USASPEC PA12-BMW BMW/MINI iPod™ INTERFACE OWNER'S MANUAL

KEY FEATURES

The PA12-BMW interface connects iPod products directly to BMW audio system. Its on-board software translates the factory radios external CD Changer controls functions into commands that the iPod understands. This interface enables the iPod to take the place of a BMW external CD Changer and provides the following benefits:

1. Direct connection of the iPod to BMW vehicle audio system for optimum sound quality

2. In Hybrid mode: select songs and playlist on the iPod using the CD Changer buttons on the radio or directly on the iPod using the iPod clickwheel
In Direct Mode: Search and select songs directly on the iPod.

3. Maintain current playlist when switching from portable use to in-car use.

4. Charge the iPod internal battery — and to prevent battery-drain, charging automatically ends one hour after iPod is paused

5. Auxiliary audio input [connect an audio device (mp3, DVD, Game, SAT radio etc) and listen to it on the factory system]

6. Plug-n-Play: This complete package includes installation cables, mounting screws and user's manual.

COMPATIBILITY

The PA12-BMW interface is compatible with iPod (G3* see below, G4, G5) iPod Mini, Nano, Photo, Video models featuring a dock connector. The functionality and features of the iPod interface described in this owner's manual are confirmed with software version:

iPod	iPod Nano	iPod Photo	iPod Video	iPod Mini
Firmware v2..3	firmware 1.0	Firmware 1.2	firmware 1.0	firmware v1.4
firmware v3.1 (G4)				

Please visit www.apple.com/iPod and update the firmware on your iPod.

*G3 iPod is not fully compatible with Hybrid mode. The screen on G3 iPods will be locked and "OK TO DISCONNECT" will be displayed. Access Playlist on iPod using the DISC button on the radio, but user can not operate the keys (clickwheel) on iPod directly when DIP switch #2 is "ON". G3 iPods are fully compatible with Direct Mode.

Future firmware updates for your iPod, iPod Mini, iPod photo or iPod video may affect the features and functions described in this owner's manual.

The PA12-BMW displays text information of artist name and song title on BMW's BUSINESS CD radio models.
A Business CD Radio that has a rectangular shape faceplate, a function button on the radio must be pressed twice consecutively to active and complete a task.
Example 1: Press button 3 twice to move to playlist #3 from the playing playlist
Example 2: Press button M twice to active the fast forward or fast rewind function of the radio.

Set DIP Switch #3 to "OFF", the text display feature will be disabled and radio's function buttons will be back to single press mode

This interface is designed as an alternate replacement to the BWM **external** 6 Disc CD Changer. Therefore it is not possible to have the **external 6 disc CD changer** and the PA12-BWM iPod interface simultaneously connected to the BMW radio.

2. PLAYLIST MODE, DIRECT MODE AND AUX. OPTION

The PA12-BMW **provides two ways to control your iPod through the car radio**, namely **Playlist Mode** and **Direct Mode.**

2-1 DIRECT MODE: Search and select music on the iPod directly just as you would in portable use. Music will playback through your car stereo. Use the track up/down, fast forward and reverse buttons on your BMW radio or steering wheel to control music playback. All control functions on the iPod will still be available. Please see section 4 of this manual for additional information.

2-2 HYBRID MODE: Operate and control the iPod as if it was a CD Changer. This mode allows you to access up to five playlist on the iPod. (See Playlist Naming in section 4 of this manual**). Additionally when in Hybrid mode, the iPod clickwheel can be operated directly as if it were in Direct Mode at any Disc # location on the radio.**
1. If playback of a playlist is manually interrupted by using the iPods clickwheel, a song or music in a new category (file, folder, playlist or artist etc) is played, the interface module memorizes the last played track number of the new category which is different from the playlist being played. When you return to the same DISC # on the radio, the interface module will use the "memorized" track number (note: just the track number, not the last played song in the new category) to playback the playlist related to this DISC #.
2. When the iPod is connected to the interface module, the iPod will take approximately 30 seconds to complete its external control mode configuration. During this period of time, the iPod screen will continue to change until the configuration is completed.
3. While in Hybrid mode, you can also fast forward and fast rewind the music track with the fast forward and fast rewind buttons on the radio or steering wheel.
4. *G3 iPod is not fully compatible with Hybrid mode. The screen on G3 iPods will be locked and "OK TO DISCONNECT" will be displayed. Access Playlist on iPod using the DISC button on the radio, but user can not operate the keys (clickwheel) on iPod directly when DIP switch #2 is "ON". G3 iPods are fully compatible with Direct Mode.

Dip switch #2 on the PA12-BMW interface is for mode selection. The "ON" position is for *Hybrid Mode* and the "OFF" position is for *Direct Mode*.
Set DIP Switch #3 to "OFF", the text display feature will be disabled and radio's function buttons will be back to single press mode.
Dip switch #4 has no function. It is reserved for future design upgrade.

2-3 AUX ADDITIONAL "AUX INPUT OPTION" SELECTION

PA12-BMW interface adapter is also capable of connecting an Auxiliary audio source to your BMW radio, including the iPod. The additional audio source connects to the RCA input jack marked "**AUX AUDIO INPUT"**. If you choose to use the "**AUX AUDIO INPUT"**, DIP switch #1 at the side of the interface box must be set to the "OFF" position (it is preset to "ON" at factory).

The audio source (non factory XM radio, DVD player, MP3 Player, Game system etc.) connected to the **"AUX AUDIO INPUT"** can be accessed at CD 6 Track1 after selecting CD Changer mode on the BMW a radio. CD 1 to CD4 are for accessing Playlist and CD 5 is for accessing all songs on the iPod.

2-4 AUXILIARY INPUT OPERATION

If the **"AUX AUDIO INPUT"** option is selected, the radio will display "CD 6 Track 1" when DISC 6 button is pressed. Use "CD 6 Track 1" to access the audio source connected the "**AUX AUDIO INPUT"** port. Adjust VOLUME, BASS, and TREBLE etc. as you would normally do for the other program sources on the radio.
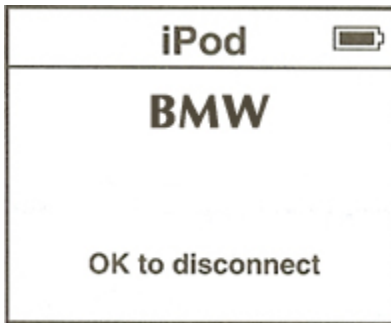
3. CONNECTING & PLAYING THE iPod IN DIRECT MODE

The procedures for connecting and disconnecting the iPod to your PA12-BMW interface adapter are described in this section. Please follow these instructions to avoid connectivity problems or synchronizations errors between the iPod and BMW radio. When the iPod is connected to the interface, the iPod's screen will go blank for a few seconds before the normal screen returns. Set the source on the radio to CD Changer, the audio from the iPod will be played back at DISC 5 Track1. Adjust VOLUME, BASS, TREBLE etc as you normally do for the other programs sources on the radio.

4. <u>CONNECTING & PLAYINGTHE iPod IN PLAYLIST MODE</u>

4-1. Connecting the iPod to the interface.

Turn your BMW radio ON before connecting your iPod. After connection, the iPod will take a few minutes to change to external control mode. The iPod screen will then show:

You are now able to select iPod mode.

4-2 SELECTING iPod MODE ON THE BMW RADIO

Press the "CD" or "MODE" button repeatedly until "CD 1-x" appears on the display (x is the track number for the "Now Playing" song on iPod). This display confirms that iPod mode has been completely synchronized and active. Synchronization timing varies according to the number of playlist on your iPod. If the iPod was playing previous to turning the Radio's ACC power OFF, and the iPod was not disconnected, playback resumes from where it stopped.

4-3 DISCONNECTING THE iPod FROM THE INTERFACE

If the iPod is disconnected during playback in iPod mode, the radio will automatically switch to AM/FM mode. After disconnecting, wait until the iPod screen changes from the External Control Mode screen back to the normal menu before attempting to reconnect to the interface.
Tip: If you press and hold the PLAY/PAUSE button on the iPod, you may get the normal iPod menu back faster.

4-4 PLAYING SONGS ON THE iPod

All audio tracks on your iPod will be played (All Play) at DISC 6 if the AUX option is not selected. Track order is determined by the default order on your iPod. Selecting DISC 1 to DISC 5 on radio will allow playback of 5 playlist on the iPod. Please refer to "Playlist naming" in this manual for more information regarding available and unavailable playlist. Every time the iPod is connected to the interface, playback begins at the "Now Playing" song at DISC 6 by default.
If the iPod was playing any of its playlist right before connection, the same playlist will continue to play and repeated at DISC 6 and the iPod switches to "ALL" when the **FF (►►)** button is pressed.

4-5 SELECTING A PLAYLIST

Press DISC UP (Λ) or DISC DOWN (V) button to select a playlist. The selected playlist will begin playing and the playlist number and track number will be displayed. In rare cases, this may take up to a few seconds to complete synchronization. After playing the last song in the current playlist, playback will start again from the first track on this playlist.

4-6 PLAYLIST NAMING

Once the iPod™ or iPod™ mini is connected to your BMW radio via the PA12-BMW, the iPod interface scans all available playlist on the iPod and looks for designated "BMW" playlist which are created for direct access with the DISC buttons on the BMW radio. The designated "BMW" playlist relate to the DISC number in the following manner:

Preset #'s	Playlist(s) names
DISC1	BMW1
DISC2	BMW2
DISC3	BMW3
DISC4	BMW4
DISC5	BMW5
DISC6	**ALL SONGS on iPod**

Naming a playlist in iTunes™ for your BMW iPod interface must be exactly as shown. "BMW" must be in **capital letters** and there can be **no spaces** between "BMW" text and the "DISC" number. However, you may add any text after the correct name and number has been assigned. The following is an example of correct playlist naming with additional text:

DISC1	BMW1_Love
DISC2	BMW2_Discount
DISC3	BMW-Car
DISC4	BMW4-Stereo
DISC5	BMW5_Service

Note: If no designated "BMW" playlist were created, the PA12-BMW interface automatically relates the first five playlist on the iPod to DISC number 1 to 5 regardless of playlist naming.

If less than five designated "BMW" playlist were created, the PA12-BMW interface automatically fills up the rest of the DISC numbers beginning with the first available playlist on the iPod.
Example: If only three designated "BMW1", "BMW3" and "BMW5" playlists were created, the DISC numbers on the radio would be:

DISC1	BMW1
DISC2	(1st available playlist on the iPod)
DISC3	BMW3
DISC4	(2nd available playlist on the iPod)
DISC5	BMW5

Note: The PA12-BMW does not recognize a playlist that contains no audio tracks regardless of playlist naming. The PA12-BMW does not recognize the "On-The-Go" playlist on your iPod

.**4-7 PLAYBACK CONTROL FUNCTIONS**

You can control playback with several functions. These functions are generally cancelled when you press select radio buttons; disconnect the iPod, or POWER OFF the radio or ACC.

Scan
Press the "**SCAN"** button, each track in the current playlist will play for 10 seconds. If "SCAN" is pressed at DISC 6, all songs on the iPod will be scanned.

Random (Shuffle)
Press the "RANDOM" button (**RND**) on the radio, songs within a playlist will playback in random order. The track number display will change to start from 1 as it does on the iPod. The radio will continue to play this way until "RND" is deactivated.

Repeat
Repeat of song being played is **NOT** supported.

Track Up/Down
Press the Track▲ button to advance to the next track in the playlist. Press the Track ▼ button to move to the beginning of the track being played. Press the track ▼ button twice to return to the previous track. If the track ▲ and track ▼ buttons are pressed quickly in repetition, the track numbers display may change unevenly. You may also hear short bits of audio during repeat presses of track up and track down buttons. There is no limit to the number of songs on a playlist, but the majority of BMW radios currently displays a maximum of two digits for track number, so after track 99 the display will restart at 1 for example- Track number 100 displays as 01 track 101 displays as 02, track 102 as 03 …

Fast Track Search (x10)
Press the **Fast Forward** or **Fast Reverse**,(◄◄►►) the track in the playlist advances or decreases in increment of 10 (i.e. 04, 14, 24…). When you reach the end of the playlist, the search will stop at track 1, and then continue by increments of 10 (i.e. 19, 29, 1, 11).
Press and hold the **Fast Forward** or **Fast Reverse** button for more than 4 seconds; the search will jump to the last track or the first track of the playlist. If you are in scan mode, the mode will be cancelled.

Fast Forward/Fast Reverse Play
This function applies __only in random mode__. Since engaging or disengaging the random mode does not stop playback of the current song, you must go in or out of random mode to do the fast track search (x10) function, or the fast forward/fast backward play function.
Pressing and holding the **FF** or **RW** button causes the current track to skip through at high speed. During fast forward, when the end of the current track is reached, the iPod will start playing the next random track at normal speed. During fast backward, when the start of the current track is reached, the track will start playing again at normal speed. To continue fast forward or fast reverse play, release the button and press it again.

CHANGING SOURCE TO AM/FM/CD/CASSETTE
when a source other than the iPod (i.e. Radio, Cassette etc) is selected on the radio, the iPod will pause.

5. <u>INSTALLATION</u>

1. Connect the black rectangular connector on the CB-PBM cable to the factory pre-wired CD Changer connectors (3 and 6 pin). (If a cd changer exists, disconnect it first)
You decide to route the CB-PBM into the cabin or leave in trunk. If not routed to the cabin the iPod must be left in the trunk.
2. Connect the round DIN plug on the other end of the CB-PBM to the PA12-BMW connector labeled "RADIO"
3. Connect the audio output from your auxiliary device to the AUX input jacks on the PA12-BWM (see detail explanation in the "OPTION SELECTION" in the user manual. (Optional)
4. Set DIP Switch #2 to "OFF" only if Direct Mode is proffered or to "ON" for Hybrid Mode
5. Connect the CB-PA14 cable to the PA12-BWM connector labeled "iPod"

Revised July 5, 2007