

EXEO AMP

Instruction manual

Integrated Amplifier

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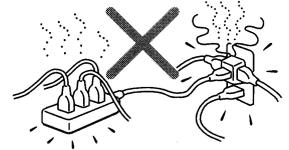
SAFETY INFORMATION

	<p>Caution:</p> <ul style="list-style-type: none"> - To reduce the risk of electric shock, do not remove Cover (or back) - No user-serviceable parts inside. - Refer servicing to qualified service personnel.
	<p>This lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninstalled “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.</p>
	<p>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 appliance.</p>
	<p>The symbol on this product indicates that it is of CLASS II (double insulated) construction.</p>

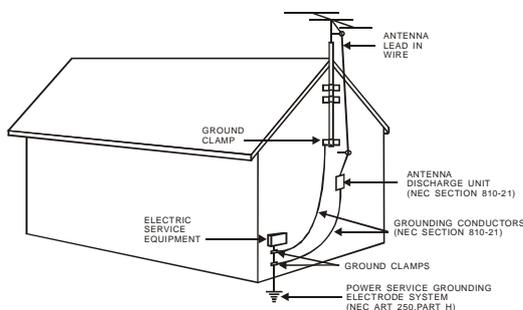
IMPORTANT SAFETY INSTRUCTIONS

CAUTION: READ THIS BEFORE OPERATING YOUR UNIT.

- 1. READ AND FOLLOW INSTRUCTIONS:** All the safety and operation instructions should be read before the product is operated. Follow all operation instructions within this manual.
- 2. RETAIN INSTRUCTIONS:** The safety and operation instructions should be retained for future reference.
- 3. HEED WARNINGS:** Comply with all warnings on the product and in the operation instructions.
- 4. CLEANING:** Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- 5. GROUNDING or POLARIZATION:** This product may be equipped with a polarized alternating current line plug (a plug having one pin wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician since it is likely you have an out of safe wall socket. Never force the plug into the socket.
- 6. OVERLOADING:** Do not overload wall outlets or extension cords as this can result in the risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cables, damaged or cracked wire insulation, and broken plugs are dangerous. They may result in electric shock or fire hazard. Periodically examine the power cable - if its appearance indicates damage or deteriorated receptacles have it replaced by your service technician.
- 7. POWER SOURCES:** This product should be operated only from the type of power source indicated on the rear panel label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intend to be operated from battery power, or other sources, refer to the operation instructions.



- 8. ACCESSORIES:** Do not place this product on an unstable surface or support. The product may fall, causing serious injury to a child or adult as well as serious damage to the product. Any mounting of the product should follow the manufacture's instructions and use a mounting accessory recommended by the manufacturer. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
- 9. OUTDOOR ANTENNA GROUNDING:** If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. The example below is for reference only. Correct grounding should always be installed by an electrician.

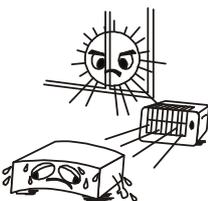
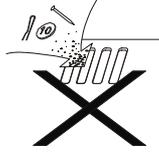
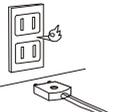


- 10. POWER-CORD PROTECTION:** The power supply cables should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cables at plugs and the point where they exit from the product. The mains plug of the power supply cord shall remain readily operable.
- 11. ATTACHMENTS:** Do not use unauthorized attachments as they may cause faults with the unit.

IMPORTANT SAFETY INSTRUCTIONS

12. **CONDITIONS REQUIRING SERVICE:** Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions.
- a) If the unit exhibits sudden unusual operation or unusual display characteristics.
 - b) If liquid has been spilled, or objects have fallen into the product.
 - c) If the product has been exposed to rain or water.
 - d) If the product does not operate normally by following the operation instructions, adjusting only those controls that are covered by the operation instructions. (**NOTE:** improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation).
 - e) If the product has been dropped or damaged in any way.
 - f) If the product exhibits a distinct change in performance.
13. **SERVICING:** Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage and may damage precision components. Refer all servicing to qualified service personnel.
14. **LIGHTNING:** For added protection during a lightning storm, or when it is left unattended and unused for long period of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power line .
15. **REPLACEMENT PARTS:** Should replacement parts be required, have the service technician verify that the replacement parts he uses have the same safety characteristics as the original parts. Use of unauthorized replacements parts can cause fire or electric shock.
16. **SAFETY CHECK:** Upon completion of any service or repairs to this product, ask the service technician to perform safety checks recommended by the manufacturer to determine that the product is in a safe operating condition.
17. **HEAT DISPERSAL:** Leave at least 10 cm of space between the top, back and sides of the unit and the wall or other electrical components.
18. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

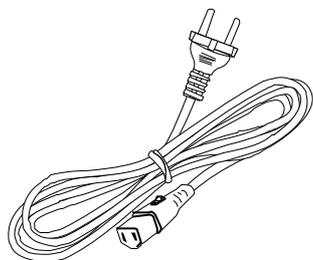
19. NOTES ON USE

 <ul style="list-style-type: none"> • Avoid high temperatures. Allow for sufficient heat dispersion when installed on a rack. 	 <ul style="list-style-type: none"> • Keep the set free from moisture, water, and dust. 	 <ul style="list-style-type: none"> • Do not let foreign objects in the set.
 <ul style="list-style-type: none"> • Handle the power cord carefully. Hold the plug when unplugging the cord. 	 <ul style="list-style-type: none"> • Unplug the power cord when not using the set for long periods of time 	 <ul style="list-style-type: none"> • Do not let insecticides, benzene, and thinner come in contact with the set.
	 <p>* (For sets with ventilation holes)</p> <ul style="list-style-type: none"> • Do not obstruct the ventilation holes 	 <ul style="list-style-type: none"> • Never disassemble or modify the set in any way.

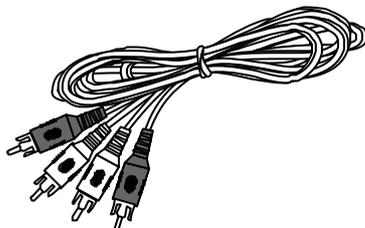
ACCESSORIES

You should find the following accessories included:

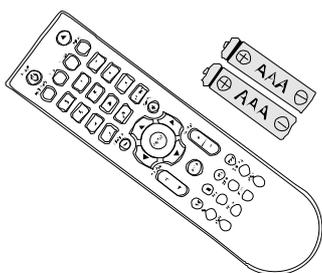
1. Mains cord
2. RCA cord
3. Remote control + batteries AAA x 2
4. Operator's Manual.



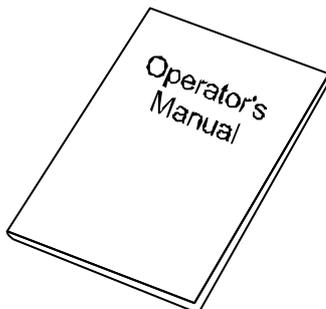
1



2



3



4

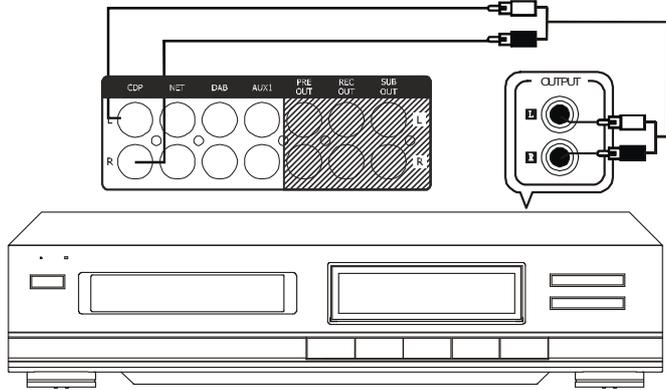
CONNECTIONS

Connection precautions

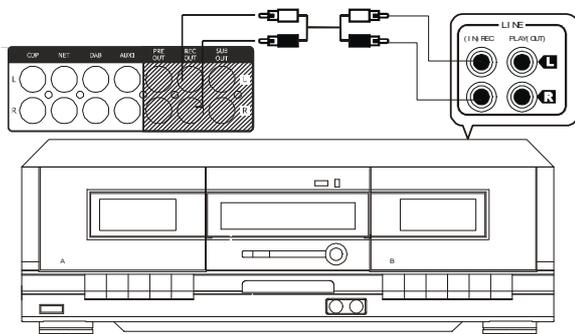
- When connecting, either disconnect the power plug from the power outlet or turn off the unit's power using the POWER switch (if any).
- Check the left and right channels and connect properly (Left to L and Right to R).
- Insert the plugs securely. Improper connection can lead to generation of noise.

E.g. compact disc player

Connect the CD terminals to the OUTPUT terminals on the compact disc player using the pin-plug cord.

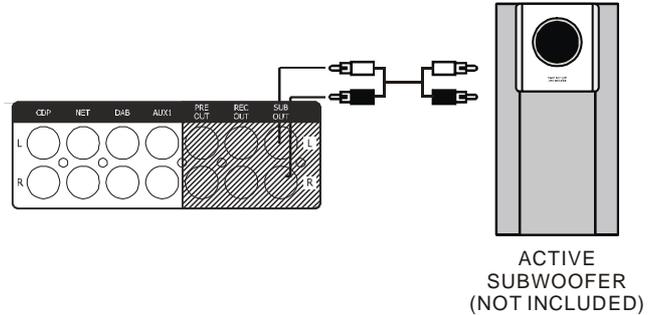


Recording connections Connect the REC OUT terminals to the input (LINE IN) terminals on the tape deck using the pin-plug cord.



SUB OUT terminals

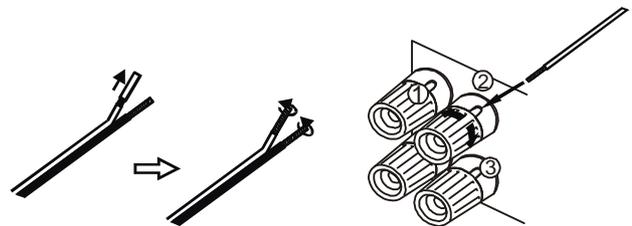
These terminals are used to connect to an active subwoofer. Use pin-plug cords to connect the terminals to the INPUT terminals on the subwoofer.



Speaker systems

To avoid damaging the speakers with a sudden high-level signal, be sure to switch the power off before connecting the speakers.

- Check the impedance of your speakers. Connect speaker with an impedance of 4 ohms or more. The amplifier's red speaker terminals are the + (positive) terminals and the black terminals are the - (negative) terminals.
- The + side of the speaker cable is marked to make it distinguishable from the - side of the cable. Connect this marked side to the red + terminals and the unmarked side is the black terminal.
- Prepare the speaker cords for connection by stripping off approximately 10 mm or less (no more as this could cause a short-circuit) of the outer insulation. Twist the wires tightly together so that they are not straggly.



1. Unscrew the knob
2. Insert the speaker cable.
3. Tighten the knob and secure the cable.

CONNECTIONS

PHONO

Connect the turntable's output cord L (white) plug to the L PHONO terminal and the R (red) plug to the R PHONO terminal.

If your turntable is equipped with a grounding cable, connect it to the unit's GND terminal. But disconnect it if you notice increased humming.



AUX1 terminals

This terminal have an electrical performance which is equivalent to that of the CD terminals which means that it can be used as the audio output terminals for a line level source. Connect this terminal to the OUTPUT terminal on the component using the pin-plug cord.

AUX2 terminal

This terminal has an increased sensitivity (x4) compared to the other line level inputs.

Headphone terminal

For connection of a pair of headphones.

REMOTE CONTROL INFORMATION

By using the provided remote control unit, the receiver can be controlled from your listening position. To use the remote control unit, point it at the REMOTE SENSOR window of the receiver.

Notes:

- Even if the remote control unit is operated within the effective range, remote control operation may be impossible if there are any obstacles between the unit and the remote control.
- If the remote control unit is operated near other appliance which generate infrared rays, or if other remote control devices using infrared rays are used near the unit, it may operate incorrectly.

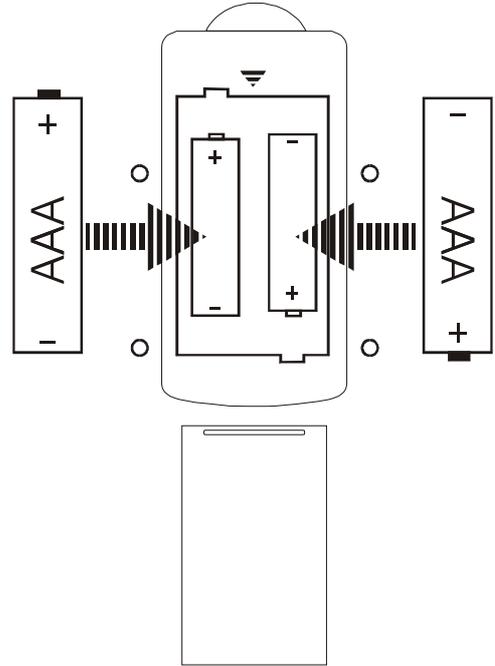
Precautions concerning batteries

- Be sure to insert the batteries with correct positive+ and negative – polarities.
- Use batteries of the same type. Never use different types of batteries together.
- Rechargeable and non-rechargeable batteries can be used. Refer to the precautions on their labels.
- When the remote control unit is not to be used for a long time (more than a month), remove the batteries from the remote control unit to prevent them from leaking. If they leak, wipe away the liquid inside the battery compartment and replace the batteries with new ones.
- Do not heat or disassemble batteries and never dispose of old batteries by throwing them in a fire.

REMOTE CONTROL OPERATION RANGE

Use the remote control unit within a range of about 7 meters (23 feet) and the angles of up to 30 degrees aiming at the remote sensor.

BATTERY INSTALLATION



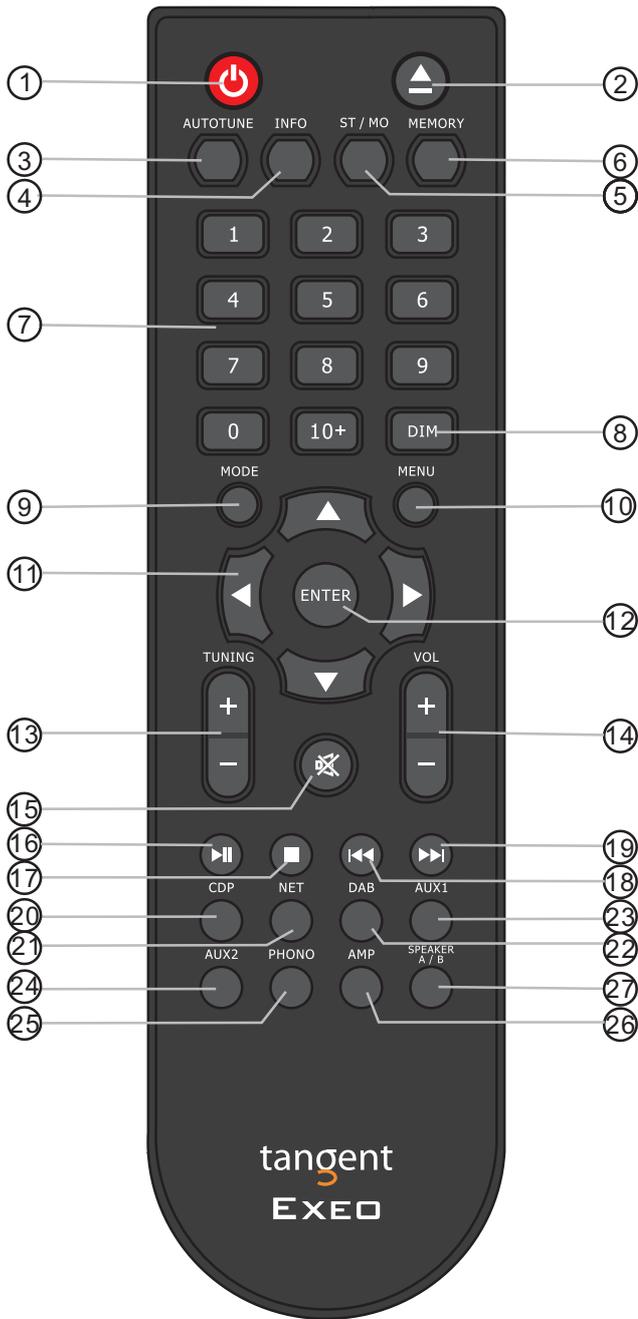
1. Remove the battery compartment cover.
2. Insert two "AAA" dry batteries.

Make sure that the batteries are inserted with their positive "+" and negative "-" poles positioned correctly.

3. Close the cover until it clicks.

If the distance required between the remote control unit and main unit decreases, the batteries are exhausted. In this case, replace the batteries with new one.

REMOTE CONTROL INFORMATION



1. System Off

Press this key to turn off the EXEO AMP and any other EXEO product.

2. ▲ Does not apply.

3. Autotune

Does not apply.

4. Info

Does not apply.

5. ST/Mono

Does not apply.

6. Memory

Does not apply.

7. Number Keys

Does not apply.

8. DIM

Press this button to toggle the brightness between: 25%, 50%, 75% & 100%.

9. MODE

Does not apply.

10. Menu

Press the AMP button and then press the Menu button to enter the menu.

11. Cursor keys ◀▶▲▼

12. Enter

To confirm selection.

13. Tuning +/-

Does not apply.

14. Volume +/-

To increase or decrease the volume.

15. Mute

Press this button to mute the audio, press it again to cancel the mute function.

16. ▶/||

Does not apply.

17. ■

Does not apply.

18. ◀◀

Does not apply.

19. ▶▶

Does not apply.

20. CDP

Press this button to activate the CDP input (also switches on an EXEO CDP from Standby, and switches off any other EXEO source).

21. NET

Press this button to activate the NET input (also switches on an EXEO NET from Standby, and switches off any other EXEO source).

22. DAB

Press this button to activate the DAB input.

23. AUX1

Press this button to activate the AUX1 input.

24. AUX2

Press this button to activate the AUX2 input.

25. Phono

Press this button to activate the PHONO input.

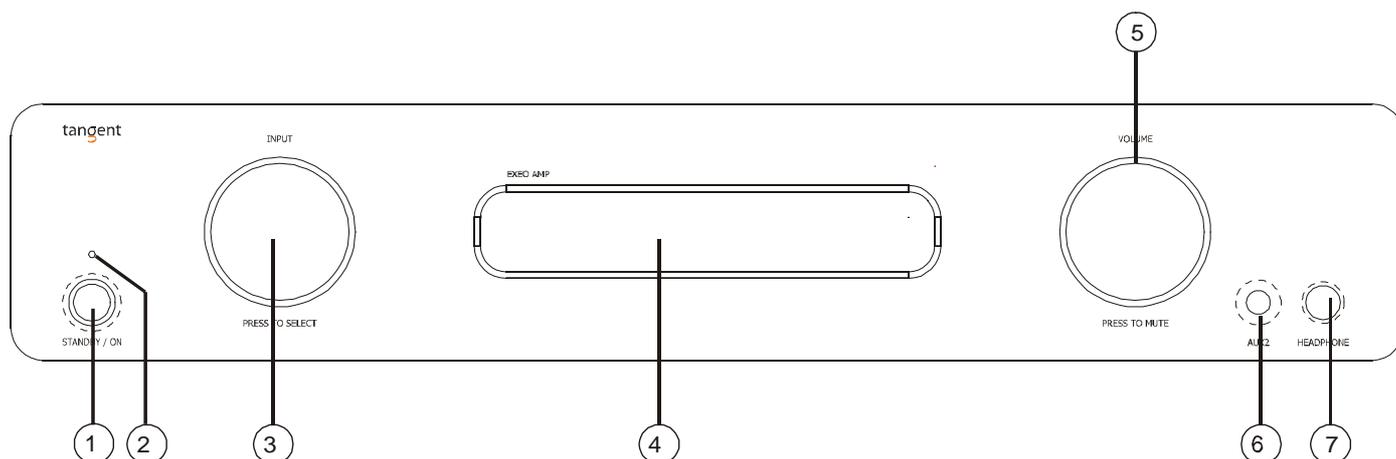
26. AMP

Press this button to activate the EXEO AMP from Standby.

27. Speaker A/B

Press this button to choose between SPEAKER A, SPEAKER B, SPEAKER A+B and SPEAKER OFF.

FRONT PANEL INFORMATION



1. Standby/On

Press it to turn on the unit and press it again to turn it off.

2. LED Indicator

Is OFF when the amplifier is turned on. It is red when the amplifier is in standby mode.

3. Input

Rotate this knob clockwise or counterclockwise to choose the input source between: CDP, NET, DAB, AUX1, AUX2, PHONO. Press it to confirm the selection.

Press and hold this button to enter the menu for the below settings: EQ, SPEAKER, LOUDNESS, DISPLAY, HP FILTER, PHONO.

4. Display

5. Volume knob

To increase or decrease the volume. Changing volume setting un-mutes the system.

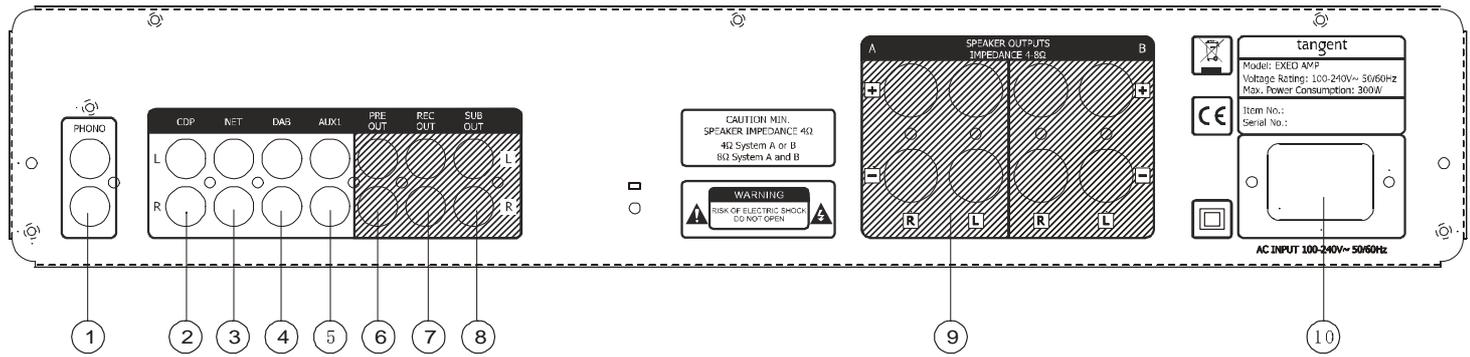
6. AUX2

3.5mm mini-jack input.

7. Headphone

6.5mm jack stereo headphone output.

REAR PANEL INFORMATION



1. **PHONO:** For connection of a turn table (Note: Additional ground terminal available above inputs)
2. **CDP:** For connection of a CD player e.g. EXEO CDP
3. **NET:** For connection of a NET tuner e.g. EXEO NET
4. **DAB:** For connection of e.g. a DAB tuner
5. **AUX1 :** For connection of a line level source
6. **PRE OUT:** For connection of e.g. a external power amplifier
7. **REC OUT:** For connection of e.g. an external tape deck.
8. **SUB OUT:** For connection of e.g. an active subwoofer
9. **SPEAKER OUT:** For connection of loudspeakers

Note: The speaker impedance must be 4-8 Ohms. For optimal sound quality there must be a proper connection between the speaker terminal and the amplifier terminal. The cable ends must not be frayed, to avoid that they come into contact with each other, or the cabinet back panel.

10. **AC MAINS INPUT:** For connection of mains voltage. Make sure that the plug is correctly inserted, and that the voltage corresponds to the text printed on the back panel of the cabinet.

Note: All audio inputs and outputs are analogue.

OPERATION AND FUNCTION

ON, Off and Standby

1. Turn on the unit by pressing the Standby/ON button on the front panel or the AMP button on the remote control.
2. If you wish to turn off the unit to avoid any power consumption, you must remove the power cord.

Selecting an Input Source

You can choose an input source by the left hand side knob, and press the knob to select. In addition the remote has dedicated input selection.

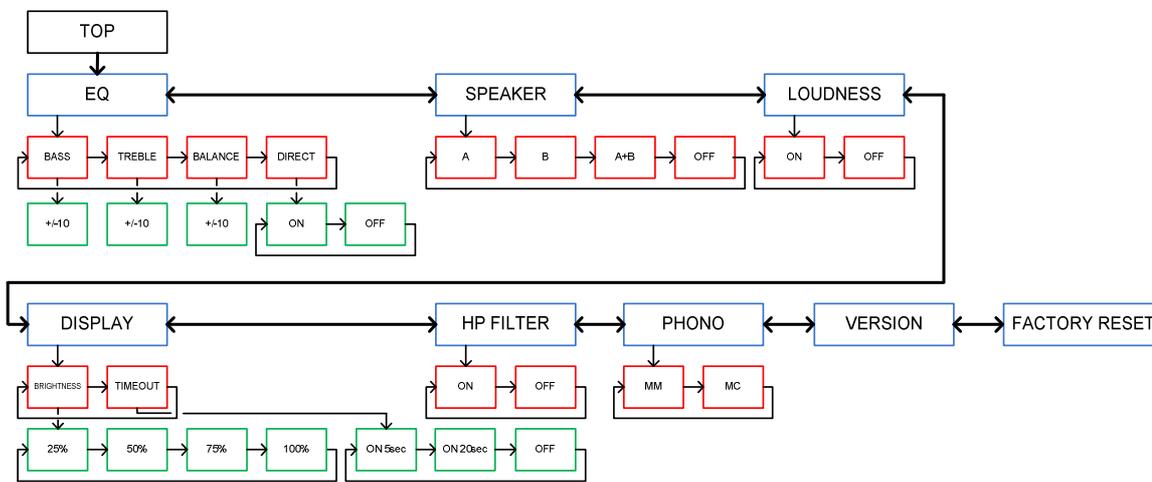
Volume Control

On the right hand side knob the volume can be adjusted. Press it to mute or un-mute the system. Changing volume un-mutes the system.

Menu Layout

The menu is accessed by pressing and holding the left hand side knob, or by pressing AMP and then MENU on the remote.

Use the arrow keys and the ENTER key of the remote, or the left hand side knob on the front panel to operate the menu.



EQ – Bass Control

The amplifier features a bass control with an adjustment of +/-10dB.

EQ - Treble Control

The amplifier features a treble control with an adjustment of +/-10dB.

EQ - Balance Control

The amplifier features a balance control with of -80dB attenuation for each speaker output.

EQ – Direct Out

When this function is on the Bass, Treble and Balance is bypassed. If Direct Out is set to off again, the EXEO AMP will remember the Bass, Treble and Balance settings.

Speaker Out

A, B, A+B and Off can be selected. In case Off is selected, it is continuously stated in the display.

Loudness

Loudness bypass any EQ function, as it uses the EQ to generate the loudness curve.

Display - Brightness

Levels of 25-50-75 and 100% can be selected. 75% is default. The DIM button on the remote toggles the levels.

Display – Time Out

Time limits of 5 and 20secs can be selected and off. Time Out means the display switches off, if no actions are taken with the time limit.

OPERATION AND FUNCTION

HP Filter

A highpass filter can be set on and off, to match the system with a active subwoofer. The corner frequency is 80Hz and it has a 12dB slope.

PHONO

The phono input can be set for MM and MC cartridges, the gain is 40 and 60dB respectively.

Factory Reset

The function brings back the unit to default settings.

Firmware

This function shows the firmware version.

TROUBLESHOOTING

PROBLEM	CAUSE/REMEDY
No power when the unit is turn on	<ul style="list-style-type: none"> - Switch on the current at the mains outlet socket - Check that the plug has been correctly inserted in the socket - The internal fuse has blown and must be replaced by a qualified service technician - The power cord has been damaged and must replaced
No Sound	<ul style="list-style-type: none"> - The unit has not been turned on - The volume control is set at minimum or muted - The speaker cables have not been correctly connected - A wrong input source has been selected - Input source has been connected - Speaker setting is set to off
There is sound in one channel only	<ul style="list-style-type: none"> - The balance control is not correctly adjusted - The audio input cables have been incorrectly connected or damaged - The input source is defective - The speaker cable have been incorrectly connected or damaged - The speaker is defective
High buzzing	<ul style="list-style-type: none"> - The audio input cables have been incorrectly connected or damaged - The ground cable for the record player has not been connected - The turn table pick-up is defective
Weak bass and poor stereo perspective	<ul style="list-style-type: none"> - The speaker connection is out of phase. Check that the positive and negative poles have been correctly connected, both at the back of the amplifier and at the back of the speaker
Distortion of sound	<ul style="list-style-type: none"> - Bass and treble control are too high in relation to speaker specifications - The volume is set too high
The display does not display any information	<ul style="list-style-type: none"> - The amplifier is defective and should be serviced by a qualified technician - Time out for the display is chosen in the menu
The unit does not switch between inputs	<ul style="list-style-type: none"> - The amplifier is defective and should be serviced by a qualified technician
"ERROR" is displayed on the display	<ul style="list-style-type: none"> - The amplifier is defective and should be serviced by a qualified technician

SPECIFICATIONS

Parameter	Value	Note
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Power

Standby Power Consumption	0.73Wrms	
Power Supply Rating	300Wrms	

Audio - Connectors

Line Level Inputs Connectors	RCA (Phono), gold plated	Case = Gnd, Tip = Signal (CDP, NET, DAB, AUX1)
3.5mm Line Level Inputs Connector	3.5mm mini-jack, tin-plated	Case = Gnd, Ring = R, Tip = L (AUX2)
Line Level Outputs Connectors	RCA (Phono), gold plated	Case = Gnd, Tip = Signal (PRE, REC, SUB)
1/4 Headphone Output Connectors	1/4" (6.2mm) jack, tin-plated	Case = Gnd, Ring = R, Tip = L (HEADPHONE)
Binding Post	Banana plug & stripped wire	Positive terminal = red, Negative terminal = black

Audio - Line levels

Input maximum swing	4.2Vrms	
Output max swing	9.5Vrms	
Frequency Response L/R - Pre Out	+/- 0.05dB	20-20KHz
Frequency Response L/R - Rec Out	+/- 0.05dB	20-20KHz
Signal-to-Noise Ratio - Pre Out	105dBA	0V input, A-wgt
Signal-to-Noise Ratio - Rec Out	118dBA	0V input, A-wgt
Dynamic Range - Pre Out	104dBA	-60dB, 1KHz, A-wgt
Dynamic Range - Rec Out	117dBA	-60dB, 1KHz, A-wgt
Distortion THD+N - Pre Out	-90dB	1KHz, AES-17, A-wgt, 2Vrms, volume=0dB
Distortion THD - Pre Out	-91dB	1KHz, AES-17, A-wgt, 2Vrms, volume=0dB
Distortion THD+N - Rec Out	-101dB	1KHz, AES-17, A-wgt, 2Vrms
Distortion THD - Rec Out	-104dB	1KHz, AES-17, A-wgt, 2Vrms
Crosstalk - Pre Out	-69dB	125-16KHz, AES-17, A-wgt
Crosstalk - Rec Out	-95dB	125-16KHz, AES-17, A-wgt

Audio - Phono

MM Gain	40dB	(i.e. max. input swing = 42mVrms)
MC Gain	60dB	(i.e. max. input swing = 4.2mVrms)
Frequency Response L/R - Rec Out	+/- 1dB	20-20KHz (inverse RIAA curve used)
Signal-to-Noise Ratio - Rec Out	90dBA / 70dB	0V input, A-wgt, [MM / MC]
Dynamic Range - Rec Out	90dBA / 60dB	-60dB, 1KHz, A-wgt [MM / MC]
Distortion THD+N - Rec Out	-90dB / -70dB	1KHz, AES-17, A-wgt, 2Vrms
Distortion THD - Rec Out	-100dB / -80dB	1KHz, AES-17, A-wgt, 2Vrms
Crosstalk - Rec Out	-75dB	125-16KHz, A-wgt

Audio - Amplifier

Po@8R	>60W	1% THD, incl. 20KHz passive lowpass filter
Po@4R	>100W	1% THD, incl. 20KHz passive lowpass filter
Frequency Response L/R @8R	+/- 1dB	20-20KHz, Fo max. 33KHz
Frequency Response L/R @4R	+/- 1dB	20-20KHz, Fo max. 27KHz
Signal-to-Noise Ratio	101dBA	0V input, A-wgt
Dynamic Range	100dBA	-60dB, 1KHz, A-wgt
Distortion THD+N	-85dB	1KHz, AES-17, A-wgt, 1/8 rated power
Distortion THD	-85dB	1KHz, AES-17, A-wgt, 1/8 rated power
Crosstalk	-70dB	1KHz, AES-17, A-wgt, 1/8 rated power