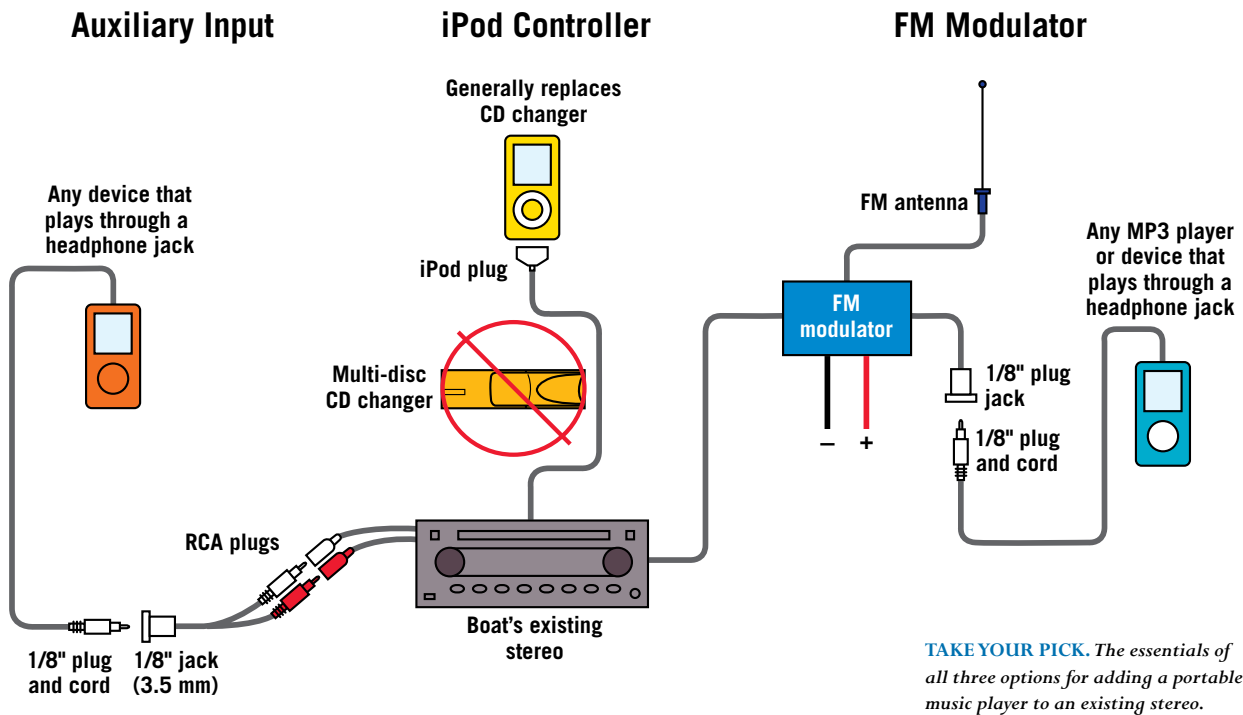


EDITED BY JOHN CLEMANS



Music, Music Everywhere

You can add a portable music player to your boat's current system, or install a new, MP3-ready stereo. Here are tips for an easy, inexpensive installation.

BY CAPT. VINCENT DANIELLO

It all started with a Christmas gift — an iPod for my father. His new car has a portable music player input jack, suitable for iPods or any portable music device, and my brother gave him an adaptor for his home stereo and a mini-speaker unit for travel. He was set. “Now you can store all your music in one place and bring it with you anywhere,” we told him. But then came an unanticipated question: “Can I use it on the boat?”

The answer was no, but soon became yes because we added an input jack to the boat's existing Clarion marine stereo — an easy project that can typically be accomplished for less than \$100. In fact, the hardest part is determining what options are available for a particular brand and model of stereo and which is the best choice for

your boat. For advice, I turned to Terry Jones. His Raleigh, North Carolina-based company, Audio Allies, has been helping consumers make these choices for six years.

“For an existing stereo, there are basically three MP3 options, each with its own weaknesses and strengths,” says Jones. For my father's



AUXILIARY INPUT JACKS. The simplest and most versatile solutions, input jacks bridge the gap between a portable music player's headphone jack and the auxiliary input connections on the backs of many stereos.

boat, we quickly ruled out an FM transmitter, which simply broadcasts the iPod's music so the stereo can receive it over the airwaves. I've used this successfully in the Bahamas and Caribbean, and it's quite simple to install, but a transmitter presents problems in areas with many radio stations. As Jones explains, “A transmitter requires an unused FM frequency, and that availability changes as a boat travels from place to place.”

“MP3 player” is a generic term that includes iPods, Zunes, etc. They are all portable music players, but many of the solutions listed would also work for old cassette or portable CD players, laptop computers, etc.

My father's stereo is fairly new, which simplified the situation. Most stereos made in the last three or four years are equipped with either an

STEP-BY-STEP INPUT JACK INSTALLATION

STEP

1

Remove the stereo and check for an auxiliary input connection. On my father's Clarion stereo, I had to bend out a retainer clip with a screwdriver. One set of red and white connectors was for the output for an amplifier, the other for an auxiliary input. Check the manual to be sure which to use on your stereo.



STEP

2

Mark a location for the input jack and check to make sure there is room. Select the proper drill bit to make the required hole. The size is usually specified in the directions. Apply masking tape to the surface before drilling to prevent splintered wood or chipped gelcoat. Blue tape won't leave a sticky mess.



STEP

3

Thread the input jack and its wires through the hole from the front and secure it with the retaining nut. If the jack will be outside or in a spot where there is a chance of water hitting it, use silicone sealant around the flange. Once it is mounted, connect the RCA plugs to the stereo's auxiliary input.



STEP

4

Plug the supplied cable into your portable music player's earphone jack to connect the player to the auxiliary input, and select the auxiliary source on the stereo system. It's best to turn the volume all the way up on the portable music player and control the play volume from the stereo.



FM MODULATORS. These connect through the stereo's FM antenna connection, providing a simple way to hook up a portable music player to any brand of marine stereo.

auxiliary input jack on the front or an auxiliary connection on the back. My father's stereo had the latter, with a pair of red and white plugs dangling from the back. All I had to do was mount a \$15 input jack for the iPod and attach a couple of RCA plugs (like those on a typical home stereo). A big advantage to this type of connection is that it works with all brands of portable music players, or even laptop computers, because you simply use the headphone output to



IPOD ADAPTORS. These connect an iPod to a stereo and not only play music from the portable player, but also charge it and allow it to be controlled from the stereo or a remote. The adaptor shown here is for a Clarion stereo.

connect to the stereo. "It doesn't have to be an iPod," Jones says. "A Zune, SanDisk, whatever, will work." But this type of connection won't charge the music player's battery.

If you'll only be using one brand of portable music player, a more capable, slightly more expensive option is an interface cable that plugs into the stereo's multi-disk CD changer port. These adaptor cables are purchased for the specific stereo and portable music player you're using (most are made for iPods, which represent roughly 70 percent of the market). For \$50 to \$80, this connection allows a varying amount of control of a portable music player from the stereo or remote — depending on the brand and model — and will charge the battery.

If you don't have an auxiliary input or a CD changer port, Jones suggests an FM modulator, which costs about \$40. It connects through the FM antenna wire and will work with any marine stereo. FM modulators require 12-volt DC power plus a plug to connect to the portable music player's headphone jack, so they require a bit more work to install. They work with any brand of portable music player, but won't charge or control it. Because they provide a hard-wired connection, FM modulators are not prone to the interference problems of FM transmitters, and an antenna pass-through allows radio station reception when the portable music player isn't being used.

VINCE DANIELLO

FUSION SYSTEM

Higher-priced stereo systems offer significantly more features. For example, Fusion's new MS-IP500 has an iPod dock hidden behind the stereo's faceplate. Insert the iPod, safe and sound inside the watertight stereo unit, and forget it.

Advance songs, or choose an artist, genre or playlist from Fusion's stereo head or from its up to four remotes — all with a familiar iPod interface. The system also has four independent, programmable zones, so cranking the volume in the cockpit won't disturb guests in the salon, and the dock keeps the iPod charged.



POLY-PLANAR SYSTEMS

The MRD-70 system (below left) from Poly-Planar doesn't control or charge an iPod, but it can be used with any brand of portable music player. Poly-Planar offers both wired and wireless remotes, and each zone can listen to and even control the main stereo system's AM/FM satellite radio or auxiliary input. Another key feature offered by the MRD-70 is that each zone can plug in and use a portable music player for only that zone, offering each stateroom, for example, its own music source.

For tight places, consider Poly-Planar's MP3-Kit (below right), which includes a waterproof amplifier, speakers, volume control and an input jack to play music only from a portable music player.



While adding portable music is fairly easy, if the boat also has XM or Sirius satellite radio, things get a bit more complicated. Most satellite receivers connect through the CD changer port, although a few connect through the auxiliary input. This should leave one or the other open for adding a portable music player. There are also devices available to connect two music sources through the changer port, with equipment varying among brands. If either option won't work, an FM modulator usually will.

The most effective approach on some boats might be installing a new stereo that has a built-in iPod adaptor cable, such as Sony's new CDX-M50IP, which costs \$150. This unit charges the iPod, controls it from the main unit or matching remote and displays the artist and song information on the stereo and remote LCD screens.

Resources

- >> audioallies.com
- >> crutchfield.com
- >> fusioncaraudio.com
- >> polyplanar.com
- >> xplodsony.com

Keeping Tabs

Maintaining and troubleshooting hydraulic trim tabs.

BY GARY CAPUTI

I can't think of a single invention that has done more to improve a boat's ride and performance than helm-adjustable trim tabs. Almost 50 years ago, Charles Bennett invented these hydraulically operated wonders and, a million units and dozens of improvements later, Bennett Marine is still

VINCE DANIELLO (TOP); JOHN CLEMENS (BOTTOM)



the leading provider of trim tabs to the marine industry, although, especially on small and midsize boats, electric trim tabs have come on strong in recent years.

Trim tabs can increase speed, reduce pounding, balance an uneven load, eliminate porpoising,

offset prop torque, reduce engine laboring, improve ride in almost any sea condition and even reduce fuel consumption. Hydraulic trim tabs are remarkably dependable — the original Bennetts on a 28-year-old center console a friend of mine recently purchased were one of