

ARCAM

f·M·J CLASS A29

HANDBOOK Integrated amplifier

MANUEL Amplificateur intégré

HANDBUCH Integrierter Verstärker

HANDLEIDING Geïntegreerde versterker

MANUAL Amplificador integrado

РУКОВОДСТВО Встроенный усилитель

MANUALE Amplificatore integrato

手册 合并式放大器

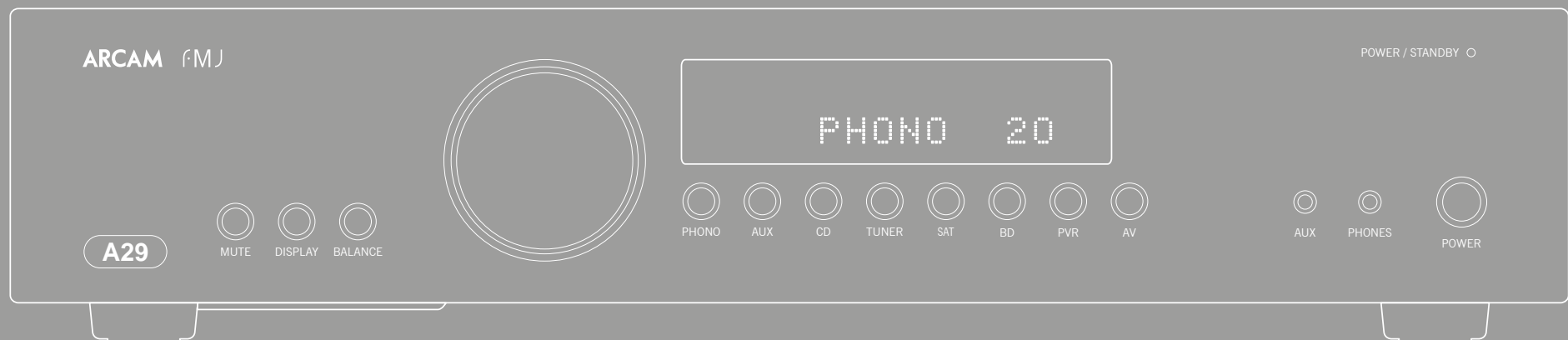


ARCAM

English

f·M J CLASS A29

HANDBOOK Integrated amplifier



safety guidelines

Important safety instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug.
A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.

12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.

When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel.
Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Object or liquid entry
WARNING – Take care that objects do not fall and liquids are not spilled into the enclosure through any openings. The equipment shall not be exposed to dripping or splashing. Liquid-filled objects such as vases should not be placed on the equipment.
16. Climate
The equipment has been designed for use in moderate climates and in domestic situations.

17. Cleaning

Unplug the unit from the mains supply before cleaning. The case should normally only require a wipe with a 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.

18. 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.

19. 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.

20. 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



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.

- B. objects have fallen, or liquid has spilled into the equipment, or
- C. the equipment has been exposed to rain, 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:

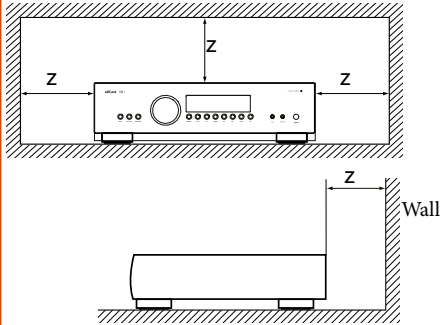
- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

The building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.

CAUTIONS ON INSTALLATION

For proper heat dispersal, do not install this unit in a confined space, such as a bookcase or similar enclosure.

- More than 0.3 m (12 in.) is recommended.
- Do not place any other equipment on this unit.



FCC INFORMATION (FOR US CUSTOMERS)

1. PRODUCT

This product 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.

2. IMPORTANT NOTICE: DO NOT MODIFY THIS PRODUCT

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modification not expressly approved by ARCAM may void your authority, granted by the FCC, to use the product.

3. NOTE

This product has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This product generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause harmful interference to radio or television reception, which can be determined by turning the product OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the product into an outlet on a circuit different from that to which the receiver is connected.
- Consult the local retailer authorized to distribute this type of product or an experienced radio/TV technician for help.

SAFETY INFORMATION (FOR EUROPEAN CUSTOMERS)

- Avoid high temperatures. Allow for sufficient heat dispersion when installed in a rack.
- Handle the power cord carefully. Hold the plug when unplugging the cord.
- Keep the unit free from moisture, water, and dust.
- Unplug the power cord when not using the unit for long periods of time.
- Do not obstruct the ventilation holes.
- Do not let foreign objects into the unit.
- Do not let insecticides, benzene, and thinner come in contact with the unit.
- Never disassemble or modify the unit in any way.
- Ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths or curtains.

- Naked flame sources such as lighted candles should not be placed on the unit.
- Observe and follow local regulations regarding battery disposal.
- Do not expose the unit to dripping or splashing fluids.
- Do not place objects filled with liquids, such as vases, on the unit.
- Do not handle the mains cord with wet hands.
- When the switch is in the OFF position, the equipment is not completely switched off from MAINS.
- The equipment shall be installed near the power supply so that the power supply is easily accessible.

A NOTE ABOUT RECYCLING:

This product's packaging materials are recyclable and can be reused. Please dispose of any materials in accordance with the local recycling regulations. When discarding the unit, comply with local rules or regulations.

Batteries should never be thrown away or incinerated but disposed of in accordance with the local regulations concerning battery disposal.

This product and the supplied accessories, excluding the batteries, constitute the applicable product according to the WEEE directive.

CORRECT DISPOSAL OF THIS PRODUCT

These markings indicate 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.





welcome...

Thank you and congratulations for purchasing your Arcam FMJ Amplifier.

Arcam has been producing specialist audio products of remarkable quality for over three decades and the new A29 integrated amplifier is the latest in a long line of award winning Hi-Fi. The design of the FMJ range draws upon all of Arcam's experience as one of the UK's most respected audio companies, to produce Arcam's best performing range of stereo amplifiers yet – designed and built to give you years of listening enjoyment.

This handbook is a guide to installing and using the A29 and includes information on its more advanced features. Use the contents list on the next page to guide you to the section of interest.

We hope that your FMJ product 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



Contents

safety guidelines	E-2
Important safety instructions.....	E-2
Safety compliance.....	E-2
welcome	E-4
overview	E-6
Placing the unit	E-6
Power	E-6
Interconnect cables.....	E-6
A29 connections	E-7
A29 operation	E-8
Switching on	E-8
Auto standby.....	E-8
Display	E-8
Phono input.....	E-8
Selecting an audio source	E-8
Audio inputs.....	E-8
Record output.....	E-9
Pre-amplifier output	E-9
Adjusting the balance	E-9
Listening	E-9
loudspeakers	E-10
Normal single wiring.....	E-10
Bi-amping.....	E-10
Connecting loudspeakers.....	E-10
CR902 remote control	E-11
AMP Device Mode	E-12
TUN Device Mode	E-12
CD Device Mode	E-12
BD Device Mode	E-12
troubleshooting	E-13
No sound	E-13
Sound cuts-out unexpectedly	E-13
A29 specifications	E-14
product guarantee	E-15
Worldwide guarantee.....	E-15
Claims under guarantee	E-15
Problems?.....	E-15
On-line registration	E-15

overview



Arcam's A29 integrated amplifier provides class leading sound quality for the best reproduction of your music.

Drawing on the many years of amplifier design experience at Arcam, this product uses the best quality components and engineering practice to produce a product that will give many years of musical pleasure and reliable service.

With a class G amplifier, toroidal based power supply, acoustically damped chassis and exceptionally low levels of distortion and noise the A29 is capable of reproducing music with all its original authority and detail. Rest assured you will be hearing the music just as the artist intended.

The A29 is designed to produce a level of performance that will truly bring your music to life.

Placing the unit

- Place the amplifier on a level, firm surface, avoiding direct sunlight and sources of heat or damp.
- Do not place the A29 on top of a power amplifier or other source of heat.
- Do not place the amplifier in an enclosed space such as a bookcase or closed cabinet unless there is good provision for ventilation. The A29 is designed to run warm during normal operation.
- Do not place any other component or item on top of the amplifier as this may obstruct airflow around the heat-sink, causing the amplifier to run hot. (The unit placed on top of the amplifier would become hot, too.)
- Make sure the remote-control receiver to the right 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.
- The normal function of the unit may be disturbed by strong electromagnetic interference. If this occurs, simply reset the unit with the power button, or move the unit to another location.

Power

The amplifier 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

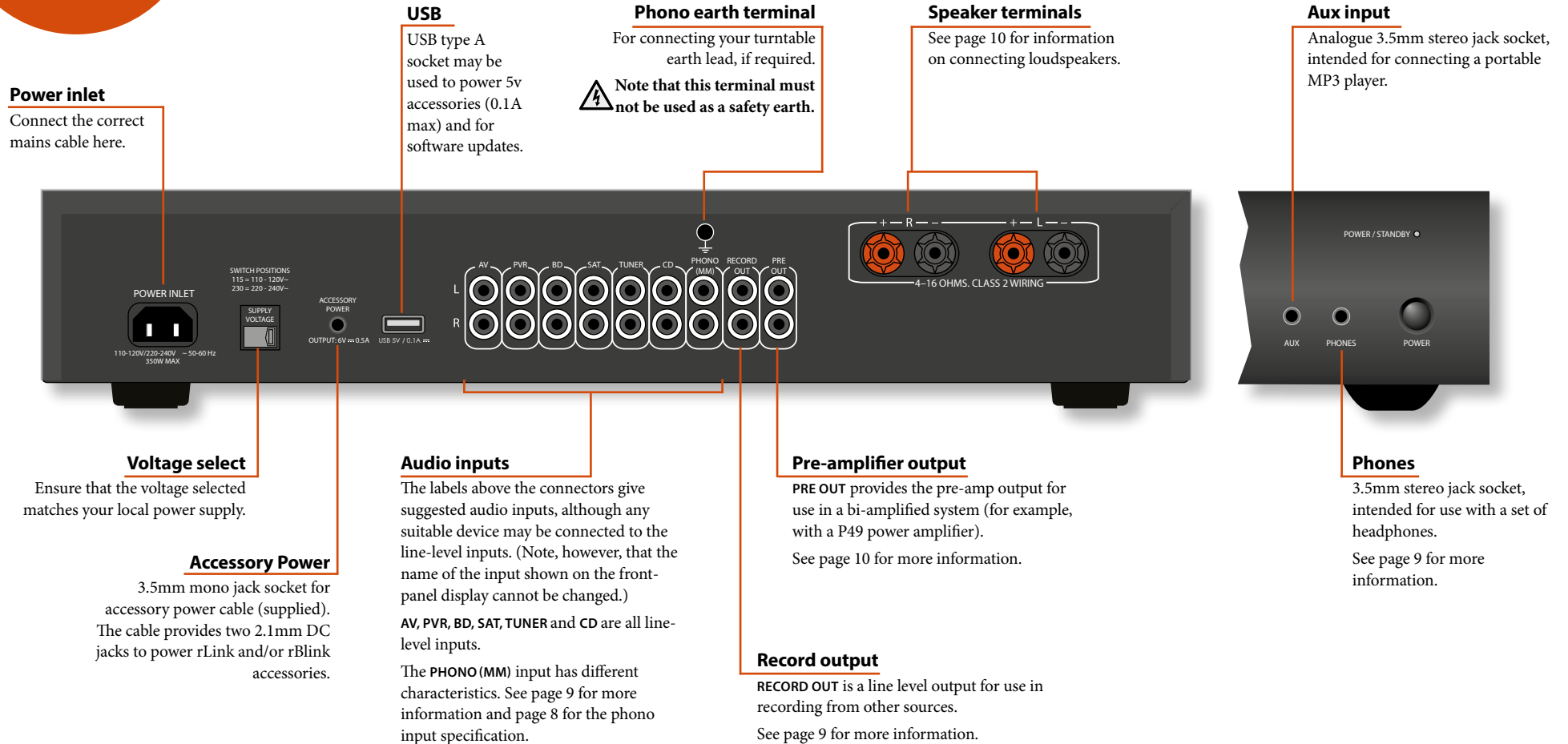
Push the IEC plug end of the power cable into the power socket on the back of the amplifier, making sure that it is pushed in firmly. Plug the other end of the cable into your mains socket and switch the socket on.

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.

A29 connections



Note
Please read the 'Placing the unit', 'Power' and 'Interconnect cables' sections on page 6 before connecting up your A29 integrated amplifier!

A29 operation



Switching on

The **POWER** button switches the unit on and off.

The power light (next to the 'POWER/STANDBY' text) indicates the state of the amplifier: it changes from red to orange then green if mains power is connected and the unit is switched on.

Auto standby

In order to comply with international regulations for consumer products, this unit is designed to enter a low power standby mode if no user interaction is detected for an extended period of time. The unit can be brought out of standby by either turning the control knob on the front panel in either direction or by pressing the \odot key on the remote control.

This time can be adjusted by pressing the **AUX** and **BALANCE** buttons on the front panel and turning the control knob to the desired value. The available values are from OFF to 24 hours, in half hour steps.

Note: if the standby timeout is set to OFF, the standby feature will be disabled.

Display

The **DISPLAY** button (or **DISP** on the remote control) changes the display brightness between 'on', 'dimmed' and 'off'. If the A29 is powered off with the display brightness set to 'off', the display resumes to 'dimmed' when the unit is powered on again.

Phono input

Phono-level input

The A29 provides a pre-amplification stage to treat the low-voltage output from a MM (moving magnet) cartridge. Input specifications are given on page 14.

Output volume is shown on the front display as PHONO 20, for example.

Line-level phono input

The phono input may be changed from phono-level to line-level. Press the front panel **PHONO** and **BALANCE** buttons simultaneously and use the control knob to change the setting. The front panel display shows PHONO ON or LINE ON respectively.

If you wish to use an external phono amplifier, connect its output to the **PHONO (MM)** input, but make sure that **LINE ON** is selected, since a phono amplifier produces line-level input.

With the input defined in this way, output volume is shown on the front display as **LINE 20**, for example.

WARNING: NEVER play a standard line-level source into the phono input when set to LINE-OFF. This would result in serious damage to both your amplifier and speakers due to the extra gain that is applied and would not be covered under warranty.

Selecting an audio source

Audio sources may be selected from the front panel buttons (**PHONO**, **AUX**, **CD**, **TUNER**, **SAT**, **BD**, **PVR**, **AV**), or the remote control (**PHONO**, **AUX**, **CD**, **TUN**, **SAT**, **BD**, **PVR**, **AV**).

In each case, the source is selected from the input sockets with the corresponding name.

Audio inputs

Although the inputs are labelled for specific devices, all have the same characteristics and each may be used with any line-level product. The exception is the **PHONO (MM)** input (see page 14 for the specification).

AUX

This is a 3.5mm analogue input on the front panel intended for use with devices such as MP3 players. To connect an MP3 player (or other portable audio device) you will need a 3.5mm to 3.5mm cable connected between the **AUX** input and the headphone output socket of the player.

TUNER

Intended for the analogue outputs from an FM, AM or DAB radio tuner.

SAT

Intended for the analogue outputs from a satellite TV receiver or cable TV box.

BD

Intended for the analogue outputs from a Blu-ray or DVD-player.

PVR

Intended for the analogue outputs from a Personal Video Recorder, or similar device.

AV

Intended for the analogue outputs from general audio-visual equipment, such as a VCR or digital TV/satellite receiver.

CD

Intended for the analogue outputs from a CD player.



Record output

The A29 is equipped with an audio recording loop which may be used with recording devices such as a CD recorder, DAT recorder, cassette recorder, VCR or PVR. Connect the RECORD OUT output socket to the input socket of your recording device (usually labelled RECORD or IN).

To record from a particular source, press the appropriate source button (for example, TUNER).

Pre-amplifier output

To use your A29 as a dedicated pre-amplifier, or as part of a bi-amped system, connect the PRE OUT sockets to the input sockets of your power amplifier.

See page 7 for connection details and see page 14 for the output specification.

Adjusting the balance

The balance setting allows you to increase the volume of one channel (left or right) relative to the other. Altering the balance may help to restore the stereo image for an off-centre listening position.

Balance can be adjusted from the front panel or from the remote control. Press the **BALANCE** button (or **BAL** on the CR902) to view the current setting, then use the control knob (or the +/- buttons on the remote) to change the setting – from L12 to R12, via the neutral value 0.

Listening

Volume control

Use the control knob (or the +/- buttons on the remote) to change the volume. Turn the knob clockwise to increase the volume, anti-clockwise to reduce it.


Listening using headphones


The headphones socket (**PHONES**) accepts headphones with an impedance rating between 16Ω and 2kΩ, fitted with a 3.5 mm stereo jack plug.

The pre-amp outputs and speakers are muted when headphones are plugged in and the front panel display shows Headphone.

The headphones socket is always active, unless output has been muted.

Muting output

The output of the A29 can be silenced by pressing **MUTE** on the front panel (or  on the remote control). If the unit is muted, the power light changes to orange and the source is shown on the front display panel (e.g. PVR MUTE).

Press **MUTE**/ for a second time (or change the volume) to cancel mute.

loudspeakers

Connecting loudspeakers

There are many different ways of connecting loudspeakers to your A29. The following section describes how to connect the speakers and amplifier for the most common configurations.

Notes on making speaker connections

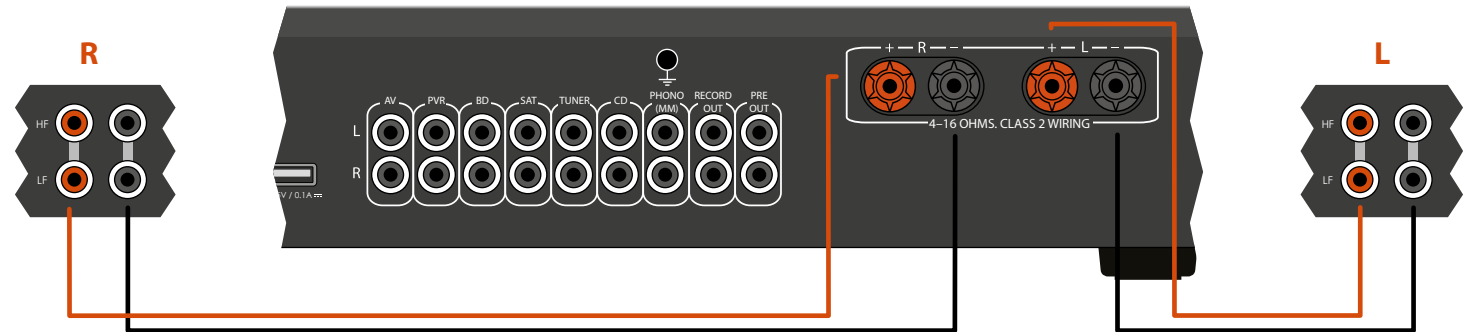
- Do not make any connections to any amplifier while it is switched on. We recommend that your amplifier is completely disconnected from the mains supply before starting.
- Before switching your amplifier(s) on for the first time after connecting to speakers, please check all connections thoroughly. Ensure that bare wires or cables are not touching each other or the amplifier's chassis (which could cause short circuits), and that you have connected positive (+) to positive and negative (-) to negative. Be sure to check the wiring for both the amplifier and the speaker.
- After making connections: switch the amplifier on, select a source signal, then gradually increase the volume to the required listening level.
- If you are unsure as to how your system should be connected, please contact your Arcam dealer who will be happy to help you.

Normal single wiring

If each speaker has more than one pair of connecting terminals, use the terminals labelled LF or 'Low Frequency'.

Connect the red positive terminal of the right speaker connection on the amplifier (labelled R+) to the positive terminal of your right speaker. Similarly, connect the black negative terminal of the right speaker connection on the amplifier (labelled R-) to the negative terminal of your speaker. Repeat the process for the left speaker, using the terminals labelled L+ and L- on the amplifier.

WARNING: If your speakers support bi-wiring, there will be a strip of conductive metal connecting the low-frequency (LF) terminals to the high-frequency (HF) terminals; this **MUST NOT BE REMOVED** in a single-wired system.



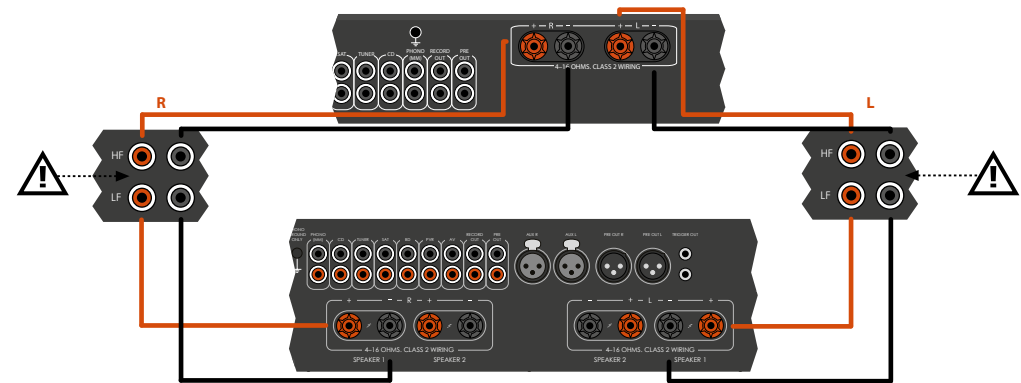
Bi-amping

Bi-amping is the separation of the amplification of low- and high-frequency signals over two amplifiers.

Bi-amping requires the use of two amplifiers per channel. Normally, your A29 is used to drive the high-frequency (treble) speakers, with a P49 used for the lower (bass) frequencies.

Connect your A29 to the speakers as described for single wiring, with the exception that the A29 should be connected to the speaker terminals labelled HF or 'High Frequency'. Then connect the power amplifier (an Arcam P49 for example) to the LF or 'Low Frequency' terminals, as in the diagram. A pair of audio interconnect cables are also required to connect the pre-amp outputs of the A29 to the power amp inputs of the P49.

Note that the strip of metal on the speakers connecting the lower terminals to the upper terminals **MUST BE REMOVED**. Failure to do so will result in damage to both amplifiers, which will not normally be covered under warranty.



An A29 and P49 connected to speakers using bi-amping

CR902 remote control


The CR902 is pre-programmed for use with the A29. Make sure the two AAA batteries supplied are installed before attempting to use the remote control.




- A. With the CR902 remote face-down, press down on the non-slip indentations of the battery compartment cover and slide the cover off.
- B. Insert the two 'AAA' batteries supplied. Take care to insert the batteries in the right direction by following the '+' and '-' marks in the battery compartment.
- C. Slide the battery compartment cover back and lock it in place with a click.

The CR902 requires a clear line of sight to the front panel display of A29 to ensure reliable operation.




AMP Device Mode

The  Device Mode button configures the CR902 to control your Arcam amplifier. Pressing this button does not affect the currently selected input on the amplifier.


	Toggles power between standby and on
DISP	Cycles through the front panel display's brightness options
MENU	Displays the amplifier setup menu on the front panel
	Navigate menus
	Toggles the mute function of the amplifier
Vol- Vol+	Decrease (-) and increase (+) amplifier volume
BAL	Adjusts the balance between the left and right audio channel




TUN Device Mode

The  Device Mode button configures the CR902 to control the tuner functions of Arcam tuners.


	Toggles power between standby and on
	The numeric keys are used to store and recall presets
DISP	Cycles through the front panel display's brightness options
BAND	Cycles through tuner sources
	Rewind iPod
	Fast forward iPod
	Preset down/Sirius category down/iPod track back
	Preset up/Sirius category up/iPod track forward
	Stop iPod
	Play/pause iPod
	Play/pause iPod
SHUFF	Cycle through iPod shuffle modes
MENU	Displays the tuner setup menu on the front panel
	Preset up/down, iPod track back/forward
	Decrement/increment tuning frequency
	Confirm a selection
RPT	Cycle through iPod repeat modes
FM MONO	Toggle FM mode between mono and stereo reception
P/TUNE	Enter/Exit Preset recall mode
STORE	Enter/Exit Preset store mode
BAND	Cycles through available tuner bands



CD Device Mode

The  Device Mode button configures the CR902 to control the CD functions of Arcam CD players.

	Toggles power between standby and on
	Open/close disc tray
	The numeric keys allow direct access to individual tracks on a 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  , then press  .
DISP	Cycles through the front panel display's brightness options
MODE	Changes the available display modes on the CD player
	Fast rewind
	Fast forward
	Skip back to the start of the current/previous track
	Skip forwards to the start of the next track
	Stop playback
	Play
	Toggles pause of playback
SHUFF	Toggles random ('shuffle') play on and off
MENU	Enter a track in a programmed track list
	Navigates track listings if supported by the player  selects the currently highlighted track if supported by the player
RPT	Repeat playback of the disc or pre-programmed selection of tracks. To repeat a particular track, select that track and press RPT twice. To cancel, press RPT a third time.
SETUP	Toggles between Programme and Normal play
AUDIO	A-B repeat function
SUBT	Toggles between selecting the HD and CD layer of SACD disc

BD Device Mode

The  Device Mode button configures the CR902 to control the BD functions of Arcam BD players.

	Toggles power between standby and on
	Open/close disc tray
	The numeric keys allow direct access to individual tracks on a 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  , then press  .
DISP	Cycles through the front panel display's brightness options
MODE	Changes the available display modes on the BD player
	Fast rewind
	Fast forward
	Skip back to the start of the current/previous track
	Skip forwards to the start of the next track
	Stop playback
	Play
	Toggles pause of playback
AUDIO	Changes audio decode format (Dolby Digital, DTS, etc.).
MENU	Activates BD player menu.
	Navigates track listings if supported by the player  selects the currently highlighted track if supported by the player
	Returns navigation to the top level of the menu ('Home').
RTN	When navigating a menu, press this key to return to the previous screen or selection
SHUFF	Toggles random ('shuffle') play on and off
RPT	Repeat playback of the disc or pre-programmed selection of tracks. To repeat a particular track, select that track and press RPT twice. To cancel, press RPT a third time.
SACD	Toggles between selecting the HD and CD layer of SACD disc

If you are having trouble with your amplifier, check the following items.

No sound

Check the following:

- The amplifier is switched on.
- The A29 is not muted (i.e. MUTE (mute) is not shown on the display panel; the power LED is showing green, not orange or red).
- The selected source going in to the A29 is generating audio (e.g., if CD is selected, then the CD is playing).

Sound cuts-out unexpectedly

If the temperature of the internal heatsink rises above a safe level, then a thermal cut-out inside the amplifier operates to protect the unit and the protection system temporarily removes power to the speakers. The system will reset itself as the heatsink cools down.

- With two pairs of low-impedance speakers connected (6Ω or less), overloads are more likely. Overloading the amplifier may cause it to shut down because of overheating.
- Note that, due to the high output voltage from some CD players, it is possible to drive your amplifier at full power even though the volume is not set at maximum.

A29 specifications

Continuous power output (20Hz—20kHz at 0.5% THD), per channel	
Both channels, 8Ω, 20Hz—20kHz	80W
Single channel, 4Ω, at 1kHz	175W
Harmonic distortion, 80% power, 8Ω at 1kHz	0.003%
Inputs	
Phono (MM) cartridge:	
Input sensitivity at 1kHz	5mV
Input impedance	47kΩ + 100pF
Frequency response (ref. RIAA curve)	20Hz - 20kHz ± 1dB
Signal/Noise ratio (AwtD) 50W, ref. 5mV input	80dB
Overload margin, ref. 5mV at 1kHz	23dB
Inputs:	
Nominal sensitivity	1V
Input impedance	10kΩ
Maximum input	4.6Vrms
Frequency response	20Hz - 20kHz ± 0.2dB
Signal/noise ratio (AwtD) 50W, ref. 1V input	105dB
Preamplifier output	
Nominal output level	735mV
Output impedance	230Ω
Headphone output	
Maximum output level into 600Ω	5V
Output impedance	1Ω
Load range	16Ω - 2kΩ
Accessory power output	
2.1mm DC connector	6V, 500mA
General	
Mains voltage	110-120V or 220-240V
Power consumption (maximum)	500W
Dimensions W x D x H (including feet)	433 x 275 x 85mm
Weight (net)	9.2kg
Weight (packed)	11.1kg
Supplied accessories	Mains lead CR902 remote control 2 x AAA batteries Accessory power cable
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.

product guarantee

Worldwide guarantee

This entitles you to have the unit repaired free of charge, during the first two years after purchase, provided that it was originally purchased from an authorised Arcam dealer. The Arcam dealer is responsible for all after-sales service. 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**. 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 support@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.

ARCAM

WWW.ARCAM.CO.UK

WATERBEACH, CAMBRIDGE, CB25 9PB, ENGLAND