pressure to the selector button.
- Ensure all connectors, cables and terminals are correctly secured and fully inserted. Loose and/or improperly secured connectors will cause malfunction.
- Always grasp the connector plug when disconnecting the cable harness. Never disconnect connectors by pulling on the harness wires as serious damage can occur.
- Do not disassemble, modify or attempt to repair this device.
- Beat-Sonic and its affiliates shall not be held responsible for any consequence, either directly or otherwise, as a result of installing and/or using this product.
- Disconnect negative terminal of the vehicle battery prior to installation to prevent risk of short circuit.

■ Contents
- Interface Module
- Connector Harness x 1
- Selector Button x 1
- RCA Video Cable 0.5m x 2
- Instruction Manual x 1

*Front Camera Not Included. Please purchase separately.

Connection Diagram

Vehicles with Navigation

Vehicles equipped with factory option navigation systems will experience temporary loss of vehicle GPS accuracy and in some cases the vehicle may appear to travel backwards on the map screen while the front camera is activated. Correct GPS location and movement will return shortly after returning to the normal screen.

Front Camera (Sold Separately)

Selector Button
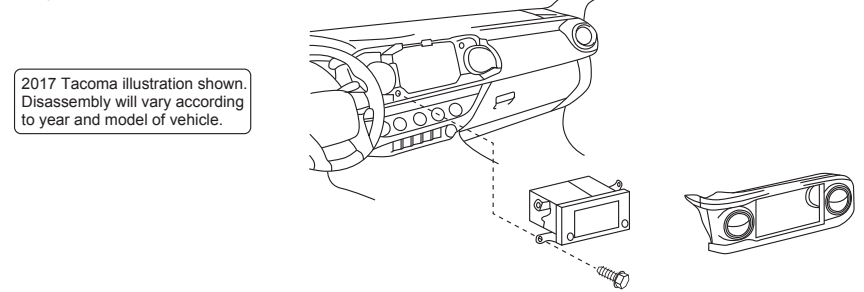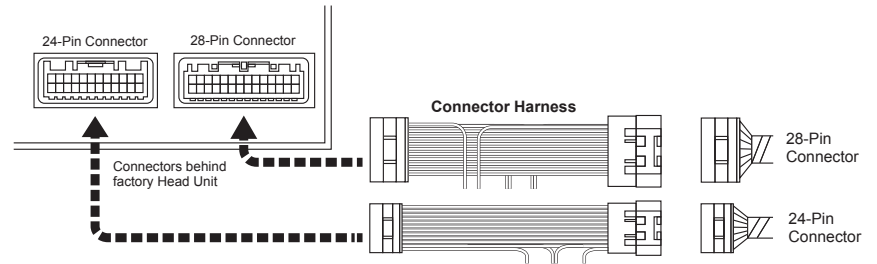
Installation

Disconnect the negative terminal of the vehicle battery and wait at least 90 seconds before proceeding to prevent accidental airbag deployment.
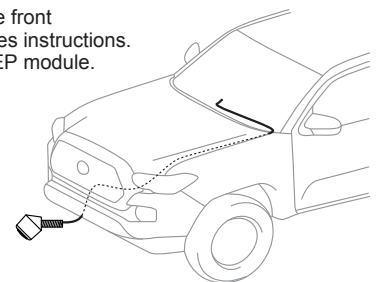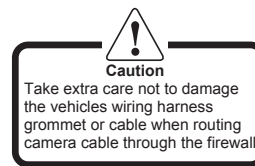
1. Remove all necessary parts to gain access to the rear of the Multimedia Unit. The method of dissasembly varies for each vehicle. If unsure please contact Beat-Sonic for model specific instructions.

2017 Tacoma illustration shown. Disassembly will vary according to year and model of vehicle.

2. Connect the CS6EP 24-Pin and 28-Pin Connector Harness directly behind the Display/Navigation Unit inline with the factory harness in a daisy chain configuration.
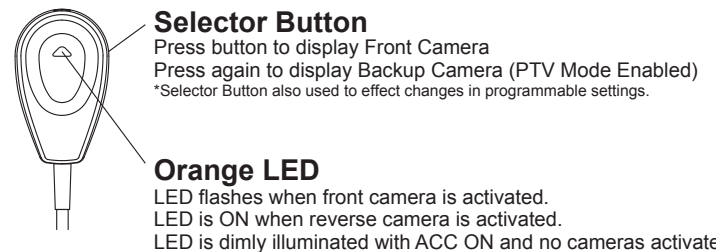

3. Install the front camera ensuring that power for the front camera is connected according to the manufactures instructions. Connect the front camera video cable to the CS6EP module.

⚠ Caution
Take extra care not to damage the vehicles wiring harness grommet or cable when routing camera cable through the firewall

4. Install the Selector Button in an easily accessible location for the driver.

5. Reconnect the battery terminal and test for correct operation before reassembling all parts.

Operation

Selector Button
Press button to display Front Camera
Press again to display Backup Camera (PTV Mode Enabled)
*Selector Button also used to effect changes in programmable settings.

Orange LED
LED flashes when front camera is activated.
LED is ON when reverse camera is activated.
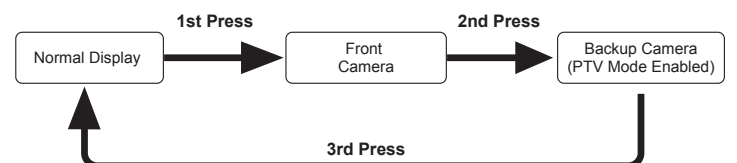LED is dimly illuminated with ACC ON and no cameras activated.

Camera Display Selection - Default Settings (PTV Mode Enabled)

Press the Selector Button to display the front camera. The front camera will turn off after 15 seconds and return to the normal display.

Pressing the Selector Button again before the 15 seconds has elapsed will display the backup camera. The backup camera can be displayed at any time without having to select reverse gear. The backup camera will turn off after 15 seconds and return to the normal display.

Pressing the Selector Button a 3rd time before the 15 seconds has elapsed will also return to the normal display.

* Selecting reverse gear will display the backup camera and override the front camera display (if currently selected). Shifting out of reverse gear will then return to the normal display screen regardless if the front camera was previously selected (default settings only).

Camera Display Selection - Optional Settings

● 2nd press Backup Camera PTV Mode (i.e. viewing of backup camera without selecting reverse gear) can be disabled using the Backup Camera PTV Mode programmable settings on the other side of this installation manual.

● The duration of the camera display (default 15 seconds) can be changed using the Camera Display Timer programming settings on the other side of this installation manual.

● The front camera can be programmed to automatically display at low speeds to assist in parking. See Front Camera Auto Turn-On programmable settings on the other side of this installation manual.

Programmable Settings

How to Enter Programming Mode

Press and hold the Selector Button then turn the ignition from OFF to ACC.

● Keeping the button pressed continuously for at least 4 seconds but no more than 10 seconds will result in the LED changing from OFF -> *Flashing*. Release the button while the LED is *Flashing* to enter the *Front Camera Auto Turn-On* Programming Mode.

● Keeping the button pressed continuously for at least 10 seconds but no more than 15 seconds will result in the LED changing from OFF -> *Flashing* -> *ON*. Release the button while the LED is *ON* to enter the *Camera Display Timer* Programming Mode.

● Keeping the button pressed continuously for more than 15 seconds will result in the LED changing rom OFF -> *Flashing* -> *ON* -> *Rapid Flashing*. Release the button while the LED is *Rapid Flashing* to enter the *Backup Camera PTV* Programming Mode.

Selector Button Press & Hold Duration	LED Status	Programming Mode
0 ~ 4 sec.	OFF	No Effect
4 ~ 10 sec.	Blinking	Front Camera Auto Turn-On
10 ~ 15 sec.	ON	Camera Display Timer
Over 15 sec.	Rapid Flashing	Backup Camera PTV

After entering programming mode the LED will blink to indicate the current setting selection. Pressing the Selector Button each time will cycle through the selections. After selecting the desired setting, press and hold the button for at least 3 seconds to exit programming mode.

Turning ignition to OFF without pressing and holding the button for at least 3 seconds to exit programming mode will result in the device returning to its previous setting.

Front Camera Auto Turn-On

At low speeds less than 15km/h, the Front Camera can be automatically displayed to assist in parking and obstacle avoidance.

1. Press and hold the Selector Button then turn the ignition from OFF to ACC.
2. Keep the button depressed for at least 4 seconds to observe the LED change from Off -> Flashing.
3. Release the button to enter Front Camera Auto Turn On programming mode.
4. Press and release the button to change the setting. The LED will flash twice per cycle to indicate this option has been enabled. Press and release the button again and the LED will flash once per cycle to indicate this option has been disabled.

LED Flash	Front Camera Auto Turn-On
1 Flash	Disabled (default setting)
2 Flashes	Enabled

5. After selecting the desired setting, press and hold the Selector Button for at least 3 seconds to exit programming mode.

Notes
● Enabling Front Camera Auto Turn-On may result in front camera briefly displaying when ignition isturned ON.

Camera Display Timer

Sets the duration for the Front Camera and Backup Camera to be displayed when the Selector Button is pressed. Users may also disable the timer for push on / push off activation only.

1. Press and hold the Selector Button then turn the ignition from OFF to ACC.
2. Keep the button depressed for at least 10 seconds but no more than 15 seconds to observe the LED change from Off -> Flashing -> ON.
3. Release the button to enter Camera Display Timer programming mode.
4. Press and release the button to cycle through each of the 5 timer settings. The LED will flash to indicate the current timer setting as shown in the table below:

LED Flash	Timer Duration
1 Flash	5 sec.
2 Flashes	10 sec.
3 Flashes	15 sec. (default setting)
4 Flashes	20 sec.
5 Flashes	Timer Disabled (push on / push off)

5. After selecting the desired setting, press and hold the Selector Button for at least 3 seconds to exit programming mode.

Notes
Shifting into then out of reverse gear with Front or Backup Camera currently selected:

● With both Timer Duration disabled and Front Camera Auto Turn-On disabled, display will return to the previously selected camera view when the gear shift is moved out of reverse.

● With Timer Duration not disabled (i.e. Timer Duration of 5 ~ 20 sec.), display will return to the normal screen when the gear shift is moved out of reverse regardless of previous camera selection.

Backup Camera PTV

The CS6EP features Backup Camera Push to View (PTV) Mode that displays the Backup Camera at any time without the need to select reverse gear. Pressing the Selector Button once will display the Front Camera. Pressing the Selector Button a second time will display the Backup Camera. Pressing the Selector Button a third time will return to the normal screen.

Backup Camera PTV Mode can be disabled so that pressing the Selector Button a second time will instead return to the normal screen. Backup Camera will always display when reverse gear is selected regardless if Backup Camera PTV is enabled or disabled.

1. Press and hold the Selector Button then turn the ignition from OFF to ACC.
2. Keep the button depressed for at least 15 seconds to observe the LED change from Off -> Flashing -> ON -> Rapid Flashing
3. Release the button to enter Backup Camera PTV programming mode.
4. Press and release the button to change the setting. The LED will flash once per cycle to indicate this option has been disabled. Press and release the button again and the LED will flash twice per cycle to indicate this option has been enabled.

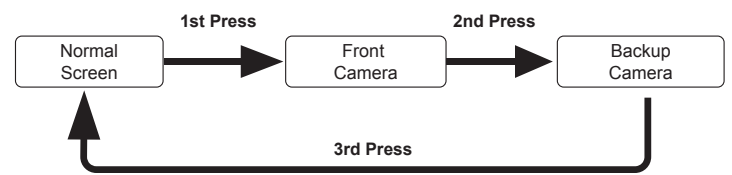| LED Flash	Backup Camera PTV
1 Flash	Disabled
2 Flashes	Enabled (default setting)

*** Backup Camera will always display when reverse gear is engaged for either mode ***

5. After selecting the desired setting, press and hold the Selector Button for at least 3 seconds to exit programming mode.

Notes

● Default Setting - Backup Camera PTV Enabled

Pressing the Selector Button each time will cycle the camera selection as shown below:

● Optional Setting - Backup Camera PTV Disabled

Pressing the Selector Button each time will cycle the camera selection as shown below:

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