ARCAM rMJ

Compact disc player CD36

Lecteur de Disque Compact CD36

Arcam CD36 Compact Disc-Spieler

Arcam CD36 CD-speler

Safety guidelines

CAUTION: To reduce the risk of electric 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 electric shock, do not expose this apparatus to rain or moisture.

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.

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.

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 (2 inches) 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.

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.

Safety compliance

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

Using this handbook

This handbook has been designed to give you all the information you need to install, connect, set up and use the Arcam CD36 compact disc player. The CR-314 remote control handset supplied with this equipment is also described.

Safety

Safety guidelines are set out on the inside front cover of this handbook.

Many of these items are common sense precautions, but for your own safety, and to ensure that you do not damage the unit, we strongly recommend that you read them.

Digital to Analogue conversion

The CD36 incorporates the latest audio up-sampling technology to convert the 44.1kHz data from the CD up to 192kHz in 24-bit precision using the Analog Devices AD1896 sample rate converter.

The 192kHz audio data is converted into the analogue domain using four Wolfson Micro WM8740 24-bit stereo DACs. Left and right output channels are made using two stereo DAC chips per channel, both operating in dual mono configuration per channel. The resulting four mono signals (two for each channel) are summed together to help improve dynamic range, linearity and therefore distortion.

Due to the higher sample rates, the digital filters roll off less aggressively than for standard DACs, and the analogue filters have a wider bandwidth resulting in less phase distortion, particularly for the higher frequencies.

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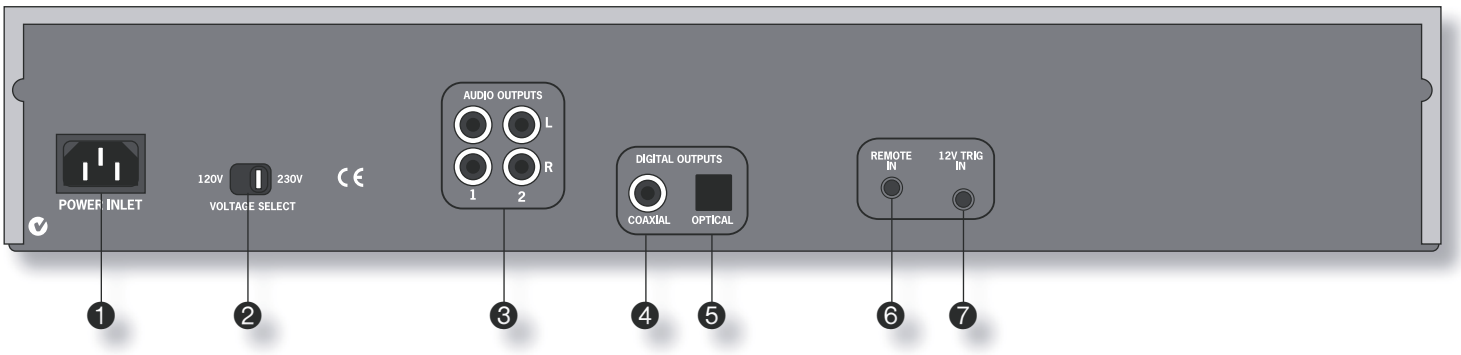
Installation



Positioning the unit

Always place the CD player on a level, firm surface. Placing your player on a set of dedicated sorbothane isolation feet will isolate the unit from its surroundings as well as absorbing the vibrations created within the player itself. You will generally hear some sonic improvements, which makes this an extremely cost-effective upgrade.

Connecting to other equipment

Interconnect cables

Interconnecting cables are not supplied with this CD player. We recommend high quality cables as inferior quality cables will degrade the sound quality of your system. Please contact your Arcam dealer for details of suitable cables.

Audio outputs ❸

Connect these to your amplifier's CD or any other line-level input using suitable high quality interconnect cables. Ensure that the left and right audio outputs from the CD player are connected to the same left and right inputs on your amplifier.

The second set of sockets can be used to connect to a second amplifier set up for multi-room use.

Coaxial digital output ❹

Use this socket if you are using a separate digital to analogue converter (DAC) or digital recorder. Connect to the DAC or recorder's digital input using a suitable 75Ω screened cable.

CAUTION: Never connect the digital output socket to a conventional audio input.

Optical digital output ❺

Use this socket if you are using a separate DAC or digital recorder with an optical connection. Connect using a suitable optical cable.

Remote IR input ❻ and 12V Trigger input ❼

These connections are intended for use in multi-room installations. In normal use there is no need to make any connections to these sockets.

TRIGGER IN – Connecting the 12V trigger output of an Arcam amplifier to this input will cause the CD36 to switch automatically in and out of stand-by when the amplifier is switched off and on.

REMOTE IN – This allows remote control signals to be received by the CD36 if the remote sensor is covered (or otherwise not 'visible' to the remote control). An external sensor is used to receive the signals from the remote control, which are then fed to the CD36 (into this input) using a suitable cable. Remote control signals acceptable to the CD36 must be in modulated RC5 format, with a voltage level of between 5V and 15V.

Both the trigger and remote control inputs require a mono 3.5mm jack, with the tip active and the sleeve grounded.

For the trigger in, the CD36 will come out of stand-by if the voltage on the tip is between 4V and 15V.

Connecting to a power supply

Mains lead

The appliance is normally supplied with a moulded mains plug already fitted to the lead. If for any reason the plug needs to be removed, it must be disposed of immediately and securely, as it is a potential shock hazard when inserted into the mains socket.

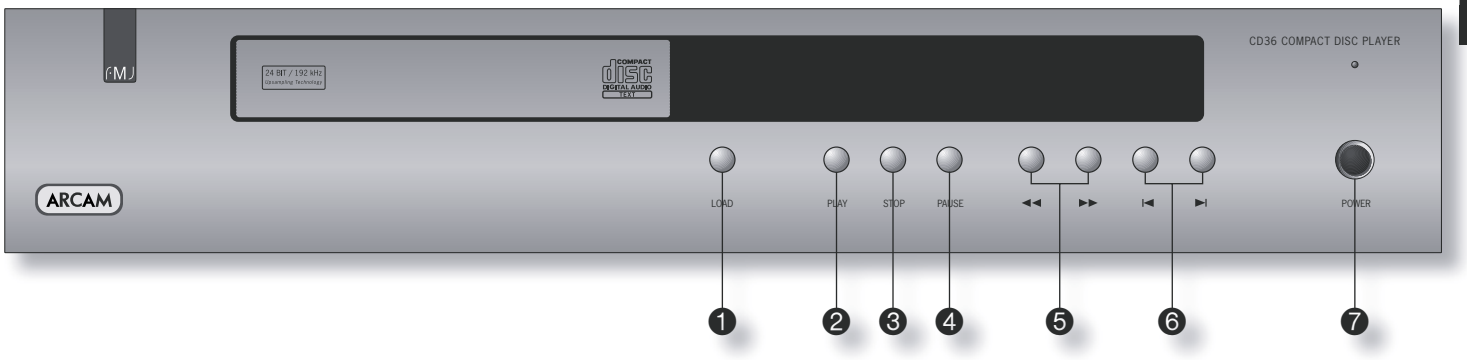
Check that the plug supplied with the unit fits your supply and that your mains supply voltage agrees with the voltage setting ❷ indicated on the rear panel of the unit.

If your mains supply voltage or mains plug is different, or you require a new lead, please consult your Arcam dealer.

Plugging in

Push the plug (IEC line socket) of the power cable supplied with the unit into the socket ❶ in the back of the unit. Make sure it is pushed in firmly. Put the plug on the other end of the cable into your power supply socket and switch the socket on.

Using your CD player



POWER ❼
Press this button to switch the CD player on and off. When first powered up with no CD installed the display shows 'No disc'.

LOAD ❶
To install a CD, press **LOAD (**or **OPEN** on the remote control). The CD tray opens – it accepts 12cm and 8cm discs. Place the CD in the tray with the label facing uppermost. Press **LOAD** again (or press **PLAY**, or gently push the tray in 5mm) to close the tray. You will see the total number of tracks and total disc time.

The display returns to '0' after a few seconds. The disc is now ready to play.

PLAY ❷
Press to play the CD. To restart from track 1, press **STOP** and then **PLAY**.

Make sure your amplifier's input source selector is set to the correct input.

STOP ❸
Press to stop the CD playing. The display shows '0' and the number of tracks.

PAUSE ❹
Press to pause the disc (interrupt play). Press **PLAY** to resume play from the same point.

SEARCH ❺
Press ◀◀ to search backwards, or ▶▶ to search forwards for a particular passage within the currently playing track. If the player is in 'PAUSE' mode the search is made at high speed with the sound muted.

Press ◀◀, ▶▶ or **PLAY** to stop the search action and resume playing.

SKIP TRACK ❻
To start a CD with a track other than the first, press ▶| or |◀ to locate the desired track.

To select another track during play, press |◀ or ▶|. The track is played automatically after selection.

CDs with text

Load
You will see the total number of tracks and the total disc time with 'CD TEXT' illuminated in the display. The artist and album title scrolls across the display before returning to show the artist and total number of tracks.

Play
The track number is briefly displayed, followed by the track title scrolling across the display. The display returns to showing the track number and time.

Track selection
When a new track is selected, the track number is briefly displayed, followed by the track title scrolling across the display. The display returns to showing the track number and time.

NOTE: The track title is always displayed when a track is selected, either for playing or programming. The artist is always displayed when the disc is stopped.

Using the CR-314 remote control

CD/DVD

Ensure that CD mode is selected using the **CD/DVD** toggle button. The 'CD' LED above the **CD/DVD** button is lit briefly when CD mode is selected.

DISP (display)

Turns the display on or off. Turning the display off generally produces a slight improvement in sound quality.

A–B

This button enables you to repeat any section of music within a track. Whilst the disc is playing, press the **A–B** button at the start of the section you wish to repeat. 'REPEAT' is shown on the display and the letter 'A–' flashes. Press the button a second time when you reach the end of the section you wish to repeat. The 'A–B' letters stop flashing and remain lit. This section will repeat until you press ■ or ▶| or |◀. The forward search button (▶▶) moves forward within the selected loop.

RPT (repeat)

To repeat the entire CD or a pre-programmed selection of tracks press **RPT** once: 'REPEAT' lights on the display. To repeat a particular track, select that track and then press **RPT** twice so that 'REPEAT 1' is shown on the display. If you now select a different track, that track is repeated instead.

To cancel the repeat function press **RPT** a third time.

Search and Skip Track

Search backwards and forwards;
Skip track backwards and forwards (see page 5)

OPEN

Opens and closes the CD tray

Playback control

Pause, Play and Stop (see page 5)

P MODE

Press once to shuffle play CD tracks (i.e. play them in a random order). Press again to cancel shuffle play.

TITLE

Press **TITLE** once to display the remaining time of the currently playing track. Press again to display the time remaining of the disc. Press a third time to turn the text display on.

Press **TITLE** again and the display reverts to its original setting, showing the time elapsed for the current track.

For CDs with text, pressing **TITLE** once while the disc is loaded but not playing displays the artist's name. Pressing **TITLE** a second time displays the total number of tracks and the total playing time.

0–9 keypad

This allows direct access to individual tracks on the disc. To select a track, press the corresponding keypad button. For tracks greater than 9, enter the digits in sequence. For example, to play track 15, press and hold **1** until the number on the display moves to the left, then press **5**.

CLEAR

If you make a mistake whilst programming you can delete the last entered track by pressing **CLEAR**.
To delete all the programmed tracks, press **CLEAR** repeatedly until '0' is displayed.

To exit the program facility, press **PROG**.

PROG (Program)

You can program a selection of up to 24 tracks from a disc to play in any order. Select a track by using the ▶| and |◀ buttons, then press **PROG** to program the track into memory ('PROGRAM' appears on the display to indicate that you have started programming a sequence). Repeat these steps to program the remaining tracks in your selection. Alternatively, press **PROG** once and enter your track selection using the 0–9 keypad.

The display shows the track numbers programmed, the total length of the programmed sequence and the number of tracks programmed (shown by a number below the word 'STEP').

Each time you enter a track the number below 'STEP' increments by one and flashes until you press **PROG** to confirm. If you fail to press **PROG** within about five seconds the display stops flashing and you will have to reselect the track.

Press ▶ to play the program. Press ▶ again to replay the entire sequence from the start. Press and hold **CLEAR** to erase the programmed sequence. Press **PROG** again to exit the program facility.

MUTE

Stops sound to the speaker outputs of certain Arcam amplifiers.

Volume +/–

Adjusts the volume on Arcam remote-controllable amplifiers.

Note that the volume (**+/–**) controls and **MUTE** button have no effect on the audio output level of the CD players.

NOTE: Remember to install the two AAA batteries supplied before trying to use your remote control.

Do not place anything in front of the display area on the CD player (where the IR receiver is located), or the remote control may not work.

Note that greyed-out buttons on the remote control are DVD-specific and are not used with the CD player.

Remote-control codes

The following table gives the IR-commands accepted by the CD36. Items shown in italics reference the buttons on the supplied CR-314 remote control. The items not in italics are additional commands accepted by the CD36.

Power commands

Command	Decimal Code
Power toggle	*20–12*
Power-on	20–123
Power-off	20–124

Playback control commands

Command	Decimal Code
Track number 'n', (e.g., 1)	*20–n (e.g., 20–1)*
Track selection 10+	*20–10*
Time	*20–66*
Remain	20–11
Track forward	*20–32*
Track back	20–33
Fast forward	20–52
Fast rewind	20–50
Open	20–45
Pause	20–48
Stop	20–54
Play	20–53

Advanced control commands

Command	Decimal Code
Repeat toggle	*20–29*
Repeat off	20–125
Repeat one	20–126
Repeat all	20–127
Repeat A-B	*20–59*
Search	20–76
Scan	20–43
Scan 10 seconds	20–79
Scan 20 seconds	20–88
Scan 30 seconds	20–90
Scan off	20–90
Clear	20–58
Clear all	20–57
Programme	*20–41*
Programme on	20–99
Programme off	20–100
PMode (Shuffle)	20–64
Shuffle	*20–28*
Shuffle on	20–114
Shuffle off	20–115

Display control commands

Command	Decimal Code
Display toggle	*20–18*
Display on	20–14
Display dim	20–20
Display off	20–21
Display remaining track time	20–110
Display elapsed track time	20–111
Display remaining disk time	20–112
Display remaining titles	20–113

Technical specification

Digital to Analogue conversion	
High performance 192kHz 24-bit sample rate converter and multiple 24-bit digital to analogue conversion	
Laser pick-up	3 beam
Laser wavelength	780nm
Numerical aperture	0.45
Signal to noise ratio	114dB
Harmonic distortion, 24-bit (1kHz)	0.0008% *
Frequency response (±0.5dB)	0.15Hz–20kHz
Output level (0dB)	2.2Vrms
Output impedance	47Ω
Minimum recommended load	5kΩ
* Using 16-bit, triangular p.d.f. dithered data	
Physical	
Dimensions	W430 x D290 x H85mm
Weight	5.6kg nett/7.5kg packed
Power consumption	32VA maximum
Digital output connection	75Ω co-axial optical TOSLINK
Supplied accessories	
	Mains lead CR-314 remote control 2 x AAA batteries
E&OE	

NOTE: All specification values are typical unless otherwise stated.

Continual improvement policy
Arcam has a policy of continual improvement for its products. This means that designs and specifications are subject to change without notice.

Radio interference
The CD36 player is a digital audio device which has been designed to very high standards of electromagnetic compatibility.

Both CD players and DACs generate, and can radiate RF (radio frequency) energy. In some cases this can cause interference with FM and AM radio reception. If this is the case, keep the CD player and its connecting cables as far from the tuner and its aerials as possible. Connecting the CD player and the tuner to different mains sockets can also help to reduce interference.

EC COUNTRIES – These products have been designed to comply with directive 89/336/EEC.

USA – These products comply with FCC requirements.

Laser radiation
If an Arcam CD player is operated whilst the outer casing is removed, invisible laser radiation could cause eye damage.

CLASS I
LASER PRODUCT

Guarantee

Worldwide Guarantee

This entitles you to have the unit repaired free of charge, during the first two years after purchase, at any authorised Arcam distributor provided that it was originally purchased from an authorised Arcam dealer or distributor. The manufacturer can take no responsibility for defects arising from accident, misuse, abuse, wear and tear, neglect or through unauthorised adjustment and/or repair, neither can they accept responsibility for damage or loss occurring during transit to or from the person claiming under the guarantee.

The warranty covers:

Parts and labour costs for two years from the purchase date. After two years you must pay for both parts and labour costs. **The warranty does not cover transportation costs at any time.**

Claims under guarantee

This equipment should be packed in the original packing and returned to the dealer from whom it was purchased, or failing this, directly to the Arcam distributor in the country of residence. It should be sent carriage prepaid by a reputable carrier — **NOT** by post. No responsibility can be accepted for the unit whilst in transit to the dealer or distributor and customers are therefore advised to insure the unit against loss or damage whilst in transit.

For further details contact Arcam at:

Arcam Customer Support Department,
Pembroke Avenue,
Waterbeach,
CAMBRIDGE, CB5 9QR,
England

Problems?

If you have a problem, always contact your dealer in the first instance. If your dealer is unable to answer any query regarding this or any other Arcam product please contact Arcam Customer Support and we will do our best to help you.

On line registration

You can register your Arcam product on line at: **www.arcam.co.uk**