



## Using Your iPod in the Car

When you love your music, you want to listen to it everywhere—including and especially in your car. Although you *could* pop on your earphones to listen to your iPod while driving, that's not really safe and might even be illegal in your particular locale. A better solution is to somehow pipe the tunes from your iPod through your car's built-in audio system. How you do this depends on the features of your particular car (and car audio system) and how much trouble you want to go through.

### Connecting to an iPod-Enabled Car

Some people have it good. These folks own cars that are iPod-compatible from the factory. Yes, it's true; a lot of today's new cars have built-in iPod connectivity.

If you own an iPod-compatible car, all you have to do is connect your iPod to the car stereo. How this works depends on the type of iPod integration.

Cars that offer full iPod compatibility provide a cable (often located in the car's glove

compartment) or dashboard dock that connects to your iPod's dock connector. After you connect your iPod, you control it via the car's in-dash audio system, hear iPod playback over your car's speakers, and view track info on your system's in-dash display. As an added bonus, your iPod recharges when connected. (Figure 14.1 shows an iPod connected to a Volvo audio system.)



**FIGURE 14.1**

*Connecting an iPod to a Volvo in-dash system.*

Of course, not all iPod-compatible cars are this fancy. For example, GM's iPod "compatibility" consists of an auxiliary mini-jack input on the front of their factory-installed audio systems. You connect the earphone out jack on your iPod (or any MP3 player) to this auxiliary input, which means you're simply using your car audio system for audio playback; there's no in-dash display of track info or remote control of iPod operation. (Figure 14.2 shows an iPod connected to a GM audio system in this fashion.)



**FIGURE 14.2**

*Connecting an iPod to a GM in-dash system.*

Apple claims that more than two-thirds of all 2007-model cars sold in the United States offer some sort of iPod connectivity. Which brands offer iPod connectivity? Here's the current list:

- Acura
- Audi
- BMW
- Chrysler
- Dodge
- Ferrari
- Ford
- GM
- Honda
- Infiniti
- Jaguar
- Jeep
- Mazda
- Mercedes
- Mini
- Nissan
- Scion
- Suzuki
- Volkswagen
- Volvo

It goes without saying that not all makes and models from these brands offer iPod connectivity. In addition, iPod connectivity is often an option, not standard equipment—which means you'll pay a little extra for it. (For example, BMW's iPod Adapter costs \$149 plus dealer installation.) But still, factory-installed iPod connectivity is definitely the easiest way to go; there's nothing for you to install, just connect your iPod and start listening, using your car radio's standard controls. If your current car isn't iPod compatible, make sure this feature is on your checklist when you're shopping for a new car.

**note** iPod connectivity is not limited to land vehicles. Many fishing and pleasure boats are now coming with iPod-ready sound systems, just like those offered by automobile manufacturers.

## Installing an Aftermarket iPod-Ready Car Audio System

If your current car doesn't offer iPod connectivity, all hope is not lost. You can replace your current car audio system with a new one that does let you connect and control your iPod. And lots of options are available.

Many new aftermarket car audio systems offer connections to either the iPod docking connector or the iPod's earphone out jack. The docking connector option is the best way to go, because it lets you operate the iPod from the in-dash controls, display now-playing information on the in-dash display, and recharge the iPod while it's connected. An auxiliary connection to the iPod earphone jack offers none of these control or display options, it merely funnels the iPod's audio into the in-dash system.

For example, the Alpine CDA-9857, shown in Figure 14.3, has an iPod Direct Connection on its rear panel. Connect an optional Full Speed Connection cable between the back panel and your iPod's dock connector, and the in-dash unit controls all the iPod's operations. The in-dash display also shows artist, album, and track information. It's available for \$349.99 from [www.alpine.com](http://www.alpine.com).



**FIGURE 14.3**

*Alpine's iPod-compatible CDA-9857 in-dash car stereo.*

Which car stereo manufacturers offer iPod-compatible units? It's a long list, including the following:

- Alpine ([www.alpine.com](http://www.alpine.com))
- Blaupunkt ([www.blaupunkt.com](http://www.blaupunkt.com))
- Clarion ([www.clarion.com](http://www.clarion.com))
- Dual ([www.dualav.com](http://www.dualav.com))
- Eclipse ([www.eclipse-web.com](http://www.eclipse-web.com))
- JVC ([www.jvc.com](http://www.jvc.com))
- Kenwood ([www.kenwoodusa.com](http://www.kenwoodusa.com))
- Panasonic ([www.panasonic.com/consumer\\_electronics/caraudio](http://www.panasonic.com/consumer_electronics/caraudio))

- Pioneer ([www.pioneerelectronics.com](http://www.pioneerelectronics.com))
- Sony ([www.xplodsony.com](http://www.xplodsony.com))

Prices on these units run from the sub-\$100 range to more than \$1,500. To my eye, you'll find the most options in the \$200 to \$400 range, including units that offer full iPod operability via the docking connector.

Installing a new car audio head unit is typically a job for a professional car audio installer, although many individuals choose to do it themselves. Make sure you choose a unit that fits in your particular dash; most car audio retailers offer charts or searchable databases that let you find the right systems for your car's specific make and model.

**pick** Although I always recommend the services of local merchants, if you want to shop via mail order or the Web, Crutchfield ([www.crutchfield.com](http://www.crutchfield.com)) offers a wide selection and lots of useful online information.

## Connecting to an Existing Car Audio System

What do you do if you want to play your iPod in your car but don't want to (or can't afford to) purchase a new car audio system? Again, you have several options.

The preferred option, in terms of sound quality, is to make a direct connection between your iPod and your car audio system. With a direct connection, you retain the full audio fidelity of your iPod; this is not the case if you connect via FM modulation (which we discuss later in this chapter).

You can make a direct connection between your iPod and your car audio system in many different ways. Some car connection kits are mere cables that run between your iPod (either the dock connector or the earphone out jack, depending) and the auxiliary input jacks found on the back of many OEM and aftermarket audio head units. Other kits feature adapters that utilize the CD changer port found on the back of many car radios. Some connection kits provide dock mounts for the iPod, whereas others offer auxiliary controllers and displays. As is the case with aftermarket audio systems, I recommend you have a professional installer help you decide which kits work best for your vehicle and perform the installation itself.

**caution** iPod adapters that connect to the auxiliary input on your car radio do not receive power from your vehicle. You'll need to invest in a separate power adapter to connect your iPod to your car's cigarette lighter, or risk your iPod's battery running out in the middle of a long drive.

One of my favorite direct connection kits is the Harman Kardon Drive + Play, shown in Figure 14.4. The Drive + Play's "brain" is a small box that mounts in the glove box or under a front seat and connects to your existing radio's auxiliary input. Connected to the main unit is a backlit LCD display that displays iPod-style menus and track info, and a mushroom-shaped controller unit that works much like the iPod Click Wheel. You mount the display on your dashboard and the controller on your center console. The whole system sells for \$149.99 and is available from [www.harmankardon.com/drive-1](http://www.harmankardon.com/drive-1).



**FIGURE 14.4**

*The Harman Kardon Drive + Play iPod direct connection kit.*

Not all direct connection kits are quite this sophisticated, and not all kits work on all vehicles. In fact, some "kits" are nothing more than connecting cables, like the Neo iON kit from Mp3YourCar, shown in Figure 14.5. Check with the kit manufacturer to find the kit that works with your particular vehicle and audio system.

**note** If your existing car audio system doesn't have an auxiliary input, the Drive + Play can use FM modulation to play through your vehicle's FM radio.

**FIGURE 14.5**

*The Neo iON direct connection kit.*

Here are some of the more popular manufacturers of direct-connection iPod kits:

- Blitzsafe ([www.blitzsafe.com](http://www.blitzsafe.com))
- Mp3YourCar ([www.mp3yourcar.com](http://www.mp3yourcar.com))
- PAC ([www.pac-audio.com](http://www.pac-audio.com))
- Peripheral ([www.periphralelectronics.com](http://www.periphralelectronics.com))
- P.I.E. ([www.pie.net](http://www.pie.net))
- Smart Park iConnect ([www.smartpark.net/iPod\\_iConnect.html](http://www.smartpark.net/iPod_iConnect.html))
- USA Spec ([www.usaspec.com](http://www.usaspec.com))
- VAIS Technology ([www.vaistech.com/sli.html](http://www.vaistech.com/sli.html))
- Wire-Tunes ([www.wire-tunes.com](http://www.wire-tunes.com))

Expect to pay between \$50 and \$150 for these direct connection kits and cables.

## Connecting via a Cassette Adapter

All the previous in-car solutions involve a bit of work. If you'd prefer not to pull your car radio out of the dash and fiddle with

**tip** There are lots of different ways to modify an existing car audio system for iPod use. For more information and ideas about in-car iPod installations, check out the iPod in Car blog ([www.ipodincar.net](http://www.ipodincar.net)).

this cable and that, you need a way to connect your iPod to the *front* of your car's audio system.

Naturally, if your audio system has an in-dash auxiliary input jack, you can connect a standard mini-jack cable between your iPod and this auxiliary input. Otherwise, you have to look for another solution.

If your car radio includes a cassette player (and some still do), a workable solution is to use a cassette adapter. These devices, like the Belkin Cassette Adapter shown in Figure 14.6, look like a cassette tape with a cable attached, but there's no tape inside. Instead, the adapter transfers the audio output signal from your iPod to the read head of your in-dash cassette deck. Just insert the adapter into your radio's cassette slot and connect the cable to the ear-phone out jack on your iPod. Switch your audio system to "cassette," press Play on your iPod, and you'll hear your iPod music over your car's speakers.



**FIGURE 14.6**

*The Belkin Cassette Adapter lets you connect your iPod to your car's cassette player.*

Cassette adapters don't sound quite as good as direct connections, but do sound noticeably superior to FM transmitters, which we discuss next. They're also lower priced than other options.

Some of the most popular cassette adapters include the following:

- Belkin Cassette Adapter for iPod (\$19.99, [www.belkin.com](http://www.belkin.com))
- Griffin DirectDeck (\$14.99, [www.griffintechnology.com](http://www.griffintechnology.com))
- Griffin SmartDeck (\$29.99, [www.griffintechnology.com](http://www.griffintechnology.com))

**caution** Connecting your iPod to a cassette adapter does not provide power to your iPod. You'll need to invest in a separate power adapter to connect your iPod to your car's cigarette lighter.



- iRock Car Cassette Adapter (\$3.99, [www.myirock.com](http://www.myirock.com))
- Macally Cassette Tape Car Adapter (\$14.99, [www.macally.com](http://www.macally.com))
- Maxell CD-330 Cassette Adapter (\$13.99, [www.maxell-usa.com](http://www.maxell-usa.com))
- Sony DCC-E34CP Car Connecting Pack (\$29.99, [www.sonymstyle.com](http://www.sonymstyle.com))

## Connecting via an FM Transmitter

The last type of iPod in-car connection we discuss is the most popular, but it's also the most problematic.

The technology is simple—a small FM transmitter connects to your iPod and transmits the iPod audio over an unused FM frequency to your car's FM radio. Although this type of system is simple to implement and use, the resulting sound quality often leaves a lot to be desired; the sound is noticeably lower fidelity than you get with any other connection method.

In addition, you often run into the issue of finding a free FM frequency, especially in large cities. And if you're on a long road trip, you must change frequencies as you drive from town to town, depending on which frequencies local FM stations are using. Even if you find an unused frequency, you might not also get good reception between your iPod and your FM radio. Like I said, this type of connection is problematic.

However, FM transmission is also very popular; unlike other connection methods, you can use FM transmission in virtually any vehicle that has an FM radio. It's also a portable solution, which is nice if you're using a rental car or move your iPod between multiple family vehicles. And, of course, it's a clean connection; there are no cables involved.

The typical FM transmitter attaches to the dock connector or earphone jack on your iPod and features some way to change and display FM frequencies. For example, the DLO TransDock, shown in Figure 14.7, connects to your iPod's dock connector, and then lets you scroll through the available FM frequencies. Set the frequency and then dial your car radio to the same frequency to hear what your iPod is playing. The TransDock is nice in that it also connects to your car's cigarette lighter, to power both the TransDock and your iPod; it also transmits video signals to an in-car video system, if you have a video iPod. You can purchase it for \$99.99 from [www.dlo.com](http://www.dlo.com).

**tip** When you're shopping for an iPod FM transmitter, look for a model that offers a large number of available frequencies. Some models only have a handful of preset frequencies; the more frequencies available, the more likely you'll find a free frequency to use for your iPod.

**FIGURE 14.7**

*The DLO TransDock FM transmitter for iPod audio and video.*

Other popular FM transmitters include the following:

- Arkon SF250 SoundFeeder FM Transmitter (\$19.95, [www.arkon.com](http://www.arkon.com))
- Belkin TuneBase FM (\$79.99, [www.belkin.com](http://www.belkin.com))
- Belkin TuneCast (\$29.99, [www.belkin.com](http://www.belkin.com))
- Belkin TuneCast II (\$39.99, [www.belkin.com](http://www.belkin.com))
- Belkin TuneCast 3 (\$49.99, [www.belkin.com](http://www.belkin.com))
- Belkin TuneCast Auto (\$59.99, [www.belkin.com](http://www.belkin.com))
- Belkin TuneFM (\$49.99, [www.belkin.com](http://www.belkin.com))
- DLO TransDock Micro (\$69.99, [www.dlo.com](http://www.dlo.com))
- DLO TransPod (\$99.99, [www.dlo.com](http://www.dlo.com))
- Griffin iTrip (\$49.99, [www.griffintechology.com](http://www.griffintechology.com))
- Griffin iTrip Auto (\$69.99, [www.griffintechology.com](http://www.griffintechology.com))
- Griffin RoadTrip (\$89.99, [www.griffintechology.com](http://www.griffintechology.com))
- iRock 410FM (\$19.99, [www.myirock.com](http://www.myirock.com))
- iRock 440FM (\$24.99, [www.myirock.com](http://www.myirock.com))
- Macally FMCup (\$59.99, [www.macally.com](http://www.macally.com))

- Macally FMTF (\$49.99, [www.macally.com](http://www.macally.com))
- Macally IceFM (\$29.99, [www.macally.com](http://www.macally.com))
- Maxell P-4A Digital FM Transmitter (\$39.99, [www.maxell-usa.com](http://www.maxell-usa.com))
- Monster iCarPlay Wireless 200 (\$99.95, [www.monstercable.com](http://www.monstercable.com))
- Monster iCarPlay Wireless Plus (\$79.95, [www.monstercable.com](http://www.monstercable.com))

**tip** The higher-priced FM transmitters tend to include an AC power adapter and plug into your car's cigarette lighter for power. Lower-priced models are either battery powered or derive their power from the iPod—which shortens your iPod's battery life.

As you can see from the wide variety of available models, this is a popular way to connect your iPod in the car.

## CHOOSING THE RIGHT CONNECTION

I wish my 2004 Audi were iPod compatible, but it was manufactured before iPod connectivity became common. Like most of you, if I want to play my iPod in the car, I face a choice between installation convenience, sound quality, and everyday operation.

The one option I've tried and cannot personally recommend is that of FM transmission. Where I live, it's near impossible to find a free FM frequency; even the supposedly "empty" frequencies have too much background noise for most FM transmitters to overpower. I simply can't get an FM transmitter to work for me.

My car does have a cassette player (and I don't know why; I've never used it), so I could go the cassette adapter route. The sound is acceptable, but the mess isn't. That is, I really don't want a cable trailing out the front of the cassette deck to a hanging iPod. Too messy for me.

Because I also don't want to replace my factory audio system with an aftermarket model, I'm left with the option of installing a direct connection kit. It should be easy enough to find a kit that works with my Audi Symphony audio system, and this approach will give me the best possible sound quality—something that matters very much to my ears. The clean installation is also a good thing, with no cables trailing around the dash. It's not the cheapest way to go, but it offers the best results, at least for me.

## Other iPod Car Accessories

Two other categories of iPod accessories make use in your car a bit easier. These include power adapters (so that you don't drain your iPod's battery) and car mounts (so that your iPod has someplace to sit while you're driving).

### Power Adapters

If you're going to be driving for more than a few hours, it's a good idea to provide some auxiliary power for your iPod. Otherwise, you risk having your iPod's battery fizzle out in the middle of your trip, which is less than ideal.

The typical iPod power adapter, like the DLO Auto Charger shown in Figure 14.8, plugs into your car's cigarette lighter or power jack. A short cable connects the power adapter to the dock connector on the bottom of your iPod.

The power adapter thus provides a steady stream of power for your iPod and recharges the iPod as you drive.



**FIGURE 14.8**

*The DLO Auto Charger for the iPod and iPod nano.*

Some of the most popular iPod car power adapter/chargers include the following:

- Arkon CA070 iPod Car Charger (\$12.95, [www.arkon.com](http://www.arkon.com))
- Belkin Auto Kit for iPod w/Dock Connector (\$39.99, [www.belkin.com](http://www.belkin.com))
- DLO Auto Charger (\$19.99, [www.dlo.com](http://www.dlo.com))
- Griffin TuneFlex (\$49.99, [www.griffintechology.com](http://www.griffintechology.com))
- Griffin PowerJolt (\$19.99, [www.griffintechology.com](http://www.griffintechology.com))
- iRock 12V DC Charger (\$12.95, [www.myirock.com](http://www.myirock.com))
- Macally USB Car Charger (\$19.99, [www.macally.com](http://www.macally.com))
- Monster iCarCharger for iPod (\$39.95, [www.monstercable.com](http://www.monstercable.com))
- Ten Technology flexibleDock (\$49.95, [www.tentechology.com](http://www.tentechology.com))

## Car Mounts

Finally, there's the issue of where you put your iPod while you're driving. You could just lay it on the dashboard (until it slides off) or place it on the passenger seat (unless you have a passenger). A better solution, however, is to somehow mount it on your car's dash or windshield, where it's within eye sight and arm's reach—so that you can quickly and easily operate the Click Wheel while you're driving.

All manner of iPod car mounts are available. Some are vehicle specific, designed to mount to your car's dashboard or center console with bolts or adhesive tape, like the Pro.Fit miMount shown in Figure 14.9. Others are more portable, fitting into one of your car's cup holders, like the Griffin iSqueez shown in Figure 14.10. Still others attach to your windshield with suction cups, or fit into your car's cigarette lighter and do double-duty as power adapters. Which type of mount you choose depends on how attached you want it to be and where you want it positioned.



**FIGURE 14.9**

*The Pro.Fit miMount iPod mount.*

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**FIGURE 14.10**

*The Griffin iSqueeze iPod cupholder mount.*

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That said, here are some of the more popular iPod car mounts:

- Arkon CM160-W Swivel Vent Mount (\$19.95, [www.arkon.com](http://www.arkon.com))
- Belkin TuneDok (\$29.99, [www.belkin.com](http://www.belkin.com))
- Gomadic Dash Car/Auto Mount (\$34.95, [www.gomadic.com](http://www.gomadic.com))
- Gomadic Vent Car/Auto Mount (\$34.95, [www.gomadic.com](http://www.gomadic.com))
- Gomadic Windshield Car/Auto Mount (\$34.95, [www.gomadic.com](http://www.gomadic.com))
- Griffin iSqueez (\$9.99, [www.griffintechology.com](http://www.griffintechology.com))
- Nyko Universal Car Mount (\$39.99, [www.nyko.com](http://www.nyko.com))
- Pro.Fit miMount (\$29.95–\$39.95, [www.pro-fit-intl.com/mimount](http://www.pro-fit-intl.com/mimount))
- ProClip Mounting System (\$26.99–\$59.99, [www.proclipusa.com](http://www.proclipusa.com))
- Ten Technology iRide Glove Box Organizer (\$79, [www.tentechology.com](http://www.tentechology.com))