

P.I.E. FRD04-POD/S iPod Adapter

Application/Installation and Instruction Manual

INTRODUCTION

Precision Interface Electronics (PIE) has released a new line of iPod interfaces that allow you to interface your iPod directly to the OEM (factory) radio in select Ford/Lincoln/Mercury Vehicles. The FRD04-POD/S allows you to operate your iPod (Mini, G3, G4, G5, Nano, Photo, Video) using the factory Satellite Radio controls of your Ford/Lincoln/Mercury Group radio. Using this interface, the iPod will take the place of the Ford Satellite Radio System, providing you with one of the most interactive factory iPod interfaces in the industry. Control of the iPod through the OEM radio includes, but is not limited to:

1. Individual search of artist, album, playlist, song composer etc.
2. Ability to display the following TEXT fields:
Artist name (12-characters)
Song name (16- characters, shown 8-characters at a time when song is first selected, 12 characters when searching songs)
Album title (12-characters)
Playlist name (12-characters)
3. The option of using the factory Radio or iPod clickwheel to control your iPod
4. Direct audio connection for optimum sound quality
5. Charges the iPod internal battery
6. Plug-n-play installation: includes installation cable, interface and owner's manual

>>WARNING>> If factory Satellite radio and/or RSE are present, you must disconnect both to install this part.

IPOD COMPATIBILITY

Use the FRD04-POD/S with one of the following iPod models:

iPod (G3/G4, G5), iPod Photo, Nano, Video and iPod Mini equipped with a dock connector.

Note: The operation and functions of this interface described herein have only been confirmed with the following firmware versions (see apple.com/iPod for firmware updates)

<u>iPod (G3/G4)</u>	<u>iPod Nano</u>	<u>iPod Photo</u>	<u>iPod Video (G5)</u>	<u>iPod Mini</u>
Firmware v2.3	firmware 1.3	Firmware 1.2.1	firmware 1.2.1	firmware v1.4.1
firmware v3.1.1 (G4)				

IPOD PLAYBACK FUNCTIONS

The control functions for the iPod using the factory radio's satellite controls are similar to those used for the iPod itself. Due to certain radio limitations, there are some differences in how the iPod information is accessed and /or displayed through the factory radio.

The following describes how to control the iPod from the factory radio, and any similarity to the iPod's controls or buttons has been noted.

1. Listening to your iPod.

Once you are in SAT1 mode and the iPod is connected to the dock cable, the iPod will begin playing the song that it was currently at before it was connected. After the radio displays IPOD HEAD → MUSIC SELECT → PLAYLIST, the current song title and elapsed time will be displayed (up to 12 characters)

At this point the radio is in “**IPOD HEAD**” mode and all controls are done through the satellite radio control buttons on the Ford radio. Pressing the AUX button a second time will display “**SAT2**”. This is the “**REMOTE MODE**” and will restore the iPod screen and controls while still allowing limited control through the radio. “**SAT3**” will switch control back to the radio and is the same as “**SAT1**”.

2. Radio Controls for your iPod in “IPOD HEAD” mode (SAT1/SAT3)

Now that your iPod is connected and you are listening to your music, you can begin navigating through your music library in much the same way you would from the iPod itself. The radio buttons/iPod controls and their similarity to the buttons/controls on the iPod itself are as follows:

<SEEK – Similar to iPod **PREVIOUS TRACK** button; press and hold to rewind through current song.

SEEK> - Similar to iPod **NEXT TRACK** button, press and hold to fast forward artist name, album name and song name, button location varies by headunit.

TEXT – toggles between artist name, album name, and song name, button location varies by headunit.

PRESET 1- (Similar to iPod “**MENU**” button)

PRESET 2- (Similar to iPod “**SELECT**” button)

PRESET 3- (Similar to counter-clockwise rotation of iPod Clickwheel)

PRESET 4- (Similar to clockwise rotation of iPod Clickwheel)

PRESENT 5- (Toggles between **SHUFFLE SONGS, SHUFFLE ALBUMS, SHUFFLE OFF**)

PRESENT 6- (Toggles between **SCAN ON, SCAN OFF, REPEAT ON, REPEAT OFF**)

As described in the next section “Controlling your iPod” the factory satellite radio controls are used in a variety of different ways to navigate through your iPod library.

Browsing by song, artist, etc

Pressing radio preset 1 will allow you to enter **MUSIC SELECT** mode in order to toggle through the following categories: **PLAYLIST → ARTIST → ALBUMS → SONGS → PODCAST → GENRES → COMPOSERS → AUDIOBOOKS**

Example of finding a song y a particular artist:

- Press radio preset 1 to get into MUSIC SELECT mode.
- Using radio preset 3 & 4, locate the ARTIST category and press radio preset 2
- Using radio presets 3 & 4, locate the desired artist and press radio preset 2
- Using radio presets 3 & 4, select the desired album for that artist and press radio preset 2.
- Using radio presets 3 & 4, locate desired song and press radio preset 2 to begin play.

Radio Controls for your iPod in “IPOD REMOTE” mode (SAT2)

upon entering the SAT 2 band on the Ford radio, the check mark on the iPod display will disappear, the radio will display “IPOD REMOTE”, and the iPod screen and controls are now operational. This is useful for more rapid navigation through the iPod song library when using an iPod that contains an unusually large number of songs.

In iPod REMOTE Mode, radio controls are limited to the following:

<SEEK – Similar to iPod **PREVIOUS TRACK** button; press and hold to rewind through current song.

SEEK> - Similar to iPod **NEXT TRACK** button, press and hold to fast forward artist name, album name and song name, button location varies by headunit.

TEXT – NO FUNCTION.

PRESET 1- (Similar to iPod “**MENU**” button)

PRESET 2- (Similar to iPod “**SELECT**” button)

PRESET 3- (Similar to counter-clockwise rotation of iPod Clickwheel)

PRESET 4- (Similar to clockwise rotation of iPod Clickwheel)

PRESENT 5- (Toggles between **SHUFFLE SONGS, and SHUFFLE OFF**)

PRESENT 6- (Used to Pause iPod, press again to play)

VEHICLE COMPATIBILITY

For use in the following vehicles when equipped with satellite ready radios with 16 & 24-pin radio connectors and an "AUX" button on the radio face.

FORD	LINCOLN	MERCURY
2006-07 Explorer	2006-07 Mark LT	2006-07 Mountaineer
2006-07 F-150		2006-07 Milan
2006-07 F-250		
2006-07 F-350		
2006-07 F-550		
2006-07 Focus		
2006-07 Freestyle		
2006-07 Fusion		
2006-07 Mustang		
2007 Sport-Trac		

WARNINGS!!

1. The FRD04-POD/S is **NOT compatible** if any of the above vehicles are equipped with factory Rear Seat Entertainment (RSE) or factory Satellite radio—these options must be disconnected.
2. Radios **MUST** have an "AUX" button on the face and Ford "Phase II" 16 & 24-pin connectors on the back

INSTALLATION

This operations manual has been prepared to provide a thorough description of how to interface and operate the iPod with your factory radio. All vehicles require different PIE interfaces and installation techniques. The information given is for guidance and each installer should make necessary decisions that are not covered by the guide. Precision Interface Electronics strongly recommend professional installation of all aftermarket equipment. The terms of warranty demand that professional assistance of an experienced installer be present, as the installation may require special tools and knowledge.

1. Ensure that the vehicle's battery terminal (-) is disconnected before installation. Disconnecting the battery terminal before installation of this interface ensures proper synchronization and helps avoid possible synchronization errors.
 2. Ensure that normal control and operation of the vehicle is not impaired by the installation, mounting all pieces securely and preventing interference to necessary vehicle operation.
 3. This interface is suitable for use only in vehicles with a 12-Volt negative ground. Use on other supply voltage or alternative polarity will damage the equipment.
- Please read the installation guide thoroughly, making special note to the warning section, before beginning installation.

INSTALLATION STEPS

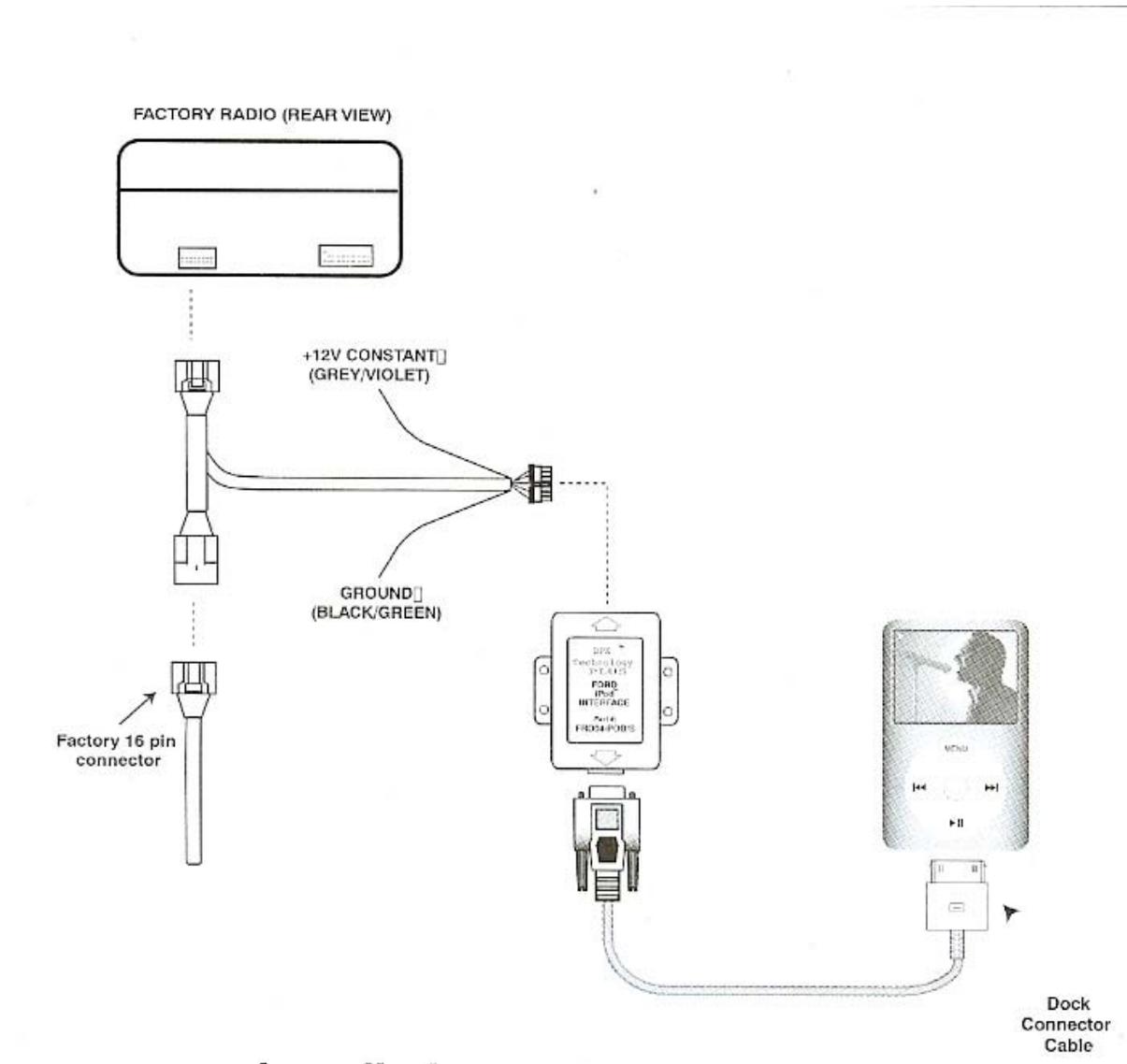
1. Disconnect the negative battery terminal
2. Remove the factory radio to gain access to the necessary connectors
3. Disconnect the factory 16-pin (if present) connectors from the rear of the radio.
4. Connect the 16-pin connector of the FRD04-POD/S in to the radio
5. Reconnect the factory 16-pin (if present) connectors into the mating connector on the FRD04-POD/S
6. Connect the Grey/Violet wire to the 12 Volt- constant source. (Such as the cigarette lighter) Connect the Green/Black wire to the chassis ground.
7. Connect the 10-pin MOLEX connector of the interface harness to the mating connector of the interface black box.
8. Connect the male DB15 connector of the 4-foot dock cable to the interface black box
9. Route the 4-foot dock cable to iPod location (i.e. center console, or glove box) Do Not Connect iPod yet.
10. Re-install the factory radio back into dash
11. Reconnect the negative battery terminal

Note: For bet synchronization between iPod and radio, radio and iPod should both be ON.

1. Press the AUX button on the OEM radio to get to SAT1 mode.
2. Connect the routed 4-foot dock cable to the iPod. A symbol showing your battery is being charged will show next to the battery indicator.
3. Wait a few seconds while the iPod interface searches for all the playlist(s). Searching time may vary depending on the number of playlist (s)
4. After connecting the iPod to the interface, the iPod will begin to play and will show an "OK to disconnect" message. This message means the iPod is in external control mode and proper synchronization is complete.

Note: If the "OK to disconnect" message does not appear/or the iPod does not begin to play within 5-10 seconds, please disconnect the iPod and recheck your connections.

INSTALLATION DIAGRAM



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