

USA·SPEC

PA15-VETTE

iPod to GM car stereo Interface
with Text Display

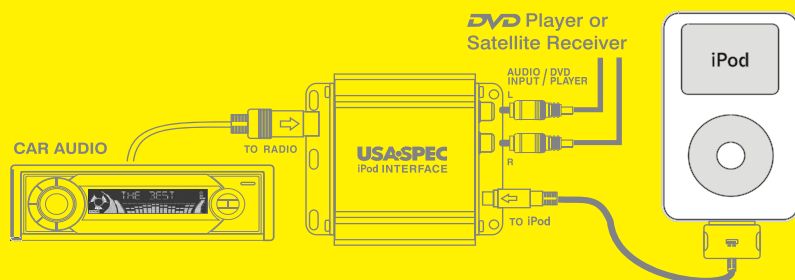
PLAY, CONTROL & CHARGE

Your iPod through CORVETTE, CTS, RSX Car
Stereo System!

KEY FEATURES

This interface connects an iPod, iPhone, or iTouch directly to your GM audio system with following benefits:

- Connect directly iPod's audio output to GM vehicle audio system for optimal sound quality playback.
- Displays text information on XM ready radios.
- Retains XM receiver, CD changer, CD player, and DVD system.
- Offers two ways to access your music on iPod: Direct Mode, Folder Mode.
- Charges iPod battery while playing, charging automatically ends. half hour after iPod is paused.
- Connects Satellite radio, DVD player or other audio sources through AUX Audio Input jack.



APPLICATION

MODEL

YEAR

Corvette	2005 - 2010
CTS	2004 - 2007
RSX	2004 - 2007

Note: If a Corvette does NOT have a factory installed XM receiver, use model PA15-GM.

CTS and RSX must have factory installed XM receiver..

USA·SPEC verified the published radio and vehicle application to the best of our ability. Due to uncontrollable factors, USA·SPEC can not 100% guarantee every published application. These factors include variables such as, anomalies within a factory radio, factory radio heretofore unknown to USA·SPEC and partail model year changes.

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XM is a trade mark of XM Satellite Radio Inc.

GM is a registered trade mark of General Motors Corporation.

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OWNER'S MANUAL

TECH. SUPPORT
(626)336-3836
9 AM ~ 4 PM PST
MON ~ FRI

email: techsupport@usaspec.com

Thank you for purchasing a **USA·SPEC** product. This manual describes the functions and operation of PA15-VETTE iPod interface to GM 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. DO NOT permanently place deep behind radio. You may need to access for future upgrades, resets, dip switch setting, etc...
- ❖ Eject ALL CDs from the built-in CD player or CD changer before removing the radio from the dash board.
- ❖ **USA·SPEC** distributes products through authorized dealers so customers will receive proper services and information from the dealers. **USA·SPEC** reserve the right to offer technical or warranty service only on products purchased through authorized **USA·SPEC** accounts.
- ❖ SAFETY NOTE: You should always give full attention to driving. Do NOT operate the feature or function of PA15-VETTE 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 PA15-VETTE

1-1 Introduction

- a) This interface connects an iPod, iTouch or iPhone directly to your GM car radio system for optimal playback sound quality.
- b) This interface allows iPod to co-exist with GM navigation system, CD changer, XM radio receiver and DVD system, and controls iPod via both car radio and steering wheel controls.
- c) PA15-GM's on board software translates commands from your XM Band controls commands that the iPod understands.
 - i) You use the XM controls on radio to work with iPod, iTouch or iPhone. Radio must have a BAND button to use XM control. (Note: CTS and RSX can use XM controls only).
 - ii) **XM1 is for iPod and XM2 is retained for XM broadcast reception.**
- 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

Artist name and song title can be displayed on radio by configuring PA15-VETTE to work with radio's XM band.

1-3 Package Content

PA15-VETTE contains one PA15-VETTE interface adaptor and one each of following cables: CAS-GM2ext5, CAS-GMext10, CAS-GM2x and CB-PA105.

1-4 Compatibility

Future iPod and iTunes software updates may affect the features and functions described in this owner's manual and www.usaspec.com web site.

1-5 Applications

Make	Model	Year	Control iPod with ...	Note
CADILLAC	Escalade / EXT	03 - 06	XM	(1) (4)
	CTS	04 - 07	XM	(2)
	RSX	04 - 07	XM	(2)
Chevrolet	Corvette	05 - 10	XM	(1) (4)
	Impala	00 - 05	XM	(1) (4)
	Monte Carlo	00 - 05	XM	(1) (4)
Chevy Truck	Avalanche	03 - 06	XM	(1) (4)
	Blazer	2004	XM	(1)
	Colorado	05 - 10	XM	(1)
	Equinox	05 - 06	XM	(1) (3)
	S-10 Truck	2004	XM	(1)
	Silverado	03 -06	XM	(1) (4)
	Silverado Classic	2007	XM	(1) (4)
	SSR	05 - 06	XM	(1)
	Suburban	03 - 06	XM	(1) (4)
	Tahoe	03 - 06	XM	(1) (4)
	Trail Blazer	04 - 09	XM	(1)
	Uplander	05 - 07	XM	(1) (3)
	Venture	03 - 04	XM	(1)
GMC	Canyon	05 - 10	XM	(1) (4)
	Denali	03 - 06	XM	(1) (4)
	Envoy	04 - 08	XM	(1) (4)
	Sierra	03 - 06	XM	(1) (4)
	Sierra Classic	2007	XM	(1) (4)
	Sonoma	2004	XM	(1)
	Yukon	03 - 06	XM	(1) (4)
Hummer	H1	04 - 06	XM	(1)
	H2 / SUT	03 - 07	XM	(1)
	H3	06 - 09	XM	(1)
Pontiac	Grand Prix	2005	XM	(1)
	Vibe	05 - 06	XM	(1)

Note (1) To use PA15-VETTE, car must have a XM receiver.

Note (2) PA15-VETTE is not applicable if car does NOT have XM receiver.

**Note (3) If the car does not have XM receiver order CAS-GNOX2
cable from **USA-SPEC** (626-336-3836)**

Note (4) Use model PA15-GM if car does NOT have XM receiver.

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

Section 2. Folder Mode, Direct Mode and Setting AUX Option

PA15-VETTE provides two modes to control your iPod through car radio, namely Folder 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.

- When PA15-VETTE is configured to XM control, a preset button on radio is dedicated to Direct Mode. See section 3-1 and section 4 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 radio in the mode.

✧ **Application Tip**

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

2-2 Folder Mode

Access 4 Folders, namely Playlist, Artist, Songs and Album on iPod from radio. See section 3-1 (for non-navigation radio) or section 4 (for navigation radio) of this manual for more information.

- Folder Mode is applicable only when PA15-VETTE is configured to use radio's control. Hence, radio must have BAND button and is also XM ready.
- iPod FOLDERS are accessed with radio's preset buttons.

2-4 AUX Input Option

In addition to the iPod, PA15-VETTE 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 ON 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 PA15-VETTE adaptor.

DIP Switch # 1 Setting:

DIP # 1 = ON	RCA AUX Input is enabled
DIP # 1 = OFF	RCA AUX Input is disabled

Section 3. Regular or non-navigation Radio's Mode Setting and Function Control

3-1 Folder Mode + Direct Mode Configuration

(Note: this configuration supports text display but is applicable only to radio if it has a BAND button and also it is XM ready.)

3-1-1 DIP Switches Setting

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

(Note: DIP switch #1 is only related to RCA AUX setting and it is independent of switches #2, #3 and #4. See section 2-4 for DIP #1 setting instruction.)

3-1-2 Functions and Radio Buttons

- Press BAND button on radio to access iPod at XM1
- Press BAND button on radio to access XM channels at XM2
- Use radio Preset buttons to access iPod Folders, Direct Mode and RCA AUX as follow:

<i>Push.....</i>	<i>Radio Displays.....</i>	<i>Radio Plays</i>	<i>Remark</i>
Preset # 1	PL x y & Title	Playlist Folders	see note (a) (b)
Preset # 2	AR x y & Title	Artist Folders	see note (a) (b)
Preset # 3	AL x y & Title	Album Folders	see note (a) (b)
Preset # 4	ALL y & Title	All Songs Folder	see note (a) (b)
Preset # 5	iPod Direct	iPod Playing	
Preset # 6	AUX	RCA AUX	IF DIP #1 = ON

Note (a): x=folder's number; y=track's number

Note (b): FOLDER type abbreviations: PL = Playlist; AR = Artist;
AL = Album; ALL = Songs; Dir = iPod Direct

- Push DISPL or INFO or RCL button (usually it is the centre of the TUNING knob) on radio to view text information of music. Text display on radio is as follow: (Note: available on XM ready radio only.

DISPL Button	Text from iPod	Note
no Push →	track number & Title	
1st Push →	Artist Name	
2nd Push →	Album Name	
3rd Push →	Folder Name	

- Turn the TUNING knob or press SEEK button to change tracks.
- Turn P-TYPE knob to change sub-folder (example: change to next Playlist while in Playlist folder; change to next Artist while in Artist folder).
Note (1): If radio is equipped with a TYPE turn knob, must press the TYPE button first and then turning the TYPE turn knob.
Note (2): If radio is equipped with a P-TYPE button, must press P-TYPE button and then turning the push AUDIO knob.
- Press-and-hold (until a beep sound is heard) preset button #6 to begin the RANDOM track play and press-and-hold the preset #6 button 2nd time to terminate the RANDOM play. When in RANDOM mode, “r” is displayed on radio.
- Pressing-and-hold the preset #3 or the preset #4 wil fast reverse or fast forward the track about 40 seconds respectively.
- Press-and-hold (until a beep sound is heard) preset #1 and preset #2 to retreat or advance 10 tracks respectively.
- Track change from steering wheel controls is supported.

3-1-3 iPod Connecting and Playing

- When iPod is connected to PA15-VETTE and radio is at XM1 BAND, iPod plays the track in **the** Folder which was played prior to the iPod being connected to the PA15-GM. When the playing of the last track in **the** Folder is complete, iPod will go to the first track in All Songs folder.

Section 4. Navigation Radio's Mode Setting and Function Control

4-1 DIP switches Setting

4-1-A If the radio screen or graphic is the same as Example A below, set the DIPs as follows:

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

4-1-B If the radio screen or graphic is the same as Example B below, set the DIPs as follows:

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

(Note: DIP switch #1 is only related to RCA AUX setting and it is independent of switches #2, #3 and #4. See Section 2-4 for DIP #1 setting instruction.)

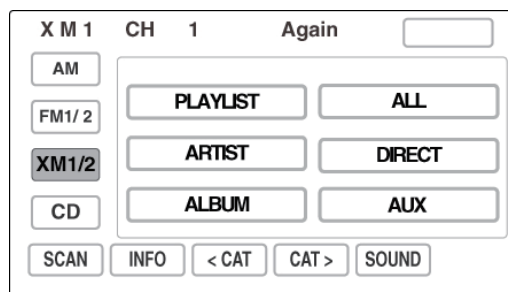
4-2 Program *Function* and *Text* to the Preset Buttons on Touch Screen

PA15-VETTE allows you to program a “control function” and its name to the preset buttons on navigation touch screen. Examples are shown below:

Example A:



Example B:



In the above examples, the preset buttons are programmed to the function of accessing Playlist folder, Artist folder, All Songs folder, Album folder, AUX INPUT and DIRECT Mode respectively.

4-3 Procedure of Programming Preset Buttons' Function and Text

- Step 1- Complete PA15-GM wire connection steps described in Section 4 of this manual.
this manual.
- Step 2- **Disconnect iPod from PA15-GM!!!!**
- Step 3- Press XM button to find XM1 on radio.
- Step 4- **If your radio's touch screen is the same as in the Example A above, go to Step 5 of this section.**

If your radio's touch screen is the same as in the Example B above, go to Step 11 of this section first.

- Step 5- Long press SEEK button until the letter PLAYLIST is shown on the text line where CH (*channel number*) is displayed. *Note: before the SEEK button is long pressed, letter "iPod" is shown on this text line.*
- Step 6- Touch-and-hold anyone of the 6 preset buttons until letter PLAYLIST appears on the preset button.
- Step 7- Short press the SEEK button and next function will appear on the text line where CH is displayed. *Note: PA15-GM may provide more than 6 function and you can use only 6 of it due to radio has 6 preset button only.*
- Step 8- Touch-and-hold anyone of the not-yet-programmed preset buttons until the name of the function appears on the preset button.

- Step 9- Repeat Step 7 and Step 8 to **complete** the programming of all 6 preset buttons.
- Step 10- Ending this programming mode by either connect iPod to PA15-GM or long press the SCAN button (for Example A type radio) or touch the SACN button (for Example B type radio).
- Step 11- Press the SCAN button and the letter PLAYLIST will show on the top of the screen.
- Step 12- Go to Step 6, 7, 8, .9 and 10 to complete the preset buttons programming.

Important!!!!

- (1) After the preset buttons are programmed, the text label on each buttons could be altered or modified with random or unwanted text when a preset buttons is press-and-hold **longer than 2 seconds**. Re-do above steps to **rename** preset button's text label when iPod is disconnected from PA15-GM.
- (2) When the text on preset button is altered as a result of being long pressed, the **FUNCTION** which had been programmed or assigned to the button would not be altered.

4-4 Functions and Radio Buttons

- Touch XM button on radio to access iPod at XM1
- Touch XM button on radio to access XM channels at XM2.
- Use radio Preset buttons to access iPod Folders, Direct Mode and RCA AUX.
- Press the SEEK button to change track.
- A long-press-n-hold the SEEK+ or SEEK- will fast reverse or fast forward the track about 40 seconds respectively.
- Touch the SELECT or CAT < > buttons to select a sub-folder. (Example: change to next or previous Playlist while playing the Playlist Folder; change to next or previous Artist while playing the Artist Folder.)
- Touch INFO button to display Text Information of the playing track. (This is only applicable to Example B type radios.
- Track change from steering wheel control is supported.

4-5 iPod Connecting and Playing

- When iPod is connected to PA15-VETTE and radio is at XM1 BAND, iPod plays the track in **the** Folder which was played prior to the iPod being connected to the PA15-GM. When the playing of the last track of **the** Folder is complete, the iPod will go to the first track of the All Songs folder.

Section 5. CABLE CONNECTION (Reference to Fig.1)

- Step 1- Decide which MODE to use and set DIP switches according to instructions in Section 3 or Section 4.
- Step 2- Must remove or eject all CDs out from radio.
- Step 3- Remove radio out from dash or locate the XM receiver in your car. (See APPENDIX of this manual for the location of XM receiver in your car.)
- Step 4- Unplug the factory 16-pin male connector from XM receiver and connect it to the 16-pin female connector on **USASPEC** CAS-GM2x cable. Connect the 16-pin male connector on **USASPEC** CAS-GM2x cable to XM receiver.
- Step 5- Connect **USASPEC** CAS-GM2ext10 to CAS-GM2x.
- Step 6- If cable extension is required; connect CAS-GM2ext5 to CDL-GM2ext10.
- Step 7- Connect the 18-pin male connector on CDL-GM2ext10 to PA15-VETTE where is labeled RADIO. If CAS-GMext5 extension is being used, connect the 18-pin male on CAS-GMext5 to PA15-VETTE instead.
- Step 7- Connect the 2nd audio source to the RCA jacks on adaptor if AUX option is selected by DIP switch #1 = ON.
- Step 10- Plug CB-PA105 cable to adaptor where is labeled iPod.
- Step 11- Test the system before reinstalling the radio or XM receiver and panels.

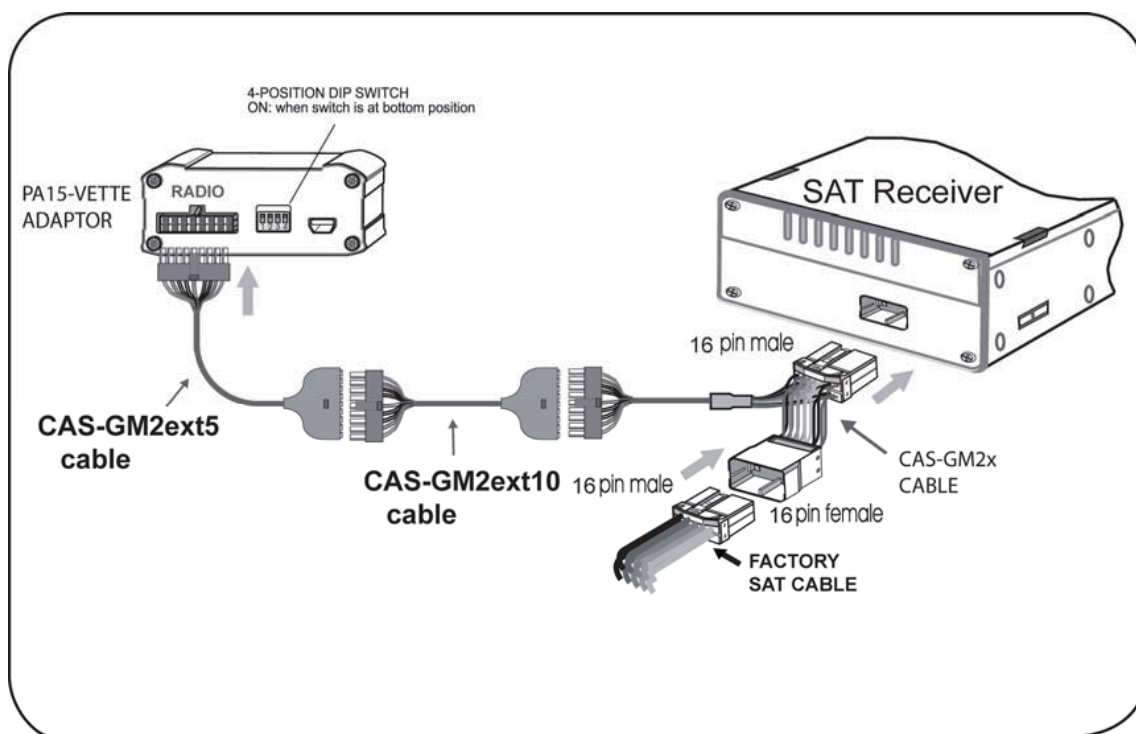


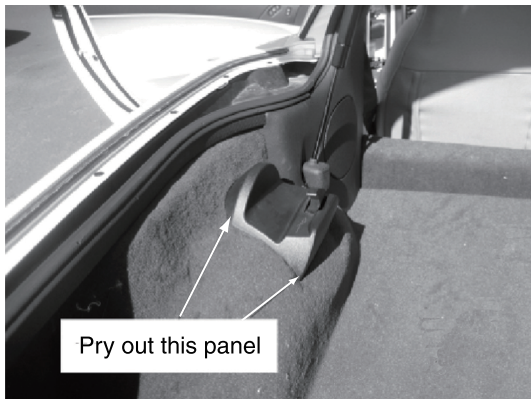
Fig. 1

****Please refer to the following photos on where to locate and how to connect the XM receiver in Corvette.**

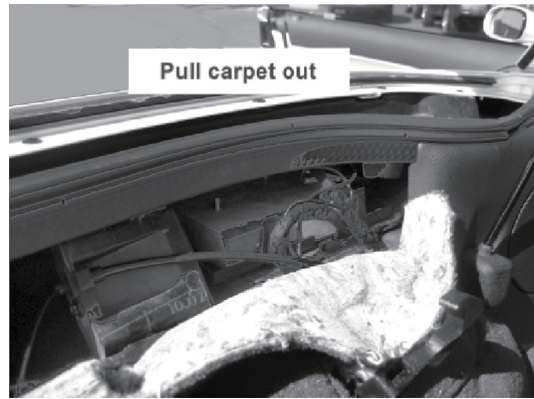
(B) Installation in Corvette Coupe and T-Top

XM receiver is located behind the driver side's quarter panel in the hatch.

1) Remove the panel



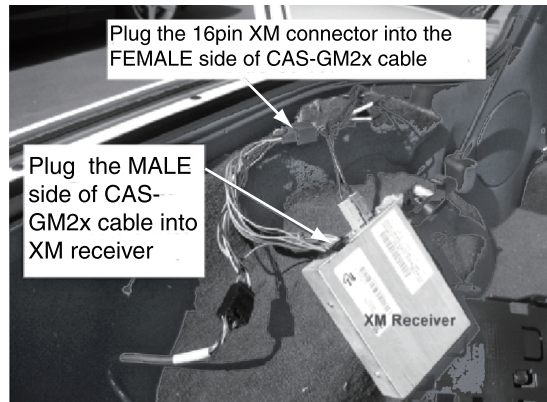
2) pull out the carpet.



3) Lift the XM Receiver bracket and unplug the 16-pin connector



4) Plug the 16-pin connector into the CAS-GM2x (female side) cable. Plug the male side of CAS-GM2x into the XM receiver.



(B) Installation in Corvertte convertible

XM Receiver is located behind the panel between the two seats.



Reference the instruction in(A)to finish the rest of connections.

APPENDIX

XM Receiver location for most GM Vehicles

Make	Model	XM Receiver location
Buick	Rainer	Above Pass-side dash panel
	LaCross	Behind Rear-Left quarter panel in trunk
Cadillac	CTS	Under the rear deck
	SRX	Behind Rear-Right quarter panel
Chevy	Impala	Behind Rear-Left quarter panel in trunk
	Monte Carlo	Behind Rear-Left quarter panel in trunk
	Corvette Coupe	Rear-Left quart panel behind carpet
	Corvette Conv.	Between the seats inside the hatch cover
	Avalanche	Behind Glove-Box
	Equinox	Behind Rear-Left quarter panel
	Colorado	Above Pass-side dash panel
	Tahoe	Behind Glove-Box
	Suburban	Behind Glove-Box
	Silverado	Behind Glove-Box
	Trail Blazer	Above Pass-side dash panel
	Venture/Uplander	N/A
GMC	Canyon	Above Pass-side dash panel
	Envoy	Above Pass-side dash panel
	Sierra	Behind Glove-Box
	Yukon/Denali	Behind Glove-Box
Pontiac	Grand Prix	Behind Rear-Left quarter panel in trunk

PA15-VETTE design is subject to change without notice.
 XM and Sirius are a registered trade name of SIRIUS XM Satellite Radio Inc.
 iPod, iTunes are the registered trade name of Apple Computer Inc.
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