

**PMC**<sup>®</sup>

**cor**

the pure analogue amplifier

USER GUIDE



## WE ARE DRIVEN

We believe that music is what really matters. It's what moves us and gives us our passion for what we do — bringing emotion and engineering together. In our designs, science serves sound in our quest to present music as naturally as possible, exactly as its creators intended.

For over 25 years, the Emmy-winning design philosophy behind PMC's loudspeakers has been to eradicate everything that isn't music, including unnatural resonance, distortion and noise — an approach requiring years of obsessive attention to detail at all stages of product design. Our success is plain; PMC loudspeakers are used by the world's leading composers and in the finest studios and audiophile listening environments. Our involvement at all stages of musical creation means that we know what it is to capture all the emotion in a performance.

We've now used this knowledge to bring you the **cor** integrated amplifier — for analogue purists.



Peter Thomas, Owner &  
Oliver Thomas, Head of Design

## INTRODUCING THE COR INTEGRATED

Congratulations on your purchase of this pure analogue Class A/B PMC creation, entirely designed and built in the UK. The **cor** integrated stereo amplifier has the power to drive virtually any passive loudspeaker to impressive output levels — 95W into 8Ω, or 140W into 4Ω — but with refinement, transparency and neutrality. Every single component used in the **cor** is selected by ear, ensuring a supreme-quality analogue product, from the headphone amplifier to the remotely controllable tone and balance controls.



cd radio av aux bal 1 direct

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balance  
treble  
bass

PMC

## GETTING STARTED

### Before you plug in

The **cor** integrated amplifier is shipped in a heavy-duty protective carton. Please retain the carton to ensure that the amplifier can be transported safely if the need arises in the future. If you dispose of the packaging, please do so in an environmentally responsible and safe way.

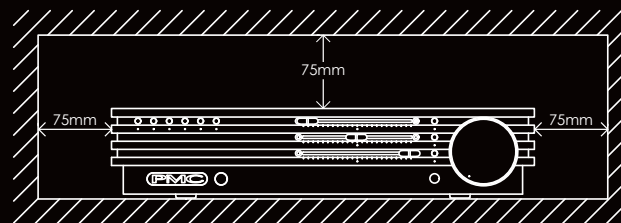
### What's in the Box?

- 1 x **cor** integrated amplifier
- 1 x mains cord
- 1 x user guide
- 1 x aluminium extruded remote control
- 3 x AAA Batteries
- 1 x 1.5mm Allen key (for battery removal)

### Setting up

Place the amplifier on a hard, level, stable surface, avoiding moisture and sources of heat, including direct sunlight and other electronics.

Position the amplifier in free space; enclosing it may obstruct airflow and cooling. If you are in doubt, leave at least 75mm of clear space around the top and sides to ensure airflow is not impeded.



Avoid placing a record player on top of this amplifier. Cartridges and record players can be adversely affected by close proximity to high power devices like the **cor** integrated.

Make sure the remote-control receiver has a clear line of sight from the listening position.

**Power**

Push the power cable firmly into the power inlet socket on the back of the amplifier, ensuring the connection is properly made.

Plug the cable's mains plug into your mains outlet/socket. If there is a switch on the mains socket, turn it to the on position.

**NB:** The PMC logo on the front of the unit is the touch sensitive on/off button.

If the mains cord and your local mains supply do not match, please contact the PMC retailer or distributor in your region for advice.

**Interconnect cables**

PMC recommends the use of robust, high-quality screened cables in all cases, suitably terminated.

If your source equipment features an XLR balanced connection, you may find that the quality of your audio is improved by using XLR cables rather than single-ended phono connections, due to the increased noise rejection capabilities of XLRs — especially if the cable is longer than 2 metres.

Avoid bunching signal and mains cables together — this may add unwanted noise to your audio.

Avoid using coiled or excessively long cables of any type.

## WARRANTY & SERVICE

### **Warranty**

For your full 5 year warranty, register within 30 days of purchase at [www.pmc-speakers.com](http://www.pmc-speakers.com) (click on 'register a product'). This records the purchase of your product and provides you, the customer, with an opportunity to make suggestions and provide feedback directly to PMC.

### **Product support & servicing**

We are confident your car integrated amplifier will afford you many years of trouble-free high-quality listening. But in the unlikely event that it should require repair, we can ensure that any replaced parts will exactly match the performance of the original — because uniquely, during manufacture, we note the precise value of each component together with the response of the system as a whole.

For advice and service requirements, your primary point of contact should be your knowledgeable and authorised local PMC dealer or distributor. If you are uncertain who this is, please go to the PMC web site at [www.pmc-speakers.com](http://www.pmc-speakers.com) and click on the 'where to buy' link at the top of the home page.

**NB:** Please do not return any products to PMC itself without first contacting our service department.

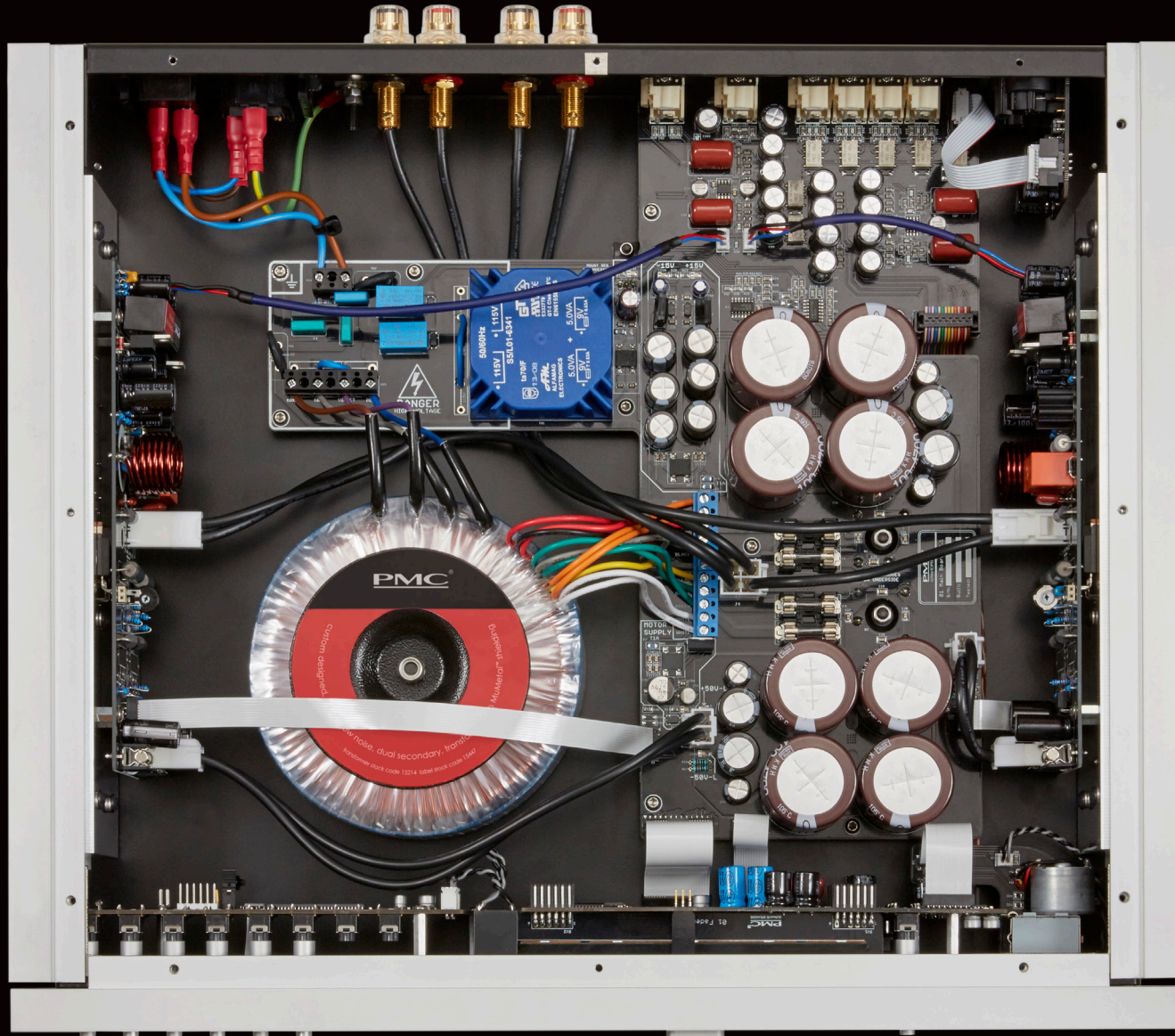
### **THE PROFESSIONAL MONITOR COMPANY LIMITED**

HOLME COURT, BIGGLESWADE, SG18 9ST, UK

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[www.pmc-speakers.com](http://www.pmc-speakers.com)





## MAKING CONNECTIONS

### Inputs

The rear panel of the cor integrated features four single-ended unbalanced RCA inputs, plus a balanced XLR input. There is also a direct input which directly feeds the power amp, bypassing the preamp.

**NB:** The preamp is still fully functional in direct mode.

### Outputs

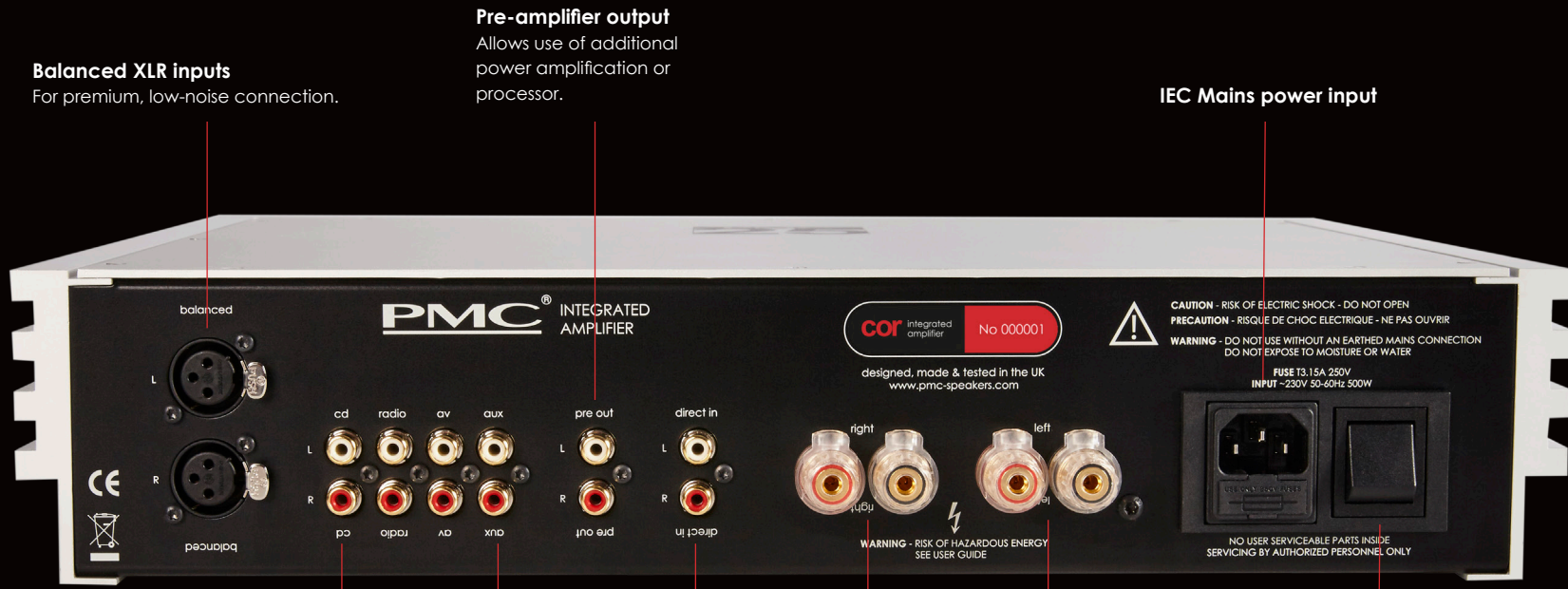
The loudspeaker outputs are provided on two pairs of 4mm binding posts. If you wish to use the cor integrated as a pre amplifier, there is a preamp output on twin RCA connectors.

The binding posts can accommodate bare wire, but we recommend the use of either spade lugs or 4mm 'banana' plugs in order to maintain an electrical connection of the highest integrity and avoid the possibility of short circuits.

Do not use tools to tighten the binding posts.

To avoid potential damage, ensure that the amplifier is turned off before connecting or disconnecting your loudspeakers.

It is of vital importance to observe the polarity markings and maintain positive-to-positive and negative-to-negative connections. The terminals are colour-coded to aid in their identification: positive terminals are red, negative terminals are black.



**Balanced XLR inputs**  
For premium, low-noise connection.

**Pre-amplifier output**  
Allows use of additional power amplification or processor.

**IEC Mains power input**

**Phono/RCA unbalanced source inputs**  
All inputs are line level & sonically identical.

**Loudspeaker connections**  
These binding posts accept spade lugs, 4mm plugs or bare wire.

**Rear-panel power switch**

**Direct input**  
Feeds directly to power amp bypassing pre amp. **Warning** – audio input via this connection will be reproduced at full level, use with caution.

**CAUTION - RISK OF ELECTRIC SHOCK - DO NOT OPEN**  
**PRECAUTION - RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR**  
**WARNING - DO NOT USE WITHOUT AN EARTHED MAINS CONNECTION**  
**DO NOT EXPOSE TO MOISTURE OR WATER**

FUSE T3.15A 250V  
INPUT ~230V 50-60Hz 500W

NO USER SERVICEABLE PARTS INSIDE  
SERVICING BY AUTHORIZED PERSONNEL ONLY

**cor** integrated amplifier  
No 000001

designed, made & tested in the UK  
www.pmc-speakers.com

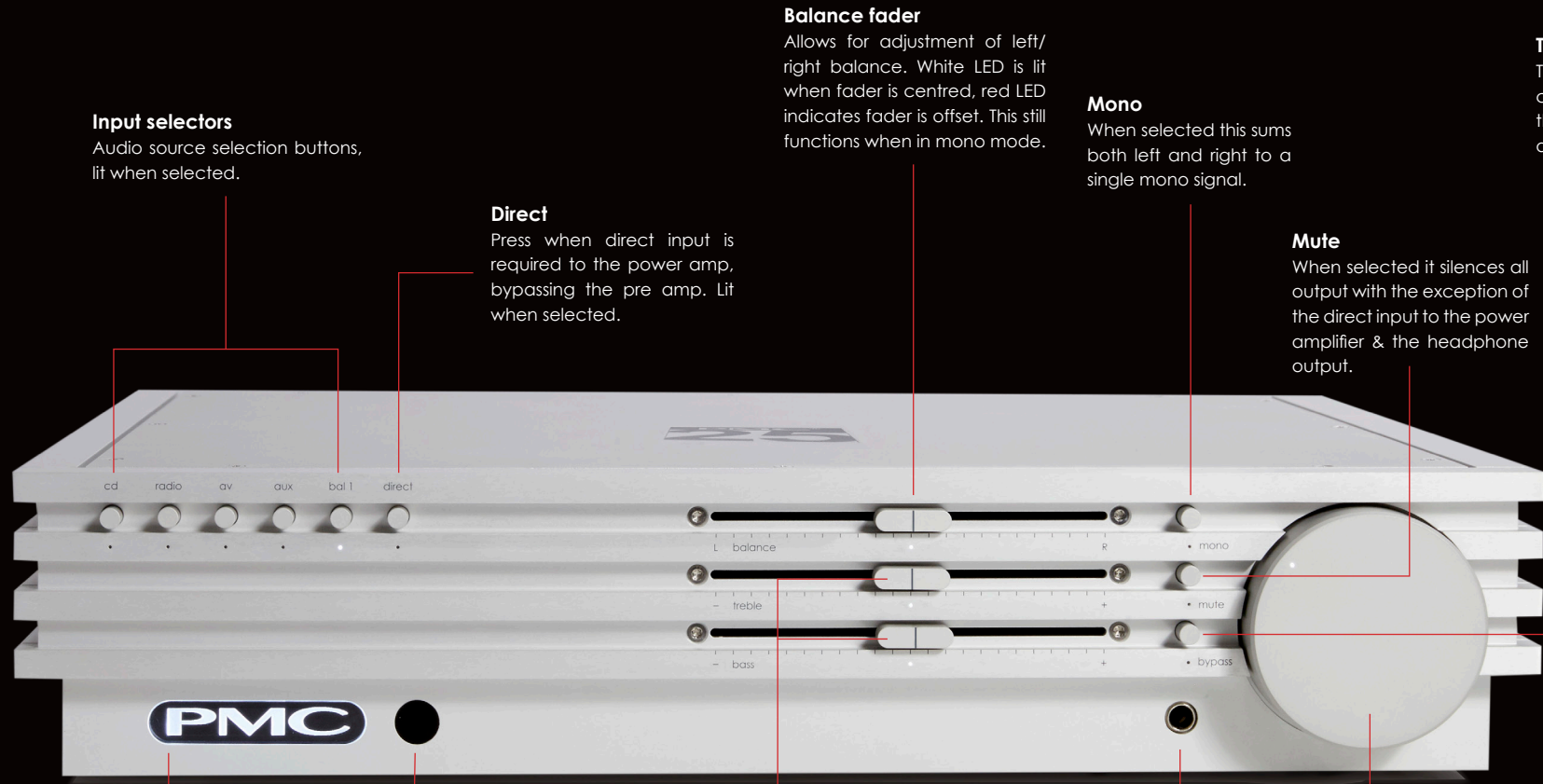
**WARNING - RISK OF HAZARDOUS ENERGY**  
SEE USER GUIDE

## FACING FRONT

The **cor** integrated offers a simple, even minimalist front panel, yet offers all the control listeners will ever need. The volume dial and treble, bass and balance faders are motorised using technology from professional studio mixing consoles, which allows them to be controlled via the included remote, but they are pure analogue designs, not digital encoders as on many other modern integrated amp designs.

Aside from the single front-panel headphone jack and source selection buttons on the left, the user options are completed by buttons on the right to sum the output to mono, mute it altogether, and — for absolute sonic purists — a bypass control to defeat all of the front-panel options except the volume dial.

With controls this straightforward, listening pleasure is a simple matter of turning on the amplifier, selecting an audio source from the buttons on the left, and adjusting the tone controls and volume if required.



### Input selectors

Audio source selection buttons, lit when selected.

### Direct

Press when direct input is required to the power amp, bypassing the pre amp. Lit when selected.

### Balance fader

Allows for adjustment of left/right balance. White LED is lit when fader is centred, red LED indicates fader is offset. This still functions when in mono mode.

### Mono

When selected this sums both left and right to a single mono signal.

### Tone bypass

This disables the tone controls regardless of the faders' position and fader LEDs.

### Mute

When selected it silences all output with the exception of the direct input to the power amplifier & the headphone output.

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### IR receiver

This is the window for the infra-red signals from direct sight of the remote control

### Tone controls/faders

For micro adjustment of the tonal balance of high & low frequency, with a range of +/-10dB. When fader is centred, a white LED is lit. When boosting or cutting, a red LED is lit. Fader will pause in centre when panning via remote.

### Volume

The volume control is fully motorised and can be controlled via the remote

### Front-panel power switch (touch sensitive)

Illuminates red for initial power-up. Once touched, logo turns white and amp enters start up mode in mute. When amp is ready, mute will disable.

### Headphone output

This is auto-sensing and mutes the main output when headphones are inserted fully. When headphones removed amplifier will go into mute mode, and must be manually unmuted.

## REMOTELY INTERESTING

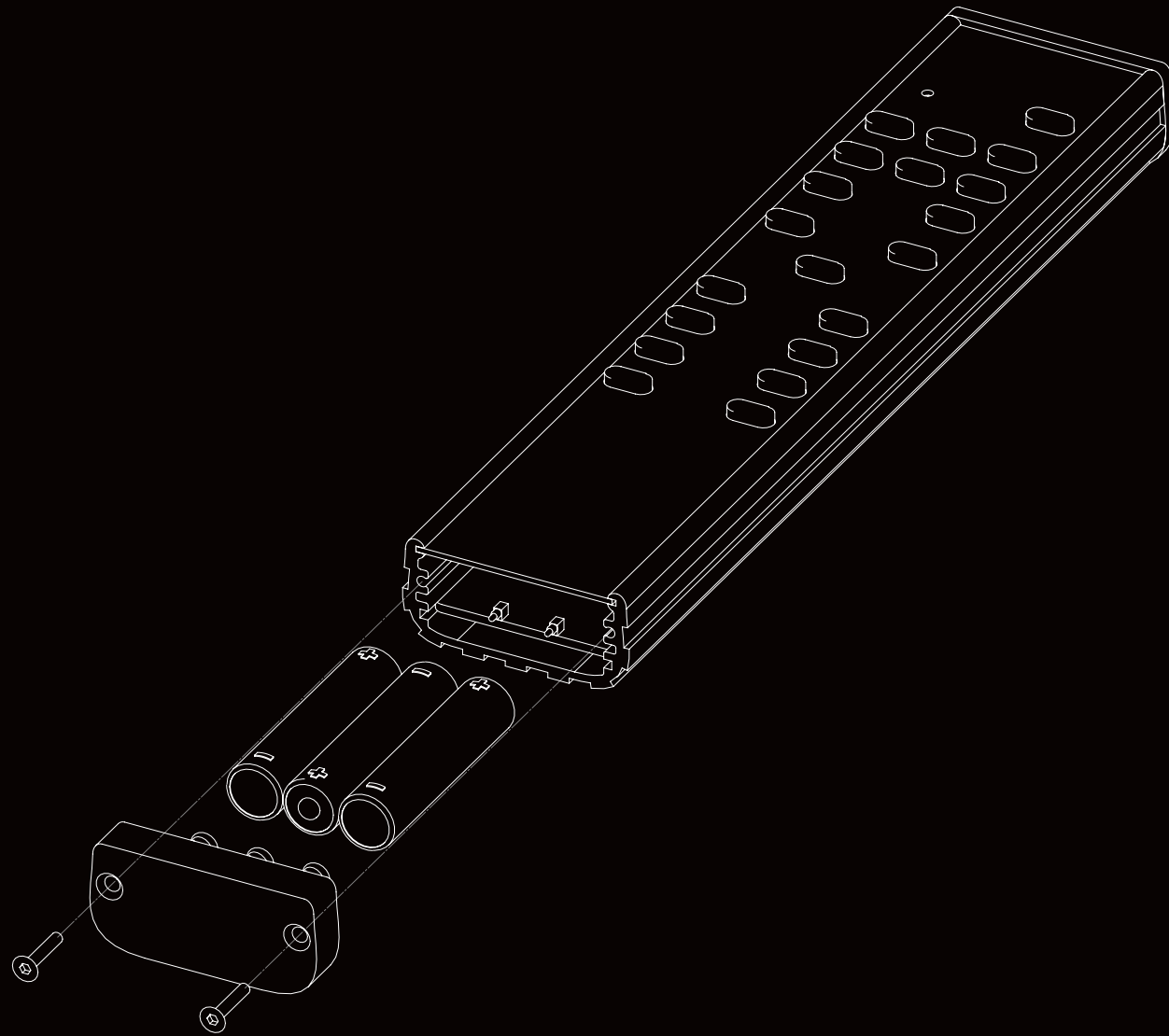
The extruded aluminium remote control replicates all of the front-panel functions of the **cor** integrated amplifier. Thanks to the **cor** motorised controls, adjustments made via the remote from the comfort of your favoured listening position are replicated on the front panel of the amp.

Do not move the front-panel controls at the same time as they are being reset via the remote control; this may put strain on the motorised controls.

The remote control's batteries can be changed by removing the rear cover. This requires the use of the included Allen key to unscrew the two small countersunk bolts. The remote runs from three AAA batteries. The bolts should be retightened with the Allen key following battery replacement.

The performance of the remote control may be impaired if the IR sensor on the amplifier or the transmitter on the remote control is exposed to direct sunlight, or strong artificial light from a fluorescent or infra-red light. The maximum effective range (with a direct line of sight) is five metres, with a 30° viewing angle.

- If the **cor** controls do not respond, even when using the remote control close to the amplifier's IR sensor, the batteries should be replaced.
- Insert the batteries in the proper direction, following the + and - marks indicated.
- Remove the batteries from the remote control during prolonged periods of non-use.



## TROUBLESHOOTING

### **if you have no sound, check the following:**

- The mains supply has not been switched off/ disconnected or the plug's mains fuse is not faulty.
- The fuse located below the main inlet on the amplifier is intact.
- The amplifier is switched on both at the rear and front via the lit PMC logo.
- The amplifier is not in mute mode — if it is, the LED below the Mute button will be lit.

**NB:** If headphones are unplugged, the amplifier will automatically mute to protect the loudspeakers from the sudden high-level audio that may result.

- You have selected the source (CD, Radio, etc) that is producing audio.
- The Direct button is not depressed — if it is, the LED below the Direct button will be lit.
- The signal cables and loudspeaker cables are intact and connected.
- The loudspeakers are functioning.

### **If you have no sound and the illuminated PMC logo is flashing, this means the cor has entered one of its two protection modes. If the white and red LEDs are alternating then it is an amplifier fault. Possible causes include:**

- Over-temperature (the amplifier is being driven too hard, or has overheated due to inadequate ventilation, or due to being used in direct sunlight or too near another heat source). Reducing playback volume or improving ventilation may help.
- Over-current (the amplifier is being driven too hard).
- Short circuit. Check that both signal cables and loudspeaker cables are intact and not shorting.

### **If the red and white LEDs are flashing simultaneously then it is a power supply fault. Possible causes include:**

- Mains surge.
- Mains under-voltage/brown-out. Check with your electricity supplier or a qualified electrician.
- Incorrect mains voltage. Check that the mains voltage detailed on the rear of the amplifier corresponds with your local supply.

**NB:** After remedying the issues, the protection circuits can be reset by switching the amplifier off via the rear-panel mains switch for two seconds and then switching back on. If the amplifier is hot, leave it to cool and then reset.

If the problem persists or you are unsure of the correct procedure, contact your PMC authorised retailer or local distributor for further information.

See [www.pmc-speakers.com](http://www.pmc-speakers.com) and click on the 'where to buy' link at the top of the home page.

### **If the tone controls have no effect**

- Check that the Bypass button is not active — if it is, the LED below the Bypass button will be lit.

### **If the sound is distorted**

- Check that the source output level is not excessively high (seek advice from your retailer if you are unsure).

### **If sound is only being produced by one loudspeaker**

#### **Check the following:**

- The signal cables and loudspeaker cables are intact and connected.
- The loudspeaker is functioning.
- The balance fader is centred and its LED is lit white.



# SAFETY GUIDELINES

- 1 Read and keep these instructions.
- 2 Heed all warnings and follow all instructions.
- 3 Do not use this equipment near water.
- 4 Site the apparatus in a safe and stable position, where it is free from the risk of falling or tipping.
- 5 Clean only with a clean, soft, dry lint-free cloth. Do not use abrasive, chemical solvents, wax or silicon-based cleaning products.

## Airflow & ventilation

- 6 Warning — do not install near any heat sources or other equipment (including other amplifiers) that produces heat. This product must be installed with a minimum of 75mm of clear space around it for airflow and ventilation purposes, and in order that heat produced by its operation can disperse safely.

## Electrical

- 7 Warning — this product must be earthed, and the required connection is provided via the mains plug. Do not therefore disable or remove the safety earth from the mains plug. The safety earth is required to reduce the risk of serious injury. If the plug provided does not fit into your mains outlet, consult an electrician.
- 8 Warning — only replace fuses with those of identical rating and specification.

## Liquids

- 9 Warning — do not expose this apparatus to liquids, rain or moisture of any kind. Liquid-filled objects such as vases should not be placed near or on the equipment.

## Atmosphere & climate

- 10 This equipment has been designed for domestic use in moderate climates. Warning — disconnect during electrical/lightning storms to prevent possible damage.

## Power sources

- 11 Only connect the equipment to a power supply of the type described in the operating instructions or as marked on the equipment.
- 12 To completely disconnect this equipment from the mains, disconnect the power supply cord plug from the AC socket/wall outlet.
- 13 The mains plug of the power supply cord shall remain readily accessible and operable.

## Mains cord protection

- 14 Protect the power cord from damage, for example excessive bending, pinching by heavy weights or abrasion by holes in trunking or conduit, equipment racks or furniture.
- 15 Warning — the loudspeaker terminals can produce voltages which are considered HAZARDOUS LIVE. The external connections to these terminals should be made with ready-made leads or cords and be installed by a person qualified to prevent any electrical dangers or risks.

- 16 Warning — to avoid potential damage, ensure that the amplifier is turned off before connecting or disconnecting your loudspeakers.

## Heat

- 17 Warning — the side panels of the **cor** integrated amplifier act as heatsinks and may become hot during operation. Do not touch if they are hot.

## Extended periods of non-use

- 18 If the equipment is not being used for an extended period, we recommend that you unplug the power cord of the equipment from the outlet.

## Smoke & odours

- 19 If smoke or an unusual smell emanates from the equipment, turn the power off immediately and disconnect the power cord from the AC socket/wall outlet. Do not reconnect. Contact qualified personnel authorised by PMC.

## Servicing

- 20 Refer all servicing to qualified service personnel. Servicing is required when the equipment has been damaged in any way: for example, if the power supply cord or plug is damaged, if liquid has been spilled on the apparatus or objects have fallen into it, if the equipment has been exposed to rain or moisture, or if it fails to operate normally or has been dropped.
- 21 Warning — there are no user-serviceable parts inside. Do not attempt to service or modify the amplifier. Service and repair should only be undertaken by qualified personnel authorised by PMC. Unauthorised repairs or modifications will invalidate your warranty.

- 22 The lightning flash with an arrowhead symbol within a triangle, alerts the user to uninsulated 'dangerous voltages' within the product that may constitute a risk of electric shock.



- 23 The exclamation mark within a triangle alerts the user to important operating and maintenance (servicing) instructions.
- 24 Warning — packaging material can pose danger to the young and vulnerable. Ensure these items are stored or disposed of safely.
- 25 PMC has made efforts to provide accurate installation information. However, PMC will not be held responsible or liable for injuries or property damage (direct, indirect or consequential) arising out of use or inability to use this product safely and properly.

## Batteries (in remote control)

- 26 Do not: use different battery types, expose to heat, short-circuit or disassemble. Dispose of the batteries in accordance with local regulations.

## SPECIFICATIONS

### Specification overview

<b>Type</b>	Pure analogue Class A/B integrated amplifier
<b>Inputs</b>	1 x balanced, 4 x single-ended, direct in
<b>Outputs</b>	4mm binding posts, preamp out
<b>Preamplifier</b>	
<b>Frequency response</b>	20Hz - 20kHz +0/-0.2dB 5Hz - 80kHz +0/-1dB
<b>Maximum gain</b>	15dB
<b>Tone controls</b>	+/- 10dB
<b>Input impedance</b>	25kOhms, unbalanced >14kOhms, balanced
<b>THD</b>	0.001% at 1kHz <0.005%, 20Hz - 20kHz, 80kHz measurement bandwidth
<b>IMD</b>	<0.001% SMPTE
<b>Noise</b>	-100dBV A-weighted
<b>Maximum input</b>	5.5Vrms
<b>Maximum output</b>	10Vrms

### Power amplifier

<b>Rated output power, 230V mains</b>	95W into 8Ohms 140W into 4Ohms
<b>Frequency response</b>	20Hz - 20kHz +0/-0.1dB 5Hz - 80kHz +0/-1dB
<b>Input impedance</b>	23.5kOhms
<b>Sensitivity</b>	1V = 100W into 8Ohms
<b>Gain</b>	28.9dB
<b>THD (Rated output power into 8Ohms)</b>	0.001% at 1kHz <0.01%, 20Hz - 20kHz, 80kHz measurement bandwidth
<b>Noise</b>	-101dB A-weighted re. rated output
<b>Output Impedance</b>	<0.05Ohms, 20Hz - 20kHz
<b>Damping factor</b>	>160 into 8Ohms, 20Hz - 20kHz

### General

<b>Dimensions</b>	<b>W</b> 432mm <b>H</b> 87.5mm <b>D</b> 401mm (inc. feet)
<b>Weight</b>	12kg
<b>Available finishes</b>	Silver & Black



Silver

Black



#### **WEEE EU directive**

This symbol on the product or in/on its packaging indicates that this product must not be disposed of with other household waste. It is the responsibility of the owner to dispose of waste equipment via a designated collection point for the recycling of waste electrical and electronic equipment. The recycling of your waste equipment is an attempt to conserve natural resources and ensures that it is recycled in a manner that protects human health and the environment. For more information about where you dispose of your waste equipment for recycling, please contact your local waste/recycling authority or the dealer from whom you purchased the product.

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