

The logo for USA-SPEC, featuring the brand name in a bold, blue, sans-serif font. A small red dot is positioned between the 'A' and 'S'.

PA12-BMW *dsp*

iPod to BMW car stereo Interface
with song title display

A rectangular electronic interface unit with a white border, featuring several circular ports on its sides. It is superimposed over a background image of a car's interior, showing the steering wheel and dashboard.

USA-SPEC
iPod INTERFACE

OWNER'S MANUAL

TECH SUPPORT
626-336-3836
9AM - 5PM PST
MON - FRI

Thank you for purchasing **USA·SPEC** product. This manual describes the functions and operation of PA11-BMW iPod interface for BMW. Please read this manual before installing the product in your vehicle.

Section 1. ABOUT YOUR INTERFACE PA11-BMW

This interface connects an iPod directly to your BMW audio system. Its on-board software translates commands from your BMW CD changer controls into commands that the iPod understands. This interface enables the iPod to take the place of a BMW CD changer and provides the following benefits:

- Directs the iPod's audio output to BMW vehicle audio system for optimal sound quality playback.
- Controls the iPod via vehicle's radio and steering wheel controls.
- Charges the iPod's internal battery, and charging stops automatically at one hour after iPod is paused. iPod goes to sleep mode when charging stops.

Compatibility

This PA11-BMW interface is compatible with iPod (G3 and G4) iPod mini and iPod video models featuring a dock connector. The functionality and features of the iPod interface described in this owner's manual are confirmed with firmware version 1.4.1 for iPod mini, firmware version 2.3 and 3.1.1 for iPod, firmware version 1.2.1 for iPod photo, version 1.1.1 for iPod video, and version 1.1.1 for iPod nano.

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

Display of artist and song title information, track search by artist, song title, album or genre are NOT supported. Only the Playlist number and track number are displayed on radio.

This interface is designed as an alternative replacement to the BMW 6 Disc CD changer unit in your BMW vehicle. Therefore it is not possible to have the BMW 6 Disc CD Changer and PA11-BMW iPod interface simultaneously connected to your BMW radio.

Package Contents

PA11-BMW contains one each of PA11-BMW interface adopter, CB-PBM and CB-PA14 cables.

Applications

PA11-BMW is applicable to the following BMW vehicles:

3 Series	96-05
Z3/Z4	99-05
5 Series	98-03
7 Series	99-01
X3/X5	99-05
Mini	02-05

Note: PA11-BMW is not applicable to BMW vehicles with Factory Navigation and/or DVD systems.

Section 2. PLAYLIST MODE, DIRECT MODE and AUX OPTION

PA11-BMW provides two ways to control your iPod through car radio, namely **Playlist Mode** and **Direct Mode**.

2-1 Direct Mode: Search and select music on iPod directly just as you would in portable use. The sound of music will play back through your car stereo. Use the track up down, fast forward and reverse buttons on your radio to control music playback. All control functions on iPod are available to use too. Please see section 4 of this manual for additional information

2-2 Playlist Mode: Operate and control the iPod like it is a CD changer. This mode allows you to access up to five Playlists on the iPod. This is also referenced as External Control Mode of the iPod. The detail of Playlist creation and playback controls are in section 5 of this manual.

DIP switch #2 is for mode selection use. "ON" position is for **Playlist Mode** and "OFF" position is for **Direct Mode**.

Note: Disconnect iPod from PA11-BMW before switching DIP switch #2 for mode alteration.

2-3 Additional AUX INPUT Option Selection

PA11-BMW interface adaptor is capable of connecting two audio sources to your BMW radio including the iPod. The additional audio source connects to the RCA input jack labeled as AUX INPUT. If you choose to use AUX INPUT, the DIP switch #1 at the side of adaptor box must be set to "OFF" position (factory presets it at "ON" position).

The audio source at AUX INPUT can be accessed at CD 6 Track 1 after selecting CD changer source on the radio. CD1 to CD 4 are for accessing Playlists and CD 5 is for accessing all songs on iPod.

Operation of AUX

If the "AUX INPUT" option is selected, radio will display "CD 6 Track 1" when CD on mode button is pressed. "CD 6 Track 1" gives access to the audio source connected to AUX INPUT port.

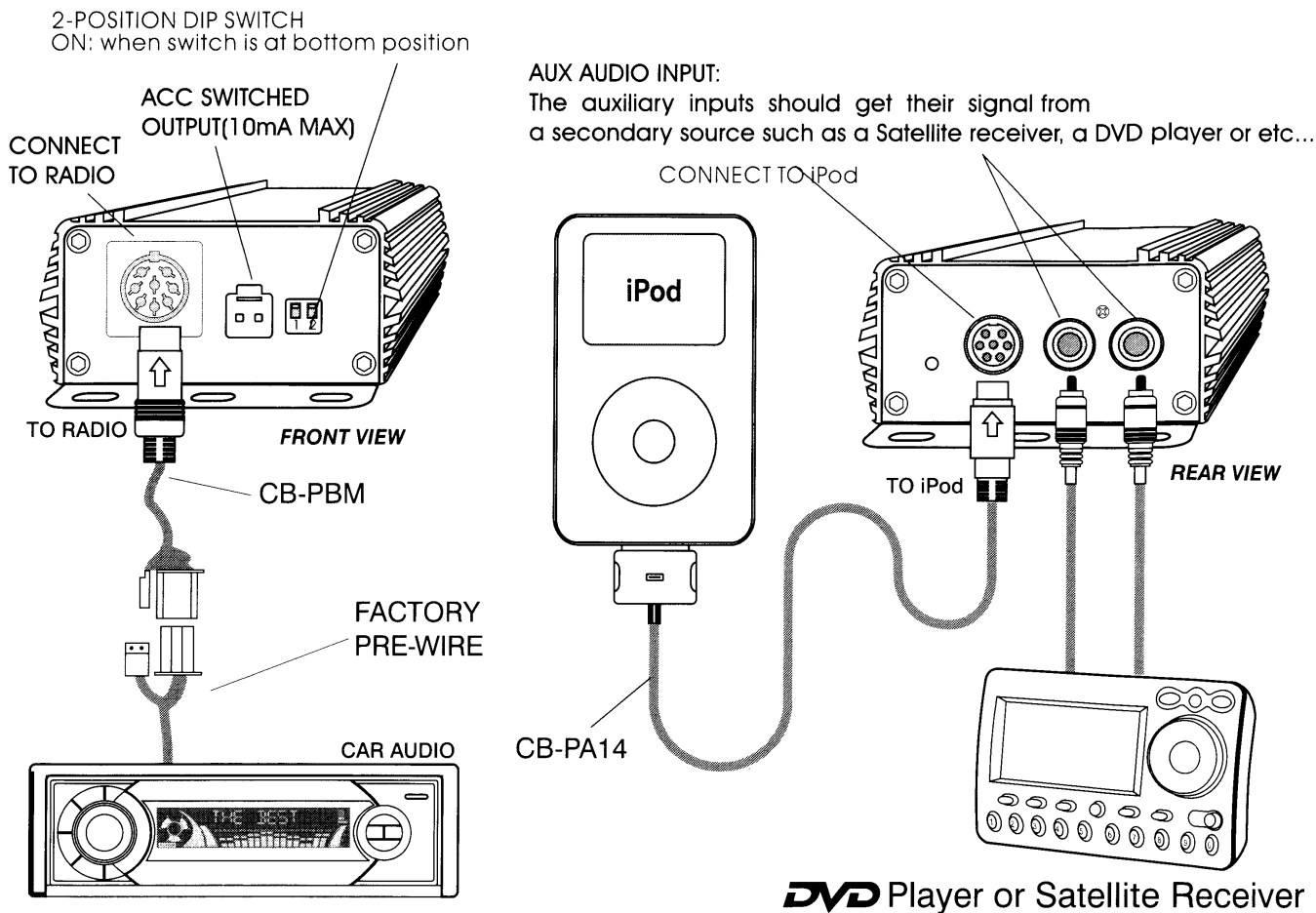
Adjust VOLUME, BASS, TREBLE and etc. as you would normally do for the other program sources on the radio.

Section 3. INSTALLATION

- Step 1- Plug the round din plug on CB-PBM to PA11-BMW interface adaptor where it is labeled "RADIO".
- Step 2- Plug the black rectangular connector on CB-PBM cable to the factory pre-wired connector for CD changer. (If a CD changer exists, disconnect it first.)
- Step 3- Connect the audio output of your auxiliary devices to AUX input jack on PA11-BMW (Please see detailed explanation in OPTION SELECTION below).
- Step 4- Plug CB-PA14 cable to PA11-BMW adaptor box where it is labeled "iPod".

WARNING!!

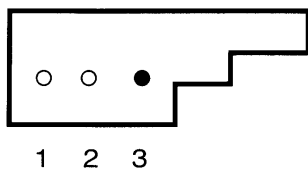
Use only the iPod connection cable which comes with PA11-BMW interface adaptor. iPod Connection cables from other sources may look similar, but they may damage your iPod.



(**IMPORTANT INSTALLATION INSTRUCTION**) **PLEASE READ BEFORE INSTALLATION**

In some of the newer BMW models, the vehicle's pre-wired CD changer harness has 2 identical 3-pin power plugs, One is for telephone and the other one is for CD changer. **The plug for CD changer has a BROWN wire in its pin #3. See diagram below.**
Warning: plugging the CD changer into the phone plug will cause the wirings to short circuit.

Make sure the plug's #3 wire is **BROWN**



top view of the male plug female pin at the vehicle's pre-wired CD changer location.

pin/wire #	Color
1	White or white/yellow
2	Red/white
3	BROWN

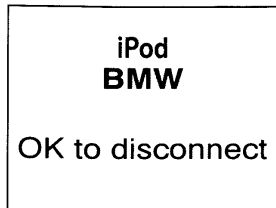
Section 4. CONNECTING & PLAYING of iPod in DIRECT MODE

When the iPod is connected to the adaptor, iPod's screen will go blank for few seconds before the normal screen returns. Set source to CD changer on your radio, the audio of iPod music will be played back at DISC 5 and Track 1. Adjust VOLUME, BASS, TREBLE and etc. as you would normally do for the other program sources on the radio.

Section 5. CONNECTING & PLAYING of iPod in PLAYLIST MODE

5-1 Connecting iPod to the interface

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



and you are now able to select iPod mode.

5-2 Select iPod mode on BMW radio

Press the **CD on mode** button on radio repeatedly until "CD 1-x" appears on the radio display (x is the track number of "Now Playing" song on iPod). This display confirms that iPod mode has been completely synchronized and activated. Synchronization timing varies according to the number of Playlists on your iPod.

If iPod was playing previously before radio or ACC power was OFF, and the iPod was not disconnected, playback resumes from where it was stopped.

5-3 Disconnecting iPod from the interface

If your iPod is disconnected during playback in iPod mode, the radio will automatically switch to AM/FM mode.

After disconnecting, iPod screen changes from the external control mode screen back to the normal menu. Press and hold the Play/Pause button on iPod may get the normal menu back faster.

5-4 Playback of songs on iPod

All audio tracks on your iPod will be played (All play) at DISC 6. Track order is determined by the default order on your iPod. Selecting DISC1 to DISC 5 on radio will allow playback of 5 Playlists on iPod. Every time when iPod is connected to the interface adaptor, the playback starts from "Now Playing" song at DISC 6 by default.

If iPod was playing any of its Playlist right before the connection, the same Playlist will continue to play and repeated at disc 6 but iPod will switch to "All" as soon as the fast forward (or SEEK/SKIP) button (▶▶) is pressed.

5-5 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 few seconds for the completion of synchronization.

After playing the last song in the current Playlist, playback will start again from the first track of this Playlist.

Playlist naming

- When iPod is connected to your radio via PA11-BMW interface adaptor, the adaptor scans all available Playlists on iPod and looks for designated BMW Playlists which are created for direct access with DISC buttons on BMW radio. The designated BMW Playlists are related to DISC number in the following manner:

DISC 1: BMW1...
DISC 2: BMW2...
DISC 3: BMW3...
DISC 4: BMW4...
DISC 5: BMW5...
DISC 6: ALL SONGS on iPod

The naming of designated BMW Playlists in iTunes for PA11-BMW interface must be exactly as shown. BMW must be in capital letters and there can be no spaces between BMW text and number.

However, you may add any text after the correct naming of a Playlist. (i.e. BMW1-Jazz, BMW3_Favorite3 are acceptable Playlist names for PA11-BMW iPod interface.)

- If no designated BMW Playlists are created, PA11-BMW adaptor automatically relates to the first five available Playlists on iPod to DISC number 1 to 5 regardless Playlist's naming.
- If less than five designated BMW Playlists are created, PA11-BMW adaptor automatically fills up the rest of DISC numbers beginning with the first available Playlist on iPod. Example: if only three designated BMW1, BMW3 and BMW5 Playlists are created, the disc number on radio will be:

DISC 1: BMW1...
DISC 2: (1st available Playlist on iPod)
DISC 3: BMW3...
DISC 4: (2nd available Playlist on iPod)
DISC 5: BMW5...

The iPod interface does not recognize a Playlists that contains no audio tracks regardless of Playlist naming. The iPod interface also does not recognize the "On-The-Go" Playlist on your iPod .

5-6 Playback function controls

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 play for 10 seconds. If SCAN is pressed at DISC 6, it will play all songs in iPod for 10 seconds each.

Random (Shuffle)

Press the random button (RND), songs within a Playlist will playback in random order. The display of track number will change to start from 1 as it does on the iPod .

Repeat

Repeat of a song being played is not supported.

Track Up/Down

Press the track up button to advance to the next track in the Playlist. Press the track down button to go to the beginning of the track that's being played. Press the track down button twice to go to the previous track.

If the track up or track down buttons is pressed quickly in repetition, the track numbers displayed may change unevenly. You may also hear short bits of audio during repeated presses of track up and track down buttons.

If your BMW radio currently displays a maximum of two digits for track number. Track number 100 will be displayed as 01, Track 101 displayed as 02, track 102 as 03

Fast Track Search (x10)

Press the fast forward or fast reverse buttons (◀◀ ▶▶), it will advance or retreat through the tracks in the Playlist in increment of 10 (i.e. 04, 14, 24...). When the end of the Playlist is reached, 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 buttons 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 can change into or out of random mode to do the fast track search (x10) function, or the fast forward/fast backward play function.

Press and hold the forward or backward button will cause only the current track to skip through at 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 is selected on radio, the iPod will pause.

Section 6. CAUTION

- In general, iPod has not been designed to withstand temperature extremes in automobiles. Please consult your iPod Owner's Manual regarding acceptable operation and storage temperatures.
- Do not disassemble or alter the cable and interface box.
- Make the connections correctly.
- Do not cut away the wire sheath or use the power for other equipments.
- Do not install in locations which might hinder vehicle operation or create hazards for vehicle occupants.
- Having the wiring and installation done by professionals.
- Arrange wiring so it is not crimped or pinched.
- Do not use this product for purposes other than stated for the vehicle.

Note: iPod, iPod mini, iPod nano, iPod photo, iPod video and iTunes are registered trade marks of Apple Computer, Inc.

XM is a trade mark of XM Satellite Radio Inc.

BMW is a registered trade mark of BMW Group.

Design and specifications are subject to change without notice.

USA·SPEC

PA12-BMW *dsp*

iPod to BMW car stereo Interface
with song title display

PLAY, CONTROL & CHARGE

Your iPod through BMW Car Stereo System!

KEY FEATURES

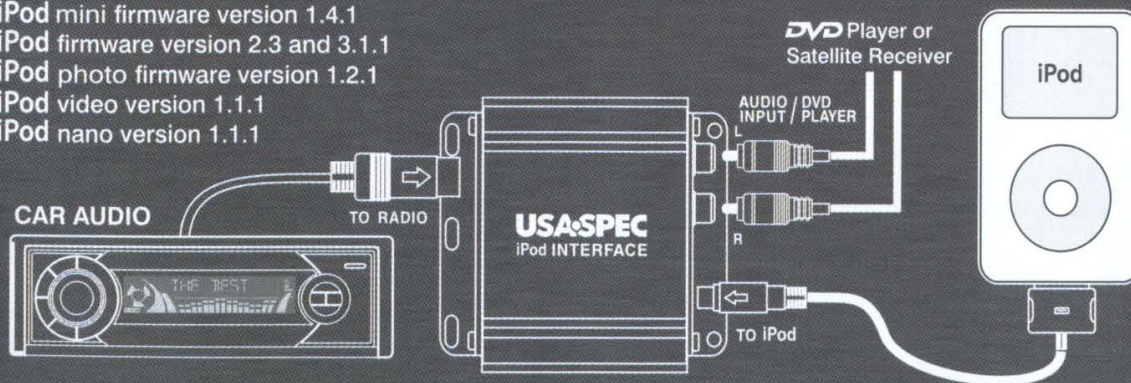
This interface connects an iPod or iPod mini directly to your BMW audio system with following benefits :

- Connect directly iPod's audio output to BMW vehicle audio system for optimal sound quality playback.
- In **Playlist Mode**: Select songs and Playlists on iPod with CD changer button on radio.
- In **Direct Mode**: Search and select songs directly on iPod.
- Maintain current Playlist when switching from portable to in-car use.
- Charge the iPod battery while playing, charging automatically ends at one hour after iPod is paused to prevent car battery drain.
- Plus-DVD player, Satellite radio or other audio device can be used in conjunction with the iPod through Aux Audio Input jack.
- Plug-n-Play : This complete package includes installation cables, mounting screws and user's manual.

COMPATIBILITY

This PA11-BMW interface is compatible with

- iPod mini firmware version 1.4.1
- iPod firmware version 2.3 and 3.1.1
- iPod photo firmware version 1.2.1
- iPod video version 1.1.1
- iPod nano version 1.1.1



Display of artist and song title information, track search by artist, song title, album or genre are NOT supported. Only the Playlist and track numbers are displayed.

APPLICATIONS

PA11-BMW is applicable to the following BMW vehicles:

3 Series	96-05	7 Series	99-01
Z3/Z4	99-05	X3/X5	99-05
5 Series	98-03	Mini	02-05

Note: PA11-BMW is not applicable to BMW vehicles with Factory Navigation and/or DVD systems.

XM is a trade mark of XM Satellite Radio Inc.
BMW is a registered trade mark of BMW Group.

LTI Enterprises, Inc. 167 Mason Way, Unit A2. City of Industry, CA91746
www.usaspec.com or www.usaspec.net Tel(626)336-3836



Made in Korea

Dear Customer,

The enclosed item is USA SPEC iPod interface adaptor model number PA12-BMWdsp. PA12-BMWdsp is designed for car radios with DSP or for radios that require Digital Audio Input.

The manual refers to the PA12-BMWdsp for connections and basic features of the adaptor.

This supplement manual covers information regarding the new features of PA12-BMWdsp as follows:

- PA12-BMWdsp 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 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 radio.

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

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

DIP switch #2 is for mode selection use. "ON" position is for Hybrid Mode and "OFF" position is for Direct Mode .

1. Direct Mode: Search and select music on iPod directly just as you would in portable use. The music will play back through your car stereo. Use the track up/down, fast forward, and reverse buttons on your radio to control music playback. All control keys on iPod are available for use as well. Please see Section 4 of this manual for additional information.

2 Hybrid Mode: Operate and control the iPod like it is a CD changer. This mode allows you to access up to five playlists on the iPod. The instructions for playlist creation and playback controls are in Section 5 of this manual. **Additionally, while in Hybrid Mode, the key pads on iPod can be operated directly as if it were in Direct Mode at any DISC location of radio.**

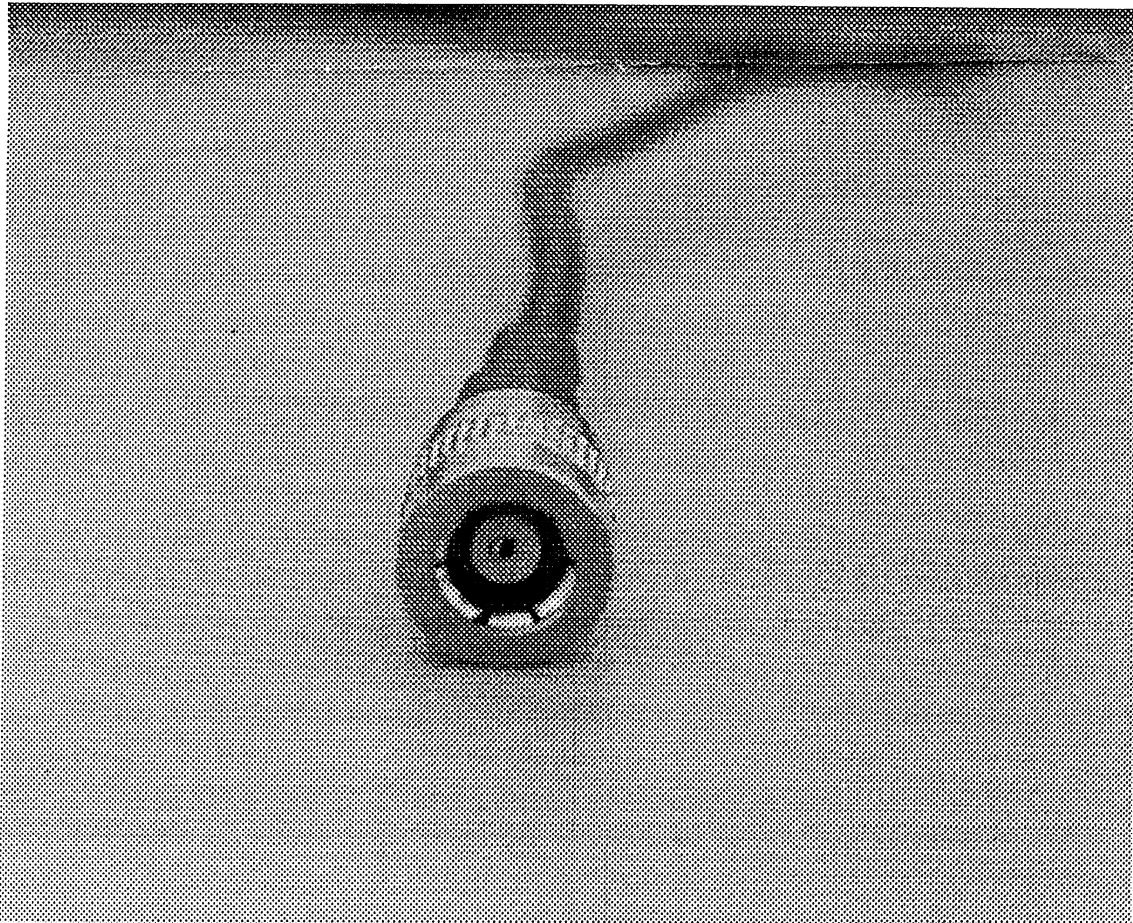
- ✧ If the playback of a Playlist is manually interrupted by using the iPod's key pad, and a song or music in a new category is played, the interface module memorizes the last played track number of the new category. "New category" means file, or folder, or Playlist, or artist, etc. which is different from the Playlist being played. When you return to the same DISC on radio later, 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.

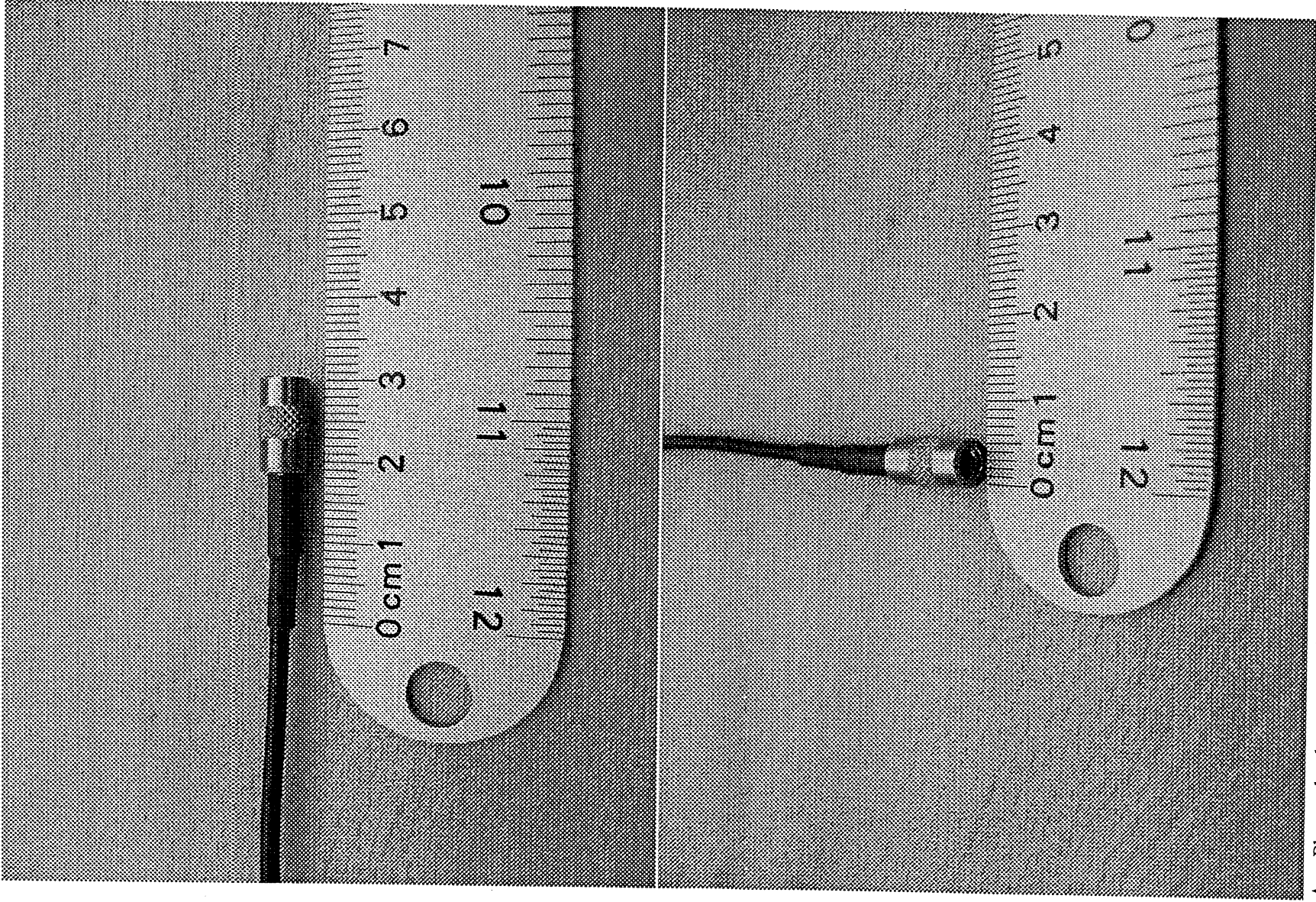
- ✧ When the iPod is connected to the interface module, the iPod will take approximately 30 seconds to complete its external control mode configuration. During this period of time, the iPod screen's display will continue to change until the configuration is completed.
- ✧ While in Hybrid Mode, you can also fast forward and fast reverse the music track with the fast forward and fast reverse buttons on your radio.
- ✧ For those USA SPEC iPod interface products which support TEXT display on radio, the TEXT display feature is supported in Hybrid Mode.
- ✧ G3 iPod is not fully compatible with Hybrid Mode. The screen of G3 iPods will be **locked to "OK to DISCONNECT" display**. The Playlists on iPod can be accessed through the DISC locations on radio, but user can not operate the keys on iPod directly when DIPswitch#2 is at ON position. G3 iPods are fully compatible with Direct Mode.

Note: DIP switch #4 has no function. It is reserved for future design upgrade.

INSTALLATION:

- ✧ Please search for the PRE-WIRED factory DSP Cable. If the factory cable is found, please connect the DSP cable to the Digital Audio Jack on the PA12-BMWdsp interface.
- ✧ You may also find that the DSP Cable connected to a CD Changer. If this is the case, please disconnect the DSP Cable from the CD Changer and connect it to the PA12-BMWdsp interface.





- ✧ Please also locate a 3 wire connector and refer to the main manual for further instructions.
- ✧ If the DSP Cable was not included with the vehicle or can not be found, you can purchase the DSP Cable from your local BMW Dealer or from USA SPEC (Part No: CAS-BMD)

!! IMPORTANT!!

- ❖ It is strongly recommended that the unit is installed in an accessible location, so that it can later be easily reset or upgraded.
- ❖ **Eject ALL CDs form the built-in CD player or CD changer before installation or disconnect the power to radio!!!**
- ❖ USA SPEC sells its products through authorized dealers so we can insure customers will receive proper services from the dealers. USA SPEC reserves the right to offer technical support or warranty only on products purchased through authorized USA SPEC accounts.
- ❖ It is strongly recommended that buy USA SPEC product from sellers **who provide dedicated phone contact support**. USA PSEC will not provide technical support or warranty for purchases made through any unauthorized internet sellers.
- ❖ **SAFETY NOTE:** You should always give your full attention to driving. Do not operate an iPod in such a way that it distracts you while you are driving.

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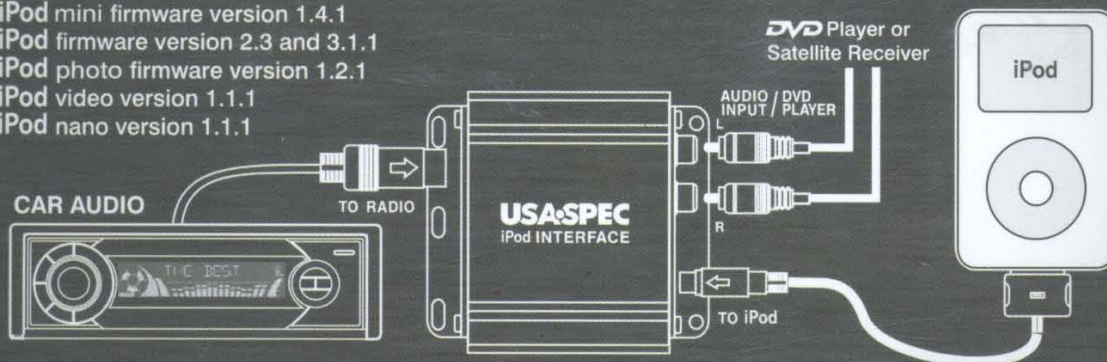
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- In **Direct Mode**: Search and select songs directly on iPod.
- Maintain current Playlist when switching from portable to in-car use.
- Charge the iPod battery while playing, charging automatically ends at one hour after iPod is paused to prevent car battery drain.
- Plus-DVD player, Satellite radio or other audio device can be used in conjunction with the iPod through Aux Audio Input jack.
- Plug-n-Play : This complete package includes installation cables, mounting screws and user's manual.

COMPATIBILITY

This PA11-BMW interface is compatible with

- iPod mini firmware version 1.4.1
- iPod firmware version 2.3 and 3.1.1
- iPod photo firmware version 1.2.1
- iPod video version 1.1.1
- iPod nano version 1.1.1



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Z3/Z4	99-05	X3/X5	99-05
5 Series	98-03	Mini	02-05

Note: PA11-BMW is not applicable to BMW vehicles with Factory Navigation and/or DVD systems.

The new iPod classic, iPod video nano, iPod touch, and iPhone are not supported by Hybrid Mode. They will work with this interface in either Direct Mode or Playlist Mode.



Made in Korea



LTI Enterprises Inc.
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**IMPORTANT WARRANTY
INFORMATION ENCLOSED
PLEASE REGISTER FOR
EXTENDED COVERAGE**

WARRANTY CENTER

LTI Enterprises Inc.
167 Mason Way, Unit A2
City of Industry, CA 91746
Phone (626)336-3836
Fax (626)336-0115

LIMITED WARRANTY REGISTRATION CARD

Model No :

Serial No :

Name _____

Address _____

City _____ State _____ Zip _____

Date of Purchase _____

Dealer Name/Address _____

Vehicle Make : _____ Yr _____ Model _____

LIMITED WARRANTY

Thank you for choosing a **USASPEC** product. LTI Enterprises Inc., is committed to providing high quality defect free products. All **USASPEC** products are tested before leaving the factory and are warranted against defects in materials and workmanship for a period of **ONE YEAR** to the original owner. The one-year warranty period begins at the date of manufacture or the date of original installation.

Please see installation registration below.

PRODUCTS COVERED :

Products and related accessories supplied by LTI Enterprises Inc. with the brand name of **USASPEC** are covered by this warranty. Only products purchased in the U.S.A. is covered.

WARRANTY DOES NOT COVER :

1. Damage due to improper installation, operation, accident, negligence, abuse, or not following instructions, warnings, and acceptable industry procedures.
2. Damage caused during the shipment or transportation of the product. All claims of this nature must be presented to the carrier.
3. Damage caused by acts of God, War, or civil disturbance, including without limitation, flood, fire, storms, earthquake or other acts of nature.
4. Any expenses or cost to remove or reinstall products.
5. Any product without the original serial number and factory seal, or has been serviced or modified without the authorization of LTI Enterprises Inc.
6. Any product not distributed by an authorized LTI Enterprises Inc. dealer.

INSTALLATION REGISTRATION :

To provide warranty coverage from the date of installation the limited warranty registration card with this information must be completed and returned to LTI Enterprises Inc. within thirty(30) days of the installation.

TO OBTAIN WARRANTY SERVICE :

Contact the Customer Service center printed on the back of this warranty for assistance. A detailed description of the problem(s) is required for service. Proof of purchase is also required when sending a product for warrant service. If the problem cannot be resolved and the product must be returned for service you will receive an authorization from the service center. The product must be delivered pre-paid to the service center. LTI Enterprises Inc. will, at our option, repair the product or replace it with new or reconditioned product, and if it was shipped to the service center, the return shipping will be pre-paid free of charge provided the repairs are covered by the warranty. The product must be packed securely for shipment to the service center in order to preserve the warranty and prevent damage.

NO IMPLIED WARRANTY, INCLUDING MERCHANTABILITY AND FITNESS FOR USE, APPLIES TO THIS PRODUCT AFTER THE ONE YEAR PERIOD AS DEFINED ABOVE, AND NO OTHER EXPRESSED WARRANTY OR GUARANTEE, EXCEPT AS MENTIONED ABOVE, GIVEN BY ANY PERSON, FIRM OR CORPORATION WITH RESPECT TO THIS PRODUCT SHALL BIND THE WARRANTOR. NEITHER THE WARRANTOR NOR ANY OTHER PERSON, FIRM OR CORPORATION, IS RESPONSIBLE FOR LOSSES OR INCONVENIENCES, OR FOR ANY CONSEQUENTIAL DAMAGES CAUSED BY THE PRODUCT. SOME STATES/PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, AND SOME DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES.

This warranty gives you specific legal rights, and you may also have other rights, which vary, from state to state and province to province. Some of the limitations or exclusions may not apply to you.