

Innexis BC7

Instructions

Installation of the Bluetooth Upgrade Board in a Bose SoundDock Original Series 1

The installation of the board can be carried out without any previous experience.

Overview:

The iPod docking connector in the Bose SoundDock (BSD) is easily damaged. Replacement is relatively straight forward but like everything the first time is more difficult and some may find it extremely fiddly. These instructions are to show the method of replacing the docking board in the BSD in a detailed step by step procedure.

The SoundDock is still the best sounding compact iPod dock around and one of the few things that can't be upgraded by going out and buying a better sounding unit at reasonable cost.

It is a good idea to watch the detailed 'how to' videos on YouTube. To access the videos for your specific dock then visit web page: <http://www.invebo.com/lookup/dockvalidate.php> and enter your dock serial number. Links to all resources for your dock will be sent by email.

A full step-by-step video version of these instructions is available in the technical guide section of our website. See the Technical Guides section at www.invebo.com

Note: The innexis BC7 has a blue indicator LED located behind the dock connector. The LED reports the status of the connection and lights when streaming from a Bluetooth source. The indicator is only visible if the BC7 is fitted with the universal **Cradle Support Upgrade**. If the Cradle Support Upgrade is not fitted then you must install the **Supported foam Overlay**. Both of these accessories are available individually from the site and may also be supplied as part of a kit.

General:

1. The full kit contains the T8 Torx Screw driver and may contain a Supported Foam Overlay or a Cradle Support Upgrade and the connector board. The Supported foam overlay holds the board in place so it is not necessary to use adhesive and it makes it much easier to replace the connector in the future. If you are installing the **Cradle Support Upgrade** at the same time then the **Supported Foam Overlay** is not required.
2. Initially it is not necessary to remove the four larger cross-head screws holding the base moulding on. The half moon moulding can be removed whilst all of these four screws are tight.
3. Three T8 screws hold the dock assembly in place. These are found on the underside of the half-round front moulding where the iPod plugs in. Once removed the assembly can be pulled out from underneath. You do this by gently carefully pulling the ribbon cable which is tucked under the lower cover. Pull it out so that about 1.5 to 2 inches (3 to 5cm) of ribbon is showing. Then hold onto the cable to prevent it coming out any further and pull it from the plug on the docking board.
4. You should now have the docking assembly, including the board and the plastic moulding, free in your hand. Put the body of the dock to one side.
5. Separation of the dock board from the base moulding requires some sharp flush side cutters or a sharp craft knife and a great deal of care. Carefully peel off the black plastic overlay and put it aside.
6. You should now see the docking board and the tops of the plastic pegs that hold the board in position. These are small pegs that have been heat-staked. This means that at the Bose factory the tops of the pegs have been melted into a mushroom shape.
7. The head of the mushroom is what holds the board in place. It is necessary to carefully cut the tops of the mushrooms with your sharp craft knife or flush cutting

side cutters. Personally I would recommend the knife method. Trim the mushroom heads back until the smaller diameter of the body of the peg is visible, equivalent to roughly the diameter of the hole in the PCB.

8. Check that you have done all the pegs. Then docking PCB can now be gently levered away from the moulding.
9. Take BC7 board in your hand and have a look at it. Notice the ribbon connector at the edge of the board. See that there is a small darker section at each end that can be moved back and forth. This is the locking mechanism.
10. Using your fingernail ensure that the locking mechanism is out at both ends of the connector. In the out position the tabs are about 0.08" (2mm) out from the home position.
11. If the locking mechanism isn't in the open position then the ribbon won't go in. The insertion force is near to zero when it is correct. If you have to push to get the ribbon into the connector then check the lock mechanism is out at both ends.
12. If you are installing the Cradle Support Upgrade then refer to the video that shows how to fit the infill and the cradle support. Please ensure that these are in place before proceeding to the next step.

13. Place the new board over the pegs and push down onto the half-moon moulding. Usually the mushroom heads are an interference fit which will hold the board in position. You might even feel it click into place.

14. **IMPORTANT:** Make sure that the board is sitting flush with the supporting ribs on the base moulding. If the board is suspended on the mushroom heads of the pins then you could have problems with the volume controls buttons as they will sit too high and may spontaneously alter the volume. Look at it from the side and make sure that there is no gap between the board and the supporting parts of the moulding. If there are small gaps then simply make sure that the board moves freely down onto the moulding with little finger pressure.

15. Once you are sure that the board is sitting down flat, if you are not installing the **Cradle Support Upgrade** remove the self backing from the self adhesive and carefully fit the supported overlay onto the PCB with the shiny side uppermost.

16. Hold the dock so that the base is horizontal and uppermost. Loosen the four cross head screws about 1 turn each. **DO NOT REMOVE** the screws completely.

17. Bend the ribbon cable backwards so that the end is parallel to and lying over the flat base moulding.

18. Hold the half moon dock assembly with the base flat on the lower base of the dock. You will see that when plugged in the half moon will flip 180 degrees and be in the correct orientation to be refitted.

19. Feed the end of the ribbon cable into the connector and when fully engaged and it is exiting perpendicular to the connector, push the locking tabs into the engaged position. You can use your fingernail. Note that moderate force is required to do this and it is necessary to each side more than once. Sometimes the other end pops out slightly when you push one end in.

20. When the locking mechanism is fully engaged, give the ribbon cable a gentle tug to ensure that the ribbon is securely held in the connector. You should see a line of 24 bright tin contacts protruding an equal distance of approximately 1 millimetre out of the connector. If you can see more at one end than the other then the ribbon is not straight.

21. Note that if for any reason you want to unplug the ribbon, you must first disengage the locking mechanism to let the ribbon slide out with zero force.

22. During the next operation you must ensure that the docking PCB stays located on the pegs. Be careful. If you have cut the mushrooms just right then it will snap on and hold in place nicely. If not it may be a little loose and you have to make sure that when the three Torx screws are put back in the board is sandwiched between the upper and lower half moon mouldings and held in place by pressure from the overlay or the Cradle Support Upgrade. It gives the board some flex and protects the connector.
23. Gently feed the ribbon cable under the flat base moulding until the half moon moulding is in back in place.
24. Refit the three Torx screws and tighten them down all the while checking that the board is engaged on the mushroom pegs.
25. Inspect your work.
26. Now tighten down the four cross head screws in the base moulding.
27. Apply power to the dock. If you have a type A dock the you will hear two slow beeps. If you have a Type B dock then you will hear two fast beeps and then two slow beeps (4 beeps in total). If unsure go to <http://www.invebo.com/lookup/dockvali date.php> and enter your serial number to check your dock type.

Docking an Apple Device:

Any Apple device can be docked as in an unmodified dock. It is **not necessary** to remove the iPod or iPhone from the dock when you want to stream over Bluetooth. Simply ensure that your device is connected to the dock and start streaming. If the device in the dock is playing then the audio will be interrupted and the Bluetooth audio will played.

If you pause or stop streaming then the dock will revert to the docked device's audio after approximately 5 seconds.

Bluetooth Operations:

To stream audio: from your phone or tablet then you must select the Bluetooth audio option. Refer to the instruction for your phone or tablet. When streaming starts the innexis-BC7 will power up the dock and begin to play. The playback volume can be adjusted on the dock and on your mobile device. **For best streaming quality** set the volume control on your mobile device to high and adjust the volume control on the dock to a comfortable setting.

COMMANDS:

Enter pairing Mode: Press and hold both dock volume buttons until ONE beep is heard. (After approximately 5 seconds) Release buttons. The dock will be discoverable and ready to pair for 90 seconds.

Forget All paired Devices: Press and hold both dock volume buttons until TWO beeps are heard. (One after approx 5 seconds, the second 5 seconds later). Release buttons.

Force Bluetooth To Disconnect: Press and hold both dock volume buttons until THREE beeps are heard. (One after approximately 5 seconds, the second 5 seconds later the last after approximately 15 Seconds). Then release the buttons.

The innexis-BC7 can pair with multiple devices but can only connect to one at a time. It is important to remember to disconnect or switch off the Bluetooth on paired devices that aren't required to operate the dock. You will be unable to connect one device to the dock whilst another is still connected by Bluetooth. This situation can happen when several people have phones and have paired with the dock and they are still in range and they have not disconnected their Bluetooth connection. If this happens you can force disconnection by following the procedure below.

To simplify:

Only **ONE** device can be connected to the innexis-BC6 at any time.

If you have paired more than one device with the BC6 and you are if you are unable to connect to the innexis-BC6 then force disconnection of other devices by pressing and holding both volume control buttons until three beeps are heard. There will be a pause of approximately 4 seconds

between each beep. After you have forced disconnection you should be able to connect your device. **Note:** Turning off the Bluetooth on the other devices will also force disconnection.

To pair your Bluetooth device with the innexis-BC6 (BC7):

- Turn on Bluetooth on your phone or Tablet and make it discoverable.
- Press and hold down both dock volume buttons. After approximately 5 seconds you will hear a beep. The innexis BC6 will enter pairing mode for 90 seconds.
- The 'innexis-BC6' device name will appear in your device list.
- Select the device to pair with it.
- You will receive a message 'innexis-BC6' wants to pair' or something similar. (The exact message depends on the version and manufacturer of your phone or tablet).
- Confirm any requests that appear on your phone/tablet display.
- The device should now be paired with your innexis-BC6 and 'connected' should be displayed.

To stream audio from your phone or table it is necessary to select the Bluetooth audio option. Refer to the instruction for your phone or tablet.

When streaming starts the innexis-BC6 will power up the dock and begin to play. The playback volume can be adjusted on the dock and on your mobile device.

For best streaming quality set the volume control on your mobile device to high and the volume control on the dock to a low setting.

Trouble Shooting Guide

If you are Unable to connect then try one or more of the following:

1. Ensure no other Bluetooth devices are in range and connected.
2. Reset the Bluetooth on your phone by turning the Bluetooth off and back on again.
3. Follow the pairing procedure.
4. Instruct your phone to forget the BC6 and then follow the pairing procedure.
5. Force disconnect of all devices by pressing and holding both buttons until three beeps are heard.
6. Turn the dock power off, wait five seconds and power up the dock.

If you can connect and stream but hear no audio:

1. Try another mobile device.
2. Try an iPhone device on the dock to ensure that the dock has power.
3. Ensure that the audio is routed to Bluetooth streaming on your device.
4. Press the dock + volume button (Turn up the volume on the dock).
5. Check the video on the website that shows how to check and re-plug your sound processor amplifier ribbon.

LED Indicator Modes

Short flash every 4 seconds:

A source device is connected but is not streaming

Permanently Illuminated

A Bluetooth device is connected and streaming audio,

EU – Declaration of Conformity: Button Brand Designs Limited declares that innexis-BC6 complies with the applicable requirements and other relevant provisions of Directive 1999/5/EC. Button Brand Designs Limited, Unit 1, Blounts Farm, Blounts Court Road, Sonning Common, Oxon, RG4 9PA. UK

ROHS Compliance Statement: On 6 July 2006, the European Union adopted the "Restriction on Use of Hazardous Substances in Electrical and Electronic Equipment" (RoHS) EU Directive 2002/95/CE. Button Brand Designs Limited achieved and maintains full compliance with RoHS directives for all electronic devices sold in Europe in the winter of 2007