Pioneer

DIGITAL MEDIA RECEIVER

MVH-230BT

Operation Manual

Bluetooth®

Table of Contents

English

About this manual:
• In the following instructions, a USB memory or USB audio player are referred to as "USB device".

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Getting Started

Basic operation

M.C. (multi-control) dial

DISP (display)

USB port

SRC (source)/OFF

Microphone

BAND/DIMMER ⬏

BASS

Display window
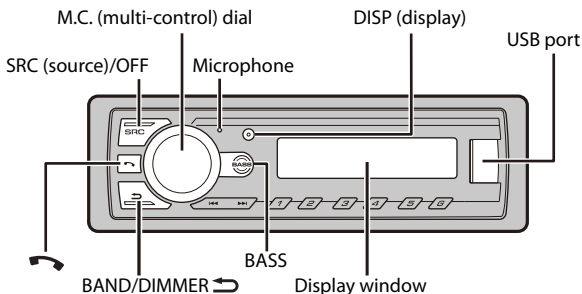
Frequently used operations

Purpose	Operation
Turn on the power*	Press **SRC/OFF**.
Turn off the power*	Press and hold **SRC/OFF**.
Adjust the volume	Turn the **M.C.** dial.
Select a source	Press **SRC/OFF** repeatedly.
Change the display information	Press **DISP** repeatedly.
Return to the previous display/list	Press **BAND/DIMMER** ⬏.
Return to the normal display from the menu	Press and hold **BAND/DIMMER** ⬏ while the menu screen is displayed.
Change the display brightness	Press and hold **BAND/DIMMER** ⬏. • [DIM SETTING] needs to be set to [MANUAL] in the INITIAL settings (page 6).
Answer a call	Press any button.
End a call	Press 📞.

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Purpose	Operation
Boost the bass level	Press **BASS**. • You can select the bass level in [BASS BOOST] (page 14).
Search for a file from the list	Press and hold **BASS** to display a list.

* When this unit's blue/white lead is connected to the vehicle's auto-antenna relay control terminal, the vehicle's antenna extends when this unit's source is turned on. To retract the antenna, turn the source off.

Display indication

Indication	Description
⅄	Appears when a lower tier of the menu or folder exists.
⌔	Appears when the automatic answering function is set (page 11).
⌕	Appears when the **BASS** button is pressed and held.
LOC	Appears when the local seek tuning function is set (page 13).
⤬	Appears when random play is set (except when AOA is used).
⇄	Appears when repeat play is set (except when AOA is used).
❽	Appears when a Bluetooth connection is made (page 9).

Setup menu

When you turn the ignition switch to ON after installation, [SET UP :YES] appears in the display.

1 Press the M.C. dial.

The setup menu disappears after 30 seconds of no operation. If you prefer not to set at this time, turn the **M.C.** dial to select [NO], then press to confirm.

2 Turn the M.C. dial to select the options, then press to confirm.

To proceed to the next menu option, you need to confirm your selection.

Menu Item	Description
LANGUAGE [ENG](English), [PYC](Russian), [FRA](French), [TUR](Turkish)	Select the language to display.

Menu Item	Description
CLOCK SET	Set the clock. **1** Turn the **M.C.** dial to adjust the hour, then press to confirm. The indicator moves to the minute setting automatically. **2** Turn the **M.C.** dial to adjust the minute, then press to confirm.
FM STEP [100], [50]	Select the FM tuning step from 100 kHz or 50 kHz.

3 **[QUIT :YES] appears when all the settings have been made.**
To return to the first item of the setup menu, turn the **M.C.** dial to select [QUIT :NO], then press to confirm.

4 **Press the M.C. dial to confirm the settings.**

NOTES
- You can cancel the menu setting by pressing **SRC**/**OFF**.
- These settings can be made at any time from the SYSTEM settings (page 14) and INITIAL settings (page 5).

Canceling the demonstration display (DEMO OFF)

1 **Press the M.C. dial to display the main menu.**

2 **Turn the M.C. dial to select [SYSTEM], then press to confirm.**

3 **Turn the M.C. dial to select [DEMO OFF], then press to confirm.**

4 **Turn the M.C. dial to select [YES], then press to confirm.**

INITIAL settings

1 **Press and hold SRC/OFF until the unit turns off.**

2 **Press the M.C. dial to display the main menu.**

3 **Turn the M.C. dial to select [INITIAL], then press to confirm.**

4 **Turn the M.C. dial to select an option, then press to confirm.**

Menu Item	Description
FM STEP [100], [50]	Select the FM tuning step from 100 kHz or 50 kHz.

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Menu Item	Description
SP-P/O MODE	
[REAR/SUB.W]	Select when there is a full-range speaker connected to the rear speaker output leads and there is a subwoofer connected to the RCA output.
[SUB.W/SUB.W]	Select when there is a passive subwoofer connected directly to the rear speaker output leads and there is a subwoofer connected to the RCA output.
[REAR/REAR]	Select when there are full-range speakers connected to the rear speaker output leads and RCA output. If there is a full-range speaker connected to the rear speaker output leads, and the RCA output is not used, you may select either [REAR/SUB.W] or [REAR/REAR].
DIM SETTING	Change the display brightness.
[SYNC CLOCK], [MANUAL]	Select [SYNC CLOCK] to set the duration of activating dimmer. Select [MANUAL] to turn on/off dimmer by a press and hold of **BAND**/**DIMMER** ⊃ button.
SYSTEM RESET	Select [YES] to initialize the unit settings. The unit will be restarted automatically.
[YES], [NO]	(Some of the settings may be retained even after resetting the unit.)

Radio

The tuner frequencies on this unit are allocated for use in Western Europe, Asia, the Middle East, Africa and Oceania. Use in other areas may result in poor reception. The RDS (radio data system) function only works in areas that broadcast RDS signals for FM stations.

Best stations memory (BSM)

The six strongest stations are stored on the number buttons (**1**/∧ to **6**/⇄).

1 After selecting the band, press the M.C. dial to display the main menu.

2 Turn the M.C. dial to select [FUNCTION], then press to confirm.

3 Turn the M.C. dial to select [BSM], then press to confirm.

To seek a station manually

1 After selecting the band, press |◀◀/▶▶| to select a station.

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Press and hold ⏮/⏭ then release to seek an available station. Scanning stops when the unit receives a station. To cancel seek tuning, press ⏮/⏭.

NOTE
[SEEK] needs to be set to [MAN] in the FUNCTION settings (page 13).

To store stations manually

1 While receiving the station you want to store, press and hold one of the number buttons (1/∧ to 6/↩) until it stops flashing.

Receiving preset stations

1 Press SRC/OFF to select [RADIO].

2 Press BAND/DIMMER ⏎ to select the band from [FM1], [FM2], [FM3], [MW] or [LW].

3 Press a number button (1/∧ to 6/↩).

TIP
The ⏮/⏭ buttons can be also used to select a preset station when [SEEK] is set to [PCH] in the FUNCTION settings (page 13).

USB

Playing back

Disconnect headphones from the device before connecting it to the unit.

USB devices (including Android™)

1 Open the USB port cover.

2 Plug in the USB device using an appropriate cable.

NOTE
To automatically switch to [USB] source when a USB device is connected to the unit, set [USB AUTO] to [ON] in the SYSTEM settings (page 15).

⚠ CAUTION
Use a USB cable (sold separately) to connect the USB device as any device connected directly to the unit will protrude out from the unit, which could be dangerous.

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Before removing the device, stop playback.

AOA connections

A device installed with Android OS 5.0 or later (up to Android 7.x)* can be connected to the unit via AOA, using the cable supplied with the device.

* AOA 2.0 does not support Android OS 8.0 or later.

Listening to music on Android

This function is compatible with devices that have Android OS 5.0 or later (up to Android 7.x)* installed and also support AOA (Android Open Accessory) 2.0.

* AOA 2.0 does not support Android OS 8.0 or later.

1 Press SRC/OFF to select [USB].

"ANDROID" is displayed after reading.

NOTE

Some Android devices connected via AOA 2.0 may not work properly or emit sounds due to their own software design, regardless of the OS version.

Basic operations

Purpose	Operation
Select a track	Press ◄◄ or ►►I.
Pause/resume playback	Press 4/►/II.

Operations

Purpose	Operation
Select a folder	Press 1/∧ or 2/∨.
Select a track	Press ◄◄ or ►►I.
Fast forward or reverse	Press and hold ◄◄ or ►►I.
Search for a file from a list	1 Press and hold **BASS** to display the list. 2 Turn the **M.C.** dial to select the desired file (folder) name, then press to confirm. 3 Turn the **M.C.** dial to select the desired file, then press to confirm. Playback starts.
View a list of the files in the selected folder	Press the **M.C.** dial when a folder is selected.
Play a song in the selected folder	Press and hold the **M.C.** dial when a folder is selected.
Repeat play	Press 6/⇆.

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Purpose	Operation
Random play	Press **5**/✕✕.
Pause/resume playback	Press **4**/▶/❙❙.

Bluetooth®

Bluetooth connection

1 Turn on the Bluetooth function of the device.
If you make a Bluetooth connection from the device, proceed to step 6.

2 Press 📞 to display the phone menu.

3 Turn the M.C. dial to select [BLUETOOTH:SET], then press to confirm.

4 Turn the M.C. dial to select [ADD DEVICE], then press to confirm.
The unit starts to search for available devices, then displays them in the device list.
- To cancel searching, press the **M.C.** dial.
- If the desired device is not in the list, select [RE-SEARCH].
- If there is no device available, [NOT FOUND] appears in the display.

5 Turn the M.C. dial to select a device, then press to confirm.
Press and hold the **M.C.** dial to switch the displayed device information between the Bluetooth device address and device name.
If you make a Bluetooth connection from the unit, proceed to step 7.

6 Select the unit name shown in the device display.

7 Make sure the same 6-digit number appears on this unit and the device.

8 Perform the pairing operation by operating the unit and the device.

NOTES
- Depending on the device, the PIN code is required in step 7. In this case, input [0000].
- Only one single device can be paired/registered at any one time. The previously paired/registered device information is overwritten/deleted when a new device is paired/registered to this unit.
- Disconnect a registered device in the [BLUETOOTH:CON] menu when you register a new device.

TIP
The Bluetooth connection can be also made by detecting the unit from the Bluetooth device. To do so, [VISIBLE] in the Bluetooth settings needs to be set to [ON]. For details on a Bluetooth device operations, refer to the operating instructions supplied with the Bluetooth device.

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Bluetooth settings

1 Press 📞 to display the phone menu.

2 Turn the **M.C.** dial to select [BLUETOOTH:SET], then press to confirm.

Menu Item	Description
BLUETOOTH:CON [ON], [OFF]	Display the paired Bluetooth devices. "*" appears on the device name when the Bluetooth connection is established.
ADD DEVICE	Register a new device.
A.CONN [ON], [OFF]	Select [ON] to connect to a Bluetooth device automatically.
VISIBLE [ON], [OFF]	Select [ON] so that a Bluetooth device can detect the unit.
PIN CODE	Change the PIN code. 1 Press the **M.C.** dial to display the setting mode. 2 Turn the **M.C.** dial to select a number. 3 Press the **M.C.** dial to move the cursor to the next position. 4 After inputting the PIN code, press and hold the **M.C.** dial.
DEV. INFO	Switch the device information on the display between the device name and Bluetooth device address.

Bluetooth telephone

First, make a Bluetooth connection with the Bluetooth telephone (page 9).

Important

- The Bluetooth microphone is built in the grill of the product.
- Speak toward the microphone when you make a call.
- Leaving the unit on standby to connect to your phone via Bluetooth while the engine is not running can drain the vehicle's battery.
- Be sure to park your vehicle in a safe place and apply the parking brake before operation.

To answer an incoming call

1 Press any button when a call is received.

Basic operations

Purpose	Operation
Adjust the ringtone volume	Turn the **M.C.** dial during an incoming call.

Purpose	Operation
End a call	Press 📞.
Reject an incoming call	Press and hold 📞 when a call is received.
Switch between the current caller and a caller on hold	Press the **M.C.** dial.
Cancel a caller on hold	Press and hold 📞.
Adjust the volume of the caller's voice (When private mode is on, this function is not available.)	Turn the **M.C.** dial during the call.
Turn the private mode on or off	Press **BAND/DIMMER**/ ⤺ during the call.

Phone menu

1 Press 📞 to display the phone menu.

Menu Item	Description
A.ANSR [ON], [OFF]	Select [ON] to answer an incoming call automatically.
R.TONE [ON], [OFF]	Select [ON] if the ring tone does not come out from the car speakers. Depending on the connected phone, this function may not work.
BLUETOOTH:SET	You can adjust various settings for Bluetooth connections. For details on Bluetooth settings, see page 10.

Bluetooth audio

🔄 **Important**

- Depending on the Bluetooth audio player connected to this unit, the available operations will be limited to the following two levels:
  – A2DP (Advanced Audio Distribution Profile) can only play back songs on your audio player.
  – AVRCP (Audio/Video Remote Control Profile) can perform functions such as playback, pause, select song, etc.
- The sound of the Bluetooth audio player will be muted when the phone is in use.
- When the Bluetooth audio player is in use, you cannot connect to a Bluetooth telephone automatically.
- Depending on the type of Bluetooth audio player you have connected to this unit, operation and information displayed may vary based on availability and functionality.

1 Make a Bluetooth connection with the Bluetooth audio player.

2 Press SRC/OFF to select [BLUETOOTH AUDIO] as the source.
Playback starts automatically.

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Basic operations

You can make various adjustments in the FUNCTION settings (page 12).

Purpose	Operation
Fast forward or reverse	Press and hold ◄◄ or ►►.
Select a track	Press ◄◄ or ►►.
Repeat play*	Press **6**/↩.
Random play*	Press **5**/✕✕.
Pause/resume playback	Press **4**/►/❚❚.
Search for a file from a list*	**1** Press and hold **BASS** to display a list. **2** Turn the **M.C.** dial to select the desired folder name, then press to confirm. **3** Turn the **M.C.** dial to select the desired file, then press to confirm. Playback starts.

* Depending on the connected device, these operations may not be available.

Settings

You can adjust various settings in the main menu.

1 Press the M.C. dial to display the main menu.

2 Turn the M.C. dial to select one of the categories below, then press to confirm.
- FUNCTION settings (page 12)
- AUDIO settings (page 13)
- SYSTEM settings (page 14)

3 Turn the M.C. dial to select the options, then press to confirm.

FUNCTION settings

The menu items vary according to the source.

Menu Item	Description
BSM `RADIO`	
	Store the six strongest stations on the number buttons (**1**/⋀ to **6**/↩) automatically.

Menu Item	Description
LOCAL RADIO	
FM: [OFF], [LV1], [LV2], [LV3], [LV4] **MW/LW:** [OFF], [LV1], [LV2]	Restrict the tuning station according to the signal strength.
SEEK RADIO	
[MAN], [PCH]	Assign ◄◄ or ►►◄ buttons to seek the stations one by one (manual tuning) or select a station from the preset channels.
PLAY BLUETOOTH AUDIO	
	Start playback.
STOP BLUETOOTH AUDIO	
	Stop playback.

AUDIO settings

Menu Item	Description
FADER*1	
	Adjust the front and rear speaker balance.
BALANCE	
	Adjust the left and right speaker balance.
EQ SETTING	
[SUPER BASS], [POWERFUL], [DYNAMIC], [NATURAL], [VOCAL], [VIVID], [FLAT], [CUSTOM1], [CUSTOM2]	Select the equalizer setting.
Select an equalizer band and level for further customizing. **Equalizer band:** [80HZ], [250HZ], [800HZ], [2.5kHZ], [8kHZ] **Equalizer level:** [+6] to [–6]	
LOUDNESS	
[OFF], [LOW], [MID], [HI]	Compensate for clear sound at low volume.
SUB.W*2	
[NOR], [REV], [OFF]	Select the subwoofer phase.

English

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Menu Item	Description
SUB.W CTRL*2*3	
Cut-off frequency: [50HZ], [63HZ], [80HZ], [100HZ], [125HZ], [160HZ], [200HZ] **Output level:** [–24] to [+6] **Slope level:** [–12], [–24]	Only frequencies lower than those in the selected range are output from the subwoofer.
BASS BOOST	
[0] to [+6]	Select the bass boost level.
HPF SETTING	
Cut-off frequency: [OFF], [50HZ], [63HZ], [80HZ], [100HZ], [125HZ], [160HZ], [200HZ] **Slope level:** [–12], [–24]	Only frequencies higher than the high-pass filter (HPF) cutoff are output from the speakers.
SLA	
[+4] to [–4]	Adjust the volume level for each source except RADIO.

*1 Not available when [SUB.W/SUB.W] is selected in [SP-P/O MODE] in the INITIAL settings (page 6).
*2 Not available when [REAR/REAR] is selected in [SP-P/O MODE] in the INITIAL settings (page 6).
*3 Not available when [OFF] is selected in [SUB.W].

SYSTEM settings

You can also access to these menus when the unit is turned off.

Menu Item	Description
LANGUAGE	
[ENG](English), [PYC](Russian), [FRA](French), [TUR](Turkish)	Select the language to display.
CLOCK SET	
	Set the clock (page 5).
12H/24H	
[12H], [24H]	Select the time notation.
SCROLL SET	
[ONCE], [LOOP], [OFF]	Select the auto text scroll setting for text information. [ONCE] is to scroll text information only once.

English

Menu Item	Description
BLUETOOTH	
[ON], [OFF]	Set to [ON] when using the Bluetooth audio player connected to the unit.
BLUETOOTH:CLR	
[YES], [NO]	Clear the Bluetooth device data (device information, PIN code) stored in the unit. [CLEARED] appears when data is successfully deleted.
BLUETOOTH:VER	
	Displays the system version of the Bluetooth module.
USB AUTO	
[ON], [OFF]	Select [ON] to automatically switch to [USB] source when a USB device/Android is connected to the unit. Select [OFF] when a USB device/Android is being connected to the unit just for charging.

English

Additional Information

Troubleshooting

The display automatically returns to the normal display.
→ No operations have been made for about 30 seconds.
– Perform an operation.

The repeat play range changes unexpectedly.
→ Depending on the repeat play range, the selected range may change when another folder or track is being selected or during fast forwarding/reversing.
– Select the repeat play range again.

A subfolder is not played back.
→ Subfolders cannot be played when [FLD] (folder repeat) is selected.
– Select another repeat play range.

The sound is intermittent.
→ You are using a device, such as a cellular phone, that may cause audible interference.
– Move electrical devices that may be causing the interference away from the unit.

The sound from the Bluetooth audio source is not played back.
→ There is a call in progress on a Bluetooth-connected cellular phone.
– The sound will be played back when the call is terminated.
→ A Bluetooth-connected cellular phone is currently being operated.
– Stop using the cellular phone.
→ The connection between the unit and the cellular phone is not established correctly after a call made by a Bluetooth-connected cellular phone.

– Make a Bluetooth connection between the unit and the cellular phone again.

English

Error messages

Common

AMP ERROR
→ This unit fails to operate or the speaker connection is incorrect.
→ The protective circuit is activated.
– Check the speaker connection.
– Turn the ignition switch OFF and back to ON again. If the message remains, contact your dealer or an authorized Pioneer Service Station for assistance.

NO XXXX (NO TITLE, for example)
→ There is no embedded text information.
– Switch the display or play another track/file.

USB device

FORMAT READ
→ Sometimes there is a delay between the start of playback and when you start to hear any sound.
– Wait until the message disappears and you hear sound.

NO AUDIO
→ There are no songs.
– Transfer the audio files to the USB device and connect.
→ The connected USB device has security enabled.
– Follow the USB device instructions to disable the security.

SKIPPED
→ The connected USB device contains DRM protected files.
  – The protected files are skipped.

PROTECT
→ All the files on the connected USB device are embedded with DRM.
  – Replace the USB device.

N/A USB
→ The connected USB device is not supported by this unit.
  – Disconnect your device and replace it with a compatible USB device.

HUB ERROR
→ The USB device connected via a USB hub is not supported by this unit.
  – Connect the USB device directly to this unit using a USB cable.

CHECK USB
→ The USB connector or USB cable has short-circuited.
  – Check that the USB connector or USB cable is not caught in something or damaged.
→ The connected USB device consumes more than maximum allowable current.
  – Disconnect the USB device and do not use it. Turn the ignition switch OFF and back to ACC or ON. Connect only compliant USB devices.

ERROR-19
→ Communication failed.
  – Perform one of the following operations, then return to the USB source.
    • Turn the ignition switch OFF and back to ON.
    • Disconnect the USB device.
    • Change to a different source.

ERROR-23
→ USB device was not formatted properly.

– Format the USB device with FAT12, FAT16 or FAT32.

Bluetooth device

ERROR-10
→ The power failed for the Bluetooth module of the unit.
  – Turn the ignition switch OFF and back to ACC or ON.

Handling guidelines

USB storage device

- Connections via USB hubs are not supported.
- Firmly secure the USB storage device before driving. Do not let the USB storage device fall onto the floor, where it may become jammed under the brake or accelerator pedal.
- Depending on the USB storage device, the following problems may occur.
  – Operations may vary.
  – The storage device may not be recognized.
  – Files may not be played back properly.
  – The device may cause audible interference when you are listening to the radio.

Compressed audio compatibility

- Only the first 32 characters can be displayed as a file name (including the file extension) or a folder name.
- The unit may not work properly depending on the application used to encode WMA files.
- There may be a slight delay at the start of the playback of audio files embedded with image data, or audio files stored on a

USB device with numerous folder hierarchies.

- Russian text to be displayed on this unit should be encoded in one of the following character sets:
  – Unicode (UTF-8, UTF-16)
  – A character set other than Unicode that is used in a Windows environment and is set to Russian in the multi-language setting

⚠ CAUTION

- Pioneer cannot guarantee compatibility with all USB mass storage devices, and assumes no responsibility for any loss of data on media players, smartphones, or other devices while using this product.
- Do not leave a USB storage device in any place that is subject to high temperatures.

WMA files

File extension	.wma
Bit rate	48 kbps to 320 kbps (CBR), 48 kbps to 384 kbps (VBR)
Sampling frequency	32 kHz, 44.1 kHz, 48 kHz
Windows Media™ Audio Professional, Lossless, Voice/DRM Stream/Stream with video	Not compatible

MP3 files

File extension	.mp3
Bit rate	CBR (8 kbps to 320 kbps)/VBR
Sampling frequency	16 kHz to 48 kHz (32 kHz, 44.1 kHz, 48 kHz for emphasis)
Compatible ID3 tag version	2.2, 2.3, 2.4
M3u playlist	Not compatible
MP3i (MP3 interactive), mp3 PRO	Not compatible

WAV files

File extension	.wav
Quantization bits	8 and 16 (LPCM)
Sampling frequency	16 kHz to 48 kHz (LPCM)

FLAC files

- FLAC files may not be playable, depending on the encoder.

File extension	.flac
Sampling frequency	8/11.025/12/16/22.05/24/32/44.1/48 kHz
Quantization bit rate	16 bit
Channel mode	1/2 ch

English

USB device

- There may be a slight delay when starting playback of audio files on a USB storage device with numerous folder hierarchies.

| Playable folder hierarchy	Up to eight tiers (A practical hierarchy is less than two tiers.)
Playable folders	Up to 500
Playable files	Up to 15 000
Playback of copyright-protected files	Not compatible
Partitioned USB device	Only the first partition can be played.

Sequence of audio files

The user cannot assign folder numbers and specify playback sequences with this unit. Sequence of audio file depends on the connected device.
Note that the hidden files in a USB device cannot be played back.

Example of a hierarchy
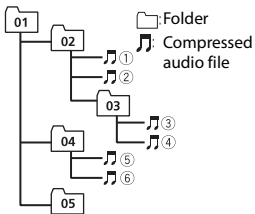
Level 1   Level 2   Level 3   Level 4

01 to 05: Folder number
① to ⑥: Playback sequence

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FLAC

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Android

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Specifications

General

Power source:
14.4 V DC (allowable voltage range 10.8 V to 15.1 V DC)
Grounding system: Negative type
Maximum current consumption:
10.0 A
Dimensions (W × H × D):
DIN
Chassis: 178 mm × 50 mm × 97 mm
Nose: 188 mm × 58 mm × 17 mm D
Chassis: 178 mm × 50 mm × 97 mm
Nose: 170 mm × 46 mm × 17 mm
Weight: 0.5 kg

Audio

Maximum power output:
50 W × 4
Continuous power output:
22 W × 4 (50 Hz to 15 000 Hz, 5 % THD, 4 Ω load, both channels driven)
Load impedance:
4 Ω (4 Ω to 8 Ω allowable)
Preout maximum output level: 2.0 V

Loudness contour:
+10 dB (100 Hz), +6.5 dB (10 kHz)
(volume: −30 dB)
Equalizer (5-Band Graphic Equalizer):
Frequency:
80 Hz/250 Hz/800 Hz/2.5 kHz/8 kHz
Equalization range:
±12 dB (2 dB step)
High pass filter:
Frequency: OFF/50 Hz/63 Hz/80 Hz/100 Hz/125 Hz/160 Hz/200 Hz
Slope: −12 dB/oct, −24 dB/oct
Bass boost:
Level: 0 dB to +12 dB
Subwoofer (mono):
Frequency: 50 Hz/63 Hz/80 Hz/100 Hz/125 Hz/160 Hz/200 Hz
Slope: −12 dB/oct, −24 dB/oct
Gain: +6 dB to −24 dB
Phase: Normal/Reverse

USB

USB standard specification:
USB 2.0 full speed
Maximum current supply: 0.5 A
USB Protocol:
MSC (Mass Storage Class)
AOA (Android Open Accessory) 2.0
File system: FAT12, FAT16, FAT32
MP3 decoding format:
MPEG-1 & 2 Audio Layer 3
WMA decoding format:
Ver. 7, 8, 9, 9.1, 9.2 (2 ch audio)
FLAC decoding format: v1.3.0 (Free Lossless Audio Codec)
WAV signal format: Linear PCM (Non-compressed)

FM tuner

Frequency range: 87.5 MHz to 108.0 MHz
Usable sensitivity: 11 dBf (1.0 μV/75 Ω, mono, S/N: 30 dB)
Signal-to-noise ratio: 65 dB (IEC-A network)

MW tuner

Frequency range: 531 kHz to 1 602 kHz

Usable sensitivity: 25 dB μV (S/N: 20 dB)
Signal-to-noise ratio:
    58 dB (IEC-A network)

LW tuner

Frequency range: 153 kHz to 281 kHz
Usable sensitivity: 28 dB μV (S/N: 20 dB)
Signal-to-noise ratio:
    58 dB (IEC-A network)

Bluetooth

Version: Bluetooth 5.0 + EDR certified
Output power:
    +4 dBm Maximum (Power class 2)
Frequency band(s):
    2 400 MHz to 2 483.5 MHz
Bluetooth profiles:
    GAP (Generic Access Profile)
    SDAP (Service Discovery Application Profile)
    HFP (Hands Free Profile) 1.7
    A2DP (Advanced Audio Distribution Profile)
    AVRCP (Audio/Video Remote Control Profile) 1.6
    SPP (Serial Port Profile) 1.2

NOTE
Specifications and the design are subject to modifications without notice.

https://www.pioneer-car.eu/eur/

<OPM_MVH230BTEW_EG_A> EW