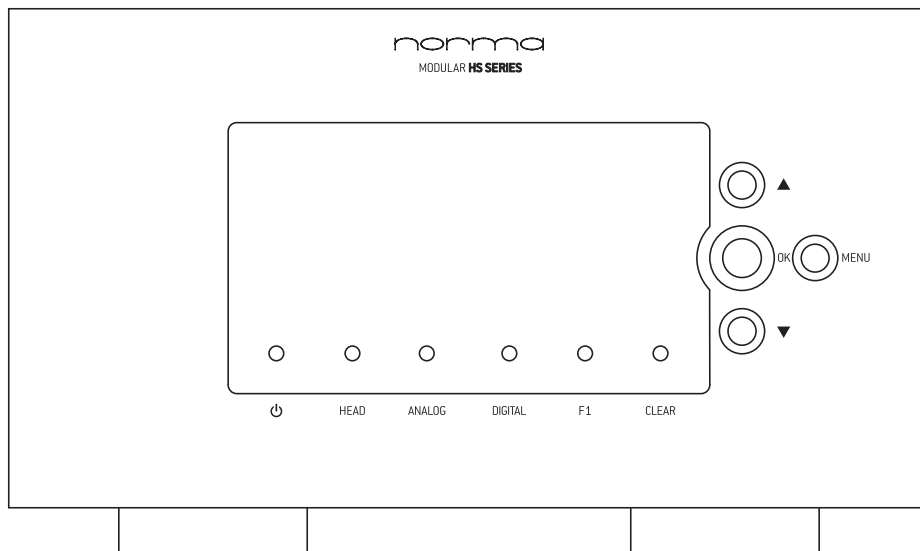


norma
AUDIO ELECTRONICS

HS-IPA1

Stereo Integrated Amplifier

Manual



Safety manual

HS-IPA1

Contact informations

Make sure you register your purchase.

Visit: <http://www.normaudio.com/normaudio/>

Documentation Conventions

This document contains general safety and operation instructions for your Norma product. It is important to read this document before attempting to use this device. Please pay particular attention to safety instructions.

The information that the manual contains is subject to change without notice. NORMA assumes no responsibility for errors that may appear within this document and is restricted for use by NORMA Audio.



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Opal Electronics - Via Persico, 26 - Loc. Bettenesco

Persico Dosimo (Cremona)

Italy

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I • Introduction

Thank you for purchasing a NORMA Audio product.


Please read this manual thoroughly before making connections and plugging in the unit to the mains power supply.

Following the instructions in this manual will enable you to obtain optimum performance and listening enjoyment from your new NORMA unit.


Please retain this manual for future reference.




CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



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.

 The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the products 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 appliance.

WARNING:
TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

II • Unpacking

Follow these steps to safely unpack the NORMA unit:

- Open the shipping box and remove the top layer of foam. Be careful not to damage the inside of the package with the knife.

The packaging must contain the following items:

1 NORMA;

1 Remote control unit;

1 AC power cord (in some countries);

1 User manual;

1 Warranty police and registration card.

- Grab the underside of the NORMA unit and lift it straight out of the packing box;

- Place the NORMA unit in a safe location and remove the protective plastic wrapping.

Note:

If any accessories are missing, or if the unit is damaged or fails to operate, notify your dealer immediately. If the unit was shipped to you directly, notify your shipper immediately. NORMA recommends that you retain the original carton and packing materials in case you need to move or ship the unit in the future. Neither NORMA or the shipper can be held responsible for damages incurred during transit if the original factory packing is not used. All factory returns require that a previous return authorization number be issued by NORMA prior to shipment.

Keep this manual handy for future reference.

Register your NORMA unit online at www.normaudio.com within 15 days of purchase. Retain the original, dated sales receipt as proof of warranty coverage.

▲ Caution:
Keep the carton box, the foam protection and the PET sheet out of the reach of children, choking hazard.

HS-IPA1 / Safety manual

I / II • Introduction / Unpacking ◀ |

III • Before use

⚠ IMPORTANT SAFETY INSTRUCTIONS ⚠

Read this section carefully to ensure safe operation

▶ **III.I General**

III.I.I • Read these instructions

All the safety and operating instructions should be read before the product is operated.

III.I.II • Keep these instructions

The safety and operating instructions should be retained for future reference.

III.I.III • Heed all warnings

All warnings on the product and in the operating instructions should be adhered to.

III.I.IV • Follow all instructions

All operating and use instructions should be followed.

III.I.V • Preventing hearing loss

Caution, excessive sound pressure from earphones and headphones can cause hearing loss.

III.I.VI • The labels containing information about safety must be always visible and in good conditions

▶ **III.II Positioning**

III.II.I • Environment and space requirements

Operating environment temperature and humidity: +5 °C to +35 °C (+41 °F to +95 °F); less than 80% RH (cooling vents not blocked). Do not install this unit in a poorly ventilated area, or in locations exposed to excessive humidity or direct sunlight (or strong artificial light).



Due to stray magnetic fields, turntables, amplifiers and CD players should not be located nearby due to possible interference.



Do not use this product in an explosive atmosphere.



Keep electrical device out of the reach of children. Injuries and shock hazard.



Avoid locations subject to vibration and excessive dust. The dust could accumulate and cause overheating.



III.II.II • Stands

The important weight of our products require that they are placed only on an adequate mechanical structure. We are not responsible for injuries or damages due to a wrong positioning. Do not put NORMA devices on high places, to avoid injury from tip-over or falling. This product cannot be mounted to a wall or ceiling.



III.II.III • Object and Liquid Entry

Do not use this apparatus near water

This product shall not be exposed to dripping and splashing, for example near a bath tub, wash bowl, kitchen sink, laundry tub, in a wet basement, near a swimming pool and the like. Do not place an object containing liquid, such as a flower vase, on the appliance even if it is switched off.

Never spill liquid of any kind on the product. Internal condense can be formed if the amplifier is carried from an extremely cold environment to an extremely hot one. Please wait at least for an hour before operating it again. Never push objects of any kind into the apparatus through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.

Never use this product with wet hands, shock and injury hazard.



III.II.IV • Flame

Do not place a flaming object, such as a candle or lantern, or near the product. Do not use free flames or flammable substances near this appliance.



III.II.V • Ventilation

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating. Do not block any ventilation openings. Install in accordance with the manufacturers instructions. Ventilation should not be impeded by covering the ventilation openings with items such as newspapers, table cloths, curtains and so on. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturers instructions have been adhered to. Ensure that there is adequate ventilation. Leave 20 cm (8") of free space at the top and sides and 10 cm (4") at the rear. The rear edge of the shelf or board above the apparatus shall be set 10 cm (4") away from the rear panel or wall, creating a flue-like gap for warm air to escape.



III.II.VI • Heat

Do not install near any heat sources such as radiators, heat registers stoves, or other apparatus (including amplifiers) that produce heat.



III.II.VII • Batteries

The remote control batteries cannot be exposed to excessive heat such as sunshine, any improper use may result in fire or personal injuries.

▶ III.III Power

III.III.I • AC fuse

The AC fuse inside the unit is not user-serviceable. If you cannot turn on the unit, contact your NORMA dealer.

III.III.II • Power sources

This product should be operated only from the type of power source indicated on the product. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.

▲ AC outlet voltages vary from country to country. Make sure that the voltage in your area meets the voltage requirements printed on the unit's rear panel (e.g. AC 230 V, 50 Hz or AC 120 V, 60 Hz). The power cord plug is used to disconnect this unit from the AC power source. Make sure that the plug is readily operable (easily accessible) at all times.

The unit is of class 1 construction and must be connected to a mains socket outlet with a protective earthing connection.

III.III.III • Mains cord

The mains cord is intended to be safely disconnected to the device for this apparatus and shall remain readily operable at all times.

Be sure to insert each power cord securely. To prevent hum and noise, do not bundle the interconnect leads with the power cord or speaker leads.

To completely disconnect this product from the mains, disconnect the plug from the wall socket outlet. The mains plug is used to completely interrupt the power supply to the unit and must be within easy access by the user.

III.III.IV • Power plug / Wall outlet

- If the AC plug of this unit does not match the AC outlet you want to use, the plug must be removed and appropriate one fitted.

- Replacement and mounting of an AC plug on the power supply cord of this unit should be performed only by qualified service personnel.



Contact your NORMA dealer for more information.

- If connected to an AC outlet, the cut-off plug can cause severe electrical shock. Make sure it is properly disposed of after removal.

▲ To avoid fire hazard or other problems, the equipment should be disconnected by removing the mains plug from the wall socket when left unused for a long period of time (for example, when on vacation).

- This product must be terminated with a three-conductor AC mains power cord that includes an earth ground connection. To prevent shock hazard, all three connections must ALWAYS be used.

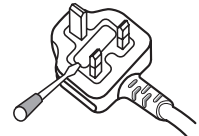
III.III.IV.I • UK plug-fitting instructions (UK only)

This appliance is supplied with a moulded three pin mains plug for your safety and convenience. A 13 amp fuse is fitted in this plug. Should the fuse need to be replaced, please ensure that the replacement fuse has a rating of 13 amps and that it is approved by ASTA or BSI to BS1362. Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover, you must ensure that it is refitted when the fuse is replaced. If you lose the fuse cover the plug must not be used until a replacement cover is obtained. A replacement fuse cover can be obtained from your local dealer. If the fitted moulded plug is unsuitable for your socket outlet, in any case cut the cord for replace the plug. There is a danger of severe electrical shock if the cut off plug is inserted into any socket. Please contact your local dealer for the appropriate power cord with appropriate plug.

Q How to replace the fuse

Open the fuse compartment with a screwdriver and replace the fuse.



III.III.V • Mains switch

When the switch is in the OFF position, the equipment is not completely switched off from mains.

▲ The STANDBY mode on this unit will not completely shut off all power from the AC outlet. Since the power cord serves as the main disconnect device for the unit, you will need to unplug it from the AC outlet to shut down all power. Therefore, make sure the unit has been installed so that the power cord can be easily unplugged from the AC outlet in case of an accident.

III.III.VI • Power supply

If an external power supply is required, the equipment shall be installed near the power supply so that the power supply is easily accessible.

III.III.VII • Power cord protection

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus. Do not handle the mains cord with wet hands.

III.III.VIII • Overload protection and prevention

Do not overload wall outlets, extension cords, or integra convenience receptacles as this can result in a risk of fire or electric shock.

Be sure that the used wall outlet and the circuitry above it can provide the correct amount of current without significant voltage drop. It can result in a risk of fire or electric shock.

III.III.IX • Lightning protection

Always unplug this apparatus during lightning storms.
For additional security, remove all connections from the unit when unused for long periods of time.

▶ III.IV Servicing

III.IV.I • Do not try to repair this product

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

For technical assistance, please contact a qualified technician or a NORMA dealer.

III.IV.II • Damage requiring service

- 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.

III.IV.III • Service warning

Unplug the apparatus from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged;
- If liquid has been spilled, or objects have fallen into the apparatus;
- If the apparatus has been exposed to rain or water;
- If the apparatus does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the apparatus to its normal operation;
- If the apparatus has been dropped or damaged in any way;
- When the apparatus exhibits a distinct change in performance this indicates a need for service.

III.IV.IV • Replacement parts and accessories

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

Use only accessories and optional boards specified by the manufacturer. Clone or non-original accessories may result in fire, electric shock or other hazards.

III.IV.V • Safety check

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

III.IV.VI • Never disassemble or modify the unit

Do not use this product with any covers removed, shock hazard. Do not bypass any fuse, it may cause damages and fire.

▶ III.V Care & maintenance

III.V.I • Cleaning

▲ Unplug this product from the wall outlet before cleaning.

- Do not use liquid cleaners or aerosol cleaners;
- Use a damp cloth for cleaning;
- Do not let insecticides, benzene, and thinner come in contact with the unit, absolutely do not use these substances to clean the unit.

IV • Operating

▶ IV.I Connections

▲ Warning:

When making connections to this or any other component, make sure all components are off. Turn off all systems power before connecting the NORMA unit to any other component. For additional security, remove the power cord before making the connections.

Make sure all cable terminations are of the highest quality, free from frayed ends, short circuits, or cold solder joints.

- Before making any connections, make sure all power is turned off and only use suitable interconnects. For additional security, remove the power cord before making the connections;
- Before attempting any system interconnection, please familiarize yourself with the front and rear panel controls of the NORMA unit;
- Do not connect the NORMA unit speakers output terminals to any device other than a loudspeaker. Do not short-circuit the amplifier's output terminals. Never connect the output terminals of one amplifier to the output terminals of another amplifier.

▶ IV.II Warming up

This unit's top, bottom and lateral heatsinks may get hot after prolonged use. This is normal but avoid touching them.

▶ IV.III Running in time

Electronic audio components have a running in time of around a 200 - 300 hours. This will allow the new components to settle down and the sonic properties will improve over this time.

▶ IV.IV Long time do not use

If you do not use this unit for a long time, it may not work properly the next time you turn it on, so be sure to use it occasionally.

If you intend not to use the remote controller for a long time, remove the batteries to prevent damage from leakage or corrosion. Remove expired batteries as soon as possible to prevent damage from leakage or corrosion. Do not leave rubber or plastic items on this unit for a long time, because they may leave marks on the case.

▶ IV.V Application fields

This product is for general household purposes. Any failure due to use for other than household purposes (such as long-term use for business purposes in a restaurant or use in a car or ship) and which requires repair will be charged for even during the warranty period.

V • Recycling & waste

🔍 V.I Notes about recycling



This products 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. Products and batteries with the symbol (crossed-out wheeled bin) cannot be disposed as household waste. Old electrical and electronic equipment and batteries should be recycled at a facility capable of handling these items and their waste byproducts. Contact your local authority for details in locating a recycle facility nearest to you.

▶ V.II Information on disposal for users (private households)

V.II.I • In the European Union

▲ Attention:

If you want to dispose of this equipment, please do not use the ordinary dust bin. Used electrical and electronic equipment must be treated separately and in accordance with legislation that requires proper treatment, recovery and recycling of used electrical and electronic equipment.

Following the implementation by member states, private households within the EU states may return their used electrical and electronic equipment to designated collection facilities free of charge. In some countries your local retailer may also take back your old product free of charge if you purchase a similar new one.

If your used electrical or electronic equipment has batteries or accumulator, please dispose of these separately before and according to local requirements.

By disposing of this product correctly you will help ensure that the waste undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health which could otherwise arise due to inappropriate waste handling.

V.II.II • In other countries outside th EU

If you wish to discard this product, please contact your local authorities and ask for the correct method of disposal.

For Switzerland:

Used electrical or electronic equipment can be returned free of charge to the dealer, even if you don't purchase a new product. Further collection facilities are listed on the home page of www.swisco.ch or www.sens.ch.

▶ V.III Information on disposal for business user

V.III.I • In the European Union

If this product is used for business purposes and you want to discard it:

Please contact your NORMA dealer who will inform you about the take-back and recycling. Small products (and small amounts) might be taken back by your local collection facilities.

For Spain:

Please contact the established collection system or your local authority for take-back of your used products.

V.III.II • In other Countries outside the EU

If you wish to discard of this product, please contact your local authorities and ask for the current method of disposal.



▲ Attention:

Your product is marked with this symbol. It means that used electrical and electronic products should not be mixed with general household waste. There is a collection system for these products.

User manual

HS-IPA1



CONGRATULATIONS

First of all, we would like to thank you for the trust you have placed in NORMA. The product you purchased is the result of a long research and development process in which we have put our technical experience, and our passion for music. This products will offer you the best that technology has expressed for high quality sound reproduction. In front of the choice of what to offer as the possibility of customizing the product functions, there are two ways: the first is a simply and immediate user menu, but inevitably with limited possibilities. The second one is wider and able to adapt its functioning (and the sound performance) to the user's desire. Our decision was to offer you the possibility of customization as much as possible the functions that influence the final result. We are sure that you can appreciate this way. In virtue of this, the menus are wide. You will find interesting to read and to study how to use it in detail, in order to better adapt it to your desire. We hope that this manual is clear and that it will answer to each your questions; however we will be pleased to answer to any questions or doubt that you will have. We are confident that you will find great satisfaction from the use of our products, which, if treated with care, will give you lasting reliability. Before use, it is essential to read and learn the entire contents of this document.

1 • Controls and connections

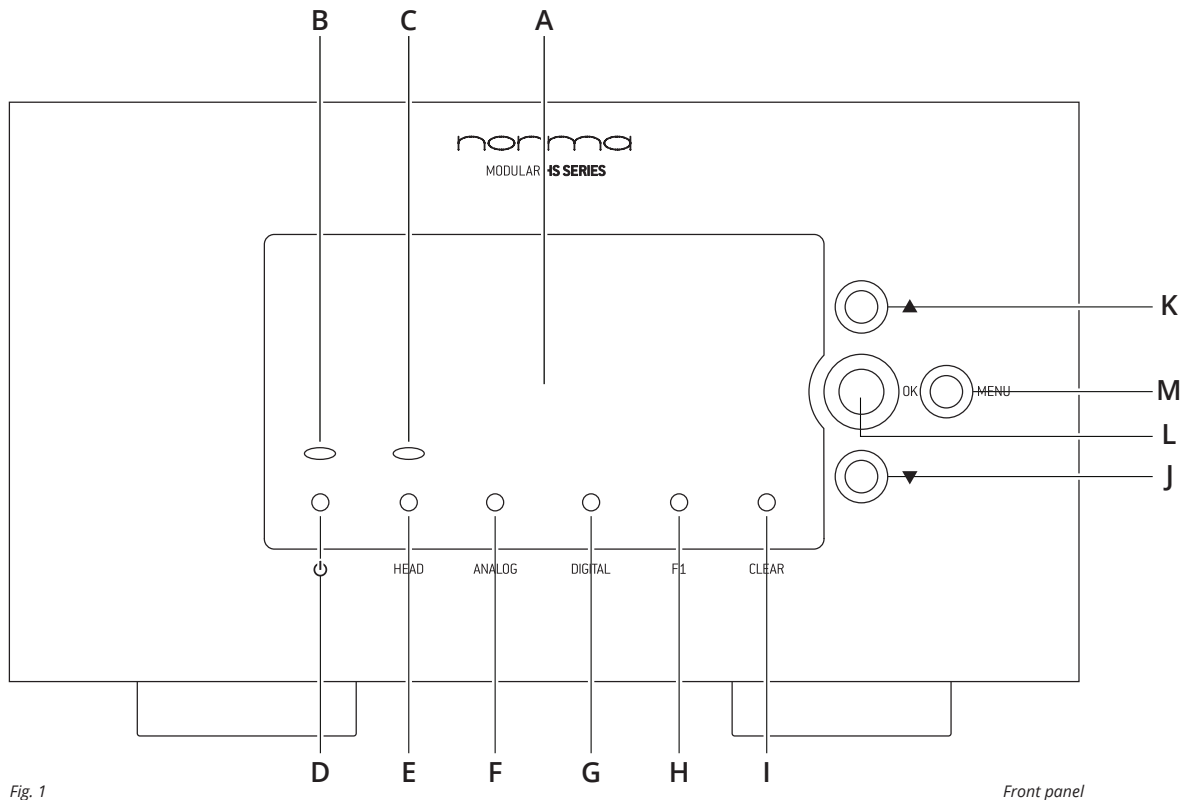


Fig. 1

Front panel

► 1.1 Front panel

A • Multi-function display

The display shows the controls and functional states.

B • POWER STAND-BY indicator

In the STAND-BY state the indicator is illuminated.
In the POWER ON state indicator is off.

C • HEADPHONE indicator

When the DAC is in HEAD mode the indicator is illuminated (only in PRE version).

D • ON / STAND-BY button

Turns on and off the device [POWER].

E • HEAD button

Switches between HEADPHONE and LINE mode (only in PRE version).

F • ANALOG button

Press this button to select an analog input (only in PRE version).

G • DIGITAL button

Press this button to select a digital input.

H • F1 button

Invert the signal phase.

I • CLEAR button

Deletes the current selection, use it to exit from menus.

J • ▼ button [SEL -] [VOL -]

BACK selection button [-].

button to decrease the volume [VOL -] (only in VAR and PRE versions).

K • ▲ button [SEL +] [VOL +]

NEXT selection button [+].

button to increase the volume [VOL +] (only in VAR and PRE versions).

L • OK button

M • MENU button

Press this button to access the main menu.

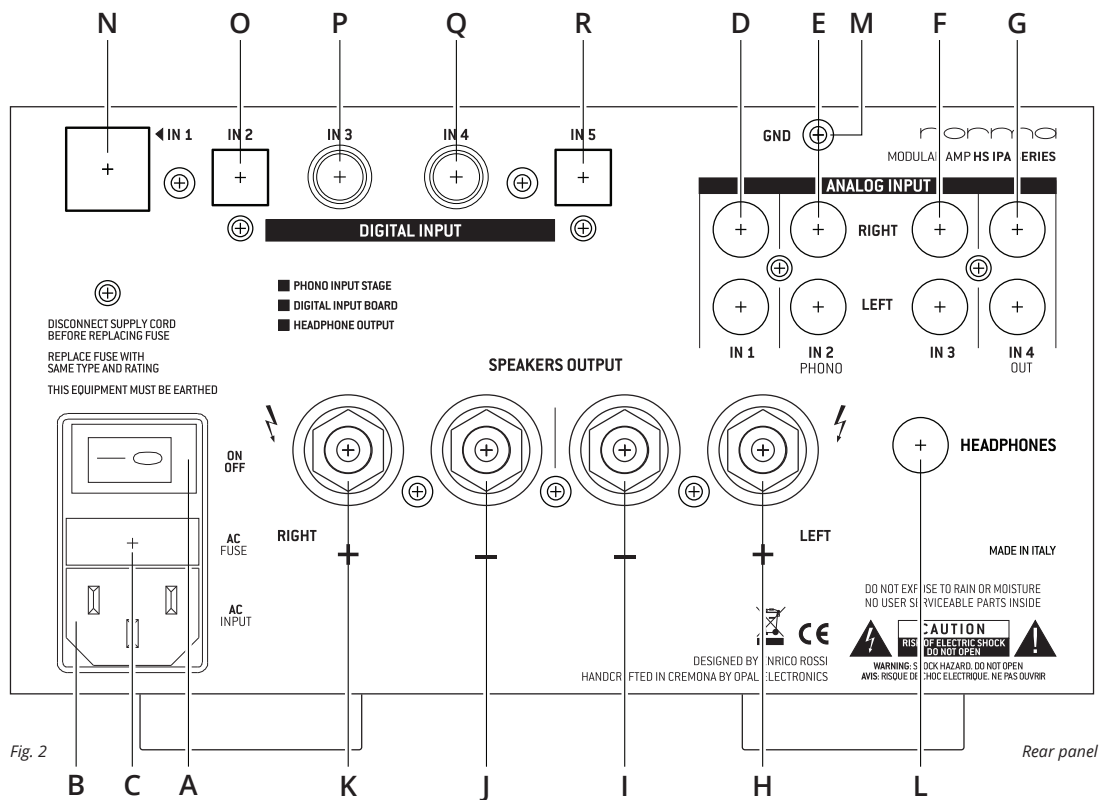


Fig. 2

Rear panel

► 1.2 List of controls and rear connections

A • ON / OFF switch

B • Mains socket

Mains power connector. Slot for connection of the network cable according to IEC / CEE 22. Check that the mains voltage corresponds to that indicated on the label on the rear panel.

C • Fuse

The AC power fuse. Verify that the voltage, the type and extent coincides with that indicated on the rear panel.

▲ Attention:

For any reason the user must replace the fuse, it is a task reserved for qualified personnel in the service centers.

D • IN 1: RCA connection sockets

Analog Input socket for signal IN 1 channel right / left.

E • IN 2 [PHONO]: RCA connection sockets

Analog Input socket for signal IN 2 channel right / left.

F • IN 3: RCA connection sockets

Analog Input socket for signal IN 3 channel right / left.

G • IN 4 [REC OUT]: RCA connection sockets

Analog Input socket for signal IN 4 channel right / left. Can be set as output by system menu.

→ See section 2.7.1, "4 • Out 4" at page 5.

H • Speakers output [positive] left channel

Output jack for positive power.

I • Speakers output [negative] left channel

Output jack for negative power.

J • Speakers output [negative] right channel

Output jack for negative power.

K • Speakers output [positive] right channel

Output jack for positive power.

L • HEADPHONES: 6.3mm jack connection plug (only if HEADPHONE option is mounted)

Analog output socket for headphones. 16-600 Ohm.

M • GND: Phono GND

Ground screw for turntable.

HS-IPA1 DAC option only features

N • Digital IN 1: USB "B Type" connection socket

Input socket for digital signal 1.

O • Digital IN 2: S/PDIF TOSLINK plug connection socket

Input socket for digital signal 2.

P • Digital IN 3: S/PDIF RCA plug connection socket

Input socket for digital signal 3.

Q • Digital IN 4: S/PDIF RCA plug connection socket

Input socket for digital signal 4.

R • Digital IN 5: S/PDIF TOSLINK plug connection socket

Input socket for digital signal 5.

🔍 1.3 Technical notes

1.3.1 • Technical notes about inputs

The HS-IPA1 has 4 analog inputs by default and 5 set of digital inputs only if DAC board is fitted

The input IN 2, as well as being a normal input line, can be configured as a phono stage input for either MM / MC The MC stage load can be adjusted internally using the supplied phono stage manual.

The input IN 4, as well as being a normal input line, can also be switched to a fixed REC OUT.

Attention: when the IN4 is configured as output, be sure to NOT CONNECT any INPUT to the IN 4, only use it as output.

➔ See next section, 1.3.2.

1.3.2 • Technical notes about connections

The device must be able to make the most of their features. Nothing in the listening chain should be overlooked, starting with the interconnect cables, which must be of excellent quality, very transparent and neutral. NORMA products are of extremely high quality and will benefit greatly with the use of appropriate cables.

Nothing in the listening chain should be underestimated, from the quality of the cables to the position of the speakers. For example, if cables used are of a low quality, the resulting sound will be much less than the potential of the device.

▶ 1.4 Warm up and run in

The warm up is a fundamental factor. For the best sound performance we recommend an initial run of about 200 to 300 hours of operation with speakers connected and music played at a normal listening level. After a long period of inactivity, the unit will require at least 3 to 4 hours operation to reach the optimum performance levels.

▶ 1.5 The problem of hum

Frequently the connection of multiple devices can cause a certain amount of hum, even when the individual devices are entirely silent.

Connecting equipment together can create ground loops which can introduce in the audio signal path a certain amount of network harmonics.

This problem, which also affects professional installations, is long-standing and not easy to solve.

Its influence is particularly evident in the case of high gain amplifiers and in the presence of signals of very low amplitude.

The situation may sometimes be particularly noticeable with phono stages, turntables and cartridges.

We point out some possible remedies:

- Reduce the connection cables length;
- Change signal cables and power cables position;
- Increase the distance between units, or arrange them in a different way;
- Avoid using devices that can induce electromagnetic fields or interference, such as electric motors, fluorescent lights or halogen lamp low voltage transformers;
- It may be useful to increase the signal connection shielding from one side of the termination. If a device proves to be involved in hum problems and / or ground loops contact the manufacturer to try to solve the problem;
- The electrical safety is due to its connection to safety ground. Before connecting and using the device, make sure that the grounding system is efficient. NORMA is not responsible for any damage caused resulting from wrong system grounding, or failure to follow safety procedures and regulations or a disconnection made in any way to the ground security equipment;
- Check that the mains power cable has a ground connection and do not remove it, for any reason;
- LED TV's or PLASMA TV's emit large amounts of infrared rays that can interfere with the IR remote control signal;
- The HS-IPA1 amplifier has an internal DC filter in order to eliminate the DC offset on the mains, normally this feature is disabled. To activate this option contact NORMA or your supplier.

2 • Start to use

▶ 2.1 NORMA IR remote description

The IR remote can access all operating functions, also contains controls for volume setting.

On the remote control is also present the MUTE key that completely mutes the output signal. This condition is indicated by the flashing of the POWER indicator to high intensity.

Some of the controls on the remote IR may be inactive, reserved for future uses.

➔ See Remote controls manual at page 25.

▶ 2.2 Turn ON / OFF

The HS series amplifiers are equipped with a sophisticated power on system, integrated with the system remote control and electronic protections. This system consists of three phases: POWER OFF, STAND-BY, POWER ON [OPERATE].

2.2.1 • Power OFF

In this phase, the rear control switch is in the OFF position and the amplifier is off.

2.2.2 • Power OFF to standby

Placing the rear control switch in the ON position, the amplifier is active in STAND-BY. POWER indicator on the front panel will be on. This condition can be maintained indefinitely, the amplification stages are not powered, but the amplifier is ready to receive the command switch.

2.2.3 • Power ON [operate]

The power is on to all intents and purposes, this can be determined by the action on the front POWER button or IR remote POWER button. In both cases, initially there is a countdown for a period of time equal to 10 seconds. Then the amplifier is ready to operate.

2.2.4 • Power ON to standby

To put the amp in STANDBY mode, press the POWER button on the front panel or on the remote control, the indicator will turn on.

2.2.5 • Standby to power OFF:

To POWER OFF the amplifier, press the POWER button, on either the remote control or the front panel of the amp, and then put the rear control switch into the OFF position. Never work directly on the rear control without first placing the amplifier into STANDBY.

▲ 2.2.6 • Attention

For safety reasons, after the unit is turned from POWER ON to STAND-BY mode, it is not possible to turn it on again for 30 seconds.

▶ 2.3 Protection circuit

Inside the amplifier HS-IPA1 are present some sophisticated protection circuits that control the temperature of the heatsinks, the presence of any offset current exceeding the limit value and the abnormal supply of output current (short circuit).

2.3.1 • Thermal protection

In case of intervention of thermal protection amplifier will automatically shut down and the power indicator goes completely off. You can not in any way turn it back on until the temperature has returned at the correct value, and this will be indicated by the restart of the stand-by light. Only then you can repeat the POWER ON procedure. The amplifier will not automatically turn on.

2.3.2 • DC offset protection

In case of protections for the presence of DC component output, the amplifier turns off and the power indicator switches to low intensity flashing. You can turn it back on only after switching off the appliance at the rear switch and leaving it off for at least 10 seconds.

If the fault persists, the amplifier would run again in terms of protection. In this case, try to disconnect all signal cables and repeat the process of restarting the unit. Should the situation persist, contact your service representative.

▶ 2.4 Inputs selection

With the device turned on, you can select the desired input both via RC and front panel. On the remote control, press the IN button, then select the desired input with the SEL + and SEL - buttons, then press OK.

On the front panel, press the ANALOG or DIGITAL buttons, select the desired input with the arrows, then press OK.

▶ 2.5 Listening volume control

The listening volume can be adjusted using the function keys VOL - / VOL + on the front panel or on the remote.

▶ 2.6 Connecting the speakers

The speakers are connected by cables to the SPEAKERS OUTPUT sockets. cables must be of adequate quality (at least 4 mm²).

In addition:

- The connection cables must have the same length for both channels even if the distance between the speakers and the amplifier is different;
- The cables must not be piled up or rolled;
- Safety regulations require that the cables must not be

pushed into or wrapped around the 4mm banana plug sockets of the amplifier;

- In order to not overload the amplifier, the speaker impedance cannot be lower than 4 ohms;
- The speakers should not be connected in parallel with each other.

▲ Caution:

To prevent damage, each connection must be carried out when the appliance is switched off and unplugged from the mains.

► 2.7 Functional settings, set command

With the MENU (SET on RC) button you can set various functional parameters, as described in the following paragraphs. In conjunction with the SEL + / SEL - / OK. It's possible to access many settings "nested" within the MENU function. Once you press MENU you can access the following configuration menus using the SEL + / SEL - buttons.

- 1 • System settings `SYSt SEt`
- 2 • Analog settings `AnLG SEt`
- 3 • Digital settings `diGIt SEt`
(only if DAC board is fitted).

2.7.1 • System Settings `SYSt SEt`

This section lets you customize all the characteristics of your device. You will find the submenus RESUME, LIGHT, DISPLAY and OUT4.

- 1 • Resume: `RESU`
Stores the current settings and makes it default.
- 2 • Light: `LIgh`
Adjusts display brightness between values 30, 50, 70, 100.
- 3 • Display: `diSP`
When OFF, enables display to turn off automatically after a few seconds without commands.
- 4 • Out 4: `OUT4`
When ON, the IN 4 becomes an output (fixed level). When OFF, the IN 4 is a standard input.
- 5 • Easy: `EASy`
When ON, the amplifier works with a reduced number of settings, allowing greater ease of use. If you want to access to all the parameters disable this function.

▲ Attention:

When enabled, be sure to NOT CONNECT any INPUT to the IN 4, only use it as output.

2.7.2 • Analog Settings `AnLG SEt`

This sections lets you set the volume levels for each set of inputs (digital if present, analog 1 - 4).

If you leave the setting in OFF, when selecting an input it will keep the current volume. If you define a specific value, when selecting the input, the unit will automatically turn the volume control in that position.

In everyone of these section you will find two submenus, LINE and HEAD.

LINE

Volume:

Can be set between -5 and -45 or in OFF position.

HEAD

Volume:

Can be set between -5 and -45 or in OFF position.

🔍 Note:

The HEAD settings are present only if the HEAD option is mounted.

The VOLUME option sets a reference value for the input, to easily handle sources with different output levels without constantly adjusting the volume manually. In OFF mode it doesn't manage the volume storing.

2.7.3 • Digital Settings `diGIt SEt`

Not present on preliminary manual and units.

► 2.8 Display modes

When outside the setting menu, the display can show two different kinds of information:

- As standard, it will show the input in use and the current volume;
- When a volume button is pressed, it shows VOL and the current volume.

► 2.9 Volume control

To adjust the volume, the user has two possibilities, by using the volume control on the remote, or by using the SEL + / SEL - buttons. Every time you act on the volume control, the display shows the attenuation value.

🔍 Note on volume control and display:

In order to be more useful to the user, the volume indication is converted in decibels of attenuation, between approximately 0 and - 51 dB. Anyway, because of this scale conversion process, there may be some visualization imprecisions (for example, the maximum volume may stop at - 2 / - 1 dB). The user should not be concerned by this, as the whole attenuation range offered by the volume control (from 0 to around - 80 dB) is effectively used.

3 • Maintenance

▶ 3.1 Cleaning

Before cleaning the unit, turn it off and unplug it from the electricity supply and wait at least 10 minutes. Your device has been designed with the best technical solutions combined with an aesthetic finish of the highest quality, but for it to remain unchanged over time, it is essential to observe the following procedures:

- Do not dry-clean surfaces and in particular the front panel;
- Lightly dampen a cloth with a small amount of warm water (40 - 50 degrees);
- Make circular movements and do not press hard on the panel;
- Dry off gently, always with cotton or a soft cloth, using a very delicate circular motion;
- Be very careful to avoid that no water penetrates into the unit, the cloth should be moist but not wet;
- Do not reconnect the unit until it is completely dry;
- Under no circumstances use alcohol, solvents, petrol or any type of chemical product;
- Please note that the finish and aesthetic components are in no way covered by the warranty.

▶ 3.2 Repairs

For any issues please refer to the safety manual. NORMA products are the result of precision engineering with sophisticated circuitry and extremely high-quality components. In the unlikely event of failure, make sure to refer to a highly qualified assistant that has genuine original spare parts. NORMA is contactable for any customers who have an issue which needs to be resolved. NORMA is not responsible for any errors, omissions or incompleteness of this manual, and is not responsible for accidents or damage of any kind that may result from non-compliance, even partial, of the information provided in this manual. Despite the effort to identify all possible situations, NORMA is not responsible for any damage that may be caused to people or from improper use.

Aux overview

HS-IPA1



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



WARNING:

As indicated in the safety manual, we remind you that the actions described below must be performed only by highly qualified personnel. There are very high and dangerous electrical voltages inside the device. It also exists at the possibility of damaging the product and the other components connected to it in case of wrong operations. We are not responsible for any type of injury or damage due to incorrect operation.

4 • Aux overview

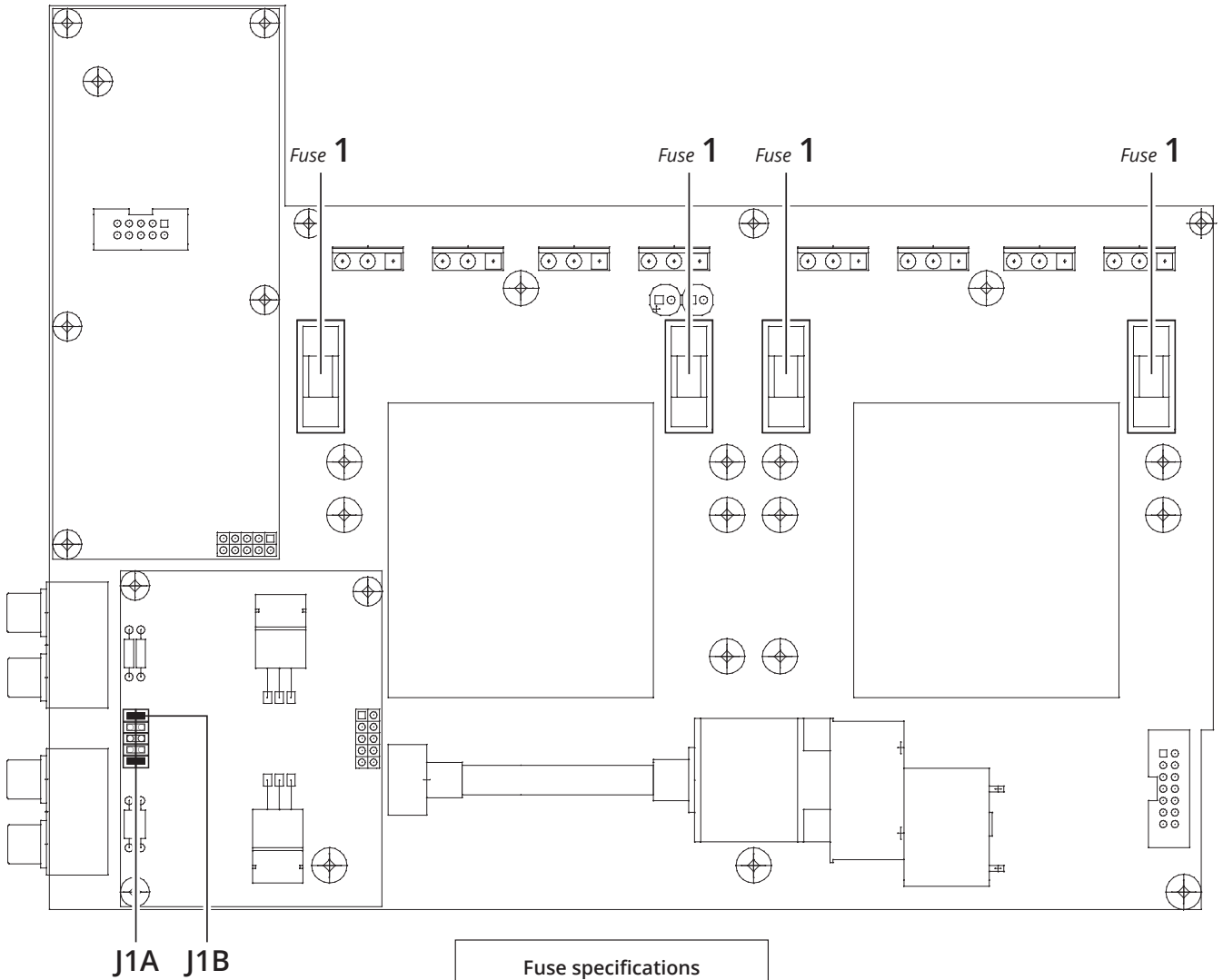


Fig. Aux 1

Jumper and fuse position

Fuse specifications		
Location	Value	Type
Fuse 1	F 2,5 A	Fast

Tab. Aux 1

Fuse specifications

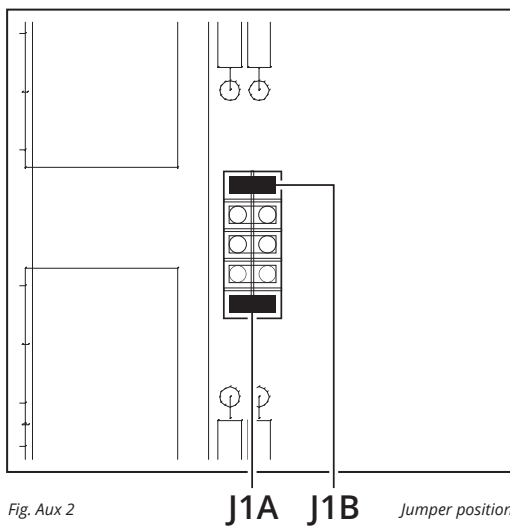


Fig. Aux 2

J1A J1B Jumper position

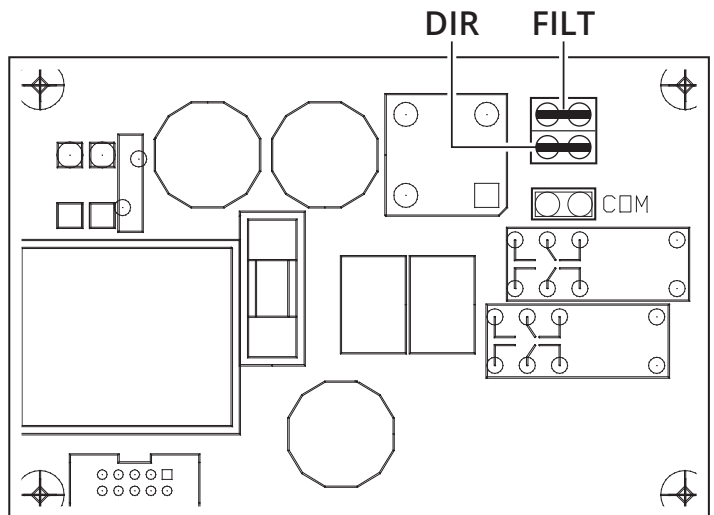


Fig. Aux 3

AC power supply DC filter setting

▶ 4.1 Output - input configuration

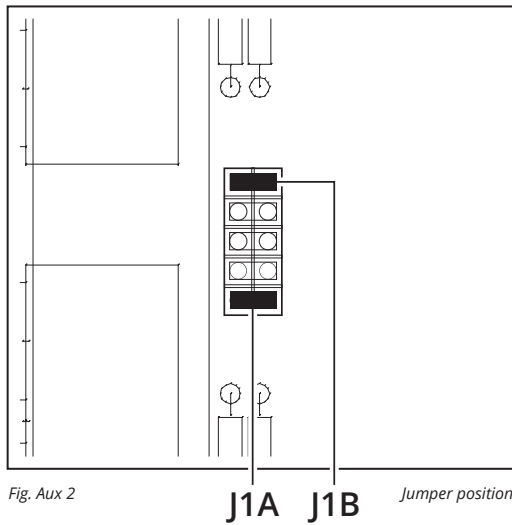


Fig. Aux 2

J1A J1B

Jumper position

Default configuration

Note	Description	J1A	J1B
1	Default, IN 2 as LINE Input		YES

Tab. Aux 2

Default configuration

Phono input configuration

Note	Description	J1A	J1B
2	IN 2 as PHONO output		NO

Tab. Aux 3

Phono input configuration

The Jumpers J1A, J1B are located under the optional phono board or under the USB board, if one of those boards is fitted and you have to operate under that you have to remove it. Some spare jumpers are supplied in the spare fuse bag, attached to the device instruction manual.

1 • Default configuration

When J1A and J1B are fitted the input IN 2 is a normal LINE input.

2 • Phono input configuration

If you want to fit an optional phono board or an USB board you have to remove both the jumpers.

▲ Caution:

When you insert the PHONO board or the USB board, be sure that jumpers J1A - J1B are removed, otherwise may arise problems caused by the self-oscillation of the board.

▲ Caution:

The configuration of the inputs involves the removal of the top cover, therefore it is a potentially dangerous operation. It must be carried out by qualified personnel in compliance with all safety standards. In particular, but not only, the device must be disconnected from the mains and disconnected

from any other equipment, must be turned off for at least 15 minutes and you must make sure that all capacities are discharged. To be sure that the capacitors are discharged there are 8 LEDs on the main board, if the LEDs aren't lit the capacitors are completely discharged. If the configuration jumpers is incorrect, the amplifier can enter into self-oscillation, this may cause damage to the speakers and the amplifier itself. Use extreme caution and possibly connect the speakers after checking the correctness of the configuration. We are not responsible for wrong or partial configurations of these jumpers.

4.1.1 • Fuse replacing

Supplied with this device there is a small bag with some spare screws, jumpers and fuses. If a fuse blows up there is the possibility of replacing it but only with the same type, voltage rating, current rating and most importantly the action speed (slow "T" or fast "F").

▲ Caution:

Never bypass a fuse and never replace a blown fuse with a different one. This may cause fire and electric shock. We are not responsible for any injury or damage due to a wrong fuse replacing or any type of tampering.

4.1.2 • DC filter

If you want to activate the DC filter you have to disconnect the female Faston connector from the male plug DIR, then connect it to the male plug FILT. This operation must be carried out only with the power cable disconnected from the mains.

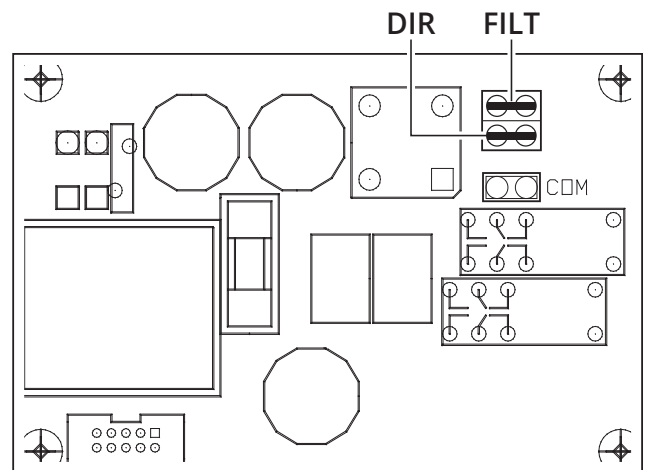


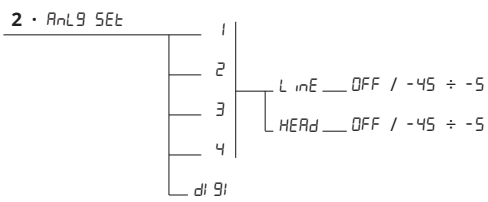
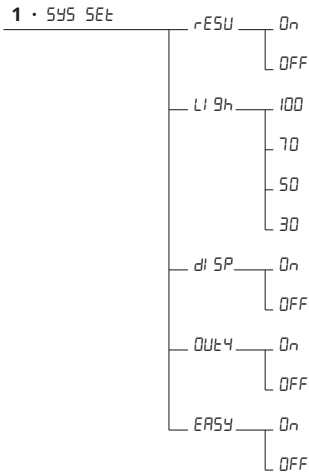
Fig. Aux 3

AC power supply DC filter setting



Caution: Shock hazard, this part of the circuit is directly powered from the mains and its capacitors could hold the charge for long time after the shutdown. Disconnect this unit from the mains and wait at least 30 minutes before opening the top cover. The operation must be carried out only by qualified personnel authorised service centers. We are not responsible for any injury or damage due to a wrong operation.

5 • Tree menu



On	On, function enabled
OFF	Off, function disabled
Auto	Automatic setting
SYS SEt	System settings
AnL9 SEt	Analog stage settings
dl 9 SEt	Digital stage settings
rESU	Resume function
LI 9H	Display brightness
dl S	Display Stand-by
OUt4	Output 4 Enable
ERSY	Easy Mode enable
LI nE	Line settings
HEAd	Headphone settings
UOL	Volume settings

PH4 phono

Optional

6 • Phono stage - PH4 phono

► 6.1 Setting and user notes

The NORMA PH4 phono allows for a series of fine settings and options, in order to achieve the best connection with turntables.

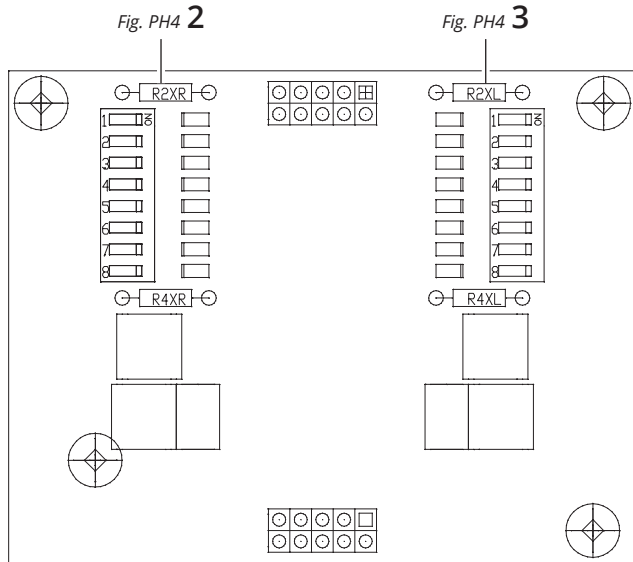


Fig. PH4 1

PH4 phono board

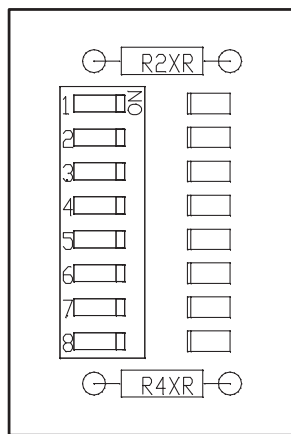


Fig. PH4 2

Right phono switches

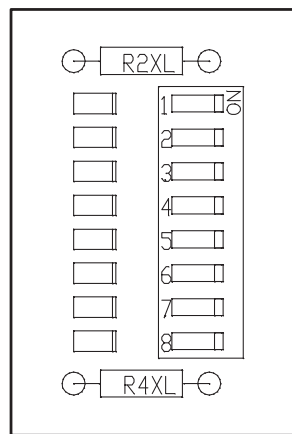


Fig. PH4 3

Left phono switches

6.1.1 • Input impedance

Settings are obtained via micro-switches 1 - 4 on the PCBs SW1R and SW1L, respectively for the right and left channels, as shown in Fig. PH4 2 and Fig. PH4 3 at page 12. To activate the desired impedance value, put the corresponding micro-switch in the ON position, leaving all the other switches (1 - 4) in the OFF position. If no switches are turned on, the default settings are used, 47 Kohm e + 34 dB.

🔍 Notes:

- The default impedance value is 47 kohm, with no switch turned on.

- The SPARE position is meant for customization. If you need a specific resistance value, please contact NORMA.

SW 1L • SW 1R - Input impedance		
Position	Value	Unit
1	Spare	//
2	1.000	Ohm
3	510	Ohm
4	100	Ohm

Tab. 1

Input impedance

6.1.2 • Gain

Settings are obtained via micro-switches 5 - 8 on the PCBs SW1R and SW1L, respectively for the right and left channels, as shown in Fig. PH4 2 and Fig. PH4 3 at page 12. To activate the desired gain value, put the corresponding micro-switches in the ON position, as shown in the table. If no switches are turned on, the default settings are used, 47 Kohm e + 34 dB.

🔍 Notes:

- The default gain value is + 34 dB, with no switch turned on.

- The SPARE position is meant for customization. If you need a specific gain value, please contact NORMA.

SW 1L • SW 1R - Gain		
Position	Value	Unit
5	Spare	dB
8+7+6	+52	dB
6	+50	dB
8+7	+46	dB
7	+42	dB
8	+38	dB
All OFF	+34	dB

Tab. 2

Gain value

🔍 6.2 Notes

1 • To achieve a custom value for impedance and gain, a custom resistance has to be inserted in SPARE positions (1 and 5). To know what resistance value needs to be used, please contact NORMA;

2 • To connect the turntable to ground there is an M3 screw is on the back of the amplifier.

HS-IPA1 DAC

Optional

7 • Introduction

This manual describes the functions of the digital input option provided as an accessory of this unit.

▶ 7.1 Inputs

This option adds 5 digital inputs (named from 1 to 5).

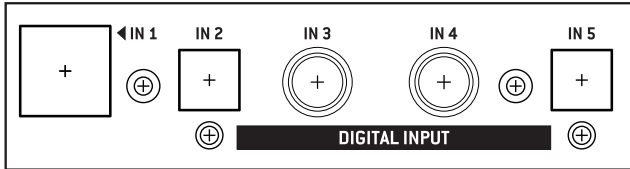


Fig. DAC 1

DAC board

- Input 1** • USB Input;
- Input 2** • SPDIF TOSLINK optical input;
- Input 3** • SPDIF RCA input;
- Input 4** • SPDIF RCA input;
- Input 5** • SPDIF TOSLINK optical input.

▶ 7.2 USB & driver

This USB input must be connected to a personal computer which sees the USB interface as an audio device.

You can not connect it directly to USB memory devices, such as Hard Disks or memory sticks.

The USB input is based on AMANAERO technology. For further information about installation, in order to obtain the appropriate driver for your computer, or for computer configuration, you could visit the AMANERO official website: <http://www.amanero.com> .

▲ Warning:

Under any circumstances connect or disconnect cables when the unit is turned ON.

This may cause dangerous interference to the speakers or other audio components.

Never disconnect the USB cable without having properly disabled the USB device.

8 • Operations

This unit can be controlled both by the front panel and via IR remote control. Some commands, on the IR remote, are dedicated specifically for this purpose, so it is convenient to use the IR remote control whenever possible. However, even using the buttons on the front panel you can control all functions.

▶ 8.1 Entering DAC mode

8.1.1 • Front panel commands

How to enter end exit DAC mode by front panel commands:

Press DIGITAL button, the display will show this message. (The shown number indicates the last used input, if resume function is not enabled it shows the first input by default) And press OK to enter the submenu, use SEL + / SEL - :

In d1

And press OK to confirm.

8.1.2 • Remote control commands

How to enter end exit DAC mode by remote control:

Press DAC button on the remote control for more than one second. The display will show this message:

In d1

And press OK to confirm.

▶ 8.2 DAC input selection

8.2.1 • Front panel commands

How to select DAC input by front panel commands:

Press DIGITAL button, then use SEL + / SEL - to select the desired input number and press OK to confirm.

The number corresponds to the selected input (for example if you want to select IN 3):

In d3

Then press OK to confirm.

This will bring you back to the main menu. The desired input is now selected and the device is ready to receive the signal input.

d3 - - - -

8.2.2 • Remote control commands

How to select DAC input by Remote Control commands:

In DAC mode press DAC button on the remote control, then press the IN button, select the desired input using the SEL + / SEL - keys or dialing it using the numeric keypad. The display will show this message (for example if you want to select IN 3):

In d3

And press OK to confirm.

This will bring you back to the main menu. The desired input is now selected and the device is ready to receive the signal input.

d3 - - - -

▶ 8.3 DAC input configuration

Easy mode • YES

When EASY mode is activated some of these function are hidden in order to make simpler the DAC configuration.

When EASY mode is enabled you can set some global parameters, divided by format and not by input.

There are two separate configuration parameters either for PCM or for DSD.

Easy mode • NO

Each input can be configured separately and, if the resume function is active, this configuration will be maintained.

The USB input (IN 1) can play DSD and PCM files, so there are two separate configurations for DSD and PCM formats.

8.3.1 • Front panel commands

How to change DAC configuration by front panel commands:

In digital mode press MENU button, the number shown in the submenu is the one of which you want change settings, by default you will see the input currently in use, pressing SEL + / SEL - select the desired input.

For example if you want to change the IN 1 DSD configuration:

CONF 1 d5d

Note that you can still change the configuration of any input without interrupting playback of the current one. (for example: while listening to IN 2 you can change the settings for IN 1 DSD).

In easy mode you can choose only if you want to change DSD parameters or PCM parameters, so the shown messages are like these:

PCn SET

d5d SET

Press OK to enter the submenu.

Now you can cycle through the following configurations using SEL + / SEL - buttons.

8.3.2 • Remote control commands

How to change DAC configuration by remote control commands:

In DAC mode Press SET button, select the input of which you want to change the configuration using the SEL + /SEL - keys.

CONF 1 d5d

Press OK to confirm.

Now you can cycle through the following configurations using SEL + / SEL - buttons.

In easy mode you can choose only if you want to change DSD parameters or PCM parameters, so the shown messages are like these:

PCn SET

d5d SET

9 • Configurations

► 9.1 DAC input configuration: Parameters summary table

Message	Function	Applicable to inputs	Possible choice
<i>dPhA</i>	DAC Polarity	1 (PCM),1(DSD), 2, 3, 4, 5	0 / 180
<i>dEFA</i>	Default Parameters	1 (PCM),1(DSD), 2, 3, 4, 5 not available in easy mode	NO / ON
<i>AFiL</i>	Analog Filter	1 (PCM),1(DSD), 2, 3, 4, 5 not available in easy mode	MUSIC / TEST
<i>PiSr</i>	PCM ReSampling	1 (PCM), 2, 3, 4, 5 not available in easy mode	MUSIC / TEST
<i>diSr</i>	DSD ReSampling	1 (DSD), 2, 3, 4, 5 not available in easy mode	MUSIC / TEST
<i>PFd9</i>	PCM Digital Filter	1 (PCM), 2, 3, 4, 5	SLOW / SHARP
<i>dFd9</i>	DSD Digital Filter	1 (DSD)	1 / 2 / 3 / 4
<i>dEEen</i>	De-Emphasis Control	1 (PCM),1(DSD), 2, 3, 4, 5	OFF / ON / AUTO
<i>PLL</i>	PLL Setting	2, 3, 4, 5 not available in easy mode	FAST / SLOW
<i>SErrr</i>	S-PDIF Error Handling	2, 3, 4, 5 not available in easy mode	W / AUDIO / AUTO / PAR

Tab. DAC 1

DAC input configuration

🔍 Note:

If you don't see any of these functions please disable the "easy" function in the main menu.

► 9.2 DAC polarity setting

This parameter is used to set the values of the output polarity.

- 0 = Normal Polarity
- 180 = Reversed Polarity

► 9.3 Default load setting (not available in easy mode)

It is possible to automatically restore the default parameters selecting *On*.

The default parameters are:

- *dPhA* = 0
- *dEFA* = 0
- *AFiL* = *TEST*
- *PiSr* = *TEST*
- *diSr* = *TEST*
- *PFd9* = *SLOW*
- *dFd9* = 1
- *dEEen* = *OFF*
- *PLL* = *SLOW*
- *SErrr* (all) = *OFF*

► 9.4 Analog filter setting (not available in easy mode)

This option can be enabled if you want to add a supplementary filtration stage on the analog output of the DA converter.

This filter improves the electrical performance of the DA converter but this not necessarily coincides to the best listening pleasure.

This parameter is set by default to *TEST* (disabled) to enable it select *TEST*.

► 9.5 PCM resampling / DSD resampling (not available in easy mode)

This parameter improves in terms of electrical measure the output signal when it's set to *TEST*. The electrical performance does not coincide necessarily to a better listening pleasure. Do some listening tests in both modes to decide which is the best one.

▶ 9.6 PCM digital filter setting

You can select the digital filter in the two modes SLOW or SHARP:

- In SLOW mode, the response of the filter provides the best performance and linearity for time response;
- In SHARP mode, the response of the filter provides the best performance and linearity for frequency response.

➔ For more see page 8 on BB DSD 1794 (Texas Instruments) datasheet.

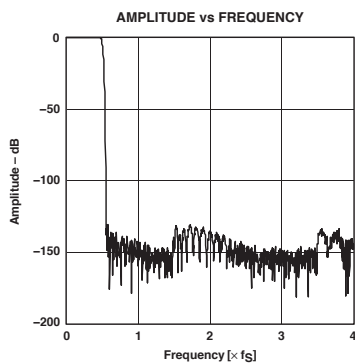


Fig. DAC 2 Frequency response, sharp rolloff

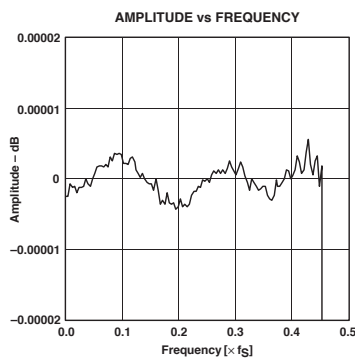


Fig. DAC 3 Pass-band ripple, sharp rolloff

▶ 9.7 DSD digital filter setting

You can select the digital filter in four modes:

1, 2, 3 or 4. By default the selected filter is the first. Each one has a typical frequency response.

➔ For more see page 40 and 41 of the DSD 1794 datasheet.

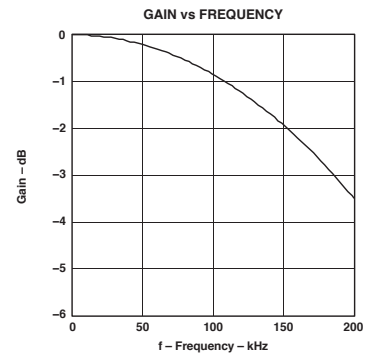


Fig. DAC 4 DSD filter - 1, low BW

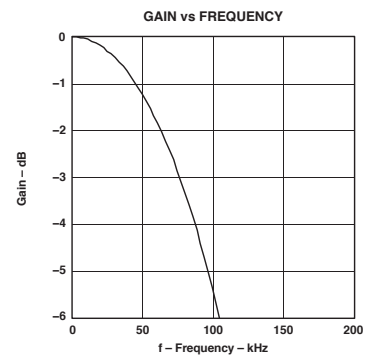


Fig. DAC 5 DSD filter - 2, low BW

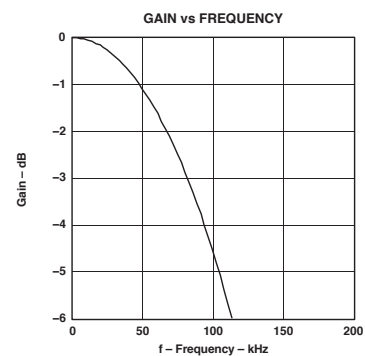


Fig. DAC 6 DSD filter - 3, low BW

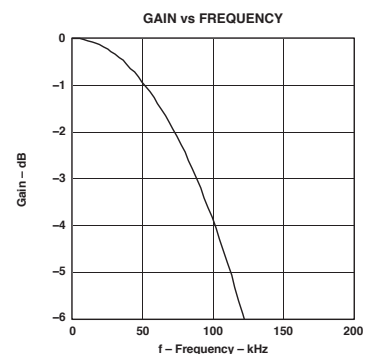


Fig. DAC 7 DSD filter - 4, low BW

▶ 9.8 De-emphasis control setting

This parameter is used to set the operation of de-emphasis.

OFF mode • The de-emphasis is always OFF.

ON mode • The de-emphasis is always ON if the input frequency is 44.1 KHz or 48.0 KHz.

AUTO mode • The de-emphasis is enabled automatically by the system when it detects the presence on the SPDIF signal.

The de-emphasis is indicated by a \bar{E} FLAG in the display. When it flashes, the de-emphasis is detected in the input signal but NOT activated. When lit, the de-emphasis is active.

🔍 *Note:*

The procedure for emphasis / de-emphasis is not very common and has been used mainly in CD's made in the 80's. However, we must consider that many burns software, and many PC recording drives does not manage de-emphasis information. If a digital audio track sounds a bit too rich in high frequencies, maybe because the emphasis flag was lost during the copy of the track, you can manually enable de-emphasis.

▶ 9.9 S-PDIF settings (not available in easy mode)

9.9.1 • PLL time

It is possible to change the PLL speed between two values. The integrated low jitter PLL has a wide lock range from 44.1 kHz to 192 kHz and the lock time is dependent on the PLL setting.

PLL Lock Time

- **SLOW** (15 ms + 384 / fs) (default)
- **FAST** (15 ms + 1 / fs)

9.9.2 • Error handling

This function is reserved to an extremely qualified personnel.

Frequently with various SPDIF sources the incoming data can have a different preamble. The SPDIF data preamble contains information about the audio data, but if it's damaged or not handled by the transmitter the receiver won't lock the signal and it will mute the output.

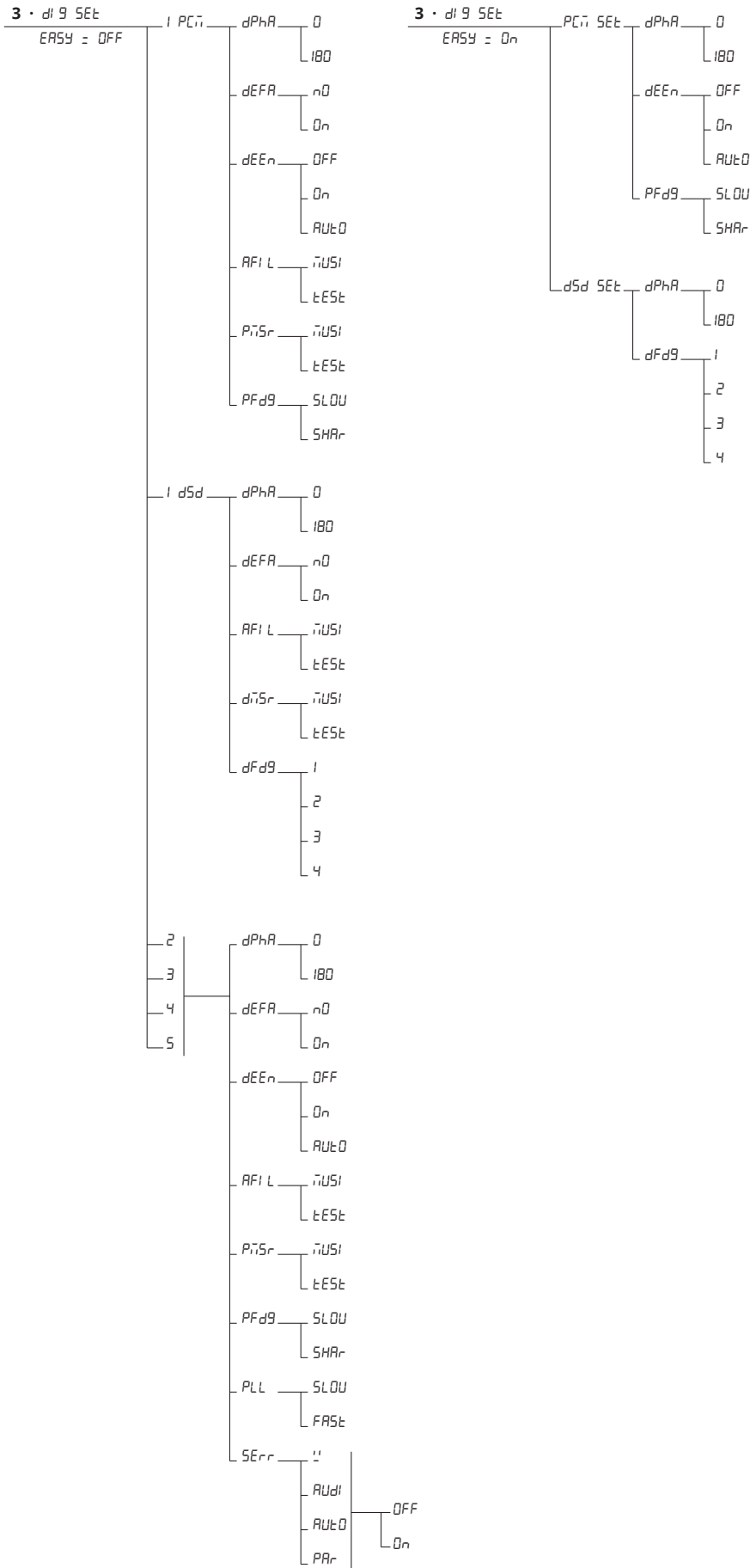
This case could be due to four errors, each error can be disabled and forced separately. The errors are:

- **V** (W): Validity flag error. Enable this if the SPDIF transmitter doesn't handle the validity flag;
- **AUDI** (AUDION): Not audio data error. Enable this if the SPDIF transmitter doesn't handle the audio data flag;
- **AUTO** (AUTO): Non linear PCM data received. Enable this if the SPDIF transmitter doesn't handle the auto-flag;
- **PAR** (PAR): Parity error received. Enable this if the SPDIF transmitter doesn't handle the parity flag.

▲ Important:

Enable these functions ONLY if you are extremely sure about what are you doing. There are several risks doing this procedure. In the worst case the DA converter could block itself with a full scale value and it will output a DC on the speakers, blowing up the woofer. NORMA is not responsible for any improper use of this function.

10 • DAC tree menu



0n	On, function enabled
OFF	Off, function disabled
AUto	Automatic setting
d19 SEt	Digital stage settings
PCr	PCM format setting
d5d	DSD format setting
dPhA	Signal phase (normal or reversed)
dEEn	De-emphasys setting
dEFA	Default
AFIL	Analog filter setting
7USI	Music mode setting
tESt	Test mode setting
P7Sr	PCM Resampling setting
d7Sr	DSD Resampling setting
PFd9	PCM digital filter setting
dFd9	DSD digital filter setting
SL0U	Digital filter slow mode
SHAr	Digital filter sharp mode
PLL	Phase Locked Loop settings
SL0U	Slow PLL
FRSt	Fast PLL
SErr	S-PDIF error flag settings
' '	Validity flag error
AUdI	Non-audio flag error
AUt0	Non linear-PCM data error
PAR	Parity bit error

Headphone output

Optional

11 • Headphone configurations

The optional headphone output of the HS-IPA1 is a very high quality one, able to gracefully drive even the most demanding headphones. It is possible to set it in 4 different positions via internal jumpers, to best fit it for each kind of headphone. The default position is position 2 (32 Ohm). To access the internal jumpers, you need to disconnect the unit from the power supply, leave it off for 10 minutes, and then proceed to remove the top panel by unscrewing the 10 screws that hold it (5 on each side). These are torx T10 screws, for which you need an appropriate torx screwdriver. To avoid damaging the screws absolutely do not use hexagonal screwdrivers or smaller torx screwdrivers. Also a single damaged screw requires an extraordinary maintenance. Once you have removed the top, the headphone setting jumpers are located on the rear-right side of the unit, next to the headphone output.

▲ Important:
The jumpers must be positioned in VERTICAL position (see photos).

J3 • 200 - 600 Ohm



Fig. HPO 4 J3 - jumper configuration

J4 • Direct connections

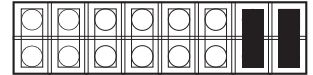


Fig. HPO 5 J4 - jumper configuration

▲ Attention:

In J4 the headphone is connected directly to the power output, the same that drives the speakers. This position is to be used only with very particular headphones that need high power to drive. Do not use this position with standard headphones.

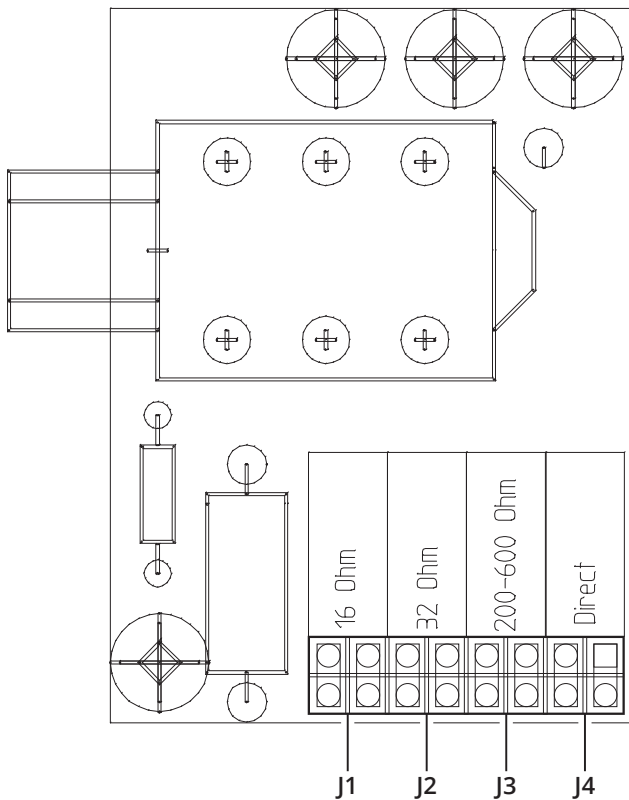


Fig. HPO 1

Jumper position on board

The following figures show how to position the jumper to achieve the 4 settings. Remember that the jumpers are in groups of 2 and that they must be moved on both boards (left and right channels).

J1 • 16 Ohm

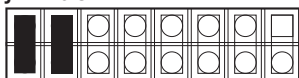


Fig. HPO 2 J1 - jumper configuration

J2 • 32 - 60 Ohm



Fig. HPO 3 J2 - jumper configuration

12 • Specifications

HS-IPA1

Description	Stereo Integrated Amplifier;
Input Connections	4 RCA (Line);
Input Optional Configuration	IN 2 Phono, IN 4 Out;
Input Impedance RCA (selected input)	10 k Ω ;
Input Impedance RCA (non selected input)	47 k Ω ;
Sensitivity	480 mV (75 W / 8 Ω);
Input Selection Type	Electromechanical, by gold contact cross bar relay;
Output Connections	1 RCA (optional);
Output Signal Impedance	200 Ω ;
Speakers Connections	2 pair of 4mm binding post for banana plugs and Y forks;
Output RMS Power (8 Ω) (each channel)	75 W;
Output RMS Power (4 Ω) (each channel)	150 W;
Output Rated Current (each channel)	24 A;
Output Peak Current (each channel)	100 A;
Minumum Speaker Impedance	4 Ω ;
Frequency Response	0 - 800 kHz (- 3 dB non filtered);
Gain (Volume at MAX)	34 dB (55 mV - 1 W / 8 Ω);
Internal Circuitation	Solid state;
Output Stage	2 pair of MOSFET each channel;
I/V Conversion	Discrete components
Volume Control	ALPS motorized servo-potentiometer;
Possible Optionals for this unit	Headphone output, DAC board, Phono board, IN 4 output, DC filter for AC power supply;
Headphone Connection	1 x 6,3 TRS Jack, unbalanced;
Headphone Gain	Independent, selectable by jumpers;
Phono stage Load	100 - 510 - 1 k - 47 k Ω ,+ custom value, selectable by dip switches;
Phono Stage Gain	+ 34 ÷ + 52 dB + custom value;
Supported Pick-up Types	MM-MC;
USB Receiver Interface	USB 2.0 HI-Speed;
USB Firmware	Amanero;
Audio format	PCM: Max 384 kHz, DSD: Max 128 Xf;
DAC Board Connections	2 S-PDIF RCA 75 Ω , 2 S-PDIF TOSLINK, 1 B-Type USB;
S-PDIF Output	No;
Supported Sampling Frequencies	PCM: 44,1 / 88,2 / 176,4 / 352,8 kHz, PCM: 48 / 96 / 192 / 384 kHz, DSD: 64 / 128 Xf;
Clock performances	\pm 2 ppm typ at 25°C, \pm 10 ppm typ at 60°C;
DAC Device (IC)	1x BB DSD1794;
Analog Output Filter	0 - 180 kHz \pm 3 dB;
Power Supply Voltage	230 V (115 V in some countries);
Power Supply Frequency	50 Hz (60 Hz in some countries);
Power Supply Fuse Rating	1.6 AT;
Electric transformer/s	1 toroidal transformer for audio applications, 500 VA;
Filtering	Capacitive;
N° Capacitors per	11;
Capacitors type	Electrolytic total 68000 μ F;
Dimensions (HxWxD) [mm]	126x250x350;
Carton Box Size (HxWxD) [mm]	270x500x360;
Weight [Kg]	12 Kg.

 In order to improve its products, NORMA reserves the right to change technical specifications and appearance without notice.

Remote controls

HS-IPA1

13 • Aluminium remote RC-43 / 31

🔍 Note:

For further information regarding the use and the maintenance of this remote, please visit our website at www.normaudio.com

▶ 13.1 Inserting the batteries

- Our IR remotes are provided with included batteries but not fitted in to prevent the discharging due to an eventual stocking time or if a button were pushed during the transport. This remote works only with a set of three CD2032 batteries, as provided in the packaging. Do not use any other type of battery, as this could result in damage for the unit;

- First of all, to access the battery compartment, you will have to remove the back panel. In order to do so, pick the screwdriver provided in the packaging, unscrew the screws, and then remove the back panel;

- Be careful not to scratch the panel with the screwdriver;

- The positive battery pole must be in the upper side and the negative one is on the lower side;

▲ Caution:

- Please respect the polarity;

- The fork spring on the side is designed to hold down the battery, so don't push that down, the remote control won't work;

- Pay attention because that spring is very delicate and it's easy to push that under the battery;

- To insert the battery put the positive pole under the fork and then push the battery in the holder.

DO NOT force the batteries when inserting.

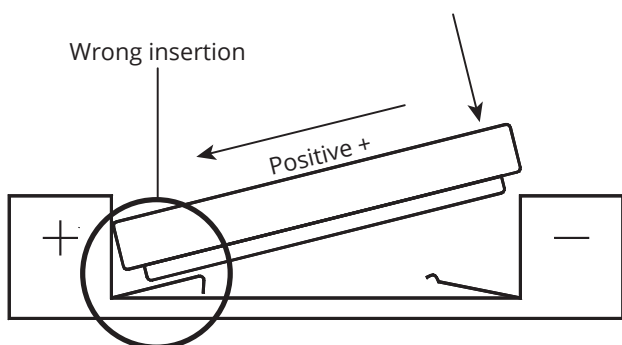
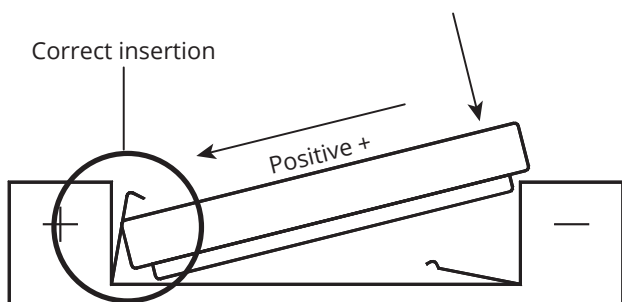


Fig. IR 1

Inserting the batteries

▶ 13.2 Removing the batteries

- If the unit is left unused for long periods of time, it is better to remove the batteries, to avoid their discharge and possible damages to the unit;

- To remove the batteries, access the battery compartment as explained in the previous paragraph. Then, pick the appropriate tool from the packaging, as shown in FIG. IR 2, and gently insert it on one side of the battery holder. Then, apply a slight pressure, in order to allow the battery to come out. Repeat this operation for all batteries, then screw the back panel on again;

- Do not try to extract the battery with hands, this could cause serious damage to the battery holder and to the unit. Use the provided thumbtack as shown on the FIG. IR 2.

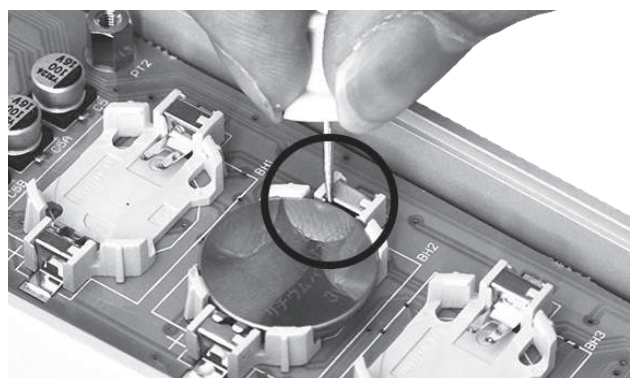


Fig. IR 2

Removing batteries detail

▶ 13.3 Troubleshooting

If the remote control doesn't work, often it's an apparent fault and it could be due to:

- Wrong battery insertion. (positive and negative poles swapped) check it carefully;

- Positive terminal pushed down: if the battery has been inserted badly the positive fork spring could have been pushed down so the battery doesn't make the contact and the remote control doesn't work;

- Mode not selected (ex. DIG-AMP-CD). Press the corresponding button to select the desired mode and then try to send a command to the device.

🔍 Note:

An abnormal functioning of your NORMA device could be due to an IR interference, coming from Plasma TVs, PC monitors or different remote controls.





▶ 13.4 Battery recycling



If you have to replace a discharged battery absolutely do not waste it into the rubbish bin. It's a special waste and it must be given to a recycling center. Batteries and electric components are dangerous for the environment so don't throw them away or with the normal waste.

14 • Remote controls description

▶ 14.1 IR-31 AMP remote control: commands list, general description

<i>Symbol</i>	<i>Command</i>	<i>Description</i>
AMP	MODE	Sets remote control on AMP MODE (for REVO IPA-70B / REVO IPA-140 / REVO SC-2 / HS-IPA1)
DIG	MODE	Sets remote control on DIG MODE (for DACs / HS-DA1 & REVO-DAC1)
	POWER ON-OFF	Turns the unit ON and OFF
MENU	MENU	Enters the menu setup configuration
OK	OK	Confirms the selection in MENU
CLEAR	CLEAR	Moves back to upper level in MENU
▶	NEXT	Moves forwards in MENU (direct Input selection on REVO IPA-70B / REVO IPA-140)
◀	BACK	Moves backwards in MENU (direct Input selection on REVO IPA-70B / REVO IPA-140)
	VOL. UP FAST	FAST volume UP (direct volume UP control on REVO IPA-70B / REVO IPA-140 / REVO SC-2 / HS-IPA1)
	VOL. DOWN FAST	FAST volume DOWN (direct volume DOWN control on REVO IPA-70B / REVO IPA-140 / REVO SC-2 / HS-IPA1)
VOL +	VOL. UP FINE	FINE volume UP
VOL -	VOL. DOWN FINE	FINE volume DOWN
	MUTE	MUTE / UNMUTE the output audio signal
IN	IN	Enters the INPUT SELECTION menu (on REVO SC-2 / HS-IPA1 / HS-DA1)
DAC	DAC	Enters the DAC menu (on REVO SC2+DAC / HS-IPA1+DAC)
1 – 8	NUMBERS (1-8)	Selects a NUMBER (quick inputs selections on REVO IPA-70B / REVO IPA-140)
F1	F1	Generic function, customized for the various devices (phase on DACs)
F2	F2	Generic function, customized for the various devices
A/P	A/P	Toggles active or passive mode (preamplifier REVO SC-2 only)
DY	DY	Changes the display light (customized for various devices) (light 30-100 % ON / OFF)
▶	PLAY	Starts the CD playback (this command is always sent to the REVO CDP+DS-1 in any MODE)
■	STOP	STOP CD playback (this command is always sent to the REVO CDP+DS-1 in any MODE)
▶▶	NEXT	Skips to NEXT track (this command is always sent to the REVO CDP+DS-1 in any MODE)
◀◀	PREVIOUS	Skips to PREVIOUS track (this command is always sent to the REVO CDP+DS-1 in any MODE)

Tab. IR 1





IR-31 AMP general description

🔍 Note:

For a complete description of the meaning and use of the various commands, refer to the user manual of the single model.

This model can be used with two types of products, amplifiers and DACs. To use it with amplifiers, press the **AMP** button before using the remote control to send commands. The remote control remembers this selection until the batteries are full; therefore it is not necessary to press each time. If the **DIG** key is inadvertently pressed, the commands are routed to the DACs. In this case, simply press the **AMP** command again. Similarly, to control the DACs (eg HS-DA1 or REVO-DAC1), press the **DIG** key first.

▶ 14.2 IR-31 AMP remote control: commands list for HS-IPA1

<i>Symbol</i>	<i>Command</i>	<i>Description</i>
AMP	MODE	Sets remote control on AMP MODE (for REVO IPA-70B / REVO IPA-140 / REVO SC-2 / HS-IPA1)
DIG	MODE	Sets remote control on DIG MODE (for REVO-DAC1 / HS-DA1)
	POWER ON-OFF	Turns the unit ON and OFF
MENU	MENU	Enters the menu setup configuration
OK	OK	Confirms the selection in MENU
CLEAR	CLEAR	Moves back to upper level in MENU
▶	NEXT	Moves forwards in MENU
◀	BACK	Moves backwards in MENU
	VOL. UP FAST	FAST volume UP
	VOL. DOWN FAST	FAST volume DOWN
VOL +	VOL. UP FINE	FINE volume UP
VOL -	VOL. DOWN FINE	FINE volume DOWN
	MUTE	MUTE / UNMUTE the output audio signal
IN	IN	Enters the INPUT SELECTION menu
DAC	DAC	Enters the DAC menu (DAC option)
1 – 8	NUMBERS (1-8)	Selects a NUMBER
F1	F1	This command change the phase on the digital audio signal, 0 –180° with DAC options
F2	F2	Generic function, customized for the various devices
A/P	A/P	Not used in this model
DY	DY	Changes the display light (customized for the various devices) (light 30-100 % ON / OFF)
▶	PLAY	Starts the CD playback (this command is always sent to the REVO CDP+DS-1 in any MODE)
■	STOP	STOP CD playback (this command is always sent to the REVO CDP+DS-1 in any MODE)
▶▶	NEXT	Skips to NEXT track (this command is always sent to the REVO CDP+DS-1 in any MODE)
◀◀	PREVIOUS	Skips to PREVIOUS track (this command is always sent to the REVO CDP+DS-1 in any MODE)

Tab. IR 2

IR-31 AMP for HS-IPA1

🔍 Note:

For a complete description of the meaning and use of the various commands, refer to the user manual of the single model. Remember to press **AMP** before use.

Shortcut for Input selection mode:

The input selection is possible in two ways, one sequential **(1)** and one direct **(2)**. Remember to press **OK**:

1 • Press **IN**, ▶ or ◀, **OK**;

2 • Press **IN**, **1 – 4**, **OK**.

Input DAC selection mode (only with DACs option):

1 • Press **IN**, **5 – 8**, **OK**

(only for select digital input 1, 2, 3, 4);

2 • Press **DAC**, **1 – 5**.

► 14.3 IR-43 system remote control: commands list, general description

If you have 2 or more NORMA products and you want to control them with a single remote control, you can request IR-43 remote control from NORMA.

<i>Symbol</i>	<i>Command</i>	<i>Description</i>
AMP	MODE	Sets remote control on AMP MODE (for REVO IPA-70B / REVO IPA-140 / REVO SC-2 / HS-IPA1)
CD	MODE	Sets remote control on CD MODE (for REVO CDP+DS-1)
DIG	MODE	Sets remote control on DIG MODE (for REVO-DAC1 / HS-DA1)
AUX	MODE	Sets remote control on AUX MODE (spare)
	POWER ON-OFF	Turns the unit ON and OFF
MENU	MENU	Enters the menu setup configuration
OK	OK	Confirms the selection in MENU
CLEAR	CLEAR	Moves back to upper level in MENU
►	NEXT	Moves forwards in MENU (direct input selection on REVO IPA-70B / REVO IPA-140)
◄	BACK	Moves backwards in MENU (direct input selection on REVO IPA-70B / REVO IPA-140)
	VOL. UP FAST	FAST volume UP (direct volume UP control on REVO IPA-70B / REVO IPA-140 / REVO SC-2 / HS-IPA1)
	VOL. DOWN FAST	FAST volume DOWN (direct volume DOWN control on REVO IPA-70B / REVO IPA-140 / REVO SC-2 / HS-IPA1)
VOL +	VOL. UP FINE	FINE volume UP
VOL -	VOL. DOWN FINE	FINE volume DOWN
	MUTE	MUTE / UNMUTE the output audio signal
IN	IN	Enters the INPUT SELECTION menu (on REVO SC-2 / HS-IPA1 / HS-DA1)
DAC	DAC	Enters the DAC menu (on REVO CDP+DS-1 / REVO SC-2+DAC / HS-DA1 / HS-IPA1+DAC)
0 – 9	NUMBERS (0-9)	Selects a NUMBER (quick inputs selections on REVO IPA-70B / REVO IPA-140) or (track on REVO CDP+DS-1)
F1	F1	Generic function, customized for the various devices (digital phase on REVO CDP+DS-1 & DACs)
F2	F2	Generic function, customized for the various devices
F3	F3	Generic function, customized for the various devices
A/P	A/P	Toggles active or passive mode (preamplifier REVO SC-2 only)
DY	DY	Changes the display light (customized for the various devices) (light 30-100 % ON / OFF)
DV	DV	DIGITAL VOLUME setting, only in REVO CDP+DS-1 in DAC mode with SRC enabled
▶	PLAY	Starts the CD playback (this command is always sent to the REVO CDP+DS-1 in any MODE)
⏸	PAUSE	PAUSE CD playback (this command is always sent to the REVO CDP+DS-1 in any MODE)
■	STOP	STOP CD playback (this command is always sent to the REVO CDP+DS-1 in any MODE)
⏭	NEXT	Skips to NEXT track (this command is always sent to the REVO CDP+DS-1 in any MODE)
⏮	PREVIOUS	Skips to PREVIOUS track (this command is always sent to the REVO CDP+DS-1 in any MODE)
⏩	FAST FORWARD	Fast forwards track (this command is always sent to the REVO CDP+DS-1 in any MODE)
⏪	REWIND	Rewinds track (this command is always sent to the REVO CDP+DS-1 in any MODE)
▲	OPEN / CLOSE	Opens / closes the CD tray (this command is always sent to the REVO CDP+DS-1 in any MODE)
REPEAT	REPEAT	Activates automatic repeat (this command is always sent to the REVO CDP+DS-1 in any MODE)
TIME	TIME	Changes the time indication shown on CD display (elapsed – remaining)

Tab. IR 3

IR-43 general description

🔍 Note:

For a complete description of the meaning and use of the various commands, refer to the user manual of the single model, refer also at IR-31 model. Remember to press correct **MODE** before use.

Warranty

HS-IPA1

15 • Warranty conditions

We hereby acknowledge to the NORMA product specified below the warranty lasts 2 (two) calendar years from the sale date of this product. The terms which regulates the warranty are written below and they are integral part of this certificate.

► 15.1 Object of warranty

The warranty only covers the product shown on the registration module (also downloadable from NORMA website) which forms an integral part of this document, as well as the accessories related to it, provided that they are purchased at the same time.

► 15.2 Warranty content

- NORMA will, at its option, repair or replace the product covered by this warranty if it becomes defective, malfunctions or otherwise fails to conform with this warranty under normal use and service during the term of this warranty. Without charge for labor or materials. Repairs may be performed using new or refurbished parts that meet or exceed NORMA specifications for new parts;

- Damages and injuries (direct or indirect) of any nature and title, deriving from faults and malfunctioning won't be covered from this warranty. The warranty will cover only the NORMA product repair.

► 15.3 Limited warranty range

- The warranty period starts from the time of purchase. In the event of a deferred payment, the application of the warranty will be guaranteed unless the payment is successfully completed.

In the event that the agreed payment is not respected (amounts and / or expirations), NORMA reserves itself the right to modify, suspend or delete the warranty. In case of deferred payment the warranty expiration could precede the payment expiration;

- The warranty will be valid only after the product registration within the maximum term of 30 calendar days from the purchase date, using the registration module that is an integral part of this document (also downloadable from NORMA website). That module must be compiled in each part and followed by the sales document. The sales document must have fiscal validity (fiscal ticket, invoice or receipt) proving date, place of sale, amount and retailer name. The retailer must stamp at the bottom the registration module. In any case the warranty won't be applied to appliances whose owners have not fulfilled the above formalities;

- NORMA products are very sophisticated, these products must be used and installed only by subjects with adequate knowledge and experience related to the installing and using procedures;

- Warranty void if the user doesn't observe all the indications reported in the relative safety and user manual;

- Warranty will be provided only in NORMA venue. The shipping costs are charged to the customer both outward and return, so as the shipping risks. The eventual insured shipping doesn't constrain NORMA to any type of responsibility related to the shipping risks;

- NORMA products are designed only for personal entertainment, then the warranty covers only the defects due to a private household use and it doesn't cover:

- *Any unit which has been altered or on which the serial number has been defaced, modified or removed;*

- *Normal wear, battery or battery replacement and any periodic maintenance;*

- *Deterioration due to corrosive atmosphere or other external causes such as extremes in temperature or humidity;*

- *Damages attributable to power line surge or related electrical abnormalities, lightning damage or abnormal atmospheric acts as well as phenomena of transmutation of the atom or radiation caused by the artificial acceleration of atomic particles;*

- *RFI / EMI (Interference / noise) caused by improper grounding or the improper use of either certified or uncertified equipment, if applicable;*

- *Interference arising from the use of wireless communication devices (e.g. 2.4 GHz cordless telephones), or other radio frequency emitting products such as microwave ovens, whether such interference impairs the operation of the product or vice-versa. Consult the owner's manual for guidance on set-up procedures for minimizing the risks of interference. Any evidence of alteration, erasing or forgery of proof of purchase documents will cause this warranty to be void. This warranty covers only the original owner and is not transferable.*

Any fault, malfunctioning, direct or indirect damage or partial functioning are not covered by warranty. This product is not designed for particular use. Its application field is limited to play music exclusively at home. The continuous functioning, free from faults and malfunctioning is not guaranteed.

- If during the warranty period NORMA receives the notice of a defect, covered by the NORMA warranty, NORMA will fix or replace the product at its discretion. Any replacement product can be a new or semi-new product, provided that it has at least equivalent functionality to the product that will be replaced. The warranty period will be equal to the warranty period remaining on the original product;

- During the warranty period NORMA will at its sole option and expense, repair or replace any product found

to be defective. In the event that the product is no longer available and cannot be repaired effectively, NORMA at its sole option may replace it with a reasonable equivalent, or refund the original purchase price paid. NORMA won't cover the return shipping cost;

- This limited warranty is applicable only in the country where the product was purchased;
- The warranty is valid also only and exclusively for the first subsequent owner, provided that exists a clear and incontrovertible act which proves the change of ownership and that him registers his own product within 30 days from the purchase date. The warranty cannot be extended to the new owner if the previous one did not fulfill the formalities indicated in point 2 of C section;
- The lasting of the warranty period cannot be interrupted for any reason. The non-use of this product does not interrupt or extend the warranty period.

▶ 15.4 Warranty exclusion

- The warranty does not cover the damages due to whichever wrong transport or wrong handling;
- Wires, connectors, selectors, mechanical commands, potentiometers, fuses and other any part subject to wear are not covered by the warranty;
- External connectors, printed circuits and internal components are not guaranteed against, colour alteration and corrosion;
- In any case the external and internal finish are not covered by warranty;
- For the following countries: U.S.A. (United States of America), Canada and Mexico is absolutely prohibite to commercialize, to direct or indirect import and to use for any reason, even temporarily and occasional. OPAL ELECTRONICS and NORMA cannot be held responsible for any unauthorised use of own products.
The only entity authorized to import and sell the products is the official distributor. The official NORMA local dealer becomes subject to liability for the warranty and all legal aspects that it entails, as well as for the sale and use of the product;
- Do not return your product for repair without prior authorization from NORMA. The repair during the limited warranty period by a person not explicitly authorized by NORMA will void the warranty and will be carried out at your risk.

▶ 15.5 Warranty limits

- Any eventual implied warranties, including warranties of merchantability and fitness for a particular purpose shall be limited in duration to the applicable period of time set forth above. NORMA's liability for any defective product is limited to repair or replacement of the product;
- Until the law-concessed point the remedies provided in this warranty are only remedies for the customer;
- It is excluded each refund as well as any contractual or extra contractual liability for direct or indirect damages to persons or things.

▶ 15.6 Responsibility limits

- NORMA does not guarantee that the use of any its product is continuous or free from any error or free from any type of fault;
- Under no circumstances and in no case will NORMA be liable for any accidents, consequential damages, liability, arising from the owner or user due to the failure or inappropriate use of the product;
- In no case and under no circumstances will NORMA be liable for any accident and / or consequential damage to other equipment due to failure or imperfect operation of the NORMA products or the accompanying documentation;
- With the exception of the obligations specifically included in this warranty statement, norma shall not be responsible for incidental or consequential damages or for damages based upon inconvenience, loss of use, damage to any other equipment or other items at the site of use or interruption of performances or any consequences;
- NORMA reserves the right to modify technical characteristics, functional characteristics, prices and anything else it deems useful without any obligation to anyone.

We sincerely thank you for your expression of confidence in NORMA. We wish you many years of listening pleasure.

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www.normaudio.com - info@normaudio.com - Tel. +39 (0)372 493113

Via Persico, 26 - Loc. Bettenesco - 26043, Persico Dosimo (CR) - Italy