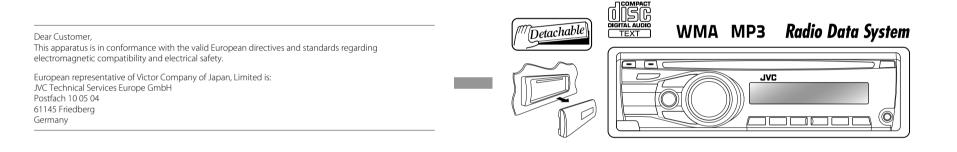
Having TROUBLE with operation? Please reset your unit Refer to page of How to reset your unit





KD-R223

CD RECEIVER



For canceling the display demonstration, see page 4.

For installation and connections, refer to the separate manual.

INSTRUCTIONS



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0211DTSMDTJEIN



Thank you for purchasing a JVC product.

Please read all instructions carefully before operation, to ensure your complete understanding and to obtain the best possible performance from the unit.

IMPORTANT FOR LASER PRODUCTS

1.CLASS 1 LASER PRODUCT

- 2. CAUTION: Do not open the top cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.
- 3. CAUTION: Visible and/or invisible class 1M laser radiation when open. Do not view directly with optical instruments.
- 4. REPRODUCTION OF LABEL: CAUTION LABEL, PLACED OUTSIDE THE UNIT.

CAUTION	ATTENTION	AVISO	VARNING	注意	CAUTION
	RAYONNEMENT LASER		SYNLIG OCH/ELLER	ここを聞くと可視	VISIBLE AND/OR
	VISIBLE ET/OU INVISIBLE DE CLASSE		OSYNLIG LASERSTRÅLNING.	成ひ/または个明視 のクラス1M	INVISIBLE CLASS II LASER RADIATION
WHEN OPEN. DO NOT	1M UNE FOIS OUVERT.		KLASS 1M. NÅR DENNA	レーザー放射が	WHEN OPEN.
VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.			BETRAKTA EJ		do not stare Into Beam
		CON INSTRUMENTAL	STRÅLEN MED OPTISKA	見ないでください。	FDA 21 CFR
(ENG)	optiques. (FRA)	óptico. (ESP)	instrument. (Swe)	(JPN)	(ENG)





Products

Information for Users on Disposal of Old Equipment and Batteries

[European Union only]

These symbols indicate that the product and the battery with this symbol should not be disposed as general household waste at its end-of-life.

If you wish to dispose of this product and the battery, please do so in accordance with applicable national legislation or other rules in your country and municipality.

By disposing of this product correctly, you will help to conserve natural resources and will help prevent potential negative effects on the environment and human health.

Notice:

The sign Pb below the symbol for batteries indicates that this battery contains lead.

WARNING:

Stop the car before operating the unit.

Caution:

Adjust the volume so that you can hear sounds outside the car. Driving with the volume too high may cause an accident.

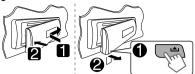
Caution on volume setting:

Discs produce very little noise compared with other sources. Lower the volume before playing a disc to avoid damaging the speakers by the sudden increase of the output level.

Caution for DualDisc playback:

The Non-DVD side of a "DualDisc" does not comply with the "Compact Disc Digital Audio" standard. Therefore, the use of Non-DVD side of a DualDisc on this product may not be recommended.

How to attach/detach the control panel



How to reset your unit



Your preset adjustments will also be erased.

How to forcibly eject a disc



- Be careful not to drop the disc when it ejects.
- If this does not work, reset your unit.

Condensation : When the car is airconditioned, moisture may collect on the laser lens. This may cause disc read errors. In this case, remove the disc and wait for the moisture to evaporate.

Temperature inside the car: If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.

CONTENTS

- 3 How to attach/detach the control panel
- 3 How to reset your unit
- 3 How to forcibly eject a disc
- 3 About discs
- 4 Canceling the display demonstration
- 4 Setting the clock
- 5 Basic operations
 - 5 Maintenance
- 6 Listening to the radio
- 8 Listening to a disc
- 9 Listening to the other external components
- 10 Selecting a preset sound mode
- 10 Menu operations
- 12 Troubleshooting
- 13 Specifications

About discs

This unit can only play the CDs with:



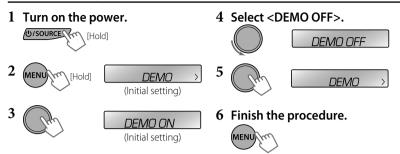
Discs that cannot be used:

- Discs that are not round.
- Discs with coloring on the recording surface or discs that are dirty.
- You cannot play a Recordable/ReWritable disc that has not been finalized. (For the finalization process refer to your disc writing software, and your disc recorder instruction manual.)
- 8 cm CD cannot be used. Attempt to insert using an adapter can cause malfunction.

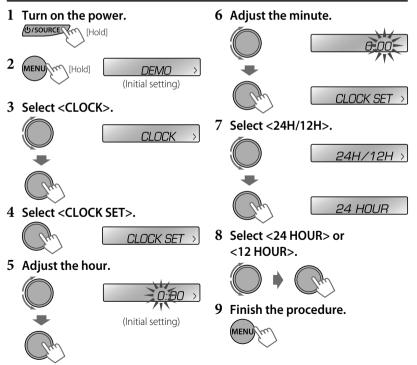
Handling discs:

- Do not touch the recording surface of the disc.
- Do not stick tape etc. on the disc, or use a disc with tape stuck on it.
- Do not use any accessories for the disc.
- Clean from the center of the disc and move outward.
- Clean the disc with a dry silicon or soft cloth. Do not use any solvents.
- When removing discs from this unit, pull them out horizontally.
- Remove the rims from the center hole and disc edge before inserting a disc.

Canceling the display demonstration



Setting the clock



Basic operations

Loadir	ng slot Con	trol dial D	visplay window	Ejects the disc
EISOURE EQ Here bel WENU T/P BACK			188888888	

Detaches the panel

AUX (auxiliary) input jack

When you press or hold the following button(s)...

Button	General operation		
• Turns on/off [Hold]. • Selects the available sources (if the power is turned on). "CD" is selectable only when a disc is loaded.			
Control dial (turn)	Adjusts the volume level. Selects items.		
Control dial (press) • Mutes the sound while listening to a source. If the source is "CD," playbac pauses. Press the control dial again to cancel muting or resume playback. • Confirms selection. • Confirms selection. • Selects the sound mode. • Enters tone level adjustment directly [Hold]. (page 10)			
		Number buttons (1 – 6)	 Selects preset stations. Stores the current station into the selected number button [Hold]. Press number button 1 (RPT) or 2 (RND) to enter REPEAT/RANDOM setting directly. (page 8)
BRIGHTNESS	Enters <brightness> menu directly. (page 11)</brightness>		
 Activates/deactivates TA Standby Reception. Enters PTY Searching mode [Hold]. Returns to the previous menu. Exit from the menu [Hold]. 			
Changes the display information. Scrolls the display information [Hold].			

Maintenance

Cleaning the unit

Wipe off the dirt on the panel with a dry silicon or soft cloth. Failure to observe this precaution may result in damage to the unit.

Cleaning the connector

Wipe off dirt on the connector of the unit and panel. Use a cotton swab or cloth.

Listening to the radio





⇒ "FM" or "AM"

- [Press] Searches for stations automatically.
- [Hold] Searches for stations manually. "M" flashes, then press the button repeatedly.

"ST" lights up when receiving an FM stereo broadcast with sufficient signal strength.

Improving the FM reception





CTUNER> ⇒ <MONO> ⇒ <MONO ON> Reception improves, but stereo effect will be lost

To restore the stereo effect, repeat the same procedure to select <MONO OFF>.

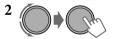
Automatic presetting (FM)—

SSM (Strong-station Sequential Memory)

You can preset up to 18 stations for FM.

While listening to a station...

1 [Hold]



 \Rightarrow <TUNER> \Rightarrow <SSM> \Rightarrow <SSM 01 - 06 / 07 - 12 / 13 - 18> "SSM" flashes and local stations with the strongest signal are searched and stored automatically.

To preset another 6 stations, repeat the above procedure by selecting one of the other SSM setting ranges.

Changing the display information (for non-Radio Data System station)



Manual presetting (FM/AM)

You can preset up to 18 stations for FM and 6 stations for AM

⇒ Tune in to a station you want to preset.



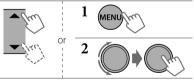
"PRESET MODE" flashes.



⇒ Selects preset number. Preset number flashes and "MEMORY" appears.

• Pressing and holding the number buttons (1-6) can also store the current station to the selected number buttons (1 - 6).

Selecting a preset station



 Pressing the number buttons (1 – 6) can also select the preset stations (1 - 6).

The following features are available only for FM Radio Data System stations.

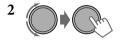
Searching for your favourite FM Radio Data System

programme—PTY Search

You can tune in to a station broadcasting your favourite programme by searching for a PTY code.

1 T/P BACK [Hold]

The last selected PTY code appears.



⇒ Select one of your favourite programme types or a PTY code, and start searching.

If there is a station broadcasting a programme of the same PTY code as you have selected, that station is tuned in.

PTY codes: NEWS, AFFAIRS, INFO, SPORT, EDUCATE, DRAMA, CULTURE, SCIENCE, VARIED, POP M (music), ROCK M (music), EASY M (music), LIGHT M (music), CLASSICS, OTHER M (music), WEATHER, FINANCE, CHILDREN, SOCIAL, RELIGION, PHONE IN, TRAVEL, LEISURE, JAZZ, COUNTRY, NATION M (music), OLDIES, FOLK M (music), DOCUMENT

TA Standby Reception

TA Standby Reception allows the unit to switch temporarily to Traffic Announcement (TA) from any source other than AM.

 If the volume is adjusted during reception of traffic announcement, the adjusted volume is memorized automatically. It will be applied the next time Traffic Announcement function is turned on.

To activate TA Standby Reception



If the TP indicator lights up, TA Standby Reception is activated. If the TP indicator flashes, TA Standby Reception is not yet activated.

- To activate the reception, tune in to another station providing Radio Data System signals required for TA Standby Reception.
- To deactivate the reception, press **T/P BACK** again.

NEWS Standby Reception

NEWS Standby Reception allows the unit to switch temporarily to your NEWS programme from any source other than AM.

To activate NEWS Standby Reception, see <NEWS-STBY>. (page 11)

Tracing the same programme— Network-Tracking Reception

When driving in an area where FM reception is not sufficient enough, this unit automatically tunes in to another FM Radio Data System station of the same network, possibly broadcasting the same programme with stronger signals.

To change the Network-Tracking Reception setting, see <AF-REG>. (page 11)

Automatic station selection— Programme Search

Usually when you select a preset number, the station preset in that number is tuned in. If the signals from the FM Radio Data System preset station are not sufficient for good reception, this unit, using the AF data, tunes in to another frequency possibly broadcasting the same programme as the original preset station is broadcasting.

To activate Programme Search, see <P-SEARCH>. (page 11)

Changing the display information



Station name (PS) \rightarrow Station Frequency \rightarrow Programme type (PTY) \rightarrow Clock \rightarrow (back to the beginning)

Listening to a disc





⇒ "(D"



Playback starts automatically.

All tracks will be played repeatedly until you change the source or eject the disc.

Stopping playback and ejecting the disc



If the ejected disc is not removed within 15 seconds, it is automatically inserted into the loading slot.

Selecting a track/folder



Selects folder of the MP3/WMA

[Press]Selects track. [Hold] Fast-forwards or reverses the track.

Changing the display information



Disc title/Album name/performer (folder name)* \rightarrow Track title (file name)* \rightarrow Current track number with the elapsed playing time \rightarrow Current track number with the clock time \rightarrow (back to the beginning)

* "NO NAME" appears for conventional CDs or if not recorded.

Selecting a track/folder from the list



- If the MP3/WMA disc contains many tracks, you can fast search ($\pm 10, \pm 100$) through the disc by turning the control dial quickly.
- To return to the previous menu, press **T/P BACK**.

Selecting the playback modes

You can use only one of the following playback modes at a time.



• Pressing number button **1 (RPT)** or **2 (RND)** can enter REPEAT/RANDOM setting directly. Then, perform step **3**.



⇒ "REPEAT" 👄 "RANDOM"

3

REPEAT C TRACK RPT : Repeats current track FOLDER RPT : Repeats current folder

RANDOM 🔀

FOLDER RM	ND : Randomly plays all tracks
	of current folder, then
	tracks of next folders
ALL RND	: Randomly plays all tracks

To cancel repeat play or random play, select "RPT OFF" or "RND OFF."

Listening to the other external components

You can connect an external component to the AUX (auxiliary) input jack on the control panel.

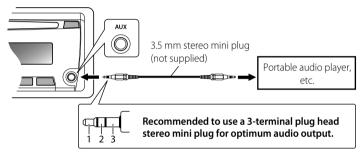
Preparation:

Make sure <ON> is selected for the <SRC SELECT> \rightarrow <F-AUX> setting. (page 12)

• For details, refer also to the instructions supplied with the external components.



Connecting an external component to the AUX input jack



Additional information

- This unit can play back multi-session discs; however, unclosed sessions will be skipped while playing.
- This unit can play back files with the extension code <.mp3> or <.wma> (regardless of the letter case—upper/lower).
- This unit can play back the files meeting the conditions below:
 - Bit rate: MP3: 8 kbps 320 kbps
 WMA: 32 kbps 192 kbps
 - Sampling frequency:
 MP3: 48 kHz, 44.1 kHz, 32 kHz, 24 kHz, 22.05 kHz, 16 kHz, 12 kHz, 11.025 kHz, 8 kHz
 WMA: 48 kHz, 44.1 kHz, 32 kHz, 22.05 kHz
- This unit can show WMA Tag and ID3 Tag Version 1.0/1.1/2.2/2.3/2.4 (for MP3).
- The search function works but search speed is not constant.

- The maximum number of characters for file/folder names vary depending on the disc format used (includes 4 extension characters—<.mp3> or <.wma>).
 ISO 9660 Level 1 and 2, Romeo: 64 characters, Joliet: 32 characters, Windows long file name: 64 characters
- This unit can play back files recorded in VBR (variable bit rate). (Files recorded in VBR have a discrepancy in elapsed time indication.)
- This unit cannot play back the following files:
- MP3 files: encoded in MP3i and MP3 PRO format; an inappropriate format; layer 1/2.
- WMA files: encoded in lossless, professional, and voice format; not based upon Windows Media[®] Audio; copy-protected with DRM.
- Files which have data such as AIFF, ATRAC3, etc.

Selecting a preset sound mode

You can select a preset sound mode suitable for the music genre.



FLAT \rightarrow NATURAL \rightarrow DYNAMIC \rightarrow VOCAL BOOST \rightarrow BASS BOOST \rightarrow USER \rightarrow (back to the beginning)

While listening, you can adjust the tone level of the selected sound mode.





Adjust the level: BASS/ MID/ TRE: -06 to +06 The sound mode is automatically stored and changed to "USER."

Storing your own sound mode

You can store your own adjustments in memory.

1 [Hold]



⇔ <PRO EQ> ⇔ <BASS/ MIDDLE/ TREBLE>



Adjust the sound elements of the selected tone.

BASS [Initial: 80 Hz, 00, Q1.0]				
Frequency:	60/ 80/ 100/ 200 Hz			
Level:	-06 to +06			
Q:	Q1.0/ 1.25/ 1.5/ 2.0			
MIDDLE [Init	ial: 1.0 kHz, 00, Q1.25]			
Frequency:	0.5/ 1.0/ 1.5/ 2.5 kHz			
Level:	-06 to +06			
Q:	Q0.75/ 1.0/ 1.25			
TREBLE [Initia	al: 10.0 kHz, 00, Q FIX]			
Frequency:	10.0/ 12.5/ 15.0/ 17.5 kHz			
Level:	-06 to +06			
Q:	Q FIX			
Deve e et et e e	2 and 2 to adjust atlant			

4 Repeat steps 2 and 3 to adjust other tones. The adjustments made is automatically stored and changed to "USER."

Menu operations

1 [Hold]

If no operation is done for about 60 seconds, the operation will be canceled.



- Repeat step **2** if necessary.
 - To return to the previous menu, press **T/P BACK**.
 - To exit from the menu, press
 MENU.

Menu item Selectable setting, [Initial: Underli		Selectable setting, [Initial: <u>Underlined]</u>
		<u>ON</u> : Display demonstration will be activated automatically if no operation is done for about 20 seconds. / OFF : Cancels. (page 4)
	CLOCK SET	For settings, see page 4.
24H/12H For settings, see page 4.		For settings, see page 4.
G	CLOCK ADJ*1	AUTO : The built-in clock is automatically adjusted using the CT (clock time) data in the Radio Data System signal. / OFF : Cancels.

*1 Takes effect only when CT (clock time) data is received.

	Menu item	Selectable setting, [Initial: Underlined]	
DIMMER	DIMMER SET	AUTO : Changes the display and button illumination between the Day/Night adjustments in <brightness> setting when you turn off/on the car headlights *2. / ON: Selects the Night adjustments in <brightness> setting for the display and button illumination. / OFF: Selects the Day adjustments in <brightness> setting for the display and button illumination.</brightness></brightness></brightness>	
	BRIGHTNESS	DAY [25] / NIGHT [11]: Selects the display and button illumination brightness level [00 — 31] for day and night.	
DISPLAY	SCROLL*3	ONCE : Scrolls the displayed information once. / AUTO : Repeats scrolling (at 5-second intervals). / OFF : Cancels. (Pressing DISP for more than one second can scroll the display regardless of the setting.)	
⊡	TAG DISPLAY	ON : Shows the Tag information while playing MP3/WMA tracks. / OFF : Cancels.	
PRO E	Q	See page 10.	
	FADER*4	R06 — F06 [<u>00</u>] : Adjusts the front and rear speaker output balance.	
	BALANCE	LO6 — RO6 [00] : Adjusts the left and right speaker output balance.	
AUDIO	LOUD	ON : Boost low and high frequencies to produce a well-balanced sound at a low volume level. / OFF : Cancels.	
	VOL ADJUST	-05 — +05 [00]: Presets the volume adjustment level of each source (except "FM"), compared to the FM volume level. The volume level will automatically increase or decrease when you change the source. Before adjustment, select the source you want to adjust. ("VOL ADJ FIX" appears on the display if "FM" is selected as the source.	
	HPF	ON : Activates the High Pass Filter. Low frequency signals are cut off from the front/ rear speakers. / OFF : Deactivates (all signals are sent to the front/rear speakers).	
	BEEP	ON / OFF : Activates or deactivates the keypress tone.	
	AMP GAIN*5	LOW POWER : VOLUME 00 — VOLUME 30 (Selects if the maximum power of each speaker is less than 50 W to prevent damaging the speakers.) / HIGH POWER : VOLUME 00 — VOLUME 50	
	SSM *6	See page 6.	
TUNER	AF-REG*7	AF ON : When the currently received signals become weak, the unit switches to another station (the programme may differ from the one currently received). (The AF indicator lights up.) / AF-REG ON : When the currently received signals become weak, the unit switches to another station broadcasting the same programme. (The AF and REG indicators light up.) / OFF : Cancels.	
	NEWS-STBY *6, *7	NEWS ON / <u>NEWS OFF</u> : Activates or deactivates NEWS Standby Reception.	
	P-SEARCH*7	SEARCH ON / SEARCH OFF : Activates Programme Search (if AF-REG is turn on) or deactivates.	
	MONO *6	See page 6.	

*2 The illumination control lead connection is required. (See "Installation/Connection Manual.") This setting may not work correctly on some vehicles (particularly on those having a control dial for dimming). In this case, change the setting to any other than <DIMMER AUTO>.

- *³ Some characters or symbols will not be shown correctly (or will be blanked) on the display.
- ^{*4} If you are using a two-speaker system, set the fader level to "00."
 ^{*5} The volume level automatically changes to "VOLUME 30" if you change to <LOW POWER> with the volume level set higher than "VOLUME 30."
- *6 Displayed only when the source is "FM."
- *7 Only for FM Radio Data System stations.

Menu item Selectable setting, [Initial: Underlined		Selectable setting, [Initial: Underlined]	
stations. (Stereo effect may be lost.) / WIDE : Subject to interference noises		AUTO: Increases the tuner selectivity to reduce interference noises between adjacent stations. (Stereo effect may be lost.) / WIDE: Subject to interference noises from adjacent stations, but sound quality will not be degraded and the stereo effect will remain.	
ъ	AM*8	ON / OFF : Enable or disable "AM" in source selection.	
SELEC	F-AUX*8	⁴⁸ ON / OFF : Enable or disable "F-AUX" in source selection.	

*8 Displayed only when any source other than "AM/ F-AUX" is selected separately.

Troubleshooting

	Symptom	Remedy/Cause
	Sound cannot be heard from the speakers.	Adjust the volume to the optimum level. Make sure the unit is not muted/paused. (page 5) Check the cords and connections.
General	"MISWIRING CHK WIRING THEN RESET UNIT" / "WARNING CHK WIRING THEN RESET UNIT" appears on the display and no operations can be done.	Check to be sure the terminals of the speaker leads are covered with insulating tape properly, then reset the unit. (page 3) If the message does not disappear, consult your JVC IN-CAR ENTERTAINMENT dealer or a company supplying kits.
0	The unit does not work at all.	Reset the unit. (page 3)
	"F-AUX" cannot be selected.	Check the $<$ SRC SELECT $> \rightarrow <$ F-AUX $>$ setting.
	Sound is sometimes interrupted while listening to an external component connected to the auxiliary input jack.	Check to be sure the recommended stereo mini plug is used for connection. (page 9)
Σ	SSM automatic presetting does not work.	Store stations manually.
FM/AM	Static noise while listening to the radio.	Connect the aerial firmly.
ΕV	"AM" cannot be selected.	Check the $<$ SRC SELECT $> \rightarrow <$ AM $>$ setting.
	Disc cannot be played back.	Insert the disc correctly.
	CD-R/CD-RW cannot be played back and track cannot be skipped.	Insert a finalized CD-R/CD-RW (finalize with the component which you used for recording).
Disc playback	Disc sound is sometimes interrupted.	Stop playback while driving on rough roads. / Change the disc. / Check the cords and connections.
cpl	"NO DISC" appears on the display.	Insert a playable disc into the loading slot.
Dis	"PLEASE" and "EJECT" appear alternately on the display.	Press \blacktriangle , then insert a disc correctly.
	"IN DISC" appears on the display.	The disc cannot be ejected properly. Make sure nothing is blocking the loading slot.
MP3/WMA playback	Disc cannot be played back.	 Use a disc with MP3/WMA tracks recorded in a format compliant with ISO 9660 Level 1, Level 2, Romeo, or Joliet. Add the extension code <.mp3> or <.wma> to the file names.
Ž	Noise is generated.	Skip to another track or change the disc.
MP3/	"READING" keeps flashing on the display.	A longer readout time is required. Do not use too many hierarchical levels and folders.

Symptom		Remedy/Cause
MP3/WMA playback	Tracks do not play back in the order you have intended them to play.	The playback order is determined when the files are recorded.
	The elapsed playing time is not correct.	This sometimes occurs during playback. This is caused by how the tracks are recorded on the disc.
∑ d	The correct characters are not displayed (e.g. album name).	This unit can only display letters (upper case), numbers, and a limited number of symbols.

Specifications

AUDIO AMPLIFIER SECTION

Maximum Power Output :

Front/Rear: 50 W per channel

Continuous Power Output (RMS) :

Front/Rear : 20 W per channel into 4 Ω, 40 Hz to 20 000 Hz at no more than 1% total harmonic distortion.

Load Impedance : 4Ω (4Ω to 8Ω allowance) Frequency Response : 40 Hz to 20 000 Hz

Signal-to-Noise Ratio : 70 dB

Output Impedance : $\leq 600 \Omega$

Other Terminal : AUX (auxiliary) input jack, Aerial input

TUNER SECTION

Frequency Range : EM: 875 MHz to 1080 MHz AM · MW · 531 kHz to 1 611 kHz IW: 153 kHz to 279 kHz FM Tuner : Usable Sensitivity: 9.3 dBf (0.8 μV/75 Ω) 50 dB Quieting Sensitivity: 16.3 dBf (1.8 uV/75 Ω) Alternate Channel Selectivity (400 kHz) : 65 dB Frequency Response: 40 Hz to 15 000 Hz Stereo Separation: 40 dB MW Tuner : Sensitivity/Selectivity: 20 µV/40 dB LW Tuner : Sensitivity: 50 µV

CD PLAYER SECTION

Type : Compact disc player Signal Detection System : Non-contact optical pickup (semiconductor laser) Number of Channels : 2 channels (stereo) Frequency Response : 5 Hz to 20 000 Hz Signal-to-Noise Ratio : 98 dB Wow and Flutter : Less than measurable limit MP3 Decoding Format (MPEG1/2 Audio Layer 3) : Max. Bit Rate: 320 kbps WMA (Windows Media® Audio) Decoding Format : Max. Bit Rate: 192 kbps

GENERAL

Power Requirement : Operating Voltage : DC 14.4 V (11 V to 16 V allowance) Grounding System : Negative ground Allowable Operating Temperature : 0°C to +40°C Dimensions (W × H × D) : (approx.) –Installation Size : 182 mm × 52 mm × 158 mm –Panel Size : 188 mm × 59 mm × 9 mm Mass : 1.2 kg (excluding accessories)

Subject to change without notice.

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