



VX5228

INSTALLATION/OWNER'S MANUAL

Multimedia Receiver with Bluetooth®
featuring a 6.2" Touch Screen Display



USB

MP3

JENSEN®

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Table of Contents

	Page
Warning Statement	3
Safety Information/Precautions	4
Preparation/Mounting	5
Wiring Diagram	6
Control Locations	7
Remote Preparation	8
General Operation	9-10
AM/FM Tuner Operation	11
USB Operation	12
Media Compatibility	13-14
Bluetooth Operation	15-16
iPod Operation	17
Apple CarPlay	18-19
Auxiliary Inputs/Rear Camera Operation	20
SWC Input Operation	21
Troubleshooting	22
Specifications	23
Warranty	24

WARNING

Upon installation of this monitor/media player ("unit") into a vehicle, the driver of the vehicle must not operate this unit by watching videos or playing video games while driving. Failure to follow this instruction could lead to driver distraction which could result in serious injury or death to the vehicle's occupants or persons outside the vehicle and/or property damage.

Several states prohibit the installation of monitors/media players if the screen is visible from the driver's seat. If you reside in a jurisdiction which has enacted such a law, this unit must not be installed so that the screen is visible from the driver's seat. When installing this unit in the front console/dashboard, the unit must be positioned so that it is facing the front passenger seat only. Failure to follow this instruction could lead to driver distraction which could result in serious injury or death to the vehicle's occupants or persons outside the vehicle and/or property damage.

This unit is designed so that it may be operated only when the vehicle is in "Park" and the parking brake is fully engaged. To this end, this unit includes a parking brake lock-out feature which prohibits the unit from operating if the vehicle is not in "Park" and/or the parking brake is not fully engaged. When installing this unit, the installer must connect the parking brake detect wire to the parking brake mechanism in order to make the parking brake lock-out feature operable. **DO NOT** simply ground the parking brake detect wire to a metal portion of the vehicle. Failure to properly install the parking brake lock-out feature could lead to driver distraction which could result in serious injury or death to the driver's occupants or persons outside the vehicle and/or property damage.

Once the parking brake lock-out feature is installed, the owner/user must not attempt to disrupt/neutralize the parking brake lock-out feature by (a) partially engaging the parking brake and/or (b) purchasing/using any device or unit designed to send necessary brake signals to the unit. Failure to follow these instructions could lead to driver distraction which could result in serious injury or death to the driver's occupants or persons outside the vehicle and/or property damage.

When operating this unit, keep the unit's volume level low enough so that the vehicle's occupants can hear traffic-related sounds such as police and emergency vehicles. Failure to follow this instruction could lead to driver distraction which could result in serious injury or death to the vehicle's occupants or persons outside the vehicle and/or property damage.

Safety Information

Please read all instructions carefully before attempting to install or operate.

Due to its technical nature, it is highly recommended that your JENSEN VX5228 is installed by a professional installer or an authorized dealer. This product is only for use in vehicles with 12VDC negative ground only.

To prevent damage or injury:

- Make sure to ground the unit securely to the vehicle chassis ground.
- Do not remove the top or bottom covers of the unit.
- Do not install the unit in a spot exposed to direct sunlight or excessive heat or the possibility of water splashing.
- Do not subject the unit to excessive shock.
- When replacing a fuse, only use a new one with the prescribed rating. Using a fuse with the wrong rating may cause the unit to malfunction.
- To prevent short circuits when replacing a fuse, disconnect the wiring harness first.
- Use only the provided hardware and wire harness.
- You cannot view video while the vehicle is moving. Find a safe place to park and engage the parking brake.
- If you experience problems during installation, consult your nearest DUAL dealer.
- If the unit malfunctions, reset the unit as described on page 10 first. If the problem still persists, consult your nearest DUAL dealer or call tech assistance @ 1-866-382-5476.
- To clean the monitor, wipe only with a dry silicone cloth or soft cloth. Do not use a stiff cloth, or volatile solvents such as paint thinner and alcohol. They can scratch the surface of the panel and/or remove the printing.
- When the temperature of the unit falls (as in winter), the liquid crystal inside the screen will become darker than usual. Normal brightness will return after using the monitor for a while.
- When extending the ignition, battery or ground cables, make sure to use automotive-grade cables or other cables with an area of 0.75mm (AWG 18) or more to prevent voltage drops.
- Do not touch the liquid crystal fluid if the LCD is damaged or broken. The liquid crystal fluid may be hazardous to your health or fatal. If the liquid crystal fluid from the LCD contacts your body or clothing, wash it off with soap immediately.

FCC Compliance

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.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 and 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.

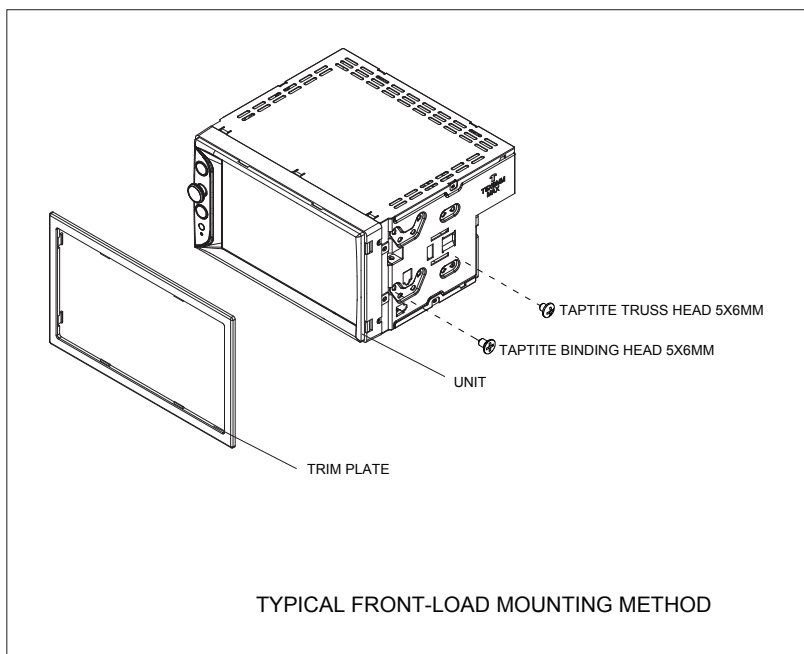
Preparation

Before You Start

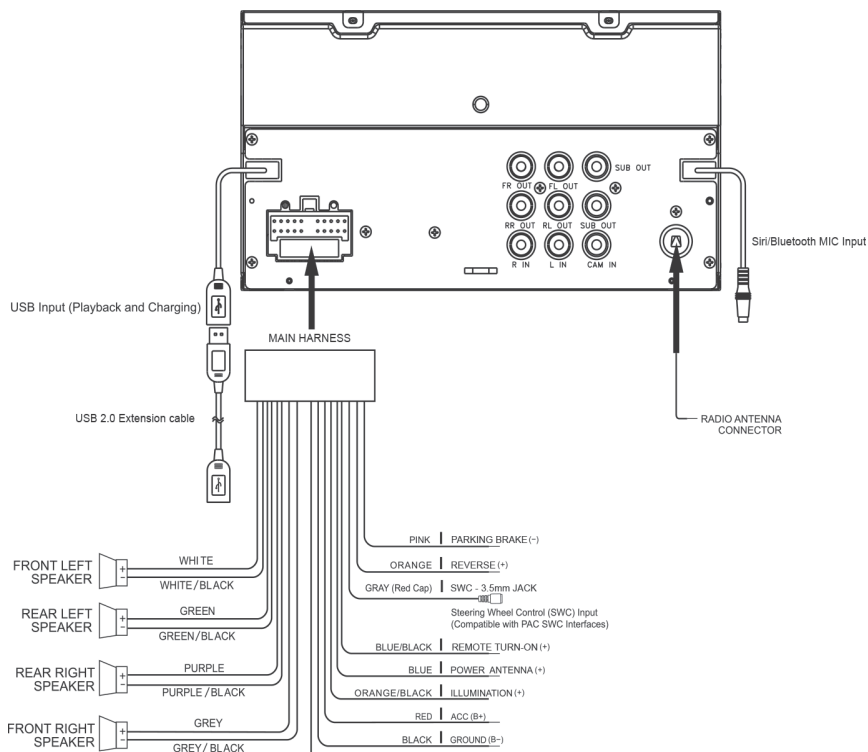
- Disconnect negative battery terminal. Consult a qualified technician for instructions.
- Avoid installing the unit where it would be subject to high temperatures, such as from direct sunlight, or where it would be subject to dust, dirt or excessive vibration.

Getting Started

- Insert the supplied keys into the slots as shown, and slide the unit out of the mounting sleeve.
- Install mounting sleeve into opening, bending tabs to secure.
- Connect wiring harness as shown on page 6. Consult a qualified technician if you are unsure.
- Certain vehicles may require an installation kit and/or wiring harness adapter (sold separately).
- Reconnect negative battery terminal, and test for correct operation.
- Snap trim ring into place (if required).
- Slide unit into mounting sleeve to secure.



Wiring Diagram - Inputs/Outputs



Note:

When replacing a fuse, make sure to use the correct type and amperage. Using an incorrect fuse could cause damage. The unit uses (1) 10 amp ATM mini style fuse located on the power connector.

Wiring Notes:

Subwoofer output

The Subwoofer preamp audio output (black jacket with green RCA) is active in all audio modes.

Rear camera input

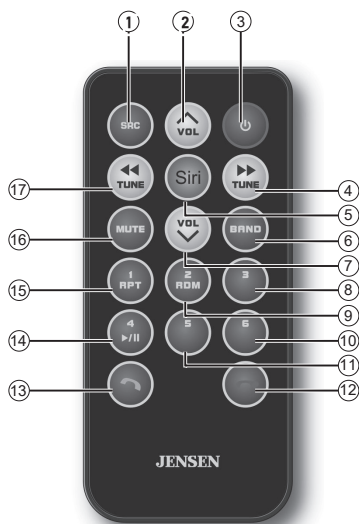
A rear view camera (not included) can be used with the Camera input.

Control Locations



- ① Mode
- ② Power / Volume / Mute
- ③ Siri

- ④ IR Remote Sensor
- ⑤ Reset



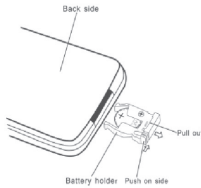
- ① Mode
- ② Volume Up
- ③ Power
- ④ Tune / Track Up
- ⑤ Siri
- ⑥ Band
- ⑦ Volume Down
- ⑧ Preset 3
- ⑨ Preset 2 / Random
- ⑩ Preset 6
- ⑪ Preset 5
- ⑫ End Call
- ⑬ Bluetooth Talk
- ⑭ Preset 4 / Play / Pause
- ⑮ Preset 1 / Repeat
- ⑯ Mute
- ⑰ Tune / Track Down

Remote Control Preparation

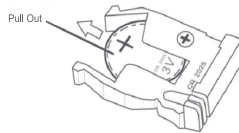
Remove battery insulation tape .



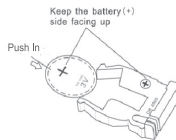
To insert or replace the battery,
remove the battery holder.



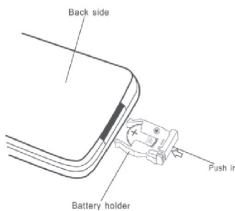
Remove the battery from the
battery holder.



Install the new battery.
Make sure to keep the (+) side up.



Insert the battery holder .





Notes:

- The remote control uses one 3 volt Lithium CR2025 battery. Remove the battery if the remote will not be used for a month or longer.
- Remove and dispose of battery properly.
- Do not store battery with metallic objects or materials.



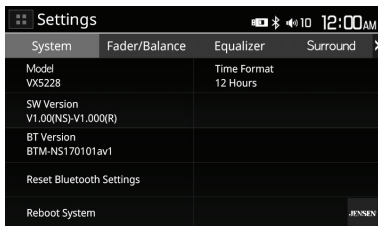
General Operation

Power On/Off	Momentarily press  to turn the unit on. Press and hold to turn the unit off.
Volume	Rotate the volume knob to increase or decrease the volume level.
Mute	Momentarily press MUTE to silence the audio. Momentarily press MUTE again to return to the previously selected volume. Rotating the volume knob while the volume is muted will also cancel the mute function.
Mode	Press MODE to step through all available input modes: Radio, USB, Bluetooth Phone, Bluetooth Music, iPod, Auxiliary Input, Settings, CarPlay or Rear Camera. Modes of operation are indicated on the display and/or the monitor. Optional devices must be connected/inserted to appear in the mode selection string. Note: Modes of operation can also be accessed by selecting the corresponding icon from the main menu.
Main Menu	Press the  icon in the top left corner to access the Main Menu screen. Swipe left or right to navigate to the next or previous screen. <div data-bbox="381 743 694 933" data-label="Image"> </div> <div data-bbox="706 743 1019 933" data-label="Image"> </div>
Auxiliary Input	Connect external audio/video devices to the rear 3.5mm auxiliary input.
iPod	Connect an iPod device to the rear USB input to play MP3 files.
Reset	To resolve abnormal operation or if the unit is inoperable, use the tip of a pen to press the RESET button (located on the bottom left corner of the face). The unit will reset the main processor to the default settings.

General Operation

Setup Menu

From the Main Menu screen, select **Settings** to access the Setup menu and select from eight categories represented by the icons on the top of the screen: System, Fader/Balance, Equalizer, Surround, Supwoofer, Display, Time Settings and Miscellaneous. Select the category, and adjust any of the available options using the touch screen.



System:

- Displays information on Model, SW Version and BT version.
- Reset Bluetooth Settings or Reboot System.
- Select between 12-Hour and 24-Hour Time Format.

Fader/Balance:

- Adjust the Fader (Front to Rear) and Balance (Left to Right).

Equalizer:

- Select between the following EQ presets: Classic, Rock, Pop, Jazz, Beat, Flat or User (allows user to enter custom EQ settings).

Surround:

- Select between the following Surround options: Stadium, Cinema, Opera House and Karst Cave.

Subwoofer:

- **Subwoofer** - Turn subwoofer On or Off.
- **Frequency** - Select subwoofer frequency: Flat, 80Hz, 120Hz or 160Hz.
- **Gain** - Adjust subwoofer to desired gain.

Display:

- Increase or decrease brightness settings for the display.

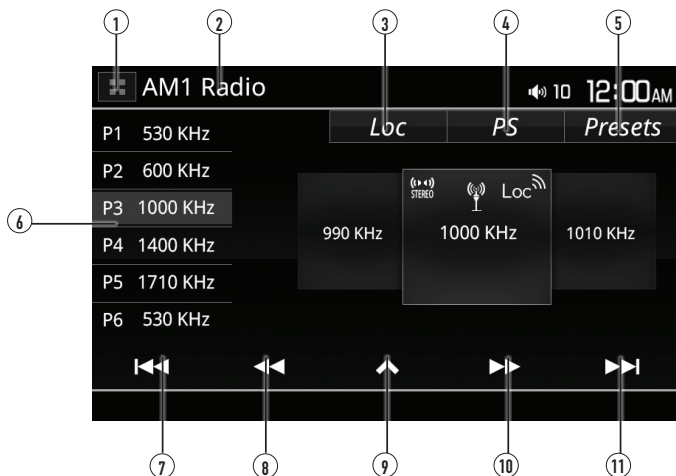
Time Settings:

- Adjust the date and time: Day, Month, Year, Hour, Minute and Format.

Miscellaneous:

- **Beep Tone** - Turn the Beep Tone On or Off.
- **Camera** - Turn the Rear Camera On or Off.
- **Loudness** - Turn the Loudness feature On or Off.
- **Programmable Volume** - Select the desired volume for each time the unit is turned on.

AM/FM Tuner Operation



Radio Operation | Select the Radio icon from the Main Menu screen.

Main Menu (1) | Press to return to Main Menu screen.

Current Mode Indicator (2) | Displays current mode of operation.

Local / Distance (3) | Press to toggle between Local and Distance tuning.

PS (4) | Press to scan presets and listen to the first 10 seconds of each. Press again to stop scanning and listen to the station.

Presets List (5) | Press to access all preset stations for all AM or FM bands. Use the up and down arrows to navigate the list, and use the "go back" arrow to return to the previous screen.

Preset Stations (6) | To store a station as a preset in the current band, tune to the desired station, then press the desired preset number from the list. Press any preset in the list to recall and begin playback of that station.

Seek Tune Down (7) | Press to automatically tune to a lower frequency.

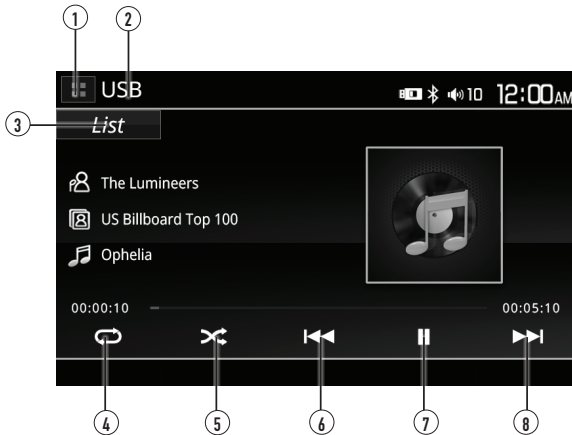
Manual Tune Down (8) | Press to manually tune to a lower frequency.

Band / Auto Store (9) | Press to toggle between 2 AM and 3 FM bands. Press the search icon to automatically search and store the six strongest stations in the current band as presets.

Manual Tune Up (10) | Press to manually tune to a higher frequency.

Seek Tune Up (11) | Press to automatically tune to a higher frequency.

USB Operation



USB

To play audio files from a USB device, connect a device to the rear USB cable and playback will begin automatically. To return to USB playback from another mode of operation, select the USB icon in the Main Menu.

Main Menu ①

Press to return to Main Menu screen.

Current Mode Indicator ②

Displays current mode of operation.

List ③

Press to access a list of all files and folders on the device.

- Press to access the root directory
- Press a folder name to access that folder, and press to return to the file list
- Use the up and down arrows to navigate the file list
- Press the "go back" arrow to return to the previous screen.

Repeat ④

Press to enable or disable repeat playback.

Random ⑤

Press to enable or disable random playback.

Previous File / Track ⑥

Press to go back to the previous file or track.

Play / Pause ⑦

Press to pause or resume playback.

Next File / Track ⑧

Press to advance to the next file or track.

Media Compatibility

File Type			MP3
File System	FAT	FAT 12	X
		FAT 16/FAT 32	✓
File Extension	.mp3/.MP3/.Mp3/.mP3		✓
	.rmp/.m4a		X
MPEG Format	MPEG 1		✓
	MPEG 2		✓
	MPEG 2.5		✓
Sampling Frequency	MPEG 1		32/44.1/48kHz
	MPEG 2		12/16/22.05/24kHz
	MPEG 2.5		8/11.025/12kHz
Bitrate	MPEG 1		32 ~ 320kbps
	MPEG 2		8 ~ 160kbps
	MPEG 2.5		8 ~ 160kbps
Other Information	Directory Depth		Unlimited
	File Name Length		32 bytes
	Total File Number		2000 files
	Total Folder Number		200 folders
	File Number via Folder		2000 files
	MP3 ID3 TAG	ver.1.x	✓
		ver.2.x	✓
		Title, Artist, Album	✓

Notes:

- For USB mode, it is not possible to view JPG files on the in-dash monitor while the vehicle is moving. This is a safety feature to prevent driver distraction.
- The JPG image viewer function will only operate when vehicle is in park and the parking brake is engaged.
- Due to ongoing technological advancement, some USB flash drives may be incompatible with this unit.

Media Compatibility

Media Compatibility	<p>The following types of files are not compatible:</p> <ul style="list-style-type: none">• WMA files that are protected by DRM (Digital Rights Management)• WMA lossless format• MP3 PRO format, MP3 playlists• RMP format• WAV format• WMV format• AAC, protected AAC, M4A format
Playback Order	<p>MP3 playback sequence begins in the root folder of the USB device. Any empty folders or folders that do not include MP3/JPG files are skipped.</p>
Compatible Recording Formats	<p>ISO9660 standards:</p> <ul style="list-style-type: none">• Maximum nested folder depth is 8 (including the root folder).• Valid characters for folder/file names are letters A-Z (all caps), numbers 0-9, and “_” (underscore). Some characters may not be displayed correctly, depending on the character type.• This device can play back files in Joliet and other standards that conform to ISO9660. MP3 written in the formats other than the above may not play and/or their file names or folder names may not be displayed properly.
Notes	<p>Some files may not play or be displayed correctly, depending on sampling rates and bit rates.</p> <p>For best results, use the following settings when ripping MP3 files: 128kbps or higher constant bit rate 44.1kHz or higher sampling frequency</p>

Bluetooth Operation



Preparation

Before you can use a Bluetooth device, it must be paired and connected. Make sure that Bluetooth is activated on your device before you begin the pairing process.

Pairing a New Device

The unit broadcasts the pairing signal constantly when no devices are currently connected. Complete the pairing sequence from your Bluetooth device. Refer to the owner's manual for your device for more details. **The device name is "VX5228". The Bluetooth passcode is "0000".** The unit can be in any mode of operation when pairing is performed. On certain phones, pairing may need to be done more than once.

Connecting a Paired Device

Most Bluetooth devices support the auto-connect feature and will connect automatically if the device is in range when the unit is powered-on.

Bluetooth Phone

To access the phone, select Bluetooth Phone from the Main Menu.

Main Menu ①

Press to return to the Main Menu screen.

Current Mode Indicator ②

Displays current mode of operation.

Option ③

Press to display the Option screen. The unit will display the current connection. Press disconnect to disconnect the current connection. A list of all paired devices will also be displayed with the option to delete and change the password for each device.

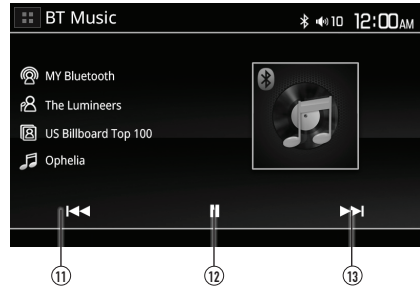
Recent Calls ④

Press to display names and numbers for recent calls.

Phone Keypad ⑤

Use the keypad to dial a phone number.

Bluetooth Operation



Bluetooth Talk ⑥ Press to connect a call.

Bluetooth Music ⑦ Press to transfer audio between the unit and mobile phone.

Backspace ⑧ When dialing, press to erase the last digit.

Clear ⑨ When dialing, press to clear all digits entered.

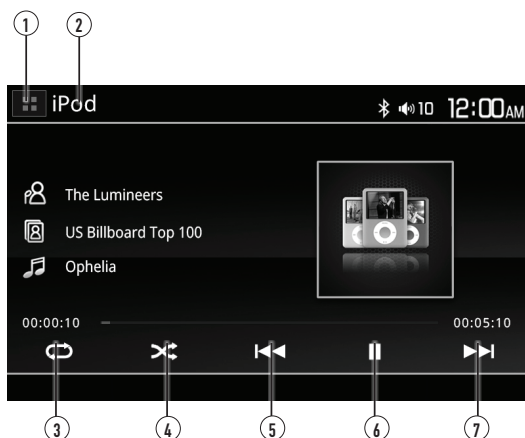
End Call ⑩ Press to end a call.

Previous File / Track ⑪ Press to go back to the previous file or track.

Play / Pause ⑫ Press to pause or resume playback.

Next File/Track ⑬ Press to advance to the next file or track.

iPod Operation



Connecting an iPod

Connect an iPod to the unit's rear USB input, and the unit will automatically begin iPod playback. To return to iPod playback from another mode of operation, select the iPod icon in the Main Menu.

Note: iPod mode cannot be accessed while the CarPlay feature is enabled. The unit will automatically launch CarPlay, and iPod mode cannot be accessed from the Main Menu.

To disable CarPlay and allow for iPod playback, enter the Settings menu on the iPhone, then select General, then Restrictions. Enable Restrictions if needed, then find CarPlay in the list and click to disable.

- | | |
|---------------------------------|---|
| Main Menu ① | Press to return to Main Menu screen. |
| Current Mode Indicator ② | Displays current mode of operation. |
| Repeat ③ | Press to enable or disable repeat playback. |
| Random ④ | Press to enable or disable random playback. |
| Previous File / Track ⑤ | Press to go back to the previous file or track. |
| Play / Pause ⑥ | Press to pause or resume playback. |
| Next File / Track ⑦ | Press to advance to the next file or track. |

Apple CarPlay Operation

Apple CarPlay™ is a smart interface for iPhone, allowing you to voice-control (via Siri) music, navigation, phone and messaging apps – significantly reducing driver distraction.



Phone - Use Siri to make calls, return missed calls, listen to voicemail messages, and view the caller ID on the receiver's screen.



Messages - Ask Siri to send, read, and reply to text messages. This hands free operation minimizes distraction and allows you to keep hands on the wheel and eyes on the road.



Music - Access music by artist, song, playlist, and more through the receiver's touchscreen or via Siri. The receiver will mirror the iPhone screen with artist and track information.



Maps - Use Siri to request turn-by-turn directions – search by address or points of interest. Apple Maps will be mirrored on the screen, including traffic information and estimated time to destination.

Compatible Devices

Made for iPhone models:

iPhone 7, iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c and iPhone 5

Made for iPod models:

iPod touch (5th / 6th generation) and iPod nano (7th / 8th generation)

Note: "Made for iPod" and "Made for iPhone" mean that an electronic accessory has been designed to connect specifically to iPod, or iPhone, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, or iPhone may affect wireless performance.

Starting Apple CarPlay™

Connect an iPhone to the receiver's USB port using a Apple Certified Lightning cable (not included). Apple CarPlay will launch automatically. The familiar applications will appear on the receiver's touchscreen to activate Siri voice control.

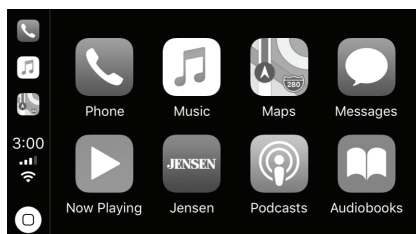
Note: For safety reasons, CarPlay features are limited while driving and will vary with each CarPlay-enabled app. Available functions are determined by each individual app provider. For more information, visit www.apple.com/ios/carplay.

Note: Certain iPhone functions may be illegal while driving in your location. Be sure to familiarize yourself with local and state laws regarding mobile devices. When in doubt, stop and park your vehicle before using any devices.

Apple CarPlay Operation

When the CarPlay menu is displayed, the home button in the lower left corner work just like the home button on your iPhone.

- ⓪ Press and hold it to summon Siri and begin your voice commands.
- ⓪ At any time during CarPlay operation, you can press this button momentarily to return to the main CarPlay menu screen.



Press any Application button on the main CarPlay menu to access that operation directly. The toolbar on the left side of the screen displays the time, signal strength and shortcuts to the most popular applications - Phone, Music and Navigation - so they can be accessed quickly and easily without returning to the main menu.

Controlling Apple CarPlay™

The following basic controls will operate many standard CarPlay features.



Touch - Briefly press the desired option.



Swipe - Briefly swipe in the desired direction.



Drag - Press, hold and drag to the desired location.

Note: There is no need to pair your iPhone when using CarPlay. This will occur automatically when connecting an iPhone to the unit's USB port.

Note: When CarPlay is in use, the unit's Bluetooth will turn off automatically and hands-free functionality will operate through the CarPlay feature. Any other devices connected via Bluetooth will be disconnected during CarPlay use.

Exiting Apple CarPlay™

Disconnecting your iPhone will automatically exit CarPlay mode. To exit CarPlay mode while your phone is still connected, press the Power/Volume knob momentarily, and the unit's main menu will be displayed.

Rear RCA Aux Input

Auxiliary Input

Connect an optional audio source into the RCA (rear) input.

Select auxiliary input from the Main Menu to listen to audio.

Adjust volume on the external audio source as needed (if connected to the headphone output of the device).

Rear Camera Operation - (Optional)

Using Rear Camera

Connect an optional rear camera to the Camera Input (Black RCA connector). Refer to the wiring diagram for details.

Manual selection - Touch CAMERA icon from the Main Menu or from any operational mode (when enabled) to select camera mode. Touch the top left area on the screen to exit camera mode.

Note: The manual mode is for dedicated cameras that are ALWAYS on while driving. it is not meant for cameras that are connected to the vehicle's reverse light.

Auto Selection

The unit will automatically select camera mode when connected to the reverse lamp circuitry.

SWC Input Operation

The built-in SWC Interface is compatible with PAC steering wheel control modules. The PAC SWI-RC is recommended. A third-party adapter must be used in order for the VX5228 to be compatible with any steering wheel controls. The following controls are available for most vehicles.

1. Volume Up (+)	4. Preset (+)	7. Seek/Track Up (+)	10. BT Talk
2. Volume Down (-)	5. Preset (-)	8. Seek/Track Down (-)	11. BT End
3. Mute	6. Mode	9. Band	

Note: Not all OE steering wheel functions may be supported by the VX5228.

PAC SWI-RC Installation Hints

1. Set "Radio Select Switch". Set the SWI-RC to position 7 - "Pioneer/Other/Sony".
2. To program, use the Pioneer/Sony/Other radio function mapping order for Dual units.
3. When programming the SWI-RC, if a function is not supported (or not desired), then the function **MUST** be skipped as per the PAC SWI-RC instructions.
4. The SWC function **MUST** be programmed in the correct order per the PAC SWI-RC radio function mapping order instructions.

Function Order	Function Mapping	SWI-RC (3.3VDC Reference)	
		Center Pin (Ring) Voltage (Function Select)	Tip Pin Voltage
1	Volume +	H 5.0v	2.07
2	Volume -	H 5.0v	2.32
3	Mute	H 5.0v	1.01
4	Preset +	L 0.0V	1.54
5	Preset -	L 0.0V	1.81
6	Source	H 5.0v	0.60
7	Seek + / Track +	H 5.0v	1.54
8	Seek - / Track -	H 5.0v	1.81
9	Band	H 5.0v	2.73
10	BT Talk	L 0.0V	0.60
11	BT End	L 0.0V	1.01

Troubleshooting

General		
Problem	Cause	Action
Unit will not turn on (no power)	Yellow wire not connected or incorrect voltage	Check connections for proper voltage (11~16VDC)
	Red wire not connected or incorrect voltage	
	Black wire not connected	Check connection to ground
	Fuse blown	Replace fuse(s)
Unit has power (but no sound)	Speaker wires not connected	Check connections at speakers
	One or more speaker wires touching each other or touching chassis ground	Insulate all bare speaker wires from each other and chassis ground
Unit blows fuse(s)	Yellow or red wire touching chassis ground	Check for pinched wire
	Speaker wires touching chassis ground	Check for pinched wire
	Incorrect fuse rating	Use fuses with correct rating
Unit has audio (but no video)	Parking brake safety circuit not connected	Check connections at parking brake
	Parking brake not applied	Apply parking brake as described on page 26
IR remote does not work	Dead battery	Replace battery

For Your Records

Please keep your original sales receipt and be prepared to provide this receipt in the event you require service, as your original receipt is considered the best proof of purchase and indicates the date you purchased your Dual product.

Dealer Name _____

Dealer Phone _____

Purchase Date _____

Register Your Product

Register your product online at www.dualav.com.

Specifications

FM Tuner	Tuning range: 87.5MHz-107.9MHz Usable sensitivity: 10dBf 50dB quieting sensitivity: 20dBf Stereo separation @ 1kHz: 38dB Frequency response: 30Hz-13kHz
AM Tuner	Tuning range: 530kHz-1710kHz Usable sensitivity: 24uV Frequency response: 30Hz-2.3kHz
Front USB	Compatibility: High Speed USB 2.0 USB Class: Mass storage class
Monitor	Panel size: 6.2" diagonal measurement View angle (up/down/left/right): 50/70/70/70 Resolution: 800 (H) x 480 (V) Brightness (cd/m ²): 250 Contrast ratio: 500:1 Pixels: 1,152,000
General	Speaker output impedance: 4 ohms Line output voltage: 4 volt RMS Line output impedance: 200 ohms Chassis dimensions: 7" x 7" x 4" (W x D x H) Design and specifications subject to change without notice.



CEA-2006 Power Standard Specifications
 (reference: 14.4VDC +/- 0.2V, 20Hz~20kHz)

Power Output: 16 Watts RMS x 4 channels at 4 ohms and $\leq 1\%$ THD+N
 Signal to Noise Ratio: 80dBA (reference: 1 watt into 4 ohms)

Limited Two Year Warranty

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

Dual Electronics Corp. warrants this product to the original purchaser to be free from defects in material and workmanship for a period of two years from the date of the original purchase.

Dual Electronics Corp. agrees, at our option, during the warranty period, to repair any defect in material or workmanship or to furnish an equal new, renewed or comparable product (whichever is deemed necessary) in exchange without charges, subject to verification of the defect or malfunction and proof of the date of purchase. Subsequent replacement products are warranted for the balance of the original warranty period.

Who is covered? This warranty is extended to the original retail purchaser for products purchased from an authorized Dual dealer and used in the U.S.A.

What is covered? This warranty covers all defects in material and workmanship in this product. The following are not covered: software, installation/removal costs, damage resulting from accident, misuse, abuse, neglect, product modification, improper installation, incorrect line voltage, unauthorized repair or failure to follow instructions supplied with the product, or damage occurring during return shipment of the product. Specific license conditions and copyright notices for the software can be found via www.dualav.com.

What to do?

1. Before you call for service, check the troubleshooting guide in your owner's manual. A slight adjustment of any custom controls may save you a service call.
2. If you require service during the warranty period, you must carefully pack the product (preferably in the original package) and ship it by prepaid transportation with a copy of the original receipt from the retailer to an authorized service center.
3. Please describe your problem in writing and include your name, a return UPS shipping address (P.O. Box not acceptable), and a daytime phone number with your shipment.
4. For more information and for the location of the nearest authorized service center please contact us by one of the following methods:

- Call us toll-free at 1-866-382-5476
- E-mail us at cs@dualav.com

Exclusion of Certain Damages: This warranty is exclusive and in lieu of any and all other warranties, expressed or implied, including without limitation the implied warranties of merchantability and fitness for a particular purpose and any obligation, liability, right, claim or remedy in contract or tort, whether or not arising from the company's negligence, actual or imputed. No person or representative is authorized to assume for the company any other liability in connection with the sale of this product. In no event shall the company be liable for indirect, incidental or consequential damages.



Dual Electronics Corp.

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