Primare CD21 User Guide

PRIMARE

Copyright and acknowledgments

The information in this guide is believed to be correct as of the date of publication. However, our policy is one of continuous development and so the information is subject to change without notice, and does not represent a commitment on the part of Primare Systems AB.

Primare is a trademark of Primare Systems AB.

Safety compliance

This product has been designed to meet the IEC 60065 international electrical safety standard.

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: To reduce the risk of electrical shock do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.

WARNING: To reduce the risk of fire or electrical shock, do not expose this apparatus to rain or moisture.

CAUTION: In Canada and the USA, to prevent electric shock, match the wide blade of the plug to the wide slot in the socket and insert the plug fully into the socket.

ATTENTION
RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

The lightning flash with an arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

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

Important safety instructions

This product is designed and manufactured to meet strict quality and safety standards. However, you should be aware of the following installation and operation precautions.

1. Take heed of warnings and instructions
You should read all the safety and operating instructions before operating this appliance. Retain this handbook for future reference and adhere to all warnings in the handbook or on the appliance.

2. Water and moisture
The presence of electricity near water can be dangerous. Do not use the appliance near water – for example next to a bathtub, washbowl, kitchen sink, in a wet basement or near a swimming pool, etc.

3. Object or liquid entry
Take care that objects do not fall and liquids are not spilled into the enclosure through any openings. Liquid-filled objects such as vases should not be placed on the equipment.

4. Ventilation
Do not place the equipment on a bed, sofa, rug or similar soft surface, or in an enclosed bookcase or cabinet, since ventilation may be impeded. We recommend a minimum distance of 50mm around the sides and top of the appliance to provide adequate ventilation.

5. Heat
Locate the appliance away from naked flames or heat producing equipment such as radiators, stoves or other appliances (including other amplifiers) that produce heat.

6. Climate
The appliance has been designed for use in moderate climates.

7. Racks and stands
Only use a rack or stand that is recommended for use with audio equipment. If the equipment is on a portable rack it should be moved with great care, to avoid overturning the combination.

8. Cleaning
Unplug the unit from the mains supply before cleaning.

The case should normally only require a wipe with a soft, damp, lint-free cloth. Do not use paint thinners or other chemical solvents for cleaning.

We do not advise the use of furniture cleaning sprays or polishes as they can cause indelible white marks if the unit is subsequently wiped with a damp cloth.

9. Power sources
Only connect the appliance to a power supply of the type described in the operating instructions or as marked on the appliance.

This is a Class 1 device and **must** be earthed.

10. Power-cord protection
Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, and the point where they exit from the appliance.

11. Grounding
Ensure that the grounding means of the appliance is not defeated.

12. Power lines
Locate any outdoor antenna/aerial away from power lines.

13. Non-use periods
If the unit has a stand-by function, a small amount of current will continue to flow into the equipment in this mode. Unplug the power cord of the appliance from the outlet if left unused for a long period of time.

14. Abnormal smell
If an abnormal smell or smoke is detected from the appliance, turn the power off immediately and unplug the unit from the wall outlet. Contact your dealer immediately.

15. Servicing
You should not attempt to service the appliance beyond that described in this handbook. All other servicing should be referred to qualified service personnel.
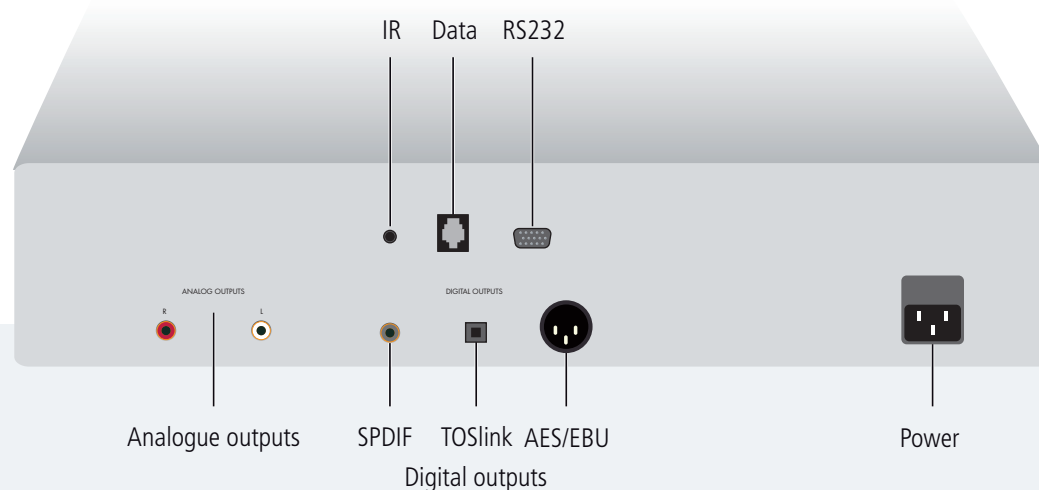
16. Damage requiring service
The appliance should be serviced by qualified service personnel when:

A. the power-supply cord or the plug has been damaged, or
B. objects have fallen, or liquid has spilled into the appliance, or
C. the appliance has been exposed to rain, or
D. the appliance does not appear to operate normally or exhibits a marked change in performance, or
E. the appliance has been dropped or the enclosure damaged.

Welcome

Welcome to the Primare CD21! Your CD21 is a high-quality compact disc player with analogue and digital outputs. This page shows how to set up your CD21 in four simple steps:

IR   Data   RS232

ANALOG OUTPUTS

R   L

DIGITAL OUTPUTS

Analogue outputs   SPDIF   TOSlink   AES/EBU   Power

Digital outputs

1 Unpack the CD21

Your CD21 is supplied with the following components:

- Mains cable.
- C22 remote control.
- Two batteries for the remote control.

If any of these items are missing please contact your supplier. We recommend you retain the packaging in case you need to transport the unit at a later date.

2 Connect to a preamplifier

Analogue outputs

The CD21 is designed to be connected to the line input of a preamplifier.

- Connect the ANALOG OUTPUTS to a suitable line input using a pair of analogue RCA leads.

Digital outputs

Alternatively the CD21 Compact Disc Player provides one SPDIF, one TOSlink, and one AES/EBU digital output for connection to a digital preamplifier or digital surround processor.

- Connect the appropriate output to your preamplifier or surround processor using a suitable cable.

3 Connect power

- Plug one end of the mains cable supplied with the CD21 into the power connector on the back panel, and connect the other end to a wall socket.

If this cable is not suitable for your power outlets please contact your supplier for an alternative cable.

⚠️ **WARNING:** Always disconnect the CD21 from the mains power before connecting or disconnecting any cables.

- Switch on the CD21, using the switch under the left-hand edge of the housing.

The standby indicator will light up on the front panel.

To switch on from standby or to standby

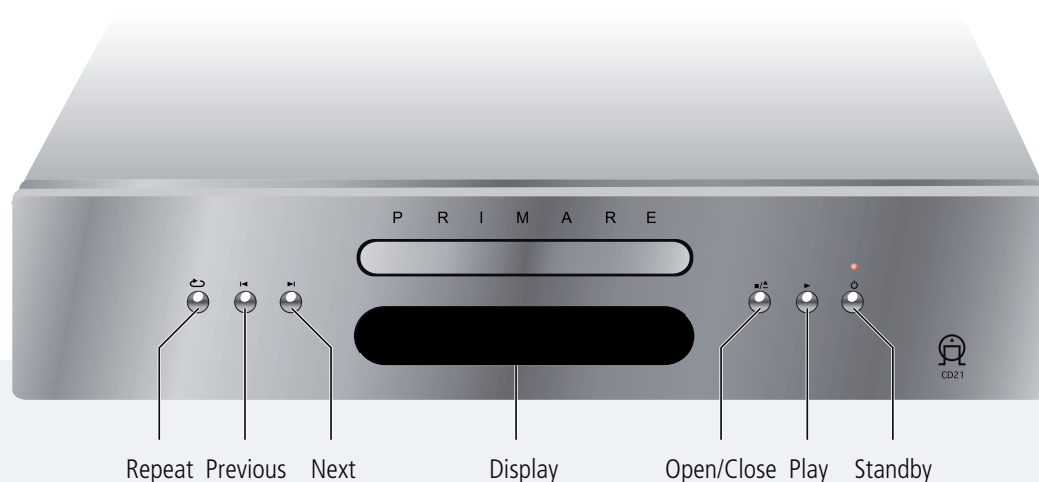- Pressing ⏻ on the front panel or on the remote control, will change the standby mode.

4 Play a CD

- Hold down the ■/⏏ button on the front panel, or on the remote control, to open the tray.
- Place the CD in the tray with the label facing upwards.
- Press the ■/⏏ button on the front panel or the remote control to close the tray.
- Press the ▶ button on the front panel, or the ▶/❚❚ button on the remote control to play the disc.

For more information about playing a CD, see *Using the CD21*, page 2.

Repeat Previous Next   Display   Open/Close Play Standby

Front panel controls

Repeat

Repeats a track, or the entire disc.

Previous |◀

Restarts the current track, or steps to the previous track.

Next ▶|

Steps to the next track.

Open/Close ■/▲

Opens or closes the CD tray and also stops the disc.

Play ▶

Plays or pauses the disc.

Standby ⏻

Switches the CD21 to standby, or switches it on from standby.

Playing a disc

To insert a disc

- Hold down the ■/▲ button on the front panel, or on the remote control, to open the tray.

- Place the CD in the tray with the label facing upwards.

- Press the ■/▲ button on the front panel or the remote control to close the tray.

The front panel display shows the total number of tracks on the disc, the total duration of the disc, and the tracklist.

To play a disc

- Press the ▶ button on the front panel, or the ▶/❚❚ button on the remote control.

- Alternatively press one of the buttons **1**-**9** and, if required, **+10** on the remote control to start playing a specific track.

For example: To play track 16; press the **+10** button followed by the **6** button. To play track 22; press the **+10** button twice, followed by the **2** button.

While a disc is playing the front panel display shows the current track number and the elapsed time of the current track. The track number is flashing in the tracking list.

To stop play

- Press the ■/▲ button on the front panel or the remote control.

To pause a CD

- Press the ▶ button on the front panel or the ▶/❚❚ button on the remote control.

The ▶ symbol will disappear from the display but the track number in the tracklist will still be flashing

You can then resume play by pressing the ▶ button on the front panel or the ▶/❚❚ button on the remote control.

Locating a position on the disc

You can step between tracks to locate a particular track on the disc, or you can scan forwards or backwards to locate a position within a track.

To step between tracks

- Press the |◀ or ▶| buttons on the front panel or the remote control.

The front panel display shows the number of the track as you step.

When you release the button the current track starts playing from the beginning.

To scan through the disc

- Press the ◀◀ button once to reverse scanning or the ▶▶ button once to start forward scanning. You can use the button on the front panel or the remote control.

You can increase the scanning by pressing the ◀◀ button (reverse) or the ▶▶ button (forward) again. There are four different scan speeds.
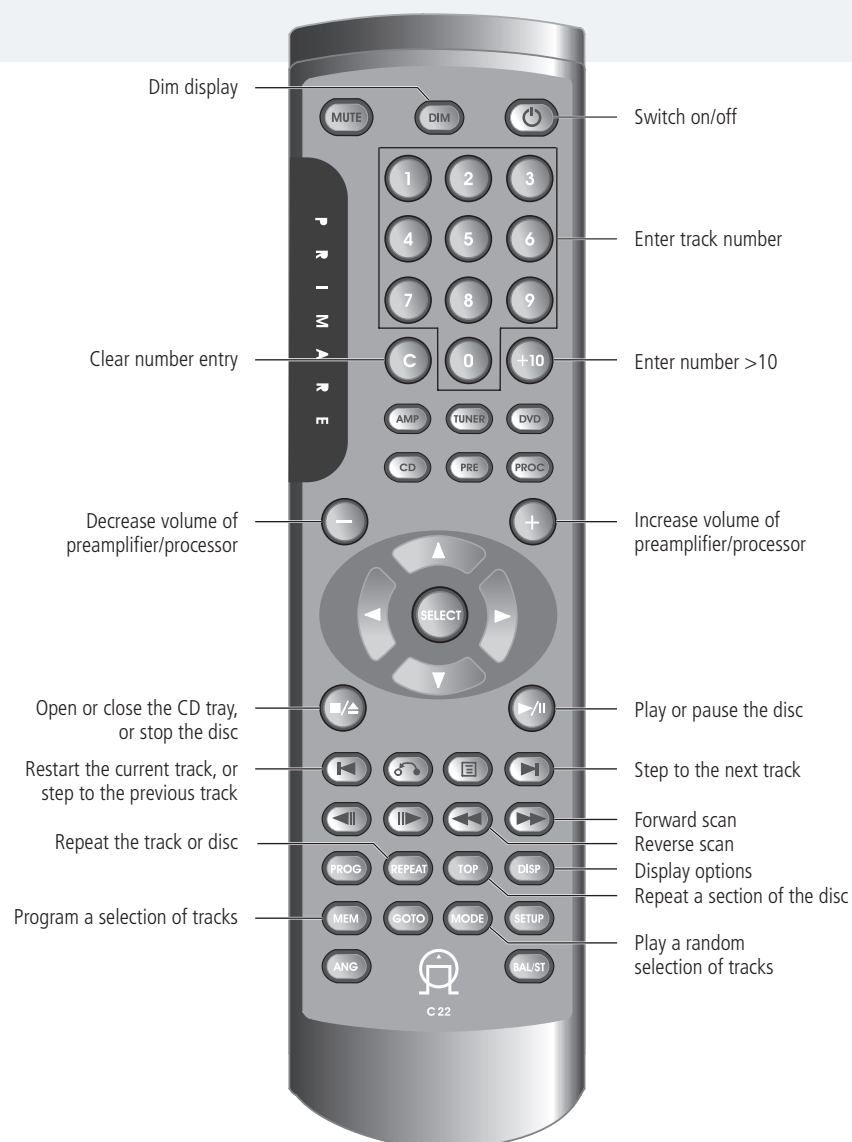
As you scan the disc, the front panel display shows the current track and the position within the track.

- Press the ▶ button on the front panel, or the ▶/❚❚ button on the remote control to start playing from the position you have located.

Using the remote control

This page explains how to use the C22 remote control to operate the CD21, and how to fit the batteries into the remote control.
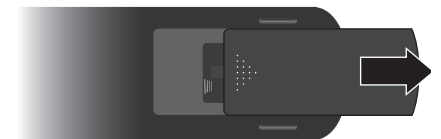
You can operate all the functions of the CD21 using the C22 remote control:

Dim display

Switch on/off

Enter track number

Clear number entry

Enter number >10

Decrease volume of preamplifier/processor

Increase volume of preamplifier/processor

Open or close the CD tray, or stop the disc

Play or pause the disc

Restart the current track, or step to the previous track

Step to the next track

Forward scan

Reverse scan

Repeat the track or disc

Display options

Repeat a section of the disc

Program a selection of tracks
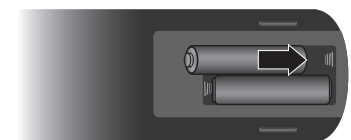
Play a random selection of tracks

Fitting the batteries

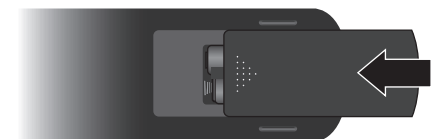Before using the remote control you need to insert the two AAA batteries supplied with the C22.

● Gently slide open the cover on the back of the remote control:

● Insert the two batteries, observing the polarity printed on the bottom of battery compartment:

● Slide back the cover until it clips into place:

Note: Replace only with alkaline batteries type AAA, LR03, or equivalent. Dispose of old batteries considerately.

Programming the CD21

This chapter explains how to use the more advanced features of the CD21 Compact Disc Player which you can access from the remote control.

Changing the front panel display

You can change the front panel time display to show elapsed time for the current track, remaining time for the current track, or remaining time for the entire disc.

To change the time display

● Press the **DISP** button on the remote control.

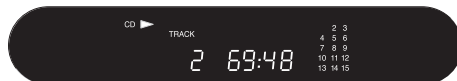The display switches between the following three options:

Elapsed time for the current track

Remaining time for the current track

Remaining time for the entire disc

To dim the front panel display

● Press the **DIM** button on the remote control.

The display will blank.

● Press the **DIM** button again to restore the normal display.

Repeating playback

To repeat the current track

● Press the ⟳ button on the front panel, or the **Repeat** button on the remote control.

The front panel shows REPEAT 1:

To repeat the entire disc

● Press the ⟳ button on the front panel, or the **Repeat** button on the remote control twice.

The front panel shows **REPEAT ALL**:

To repeat a specific section of a disc (Repeat A-B)

During this operation the disc has to be running.

● Press the **TOP** button on the remote control at the start of the section you want to repeat.

The front panel display shows A-:

● Press the **TOP** button again at the end of the section you want to repeat.

The front panel display shows A-B:

The compact disc player will then automatically return to the start of the section you have marked and play back repeatedly.

To turn off repeat

● Press the **TOP** button again.

The A-B symbol in the front panel display will be cleared.

Programming a selection of tracks

The CD21 Compact Disc Player allows you to program a selection of tracks on the current disc. You can then play just the tracks you have selected.

To program a selection of tracks

● Press the **MEM** button on the remote control while the disc is stopped.

The front panel display shows PROGRAM.

● Select with buttons **1-9** and, if required, the **+10** button.

As you select tracks the front panel display shows the number of the track you are programming and the number of the step in the program, the duration of the track.

A selected track numbered higher than **15** will be indicated by a flashing **15+** symbol on the front panel display.

The track number also flashes in the track list on the right-hand side of the display:

To play the selection you have programmed

● Press the ▶/❚❚ button on the remote control.

The currently played track always flashes in the tracklist on the front panel display.

● Press the ■/▲ button on the remote control to stop the CD.

● Press the **MEM** button for a new selection or press the **MEM** button twice and the compact disc player reverts to normal playing mode.

Playing a random selection of tracks

● Press the **MODE** button on the remote control.

The front panel display will show **RANDOM**:

● Press the ▶/❚❚ button on the remote control.

The compact disc player selects random tracks from your CD. The current track flashes in the tracklist.

● Press the ■/▲ button on the remote control to stop the CD.

● Press the **MODE** button on the remote control and the compact disc player will revert to normal playing mode.

Features

Every component of the CD21, from the CD transport to the audio output stage, has been designed to achieve the highest possible audio performance.

Extremely low jitter

The Primare CD21 Compact Disc Player uses a precision crystal clock oscillator, and a Burr-Brown DIR1703 for jitter correction, giving excellent audio performance.

Precision digital to analogue conversion

Digital to analogue conversion is performed by two 24 bit Burr-Brown PCM 1738 D/A converters and filter, capable of handling up to 24 bit input data at a 192kHz sampling rate. They are configured in an internally balanced topology to perform a THD cancellation process. In addition to providing standard RCA audio outputs the CD21 includes a gold-plated SPDIF digital output, an optical TOSlink, and advanced AES/EBU.

No compromise power supply for the highest possible performance

The Primare CD21 Compact Disc Player uses eight separate isolated power supplies for the digital, analogue circuits, and transport mechanism, for maximum isolation. For the analogue part, discrete and ultrafast regulation is used. The result is an extremely high signal to noise ratio, allowing you to take full advantage of the dynamic range possible with CD.

Careful design for mechanical stability

As with all Primare units, the CD21 Compact Disc Player is housed in an alloy heavy gauge steel chassis, which provides strength, rigidity, and screening, while being effective at damping vibrations from external sources. The front panel design isolates the display circuitry from the audio circuitry to avoid interference.

Analogue outputs

RCA connector, 2.5V RMS, 100Ω

Digital outputs

Coax output: SPDIF (RCA connector), 75Ω

Optical output: TOSlink connector

AES/EBU output: 110Ω

PCM Sample Rate: 44.1kHz

General

D/A Converter: 2 x Burr-Brown PCM 1738

Frequency Response: 20Hz – 20kHz (+0/0.2dB)

Signal to Noise Ratio: 105dBA

Harmonic Distortion: <0.01% (20Hz – 20kHz)

Power Consumption: Standby <16W

Dimensions: 430 x 385 x 100mm

Weight: 10kg

RS232

The RS232 connector allows your dealer to upgrade the firmware on your CD21, or control the CD21 as part of a multi-room system. Do not connect anything to this socket unless instructed by your dealer.

IR input

The CD21 is controlled by an infra-red remote control pointed at the front panel.

The CD21 can also be controlled by using the IR-input on the back panel.

- Switch off the CD21 using the main switch at the back panel.
- Hold down the ▶I button at the front and then switch on again by using the main switch.

The standby indicator lamp will blink three times.

For security reasons this setting disappears every time the CD21 player is switched off by using the main switch. To reactivate the IR-input at the back panel the above described procedure has to be repeated.

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