ARCAM

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HANDBOOK Compact Disc player

CD17
ULTRA HIGH PERFORMANCE 24 BIT DAC

ARCAM

Compact Disc Player

LOAD   PLAY   STOP   PAUSE   ◄◄   ►►   I◄ TRACK ►I   POWER

safety guidelines

CAUTION — RISK OF ELECTRIC SHOCK DO NOT OPEN

ATTENTION — RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

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.

Class II product

This equipment is a Class II or double insulated electrical appliance. It has been designed in such a way that it does not require a safety connection to electrical earth ('ground' in the U.S.).

Warning

Mains plug/appliance coupler is used to disconnect device and it shall remain readily operable.

MANY OF THESE ITEMS ARE COMMON SENSE PRECAUTIONS BUT, FOR YOUR OWN SAFETY AND TO ENSURE THAT YOU DO NOT DAMAGE THE UNIT, WE RECOMMEND THAT YOU READ THEM.

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 equipment. Retain this handbook for future reference and adhere to all warnings in the handbook or on the equipment.

2. Water and moisture

The presence of electricity near water can be dangerous. To prevent water dripping or splashing into the equipment, do not use near water – for example near a bathtub, kitchen sink or 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. Placing the equipment

Only use a rack or shelf that is stable and strong enough to support the weight of this equipment.

5. Ventilation

Do not block any ventilation openings in the equipment. 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.

5. Heat

Locate the equipment away from naked flames or heat-producing appliances such as radiators, stoves or other appliances that produce heat.

6. Climate

The equipment has been designed for use in moderate climates and in domestic situations.

8. Cleaning

Unplug the unit from the mains supply before cleaning.

The case should normally only require a wipe with a dry, soft, lint-free cloth. Do not use chemical solvents for cleaning.

We do not advise the use of furniture cleaning sprays or polishes as they can cause permanent white marks.

9. Power sources

Only connect the equipment to a power supply of the type described in the operating instructions or as marked on the equipment.

The primary method of isolating the equipment from the mains supply is to remove the mains plug. The equipment must be installed in a manner that makes disconnection possible.

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. Pay particular attention to the point where they exit from the equipment.

11. Non-use periods

We recommend that the power cord of the equipment is unplugged from the power outlet during lighting storms or if the equipment is not being used for an extended period of time

12. Abnormal smell

If an abnormal smell or smoke is detected from the equipment, turn the power off immediately and unplug the equipment from the wall outlet. Contact your dealer and do not reconnect the equipment.

13. Servicing

You should not attempt to service the equipment. Contact your dealer to arrange servicing.

14. Batteries

Batteries should not be exposed to excessive heat (heating systems, sunshine, etc.) or incinerated.

15. Damage requiring service

The equipment 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 equipment, or

C. the equipment has been exposed to rain or moisture, or

D. the equipment does not appear to operate normally or exhibits a marked change in performance, or

E. the equipment has been dropped or the enclosure damaged.

Safety compliance

This equipment has been designed to meet the IEC/EN 60065 international electrical safety standard.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Contents

Thank you and congratulations for purchasing your Arcam FMJ CD player.

Arcam has been producing specialist audio products of remarkable quality for over three decades and the new CD17 compact disc (CD) player is the latest in a long line of award winning HiFi equipment. The design of the FMJ range draws upon all of Arcam's experience as one of the UK's most respected audio companies and is built to give you years of listening enjoyment.
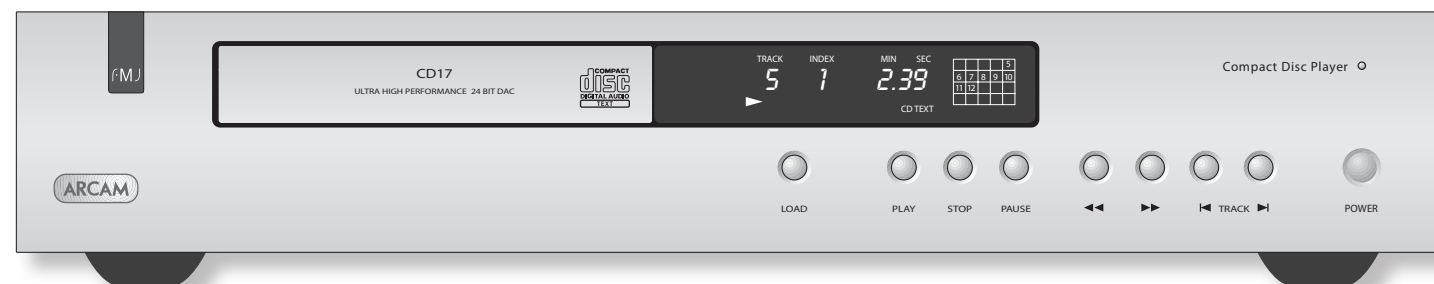
This handbook has been designed to give you all the information you need to install, connect and use the Arcam CD17 compact disc player. The CR10 remote control handset supplied with this equipment is also described. Use the contents list shown on this page to guide you to the section of interest.

We hope that your FMJ CD player will give you years of trouble-free operation. In the unlikely event of any fault, or if you simply require further information about Arcam products, our network of dealers will be happy to help you. Further information can also be found on the Arcam website at www.arcam.co.uk.

The FMJ development team

welcome

English

installation

Arcam's CD17 provides class-leading sound quality from compact discs.

The CD17 has a Delta-Sigma DAC (Digital-to-Analogue Converter) with 24-bit filtering, allowing fine details to be reproduced in startling clarity. The CR10 remote control supplied with the CD17 is simple to use and can also control an Arcam amplifier.

The high performance CD17 audio disc player is designed to truly bring your music to life.

Placing the unit

- Place the CD17 on a level, firm surface, avoiding direct sunlight and sources of heat or damp.
- Do not place the CD17 on top of an amplifier or other source of heat.
- Do not place the CD17 in an enclosed space such as a bookcase or closed cabinet unless there is good provision for ventilation. The CD17 is designed to run warm during normal operation.
- Do not place any other component or item on top of the CD17 as this may obstruct airflow around the unit, causing the CD17 to run hot.
- Make sure the remote-control receiver to the left of the front panel display is unobstructed, otherwise this will impair the use of the remote-control.
- Do not place your record deck on top of this unit. Record decks are very sensitive to the noise generated by mains power supplies which will be heard as a background 'hum' if the record deck is too close.

Power

The CD17 is supplied with a moulded mains plug already fitted to the lead. Check that the plug supplied fits your supply – should you require a new mains lead, please contact your Arcam dealer.

If your mains supply voltage or mains plug is different, please contact your Arcam dealer immediately

Push the IEC plug end of the power cable into the socket on the back of the CD17, making sure that it is pushed in firmly. Plug the other end of the cable into your mains socket and, if necessary, switch the socket on.
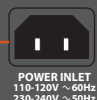
Interconnect cables

We recommend the use of high-quality screened cables that are designed for the particular application. Other cables will have different impedance characteristics that will degrade the performance of your system (for example, do not use cabling intended for video use to carry audio signals). All cables should be kept as short as is practically possible.

It is good practice when connecting your equipment to make sure that the mains power-supply cabling is kept as far away as possible from your audio cables. Failure to do so may result in unwanted noise in the audio signals.

Power inlet
Connect the correct
mains cable here.

VOLTAGE SELECT

POWER INLET
110-120V ~60Hz
230-240V ~50Hz

110-120V/230-240V

L

R

1   2
ANALOGUE AUDIO OUT

COAXIAL   OPTICAL
DIGITAL AUDIO OUT

Voltage select
Ensure the voltage selected
matches the local power supply.

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

Analogue audio outputs
Connect these to your amplifier's CD or 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
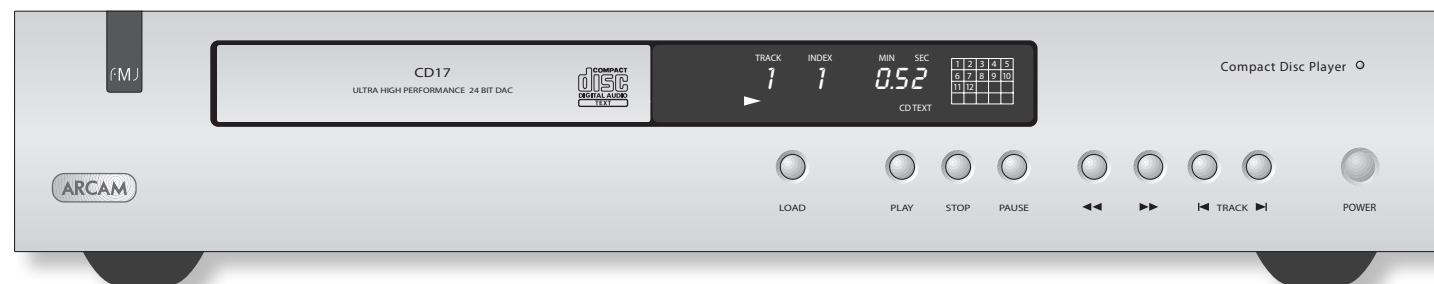to a second amplifier set up for multi-room use.

Coaxial digital output
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.**

operation

Front panel operation

These functions can also be controlled by CR10 remote control. (See pages 8–9 for details.)

POWER

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

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

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

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

PAUSE

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

◀◀ ▶▶ (Search track)

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

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

|◀ ▶| (Skip track)

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 the 'CD TEXT' icon 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.

Advanced features

INFO (Information)

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

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

For CDs with text, pressing **INFO** once while the disc is loaded but not playing displays the artist's name.

Pressing **INFO** a second time displays the total number of tracks and the total playing time.

RPT (Repeat)

To repeat the entire disc or a pre-programmed selection of tracks press **RPT** on the remote control 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.

PROG (Program)

The function allows up to 24 tracks from an audio disc can be programmed to play in any order.

Select a track by using the ▶ and ◀ buttons, then press **PROG** on the remote control 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** on the remote control 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 **PROG** again to exit the program facility: the display flashes '*CONTINUE*' and shows '*0*'.

A–B

This button on the remote control enables you to repeat any section of music within a track. While a 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.

The selected loop repeats until you press ■ or ▶ or ◀ to terminate. The forward search button (▶▶) moves forward only within the selected loop.
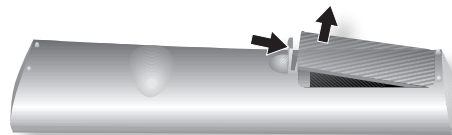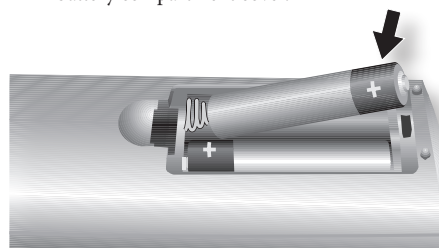
The CR10 remote control

The CR10 is pre-programmed for use with the CD17 CD player and Arcam amplifiers such as the A28 and A38.

The CR10 requires a clear line of sight to the front panel display of CD17 to ensure reliable operation. Make sure you have inserted the two AAA batteries supplied before attempting to use the CR10.
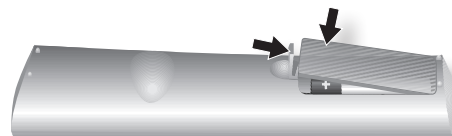
Inserting batteries into the remote control

1. Squeeze the tab and lift off the remote control's battery compartment cover.

2. Insert the two 'AAA' batteries supplied in the proper direction, following the '+' and '–' marks in the battery compartment.

3. Replace the battery compartment cover, locking the tab with a click.

CD player commands

DISP	Cycles through the front panel display's brightness options (dim to bright, off).
INFO	Toggle track display mode (for details, see page 7).
SHUFF	Toggles random ('shuffle') play on and off
PROG	Allows the programming of a selection of up to 24 tracks from a disc to play in any order (for details, see page 7).
A–B	A-B repeat function (for details, see page 7).
RPT	Cycles through repeat options (track, disc, etc.). For details, see page 7.
0 to 9	The numeric keys allow 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**.
⏏	Open/close disc tray
🔇	Toggles the mute function, if available. By default this key always operates the AMP Mute
PLAY ▶	Play
PAUSE ‖	Pause playback
STOP ■	Stop playback
VOL – **VOL +**	Decrease (**VOL–**) or increase (**VOL+**) amplifier volume
◀◀	Fast search backwards
▶▶	Fast search forwards
◀	Press and release to skip back to the beginning of the current/previous track.
▶|	Press and release to skip forwards to the beginning of the next track.

CD player panel – IR commands

These are the IR commands generated by the CD player panel on the CR10 remote control, and accepted by the CD17.

Key name	Decimal
0	20-0
1	20-1
2	20-2
3	20-3
4	20-4
5	20-5
6	20-6
7	20-7
8	20-8
9	20-9
INFO	20-11
DISP	20-18
SHUFF	20-28
RPT	20-29
▶|	20-32
|◀	20-33
PROG	20-41
OPEN	20-45
PAUSE	20-48
◀◀	20-50
▶▶	20-52
PLAY	20-53
STOP	20-54
A-B	20-59

Amplifier commands

🔇	Toggles the mute function.
VOL – VOL +	Decrease (–) and increase (+) amplifer volume
Source keys	Selects the amplifier input:

	DVD	DVD input
	SAT	Satellite decoder input
	AV	AV (television sound) input
	TUN	DAB/FM/AM tuner input
	AUX	Auxiliary line input
	PVR	Personal Video Recorder input
	CD	CD input
	PHO	Phono input

BASS	Adjust bass levels (using **VOL–** and **VOL+** controls)
TREB	Adjust treble levels (using **VOL–** and **VOL+** controls)
BAL	Adjust balance levels (using **VOL–** and **VOL+** controls)
PROC	Toggles processor mode
DRCT	Toggles direct mode (i.e. tone defeat)
DISP	Cycles through Display panel brightness options (dim to bright, off)
MODE	Changes audio mode on Arcam sound processor amplifiers

NOTE: The CR10 will only control Arcam amplifiers.

Amplifer panel – IR commands

These are the IR commands generated by the Amplifier panel on the CR10 remote control, and accepted by the CD17.

Key name	Decimal
SAT	16-0
PHO	16-1
AV	16-2
TUN	16-3
DVD	16-4
PVR	16-6
CD	16-7
AUX	16-8
DRCT	16-10
PROC	16-14
MUTE	16-13
VOL+	16-16
VOL-	16-17
TREB	16-28
BASS	16-30
MODE	16-32
BAL	16-37
DISP	16-59

specifications

Digital to Analogue conversion	24-bit multilevel Delta-Sigma DAC
Laser pick-up	3 beam
Laser wavelength	780nm
Numerical aperture	0.45
Signal to noise ratio	109dB (20Hz–20kHz bandwidth)
Harmonic distortion (1kHz)	0.002%
Frequency response (±0.5dB)	0.3Hz–20kHz
Output level (0dB)	2.3Vrms
Output impedance	47Ω
Minimum recommended load	5kΩ
Physical	
Dimensions	W430 x D290 x H85mm
Weight	5.1kg nett/7.0kg packed
Power consumption	32VA maximum
Digital output connection	75Ω co-axial optical TOSLINK
Supplied accessories	
	Mains lead CR10 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 CD17 compact disc player is a digital audio device which has been designed to very high standards of electromagnetic compatibility.

All CD players 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 – This products have been designed to comply with EMC Directive 2004/108/EC.

USA – These products comply with FCC Part 15 Class B.

Laser radiation

**CLASS I
LASER PRODUCT**

If the CD17 compact disc player is operated whilst the outer casing is removed, invisible laser radiation could cause eye damage.

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 unauthorized 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, CB25 9QR, England

or via *www.arcam.co.uk*.

Problems?

If your Arcam dealer is unable to answer any query regarding this or any other Arcam product please contact Arcam Customer Support at the above address and we will do our best to help you.

On-line registration

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

Correct disposal of this product

This marking indicates that this product should not be disposed with other household waste throughout the EU.

To prevent possible harm to the environment or human health from uncontrolled waste disposal and to conserve material resources, this product should be recycled responsibly.

To dispose of your product, please use your local return and collection systems or contact the retailer where the product was purchased.