USA•SPEC

Model PA12-BMW
iPod to **BMW** car stereo Interface
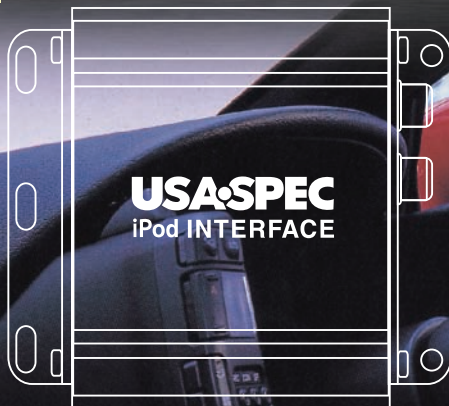
USA•SPEC
iPod INTERFACE

OWNER'S MANUAL

Thank you for purchasing a **USA•SPEC** product. This manual describes the functions and operation of PA12-BMW and PA12-BMW*dsp* iPod interface to BMW radios. Please read this manual before installing the interface adaptor in your vehicle.

!!!IMPORTANT!!!

❖ It is strongly recommended that the adaptor is installed in an easily accessible location. You may need to access for future upgrades, resets, dip switch settings, etc...

❖ **Eject ALL CDs from the built-in CD player or CD changer before installation or removing the radio from the dash board.**

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❖ **SAFETY NOTE:** You should always give full attention to driving. Do NOT operate the feature or function of PA12-BMW or PA12-BMW*dsp* in such a way that distracts you while driving.

❖ KEEP MANUAL in vehicle. Place it with the owner's manual for the car. You may need to refer to it or if vehicle is sold, the next owner can enjoy it and know how to use it.

SECTION 1. ABOUT INTERFACE PA12-BMW or PA12-BMW*dsp*

1-1 Introduction

a) This interface connects an iPod, iTouch or iPhone directly to your BMW car audio system for optimal playback sound quality.

- PA12-BMW model is for radios that take analog audio input signal.
- PA12-BMW*dsp* model is for radios that take digital audio input signal. Radios that have DSP buttons must use digital audio signal input.

b) This interface does not allow iPod to co-exist with CD changer and satellite receiver. When connecting this iPod interface to your radio, the CD changer and satellite receiver must be disconnected. This interface is not compatible with BMW navigation system.

c) PA12-BMW and PA12-BMW*dsp*'s on board software translates commands from your CD changer controls into commands that the iPod understands.

- You can either use the CD changer controls on radio or steering wheel controls to work with iPod, iTouch or iPhone.

d) This interface charges iPod while it is playing and charging stops automatically half hour after iPod is paused.

1-2 Text Display of Song Information

a) Artist name and song title can be displayed on **some** of the BMW BUSINESS CD RADIO models by configuring the PA12-BMW or PA12-BMW*dsp* to work with radio's XM band.

b) On most of BMW radios, only DISC number and track number are displayed on radio (Disc number = Playlist number).

1-3 Package Content

● PA12-BMW contains one PA12-BMW interface adaptor and one each of the following cables: CB-PA85, CDL-BMW.

● PA12-BMW*dsp* contains one PA12-BMW*dsp* interface adaptor and one each of the following cables: CB-PA85, CDL-BMW and CDL-BMD.

1-4 Compatibility

● Future iPod and iTune software updates may affect the features and functions described in this owner's manual and on www.usaspec.com websiste.

1-5 Applications

Model	Year	Note
3 Series	96 - 05	(1)
5 Series	98 - 03	(1)
7 Series	99 - 01	(1)
Mini	02 - 06	(1)
X3 / X5	99 - 07	(1)
Z3 / Z4	99 - 07	(1)

Note (1): Radios with DSP buttons must use PA12-BMW*dsp* model.

USA♦SPEC verified the published radio and vehicle application to the best of our ability. Due to uncontorllable factors, **USA♦SPEC** can not 100% guarantee every pubilshed applications. These factors include variables such as, anomalies with -in a factory radio, factory radio heretofore unknown to **USA♦SPEC** and partial model year changes.

SECTION 2. Direct Mode, Playlist Mode and AUX

Option

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

2-1 Direct Mode (control on iPod directly)

Search and select music on iPod just as you would in portable use. Use the track up/down on radio and steering wheel to control.

- Among the 6 DISCs of radio's CD changer mode, one DISC is dedicated to Direct Mode. See section 3-2 of this manual for detail.
- In Direct Mode, screen and keypad on iPod is unlocked and functional. You have control and access to everything on your iPod in Direct Mode. You also have Track Up/Down controls from the radio. No text will be displayed on the raidio in Direct Mode.

✧ *Application Tip*

Direct Mode allows the playing of streaming music such as Pandora.com®
and SIRIUS XM Online from your iPhone or iTouch to car stereo.

2-2 Playlist Mode

Operates and controls the iPod like it is a CD changer. This mode allows you to access Playlists and Songs on iPod from radio. iPod screen always displays "OK to disconnect " or "Attached to accessory" and iPod's keypad is locked and not functional. See section 3-1 of this manual for more information.

- Use the MODE button on radio to access iPod.
- If your iPod has more than 4 Playlists, see Playlist Naming in Section 5 of this manual.

2-4 AUX Input Option

In addition to the iPod, PA12-BMW and PA12-BMW*dsp* also can connect a second audio source to car radio. Connect the second audio source to the RCA jack labeled **AUX INPUT**. AUX input is enabled by setting the DIP switch #1 to OFF position at the side of the interface adaptor. DIP switch #1 is only for the AUX INPUT and it is independent of other DIP switches on the PA12-BMW and PA12-BMW*dsp* adaptor.

DIP Switch # 1 Setting:

DIP # 1 = OFF	RCA AUX Input is Enabled
DIP # 1 = ON	RCA AUX Input is Disabled

SECTION 3.   Mode Setting and Function Control

3-1 Playlist Mode + Direct Mode Configuration

3-1-1 Set DIP switches as follow:

DIP # 2	DIP # 3	DIP # 4
ON	ON	ON

Note: DIP switch #1 is only related to RCA AUX option setting and it is independent of these DIP switches. See section 2-4 for DIP #1 setting instruction.)

3-1-2 Functions and Radio Buttons

- Press MODE button on radio to access iPod.
- Press preset buttons on radio to access Playlists, Direct Mode and RCA AUX as follow.

At....	Radio Plays	Remark
Disc 1	Playlist # 1	
Disc 2	Playlist # 2	
Disc 3	Playlist # 3	
Disc 4	Playlist # 4	IF DIP #1 = ON
Disc 4	All Songs	IF DIP #1 = OFF
Disc 5	All Songs	IF DIP #1 = ON
Disc 5	Direct Mode	IF DIP #1 = OFF
Disc 6	Direct Mode	IF DIP #1 = ON
Disc 6	RCA AUX	IF DIP #1 = OFF

- Track up and down from steering wheel controls is supported.
- A BUSINESS CD radio that has a rectangular shape faceplate, a function button on radio may need to be pressed twice consecutively to active and complete a task. Examples are:

    Examples 1: press button 3 twice to access Playlist # 3.

    Examples 2: press button m twice to active the fast forward or fast
            rewind function of radio.

 *Note: By setting DIP # 3 to OFF position, radio button will be back to
      single-press operation mode but text display feature will be disabled.*

3-1-3 iPod Connecting and Playing

- When iPod is connected to interface adaptor and CD button is pressed, iPod will automatically begin at DISC # 4 (if DIP #1 = OFF) or DISC # 5 (if DIP # 1 = ON). And, the iPod will continue to play the track in **the** Folder which was played prior to the iPod being connected to the PA12-BMW or PA12-BMWdsp. When the last track of **the** Folder is played, iPod will go to the first track of the All Songs folder.

● If your iPod has more than 4 Playlists, see Playlist Naming in Section 5 of this
  manual.

3-2 *Always* Direct Mode + Direct Mode *Only* Configuration

If you prefer the interface to be always in Direct Mode, simply set the DIP switches
as follow. Then, access and control everything on your iPod directly from iPod
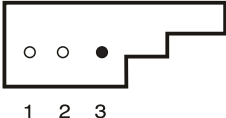keypad. Steering wheel control and track up and down buttons on radio will also work.

DIP # 2	DIP # 3	DIP # 4
OFF	ON	ON

SECTION 4. CABLE CONNECTION (*Reference Fig. 1 & Fig. 2*)

Step 1- Set DIP switches according to instructions in Section 3.

Step 2- Must remove or eject all CDs from radio.

Step 3- Locate the factory CD changer cable in your vehicle. (See appendix A for
cable location references).

Step 4- Unplug the cables from the CD changer and / or satellite receiver if such
options are installed in your car.

Step 5- Verify the BROWN wire position on the factory CD changer cable as follow:

*Note: If a 3-pin connector without a brown wire on it is plugged to this
iPod interface, sever electrical power short circuit will happen!!!!!*

Make sure the plug's #3 wire is BROWN

○ ○ ●

1 2 3

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**

Step 6- Connect the 3-pin connector on factory CD changer cable to the 3-pin
female connector on **USA·SPEC** CDL-BMW cable.

Step 7- **For PA12-BMW model:** connect the 6-pin male connector on factory
CD changer cable to the 6-pin female connector
on **USA·SPEC** CDL-BMW cable.

For PA12-BMW*dsp* model: connect the factory digital audio cable to
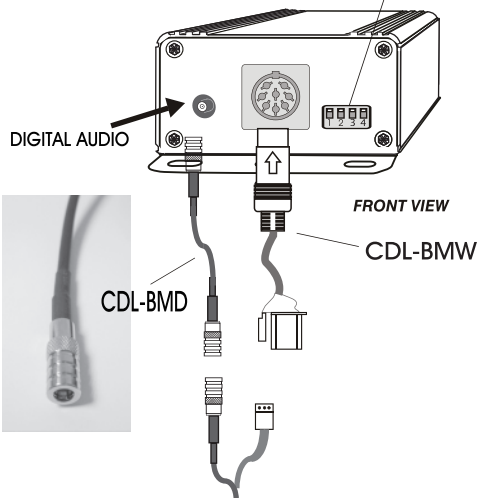**USA·SPEC** CDL-BMD cable.

PA12-BMW

4-POSITION DIP SWITCH
ON: when switch is at bottom position

FRONT VIEW

CDL-BMW

FACTORY
PRE-WIRE
(for PA12-BMW)
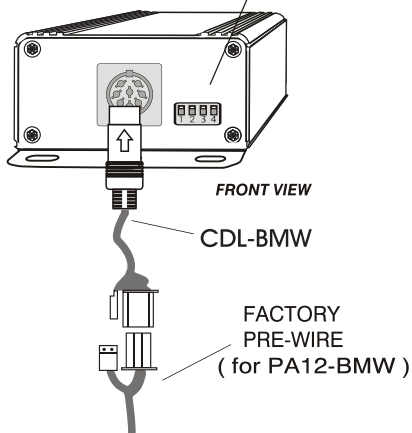
FACTORY PRE-WIRE CABLE
* See chart on pg. 7 for location

PA12-BMWdsp

4-POSITION DIP SWITCH
ON: when switch is at bottom position

DIGITAL AUDIO

FRONT VIEW

CDL-BMW

CDL-BMD

FACTORY PRE-WIRE CABLE
* See chart on pg. 7 for location

* Please note: PA12-BMW / PA12-BMWdsp do not plug into the radio directly.

SECTION 5. Playlist Naming

5-1 When the iPod is connected to PA12-BMW or PA12-BMW*dsp*, the adaptor scans all available Playlists on your iPod and will automatically assign the first 4 Playlists in alphabetical order on your iPod to radio's DISC 1 to 4. If you want the radio to access Playlists which are not the first 4 Playlists (by alphabetical order), you need to name your 4 favorite Playlists on iTune as follow:

> Playlist # 1 (DISC 1): BMW1
> Playlist # 2 (DISC 2): BMW2
> Playlist # 3 (DISC 3): BMW3
> Playlist # 4 (DISC 4): BMW4

The word BMW must be in capital letters and there can be no spaces between the word BMW and numbers.
You may append text to the designated BMW Playlist names. Example: BMW1-jazz, BMW3_Favorite3, BMW4 podcast, etc.

5-2 If less than 4 designated BMW Playlists are created, PA12-BMW or PA12-BMW*dsp* will automatically fill up the rest of Playlist numbers beginning with the first available Playlist on iPod (in alphabetical order). Example: if only 3 designated BMW1, BMW3 and BMW5 Playlists are created, the Playlist # will be:

> Playlist # 1 (DISC 1): BMW1....
> Playlist # 2 (DISC 2): (the 1st available Playlist on iPod)
> Playlist # 3 (DISC 3): BMW3....
> Playlist # 4 (DISC 4): (the 2nd available Playlist on iPod)

APPENDIX

Factory Pre-wired Cable Location for Most BMW Vehicles	
Car Model	Cable Location
3 Series	Left rear trunk, quarter panel area. Except 96 318Ti.
Z3	Right rear trunk, quarter panel area.
Z4	Rear compartment between rear speakers.
5 Series	Left rear trunk, quarter panel area.
7 Series	Left rear trunk, quarter panel area.
X3	Left rear trunk, quarter panel area or center consol.
X5	Left rear trunk, quarter panel area.
Mini	Right rear trunk, quarter panel area.

PA12-BMW and PA12-BMWdsp designs are subject to change without notice.
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iPod, iPhone, iTouch, iTunes are registered trademarks of Apple Inc.
BMW is registered trademark of BMW of North America, LLC.

LIMITED WARRANTY

Thank you for choosing a **USA SPEC** product. LTI Enterprises Inc., is committed to providing high quality defect free products. All **USA SPEC** 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 **USA SPEC** 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.

TO OBTAIN WARRANTY SERVICE :
Contact the Customer Service center printed on the back of this manual 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.

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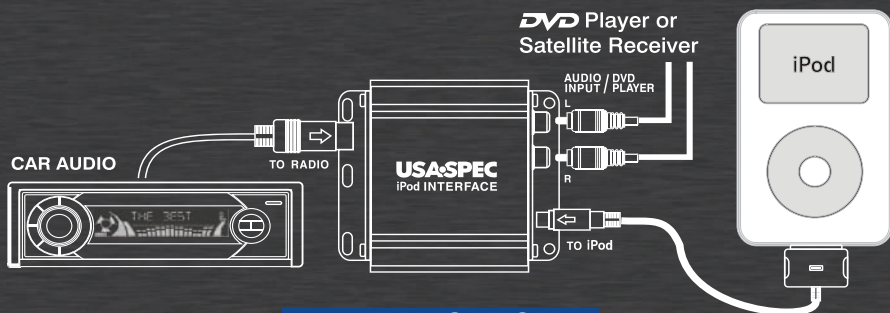
PLAY, CONTROL & CHARGE
Your iPod through BMW Car Stereo System!

KEY FEATURES

This adaptor connects an iPod, iPhone, or iTouch to your BMW audio system with the following benefits:

- Connects iPod's audio output directly to BMW Audio system for optimal sound quality playback.
- Displays text information on most CD Business radios.
- Offers two ways to access the music on iPod: Direct Mode & Playlist Mode.
- Charges iPod (both Firewire and USB charging types are supported) while playing. Charging stops automatically 30 minutes after iPod is paused to prevent car battery drain.
- Connects Satellite radio, DVD player, or other audio source to the car audio system through the AUX Audio Input jack.

** The chart and diagram below are for general references only. For detailed application and compatibility please consult www.usaspec.com or call 626-336-3836.

APPLICATION

Model	Year
3 Series	96 - 05
5 Series	98 - 03
7 Series	99 - 01
Mini	02 - 06
X3/ X5	99 - 07
Z3 /Z4	99 - 07

* P12-BMW is not compatible with navigation radios.
* Satellite radio & external CD changer must be disconnected.
* Radios with DSP buttons must use the PA12-BMWdsp model.

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