



# I15 INTEGRATED AMPLIFIER

User Guide



## CAUTION

TO REDUCE THE RISK OF FIRE, REPLACE WITH THE SAME TYPE AND RATING OF FUSE.

## ATTENTION

UTILISER UN FUSIBLE DE RECHANGE MÊME TYPE.

## Safety compliance

This product has been designed to meet the IEC 60065 international electrical safety standard.

## CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

## ATTENTION

RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR



The lightning flash with an arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

**CAUTION:** To reduce the risk of electrical shock do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.

**WARNING:** To reduce the risk of fire or electrical shock, do not expose this apparatus to rain or moisture.

**CAUTION:** In Canada and the USA, to prevent electric shock, match the wide blade of the plug to the wide slot in the socket and insert the plug fully into the socket.

This product is designed and manufactured to meet strict quality and safety standards. However, you should be aware of the following installation and operation precautions.

### 1. Take heed of warnings & instructions

You should read all the safety and operating instructions before operating this appliance. Retain this handbook for future reference and adhere to all warnings in the handbook or on the appliance.

### 2. Water and moisture

The presence of electricity near water can be dangerous.

Do not use the appliance near water – for example next to a bathtub, washbowl, kitchen sink, in a wet basement or near a swimming pool, etc.

### 3. Object or liquid entry

Take care that objects do not fall and liquids are not spilled into the enclosure through any openings. Liquid-filled objects such as vases should not be placed on the equipment.

### 4. Ventilation

Do not place the equipment on a bed, sofa, rug or similar soft surface, or in an enclosed bookcase or cabinet, since ventilation may be impeded. We recommend a minimum distance of 50mm around the sides and top of the appliance to provide adequate ventilation.

### 5. Heat

Locate the appliance away from naked flames or heat producing equipment such as radiators, stoves or other appliances (including other amplifiers) that produce heat.

### 6. Climate

The appliance has been designed for use in moderate climates.

### 7. Racks and stands

Only use a rack or stand that is recommended for use with audio equipment. If the equipment is on a portable rack it should be moved with great care, to avoid overturning the combination.

### 8. Cleaning

Unplug the unit from the mains supply before cleaning.

The case should normally only require a wipe with a soft, damp, lint-free cloth. Do not use paint thinners or other chemical solvents for cleaning.

We do not advise the use of furniture cleaning sprays or polishes as they can cause indelible white marks if the unit is subsequently wiped with a damp cloth.

### 9. Power sources

This appliance must be connected to a mains socket outlet using the supplied power cord. To disconnect this apparatus from power, you must disconnect the power cord. Make sure the power cord is always easily accessible.

Only connect the appliance to a power supply of the type

described in the operating instructions or as marked on the appliance.

This is a Class 1 device and **must** be earthed.

The power switch is a single-pole switch. When the switch is in the "Off" position, the appliance is not completely disconnected from the main power.

### 10. Power-cord protection

Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, and the point where they exit from the appliance.

### 11. Grounding

Ensure that the grounding means of the appliance is not defeated.

### 12. Power lines

Locate any outdoor antenna/aerial away from power lines.

### 13. Non-use periods

If the unit has a stand-by function, a small amount of current will continue to flow into the equipment in this mode. Unplug the power cord of the appliance from the outlet if left unused for a long period of time.

### 14. Abnormal smell

If an abnormal smell or smoke is detected from the appliance, turn the power off immediately and unplug the unit from the wall outlet. Contact your dealer immediately.

### 15. Servicing

You should not attempt to service the appliance beyond that described in this handbook. All other servicing should be referred to qualified service personnel.

### 16. Damage requiring service

The appliance should be serviced by qualified service personnel when:

- A. the power-supply cord or the plug has been damaged, or
- B. objects have fallen, or liquid has spilled into the appliance, or
- C. the appliance has been exposed to rain, or
- D. the appliance does not appear to operate normally or exhibits a marked change in performance, or
- E. the appliance has been dropped or the enclosure damaged.



The CE symbol indicates that this Primare product complies with the EMC (Electromagnetic Compatibility) and LVD (Low Voltage Directive) standards of the European Community.

The WEEE symbol indicates this Primare product complies with the European Parliament and Council Directive 2002/96/EC concerning Waste Electrical and Electronic Equipment (WEEE). This product must be appropriately recycled or processed in accordance with these directives. Consult your local waste disposal authority for guidance.

The RoHS symbol indicates that Primare products are designed and manufactured to comply with the Restriction of Hazardous Substances (RoHS) as stated in the European Parliament and Council Directive 2002/95/EC.

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# CONTENTS

## Welcome!

### Getting Started

- 1 Unpack the I15
- 2 Connect speakers
- 3 Connect inputs
- 4 Connect power

### Back-panel connections

### Using the remote control

- Selecting I15 mode
- Fitting the batteries

### Using the I15

- Front panel controls
- Changing the volume
- Selecting a source
- Changing the display brightness

### Configuring the settings

- Using the settings menus
- INPUT SETTINGS
- AUDIO SETTINGS
- GENERAL SETTINGS

6	<b>Technical specification</b>	13
7	Speaker outputs	13
7	Analog inputs	13
7	MM15 phono stage (optional)	13
7	Analog outputs	13
7	Performance	13
7	General	13
8	<b>Additional information</b>	14
9	Phase	14
9	Burn-in	14
9	RS232 and trigger	14
10	Using the I15 with a CD15	14
10	Factory reset	14
10	Error messages	14
10	<b>Index</b>	15
11		
11		
11		
12		
12		

# WELCOME!

## **Congratulations on selecting your new I15 Integrated Amplifier**

This user guide describes the features and explains how to set up the amplifier for the best sound quality and ease of operation in order to allow for the most enjoyable reproduction of sound from all your sources.

For additional support and assistance please contact your local authorized Primare dealer, or visit our website at [www.primare.net](http://www.primare.net).



# GETTING STARTED

## 1 Unpack the I15

Your I15 is supplied with:

- Mains cable
- IR/Trigger cable
- C25 remote control with batteries
- AC Polarity Pen (with batteries)

If any of these items are missing please contact your supplier. We recommend you retain the packaging in case you need to transport the unit at a later date.

Note that the I15 is supplied with a protective film on the display glass. Remove the film for a clearer whiter display.

## 2 Connect speakers

The I15 is designed to be connected directly to a pair of loudspeakers.

- Connect the red wire from each speaker to the red terminal marked + and the black wire from each speaker to the black terminal marked –.

The terminals can accept speaker cables terminated with spade terminals, banana plugs, or bare wires.

To connect bare wires unscrew the terminal, pass the bare wire through the hole in the terminal bolt, and clamp the wire in place by screwing the terminal back down hand tight.

### Analog outputs

The I15 provides a variable-level analog output on the ANALOG OUT output on RCA connectors, to allow you to connect to active speakers.

## 3 Connect inputs

You can connect a up to five line-level analog sources to the inputs on the back panel.

### Analog sources

- Connect up to five line-level analog sources to inputs A1/PHONO to A5 using high quality RCA cables.

### Moving Magnet cartridge

If you have the MM15 module fitted you can connect a Moving Magnet cartridge to the Phono input A1.

- Connect the cartridge to A1 (Phono), using a high quality RCA cable.
- Connect the earth connection to the GND terminal.

## 4 Connect power

- Plug one end of the mains cable supplied with the I15 into the power connector on the back panel, and connect the other end to a wall socket.

If this cable is not suitable for your power outlets please contact your supplier for an alternative cable.


**Note:** See *Phase*, page 14, for information about getting the best sound from your I15.



**WARNING:** Always disconnect the I15 from the mains power before connecting or disconnecting any cables.

- Switch on the I15, using the switch on the back panel.

### To switch on from standby

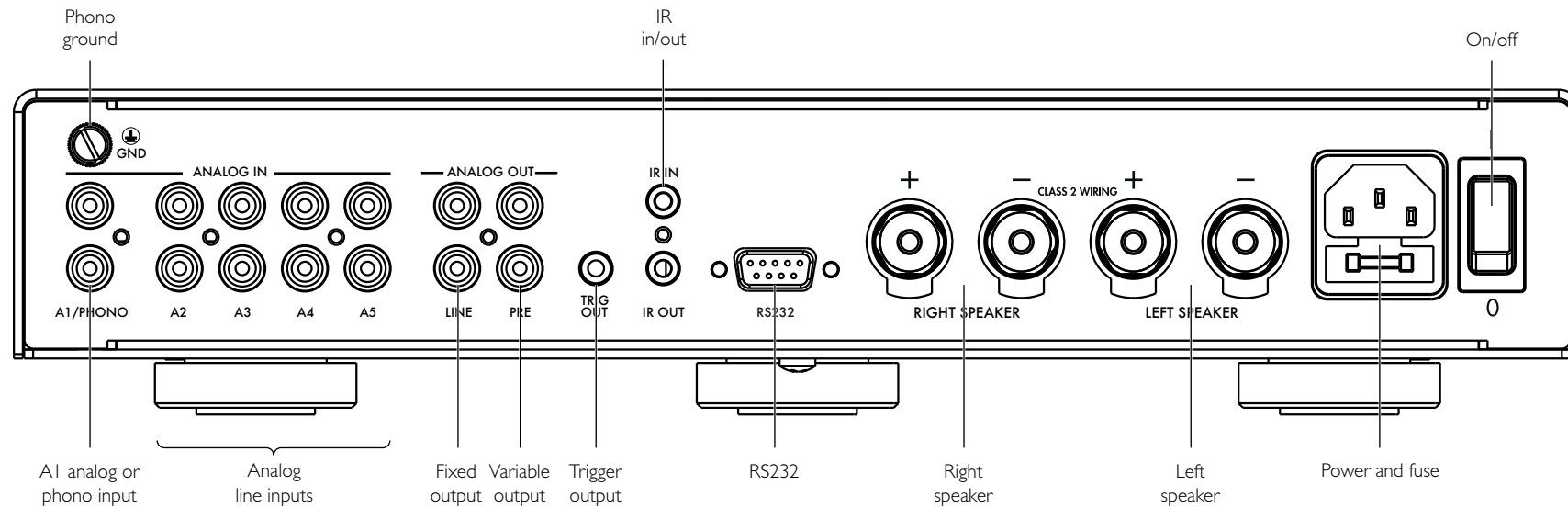
- Press  on the front panel or remote control.

The display shows:

PRIMARE

# BACK-PANEL CONNECTIONS

The following diagram explains the function of each of the connectors on the back panel:







# USING THE I15

## Front panel controls

### Standby

Switches the I15 to standby, or switches it on from standby.

### SELECTOR

Steps between inputs.

### ▲ and ▼

Change the volume.

### Settings menus

Pressing ▲ and ▼ simultaneously displays the settings menus or exits from the menus.

In the settings menus:

Pressing ▲ or ▼ steps between the settings.

Pressing **SELECTOR** selects a setting or saves an edited setting.

Holding down **SELECTOR** navigates back or cancels editing a setting.

## Changing the volume

The I15 allows you to vary the volume from 0 (silence) to 99 (maximum).

### To change the volume

- Press the ▲ or ▼ buttons on the front panel, or press the + or – buttons or the ▲ or ▼ buttons on the remote control.

The current volume setting is shown on the front panel; for example:



VOL 28

## Selecting a source

The I15 provides a choice of five inputs. Initially these are labelled as shown in the following table, but you can give them your own aliases to suit the sources in your system; see *ALIAS*, page 11.

Label	Description
A1–A5	Analog on RCA connectors.

If you have the MM15 module fitted the A1 source will be labelled PHONO.

### To select a source

- Press the **SELECTOR** button on the front panel until the source is indicated on the front panel display; for example:



A1

- Alternatively, press the ◀ or ▶ buttons on the remote control to step between sources, or press one of the buttons 1 to 5 on the remote control to select the corresponding source directly.

## Changing the display brightness

### To change the front panel display brightness

- Press the **DIM** button on the remote control to step through the three levels of illumination and blank.

If you turn the display off it will be restored briefly when you operate any control.

The display automatically dims after ten minutes; you can adjust this delay in the settings menus; see *GENERAL SETTINGS*, page 12.

# CONFIGURING THE SETTINGS

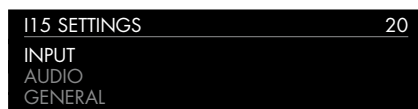
## Using the settings menus

You can view and change the I15 settings from the front panel or remote control.

### To display the settings menu

- Simultaneously press the ▲ and ▼ buttons on the front panel, or press the **MENU** button on the remote control.

The settings menu is displayed:



### To step between settings

- Press the ▲ or ▼ buttons on the front panel or remote control.

The current setting is shown highlighted.

### To change a setting

- Press the **SELECTOR** button on the front panel or the **SELECT** button on the remote control.

The current value is shown highlighted.

- Press the ▲ or ▼ buttons on the front panel, or the ▲ or ▼ or ◀ or ▶ buttons on the remote control, to change the value of the setting.

As you change it the new value is shown in the menu.

- Press the **SELECTOR** button on the front panel or the **SELECT** button on the remote control to save the value you have set.

### To navigate back or cancel editing a setting

- Press and hold the **SELECTOR** button on the front panel, or press the ⏪ button on the remote control.

### To exit from the settings menu

- Simultaneously press the ▲ or ▼ buttons on the front panel, or press the **MENU** button on the remote control.

## INPUT SETTINGS

The **INPUT SETTINGS** menu allows you to customise the inputs to suit the sources in your system:



### INPUT

Initially the **INPUT SETTINGS** shows the settings for the currently selected input. Alternatively the **INPUT** option allows you to step between all the inputs. The subsequent options will change according to the input.

### ALIAS

Allows you to give the source a name; eg **RADIO**.

- Highlight the **ALIAS** item then press the **SELECTOR** button on the front panel, or the **SELECT** button on the remote control.

The **RENAME INPUT** menu is displayed:



- Press the ▲ or ▼ buttons on the front panel, or the ◀ or ▶ buttons on the remote control, to select the first letter.
- Press the **SELECTOR** button on the front panel or the **SELECT** button on the remote control, to select it.

After adding each character you have the options:

**ADD NEW CHARACTER**  
**CONFIRM 'A'**  
**CLEAR ALIAS**

where **CONFIRM** shows the alias you have entered so far.

- Select **ADD NEW CHARACTER** to add the remaining letters, up to a maximum of six characters.
- Select **CONFIRM** when you have entered the alias you want.

### STATUS

Choose between **ENABLED** (default) or **DISABLED** to specify whether the input is enabled.

### AUTO SENSE

Setting **AUTO SENSE** to **SELECT** allows you to specify that an input should be selected automatically when an audio signal starts on that input. To avoid unwanted switching between inputs due to gaps in the music, etc, the input must have previously been silent for at least a minute for a signal to select it.

Selecting **WAKE+SELECT** will also automatically wake the I15 from standby, if necessary. **OFF** (default) will disable automatic switching on that input.

While the **SELECT** option remains available, the **WAKE+SELECT** option is not available for the A1/Phono input if the MM15 phono preamplifier board is installed.

### VOLUME

Choose between **VARIABLE** (default) or **FIXED** to specify whether the input should have variable or fixed gain.

**FIXED** is 0dB gain, equivalent to volume setting 66, and will overrule all the settings in the **AUDIO SETTINGS** menu.

Selecting **FIXED** will show a loud-volume warning. Select **YES** to proceed or **NO** to cancel the fixed gain setting.

Fixed gain functions as an SSP (Surround Sound Pass-through) allowing the I15 to be used as an amplifier in a multi-channel system setup

### INPUT GAIN

Choose between: -30dB to -1dB, 0dB (default), or +1dB to +30dB to set the gain for the selected input.

If the gain is set too high on an input clipping may occur.

If a input is set to **VOLUME FIXED**, the **INPUT GAIN** is fixed at 0dB, and will show **FIXED** in the **INPUT GAIN** setting.

## AUDIO SETTINGS

The **AUDIO SETTINGS** menu allows you to customise the balance and start-up volume, and the maximum and mute volume.

AUDIO SETTINGS	20
BALANCE	00LR00
STARTUP VOLUME	30
MAXIMUM VOLUME	99

### BALANCE

Allows you to adjust the balance between 00LR-9 (far left), 00LR00 (centred, default) and -9LR00 (far right).

### STARTUP VOLUME

Sets the general startup volume to between 0 and 60. The default is 20.

### MAXIMUM VOLUME

Set maximum volume limit between 0 and 99. The default is 99.

### MUTE VOLUME

Sets the volume when unit is muted. You can choose between 0 (default) and 30.

If the current volume is lower than the specified **MUTE VOLUME**, the volume will be set to 0 when pressing mute.

## GENERAL SETTINGS

The **GENERAL SETTINGS** menu allows you to configure the general operation of the I15:

GENERAL SETTINGS	20
FRONT PANEL	UNLOCKED
AUTO-DIM	AFTER 10MIN
STANDBY SETTINGS	

### SHOW INPUTS

Choose between **ALL** (default), to show all inputs, or **WITH SIGNAL**, to show only inputs that have a signal.

### FRONT PANEL

Choose **LOCKED** to lock the front panel buttons, or **UNLOCKED** (default) to use them.

To unlock the front panel buttons use the remote control to select this menu, or remove power from the I15 for a few seconds.

### AUTO-DIM

Allows you to choose the delay for dimming the display after no user interaction, between: **AFTER 1MIN**, **AFTER 5MIN**, **AFTER 10MIN** (default), or **OFF**.

### STANDBY SETTINGS

Displays the **STANDBY SETTINGS** menu to allow you to specify the standby settings.

**AUTO-STANDBY** automatically switches the I15 to standby if there is no user interaction or audio from the current source for a specified delay: **AFTER 10MIN**, **AFTER 15MIN**, **AFTER 20MIN** (default), or **OFF**.

## FACTORY RESET

Resets the I15 to the factory default settings.

You are prompted to confirm. Select **YES** to proceed or **NO** to cancel.

## FIRMWARE VERSIONS

Displays the **FIRMWARE VERSIONS** menu to allow you to view the versions of firmware installed.

# TECHNICAL SPECIFICATION

## Speaker outputs

### Power

2 x 60W into 8 $\Omega$ , 2 x 100W into 4 $\Omega$

## Analog inputs

5 x RCA, 15k $\Omega$  impedance.

## MM15 phono stage (optional)

Gain at 1KHz: 40.5dB

Gain Speaker Out: 83dB

Resistance loading: 47k $\Omega$

Capacitive loading: 150pF

RIAA Correction:  $\pm$ 0.2dB

Signal to Noise: 78dB

## Analog outputs

### Line output

1 x RCA, 150 $\Omega$  impedance.

### Preamplifier output

1 x RCA, 150 $\Omega$  impedance.

## Performance

### Gain:

Preamplifier output: 16.5dB

Line output: 0dB

Speaker output: 83dB

### Frequency response

20Hz to 20kHz -0.7dB

### Distortion

THD + N: < 0.02%, 20Hz to 20kHz, 10W at 8 $\Omega$

Signal to Noise: >97 dB

Crosstalk at 10kHz: 80dB

## General

### Control

C25 system remote control

RS232

IR in/out

Trigger out

### Power Consumption

Off: 0W

Standby: <0.5W

Operating: <20W

### Dimensions

350 x 339 x 73 mm (wxdxh) with knobs and connectors

350 x 310 x 73 mm (wxdxh) without knobs and connectors

### Weight

6.4 kg

### Colour

Black or titanium

# ADDITIONAL INFORMATION

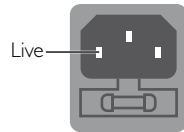
These instructions help you get the best possible sound from your I15.

## Phase

The phase of the AC supply can make a significant difference to the sound.

Use the Polarity Pen supplied with the I15 to verify which pin is live on your AC power cable.

Ensure that the live pin of the AC power cable is connected to the left-hand pin of the power connector, viewed from the back panel:



## Burn-in

Your Primare will start to sound best after an initial burn-in of approximately 24 hours.

You will notice a further smaller improvement in sound quality for at least another 3 days' playing.

## RS232 and trigger

The RS232 input allows you to connect the I15 to a controller system. Use a twisted (null modem) cable. For more information contact Primare at [info@primare.net](mailto:info@primare.net) or visit [www.primare.net](http://www.primare.net).

The Trigger output allows the I15 to switch on other devices, such as a CD15 Prisma.

## Using the I15 with a CD15 Prisma

Your I15 is an ideal companion to the Primare CD15 Prisma CD Player. For best results link the two products together as follows using the cable supplied with the I15:

### To connect the trigger cable

The Trigger cable ensures that the CD15 Prisma switches on, or to standby, when you operate the  $\Phi$  button on the front panel of the I15.

- Connect the Trigger cable from the I15 TRIG OUT to the CD15 Prisma TRIG IN.

## Factory reset

Press and hold the  $\Phi$  standby button on the front panel to display the main firmware version number.

Press and hold the  $\Phi$  standby button on the front panel for 10 seconds to perform a factory reset of the I15.

## Error messages

The following error messages on the front panel display indicate an error condition:

### DC ERROR

Try the following

1. Power off the I15
2. Disconnect all input and output connections.

If this solves the problem, there is a DC offset on one of the inputs.

If the problem persists

3. Contact your dealer for service arrangements.

### OVERHEAT

Indicates that the amplifier is overheated.

1. Turn off the I15 and let it rest for a few minutes.
2. Ensure that there is adequate ventilation around the I15.
3. Turn it back on again.

### OC ERROR

Indicates that the speakers are causing the amplifier to use too much current. This could be due to unusually loud volumes, or something wrong with the connected speakers.

1. Turn off the I15
2. Turn the I15 back on.

# INDEX

## A

- Alias (settings menus) 11
- Analog inputs and output 8
- Audio settings menu 12
- Auto-dim (settings menus) 12
- Auto sense (settings menus) 11

## B

- Back panel 8
- Balance (settings menus) 12

## C

- Clipping 11
- Coax input 8

## D

- Digital inputs and output 8
- Display brightness, changing 10

## E

- Error messages 14

## F

- Factory reset 14
- Factory reset (settings menus) 12
- Firmware (settings menus) 12
- Front panel (settings menus) 12
- Front panel controls 10

## G

- General settings menu 12

## I

- Input (settings menus) 11
- Input gain (settings menus) 11
- Inputs, connecting 7
- Input settings menu 11
- IR input 8

## M

- Maximum volume (settings menus) 12

## Menus

- Audio settings 12
- General settings 12
- Input settings 11

- Moving Magnet cartridge 7

- Mute volume (settings menus) 12

## O

- Optical inputs 8

## P

- Phase 14
- Phono input 7
- Power, connecting 7

## R

- Remote control 9
  - Fitting batteries 9
- RS232 input 8, 14

## S

- Settings menus 11
- Show inputs (settings menus) 11, 12
- Sources
  - Selecting 10
- Speakers, connecting 7
- Standby settings (settings menus) 12
- Startup volume (settings menus) 12
- Status (settings menus) 11

## T

- Technical specification 13
- Trigger outputs 8

## U

- Unbalanced inputs and output 8

## V

- Volume (settings menus) 11
- Volume, changing 10

# P R I M A R E

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