

# Video Navigation In-Motion Controller NDS6223EP NO:1



Thank you for purchasing the Beat-Sonic [Video Navigation In-Motion Controller](#). You have purchased from Japan's leading manufacturer of car audio interface adapters and accessories. Designed and made in Japan, this product represents our commitment to excellence and quality in manufacturing.

Please read this manual carefully prior to installing and using this product to ensure correct operation.

## Navigation and Video In-Motion Controller

This device provides automatic video in motion for the DVD player at all times. Navigation in motion is activated by the steering wheel volume control buttons by pressing volume up (+), down (-), up (+), down (-) in sequence and at normal cadence. While navigation in motion is activated, the navigation system will temporarily lose its GPS location and the position indicator on the navigation screen will stop moving. By default, a programmable timer will reset the navigation in motion to switch off after 3 minutes.

Navigation in motion can be switched off before the timeout period has expired by repeating the volume control button sequence up (+), down (-), up (+), down (-).

This device is suitable for Lexus generation 7 and 8 navigation systems. The full time video in motion feature is compatible with all navigation system features including Lexus App Suite, Enform App Suite and energy consumption display found on hybrid models.

## DISCLAIMER

This product is designed for use by the passenger(s) of the vehicle. Under no circumstances should the driver operate the navigation system, watch video or otherwise be distracted while the vehicle is in motion.

Depending on local traffic laws, it may be an offense for the driver to view the screen while the vehicle is in motion.

Beat-Sonic and its affiliates accept no responsibility for personal injury, damage to property, vehicle breakdown, breaches of traffic laws, traffic infringements etc. as a result of using the product.

Please use this product in a safe and responsible manner.

## WARNING

During installation always perform all operations with patience and due care so as not to damage interior trim, wiring or any others parts. Be especially cautious of sharp edges that may damage cables and/or cause injury to the installer.

Install this device in a location where it will not interfere with the operation of the vehicle. Do not install in areas of high humidity, dust or where it is likely to get wet.

Always use this product in accordance with local traffic regulations. Distracted driving can cause a serious accident, cause injury and break the law. Beat-Sonic and its affiliates shall not be held responsible for any consequence, either directly or otherwise, as a result of using this product.

## User Manual

### Operation - Video in Motion

The NDS6223EP features full time Video In Motion (VIM) without the need to turn on or off. All OEM systems including navigation and energy monitor on hybrid vehicles will continue to work as normal.

### Operation - Navigation in Motion

Navigation In Motion is activated via the steering wheel volume button by pressing up (+), down (-), up (+), down (-) in sequence and at normal cadence.

Navigation Status	Volume Button Sequence	Audible Confirmation
Nav Unlock Activate / Nav Unlock Cancel	up (+), down (-), up (+), down (-)	2 short beeps for activation 4 short beeps for cancellation
Nav Unlock Activate (Timer Override Mode*)	up (+), down (-), up (+), down (-), up (+), down (-), up (+), down (-)	1 long beep**
Nav Unlock Cancel (automatic timeout)	No input – inbuilt timer (default 3 min).	4 short beeps

\* Navigation In Motion will always return to OFF when the ignition is turned ON.

\*\* Depending on present navigation in motion status, 2 or 4 beeps will be heard mid sequence followed by one long beep after the sequence is completed.

While navigation in motion is activated, the navigation system will temporarily lose its GPS location and the position indicator on the navigation screen will stop moving. Operation will return to normal shortly after navigation in motion is deactivated either by the inbuilt timer or by again pressing the steering wheel volume button up (+), down (-), up (+), down (-).

## Programmable Settings

### Navigation In Motion Timer

Selectable 2 min, 3 min (default), 4 min or no timer.

### Steering Wheel Volume Button Activation

#### - Mode 1 (Default)

Slight volume response lag but does not alter the current volume setting.

#### - Mode 2 (Selectable)

Zero volume lag however volume will change together with button presses to activate navigation in motion.

## How to Program

### Connection & Initialization

1. Install the NDS6223EP in vehicle using the procedure detailed overleaf.
2. Reconnect battery and turn ignition ON.
3. Allow navigation initialization process to fully complete.
4. Turn ignition OFF.

### Programming Mode

1. Press & hold VOLUME DOWN button on steering wheel.
2. Turn ignition ON while holding VOLUME DOWN button until beep is heard.
3. Release VOLUME DOWN button to enter programming mode.
4. **Mode Selection**  
Press VOLUME UP to cycle through the 2 different mode settings as shown below. Audible beep(s) will be heard through the vehicles sound system to indicate the selected mode.
  - Mode 1 selection is indicated by a single beep.
  - Mode 2 selection is indicated by two beeps.

VOLUME UP		
Mode	Mode 1 (default)	Mode 2
Beep	● (1)	●● (2)

Mode 1: Volume does not change when activating Navigation In-Motion. (default) All inputs registered but slight delay on first volume up press.

Mode 2: Volume changes when activating Navigation In-Motion. i.e. Volume increases by 1, decreases by 1, increases by 1, decreases by 1.

### 5. Timer Selection

- Press VOLUME DOWN to cycle through the timer settings as shown below: Audible beep(s) will be heard through the vehicles sound system to indicate the selected timer setting.
- No Timer selection is indicated by a single beep.
  - 2 min. Timer selection is indicated by two beeps.
  - 3 min. Timer selection is indicated by three beeps.
  - 4 min. Timer selection is indicated by four beeps.

VOLUME DOWN				
Timer	No Timer	2min	3min (default)	4min
Short Beep	● (1)	●● (2)	●●● (3)	●●●● (4)

### 6. Complete and Exit Programming Mode

Press and hold VOLUME DOWN until long beep is heard to complete and exit programming mode.

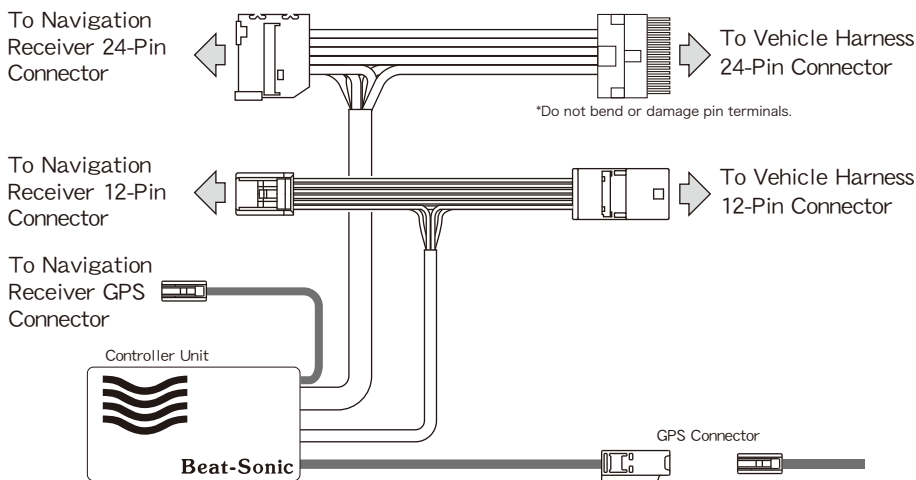
## BEFORE YOU START

Prior to commencing electronic work, disconnect the battery negative (-) terminal to prevent component and wire damage caused by accidental short circuits. Switch the headlight dimmer OFF and the ignition to the OFF position before waiting for the prescribed duration shown in the chart below before disconnecting the battery.

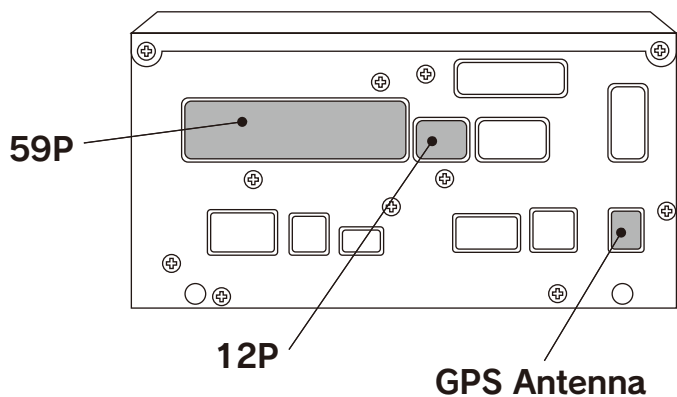
Vehicle enrolled in safety connected system	6 minutes
Vehicle not enrolled in safety connected system	1 minute

Please note clock settings, radio settings, audio system memory, seat memory position, steering column memory positions, DTCs and other data are cleared when the battery is disconnected.

## Connection Diagram



## Navigation Receiver Unit



## Installation Procedure



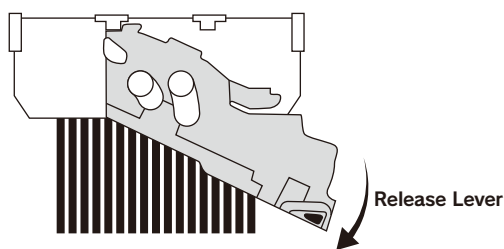
### Removal of the navigation receiver unit

Disassembly of the centre panel and various trim panels to remove the navigation unit varies greatly according to each vehicle. Please check with your motor vehicle dealer to obtain all necessary instructions and take due care during installation so as not to damage any parts.

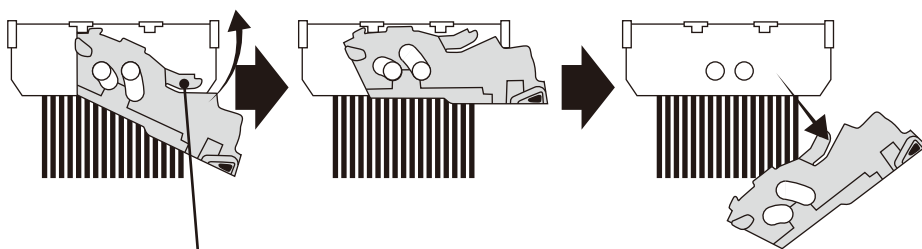
① Turn ignition to OFF and wait the prescribed time before disconnecting the battery negative (-) terminal.

② Remove all necessary parts to allow access to the rear of the navigation receiver unit.

③ Disconnect the 59-pin connector from the navigation receiver by pulling back on the grey release lever.

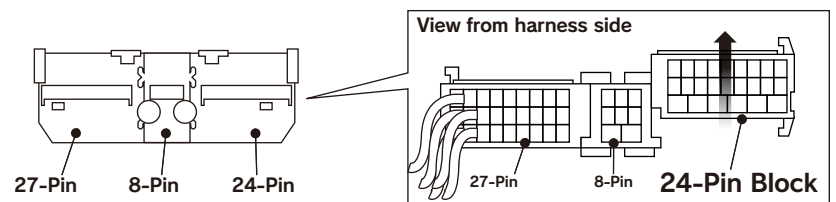


④ Remove the release lever from the 59-pin connector.

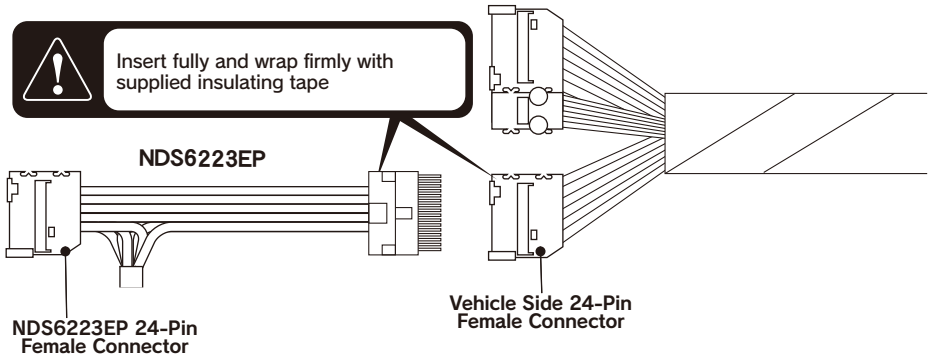


Lift tabs on both sides while sliding the lever to the closed position

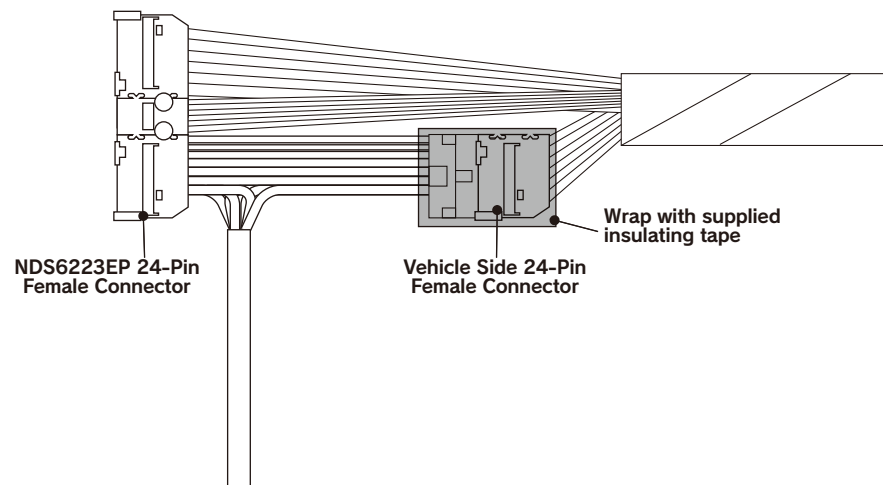
⑤ Separate the 24-pin connector block from the 59-pin connector.



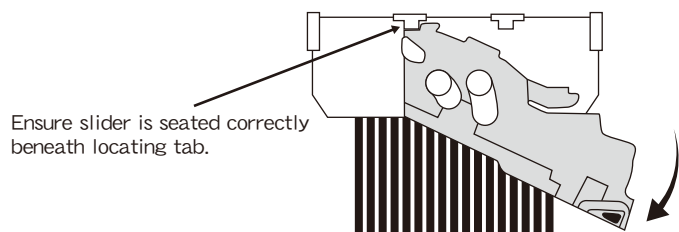
⑥ Connect the 24-pin block to male side of the NDS6223EP 24-pin connector.



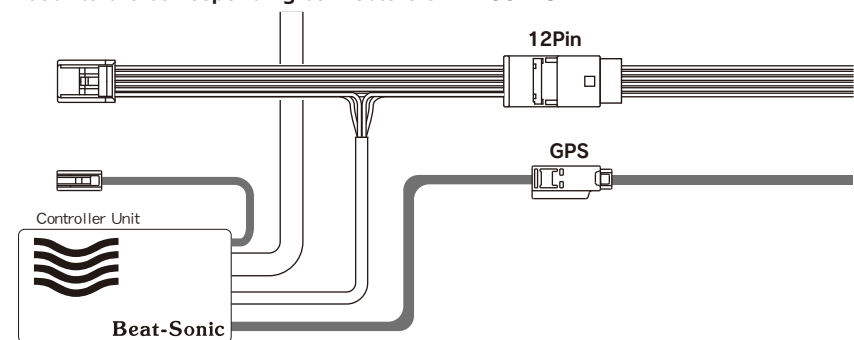
⑦ Attach 24-pin female side of the NDS6223EP connector to the remaining 35-pin connector as shown below.



⑧ Attach the release lever to the 59-pin connector as illustrated below before re-connecting to the navigation unit.

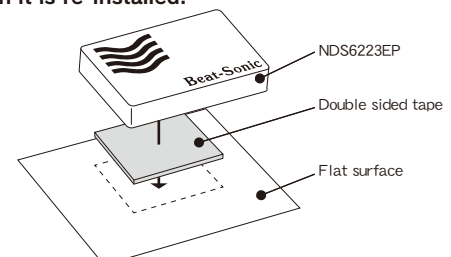


⑨ Disconnect the 12-pin plug and GPS plug from the navigation receiver and connect them both to the corresponding connectors on NDS6223EP.



⑩ Connect the remaining 12-pin plug and GPS plug from the NDS6223EP to the navigation receiver.

⑪ Secure the NDS6223EP controller unit to a clean, flat surface using the supplied double sided tape. Ensure the controller unit does not obstruct other parts especially the navigation unit when it is re-installed.



⑫ Return all disassembled parts to their original position to complete the installation.