

Arcam A65, A75 and P75 amplifiers
Amplificateurs Arcam A65, A75 et P75
Arcam-Verstärker A65, A75 und P75

English**Français****Deutsch****ARCAM**

Safety guidelines

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 standby 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 EN60065 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 A65, A75 and P75 amplifiers. The remote control handset supplied with the equipment is also described.

It may be that your amplifier has been set up as part of your system installation by a qualified Arcam dealer. In this case, you may wish to skip the sections of this handbook dealing with installation and setting up the unit. Use the Contents list on this page to guide you to the relevant sections.

Models covered

This handbook covers two integrated amplifiers:

A65

A75

and one power amplifier:

P75

These amplifiers have many features in common.

Both the A65 and A75 have remote controlled input selection and a motorised volume control which can be operated by the CR-389 remote control handset supplied.

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.

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Installation: A65 and A75

Positioning the unit

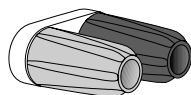
Place your amplifier on a level, firm surface.

Avoid placing the unit in direct sunlight or near sources of heat or damp.

Ensure adequate ventilation. Do not place the unit in an enclosed space such as a bookcase or cabinet as both of these will impede air flow through the ventilation slots.

Connecting to loudspeakers

Your amplifier is fitted with loudspeaker terminals to BFA (British Federation of Audio) standard specification.



BFA loudspeaker terminals

The terminal will accept spade terminals, bare wires or a BFA plug. BFA plugs are available from your Arcam dealer. To connect a bare wire or spade terminal unscrew the red (or black) part of the loudspeaker terminal first.

Insert the wire or spade terminal and screw it back up.

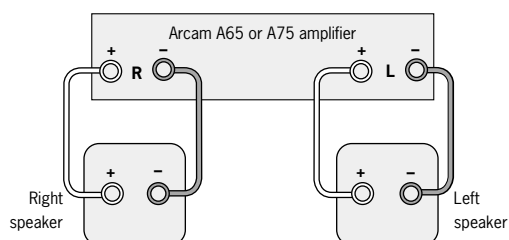
CAUTION: Do not over tighten the loudspeaker terminals or use a wrench, pliers, etc., as this could cause damage to the terminals which will not be covered under warranty.

Connect the right hand speaker to the terminals on the back of your amplifier marked **R** and the left speaker to the terminals marked **L**.

Connect your loudspeakers so that the red (positive/+) terminal on each loudspeaker is connected to the red (positive/+) terminal on the amplifier. Your loudspeaker cables may be marked to show polarity (negative/- and positive/+), if not, then the positive terminal can usually be identified by a ridge or coloured marking.

Now connect your loudspeakers' black (negative/-) terminals to the black (negative/-) terminals on the amplifier.

Ensure that no stray strands of inner wires are allowed to touch another cable or the amplifier's casing. This can cause a short circuit and damage your amplifier! Two pairs of speakers may be connected at the same time provided each pair is rated between 8 and 16Ω. If one or both pairs have an impedance of less than 8Ω, the combined load on the amplifier falls below 4Ω and could cause an overload. If so, the overload protection circuit engages and the amplifier will not work.



Wiring your loudspeakers

SP1 DIRECT terminals ③

Are switched off when a headphone jack plug is inserted in the headphone socket ②④ on the front of the amplifier or, by pressing the **MUTE** button on the remote control handset.

SP2 SWITCHED terminals ④

Are switched off when a headphone jack plug is inserted in the headphone socket ②④ on the front of the amplifier or, by pressing the **MUTE** button on the remote control handset.

If you want to connect speakers for occasional use (perhaps in another room), connect them to these terminals. They can be turned off easily by releasing the front panel switch ②③.

Volume control settings

It is important to realise that the position of the volume control is not an accurate indication of the power delivered to your loudspeakers. The amplifier will often deliver its full power long before the volume control reaches its maximum position particularly when listening to heavily recorded compact discs. However the amplifier also has to be capable of giving full power output from much lower level sources, such as tuners and cassette decks. Using these sources, the volume control setting may be much higher before distortion (audible overload) sets in.

Connecting to a power supply

Wrong plug?

Check that the plug supplied with the unit fits your supply and that your mains supply voltage agrees with the voltage setting (120V or 230V) indicated on the rear panel of the unit.

If your mains supply voltage or mains plug is different, consult your Arcam dealer or Arcam Customer Support on +44 (0)1223 203203.

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. Should you require a new mains lead, contact your Arcam dealer.

Plugging in

Push the plug (IEC line socket) of the power cable supplied with the unit into the socket () 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.

Connecting to other equipment

All of the input sockets (except **PHONO**) have the same sensitivity and may be used with equipment other than that labelled, if you need to do so.

The use of high quality interconnect cables to and from other hi-fi equipment is recommended to ensure the best sound quality (sonic performance). Ask your Arcam dealer's advice on cable selection.

AV PROCESSOR/TAPE switch 17 (A75 only)

If you are using the amplifier with an external processor such as a Dolby Pro Logic or Dolby Digital decoder you should select the AV processor. Connect the left and right audio output sockets of your processor to the corresponding AV/DVD input **8**. Press and hold the **TAPE MONITOR** switch **17** for five or more seconds, the amplifier switches to a fixed gain. This allows the volume control of your processor to act as a master control and adjust the sound level of the speakers attached to both the A75 and the processor simultaneously. If you then switch back to another input, for example, **CD**, the volume control is switched back in circuit again and the amplifier functions as normal. You may hear a slight 'click' when you switch to another input. This is normal.

WARNING: If the AV PROCESSOR/TAPE switch is set to AV PROCESSOR and the LED is illuminated, do not use the AV/DVD socket for any equipment except a processor with its own volume control. Otherwise this could result in a signal being sent to your loudspeakers at high levels which may damage the loudspeakers.

PRE-AMP OUT 5

You will only need to use these sockets if you have a separate power amplifier. To use your amplifier as a preamplifier connect these sockets to the input sockets (**POWER AMP IN** or **PWR AMP IN**) of your power amplifier. If your power amplifier is an Arcam P75, P85 or Alpha series you can use it in conjunction with the power amplifiers in your integrated amplifier to bi-amplify suitable loudspeakers. See the section 'Bi-wiring and bi-amping loudspeakers' for details.

TAPE RECORD OUT 6

Connect these output sockets to the input sockets of your cassette deck (usually labelled **RECORD**).

TAPE PLAY IN 7

Connect these input sockets to the output sockets of your cassette deck (usually labelled **PLAY**). If you do not have a cassette deck you can use this input for other (line level) equipment, such as a CD player, tuner, VCR, etc., but not a turntable (record deck).

AV/DVD 8 VCR 9 TUNER 10 CD 11

(AV=audio visual, DVD=digital versatile disc)

Connect these input sockets to the audio output sockets of the above named equipment.

PHONO 12

Connect these input sockets to the leads from your turntable (record deck). The phono stage is suitable for moving magnet (MM) or high output moving coil (MC) cartridges. If you are using a low output MC cartridge ask your dealer about a suitable external MC preamplifier.

PHONO/LINE switch 13 (A75 only)

If you don't have a record deck and therefore don't want to use the **PHONO** input socket, press this button in (with the tip of a pencil or a ball point pen) to convert the **PHONO** input to a **LINE** input for equipment such as a CD player, tuner, VCR etc. Press and release the button to use as **PHONO** input again.

Ground terminal 14

Connect the earth lead (if fitted) from your turntable or pick-up arm, to this.

Using the amplifiers

Listen selector 16

Selects the input you wish to listen to. The selected input signal is also sent to the **TAPE RECORD OUT 6** sockets to allow the signal to be recorded, assuming you have a tape deck connected. It is also sent to the **PRE-AMP OUT** sockets **5**.

TAPE 17

Push this switch in to listen to playback from a cassette deck connected to the amplifier's **TAPE PLAY IN** sockets **7**.

It also enables you to monitor the recording being made on a 3 head cassette deck.

Note: If the tape switch is in you will be unable to listen to a source selected by the **LISTEN SELECTOR 16**.

VOLUME 18

Adjusts the volume level of the loudspeakers, headphone and pre-amplifier out sockets.

The volume control is motorised and can be controlled remotely with the use of a suitable remote control handset, such as the CR-389 supplied (see the section 'Using the remote control' for details).

DIRECT 19

Push this switch in to bypass the bass, treble and balance controls. This switches these controls out of the circuit (minimising the signal path) and will generally give a small improvement in sound quality.

BASS 20

Rotate clockwise to boost the bass response and anti-clockwise to cut the bass response. For a flat response leave in the central 'click' position.

TREBLE 21

Rotate clockwise to boost the treble response and anti-clockwise to cut the treble response. For a flat response leave in the central 'click' position.

The range of the tone controls has been deliberately limited to approximately plus or minus 6dB (decibels) at the frequency extremes. This is usually sufficient to correct small deficiencies in recordings or speakers.

BALANCE 22

Rotate clockwise or anti-clockwise to move the position of the stereo image. This may be necessary if it is not possible to sit centrally between the speakers. In normal use leave in the central 'click' position.

SP2 23

Push the button in to select the loudspeakers connected to the SP2 **4** speaker terminals. To disconnect the speakers release the switch again.

HEADPHONE socket 24

Accepts headphones rated between 8Ω and 2kΩ fitted with a 6.3mm stereo jack plug. If your headphones are fitted with a different plug, contact your dealer for a suitable adaptor. Inserting a headphone jack plug automatically mutes (i.e. cuts off) the loudspeakers, but does not mute the **PRE-AMP OUT** sockets **5**.

POWER 25

Switches the amplifier on and off.

Power indicator 26

When the amplifier is switched on, this will initially glow orange.

After a few seconds it will glow green and a slight click may be heard (as the output muting relay disengages). When the indicator glows orange, the speakers are disconnected and an internal protection circuit is working.

If the indicator glows orange during normal use it may be due to an amplifier output overload. Switch the amplifier off and wait for 2 to 3 minutes before switching on again.

If the indicator continues to glow orange, switch the unit off, remove all the speaker cables and switch on again.

If the indicator then goes to green when switched on this indicates a problem with the speakers or speaker cables.

Check the speakers and speaker cables for short circuits before reconnecting them. If the indicator continues to glow orange with no speakers connected, contact your Arcam dealer.

Note that the power indicator glows orange when the amplifier is muted from the remote control.

Remote control receiver 27

Make sure nothing is standing in front of the remote control receiver, otherwise messages from the remote control handset cannot be received and it will appear not to work!

Recording onto tape

To record from another piece of hi-fi equipment (an input source), e.g. CD, to a tape deck connected to the amplifier, first select the **CD** input with the input selector **16**. Set your tape deck into its record mode. Press **PLAY** on your CD player. The CD signal will now be recorded onto your cassette deck. If your cassette deck is a 3-head type it is possible to monitor the actual recording on the tape. To do this push the **TAPE** button **17** in. Switching this button in/out enables you to do an A/B comparison between the source signal and the recorded signal.

Using a remote control

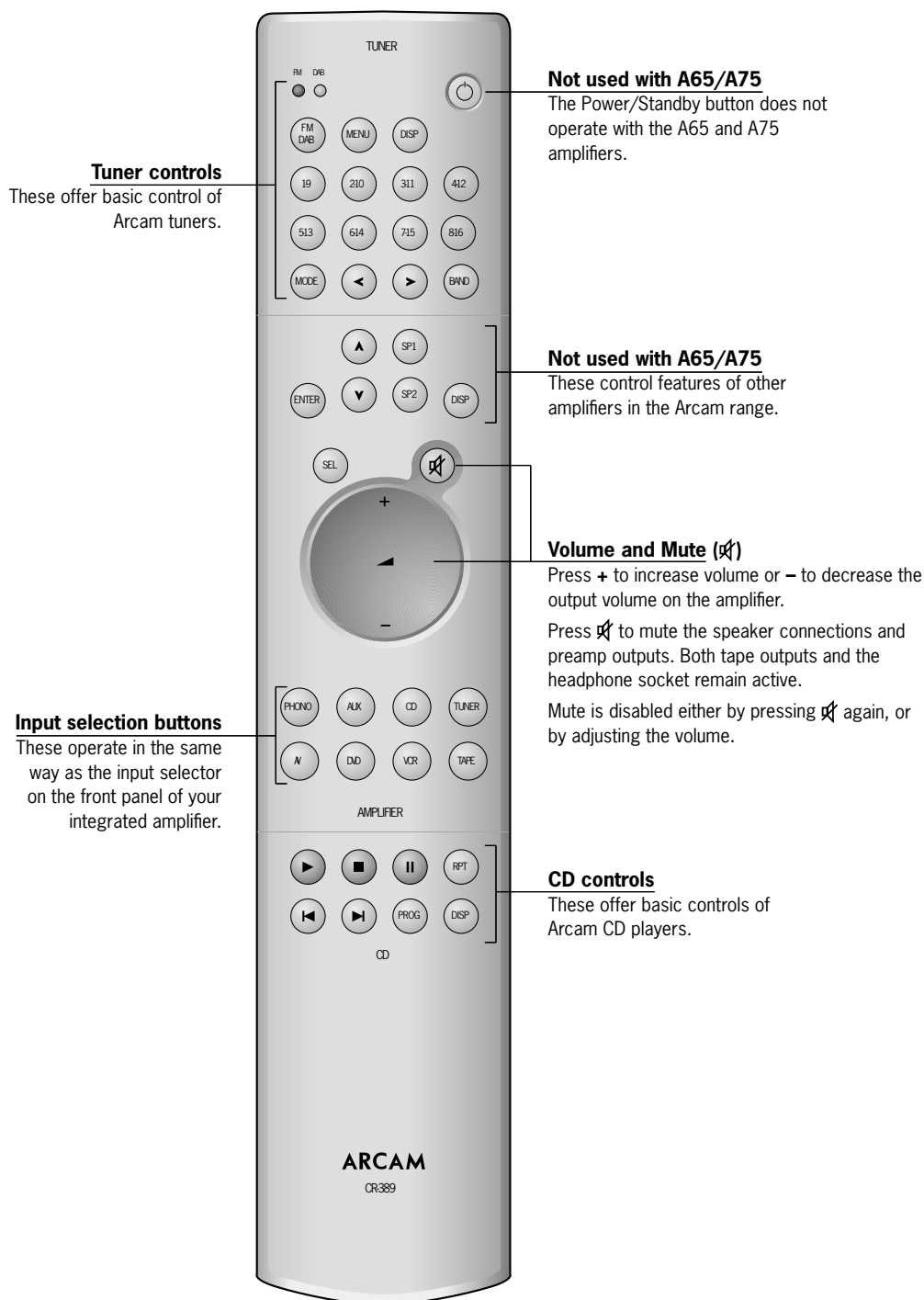
The A65 and A75 offer remote control of the input selection, volume control and mute via the CR-389 remote handset supplied. It may also be possible to operate these functions with other remote control handsets that use the Philips RC-5 protocol.

If the amplifiers are muted via remote control, the power indicator glows orange. To cancel the mute function, press **MUTE** again or either of the volume up/down buttons on the remote control handset. If you mislay the handset after muting the amplifier, turn it off with the **POWER** switch **25** for 20 seconds, then switch it back on again to allow the internal mute system to reset.

Using the remote control

CR-389 Remote Control

The CR-389 remote control gives access to all functions available on the front panel. It also has controls to operate Arcam CD players, AM/FM and DAB tuners.



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

Do not place anything in front of the IR receiver on the left of the A65 or A75, or the remote control may not work.

Installation: P75 power amplifier

The P75 power amplifier can be used in conjunction with the A65 and A75 integrated amplifiers (or other Arcam amplifiers) to bi-amplify loudspeakers that have two pairs of input connections (i.e. are bi-wireable). The P75 can also be used with a pre-amplifier such as the Arcam 9C or an AV processor or amplifier with **PRE-AMP OUT** sockets.

Loudspeaker connections

Connect up following the instructions for installing the A65 and A75 integrated amplifiers (see page 4).

Connecting to other equipment

PWR AMP IN ⑤

Connect these sockets to your preamplifier output sockets. Alternatively, if you are using an integrated amplifier (as your pre-amp) such as the A65, A75 or Alpha series amplifiers, connect the **PWR AMP IN** sockets to the **PRE AMP OUT** sockets on those amplifiers.

MONO LINK ⑥ ☐

The P75 can be adapted to provide two mono loudspeaker outputs from a single input.

Pull out the U-link ⑧ supplied and use it to connect the **MONO LINK** sockets ⑥ together.

Utilising one P75 power amplifier per loudspeaker will enable you to bi-amplify bi-wireable loudspeakers. This is particularly beneficial for top quality stereo installations with a separate pre-amplifier, or for the left, centre and right channel loudspeakers in a five speaker Dolby Pro Logic™ or Dolby Digital™ system.

Contact your Arcam dealer for more detailed information.

DAISY CHAIN

The P75 is capable of driving further P75 amplifiers (or any other power amplifier), to drive more speakers (e.g. those in other rooms or tri-amplified speakers etc). Connect the extra power amplifier inputs to the **MONO LINK** outputs ⑥ left to left, right to right with suitable high quality phono to phono cables.

Connecting to a power supply

Connect up following the instructions for installing the A65 and A75 integrated amplifiers (page 4).

CIM MODULE ⑦

The CIM (custom install module) is an optional module that enables you to adjust the gain of the left and right channels of the power amplifier independently and also to switch the power amplifier on/off remotely, with a 12 volt trigger. The CIM module would normally be used in a multi-room set up. When a CIM module is fitted into a power amplifier, the front panel power switch is disabled.

See your Arcam dealer for further information.

Using the power amplifier

SP1 DIRECT terminals ③

Are switched off when a headphone jack plug is inserted in the headphone socket ⑩ on the front of the amplifier or, by pressing the **MUTE** button (⌵) on the remote control handset.

SP2 ⑨

Push the button in to select the loudspeakers connected to the SP2 ④ speaker terminals. To disconnect the speakers, release the switch again.

HEADPHONE socket ⑩ ☐

Accepts headphones rated between 8Ω and 2kΩ fitted with a 6.3mm stereo jack plug. If your headphones are fitted with a different plug contact your dealer for a suitable adaptor. Inserting a headphone jack plug automatically mutes (i.e. cuts off) the loudspeakers.

POWER ⑪ ☐

Switches the amplifier on and off.

Power indicator ⑫ ☐

This initially glows orange. After a few seconds, the colour changes to green and a slight click may be heard as the output muting relay disengages.

When the indicator glows orange, the speakers are disconnected and an internal protection circuit is working.

If the indicator glows orange during normal use it may be due to an amplifier output overload. Switch the amplifier off and wait for 2–3 minutes before switching on again.

If the indicator continues to glow orange, switch the unit off, remove all the speaker cables and switch on again. If the indicator goes green on switching on, there is a problem with the speakers or speaker cables. Check the speakers and speaker cables for short circuits before reconnecting them. If the indicator continues to glow orange with no speakers connected, contact your Arcam dealer.

Bi-wiring and bi-amping loudspeakers

Before you start

WARNING: Do not make any connections to your amplifier while it is switched on or connected to the mains supply.

Before switching on please check all connections thoroughly, making sure bare wires or cables are not touching the amplifier in the wrong places (which could cause short circuits) and you have connected positive (+) to positive and negative (-) to negative.

Always ensure that the volume control on your amplifier is set to minimum before starting these procedures.

Bi-wiring your loudspeakers

Bi-wiring improves the sound of your system because it divides the high and low frequency signal currents into separate speaker cables. This avoids signal distortions arising from the high and low frequency currents interacting with one another within a single cable, as in conventionally wired systems.

You will need:

Speakers – with four input terminals each: these will be marked HF (High Frequency) and LF (Low Frequency).

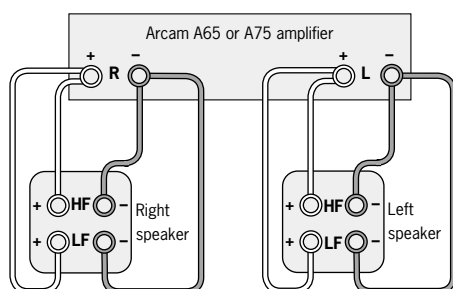
Loudspeaker cables – two pairs of cables per loudspeaker (which may be joined at the amplifier end if your amplifier has only one pair of output terminals per channel). Or, a suitably terminated cable set (a loom, probably prepared by your dealer and capable of being used for bi-wiring in one length).

How to bi-wire loudspeakers

1. Remove the terminal links on the rear of your loudspeakers

WARNING: This step is essential or damage to your amplifier may result which is not covered under warranty.

2. Connect the cables as shown in the diagram below, ensuring correct polarity at all times.



Bi-wiring using one set of connections on amplifier

Bi-amping your system

The performance of your system can be further enhanced over that achieved with bi-wiring, by extending the principle one stage further to include separate amplification for the low and high frequency drive units in each loudspeaker enclosure.

Connect the amplifier to the high frequency (HF) terminals and connect the power amplifier to the low frequency (LF) terminals.

You will need:

Speakers – with four input terminals each (as with bi-wiring): these will be marked HF (High Frequency) and LF (Low Frequency).

Two amplifiers – one of these would be the A65 or A75 and the other an Arcam power amplifier (e.g. P75).

Loudspeaker cables – one pair of cables per loudspeaker or a suitably terminated cable set (a loom, probably prepared by your dealer and capable of being used for bi-amping in one length).

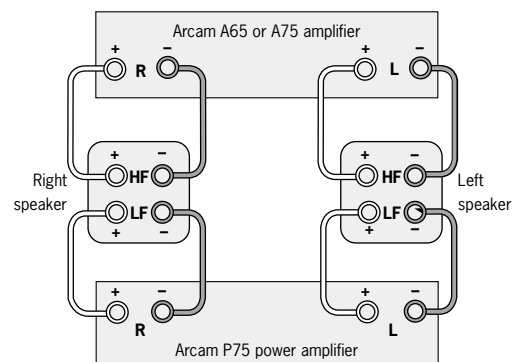
Interconnect cables – one pair of high quality interconnect cables.

How to set up a bi-amped system

1. Remove the terminal links on the rear of your loudspeakers.

WARNING: This step is essential or damage to your amplifier may result which is not covered under warranty.

2. Connect the cables as shown in the diagram below, ensuring correct polarity at all times.
3. Use the interconnect cables to connect the AUDIO PRE-OUT sockets of the A65 or A75 to the corresponding PWR AMP IN sockets of the power amplifier.



Recommended bi-amping configuration

Technical specifications

	A65	A75	P75
Output power (20Hz–20kHz)			
8Ω, continuous	40W	50W	50W
8Ω, 1 channel, 1kHz	50W	60W	60W
4Ω, 1 channel, 1kHz	80W	90W	90W
Harmonic Distortion			
Rated output into 8Ω at 1kHz	0.01%	0.01%	0.005%
Peak current rating	±15A	±15A	±15A
L/R Crosstalk	–68dB	–68dB	–90dB
Input sensitivity for rated power output	250mV	260mV	540mV
Frequency response ± 0.25dB	20Hz–20kHz	20Hz–20kHz	20Hz–20kHz
Inputs			
Line inputs:			
Noise (CCIR) ref. rated power	–100dB	–100dB	–110dB
Input impedance	12kΩ	12kΩ	100kΩ
AV/DVD (Processor Mode):			
Input impedance	N/A	12kΩ	N/A
Input sensitivity	N/A	540mV	N/A
Power Amplifier:			
Input impedance	N/A	N/A	100kΩ
Phono input:			
Noise (CCIR) ref. rated power	–75dB	–76dB	N/A
Input sensitivity	1.9mV	2.0mV	N/A
Input impedance	47kΩ	47kΩ	N/A
Overload margin	30dB	30dB	N/A
Outputs			
Pre-amplifier output:			
Nominal output level	510mV	540mV	N/A
Maximum output level	8V	8V	N/A
Output impedance	<3Ω	<3Ω	N/A
Tape output:			
Output impedance	<3Ω	<3Ω	N/A
Headphones:			
Maximum output level into 600Ω	40mW	40mW	40mW
Output impedance	80Ω	80Ω	80Ω
Mains voltage	230V ± 10%	230V ± 10%	230V ± 10%
	115V ± 10%	115V ± 10%	115V ± 10%
Power consumption (max)	370VA	400VA	400VA
Physical			
Dimensions W x D x H	430 x 330 x 85mm	430 x 330 x 85mm	430 x 330 x 85mm
Weight net	5.4kg	5.6kg	5.6kg
Weight packed	6.9kg	7.1kg	7.1kg
Supplied accessories	Mains lead	Mains lead	Mains lead
	CR-389 remote	CR-389 remote	
	2 x AAA batteries	2 x AAA batteries	
E&OE			

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.

NOTE: All specification values are typical unless otherwise stated.