BELT DRIVE CD PLAYER

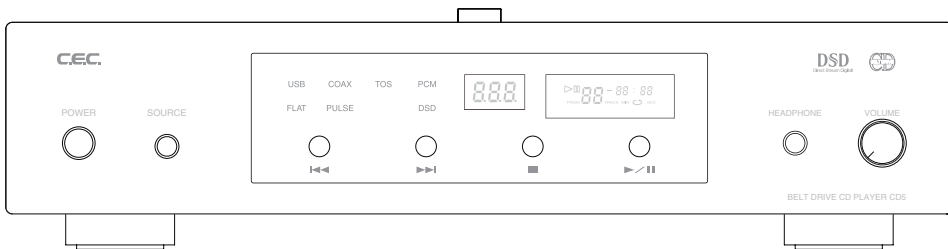## USB Sound System CD5

Owner's Manual
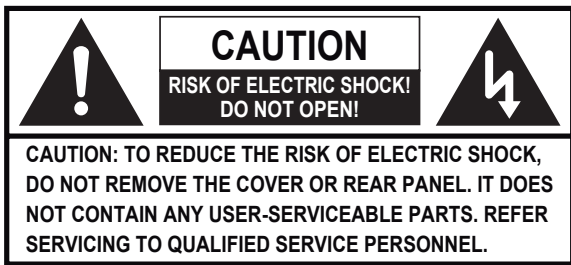
Thank you for purchasing a CD5.

Please read through and refer to this Owner's Manual to use your CD5 safely and adequately.

It is recommended to keep the packaging available for future transportation needs.

C.E.C.

Contents

Features

☐ CD5 is a CD player that uses CEC's proprietary belt-drive mechanism to minimize the vibration and electromagnetic noise from the spindle motor. High precision CD stabilizer which is inevitable to belt-drive system is easy-to-handle size, 7 cm in diameter. The combination between belt-drive mechanism and heavy stabilizer with big inertia contributes to high precision music reproduction.

☐ CEC's long history of belt-drive system achieved the new standard, where a user may replace the belt without consulting a specialist. You are now free from future step for belt replacement at your service center or dealer, and enjoy music without doubting about life time of a belt.

☐ The CD5 uses the ESS Hyperstream™ ES9018K2M DAC chip, which performs up to 32bit. Highly qualified signal after digital to analog conversion backed up by superior engineering and performance realizes delicate and accurate music reproduction. The CEC's original full-balanced circuit design achieves the high

Features - continued -

quality signal path keeping the sound quality very natural and clear.

☐ The CD5 is equipped with digital input stage. An additional SPDIF signal from outside reproduction devices and/or high-resolution music source like DSD files for reproduction on PC can be converted to analog signal. Headphone output enables listener to enjoy various music sources at high quality standard even without amplifier and speaker system.

Safety Certification

LASER SAFETY

This equipment employs a laser. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.

The laser radiation emitted from the equipment was classified as class 1 under operation condition and fault condition by IEC60825-1 Edition 3^{-2014} regulation. Potential skin hazard did not exist under operation condition and fault condition.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLITE
KLASS 1 LASERAPPARAT

Important Safety Instructions

CAUTION

RISK OF ELECTRIC SHOCK!
DO NOT OPEN!

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER OR REAR PANEL. IT DOES NOT CONTAIN ANY USER-SERVICEABLE PARTS. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to potential electric shock hazards within the product's enclosure.

The exclamation point within an equilateral triangle is intended to notify the user to the presence of important operating and maintenance (servicing) instructions in the accompanying documentation.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this appliance near water.
6) Clean only with a dry cloth.
7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8) Do not install this appliance near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9) (For USA, Canada:) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades, with one blade wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet. (For European Countries:) Do not defeat the safety purpose of the grounding-type plug. This plug has two poles and a third grounding hole. The third hole is provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect this appliance's power cord from being walked on or pinched, especially around the plugs, convenience receptacles, and where it exits from this appliance's casing.
11) Only use attachments/accessories specified by the manufacturer.
12) Only use this appliance with a cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the appliance. If using a cart, exercise caution when moving the cart/appliance combination to avoid injury from it tipping over.
13) Unplug this appliance during lightning storms or when leaving it unused for extended periods of time.
14) Refer all servicing to qualified service personnel. Servicing is required when this appliance itself, its power-supply cord, or plug has been damaged in any way, when liquids have been spilled onto this appliance, when foreign objects have fallen into this appliance, when this appliance has been exposed to rain or moisture, when this appliance does not operate normally, or when this appliance has been dropped.

CAUTION:
☐ Do not expose this appliance to drips or splashes.
☐ Do not place any objects filled with liquids, such as vases, on this appliance.
☐ Do not install this appliance in a confined space, such as within a bookcase or similar piece of furniture.
☐ Plug the ac power cord into an easily accessible ac wall outlet, so it can be quickly unplugged in case of emergency.
☐ Do not remove the protective housing with a screwdriver.
☐ Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
☐ If this appliance seems to be malfunctioning, contact a qualified service station. discontinue use of any malfuctioning unit.

For CANADA

AC power cord connection
Caution:
To prevent electric shock, match the blade width of the plug to the slot width. the plug must be fully inserted to the slot.

❶ Connecting Other Devices

Unplug the AC power cord from the outlet before connecting or disconnecting other devices. Exercise caution when handling the AC power cord. When disconnecting the AC cord from a socket, make sure you pull the plug, and not the cord itself.

❷ Turning Power On/Off

Your system components should be turned on/off in the following order to avoid generating noise from your speakers and damaging the speakers themselves or other devices:

☐ **Turning power on**: Turn on this appliance before turning on the DA converter or amplifier connected to this appliance.

☐ **Turning power off**: Turn off the amplifier before turning off this appliance.

❸ Optical Semiconductor Laser Pickup

The optical pickup is one of the important components that determine the performance of a CD transport. Never touch the optical lens of the pickup with your fingers, etc. Always place the CD Stabilizer on the CD-Turntable in the CD tray to keep the lens clean when not in use as well.

❹ CD Stabilizer

Only use the provided CD Stabilizer with this appliance. Commercially available stabilizers may cause this appliance to malfunction.

❺ Handle With Care

Avoid exerting excessive force on the cabinet, the switch, the knob, the terminal and the CD-Turntable on this appliance.

❻ Installation

Use of an audio rack is recommended to maximize the sound quality and performance of this appliance. Installation and use of this appliance in the locations described below may cause deterioration in sound quality or malfunction:

☐ Locations exposed to direct sunlight, such as windowsills, and other exceptionally warm locations, such as near heating appliances (surrounding temperature higher than 35 °C), or exceptionally cold locations (surrounding temperature lower than 10 °C), may prevent this appliance from functioning adequately.

☐ Damp locations exceeding 90% humidity may cause this appliance's metal parts to rust, causing this appliance to malfunction.

☐ Dusty locations may cause this appliance to malfunction. The accumulation of dust inside the CD tray may lower the performance of music signal reading. It may also cause contact failure of the switches, and/or noise.

☐ Otherwise, avoid installing this appliance close to other transformers and electrical motors, so as to prevent the pickup of induction hum. Also, avoid mounting this appliance on surfaces that may be affected by vibration.

❼ Avoid lightning strikes

Disconnect the AC power cord from the AC outlet when there is a thunderstorm in your vicinity.

❽ Condensation

When this appliance is brought into a warm room when the exterior temperature is cold, or when the room temperature rises sharply from using a heater, condensation may form both inside and outside this appliance, hampering its performance. If this happens, leave this appliance unused in the room for 1 to 2 hours (depending on the amount of condensation), so as to bring the temperature of this appliance closer to the room temperature. The condensation should go away gradually.

❾ Listening etiquette

Make sure your playback sound, ex. due to too big sound, does not disturb other people and your neighborhood.

Compact Disc Handling

☐ When taking a compact disc from its case, lift it out by holding the edge of the disc while pressing down on the center button of the case.
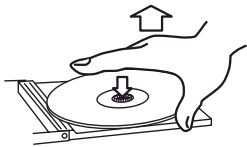
☐ Since a compact disc can be played or recorded only on one side, discs should always be placed on the CD-Turntable with the label side up.
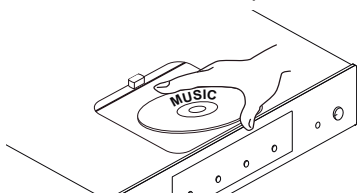

☐ Handle compact discs with care so as not to scratch their surfaces. Scratches, fingerprints or soiling may cause reading errors during playback.

☐ If a compact disc's surface becomes soiled, wipe it directly away from the disc's center with a soft, dry cloth. Try to keep the discs clean at all times.

☐ Never use chemicals such as record sprays, anti-static sprays, benzene or thinner to clean a disc. These may corrode the surface of a disc.

☐ Do not place discs in any locations subject to high temperatures and high humidity, or that receive direct sunlight. Keep discs away from radiators and electrical heaters. CD-R/RW discs are especially sensitive to ultraviolet rays, so keep them out of direct sunlight.

☐ To avoid dust and scratching or warping of discs that could cause reading errors, replace discs in their cases after use.

☐ Do not attach any labels on a disc surfaces. Do not use discs that have Scotch tape, labels, excessive label glue exposed on the surface. These may cause this appliance to malfunction.

☐ Do not use cracked discs or irregularly shaped discs (octagonal, heart-shaped, or any other special shapes). These may cause this appliance to malfunction.
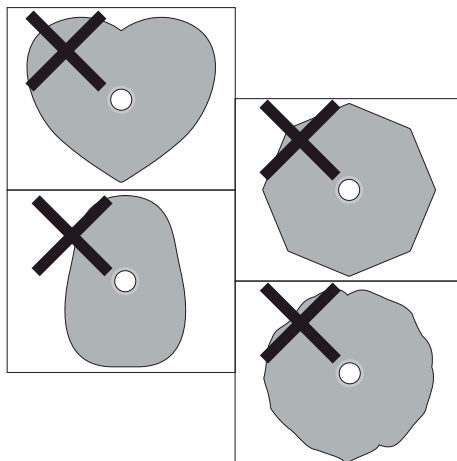

CD-R/RW DISC

☐ This appliance is able to playback CD-R/RW discs recorded in audio CD format and finalized. Some CD-R/RW discs may be unplayable due to the quality of the CD-R/RW disc and/or the quality of the recording.

☐ Do not attach stickers or protective seals on discs and do not use any protective coating sprays. If you wish to label a disc, only write on the label side using soft-tipped insoluble pens. Never use ballpoint pens or hard-tipped pens.

CD5 should contain the following:

❶ CD5 main unit
❷ CD stabilizer
❸ AC power cord
❹ Remote control unit RU-219
❺ Owner's manual
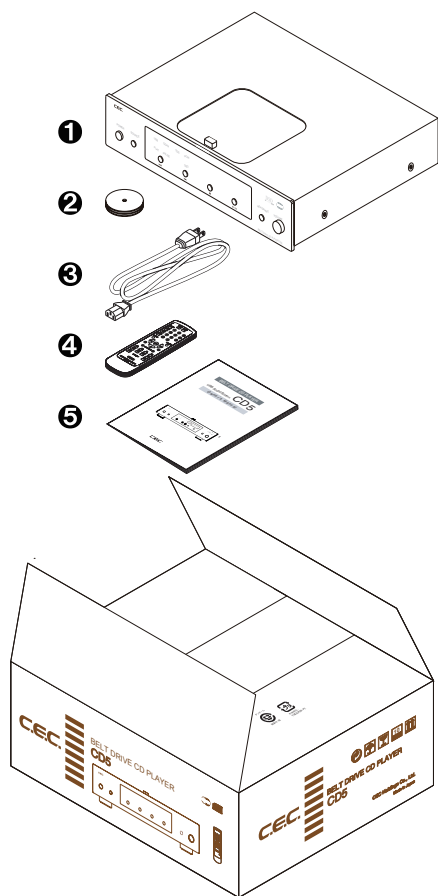
☐ Keep the packaging available for future transportation needs.

☐ The power cord is for use with the CD5 exclusively, and should not be used for other devices.

Playable disc	Audio CD and finalized Audio CD-R/RW
Spindle drive system	Belt-Drive
CD stabilizer	Diameter approx. 70mm, Weight approx. 330g (Brass)
Digital output	COAXIAL x 1: 0.5Vp-p/75Ω
	TOS x 1: -21 to -15dBm EIAJ
Digital input / Sampling frequency	COAXIAL x 1: PCM up to 24bit/192kHz
	TOS x 1: PCM up to 24bit/192kHz
	USB 2.0 x 1: PCM up to 32bit/384kHz, DSD64/2.8224MHz and DSD128/ 5.6448MHz
DAC	ESS ES9018K2M x 1
Digital filter	FLAT or PULSE
Analog output	Balanced XLR x 1 / 4Vrms (pin2=hot)
	Unbalanced RCA x 1 / 2Vrms
Headphones output	6.3mm x 1
Frequency response	20Hz to 20kHz, +/-0.1dB (CD playback)
S/N ratio	105dB, 1kHz/0dB
Cross talk	105dB, 1kHz/0dB
THD	0.016%, 1kHz/0dB
Power supply	AC120/230V, 50/60Hz (Specified on rear panel)
Power consumption	17W
Dimensions	Approx. 435(W) x 335(D) x 109(H)mm (Incl. buttons, terminals & legs)
Weight	Approx. 8.6kg (Incl. CD Stabilizer)
Accessory	CD Stabilizer, AC Power Cord, Remote Control unit RU-219, Owner's Manual
Color	Silver / Black

☐ Design and specifications are subject to change without notice.

☐ Illustrations in the Owner's Manual may deviate from the actual unit due to design improvements.

ANALOG OUTPUT to

connect with a pre-amplifier or an amplifier with volume control function

❶ XLR(Balanced)

Balanced Analogue output using standard XLR terminals (1=GND, 2=Hot, 3=Cold). This should be the preferred connection since CD5 has been designed at fully balanced circuit.

❷ RCA(Unbalanced)

Standard RCA analogue signal output terminals.
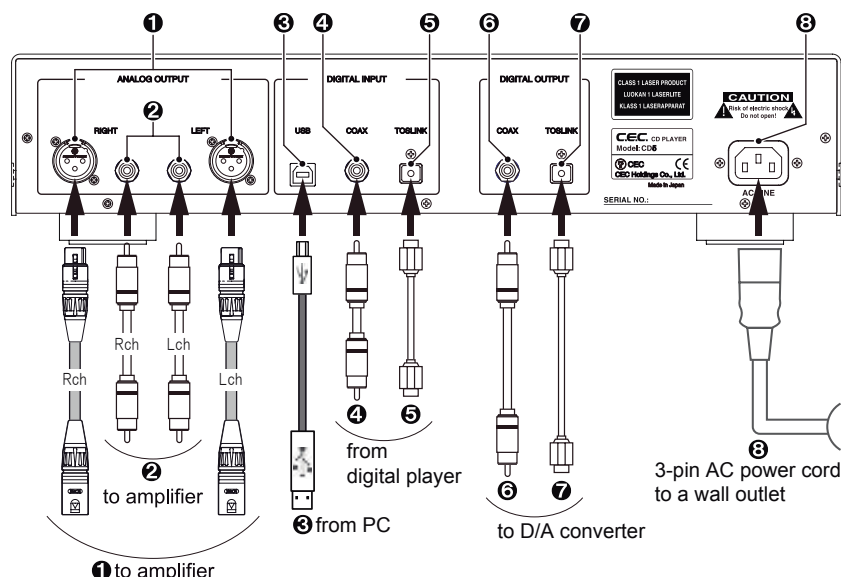
DIGITAL INPUT to connect

with a personal computer or digital music player

❸ USB

USB input to connect with a PC using a USB cable with a B-type plug. This input supports sampling frequencies up to PCM 32bit/384kHz and from DSD64 2.8224MHz to DSD128 5.6448MHz in DoP method.

Mac PC (X10.6.8 and newer) does not require any additional driver for USB 2.0 audio device but Windows PC (7 and newer) needs to install CEC specialized ASIO driver to recognize CD5 as USB audio device and play PCM music sources. Compatible PC-Music player should be prepared yourself.

Installing ASIO and DSD components/drivers to a freeware PC-Music player foobar2000 for Windows, DSD64 and 128 files can be reproduced as well.

Those drivers and install manual are appeared at each download site in CEC home page. Visit at www.cec-web.co.jp/service/download/driver/index_ex.html for the drivers and www.cec-web.co.jp/service/download/document/index_ex.html for the manual.

❹ COAXIAL

Standard (SPDIF) digital signal input jack with a RCA type connector. Connect with a digital audio player using a RCA (75Ω) cable. This input supports up to 24bit/192kHz.

❺ TOS LINK (Optical)

Optical (SPDIF) digital signal input jack with a square TOS LINK connector. Connect with a digital audio player using an optical cable with a square TOS LINK plug. This input supports up to 24bit/192kHz.

DIGITAL OUTPUT to connect with a digital audio

device like D/A converter / the output signal comes from CD5-CD only.

❻ COAXIAL

Standard (SPDIF) digital signal output jack with a RCA type connector. Connect with a digital audio device using a RCA (75Ω) cable.

❼ TOS LINK (Optical)

Optical (SPDIF) digital signal output jack with a square TOS LINK connector. Connect with a digital audio player using an optical cable with a square TOS LINK plug.

AC POWER

❽ AC LINE

Connect the supplied 3-pin AC power cord to the AC LINE inlet and the wall outlet.
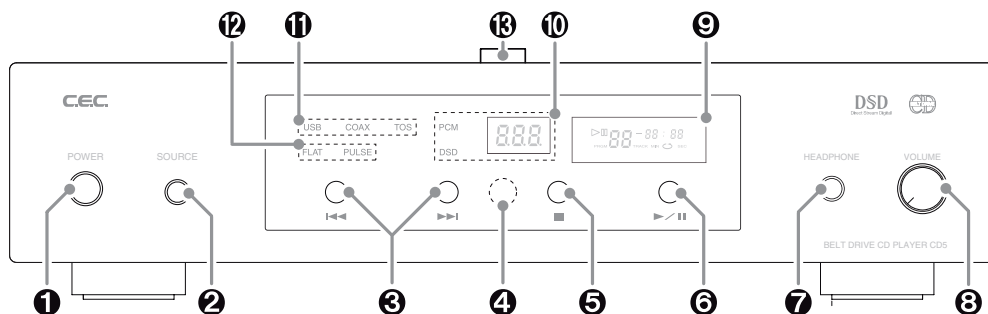
❶ POWER button

Press the POWER button to turn the power ON or OFF. When CD5 is turned on ❾ CD display will blink "0 0:00" and the unit will check its tray for a compact disc. Approximately 5 seconds later the display will change to indicate the total number of tracks and the total playing time. When there is no disc on the tray the display will indictate "no dISC".

❷ SOURCE button

Press the SOURCE button to select a music source from the CD on CD5, USB being connected with a personal computer, COAX or TOS being connected with an external digital music player. Whenever CD5 is powered ON the default mode is starting with CD. Press the button to toggle through USB, COAX, TOS and CD. The selected digital input signal is converted and transfered to the analog and headphones outputs.

❸ Track Skip |◀◀/▶▶| buttons

Press the Skip forward ▶▶| or backward |◀◀ button to jump to the next or previous track from the track being played (or displayed).

Pressing the skip backward |◀◀ button during playback, playback will return to the beginning of the track being played. Press the skip backward |◀◀ button twice repeatedly to jump to the previous track.

❹ Remote sensor

The remote sensor, which receives signals from the remote control unit, is located at the center of the display window. Aim for this sensor when using the remote control unit. The remote control may malfunction if there are any obstacles between the remote control unit and the remote sensor.

❺ Stop ■ button

Press the Stop ■ button to stop playback.

❻ Play/Pause ▶/❙❙ button

Press the Play/Pause button to start or temporarily stop playback.

❼ HEADPHONE jack

Headphones output jack for a standard 6.3mm plug.

Note: For using a headphone with 3.5mm mini plug, purchase a 6.3mm conversion plug from a dealer.

❽ VOLUME knob

Turn the knob clockwise to increase or turn counter-clockwise to decrease the headphones volume.

⚠ **Before using your headphones for listening, turn the volume for the minimum and insert the headphones plug into the jack. Excessive sound pressure from the headphones may cause hearing loss to your ears.**

❾ CD display

Only during the CD mode the fluorescent display lights up. After reading a table of contents (TOC) the display indicates the total number of tracks and total playback time, and during playback the track number being played and elapsed time are displayed.
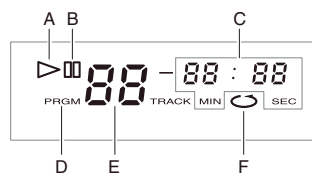
A: Playback ▷ indicator lights up during playback.
B: Pause ❙❙ indicator blinks during pause mode.
C: **Time display** indicates the elapsed time/remaining time for the track being played, total remaining time or total elapsed time.
D: **Programming indicator** lights up during program mode.

E: **Track number display** indicates the track being played.

F: **Repeat indicator** lights up when repeat mode is enabled.

⑩ Sampling Frequency display

Sampling frequency of a selected music source being played is displayed. PCM or DSD depends on the input signal lights up as well.
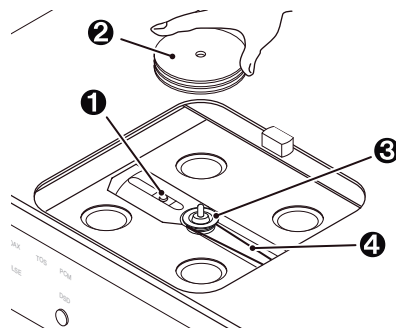
⑪ Digital Source indicator

Selected USB, COAX or TOS lights up. CD does not light up.

⑫ Digital Filter indicator

Selected digital filter type PULSE or FLAT lights up.

⑬ CD Door knob

Open or close the CD door sliding backward or forward by hand when placing a compact disc on the tray. To keep the inside clean always close the CD door.

❶ Optical Laser Pickup Lens

The optical laser pickup reads music signals from a compact disc. To keep it clean never touch the lens with your fingers, etc., and always close the CD door.

❷ CD Stabilizer

The CD Stabilizer for CD5 is heavy with a diameter of 7cm and weighing 330g.

Handle with care. Hold the edge steadily when placing on or removing it from the CD-Turntable in the CD tray. Dropping the CD Stabilizer may damage it and decrease playback accuracy.

❸ CD-Turntable

Place a compact disc on the CD-Turntable, and place the CD Stabilizer on top of the disc. The CD Stabilizer can be placed on the CD-Turntable when not in use, even when no disc is in place.

❹ Rubber Belt

Square rubber belt to drive a disc on the CD-Turntable. Periodic maintenance is not required. The tension of the belt may be lowered by using for years which may affect the disc rotation accuracy. Refer to page 17 to replace the belt.

Buttons Function

❶ to ❹ buttons operate CD5 and the others work for the other CEC products like CD transport TL2N, D/A converter DA5 and so on. Here referes to CD5 function only.

❶ DISPLAY button

Press to cycle the display through various mode.

Each press of the DISPLAY button cycles the dis-play in the following order: track number/elapsed track time (default display) ➡ track number/remaining track time ➡ total remaining time ➡ total elapsed time ➡ back to track number/elapsed track time (default display).

● Elapsed track time (default)
▷ **5** TRACK 1:15 MIN SEC
Track number

● Remaining track time
▷ **5** - 1:52 TRACK MIN SEC
Track number

● Total elapsed time
▷ 8:15 MIN SEC

● Total remaining time
▷ -51:27 MIN SEC

☐ After track-32 remaining track time is not displayed, but " - " and " - - : - - " blink alternately.

☐ Total remaining time and total elapsed time will not be displayed in the programmed playback mode and/or repeat mode.

❷ DIMMER button

Press to change the display brightness in different 3 levels.

❸ Numeric Keys

Press to select a track directly for playback or to enter a programmed playback order. To select ex. 24-track press +10 twice and then 4.

❹ PROGRAM button

Press to enable programmed playback.Refer to "Programmed CD Playback" on page 14 for details.
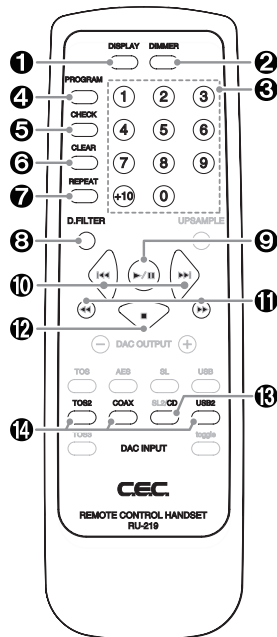
❺ CHECK button

Press to check the order of tracks in your current programmed setting. Refer to "Programmed CD Play-back" on page 14 for details.

❻ CLEAR button

Press to clear the current programmed setting. Refer to "Programmed CD Playback" on page 14 for details.

❼ REPEAT button

Press to repeatedly playback all the tracks on a disc. When repeat mode is on, the display will show the repeat ○ indicator. Press again to cancel the repeat mode.

▷▯▯ **88** - 88 : 88
PRGM TRACK MIN ○ SEC
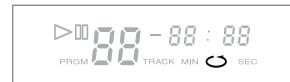
❽ D.FILTER (Digital Filter) button

Press to select a digital filter type FLAT or PULSE. Refer to "Digital Filter" on page 13 for details.
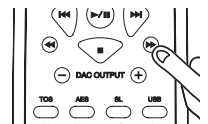
❾ Play/Pause ▶/❚❚ button

Press to start or to pause playback temporarily.

❿ Skip ❘◀◀/▶▶❘ button

Jump to the previous or next track.

⓫ Search ◀◀/▶▶ button

Press and hold the button to quickly search through the track being played. ◀◀ searches through the track backwards, and ▶▶ searches forwards.

⓬ Stop ■ button

Press to stop playback.

⓭ CD button

Press to enter the CD mode.

⓮ Music SOURCE (USB2, COAX and TOS2) buttons

Press to select an external music source USB, COAX or TOS.
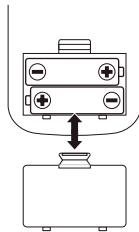
Precaution on handling the remote control unit

☐ When operating the remote control, point it towards the remote sensor on the front panel.

☐ Make sure nothing is blocking the front panel where the remote sensor is located.

☐ Avoid exposing the remote sensor on the front panel to direct sunlight or other light sources, as such exposure can cause malfunction.

□ The remote control unit may malfunction when its batteries are running low. Change the batteries to new ones of the same type if this seems to be the case.

□ Upon shifting the input from CD to others or other inputs to CD make sure to press the key correctly to hear the click sound for switching. When you don't hear the click sound, it is possible that selected music source could not be shown at display window or brightness of display is not even upon using DIMMER function. If this happens, press again the same source button after moving the remote control hand set correctly facing on display window.

Battery Installation

Remove the cover of the battery compartment. Insert two AAA batteries into the compartment. Make sure that the batteries are inserted with their positive (+) and negative (-) poles positioned correctly, and put the cover back on.

Battery Replacement Period

If the distance at which the remote control unit can be used to operate CD5 seems to be decreasing, replace both batteries with new ones.

Precaution on handling batteries

□ Never use different types of batteries together. Both rechargeable and non-rechargeable batteries can be used, but the two should not be used together.

□ If you will not be using the remote control unit for an extended period of time (more than a month), remove the batteries to prevent leakage.

□ If the batteries leak, use a cloth to wipe away the liquid inside the battery compartment and replace the batteries with new ones.

□ Do not heat or disassemble batteries, and never dispose of old batteries by throwing them in a fire. Dispose of batteries following laws in the local area.

Normal Playback

❶ Press the POWER button to turn the power on.

❷ Press the SOURCE button or the CD button on the remote control to select CD mode.

❸ Open the CD door sliding backward by hand. When the door is open the display indicates "OPEn".

❹ Lift up the CD Stabilizer holding the edge securely. Place a disc on the CD-turntable, and place the supplied CD stabilizer gently on top of the disc.

CD Stabilizer →
fabric sheet side down →
disc →
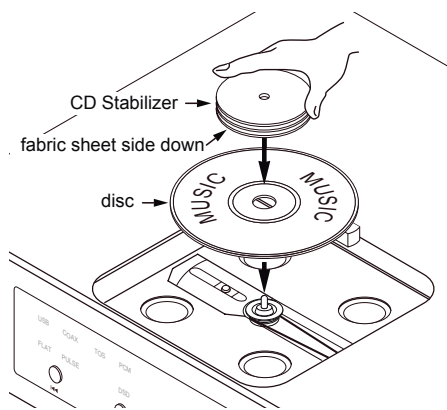
Important: Make sure that a disc and the CD stabilizer have been set correctly and laterally before closing the CD door.

Inclined positioning of CD stabilizer and/or improper connection of CD stabilizer to a disc might cause an unstable rotation resulting in the ability to read music signals correctly.

Slightly push the CD stabilizer with your finger for correct location and better mounting to disc.

⚠ □ **Make sure you place the disc on the CD-turntable with the label side facing up, and place the CD stabilizer on the disc before closing the CD door. CD5 is unable to read the disc unless you place the CD stabilizer correctly.**
□ **Only use the supplied CD Stabilizer. Any other type of the CD Stabilizer may cause a malfunction.**

❺ Close the CD door completely sliding forward by hand. CD5 should automatically start spinning the disc to read its information, and the total number of tracks and the total playing time should appear on the display. Leaving CD5 withtout pressing any button the display will change approx.10 seconds later to show the 1st track playback ready.

total tracks   total play time   10 seconds later
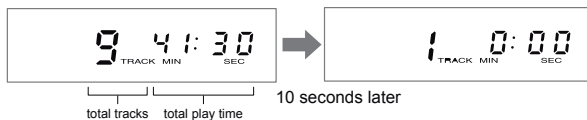
❻ Press the Play/Pause ▶/❚❚ button to start playback.

The playback ▷ indicator and track number should be shown on the display, followed by the elapsed time for the track being played.

Skipping track

Press the Skip forward ▶▶❙ or backward ❙◀◀ button to jump to the next or previous track from the track being played (or displayed).

Note: Pressing the skip backward ❙◀◀ button during playback, playback will return to the beginning of the track being played. Press the backward ❙◀◀ button twice repeatedly to jump to the previous track.

Pausing playback

Press the Play/Pause ▶/❚❚ button to stop playback temporarily. Press this button again to resume playback.

Stopping playback

Press the Stop ■ button to stop playback.

⚠ **Playback will stop automatically if you open the CD door without pressing the Stop ■ button, but it will take a few seconds for the CD-turntable to stop spinning. Do not touch the CD Stabilizer or the disc until those stop completely. Pressing the CD Stabilizer or the disc down exessively may damage the CD mechanism or the disc, or cause CD5 to malfunction.**

Removing the Disc

Slide the CD Door open with your hand, and remove the CD stabilizer first by holding its edge, and then remove the disc.

⚠ **Lifting of the CD stabilizer too quickly or after playing for a long time may cause a disc drop out of the CD-turntable.**
Lift the CD stabilizer gently in order to

CD Playback - continued -

avoid damaging disc or by falling down on the center shaft and/or other components of the CD Transport.

Place the CD stabilizer on the CD-turntable even without disc and slide the CD Door closed with your hand.

NOTE: Do not leave a disc on the CD-turntable when the CD5 is not in use.

Digital Filter

Press the FILTER button on the remote control to select a digital filter type FLAT or PULSE when CD or an external SPDIF/PCM signal is played.

⚠ Click noise may happen from speakers or headphones when changing the digital filter. It is recommended to change the filter after volume down.

Note: Digital filter type is always FLAT when DSD signal is played, and PULSE is not available.

Note: When the display is off by dimmer setting pressing the FILTER button will return the display brightness to the default but no change digital filter setting. Press the button again to change the digital filter type.

FLAT digital Filter is very common in digital audio items. The frequency response is almost perfect, but such filter cause "ringing" in the time domain. Some energy of a pulse signal is distributed in the time domain, before and after the pulse centre. Any ringing before the signal does not exist in nature.

PULSE digital filter avoids the problems in the time domain and thus has a very good response in the time domain. The frequency response of the PULSE digital filter shows a soft roll-off at high frequencies. This results in about -2dB at 20kHz with an input sampling frequency of 44.1kHz. For higher sampling frequencies the roll-off is irrelevant and the "PULSE" filter is the best choice. For 44.1kHz and 48kHz the better result may depend on the whole system as well as personal preferences.

Differences in ringing of FLAT and PULSE
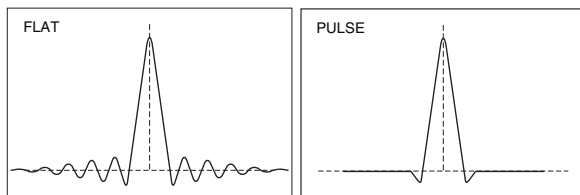
**Wavy form of the digital signal passing through the circuit**

Programming

Up to 32 tracks in a customized playback order can be programmed by using the remote control unit while playback is stopped.

❶ Press the PROGRAM button on the remote control unit to activate the program mode. "PRGM" is displayed, and "1" as temporary track number blinks and "1" as the first playback order is displayed.

Track number   Playback order

❷ Select a track number by pressing the numeric keys on the remote control unit. The selected track will be added to the program. For example: Press key-5 to add the 5th track to the 1st playback order, then press key-3 to add the 3rd track to the 2nd playback order. Repeat this process to program additional tracks.
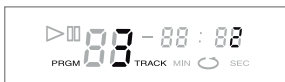
☐ In case that a number beyond the last track number on a disc is selected the last track may be added alternatively.

☐ After the 1st playback track is added you can select an addition track by pressing skip buttons as well. The selected track number blinks. Then press the PROGRAM button to add the track to the program. In this way press the PROG. button to add the track every after blinking a track number by pressing skip buttons.

❸ Press the Stop ■ button to complete the programming phase. The 1st playback track number is displayed. If 32 tracks are programmed "FULL" is displayed as well.

Playback in Program Mode

Press the Play/Pause ▶/❚❚ button while the "PRGM" indicator is shown on the display to play the programmed tracks.

☐ To return to the normal playback mode, press the PROGRAM button while playback is stopped. The "PRGM" indicator will disappear from the display. To return to the program mode, press the PROGRAM button again.

Checking, Adding, Changing and Deleting programmed tracks

Programmed tracks can be checked, added, changed and deleted under the program mode while playback is stopped.

❶ **Checking the playback order of programmed tracks**
Press the CHECK button repeatedly to show the playback order of programmed tracks. The display changes to show "- -" when you reach the next to the last track in the program.

Pressing the CHECK button again here will display the first track in the playback order.

☐ If you press the Stop ■ button, the display will jump back to the first track in the programmed order.

❷ **Adding tracks to the program**
To add one track to the current program, press the Stop ■ button and select the track number with the numeric keys. The new track will be added to the end of the current playback order. Repeat this process to add more tracks to the program. Press the Stop ■ button to complete the track-adding phase.

❸ **Changing tracks in the program**
To change one track in your programmed playback order, press the CHECK button repeatedly until the track number in question is displayed, then select a new track number. The new track will overwrite the existing track. Repeat this process to change more tracks. Press the Stop ■ button to finish the track-changing phase.

❹ **Deleting programmed tracks**
  ☐ All tracks: to clear the entire program, hold down the CLEAR button for more than 2 seconds.
  ☐ One track: to clear one track from the program, press the CHECK button repeatedly until the track number in question is displayed, then press the CLEAR button. Repeat this step (CHECK then CLEAR) to remove more tracks from the program.
  ☐ The entire program will be deleted automatically when you open the CD door or turn the power off.

Display brightness can be changed in different three levels.

Press the DIMMER key on the remote control unit to dim the display. The display brightness will toggle through **brighter**(default), **off** and **lighter**.

in the case of CD mode

●brighter (default)

●off
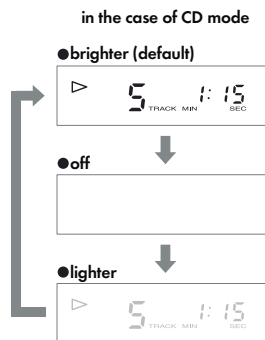
●lighter

During the "off" setting in CD mode

☐ "OPEn" will be displayed in the **lighter** setting temporarily when the CD door is open. Closing the CD door the display will be **off** again automatically.
☐ Pressing the FILTER button will return the display brightness to the **brighter** (default) setting but no change digital filter setting. Press the button again to change the digital filter type.

Regardless of the current DIMMER setting it will be returned to the default in case that the music SOURCE or digital filter button is pressed, or the power is turned on again.or digital filter button is pressed, or the power is turned on again.

D/A Converter Functions

Playback of digital audio device at COAX and TOS connection

❶ Press the SOURCE button on the front panel, or COAX or TOS2 button on the remote control to select a digital input connected with an external digital audio device.

❷ The selected input COAX or TOS indicator and a sampling frequency of the locking input signal will appear on the display window.

USB	COAX	TOS	PCM	
FLAT	PULSE		DSD	8.44

Ex. PCM 44.1kHz through COAX connection in FLAT digital filter

❸ Adjust the volume at the CD5 headphones or the amplifier after music starts.

Playback of PC music at USB connection

Mac PC (X10.6.8 and newer) does not require any additional driver for USB 2.0 audio device but Windows PC (7 and newer) needs to install CEC specialized ASIO driver to recognize CD5 as USB audio device and play PCM music sources. Compatible PC-Music player should be prepared yourself.

Installing ASIO and DSD components/drivers to a freeware PC-Music player foobar2000 for Windows, DSD64 and 128 files can be reproduced as well.

Those drivers and install manual are appeared at each download site in CEC home page. Visit at www.cec-web.co.jp/service/download/driver/index_ex.html for the drivers and www.cec-web.co.jp/service/download/document/index_ex.html for the manual.

❶ Your PC connecting via USB will recognize CD5 as CEC CD5 HS USB Audio.

❷ Press the SOURCE button on the front panel or the USB2 button on the remote control to select USB. USB indicator and a sampling frequency of the locking input signal will appear on the display window

USB	COAX	TOS	PCM	
FLAT	PULSE		DSD	8.48

Ex. PCM 48kHz through USB connection in PULSE digital filter

❸ Adjust the volume at the CD5 headphones or the amplifier after music starts.

USB	COAX	TOS	PCM	
FLAT	PULSE		DSD	5.6.8

Ex. DSD128 5.6MHz through USB connection in FLAT digital filter (PULSE filter is not available with DSD)

Maintenance of Rubber Belt

Periodical maintenance or check is not required for a rubber belt used for all CEC belt-drive CD transports and players. However, the tension of the belt may be lowered by using for years which may result unstable reading of information on CD, noise during music reproduction and/or jump of the music. The replacement of the belt may solve the problem if it comes from weaker tension of the belt.
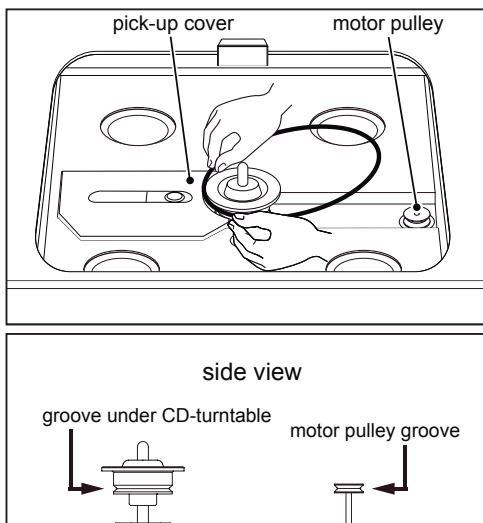
If replacement of a belt does not solve the problem, consult with the dealer that you have purchased.

An average of the life of a belt is 5 years. It is not required to replace if musc reproduction goes well even after 5 years.

Replacement of a rubber belt

No other rubber band than CEC original rubber belt can be used for replacement. Require the CEC belt at the dealer that you have purchased.

❶ Remove the old belt.

❷ Mount a new belt to the groove under the CD-turntable through the clearance between pick-up cover and CD-turntable.

pick-up cover   motor pulley

side view

groove under CD-turntable   motor pulley groove

❸ Then mount the belt to the motor pulley groove. Using a pair of tweezers would be easier to mount.

side view
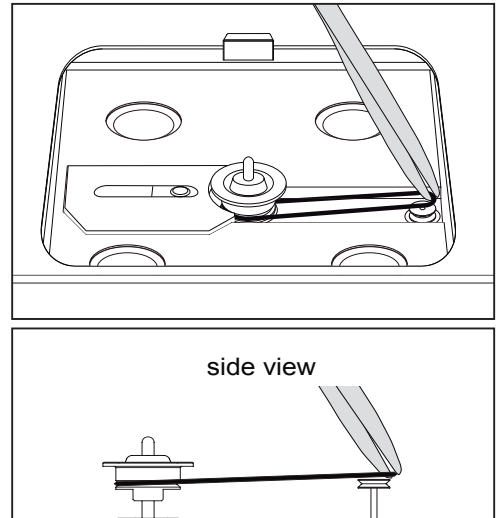
❹ Be sure the belt is installed at the grooves and the belt is not twisted. Twist of the belt can be corrected easily by using a pair of tweezers moving the center shaft by hand.

side view

proper position of the belt after replacing
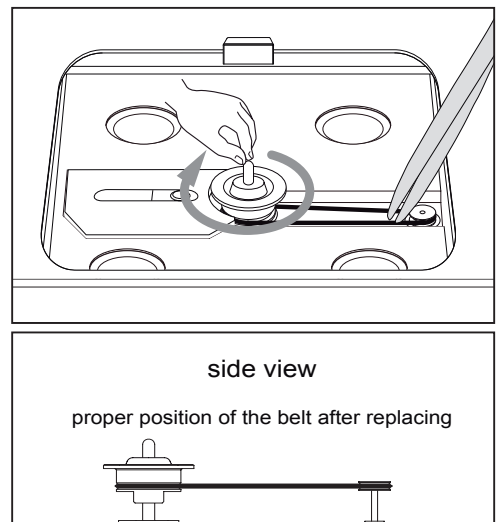
Summary of Tips and Hints to use Belt Drive CD

❶ Handle the CD stablizer withe care

The CD stabilizer is quite heavy. Please handle it carefully not to drop to damage other equipment and/or furniture. And the distortion of the CD stabilizer may damage the CD reading performance. Please note that it is a quite expensive highly precise component.

❷ When mounting the CD stabilizer

Make sure to mount the CD stabilizer on CD-turntable vertically. An inclination of installation of the stabilizer to the spindle shaft may cause unstable reading of the music signal.

❸ Don't touch the CD stabilizer before stop

Don't touch the CD stabilizer as well as disc when it is rotating after music. Pressing the CD stabilizer down strongly may damage the CD mechanism.

❹ Don't touch the pick-up lens

Laser pickup is one of the most important components for the performance of CD player. Don't touch the lens by finger. Make sure to close the CD door when CD player is not used for clean maintenance of the laser pick-up lens.

Maintenance

❶ If the surface of the CD5 case becomes soiled, wipe with a soft cloth or use diluted neutral cleaning liquid. Be sure to remove any fluid completely. Do not use thinner, benzene, alcohol, chemical cloths or bleaching agents as these may damage the surface of the CD5 case. Also avoid using aerosol insecticides near this appliance.

❷ If dust accumulates on the CD-Turntable, remove it with stick tape (e.g. Scotch tape). Make sure not to touch the optical pickup lens with your fingers.

❸ CD5 requires no periodic maintenance except the belt replacement mentioned on page 17, and contains no other user-serviceable parts. Contact your dealer or an authorized CEC service center for an inspection and repair in case of malfunction.

Troubleshooting

If you suspect a malfunction in this appliance, please check the following chart before calling your dealer.

malfunction	solution
no power	connect completely both ends of AC power cord
no playback	place CD-Stabilizer on CD
	close CD door completely
	place CD label facing up
	clean up CD
	mount the belt correctly (refer to page 17)
sound skipping	change the location or place on a stable rack
	clean up CD
no sound	correct connections as per manual
	select an input with connection
	check connections, input selection and volume setting
	turn off and on all the devices
sound distortion	change to suitable cables
	correct the cable direction
hum noise	connect the RCA plugs completely
interference on tuner	place away from tuner or power off
unresponsive to remote control	turn on the main unit
	install batteries
	replace with new batteries

CD5 contains a microcomputer that can malfunction due to the external noise or interference. If this seems to be the case, turn the unit off and wait for a short while before turning it back on and trying again

Service Contact Preparation

In case you need to contact a service center please prepare the following information.

Model name and serial number:

Purchase date:

Dealer name and contact information:

Description of the unit's problem:

C.E.C.