Installing the VAIS Technology AIC-100i in a Toyota Prius

Guide last revised Sept. 28, 2005, based on AIC-100i Firmware 3.45 Copyright 2005 • priushelp@gmail.com • "hybrideyes" on priusonline.com and priuschat.com

This guide will help you install the VAIS Technology AIC-100i, which connects a 3G or 4G Apple iPod, as well as an auxiliary audio input, to a Toyota Prius. The iPod input is "controlled," which means that you can use the steering wheel and touchscreen audio controls to change volume, tracks, and playlists. The iPod will stay powered and charged while the Prius is powered on, and will pause automatically when you switch modes, turn off the audio, or receive a Bluetooth phone call. Text from the iPod will display on the touchscreen to show song, album, artist, and playlist titles. The auxiliary audio input is uncontrolled and not powered. You can change the volume with the steering wheel buttons, but you must use the controls on the device you attach for everything else.

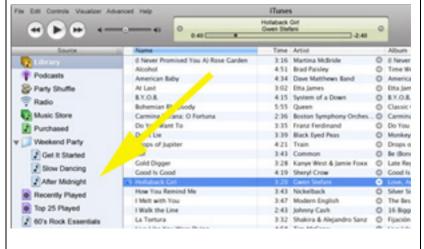
These instructions have been tested with the AIC-100i and iPods, iPod Minis, and iPod Nanos, on 2004 and 2005 Prii, with and without navigation, and with and without the in-dash CD changer. These instructions will be largely the same for the AIC-100 (two uncontrolled inputs) and the AIC-100x (one controlled XM Radio input and one uncontrolled auxiliary audio input), although of course the iPod parts will not apply. For more information about the AIC-100i and VAIS Technology's other audio, video, and XM adapters, visit vaistech.com.

The author is not affiliated with VAIS Technology and is not responsible for anything that happens as a result of this guide. Please exercise caution when enhancing and operating your Prius. Do not disassemble your dashboard while driving, even with cruise control on. Do not eat the AIC-100i. If you are pregnant, or may become pregnant, consider switching to classical music.

1. About Playlists

Before you get all excited and run to your car, there's something we need to discuss.

The one tradeoff of using the AIC-100i is that in order for it to show text on the Prius touchscreen, it must take full control of the iPod. This leaves the iPod screen and controls unavailable, which means you can't browse an alphabetical list of all songs, albums, artists, or genres, like you can on the iPod. Every song accessible through the AIC-100i needs to be in a playlist, and the playlists will appear as discs to your stereo system. Due to the limitations of your stereo (not the AIC-100i), you can't have more than 99 playlists, and things get weird after 99 songs per playlist. You probably have at least two default playlists already, so I won't delay you any further. But please see "More About Playlists" at the end of this guide.



2. Prepare Yourself

Set aside about two and a half hours for this project. Spend the first two hours with your family, or volunteering for charity, or reading a good book, because this won't take that long.

Take the following items to your Prius:

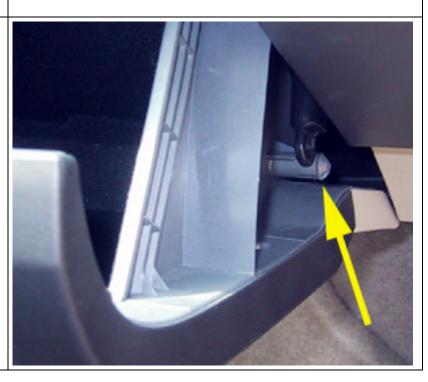
- Your iPod, with at least two playlists.
- The AIC-100i and its accessories.
- A regular screwdriver and a thin piece of cloth to put over the blade.
- A very long Phillips screwdriver, or a 10mm socket wrench with six-inch extension.
- A refreshing victory beverage to enjoy when you're done (nonalcoholic if you'll be taking a victory drive, too).

If you left your audio on last time you were in the car, turn on your Prius, turn off the audio, and turn off the Prius.

3. Remove the Lower Glove Compartment

- Open and empty the lower glove compartment.
- Gently pull the arm off the peg on the right side of the compartment (see photo).
- Press the sides of the glove compartment inward to release the tabs from their slots, and lower the compartment.
- Pull the bottom of the compartment off its hinges and put the compartment aside.





4. Remove the Left Passenger Air Vent

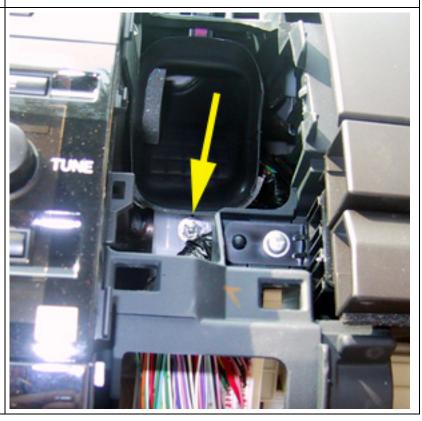
This is the easiest way to remove the air vent, although some people prefer to push the panel entirely from the back to avoid any chance of scratching the plastic.

- Open the upper glove compartment.
- Place a small piece of cloth over the blade of the regular screwdriver, to avoid scratching the plastic.
- Gently insert the blade between the top of the left passenger air vent (the one to the right of the touchscreen) and the dashboard. Turn the screwdriver to pop the tabs on the top of the panel (see photo).
- Grab the top of the panel with your hands and pull the tabs out.
- Using your hands, pull the middle and bottom pair of tabs out of their slots. You may find it helpful to push the bottom from behind.
- Put the vent panel aside.

5. Remove the Big White Box of Wires

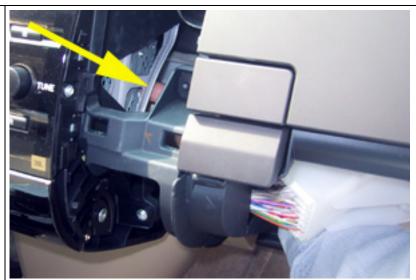
- Using the Phillips screwdriver or socket wrench, loosen the bolt on the top of the big white box of wires (see photo). It's directly under the air duct, so you might miss it at first.
- Remove the bolt by hand so it doesn't fall, and put it in the cupholder so you won't lose it.
- Pull the bottom of the box out of the hole into which it's snapped.
- Gently twist the box off to the right, to get it out of your way. Be careful not to pull or damage the wires.





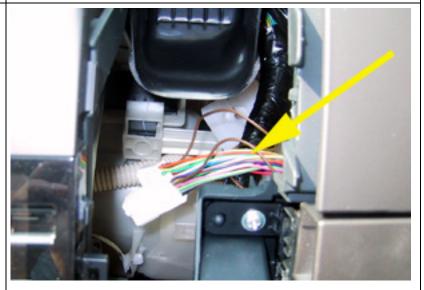
6. Find the CD/MD Changer Port

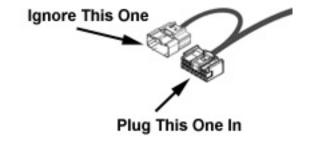
- Put your right arm under the white box and towards the stereo. (That's what I'm trying to demonstrate in the photo.)
- Feel on the back of the stereo for the plug that's already there. It's approximately behind the "Tune" dial, where I'm pointing in the photo. Slide your hand a bit towards the driver's side, and you'll feel an empty port. That's your target.
- You can use a mirror to see the back of the stereo if you want, but it's really not necessary.



7. Plug in the Adapter

- Grab the cable that doesn't have the iPod connector on it.
- Take the end that's split into two parts, and feed it from the glove compartment area *over* the thick black bundle of wires and towards the stereo. This ensures that the cable can move freely after you put the box back.
- Put your right arm back into position, and grab the split ends of the cable from underneath on your way to the back of the stereo.
- One of the split ends is hollow in the middle, and you won't be using it (see photo). The other is a solid plug.
 Insert the plug into the empty port on the back of the stereo, with the tab down. You may not feel much of a click, but make sure it's all the way in. Wiggle the plug to make sure it's firmly in the socket and won't fall out.
- By the way, that unused end is where you'd plug your XM Radio if you have one.





8. Test the Adapter

- Plug the cables into the adapter and iPod as shown in the photo.
- Turn on your Prius. The iPod should power on, and in a few moments the iPod screen will change to the VAIS logo and "Ok to Disconnect." This means that the adapter is now controlling the iPod.
- Press MODE on the steering wheel to turn on the audio. Use MODE to cycle through the modes in this order:
 - o AM Radio
 - o FM1 Radio
 - FM2 Radio
 - o CD/CD Changer (if a CD is in)
 - o MD Changer

"MD Changer" is the AIC-100i. Each time you cycle through the modes, the MD Changer will alternate between the iPod and the auxiliary audio input on the adapter. When the auxiliary input is selected, the MD Changer will show Disc 11. Read that again.

- When you're in iPod mode, press the TITLE button on the touchscreen to show the Disc (playlist) and Track (song) titles. The song in the photo is coincidental, but most appropriate.
- Press the up and down buttons on the steering wheel (the ones under the MODE button) to change songs. To change playlists, press and hold the buttons until you hear a beep.
- Try these buttons on the touchscreen:
 - o RPT: Repeat the song
 - o DISC RPT: Repeat the playlist
 - o RAND: Shuffle within playlist
 - o DISC RAND: Shuffle playlists
 - DISC SCAN: Switch between song title, artist title, and album name.
- The controls seem to work immediately, but there is a delay before the on-screen text is updated. Feel free to play "Name That Tune."





9. Screen Setting and Simple Mode

- If you have Navigation, you may have the screen set to return to the map automatically after you adjust the climate or audio. This sort of defeats the point of the onscreen text, since you'll have to press AUDIO to see it, and then it will disappear in a few seconds. To solve this problem, press INFO, then Screen Setting, and then OFF. Just press the MAP button on the steering wheel to see the map anytime while you're driving.
- To enter simple mode, which permits use of the iPod controls but does not display text on the touchscreen, press SCAN eight times within two seconds (you'll hear a beep if it works). Disconnect the iPod from the cable, wait for it to return to its own menu (i.e. not the VAIS logo or "Ok to Disconnect"), and then plug it back in. Select MD Changer mode again, and you're set. You can still use the steering wheel controls, and the iPod will still charge and pause as usual.



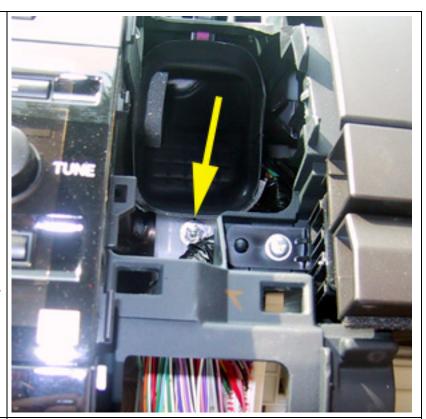
10. Eliminating Unwanted Noise

Some users have reported unwanted noise after connecting their iPods to their stereos. Most users have found relief by deleting all John Tesh tracks from their Libraries. Okay, seriously, this is a problem that can affect any stereo equipment, and is not a defect in either the iPod or the AIC-100i. A "ground loop isolator" may help. VAIS Technology recommends Radio Shack part 270-054, or check your local stereo store.



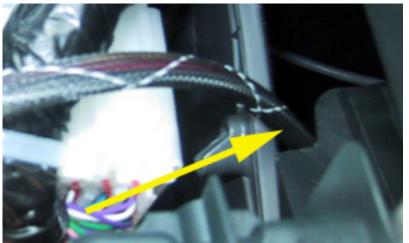
11. Replace the Big White Box of Wires

- Position the box back into place, and snap the peg at the bottom back into its slot.
- Reinsert the bolt by hand and turn until it stays.
- Tighten the bolt with the screwdriver or socket wrench, but don't overtighten.
- Wiggle the box to make sure it's secure, but don't overwiggle.
- Make sure the AIC-100i cable lays loosely over the black bundle of wires, and no part of the cable is restrained by or caught on anything.



12. Replace the Lower Glove Compartment

- Place the AIC-100i, iPod, and cables in the lower glove compartment and carefully snap the hinges back on without spilling everything.
- Rotate the arm on the right side of the compartment so that the circle is in position to snap back on the peg (the arm probably flipped up while you were working).
- Route the main cable to the back left corner of the glove compartment while you begin to close it, making sure it isn't pinched anywhere. The photo shows the view from behind the air vent panel, looking into the closed glove compartment.
- Press the sides of the compartment inward to reset the tabs.
- Snap the arm onto the peg on the right side of the compartment.
- You can keep the AIC-100i and cables in the slot in the back of the compartment intended for the owner's manual portfolio.

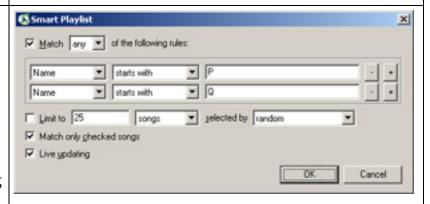


13. Replace the Left Passenger Air Vent

- Carefully align the tabs on the air vent with the corresponding slots.
- Take care that the air vent is aligned with the air duct, and that no cables will get pinched when you replace the panel.
- Snap the tabs into place.
- Close the upper and lower glove compartments and enjoy!

14. More About Playlists

- To make a regular playlist in iTunes, choose File > New Playlist, and type a name for the playlist. Hold down the control key in Windows or the command key on the Mac, and click on each song in your Library that you want to add to the playlist. Then drag one of the selected songs onto the name of the new playlist, and the rest will follow. The Library will always show all your songs (i.e. dragging a song to a playlist doesn't remove it from the Library), and the same song can be in multiple playlists.
- A "smart playlist" is a playlist created by applying search criteria (called "rules") to your Library, rather than by manually dragging songs. To make a smart playlist, choose File > New Smart Playlist, and choose your rules. If you check "Live updating," the playlist will be continuously updated when you add songs to your Library. If you don't check the box, the playlist will be a snapshot in time. Click OK and name the playlist.
- The default playlists such as "Top 25" and "Most Recently Played" are just smart playlists that you can recreate yourself if you choose to delete them.
- To ensure that no playlist exceeds 99 songs, use the "Limit to" check box.



- The approach I use is to make one playlist for each letter of the alphabet (combining # and A; P and Q; and X, Y, and Z). To do this, use smart playlists with the "Name" "starts with" rules, and turn on live updating. If you're combining more than one letter, use the + button to add more fields and be sure to match "any" rules instead of "all." See the photo for an example.
- If you have more than 99 songs in a playlist, the on-screen info displayed for songs over 99 will be for the corresponding "slot" below 99 (eg. song 347 is playing, but the screen shows the name of song 47). To correct the info, press RAND on the touchscreen. Be sure to turn RAND off again before the end of the song if you don't want the next song to be chosen randomly. If you do want to use RAND to have the songs shuffle, each random song will come from the entirety of the playlist and not just from the first 99 songs. (Thanks to "exhuman" on priuschat.com for discovering the 99+ quirks.)