



Commander*MT*[®] System



user guide
XMRVRFM002

Congratulations

Thank you for purchasing the Audiovox **CommanderMT** XM® Satellite Radio Receiver System. You are one step closer to experiencing the latest innovation in XM® Satellite Radio. XM® Satellite Radio will revolutionize your vehicle. XM® features over 170 digital channels — The most commercial-free music, over 30 channels of news, sports, talk and entertainment, over 20 dedicated channels of XM® Instant Traffic & Weather, and the deepest play-list in the industry with access to over 2 million titles!

XM® Satellite Radio service gives you the power to choose what you want to hear - wherever and whenever you want it. XM® is America's #1 Satellite Radio provider with over 4 million customers.

Your Audiovox **CommanderMT** XM® System includes all of the components needed to install and enjoy XM radio in your vehicle.

Required subscription for service sold separately.

Installation costs and other fees and taxes may apply, including a one-time activation fee. All fees and programming subject to change. College sports games subject to availability. Subscriptions subject to Customer Agreement included with the XM Welcome Kit and available at www.xmradio.com. Only available in the 48 contiguous United States.

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FCC Information

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off or on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced Radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The user is cautioned that changes or modifications not expressly approved by XM® Satellite Radio, Inc. can void the user's authority to operate this device.

Please note that the **CommanderMT** System comes equipped with an FM direct hardwire solution for professional installation.

By adhering to these warnings and safety considerations, stated in the manual and by XM®, accidents and/or personal injury can be avoided.

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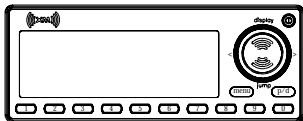
Introduction

The Audiovox **CommanderMT** System processes the XM® satellite signals received by an externally mounted antenna for your vehicle. The **CommanderMT** System recognizes and decodes the incoming XM® program information and provides an audio signal to your radio or other audio output equipment.

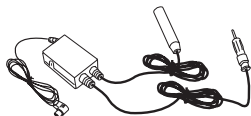
NOTE: *When installed in a vehicle, the XM signal can be received and processed virtually anywhere as long as there are no obvious satellite signal obstructions such as nearby tall buildings, high terrain, parking garages or tunnels.*

The **CommanderMT** Display Controller is typically installed in an accessible location of the vehicle (dash area), consistent with line-of-sight operation of the remote control, and/or within easy reach of the driver.

CommanderMT System Components



**CommanderMT
Display Controller**



FM Direct Adapter

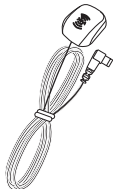


Remote Control

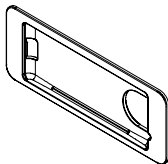
**XM
Mini-Tuner**



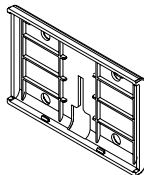
**Interconnect
Cradle**



**XM Car
Antenna**



**DIN Opening
Trim Bezel**



**Snap-On
Mounting
Plate**



**12 Vdc
Power Cable**



Figure 1. CommanderMT System Components

Getting Started

You can begin to enjoy XM® Satellite Radio as soon as the **CommanderMT** System installation is complete, and the XM® Satellite Radio service has been activated as follows:

1. Set up your Audiovox **CommanderMT** System using the installation instructions included in your CommanderMT installation guide, or with the help of a professional installer.

NOTE: *The antenna must be installed on the outside of your vehicle or home/office for best performance.*

2. Press the Power button () on the **CommanderMT** or the Power button on the Remote Control to turn on the XM Mini-Tuner.
3. The XM® logo appears and slowly fades on the display for 2 seconds, followed by appearance of the Audiovox logo () for 10 seconds. Next, tune to the XM® preview channel (#1). If you can hear the XM® Preview, your equipment is ready for activation. (See Figure 2.)

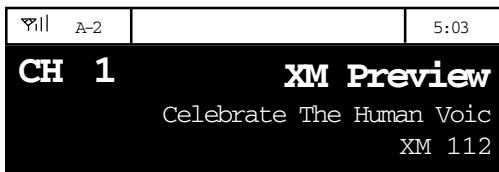


Figure 2. XM® Preview Channel (#1) Display

- Next, make sure you have a credit card or XM Pre-Paid Service Card, and your XM® Radio ID handy.



Figure 3. Channel "0" Radio ID Display

- To obtain the XM® identification (ID) number, tune to channel 0 and press the Select button. The 8-digit XM® ID number will appear as shown in Figure 3.

Please record your 8-character alphanumeric XM® ID code carefully. There is no "I" (eye), "o" (oh), "S" or "F" used. You may wish to double-check your ID code located on the rear of your receiver. Enter the ID code as shown in Figure 4 below:



Figure 4. Receiver 8-Character Alphanumeric ID

NOTE: No adjustments are allowed in this mode. To exit the Radio ID screen, tune to any channel using the Channel Scroll Wheel, or the Up (▲) or Down (▼) buttons on the remote control, and press the Select button.



Online Activation Process - Once the ID code is obtained, log on to XM® at <http://activate.xmradio.com> and follow the easy instructions to activate your **CommanderMT** XM® unit.

Call-in Activation Process - Call XM® at 1-800-XM RADIO (1-800-967-2346). One of XM®'s friendly Customer Care representatives will take the necessary information and walk you through the activation process. After activation is completed, you should keep your receiver ON until the XM signal has been received and you have access to the full channel lineup. Activation normally takes 10 - 15 minutes, but during busy periods you may need to keep your radio on for up to 1 hour. This will complete the activation process.

CommanderMT Display Controller Features

The Audiovox **CommanderMT** Display Controller provides 8 control buttons, five of which are integrated with the scroll wheel, plus number buttons 0 through 9. (See Figure 5.)

Power On/Off:

When the **Power** () button on the Commander or Remote Control is pressed momentarily, power is applied to the XM® Mini-Tuner. The XM® logo appears and slowly fades on the display for 2 seconds, followed by appearance of the Audiovox logo () for 10-seconds. Power up is followed by the Preview screen or by the tuning mode in effect when the unit was last powered off. (See Figure 6.) Power is turned off when the **Power** button is momentarily pressed; the XM® logo appears and slowly fades on the display for 2 seconds, after which the unit enters the power off state.

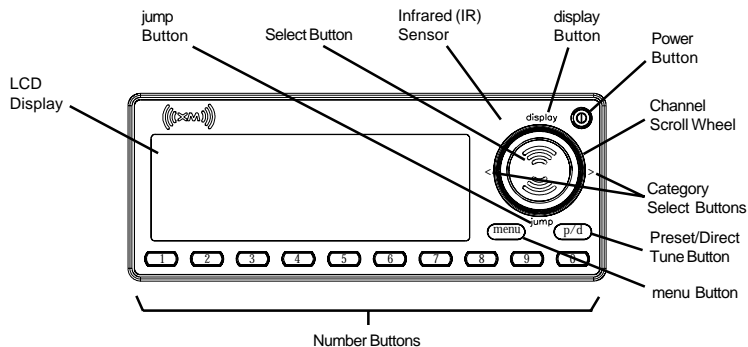


Figure 5. CommanderMT Controls and Indicators

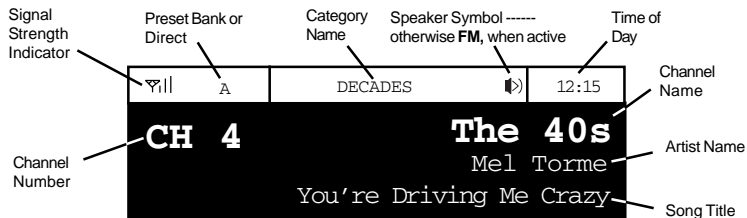


Figure 6. CommanderMT Active Channel Screen

Channel Up/Down Buttons (Remote Control):

The channel \blacktriangle / \blacktriangledown buttons are the primary controls for navigating through the various lists and option menus available on the unit. In the default mode, these buttons provide sequential tuning through the available program channels. The Up (\blacktriangle) button, when pressed, tunes up one channel, while the Down (\blacktriangledown) button, when pressed, tunes down one channel. Each button, when pressed and held for approximately 2 seconds, tunes up or down at an accelerated rate. When in the list or menu mode, pressing channel \blacktriangledown and \blacktriangle scrolls down and up, respectively, through the various menus and lists.

CommanderMT Channel Scroll Wheel:

The channel scroll wheel provides Commander control for navigating up and down through the channels and various lists and available option menus. In the default mode, this control provides sequential tuning through the available program channels. Clockwise (CW) rotation tunes up one channel per-detent, while Counterclockwise (CCW) rotation tunes down one channel per-detent. Each detent represents 1/16 of a revolution, with a total of 16 detents comprising 360 degrees. Rapid rotation in either direction tunes up or down at an accelerated rate. When in the list or menu mode, the wheel scrolls down (CCW) and up (CW), respectively, through the various menus and lists.

Select (XM) Button:

During normal operation, the Select button, when pressed momentarily, is used to confirm and/or enter a desired function when it is highlighted on the display.

Category Search:

Category search allows the user to advance through the channel groups based on content. On the **CommanderMT** Display Controller, this function is implemented by momentarily pressing the Category right/left (>/<) buttons when the active channel is displayed; the first line on the display shows the currently active Category or genre, and the highlighted second line shows the channel number and name. Rotate the scroll wheel to navigate through the category channel list; then press Select to choose the desired channel. Once a choice has been made, it can be entered by pressing the Select button. On the remote control, the category search function is implemented using the > and < buttons, channel Up/Down (▲/▼) buttons, and the Select button.

Jump Button:

The jump button allows you to immediately tune to the previous channel.

Preset/Direct (p/d) Button:

This feature allows you to store and recall up to 10 channels each in preset banks A, B and C, or to directly select a desired channel for play using the number buttons. The channel **preset** is stored when the preset bank is selected and the numeric button is pressed for 2 seconds; a momentary press of the numeric button recalls the desired channel from the preset bank, provided that bank is selected.

Display Button:

The display button allows the user to choose one of five ways to present the Artist, Song Title and channel information on the LCD screen:

1. Channel Number & Name, plus Artist and Song Title.
2. Channel Number & Artist plus Song Title and scrolling Stock Ticker.
3. Channel number and Artist plus Song Title and scrolling Info Extras.
4. Channel Number and Artist plus Large Font Song Title.
5. Channel Number and Name plus scrolling Large Font Song Title.

When the second or third line (Artist or Song Title) on the display exceeds 26 characters, the line will scroll right to left for 15 seconds so that the complete description can be seen.

Menu Button:

The **menu** button is used to access **MENU** options which allow the user to make feature function adjustments to suit his/her personal preferences. Upon entering the main menu mode, use the Channel Up/Down buttons or scroll wheel to highlight the desired function and then press the Select button to enter.

Number (Keypad) Buttons 0-9:

These buttons are used to directly enter a desired channel number when in "direct entry" mode or to store or recall a channel preset when a preset bank is selected.

Basic Operation

With the unit properly installed and connected to your vehicle audio system, proceed as follows:




1. Press the Select button on the main unit (power () button on the Remote Control). The Receiver turns on; the **XM** logo () appears for 2 seconds, slowly fading to black, after which the Audiovox A logo () appears for 10 seconds. The default display then appears for the tuning mode in effect prior to turnoff. (See Figure 7.)



Figure 7. XM® and Audiovox Power On Logo Display

2. Rotate the scroll wheel, or use the channel up/down buttons on the remote control to select the desired channel, or use the category buttons to select and tune to a desired channel based on genre.

Menu Options

To enter the Menu Options screen, press the **menu** button on either the remote control or the **CommanderMT** unit. Using the scroll wheel, or channel up/down buttons, highlight the option you wish to adjust; then press the Select button to enter the selected menu item. To enter a related sub-menu from the chosen menu item, rotate the scroll wheel or press the channel up/down buttons on the remote control. The menu options are available in the following order:



Figure 8. Menu Options Display

- **FM Frequency**
- **Brightness + Contrast**
- **Audio Level**
- **Direct Tune**
- **Search Mode**
- **Channel Skip/Add**
- **Tune Select**
- **Stock Ticker**
- **Info Extras**
- **Display Screen Mode**
- **Set Clock**
- **Auto-On**
- **Set Factory Defaults**
- **- Exit Menu -**

If, while in the menu screen function, a button is not pressed within 15 seconds from the previously selected function, the unit exits the menu screen function and reverts to the default screen display.

FM Frequency

This feature allows the user to select an FM Transmitter frequency or turn the FM transmitter Off when the receiver is used with the vehicle kit. If you are using the low level audio outputs in your particular application (optional SAT-RCA cable needed), the FM frequency option must be **Off** to provide an audio signal at the AUDIO OUT connector on the Receiver Interconnect cradle.

To select and/or change the FM frequency mode, press the Select button to access the FM frequency sub-menu. When this occurs, the FM Frequency **Off** (or the selected frequency, if active) display (Figure 9) appears. The FM transmitter will be **Off** by default. To turn the FM transmitter on, rotate the scroll wheel or press the channel up/down buttons on the remote control to highlight the desired frequency (88.1, 88.3, 88.5,.....107.9) and press the Select button. (See Figure 10.) To exit this function, press the **menu** button. (No button activity for 15 seconds will exit this function.)

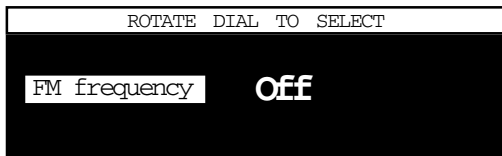


Figure 9. Select FM Frequency Off Display

Frequency Setting:

The selected frequency must be an unused frequency or a frequency used by a low-powered FM station in your area. If not, the strong signal from the FM station may overpower the FM transmitted signal which may result in interference.

Upon entering this mode, any FM transmitter frequency can be chosen using the scroll wheel or the channel up/down buttons on the remote control for frequency selection. Press the Select button to enter the new frequency setting (Figure 11), or press the **menu** button to return to the FM frequency page with no change to frequency.

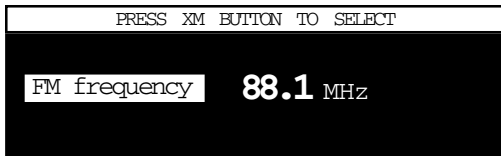


Figure 10. Select FM Frequency Display

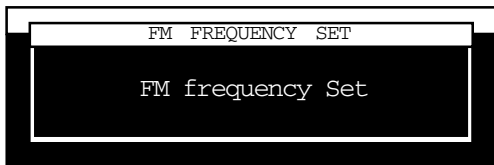


Figure 11. FM Frequency Set Display

Changing FM Settings: When the active FM frequency needs to be changed, press the menu button and select FM frequency on the display. The top banner will now prompt you to rotate the scroll wheel to select another frequency as shown in Figure 12. When the desired frequency has been chosen, press the Select button. The new FM frequency is now in effect.

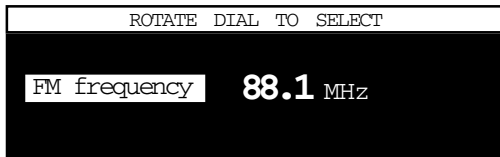


Figure 12. Changing the FM Frequency Display

Brightness and Contrast

This feature allows the user to adjust the LCD backlight brightness and contrast of the display. When the menu list is entered, **FM Frequency** is highlighted; rotate the scroll wheel CW to highlight **Brightness + Contrast**, then press the Select button. The Brightness and Contrast screen appears as shown in Figure 13.

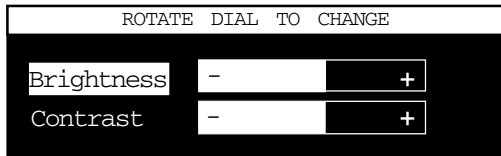


Figure 13. Brightness + Contrast Display

Brightness Mode: Upon entering this mode, **Brightness** will be highlighted. To adjust the brightness level, press the Select button; the entire **Brightness** graph will be highlighted and show 6 graduations from - to + (Figure 14). Rotate the scroll wheel or press the channel up/down buttons on the remote control to achieve the desired adjustment. Once the desired adjustment has been made, press the Select button. If there is no activity for 15 seconds, the unit will exit the adjustment mode.

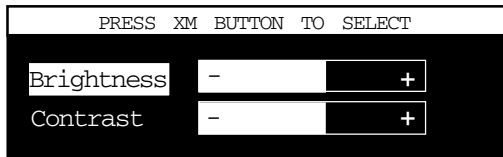


Figure 14. Set Brightness Screen

Contrast Mode: Rotate the scroll wheel CW, or press the channel up button on the remote control to enter the **Contrast** mode; the entire **Contrast** graph will be highlighted and show 6 graduations from - to + the same as the Brightness graph. Rotate the scroll wheel or press the channel up/down buttons on the remote control to achieve the desired adjustment. Once the desired adjustment has been made, press the Select button. If there is no activity for 12 seconds, the unit will exit the adjustment mode.

Audio Level

This feature allows the user to adjust the level of the audio output signal when the FM frequency modulator is on or off. This menu option is entered when the **menu** button is pressed and the scroll wheel is rotated CW, or the channel up button is pressed on the remote control, to highlight **Audio Level** on the display. Press the Select button to display the options.

FM On: Upon entering the **Audio Level** option, if the FM frequency modulator is enabled, a horizontal bar graph is displayed with a + sign on the right and a - sign on the left, and indicates audio level in 6 steps. Rotate the scroll wheel CW or press the channel up button on the remote control to increase the audio level one step; rotate the scroll wheel CCW or press the channel down button to decrease the audio level one step. (See Figure 15.) Additional text below the graph indicates the FM modulator is turned on and the audio level applies to FM audio only. When the desired level is set, press the Select button; the FM audio level set display appears as shown in Figure 16.

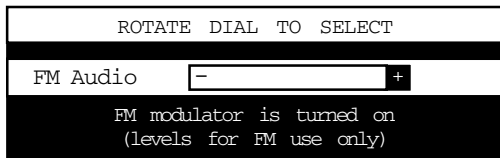


Figure 15. Set FM Audio Screen

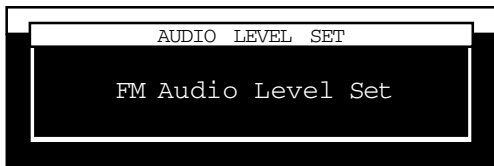


Figure 16. FM Audio Level Set Display

FM Off (Line Out): When the FM modulator is disabled, upon entering the audio level mode, a horizontal bar graph depicting Line Out audio in 6 steps is displayed with a + sign on the right and a - sign on the left. This level is adjusted in the same manner as FM audio as shown in Figures 17 and 18.

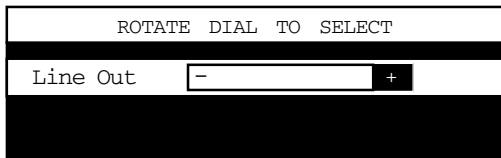


Figure 17. Set Line Out Audio Screen

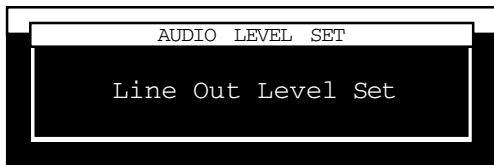


Figure 18. Line Out Audio Level Set Display

NOTE: To prevent distortion caused by overdriving the audio playback device input, it is recommended that you adjust the audio output level at mid-range (level 3).

Direct Tune

The direct tune menu option, when on or active, allows you to select and play a desired channel without having to press the Select button. In the off state, direct tune is disabled; in this mode, to select and play a channel, the Select button must be pressed to confirm and play the desired channel. Otherwise, the receiver will revert to the currently active channel.

Direct Tune On/Off Enable: Upon entering this menu option, the direct tune screen appears as shown in Figure 19, with **Direct Tune On** highlighted. The screen prompts you to rotate the scroll wheel or press the channel up/down buttons on the remote control to activate or deactivate the direct tune mode. Once the desired state is achieved, press the Select button.

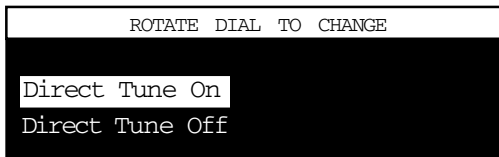


Figure 19. Direct Tune Menu Option Display

If direct tune is selected on, the display of Figure 20 appears to confirm the selection. When changing the direct tune state, the top banner of the display prompts you to **PRESS XM BUTTON TO SELECT** as shown in Figure 21.

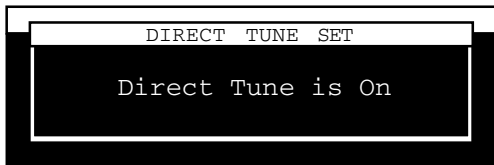


Figure 20. Direct Tune On Display

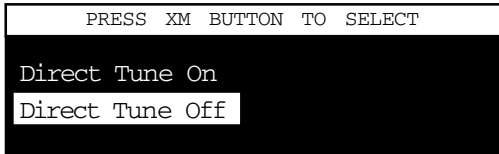


Figure 21. Select Direct Tune Off Display

Search Mode

The search mode menu option allows you to find a particular channel by using manual category search or by automatically scanning the various categories. Upon entering the Search Mode, the search mode display appears and offers Search by Category or Search by Scanning options as shown in Figure 22.

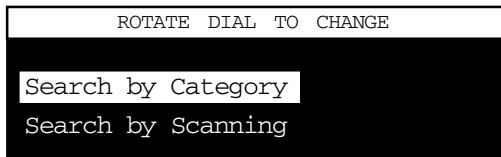


Figure 22. Category Search Menu Display

Manual/Scanning Category Search: When the Search mode screen appears, **Search by Category** or **Search by Scanning** is highlighted; if you wish to change the current setting, rotate the scroll wheel or press the channel up/down buttons on the remote control as indicated in the top banner of the screen. Once the desired state is achieved, press the Select button. When Search by Category is selected, the display of Figure 23 appears to confirm the selection. When changing the category search state, the top banner of the display prompts you to **PRESS XM BUTTON TO SELECT** as shown in Figure 24. When Search by Scanning is selected, the unit will continuously search through the presets (A, B, C), or all the



Figure 23. Searching by Category Display

available channels(in five (5) second intervals) in the direct mode, until the Select button is pressed to confirm the selection.

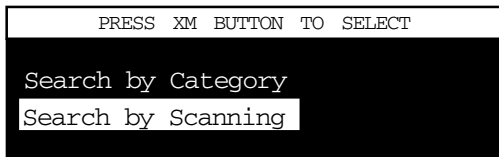


Figure 24. Select Search by Scanning Display

Channel Skip/Add

The channel skip/add menu option allows you to skip certain unwanted channels or to add, or restore, a skipped channel as you wish. Press the menu button to enter the menu options list and rotate the scroll wheel or press the channel up/down buttons on the remote control to access the channel skip/add feature. The skip/add menu display appears as shown in Figure 25. To select a specific channel you wish to skip, rotate the scroll wheel or press the channel up/down buttons to navigate through the channel list; when the desired channel is highlighted, press the

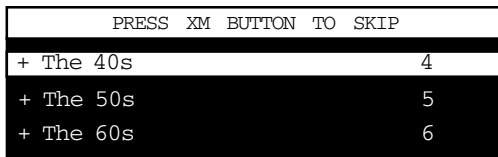


Figure 25. Skip/Add Menu Display

Select button. The display screen changes as shown in Figure 26, with the top banner indicating the channel is skipped and the + sign to the left changing to -. To reinstate the channel, rotate the scroll wheel or press the channel up/down buttons on the remote control to highlight the skipped channel; then press the Select button. The top banner on the display screen indicates the channel is added, and the - sign is replaced with a + sign. (See Figure 27.)

PRESS XM BUTTON TO SKIP	
- The 40s	4
+ The 50s	5
+ The 60s	6

Figure 26. Skip Select Channel Display

CHANNEL ADDED	
+ The 40s	4
+ The 50s	5
+ The 60s	6

Figure 27. Add Selected Channel Display

Tune Select Mode

This feature allows the user to store current program information (Artist and Song title) for future comparison against the incoming XM signal. (See Figure 28.) The XM receiver can hold up to 20 entries,

after which any new information saved will replace the oldest entry in memory. To store a song or artist, press and hold the Select Button until the unit emits a confirmation tone. When the exact Artist or Song is detected on another XM channel, the user will be notified via a confirmation tone. An alert will also appear on the screen for approximately 8 seconds identifying that a match was found. Pressing the Select Button while this screen is active forces the unit to jump to the channel currently playing before desired Artist or song.

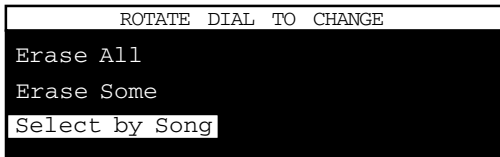


Figure 28. Tune Select Menu Display

Select by Song: To activate the select by song alert feature, rotate the scroll wheel CW or press the channel up button on the remote control to highlight **Select by Song**; then press the Select button; the Select by song confirmation screen appears as shown in

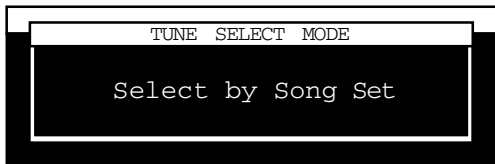


Figure 29. Select by Song Confirmation Display

Figure 29. When this feature is enabled, any song currently playing on a given channel can be flagged in memory for alert by pressing the Select button for 2 seconds. The current default channel display indicates **Artist/Song Selected** in the top banner for 2 seconds as shown in Figure 30. As a result, whenever that particular song plays, an alert tone sounds indicating your favorite song is being played on another channel.



Figure 30. Typical Select by Artist/Song Confirmation Display

Select by Artist: To activate the select by artist alert feature, rotate the scroll wheel CW or press the channel up button on the remote control to highlight **Select by Artist**; then press the Select button; the Select by artist confirmation screen appears as shown in Figure 31. When this feature is enabled, any artist currently performing on a given channel can be flagged in memory for alert by pressing the Select button for 2 seconds. The current default channel display indicates **Artist/Song Selected** in the top banner for 2 seconds as shown in Figure 30.

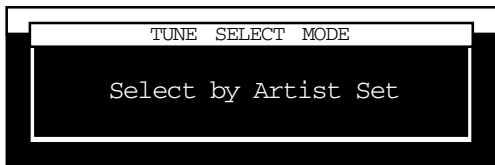


Figure 31. Select by Artist Confirmation Display

Erase All/Erase Some Artist/Song Titles: To activate the **Erase All/Erase Some** artist/song title features, rotate the scroll wheel or press the channel up/down buttons on the remote control to highlight **Erase All** or **Erase Some**; then press the Select button; when selected, the **Erase All?** screen appears with a **No**

or **Yes** option. (See Figure 32.) Rotate the scroll wheel or press the up/down buttons to change the selection; the top banner will then prompt you to press the XM button to select. Once selected, the display screen indicates that the artist/song title has been erased, thereby canceling the tune select mode. When the **Erase Some** feature is selected, a list of the Artists or Song Titles is presented on the display as shown in Figure 33.

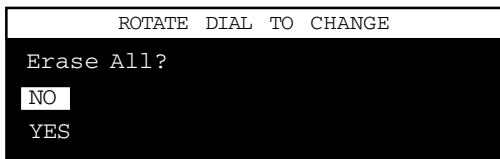


Figure 32. Erase All Artist/Song Display Screen

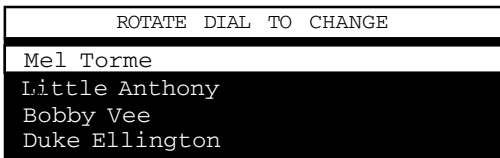


Figure 33. Erase Some Artists List Display

Highlight the artist or song title you wish to erase and press the Select button as instructed in the top banner of the display screen. The artist is erased from the list and the top banner of the display prompts you to press the menu button to save and exit the tune select mode; the display screen indicates the tune select changes have been saved as shown in Figure 34.

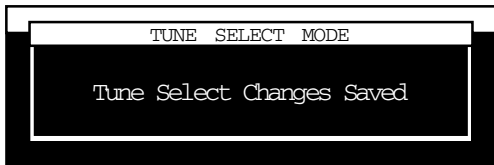


Figure 34. Erase Some Changes Saved Display

Stock Ticker Mode

The stock ticker menu option allows you add selected stocks in memory, or erase selected stocks from memory at your discretion. Press the menu button to enter the menu options list and rotate the scroll wheel or press the channel up/down buttons on the remote control to access the stock ticker feature. The add/erase stock menu display appears as shown in Figure 35. To select the

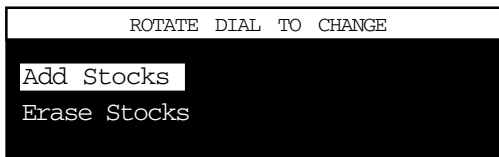


Figure 35. Add/Erase Stock Menu Display

desired feature, rotate the scroll wheel or press the channel up/down buttons on the remote control. The top banner on the screen prompts you to press the Select button to confirm the erase or add stock option. When the erase stock option is selected, the **Erase All /Erase Some** screen appears as shown in Figure 36.

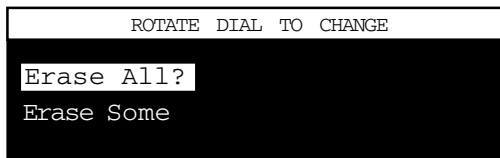


Figure 36. Erase All/Eraser Some Stocks Display Screen

Erase All/Eraser Some Stocks: To activate the **Erase All/Eraser Some** stock features, rotate the scroll wheel or press the channel up/down buttons on the remote control to highlight **Erase All** or **Erase Some**; then press the Select button; the **Erase All?** screen appears with a **No** or **Yes** option. (See Figure 37.) Rotate the scroll wheel or press the up/down buttons to

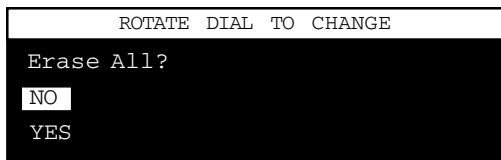


Figure 37. Erase All Stocks Display Screen

change the selection; the top banner will then prompt you to press the Select (XM) button. Once selected, the display screen indicates that the stocks within memory have been erased, thereby canceling the Stock Ticker mode. When the **Erase Some** feature is selected, a list of the stocks is presented on the display as shown in Figure 38. Highlight the stock you wish to erase and press the Select button as instructed in the top banner of the display screen. The stock is erased from the list and the top banner of the display prompts you to press the menu button to save and exit the stock ticker mode; the display screen indicates the stock ticker changes have been saved as shown in Figure 39.

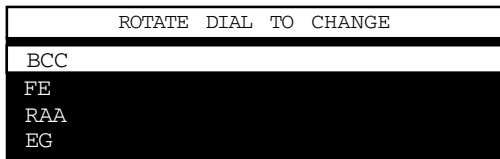


Figure 38. Erase Some Stocks Display List

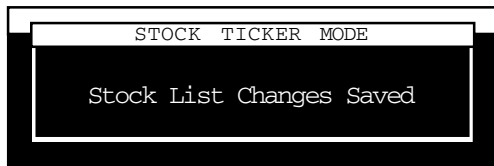


Figure 39. Erase Some Stock Changes Saved Display

Add Stocks: To activate the **Add Stocks** feature, rotate the scroll wheel or press the channel up/down buttons on the remote control to highlight **Add Stocks** on the display as shown in Figure 35; then press the Select button as instructed in the top banner of the screen. The display momentarily indicates an access wait period for about 3 seconds (Figure 40), after which the Enter Symbol display appears with a blinking cursor as shown in Figure 41 .

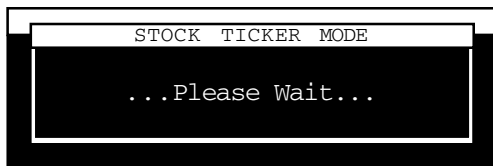


Figure 40. Add Stocks Access Wait Display

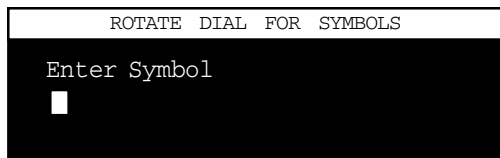


Figure 41. Enter Stock Symbols Display Screen

Using the Add Stocks Cursor: When the Enter Symbol display appears with the blinking cursor, you are prompted to press the Select button; however, you must first choose the first letter of

the stock symbol. To do this, rotate the scroll wheel or press the channel up/down buttons to display the first letter of the desired symbol; then press the Select button to enter. The blinking cursor moves one character to the right. (See Figure 42.) Rotate the scroll wheel or press the channel up/down buttons to acquire the next letter in the stock symbol; then press the Select button ---- and so-on---- until the complete symbol is displayed. Then press the select button to enter the symbol; the display indicates the symbol is added (Figure 43) and reverts to the Enter Symbol display (Figure 42) so you can enter the next stock symbol.

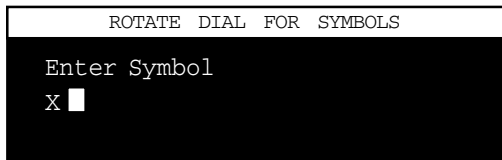


Figure 42. Entering Stock Symbols With the Cursor

- Note:** Only certain stock symbols are accepted; further attempts to enter a stock of choice not recognized by the receiver are automatically rejected.
- Note:** The XM Mini-Tuner will sometimes complete the entry. When the entry appears on the screen, press the Select button to confirm the symbol. To exit this mode press the **menu** button twice.

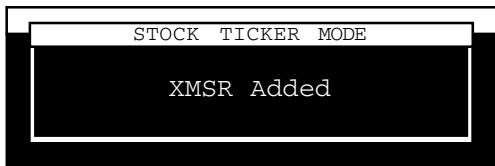


Figure 43. Stock Symbol Added Display

Info Extras

This feature allows you to display the available Information Extras, primarily sports information, regarding broadcasts of team scores, playing schedules, etc. When this menu item is entered, Sports appears highlighted on the display as shown in Figure 44. To enter the sports option, press the Select button; a list of professional and collegiate sports appears as shown in Figure 45. Rotate the scroll wheel or press the channel up/down buttons on the remote control to choose the desired sport of interest. Then press the Select button.

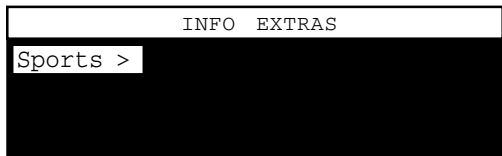


Figure 44. Info Extras Menu Display



Figure 45. Sports Venues Listing Display

Rotate the scroll wheel or press the channel up/down buttons on the remote control to highlight the desired team; then press the Select button to confirm. A + sign indicates the team is selected, while a - sign indicates the team is not selected. (See Figure 46.) To select or de-select a specific team, rotate the scroll wheel or press the channel up/down buttons to highlight the team of interest and press the Select button. When de-selected, the + sign changes to a - sign, and vice-versa when selected. The top banner of the display either prompts you to press the Select (XM) button to remove, or indicates that a team has been added (+).

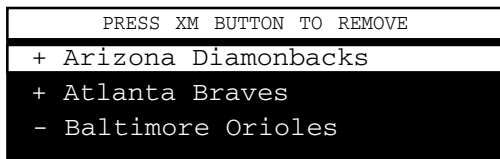


Figure 46. Sports Teams Listing Display

Display Screen Mode

This feature allows you to personalize the display of the unit to individual preferences. Upon entering the Display Screen mode (Figure 47), you can adjust the way information is viewed. Use the scroll wheel or the remote control up/down buttons to highlight the setting you wish to adjust; then press the Select button to confirm the selection.

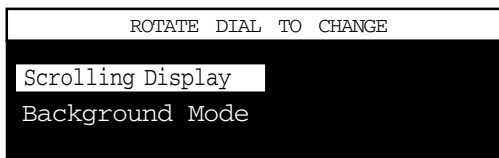


Figure 47. Display Screen Mode

Scrolling Display: The Scrolling Display feature allows the user to program the **CommanderMT** System to scroll stock ticker or Info Extras information across the bottom portion of the screen (continuous stream of information). The paging mode feature presents the data one page at a time and is useful when viewing the display at a distance. Upon entering the Scrolling Display mode (Figure 48), use the scroll wheel or the remote control up/down buttons to highlight either Scrolling On or Scrolling Off; then press the Select button. Selection acceptance is confirmed by an audio beep and the confirmation screen shown in Figure 49.

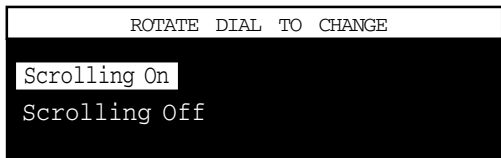


Figure 48. Scrolling On/Off Display Screen

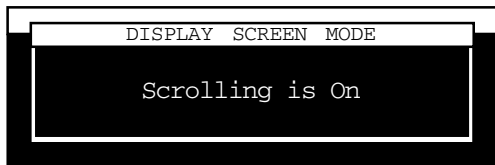


Figure 49. Scrolling On Confirmation Display Screen

Background Mode: The Background Setting feature allows the user to change the color of the characters being displayed to white characters on black (Negative Display) or black characters on a white background (Positive Display).

Upon entering the Background Setting mode (Figure 50), use the scroll wheel or the remote control up/down buttons to highlight either Negative Display or Positive Display then press the Rotary/Select Knob or the Remote's (XM) Select button. Selection acceptance is confirmed by audio beeps and the confirmation screen shown in Figure 51.

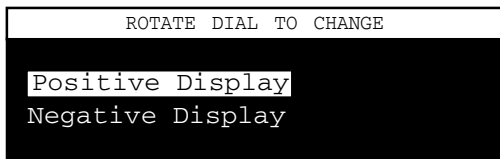


Figure 50. Background Mode Display Screen

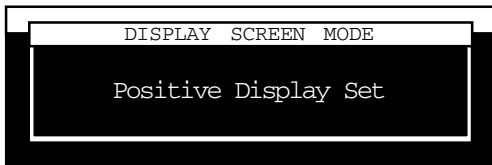


Figure 51. Positive Display Set Confirmation Screen

Set Clock

This feature allows you to personalize the clock display. The clock data is provided via the XM signal, and is displayed according to the users settings. Use the scroll wheel or the up/down

buttons on the remote control and highlight one of the three options on the Set Clock Screen. (See Figure 52.) Press the Select button to set your selection.

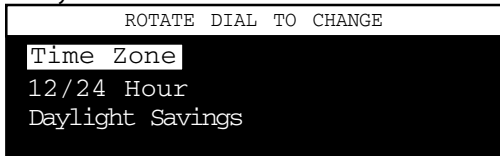


Figure 52. Set Clock Display Screen

Time Zone: This feature is used to set the clock to the Time Zone in which the you reside. (See Figure 53.) Use the scroll wheel or the remote control up/down buttons to highlight the desired time zone; then press the Select button. Acceptance is confirmed by an audio beep and the confirmation screen shown in Figure 54.

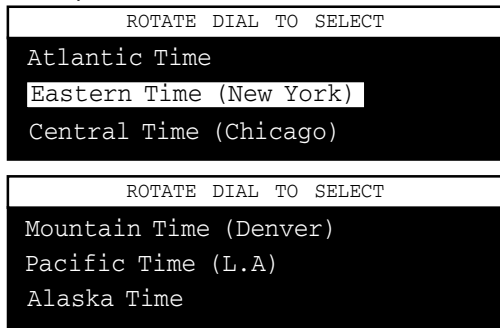


Figure 53. Select Time Zone Display

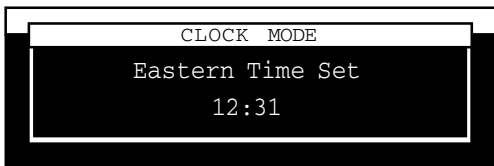


Figure 54. Time Zone Confirmation Display

12/24 Hour Selection: This feature is used to set the time displayed to either a 12hour (Default) or 24-hour format. (See Figure 55.) Use the scroll wheel or the remote control up/down buttons to highlight either **12 Hour Clock** or **24 Hour Clock** then press the Select button to enter your selection. Acceptance is confirmed by an audio beep and confirmation screen shown in Figure 56.

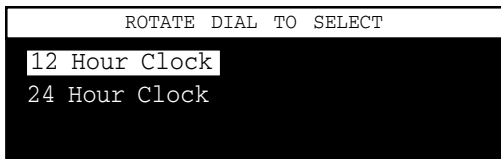


Figure 55. Select Hour Display Screen

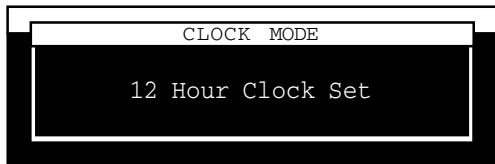


Figure 56. Clock Set Confirmation Display

Daylight Savings Time Selection: This feature allows you to enable or disable Daylight Savings Time. (See Figure 57.) Use the scroll wheel or the remote control up/down buttons to highlight either Standard or Daylight Savings, then press the Select button. Acceptance is confirmed by an audio beep and the confirmation screen shown in Figure 58.

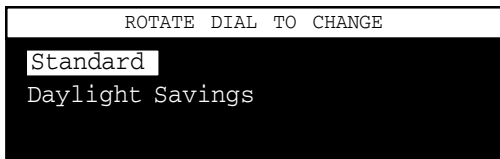


Figure 57. Select Standard/Daylight Savings Display Screen



Figure 58. Daylight Savings Confirmation Display

Auto-On

The XM Mini-Tuner is configured to shut down when the vehicle is shut off, or power is disconnected. By default, when the power to the unit is reapplied, the user must press the power button on the Display Controller to turn the unit back on. This feature allows the user to program the receiver to automatically turn on when power to the unit is reapplied (much like a vehicle radio).

When in the **Auto-On** menu, use the scroll wheel or the remote control up/down buttons to highlight the On or Off option. (See Figure 59.) When the desired setting is highlighted, press the Select button to enter your selection. Acceptance is confirmed by an audio beep and the confirmation screen shown in Figure 60.

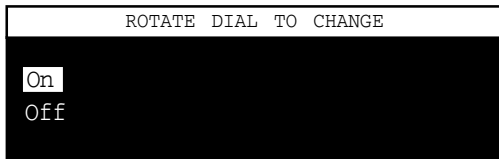


Figure 59. Select Auto-On Mode Display Screen

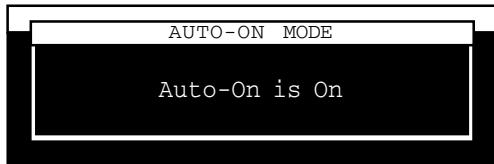


Figure 60. Auto-On Confirmation Display

Set Factory Defaults

When this option is selected, the factory default sub-menu screen appears with **No** as the default option. This feature allows the user to reset the Mini-XM receiver back to the original factory settings. Upon entering the Factory Default mode, use the scroll wheel or the Channel Up/Down buttons on the remote control to switch from the **No** to **Yes (settings will be lost)** function. If **Yes** is selected, the **Saving Factory Settings** display appears. If your answer is **Yes**, press the select button to restore the factory defaults. The unit displays **Factory Settings Saved** on the screen. All of the presets installed by the user are erased and the unit returns to the original factory default settings as shown in Figure 61.

NOTE: Once **Yes** is selected, the change cannot be undone and all user personal settings will be lost.

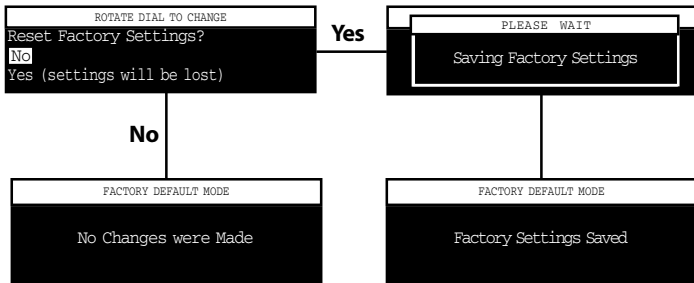


Figure 61. Set Factory Defaults Display Sequence

Exit Menu

To exit the menu options mode, rotate the scroll wheel CW, or press the down button on the remote control to highlight **-Exit Menu-**. Press the Select button to confirm the selection.

Preset / Direct (p/d)

The **p/d** button determines whether the numbered buttons 0 through 9 will operate as a keypad for entering channel numbers directly, or as presets (A, B, C) used to select and store favorite channels. The unit informs the operator by displaying the selected mode (PRESET A, PRESET B, PRESET C, or DIRECT) in the left corner of the display. The word PRESET lasts for 2 seconds, leaving only the bank letter; DIRECT, when selected remains displayed.

Numbered Buttons 0-9: The numbered buttons (0 through 9) provide the operator with a means of selecting channels by entering the channel number when the unit is set to DIRECT, or selecting pre-assigned channels when the unit is set to operate in PRESET (A, B, C).

Direct: When the unit is set to operate in this mode, channel selection can be accomplished by entering its number directly. (e.g., to select #25, press 25.) The unit will display the following screen and change to the desired channel 2 seconds later. (See Figure 62.)

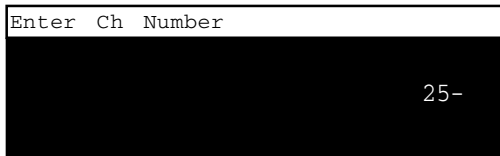


Figure 62. Direct Channel Entry Display

Preset (A, B, C): The unit has the capability of storing three sets of 10 preassigned channels for a total of 30 preassigned channels. To assign a channel to a number button, press the **p/d** button to choose the preset bank; then tune in the desired channel and momentarily press the desired number button. The preset bank (A, B, or C) will appear in the left corner of the display for 2 seconds (Figure 63); when the bank and assigned number will appear (A - 2 for example).



Figure 63. Channel Entry Into a Preset Bank Display

Display Button - Screen Presentation

The display button allows the user to choose one of five ways to present the Artist, Song Title and Channel information on the LCD screen. The default screen is the primary display and changes with each press of the display button. The five display screens present information in the following formats:

1. Channel Number & Name, plus Artist and Song Title (Figure 64). The top line presents the Category or Genre.
2. Channel Number & Artist, plus Song Title and Scrolling Stock Ticker (Figure 65). The top line presents **Stock Ticker** for 2 seconds and then reverts to Channel Name.
3. Channel Number & Artist, plus Song Title and Scrolling Info Extras (Figure 66). The top line presents **Info Extras** for 2 seconds and then reverts to Channel Name.
4. Channel Number & Artist, plus Song Title in large font (Figure 67). The top line presents the Channel Name.
5. Channel Number & Name, plus Scrolling Artist and Song Title in large font (Figure 68). The top line presents the Category or Genre.

If the bottom line in each display is more than 16 characters in length, the line will remain stationary for 3 seconds, after which it will scroll right-to-left so that the complete title can be observed.



Figure 64. Channel Number and Name Plus Artist and Song Title



Figure 65. Channel Number and Artist Plus Song Title and Scrolling Stock Ticker



Figure 66. Channel Number and Artist Plus Song Title and Scrolling Info Extras



Figure 67. Channel Number and Artist Plus Song Title in Large Font

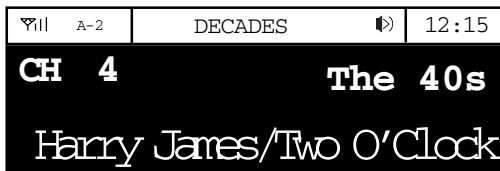


Figure 68. Channel Number and Name Plus Scrolling Artist and Song Title in Large Font

Jump Button

The jump button permits an immediate return to the previous channel without having to press the category, channel or display buttons.

Remote Control Unit

The optional wireless remote control (Figure 69) for the **CommanderMT** System is capable of operating most of the features from a remote location. Each button on the remote control functions in the same way as the button on the Commander unit. For a full description of a keypad button or function refer to the preceding sections in this manual. For optimal operation of the remote control, always aim it toward the Remote Sensor on the front panel of the Commander unit.

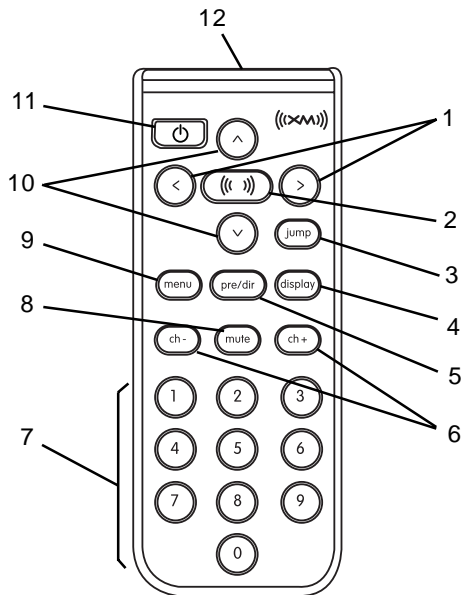



Figure 69. CommanderMT System Remote Control Unit

1. **>/<** : Used to access categories in ascending and descending order.
2. **select** : Used to confirm selection in various lists and menus.
3. **jump** : Used to switch between the previous and current channel.
4. **display** : Allows the user to choose one of three ways of presenting the Artist and Song title information on the LCD screen.
5. **pre/dir** : This button is used to enter up to 10 channels each into one of three memory banks (A, B or C) for later recall, or to directly select a desired channel for play using the number buttons.
6. **Ch +/-** : Used to directly access and play channels in ascending and descending order without pressing the Select button.
7. **Number Buttons 0-9** : These buttons are used to select desired channels/categories and to directly enter a desired channel.
8. **mute** : Allows the user to silence the audio signal level.
9. **menu** : Used to access **"MENU"** which displays user setup options plus other feature/function adjustments.
10. **^/v** : Used to access items within channel/category/menu lists in ascending and descending order. Also used for menu option adjustments.
11. **power ()** : Turns the receiver on and off.
12. **Infrared Transmitter** : Transmits IR signal to **CommanderMT** Display Controller IR Receiver.

System Power Down

Power to the **CommanderMT** System is turned off when the power (⏻) button is pressed; the XM logo appears on the display for 2 seconds, after which it fades to black (Figure 70). The system now enters the power off state.



Figure 70. System Power Down Display

Warning Display Messages

The following displays in Figure 71 appear in response to a disruptive event. Each screen will only be displayed for the duration that the specific event is present or remains active.



Figure 71. Warning Display Messages

Notification/Progress Display Messages

The following displays in Figure 72 appear in response to a notification/progress event; each appears only for the duration of the event.



Figure 72. Notification/Progress Display Messages

Care And Cleaning

- Keep the unit away from excessive moisture or where it may get wet.
- It is strongly recommended that the unit be installed and kept away from heat sources or direct sunlight.
- When cleaning, use only a soft, dry cloth.
- Never use any chemicals, abrasives, solvents, alcohol based cleaning solutions or ammonia.
- Always operate the unit where air can circulate completely around the unit.

Troubleshooting

ERROR MESSAGE	PROBABLE CAUSE	SOLUTION
"NO SIGNAL"	XM Signal is obstructed.	<ul style="list-style-type: none"> ■ Make sure the antenna is not obstructed, (e.g., Tall buildings, Parking Garages). Move vehicle to an unobstructed location. ■ The vehicle antenna should be mounted on the outside of the vehicle.
"OFF AIR"	XM Signal is not currently broadcasting the selected channel.	<ul style="list-style-type: none"> ■ Select another channel.
"ANTENNA"	The XM antenna is not currently plugged in.	<ul style="list-style-type: none"> ■ Check the cable connection ensuring that it is attached and not kinked or damaged. ■ Reset the unit by turning the power OFF and then back ON again.
"LOADING"	XM is updating the channel list.	<ul style="list-style-type: none"> ■ Wait short period while loading is in process and try again.
PROBLEM	PROBABLE CAUSE	SOLUTION
THE UNIT WILL NOT POWER ON	The unit is not receiving power. Power Adapter may be unplugged.	<ul style="list-style-type: none"> ■ Check that the Power Adaptor is plugged in and that the vehicle is either ON or that the ignition is in the ACC position. ■ Check that the Power Adaptor fuse is not blown. If required, replace the fuse.
AUDIO STATIC AND LOSS OF CLARITY	The FM modulator frequency contains static.	<ul style="list-style-type: none"> ■ Switch to another frequency.
	Vehicle Antenna is not connected to the radio.	<ul style="list-style-type: none"> ■ Re-connect the vehicle Antenna cable.
	NOTE: If you are utilizing the Wireless FM Modulator feature and the problem persists, it is recommended that the optional FM Direct Adapter is installed (Part # XFMF-1).	
NO SOUND	Audio cables not connected.	<ul style="list-style-type: none"> ■ Check cable connections at cradle and head unit.
	Incorrect FM Modulator frequency.	<ul style="list-style-type: none"> ■ Select another FM Modulator frequency.
XM CHANNELS YOU SUBSCRIBED TO ARE NOT ALL RECEIVED	Unknown.	<ul style="list-style-type: none"> ■ Contact XM 1-800-XM RADIO (1-800-967-2346).
UNABLE TO TUNE TO A CHANNEL	The channel you are trying to tune to is not authorized.	<ul style="list-style-type: none"> ■ Contact XM 1-800-XM RADIO (1-800-967-2346).
	The channel you are trying to tune to has been selected to be skipped.	<ul style="list-style-type: none"> ■ De-select the skip feature for this channel.

Specifications

Audio Output (100-250 ohms):	1.5V RMS Maximum
Power Supply:	12 Volt, Negative Ground, DC Input.
Display Controller Dimensions (W x H x D):	115mm x 45mm x 20.5mm (Including scroll wheel) (4.5" x 1.77" x 0.80")
Weight	3.8 Ounces (with cable)

**AUDIOVOX®****12 MONTH LIMITED WARRANTY*****FM Satellite Radio*****XMRVRFM002**

AUDIOVOX ELECTRONICS CORPORATION (the Company) warrants to the original retail purchaser of this product that should, under normal use and conditions, be proven defective in material or workmanship within 12 months from the date of original purchase, such defect(s) will be repaired or replaced with new or reconditioned product (at the Company's option) without charge for parts and repair labor.

To obtain repair or replacement within the terms of this warranty, the product is to be delivered with proof of warranty coverage (e.g. dated bill of sale), specification of defect(s), transportation prepaid, to an approved warranty station or the Company at the address shown below.

This Warranty does not extend to the elimination of externally generated static or noise, to costs incurred for installation, removal or reinstallation of the product, or to damage to speakers, accessories, or electrical systems. Warranty does not apply to malfunction of satellite transmissions, repeater signals or audio systems or to damage caused by poor installation of included components such as magnetic roof mount antenna, display control unit or receiver docking station.

This Warranty does not apply to any product in the opinion of the Company that has been damaged through alteration, improper installation, mishandling, misuse, neglect, accident, or by removal or defacement of the factory serial number number/bar code label(s). THE EXTENT OF THE

COMPANY'S LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT PROVIDED ABOVE AND, IN NO EVENT, SHALL THE COMPANY'S LIABILITY EXCEED THE PURCHASE PRICE PAID BY PURCHASER FOR THE PRODUCT.

This Warranty is in lieu of all other express warranties or liabilities. ANY IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, SHALL BE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. ANY ACTION FOR BREACH OF ANY WARRANTY HEREUNDER INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, MUST BE BROUGHT WITHIN 24 MONTHS FROM DATE OF ORIGINAL PURCHASE. IN NO CASE SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WHATSOEVER. No person or representative is authorized to assume for the Company any liability other than expressed herein in connection with the sale of this product.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damage so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

U.S.A.: Audiovox Electronics Corporation ■ 150 Marcus Blvd ■ Hauppauge, New York 11788 (1-800-645-4994)

Canada: CALL 1-800-645-4994 for Location of Warranty Station Serving Your Area



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