

MCD139BT

INSTALLATION/OWNER'S MANUAL

AM/FM/CD Receiver

MP3

COMPACT
disc
DIGITAL AUDIO

AUX

 **Bluetooth®**

Dual®



Preparation

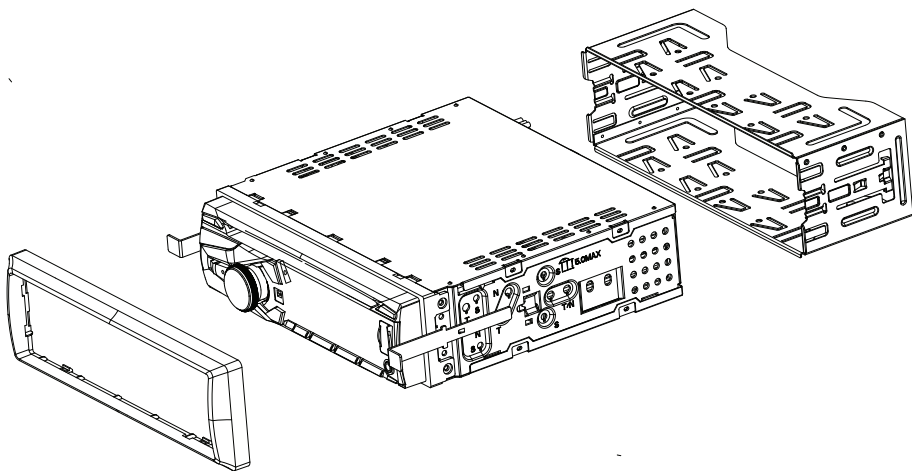
Please read entire manual before installation.

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.

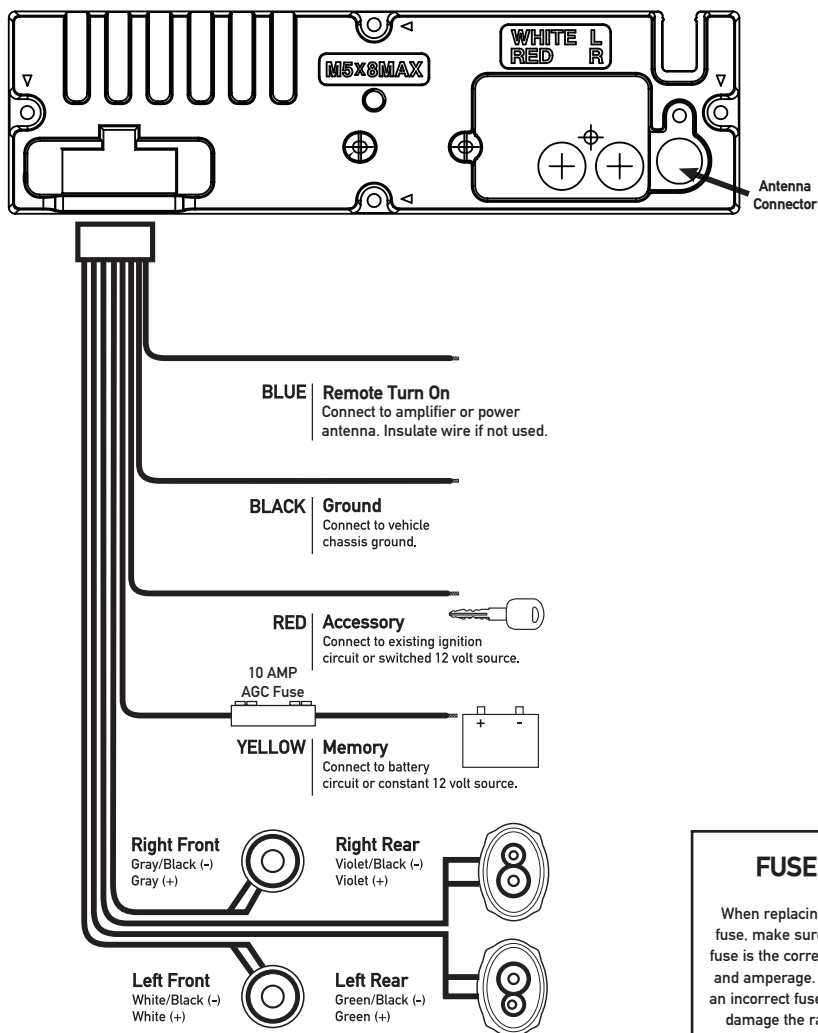
Getting Started

- Remove trim ring from unit.
- Remove 2 transit screws located on top of the unit.
- 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 and antenna. Consult a qualified technician if you are unsure.
- Certain vehicles may require an installation kit and/or wiring harness adapter (sold separately).
- Test for correct operation and slide into mounting sleeve to secure.
- Snap trim ring into place.



TYPICAL FRONT-LOAD DIN MOUNTING METHOD

Wiring Diagram

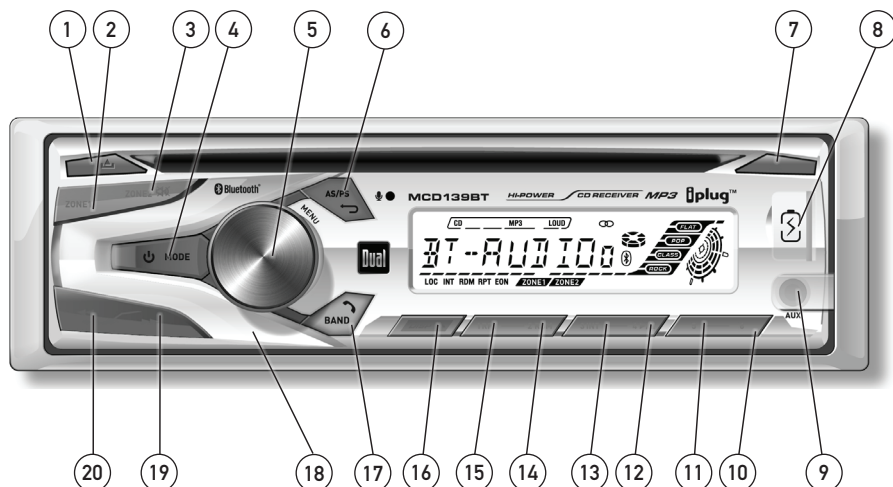


FUSE

When replacing the fuse, make sure new fuse is the correct type and amperage. Using an incorrect fuse could damage the radio.

The unit uses one 10 amp 5x7 fuse located beside the wiring connector.



Control Locations




- | | |
|-------------------------|---------------------------|
| ① Release | ⑪ Preset 5 / Folder Down |
| ② Speaker Zone 1 | ⑫ Preset 4 / Play / Pause |
| ③ Speaker Zone 2 / Mute | ⑬ Preset 3 / Intro |
| ④ Power / Mode | ⑭ Preset 2 / Random |
| ⑤ Volume Knob | ⑮ Preset 1 / Repeat |
| ⑥ AS/PS / Go Back | ⑯ Display |
| ⑦ Eject | ⑰ Band / Bluetooth Talk |
| ⑧ USB Charging Port | ⑱ Reset |
| ⑨ Auxiliary Input | ⑲ Tune / Track Up |
| ⑩ Preset 6 / Folder Up | ⑳ Tune / Track Down |



General Operation

- Power On/Off** Press  or any other button (except **EJECT**) to turn the unit on. Press  to turn the unit off.
- Mode** Press **MODE** to select between AM/FM, CD player, Bluetooth, auxiliary and USB. Modes of operation are shown in the display.
- NOTE:** CD and USB modes will not appear unless a CD is inserted or USB device is connected.
- Auxiliary Input** The MCD139BT offers a 3.5 mm auxiliary input port on the front panel of the unit for connecting an audio device, MP3 player, etc. Press **MODE** to select auxiliary input mode.
- Volume** Adjust volume using volume knob (00-4\$).
- Display** Press **DISP** to show the clock. During playback of MP3/files, ID3 tag information, elapsed time, track number and file/folder names will automatically rotate on the display.
- Reset** Press **RESET** upon initial installation or if abnormal operation occurs.
- Set the Clock** With the unit on, press and hold **DISP** until the clock begins to flash, then release. Turn the **volume knob** to the right to adjust the hours or to the left to adjust the minutes.
- 12/24-hour Clock** The clock will display 12-hour AM/PM time in USA frequency spacing mode (PM 10:00). In European frequency spacing mode, the clock will display 24-hour time (22:00).
- Setup Menu** Press and hold **AUDIO** for more than 3 seconds to access the setup menu. Press **AUDIO** momentarily to select between the menu functions and rotate the **volume knob** left/right to adjust or activate the desired function.

General Operation - Setup Menu

| Menu Function | Options | Action |
|-----------------------------|-----------|---|
| Local/Distance Tuning | LOCAL OFF | Activates distance tuning (Tuner mode only). |
| | LOCAL ON | Activates local tuning for strong station reception only (Tuner mode only). |
| Tuner Frequency Spacing | FREQ USA | Programs the unit to USA tuner spacing. (200kHz for FM and 10kHz for AM). (Tuner mode only) |
| | FREQ EURO | Programs the unit to European tuner spacing. (50kHz for FM and 9kHz for AM). (Tuner mode only) |
| Beep Confirmation | BEEP OFF | Disables the confirmation beep. |
| | BEEP ON | Enables the confirmation beep. |
| Programmable Turn On Volume | PRO-VOL # | Programs unit to always turn on at a specific volume (default is OFF). Any volume level 1-30 can be selected. |
| Auto Answer | ANSWER CB | Programs unit to automatically answer every incoming phone call after 2-3 rings. |
| | ANSWER C: | Programs unit to require the  button must be pressed to answer incoming phone calls (default). |
| Stereo/Mono | STEREO | Programs unit for stereo playback (Tuner mode only). |
| | MONO | Programs unit for mono playback (Tuner mode only). Selecting MONO can improve listening in areas with a weak FM signal. |



General Operation

Audio Press **AUDIO** momentarily to select between Bass, Treble, Balance and Fader.

→ BASS → TREBLE → BALANCE →  8 → EQ →

Bass Press **AUDIO** until **BASS** appears then rotate volume knob left/right to adjust (-+ minimum / ++ maximum).

Treble Press **AUDIO** until **TREBLE** appears then rotate volume knob left/right to adjust (-+ minimum / ++ maximum).

Balance Press **AUDIO** until **BAL** appears then rotate volume knob left/right to adjust (BAL +L - BAL +R).
BAL EVEN represents equal balance

Speaker Zone 1 Press Zone 1 to turn the sound from Zone 1 on or off.

Speaker Zone 2 Press Zone 2 to turn the sound from Zone 2 on or off.

AM/FM Tuner Operation

| | |
|--|--|
| Seek Tuning | Press TUNE ◀◀ or TUNE ▶▶ momentarily to seek to the next strong station. |
| Manual Tuning | Press and hold TUNE ◀◀ or TUNE ▶▶ until "MANUAL" appears, then press TUNE ◀◀ or TUNE ▶▶ momentarily to change radio frequency up or down one step at a time. Press and hold to advance quickly. |
| Band | Note: Seek and manual tuning functions are reversed if Seek Priority is set to SEEK 2 in the setup menu (refer to page 7 for details on setting Seek Priority). |
| Storing and Recalling Station Presets | Press BAND to select between FM1, FM2, FM3, AM1 and AM2 bands. Up to 18 FM stations and 12 AM stations can be stored. To store a station, select the desired band and station. Press and hold the desired preset button (1-6) for more than 2 seconds. When stored, the preset number will appear in the display. The station can be recalled anytime by pressing the corresponding preset button. |
| Automatically Store Stations | Press and hold SCD for more than 3 seconds to find auto store in the display. Then press volume knob to automatically store strong 6 stations in the current band. |



CD Player Operation

- Insert CD** With the label facing up, insert a standard size CD into the CD slot. The CD will automatically begin playback.
- Eject CD** 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.
- Intro** DfYgg' BH'hc' UWMgg'hY' h'fc' a Ybi Z'DfYgg' BH'hc' d'Urh'hY
Z'fgh%'g'Wb'xg' cZYgW' h'fUAZ' d'fYgg' U' U'p' h'c' WbW' h'Y' BH
Z' bMjdb"
- Repeat** DfYgg' FDH'hc' UWMgg'hY' FydyUha Ybi Z'DfYgg' FDH'hc' hc' ['Y
Wtk' Yb' FDHC : Z'FDH%'FDH'8F' UbX' FDH5@@
• 'FDHC : ' ! '7UbW'g'hY' FDH'Z' bMjdb"
• 'FDH%' '7db'j d' g'mfYd'Uhg'g'Y'WtX' h'fUW'
• 'FDH5@@! 'D'Uhg'U' 'h'fUW'g' d' 78"
- Random** DfYgg' F8A' hc' UWMgg'hY' FUbXca' 'a Ybi Z'DfYgg' F8A' hc'
hc' ['Y' Wtk' Yb' F8A' 'CB' UbX' F8A' 'G : .
• 'G : ! '7UbW'g'hY' F8A' Z' bMjdb"
• 'CB! 'D'Uhg'U' 'h'fUW'g' j'p' fUbXca' 'cfXY"
- 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.

CD Player Operation - MP3 Files

Playing an MP3 CD

When an MP3 encoded disc is first inserted, "DISC READ" will appear in the display. Depending on the number of files and folders, this may take several seconds.

Displaying Information

Press **DISP** to select between song title, artist, file name, folder name, track number, and clock/elapsed time.

"NO ARTIST" or "NO TITLE" will be displayed if the MP3 file contains no ID3 tag information.

"ROOT" will be displayed if the directory name of a root folder is not labeled.

Title Icon

This icon will illuminate when the song title is displayed.

Artist Icon

This icon will illuminate when the artist name is displayed.

Folder Icon

This icon will illuminate when the folder name is displayed.

File Icon

This icon will illuminate when the file name is displayed.

Character Support

Maximum character display information

- Track name – 32 character maximum
- Directory name – 32 character maximum
- *Song title – 32 character maximum
- *Artist name – 32 character maximum

*Song title and Artist Name will only be displayed if included with the MP3 file.

When referring to MP3 playback, the following terms are synonymous:

- File name and track name
- Folder name and directory name



CD Player Operation - MP3 Files

Media Compatibility The following types of discs/files are compatible:

- CD-ROM (ISO), CD-R, CD-RW
- CD-DA
- MP3 data

The following types of discs/files are not compatible:

- Discs recorded with Track At Once or packet writing
- MP3 PRO format
- MP3 playlists
- WAV format

Playback Order MP3 playback sequence is based on recorded order of files and begins in the root folder of the disc. Any empty folders or folders that do not include MP3 files are skipped. This unit may not play files in the order they were recorded in. Refer to your recording software's user's manual for more information.

Compatible Recording Formats

- ISO9660 level 1
- ISO9660 level 2
- Yellow Book MODE 1
- Yellow Book MODE 2 FORM 1
- Multi session
- Maximum files - 999
- Maximum folders - 255
- Maximum folder levels - 8
- MPEG-1/2/2.5 Audio Layer-3

ISO9660 standards:

- 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, Romeo, 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.

CD Player Operation - MP3 Files

Additional MP3 Information

An internal buffer provides ESP (Electronic Skip Protection) to virtually eliminate skipping.

When playing a disc recorded with regular audio files (CD-DA or .WAV) and MP3 files, the unit will play the MP3 files only.

Only MP3 files with filename extension (.mp3) can be played.

Do not attempt to play discs which contain non-MP3 files with the MP3 extension.

Sampling Frequency Rates MP3

8kHz ~ 48kHz

Transfer Bit rates MP3

32kbps ~ 320kbps constant
Variable bit rates

Note: Some files may not play or be displayed correctly, depending on sampling rates and bit rates.

MP3 Tag Display

ID3 tags Version 1.0 to 2.4.
This model will not display ID3 Version 2.4 or greater tags.

Recommended Settings

For best results, use the following settings when burning an MP3 disc:
128kbps or higher constant bit rate
44.1kHz or higher sampling frequency



MP3 Operation *

| | |
|---------------------------------|---|
| Playing MP3/WMA Files | To play MP3, insert a data CD, containing MP3. |
| Track Select | Press TUNE ►► to skip to the beginning of the next song. Press TUNE ◄◄ to return to the beginning of the current song. Pressing TUNE ◄◄ again skips to the beginning of the previous song. |
| Fast Forward and Reverse | Press and hold TUNE ►► or TUNE ◄◄ to fast forward or reverse a track. |
| Pause | Press ►/ to temporarily stop playback. Press ►/ again to resume playback. |
| Repeat | Press RPT to enter the Repeat menu. Press RPT to toggle between RPT OFF, RPT 1, RPT DIR and RPT ALL: <ul style="list-style-type: none">• RPT OFF - Cancels the RPT function.• RPT 1 - Continuously repeats selected track.• RPT DIR - Continuously repeats selected folder.• RPT ALL - Plays all tracks in random order. |
| Random | Press RDM to enter the Random menu. Press RDM to toggle between RDM ON and RDM OFF: <ul style="list-style-type: none">• OFF- Cancels the RDM function.• ON - Plays all tracks in random order. |
| Intro | Press INT to enter the Intro menu. Press INT to play the first 10 seconds of each track, press again to cancel the INT function. |

Bluetooth® Operation*

Preparation

Before using a Bluetooth device, it must be paired and connected. Ensure that Bluetooth is activated on your device before beginning the pairing process.

Pairing a New Device

The head unit broadcasts the pairing signal constantly when no devices are 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 BT"

The Bluetooth passcode is "1234"

Note: If passcode "1234" does not pair your device to the receiver, use passcode "0000".

Note: The head unit 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.

Disconnecting a Device

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

Streaming Audio Troubleshooting

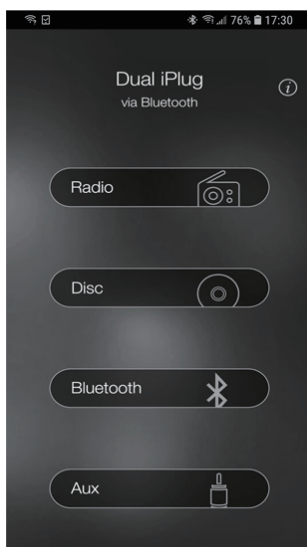
The head unit supports A2DP wireless streaming audio from a Bluetooth mobile device directly to your head unit. The following functions can be used to control the music:

- 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.

iPlug M APP Control

The Dual iPlug M Smart App is the ultimate wireless remote control for your MCD139BT receiver. You can download the Dual iPlug M app from Apple Appstore or Google Playstore and install it on your smart phone or tablet.

Please scan the following QR code to download the Dual iPlug M App to your smart phone.



Troubleshooting

| 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 |
| 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 fuses | Yellow or red wire touching chassis ground | Check for pinched wire |
| | Speaker wires touching chassis ground | Check for pinched wire |
| | Incorrect fuse rating | Use fuse with correct rating |
| Excessive skipping | Unit is not mounted correctly or backstrap is not secure | Check mounting sleeve and backstrap support |
| | Physical defect in media (CD, CD-R or CD-RW) | Check media for scratches |
| ERR FILE appears on display | Disc read error | Press eject or RESET |
| | Focus error or disc is in upside down | Press eject or RESET |
| NO FILE appears on display | No playable MP3 files found on the device | Check the device for valid MP3 files |
| Unit will not accept a disc | CD mechanism position out of alignment | Press EJECT to reset CD mechanism position |
| | CD transit screws still in place | Remove 2 transit screws located on top of the unit |
| NO SUPPORT appears on display | An invalid ID3 tag version is present | Version 1.0 to 2.0 ID3 tags are supported. |



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.

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.



Specifications

| | |
|------------------|---|
| CD Player | Frequency response: 20Hz-20kHz Channel separation @ 1kHz: >60dB D/A converter: 1 Bit |
| FM Tuner | Tuning range: 87.5MHz-107.9MHz Usable sensitivity: 8.5dBf 50dB quieting sensitivity: 10dBf Stereo separation @ 1kHz: >30dB Frequency response: 30Hz-13kHz |
| AM Tuner | Tuning range: 530kHz-1710kHz Usable sensitivity: <42dBu Frequency response: 30Hz-2.2kHz |
| General | USB Charge: 1A Speaker output impedance: 4~8 ohms Line output voltage: 1.2 Volts RMS Dimensions: 7" x 7" x 2" (178 x 178 x 50 mm) |

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
9AM-5PM EST, Monday-Friday

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NSA0519V01