



XDVD770BT

INSTALLATION/OWNER'S MANUAL

DVD Multimedia Receiver with Bluetooth®
featuring a 3" Touch Screen Display



USB

MP3



Safety Notes:

The DVD video display of the in-dash unit will not operate while the vehicle is moving. This is a safety feature to prevent driver distraction. In-dash DVD video functions will only operate when vehicle is in Park and the parking brake is engaged. It is illegal in most states for the driver to view video while the vehicle is in motion.

Copyright Notes

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

The Bluetooth® word mark and logos are owned by the Bluetooth SIG, Inc. a

Other trademarks and trade names are those of their respective owners.



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	9-11
AM/FM Tuner Operation	12-13
CD/MP3 Operation	14-18
DVD Operation	19
Bluetooth Operation	20-21
Auxiliary Inputs/Rear Camera Operation.....	22
Warranty	23
Specifications	24
Troubleshooting	25



XDVD770BT PREPARATION

⚠ WARNING ⚠

Upon installation of this Monitor/DVD 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/DVD 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 DUAL XDVD770BT 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.

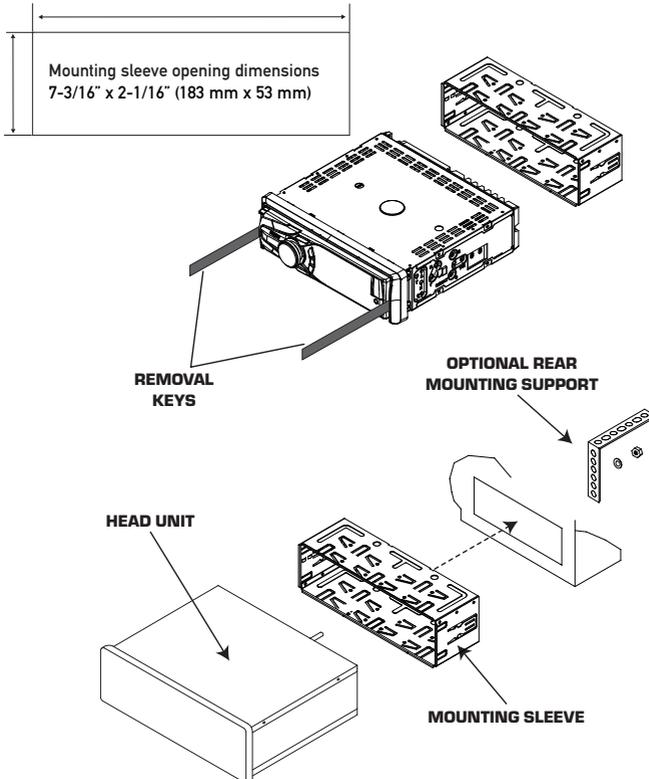
Preparation

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.

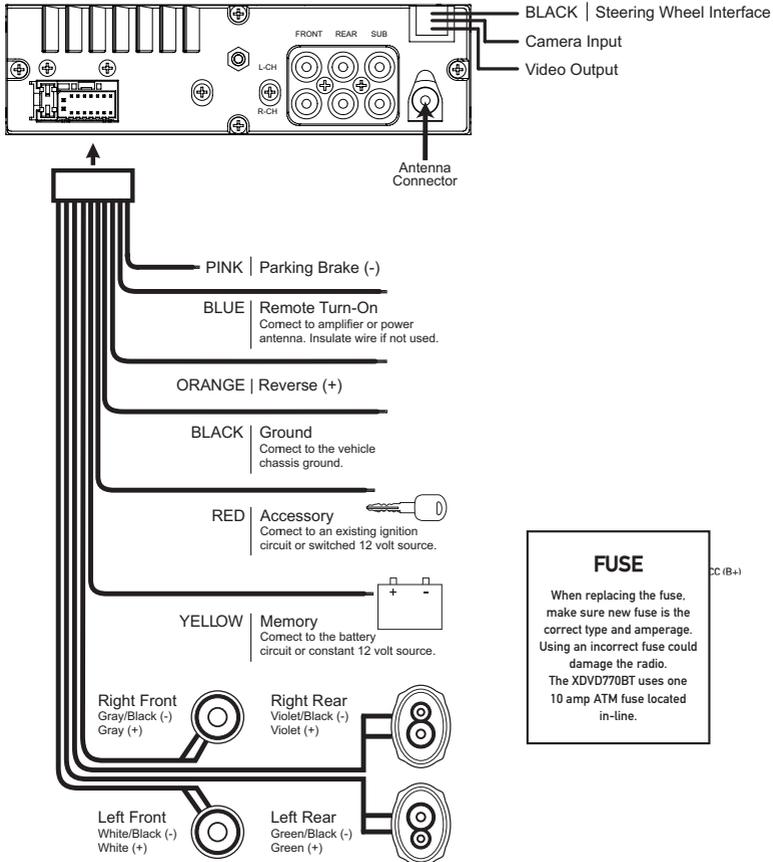
Getting Started

- 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.



TYPICAL DIN FRONT-LOAD MOUNTING METHOD

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 inside the in-line filter box.

Wiring Notes:

Subwoofer output

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

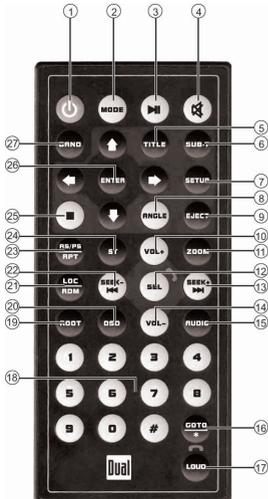
Rear camera input

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

Control Locations



- | | | |
|-------------------|---------------------|------------------|
| ① Open | ⑦ USB Port | ⑬ Display |
| ② Microphone | ⑧ Auxiliary Input | ⑭ Mute |
| ③ Bluetooth Talk | ⑨ Function | ⑮ Band / Go Back |
| ④ Play / Pause | ⑩ Tune / Track Down | ⑯ Menu |
| ⑤ Preset Up | ⑪ Preset Down | ⑰ Power |
| ⑥ Tune / Track Up | ⑫ Volume Knob | ⑱ Source |



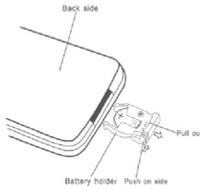
- | | |
|---------------------------|-----------------------|
| ① Power | ⑬ Go To |
| ② Mode | ⑰ Loudness / End Call |
| ③ Play / Pause | ⑱ Number Keys |
| ④ Mute | ⑲ Root |
| ⑤ Title | ⑳ On Screen Display |
| ⑥ Subtitle | ㉑ Local / Random |
| ⑦ Setup | ㉒ Seek Down |
| ⑧ Angle | ㉓ AS/PS / Repeat |
| ⑨ No function | ㉔ Stereo |
| ⑩ Volume Up | ㉕ Stop |
| ⑪ Zoom | ㉖ Enter |
| ⑫ Select / Bluetooth Talk | ㉗ Band |
| ⑬ Seek Up / Next Track | |
| ⑭ Volume Down | |
| ⑮ Audio | |

Remote Control Preparation

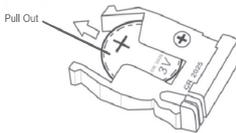
Remove battery insulation tape .



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



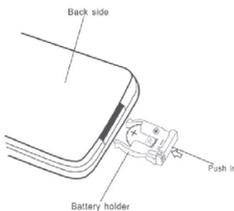
Remove the battery from the battery holder.



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 or 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.
Source	Press SOURCE to step through all available input modes: Radio, Disc (which includes DVD and CD playback), USB, Bluetooth Phone, Bluetooth Music, Rear Camera, Auxiliary Input, AV Input and Setup. Modes of operation are indicated on the display and/or the monitor. Optional USB device must be connected/inserted to appear in the mode selection string.
Auxiliary Input	Connect external audio/video devices to the 3.5mm auxiliary input on the front panel.
USB Port	Connect a USB device to play MP3 files or view AVI video files or JPG photos.

General Operation

Setup Menu

Press **MENU** to toggle through and select one of the following setup menus: Audio, General, Gain, Screen, Disc.

1. Once the desired menu is displayed, rotate the **volume knob** to scroll through the list of menu features.
2. Press **SELECT** to select a specific feature to adjust, then rotate the **volume knob** left/right to adjust or activate the desired feature.
3. Press **SELECT** to confirm and save the changes.

Audio Setup Menu

Menu Function	Options
Equalization Curves	Rotate the volume knob to cycle through the following equalization curves: Flat, Pop, Jazz, Classic, Beat, Rock and User. Any manual adjustment to the Bass or Treble settings are automatically saved as User.
7 Band	Select 60Hz, 150Hz, 400Hz, 1KHz, 3KHz, 7KHz, 15KHz, then rotate the volume knob to adjust levels.
Balance	Rotate the volume knob to adjust the balance setting. (12-L to 12-R; 0 represents equal balance).
Fader	Rotate the volume knob to adjust the fader setting. (12-F to 12-R; 0 represents equal balance)
Loudness	Rotate the volume knob to turn loudness feature ON or OFF.
Loudness Frequency	Rotate the volume knob to select one of the following loudness frequency settings: Off , 80 Hz , 120 Hz and 160 Hz . "Off" represents a full range.
Subwoofer	Rotate the volume knob to turn subwoofer output ON or OFF.

General Setup Menu

Menu Function	Options	Action
Tuner Frequency Spacing	USA	Programs the unit to USA tuner spacing. (200kHz for FM and 10kHz for AM).
	S-America	Programs the unit to South American tuner spacing. (100kHz for FM and 10kHz for AM).
	Europe	Programs the unit to European tuner spacing. (50kHz for FM and 9kHz for AM).
Auto Store	AUTO STORE	Press SELECT to seek and save 6 strong stations in the current band.
Local/Distance Tuning	Off	Activates distance tuning.
	On	Activates local tuning for strong station reception only.
Set the Clock	Clock	Rotate the volume knob to adjust the hours, then press SELECT to confirm. Repeat to adjust the minutes and AM/PM setting.



General Operation

Screen Setup Menu

Menu Function	Options
Brightness	Rotate the volume knob to adjust between 0 and 12.
Contrast	Rotate the volume knob to adjust between 0 and 12.
Hue	Rotate the volume knob to adjust between 0 and 12.
Saturation	Rotate the volume knob to adjust between 0 and 12.
Sharpness	Rotate the volume knob to adjust between 0 and 12.

Disc Menu

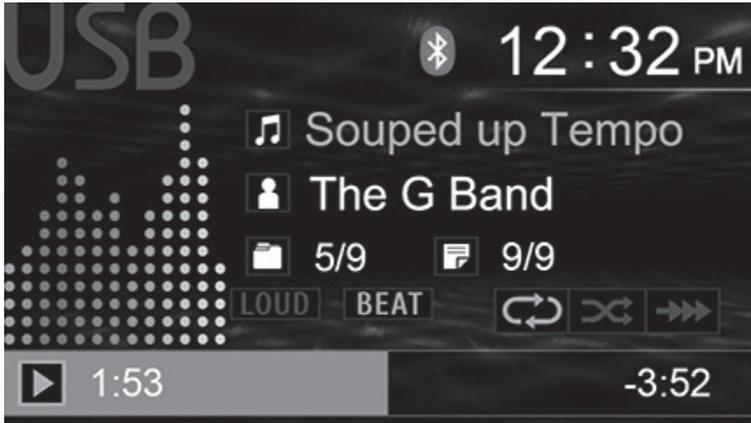
Menu Function	Options
Audio Language	Rotate the volume knob to select language.
Subtitle Language	Rotate the volume knob to select language.
Menu Language	Rotate the volume knob to select language.
TV Type	Rotate the volume knob to select 4:3PS, 4:3LB or 16:9

AM/FM Tuner Operation



Manual Tuning	Press TUNE ◀◀ or TUNE ▶▶ momentarily to change radio frequency up or down one step at a time. Press and hold to advance quickly.
Seek Tuning	Press TUNE ◀◀ or TUNE ▶▶ for more than two seconds (then release) to automatically seek and tune to the next strong station.
Band	Press BAND to select between FM1, FM2, FM3, AM1 and AM2 bands.
Storing Station Presets	Select the desired band and station. Press the (Function) button, turn the volume knob until the desired preset number is highlighted, then press SELECT to store the preset.
Recalling Station Presets	Press the P+ or P- buttons to cycle through the 1-6 presets in the current band.

CD/MP3 Operation



Insert CD	Press OPEN to fold down the front panel and expose the CD slot. With the label facing up, insert a standard size CD into the CD slot. The CD will automatically begin playback.
Eject CD	With the front panel open, press EJECT to eject the CD. The unit will change to previous mode of operation. If the disc is not removed within 10 seconds, the unit will reload the disc. The unit does not have to be turned on to eject CD.
Track Select	Press TRACK ▶▶ to skip to the beginning of the next track. Press TRACK ◀◀ to return to the beginning of the current track. Pressing TRACK ◀◀ again skips to the beginning of the previous track.
Fast Forward/Reverse	Press and hold TRACK ▶▶ or TRACK ◀◀ on the remote control to fast forward or reverse a track.
Pause	Press ▶/ to temporarily stop CD playback. Press ▶/ again to resume playback.
Repeat	Press (F)unction and choose Repeat to continuously repeat the selected track.
Random	Press (F)unction and choose Random to play all the tracks in random order.
Intro	Press (F)unction and choose Intro to play the first 10 seconds of each track.
CD-R/CD-RW Compatibility	Some CD-Rs and CD-RWs may be incompatible with this unit, depending on media type and recording method. In addition, the following CDs may be incompatible with this unit: CDs exposed to extreme temperatures or direct sunlight for extended periods of time, CDs recorded in which a recording session failed or a re-recording was attempted and, or encrypted or copy-protected CDs which do not conform to the audio CD-DA red book recording standard.

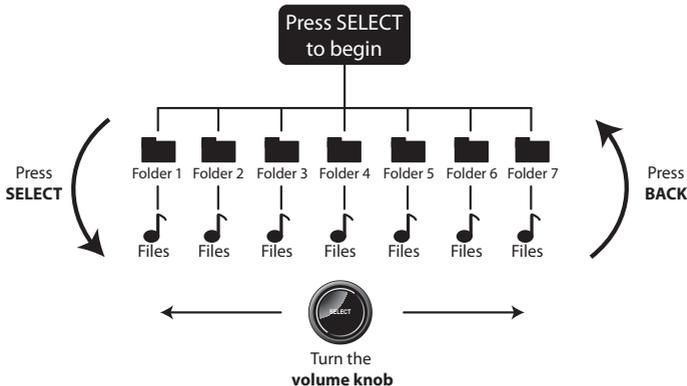
MP3 Operation

Playing MP3 Files	To play MP3 files, insert a data disc or USB device containing MP3 files. "Loading" will flash in the display. Depending on the number of files and folders, this may take several seconds.
Displaying Information	<p>Press DISP to cycle between track information and file/folder information.</p> <p>*Song title, artist name and album name will only be displayed if included with the MP3 file.</p> <p>When referring to MP3 playback, the following terms are synonymous:</p> <ul style="list-style-type: none"> • File name and track name • Folder name and directory name
Repeat	<p>Press (F)unction to enter the Function Menu, then rotate the volume knob until Repeat is highlighted. Press SELECT, then rotate the volume knob to select one of the following repeat options.</p> <ul style="list-style-type: none"> • All - Plays all songs on disc or device. • Track - Continuously repeats selected song. • Folder - Continuously repeats all songs in selected folder.
Random	<p>Press (F)unction to enter the Function Menu, then rotate the volume knob until Random is highlighted. Press SELECT, then rotate the volume knob to select one of the following options for random playback.</p> <ul style="list-style-type: none"> • Off - Cancels the Random function. • All - Plays all songs in random order. • Folder - Plays all songs in folder in random order.
Intro	<p>Press (F)unction to enter the Function Menu, then rotate the volume knob until Intro is highlighted. Press SELECT, then rotate the volume knob to select one of the following options for intro playback.</p> <ul style="list-style-type: none"> • Off - Cancels the Intro function. • All - Plays first 10 seconds of each song. • Folder - Plays first 10 seconds of each song in folder.
	<p>Note: Folder repeat, random and intro options only function on MP3 discs or devices recorded with more than one folder.</p>

MP3 Operation

File/Folder Search

- Begin Searching** Press **SELECT** to enter the file/folder search mode. A list of all the folders from the disc or device will be displayed.
- Note:** Any files located in the root directory will be located in the folder named "ROOT".
- Choose a Song** Turn the **volume knob** to cycle through all the folders on the disc or device, and press **SELECT** to choose the desired folder. The list of files in the selected folder will be displayed. Turn the **volume knob** to cycle through the list of files.
- Menu Navigation** Pressing **ESC** when viewing the contents of a folder will return to the list of folders on the disc or device. Press **ESC** again to exit the search menu.
- Playing a Song** Once the desired song is displayed, press **SELECT** to begin playback of the desired song.



Media Compatibility - CD/DVD

File Type			MP3	
File System	ISO9660	Level 1, Level 2		✓
		Level 3		X
	ISO9660 Extension	JOLIET	Playback	✓
			Filename	32 bytes
	Other Extensions	ROMEO	Playback	X
			Filename	X
Apple ISO		X		
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:

- 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 as described on page 26.



Media Compatibility - USB

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 and/or SD cards may be incompatible with this unit.

Media Compatibility

Media Compatibility	<p>The following types of discs/files are compatible:</p> <ul style="list-style-type: none"> • CD-DA, CD-ROM (ISO), CD-R, CD-RW • DVD Video, DVD+R/RW, DVD-R/RW • USB format type: FAT32/FAT <p>The following types of discs/files are not compatible:</p> <ul style="list-style-type: none"> • WMA files that are protected by DRM (Digital Rights Management) • WMA lossless format • Discs recorded with Track At Once or packet writing • MP3 PRO format, MP3 playlists • RMP format • WAV format • WMV format • AAC, protected AAC, M4A format <p>Some recordable DVD's and CD's may be incompatible with this unit, depending on media type and recording method.</p>
Playback Order	<p>MP3 playback sequence begins in the root folder of the disc or USB flash drive. 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 discs 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>

DVD Operation



Inserting a Disc	Press OPEN to fold down the front panel and expose the disc slot. With the label facing up, insert a standard-sized DVD disc into the slot, and playback will begin automatically.
Ejecting the Disc	With the front panel open, press EJECT to eject the disc. The unit will change to the previous mode of operation. If the disc is not removed within 10 seconds, the unit will reload the disc. The unit does not have to be turned on to eject the disc.
Track Select	Press TRACK ►► to skip to the beginning of the next track. Press TRACK ◄◄ to return to the beginning of the current track. Pressing TRACK ◄◄ again skips to the beginning of the previous track.
Fast Forward/Reverse	Press and hold TRACK ►► and TRACK ◄◄ on the remote control to fast forward or reverse a track.
Pause	Press ►/ to temporarily stop disc playback. Press ►/ again to resume playback.
Repeat	Press (Function) and choose Repeat to continuously repeat the selected track.
Random	Press (Function) and choose Random to play all the tracks in random order.
Intro	Press (Function) and choose Intro to play the first 10 seconds of each track.

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 XDVD770BT 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 "Dual Multimedia Receiver".
The Bluetooth passcode "0000"**

Note: The XDVD770BT can be in any mode of operation when pairing is performed.

Pairing Additional Devices

If a device is currently connected, press and hold  to disconnect the current device before a new device can be paired. Then begin the pairing sequence from the new Bluetooth device.

Connecting a Device

Most Bluetooth devices support the auto-connect feature, and will connect automatically if the device is in range when the XDVD770BT is powered-on.

Disconnecting a Device

Press and hold  for 3 seconds to disconnect a connected device. The device will remain paired and appear in the PAIRED DEVICES menu but will not be connected.

Manual Dialing

Press  once. "Enter Phone Number" appear on the display. Using the remote control, enter the phone number using the 0-9 buttons. Press  or SELECT on the remote control or front panel to begin dialing.



Bluetooth Operation

Recent Calls List

Press **SELECT** from Bluetooth mode to view recent calls dialed, received or missed while connected to the head unit. Turn the volume knob to cycle through the recent phone numbers. Press **SELECT** or  to dial the number.

Redialing the last number

To redial the last phone number, press  two times from Bluetooth mode. Press  or **SELECT** again to redial the phone number.

Receiving a Phone Call

Incoming phone calls will automatically appear on the display and a ring tone will be heard.

Note: The volume of the ring tone depends on the volume level of the head unit and may not be heard if the volume is set to a low level or mute is activated.

- Press  to receive the incoming phone call.
- Press and hold  to refuse the incoming phone call.

Note: If Auto Answer is set to ON in the setup menu, all phone calls will be received automatically.

Ending a Phone Call

During an active phone call, press  to end a phone call. If the phone call was received when listening to music in another mode, the head unit will resume the previous mode.

Streaming Audio

The head unit supports A2DP wireless streaming audio from a Bluetooth mobile device directly to your head unit. The following functions can be used to control the music:

- Press  to skip to the next available audio track.
- Press  to skip to the previous audio track.
- Press  to toggle between play and pause during playback.



Front 3.5mm Aux Input & Rear RCA A/V Input

Auxiliary Input	<p>Connect an optional audio source into the 3.5mm (front panel) input.</p> <p>Select auxiliary input from the Main Menu to listen to audio.</p> <p>Adjust volume on the external audio source as needed (if connected to the headphone output of the device).</p>
Using AV Input	<p>Connect an optional audio/video source to the rear auxiliary input (Red/White/Yellow RCA connectors). Refer to page 6 for details.</p> <p>Select AV Input from the Main Menu to listen to audio.</p> <p>Engage parking brake to watch video.</p>

Rear Camera Operation - (Optional)

Using Rear Camera	<p>Connect an optional rear camera to the Camera Input (Black RCA connector). Refer to the wiring diagram for details.</p> <p>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.</p> <p>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.</p>
Auto Selection	<p>The unit will automatically select camera mode when connected to the reverse lamp circuitry.</p> <p>Note: The external video output is not active when using the rear camera input.</p>



Limited One 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 one year 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.



Troubleshooting

General		
Problem	Cause	Action
Unit will not turn on (no power)	Yellow wire not connected or incorrect voltage Red wire not connected or incorrect voltage	Check connections for proper voltage (11-16VDC)
	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 Parking brake not applied	Check connections at parking brake Apply parking brake as described on page 26
	No video display (when in reverse)	Reverse circuit not connected Vehicle is not in reverse
DVD does not start playback	Physical defect in media Wrong region	Check media for scratches Use discs labeled "Region 1" or "All" only
IR remote does not work	Dead battery	Replace battery
Excessive skipping	Unit is not mounted correctly	Check mounting sleeve
	Physical defect in media	Check media for scratches
Disc Region Incorrect appears on display	Region code error	Use discs labeled "Region 1" or "All" only

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

Disc	Frequency response: 20Hz-20kHz Channel separation @ 1kHz: >80dB D/A converter: 24 Bit
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: 3" diagonal measurement View angle (up/down/left/right): 60/50/60/60 Resolution: 320 (H) x 240 (V) Brightness (cd/m ²): 250 Contrast ratio: 400:1 Pixels: 230,400
General	Speaker output impedance: 4 ohms Line output voltage: 2 volt RMS Line output impedance: 200 ohms Chassis dimensions: 7" x 7" x 2" (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)



Notes



Dual Electronics Corp.
Toll Free: 1-866-382-5476
Monday-Friday, 9AM-5PM EST

www.dualav.com
©2017 Dual Electronics Corp. All rights reserved.
NSA0117-V01
Printed in China