

Stereo Accessory Installation Guide

2004 Toyota Prius

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The following guide describes how to disassemble the dashboard of the 2004 Toyota Prius in order to remove the stereo to install aftermarket accessories. It is geared towards installing a Neo CD-changer to RCA (aka line-in) adapter, although what you install after disassembling the dash is up to you (see pg 11 for a discussion of various options). It was based on disassembling a Prius without a factory CD changer or tape deck, though I would guess that the process wouldn't change much if either of those components were installed. It was written by an average Prius owner who has no formal electrical or automotive maintenance training, so use at your own risk.

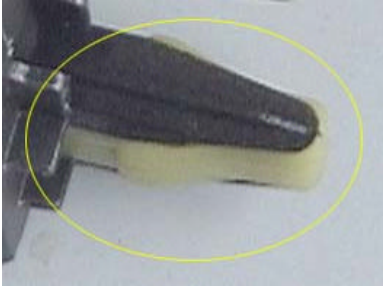
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With those warnings in mind, I have disassembled my dash twice without damage to my vehicle, and I have done my best to make this guide as clear and easy to follow as possible. I would normally recommend disconnecting a car's battery before exposing its internal workings, but I do not know if it is possible to disconnect the Prius's huge battery array, or if trying to do so could cause damage to the car. My battery remained connected during my two dashboard disassemblies.

Tools you will need:

- 10mm socket wrench (an adjustable wrench will not fit, as the bolts are inset)
- A large Phillips head screwdriver.
- Optional:
 - A small flathead screwdriver used for pressing small latches.
 - A pair of medium plyers, with wide, flat ends (not needle nosed).
 - A flat piece of wood or plastic 2 or 3mm thick and at least an inch wide. This will be used for prying out plastic panels, so it must be wood or plastic so it won't scratch the finish. I personally used a wooden paint stirrer broken in half (circled in green to the right).

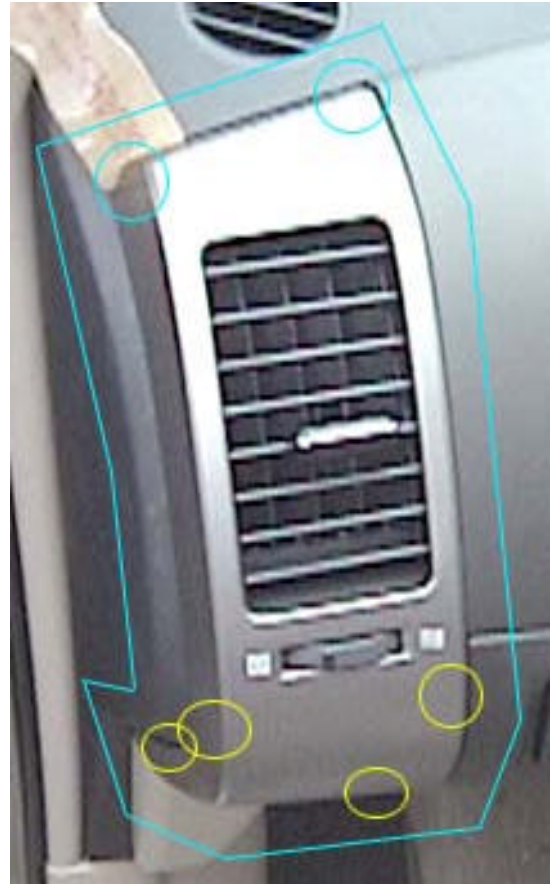




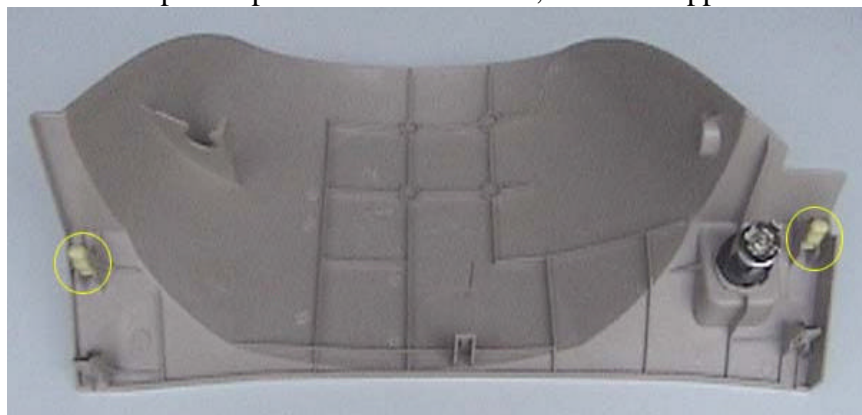
Surprisingly, the Prius is mostly held together by neon-yellow snaps (shown to the left). These are not the kind of snaps that require you to pinch them to release them. You merely pull against them until they come loose. Throughout this guide I will highlight these snaps with yellow circles.

Unfortunately, to get the stereo out, you must remove *eight* other parts first, including two panels behind the steering wheel. Most parts have edges that are held down by other parts, so they must be removed in a specific order without too much deviation.

The first piece to remove is the silver vent to the left of the steering wheel (outlined in blue to the right). It has two catches on the top (circled in blue) that will release when you *push down* on the top of the vent and pull back. They are not the same as the other neon yellow snaps (circled in yellow) which release just by pulling straight back. The thin wooden tool (upper left of the picture) can be useful here for pushing the top tabs down and pulling back, although just pushing with your fingers should be enough. Once the top is unsnapped, try to use the friction of your fingers to pull back on the very bottom of the vent (you'll also be pulling up a little because of the way the surface is angled) until it snaps out. Trying to get the bottom to snap out by pulling at the top did not work for me. You can more clearly see the location of each tab once the vent piece is removed (shown below).



Next, you can remove the tan plastic piece below the stereo, shown snapped out in the picture below.



Before you snap it out, you must remove a single plastic fastener from the passenger side of the panel (in the right picture below, it is circled in blue and magnified in green). Although it looks like a screw, it is not actually threaded and turning it will not loosen it. Instead, it must be pulled out by brute force. Stick your fingers in behind the panel and pull outwards (the panel will bend enough to pull out the fastener—it's almost impossible to pull directly, unless you want to damage its head). Once out, you will see that pulling it out bends its little pins a bit, but it should still go back in easily enough.

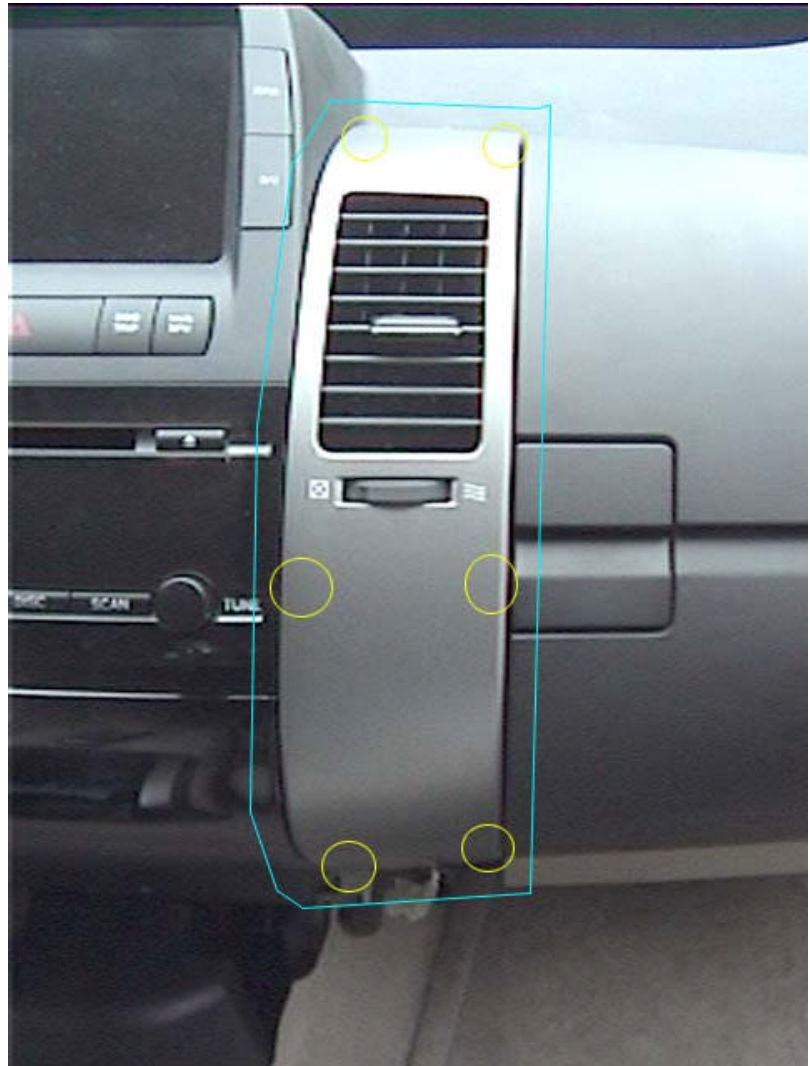


Once you get the fastener pulled out, the panel is held on by two neon-yellow snaps circled in yellow in the left picture, above. To get the snaps out, you can get one hand behind each side of the panel and just pull it firmly.

I suggest you just rotate the panel and set it to the right, leaving it hanging by the cigarette lighter wire. If you want to detach the panel, remove the white cigarette lighter plug (circled in blue to the right) by gripping the white plastic with a large pliers. There is no latch holding it on, it's all friction. Unless you have modified your vehicle, the cigarette lighter has no power to it when the car is off.



Remove the silver vent to the right of the touch-screen, next. This is probably the hardest piece to remove because there's nothing to grip. Try wedging your wooden tool in the top or bottom, or just pull straight back with your fingers from the top or bottom. Pushing down on the top will not help because it is held by neon-yellow snaps that need to be pulled straight back. If you get the bottom out first, you can get the top out by pulling the bottom and middle out farther. You can also try opening the bottom glove compartment and wedging the wooden tool in between where the silver vent meets the black plastic, although the way the gap is curved can make this very difficult depending on the shape of your tool.



Next, remove the two screws (circled in red) that hold the panel below the steering wheel on. The cup holder between the two front seats is a good place to store screws so they won't be lost.

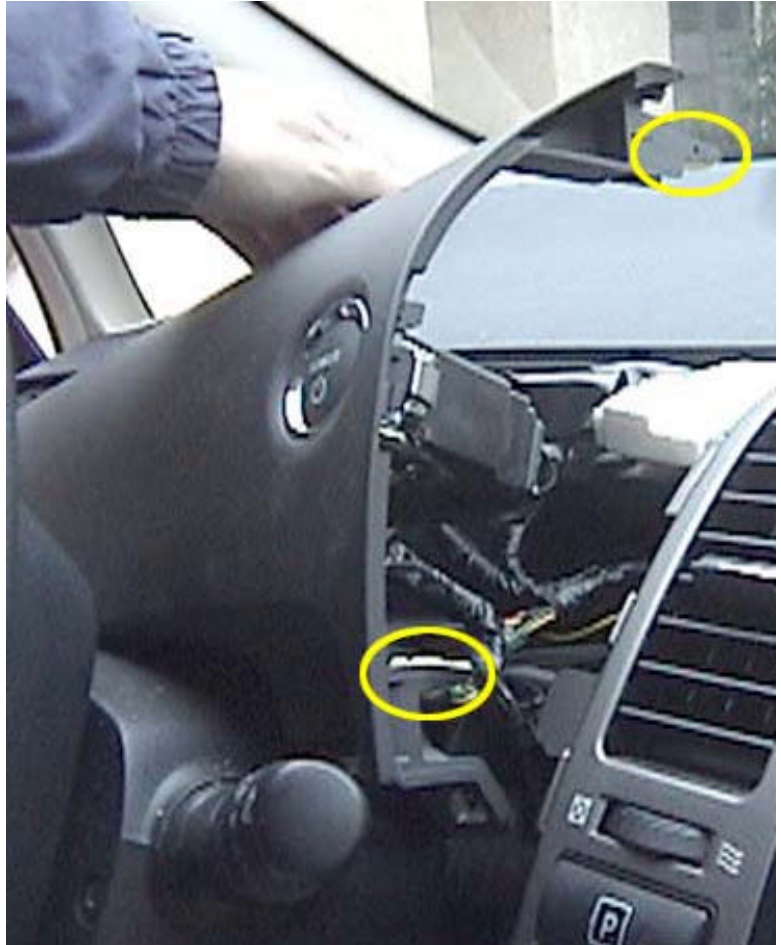
This is a rather large panel, but it is only held on by two yellow snaps on the left, and three on the right. It's reasonably easy to get your fingers into various places to pull these snaps out. The upper right snap may actually catch in the panel above the steering wheel and start to pull it off as well. If so, just push in at the above-the-steering-wheel panel while you pull out on the upper right of the below-the-steering-wheel panel.

Once the snaps are out, this panel will remain connected by various wires from behind. Do not try to disconnect these wires—just let the panel hang from them. It should only hang down a few inches (as in the lowest picture).



Next, remove the panel above the steering wheel. It is held on by four yellow snaps (two on the right and two on the left). It should be easy to get behind it with your fingers. Once popped off, a wire from the start button will prevent you from pulling the panel too far back, so just let it hang.

Note that the only reason you had to remove the two panels above and below the steering wheel was so you can remove the silver vent to the left of the stereo.

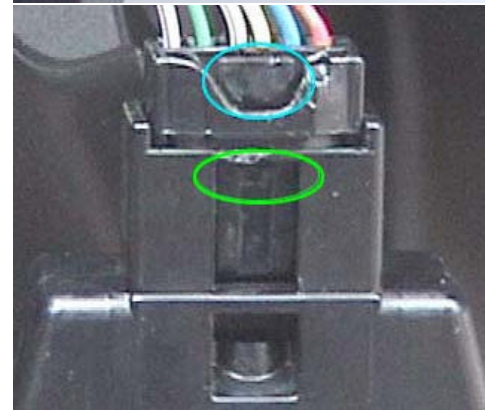
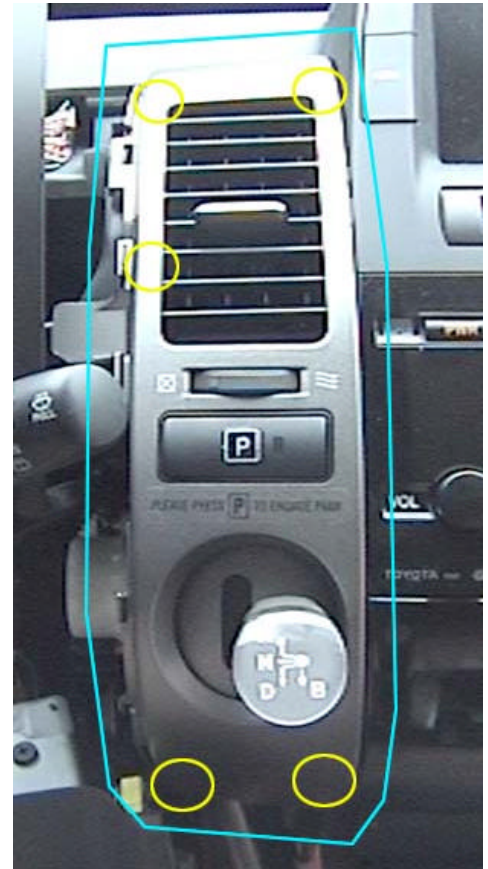


Now, you can finally remove the silver vent to the left of the stereo (outlined in blue in the upper picture to the right). It is held on by 5 snaps (circled in yellow). This panel is much easier to remove than the other vents because you can get your fingers behind it on the left. The shift knob is not attached to this panel and will slip out through a circular hole.

Unfortunately, the park button *is* attached and will prevent you from pulling the panel out too far. To get more room to work, I recommend detaching the park button so you can remove the panel. To do so, push down on one of the snaps to the left or right of the park button (circled in blue in the middle picture to the right) so that you can slide it out towards you (as in the picture). You can't actually see these snaps until the button slides out, so just push a flat-head screwdriver in there and press around. The snaps are not tight, so I got it to slide out by pressing only one snap, though there is one on each side.

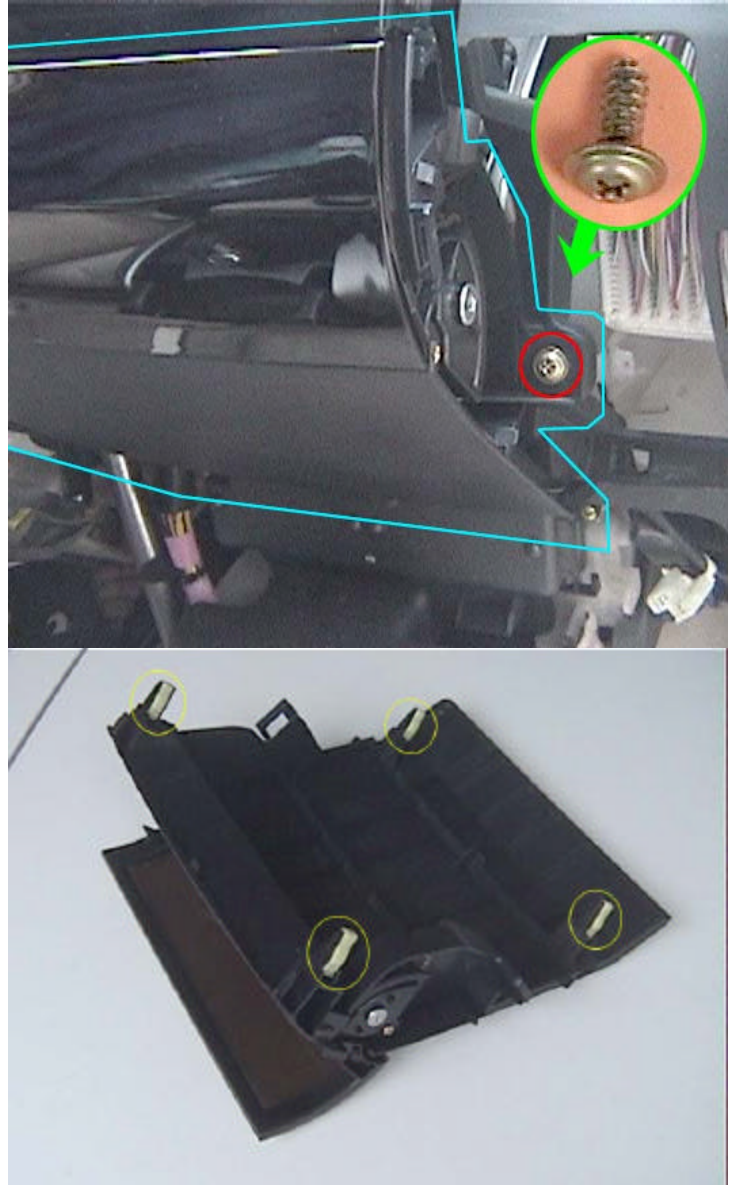
Now that it has slid out, you can reach the plug on the back of the button. It looks like you are meant to be able to remove this plug by pressing down on a small button circled in blue in the lowest picture to the right. However, pushing that down never gave me enough leverage to make the snap come free, so I had to use a screwdriver to push in where the green circle is and pull on the plug at the same time. The plug shouldn't be very tight if you get the snap pushed in enough. Once the plug is removed, the park button comes free and you can completely remove the silver vent panel.

Once you remove the silver panel, I recommend plugging the park button back in so the car won't give an error message if you turn it on to test whatever you're attaching to the stereo.



To remove the panel that includes the clear door beneath the stereo, remove the screw circled in red, along with the identical screw on the other side (not shown).

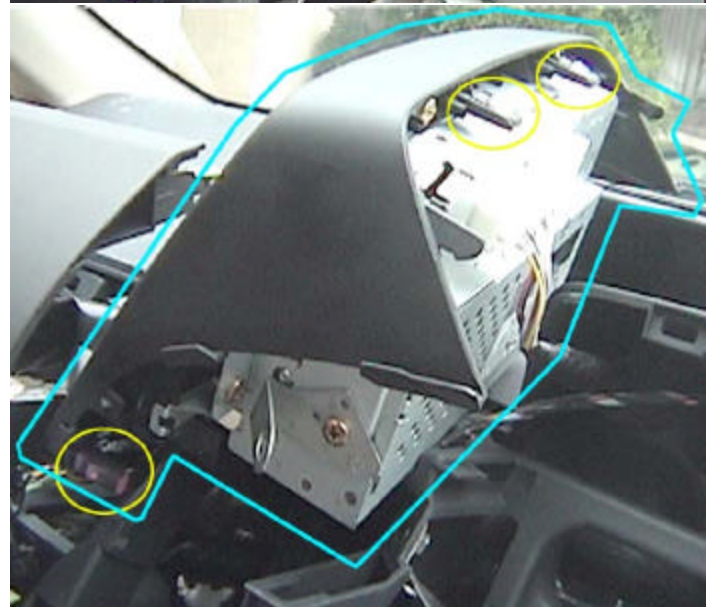
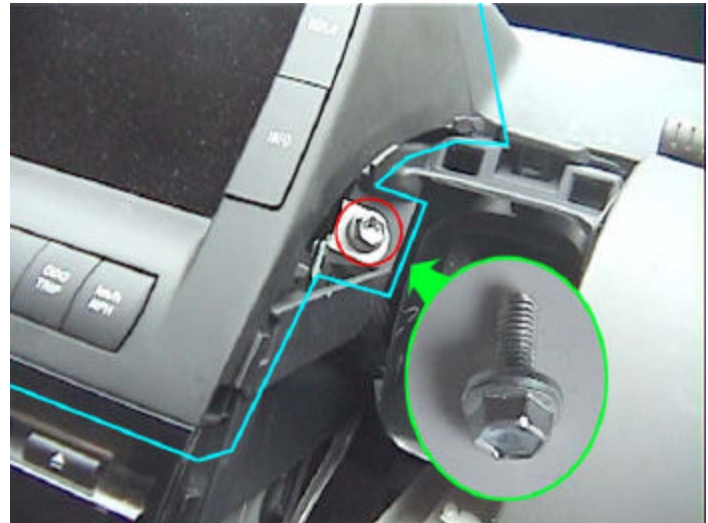
There are four yellow snaps holding the panel on after you remove the screws. The panel is shown removed in the lower picture, door open, yellow snaps circled. Again, there is plenty of room to get your hands in behind the panel and pull the snaps out.



Unfortunately, you must remove the LCD touch screen before you can remove the stereo. You need a 10mm socket wrench to remove the screw circled in red and the identical one on the other side (not shown). The screws are inset, so you need a socket tool, not something like an adjustable crescent wrench. The screws may have washers behind them, so be careful not to let them fall off.

Once unscrewed, you can get your fingers in behind the LCD unit (outlined in blue) and pull straight back. It is held in by four yellow snaps (you can see three of them circled in the lower picture; the fourth is in the lower left corner when facing the screen). Strangely, some of the yellow snaps on my LCD unit are actually pink, but they are otherwise identical to the yellow ones. This piece is the most harrowing to remove, because it takes a lot of force to get the snaps to come out, and it makes you feel like you're going to break something. I recommend getting your fingers in behind the unit on each side, right in front of where the screws were. You should feel metal under your fingertips. Pull with a quick hard jerk rather than with constant force, so when the display comes free, you don't pull it so far that you yank on the wires behind it.

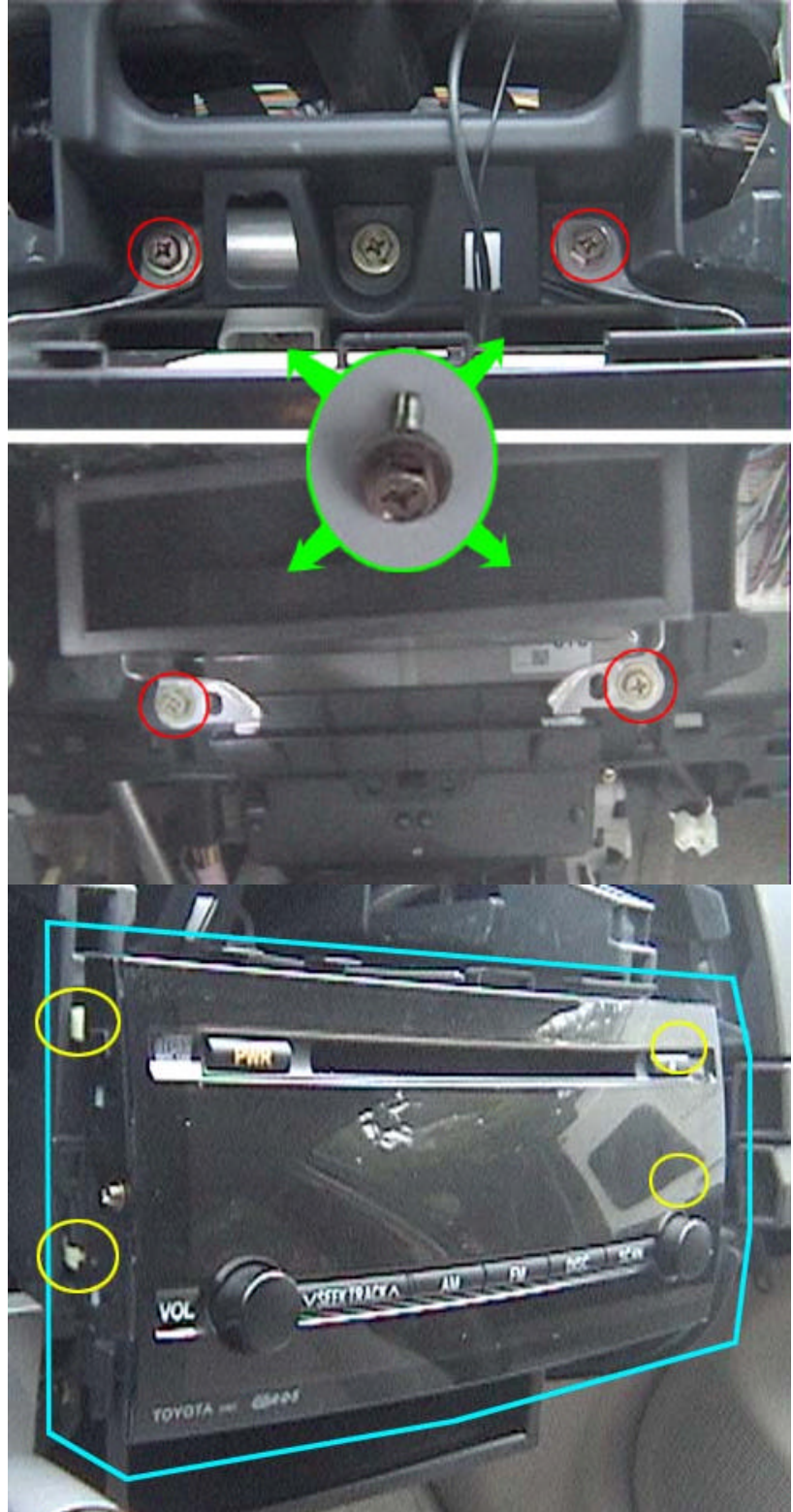
Once removed, the LCD unit is held on by three bundles of wires. I've heard you can safely disconnect them, but I thought it would be safer to just turn the unit and set it on the dashboard to the left as shown in the lower picture. Be careful not to let any part of it rest on any wire bundles.



Finally, you can remove the stereo. You may be tempted to think you can plug in your accessory without actually removing it, but the space you have is so small that I do not believe it would be possible.

Remove the four screws circled in red in the top two pictures. Again, be careful not to lose the washers. Now, you can pull the stereo and its frame out. The stereo is held in by four yellow snaps circled in the lower picture. It can take a fair amount of force to remove the stereo, but it isn't as bad as the LCD.

Once removed, open the front cup holder, then hang the metal tabs (located below the stereo, with holes for where the screws went through) on the edge of the hole the stereo was in, and let the face of the stereo rest on the cup holder.



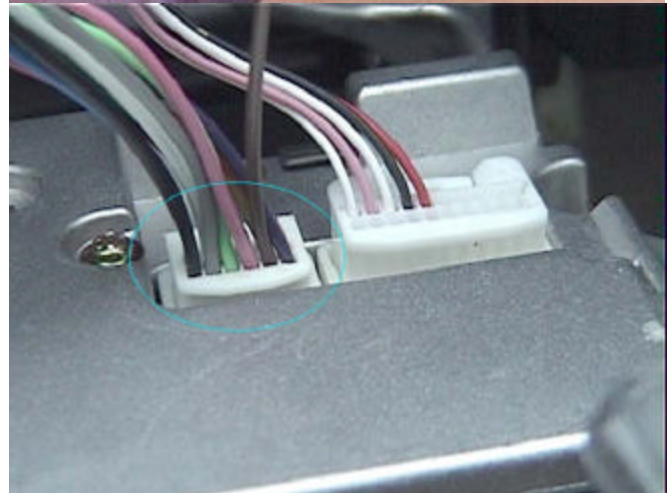
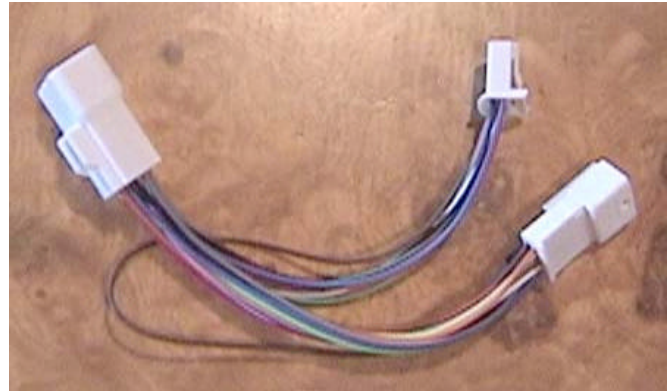
Most stereo accessories require a Y cable adapter (part #08695-00370) shown in the top two pictures to the right. The lower right picture shows this cable plugged in to the CD changer port behind the stereo (blue circle). Notice that the plug needs to be pushed much deeper than the plug next to it, which can take a significant amount of force (try pushing with the wide tips of a pliers).

The stereo accessory I used was purchased from www.rcainput.com, and they call it the “Neo 12-pin data port behind head unit”, part code TOY-AUX. My purchase included the extra Y cable adapter, but their order page makes it sound like they **no longer include the cable!** However, I heard someone still received the cable free with their order, so you may want to call to check.

The Neo is actually manufactured by MTE (Multi-Technology Equipment - www.ssiamerica.com). If you purchase one, do not get a used one, and try to be extra clear to the salesperson that you need a newer unit compatible with the 04 Prius (firmware version 2.3.09 or later). Older units claimed to work with the 04 Prius, but they hadn’t tested it in an actual car. I had to send mine back and they took about 3 months to get a test Prius and rework the firmware to make it compatible.

I found another product that looks very similar to the Neo on www.cardomain.com. It sells for a much lower price, plus they sell an inexpensive Y cable. Look for part #**PAC Aux-Box**, or the more expensive #**PAC Aux-Pod** (has a cable for newer iPods that let it interface with the steering wheel). I can’t guarantee this unit is compatible with the 04 Prius, but I have heard reports that it is.

Look for article “*What is the best way to hook an Ipod ... to a Prius?*” in the *FAQs* section of the *Knowledge Base* on priuschat.com for an overview of accessory options.



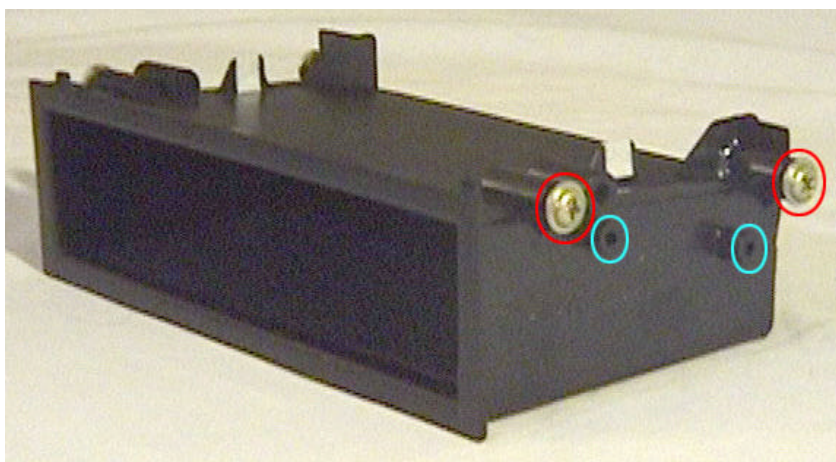
Before you put the car together, I recommend thoroughly testing the device you installed. Again, my device didn't work the first time I installed it, and I have heard other people say they thought their devices worked only to have them fail after a few minutes of playback.

To test your device, set the stereo back into place (don't actually snap it in). Put the key in the ignition, and turn on the electrical system by pressing the start button *without holding the brake*. The car doesn't seem to have a problem running with everything disassembled. Use the mode button on the steering wheel or press DISC once or twice on the stereo to cycle till you see the input has switched to CD changer.

Try letting your audio device play through the CD changer interface for at least ten minutes. Also try cycling modes from cd changer to radio and back again many times (my first defective unit worked exactly once, then never allowed me to switch back to CD changer mode again after dozens of attempts). With my working Neo device, the disc, track, and minutes/seconds displays are completely blank. When I had the malfunctioning device, I think the minutes/seconds were flashing something or other, so look for that as a danger sign.

Try pressing all the various cd changer buttons on the LCD display to see that nothing malfunctions. On mine, pressing the "disc 1" button makes it say DISC 1, TRACK 1, 0'0". Other than that, none of the buttons have any effect—they do not interrupt playback through the line-in jack. Try turning the car off and on a couple times and repeat changing modes and letting it play for awhile until you are satisfied.

Whether your device works or not, I recommend removing the empty black plastic bin under the stereo (shown to the right). Removing it leaves plenty of room for you to get at the adapter later if you have to switch cables (my adapter lets you switch between RCA and iPod cables). If you find you have a defective adapter, leave the Y cable attached behind the stereo, hanging down. Send the unit back, and when you get a replacement, you should be able to plug it into the cable hanging down without taking apart the whole dashboard again.



The downside to removing the black plastic bin is that you can see inside that something has been installed. The cover for the CD bin is translucent, and in the right light (like if you shine a flashlight onto it at night) you can see through it. Thus, if your stereo adapter is expensive, it may become an easy-to-remove thief magnet.

If you want to remove the bin, simply unscrew the four screws lowest in the metal stereo frame. The bin is shown above, removed from the car, with screws circled in red. Once you remove the screws, you will have to pull out on the metal frame to either side in order to free four pins that stick into the

holes circled in blue. I recommend putting the screws back in and storing the bin in the small secret compartment in the back left of the trunk (look under the cargo carpet, if you have one).

Now it is time to put the car back together. As you do so, be watchful for how wires fold back into place; be careful not to crimp or crush anything. Don't forget to replace screws when appropriate, since other parts will cover screw holes if you forget. As a quick reference, here is the order in which parts should be snapped back into place (look back through the guide above for pictures and details):

1. Snap in the stereo and screw in its four brass-colored screws.
2. Snap in the LCD display and screw in its two silver 10 mm bolts.
3. Snap in the clear CD-bin cover and screw in its two brass-colored screws.
4. Unplug the park button and snap it into its rectangular hole in its silver vent. Plug the park button back in, then snap its silver vent into place to the left of the stereo.
5. Snap the black panel above the steering wheel into place.
6. Snap the panel below the steering wheel into place and screw in its two black screws.
7. Snap the silver panel to the right of the stereo into place. Make sure the bottom snaps align with their holes.
8. Plug in the cigarette lighter, if you detached it, and snap the beige panel below the stereo into place. Re-insert the beige fastener that looks sort of like a screw, unless you think you will be taking the dash apart again. The fastener really isn't necessary to keep things together.
9. Snap in the silver vent to the left of the steering wheel.

That's it! Good luck, and happy listening. =)