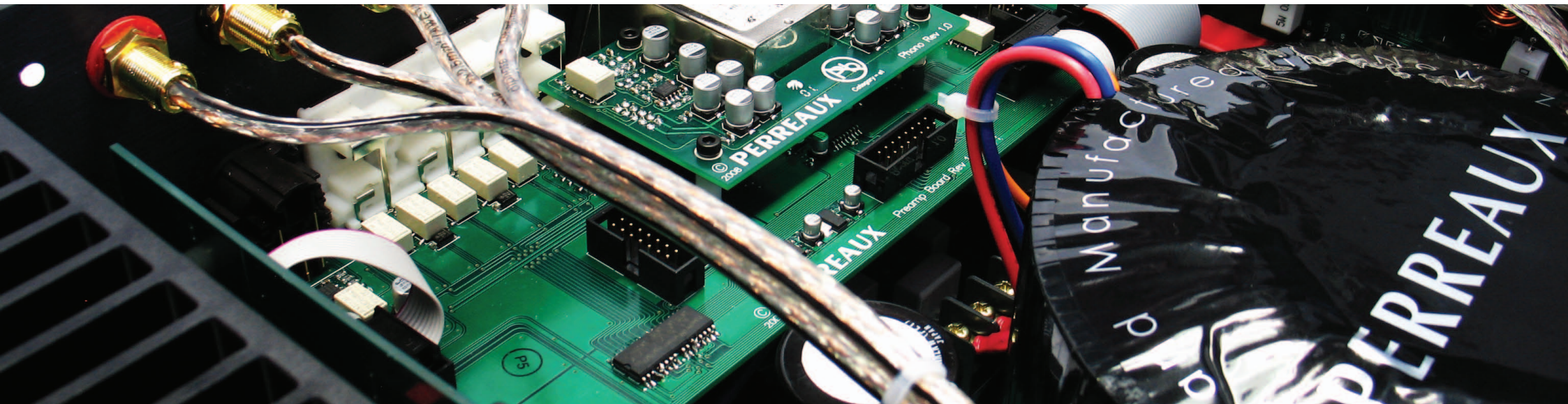


éloquence 250i Integrated Amplifier



Owners Manual

PERREUX





éloquence 250i Integrated Amplifier

Designed and Manufactured in Dunedin, New Zealand



Important Safety Instructions

Explanation of symbols used in this manual or on the rear of the device:



This symbol is intended to alert the user to the presence of uninsulated dangerous voltages within the enclosure of sufficient magnitude to cause electric shock.



This symbol is intended to alert the user to the presence of important operation, maintenance and servicing information in the instruction and service manuals.

Caution

- To reduce the risk of electric shock, do not remove the cover.
- No user serviceable parts inside.
- Refer servicing to qualified service personnel.
- Replace the mains fuse in the plug with one of the same type and rating.
- Disconnect supply cord before changing fuse.

Warning

To reduce the risk of fire or electric shock, do not expose this device to rain or moisture. Shock hazard - do not open.

Mains Plugs

- This device is supplied with a non-rewireable mains plug for the intended country.
- Replacement mains leads can be obtained from your Perreux dealer. Should you need to change the plug please dispose of it carefully. A plug with bared conductors is dangerous if engaged in a live socket.
- The Brown wire must be connected to the Live (Line) supply pin.
- The Blue wire must be connected to the Neutral supply pin.
- The Green/Yellow wire must be connected to the Earth (Ground) supply pin.
- Please contact your dealer or a competent electrician if you are in any doubt.
- Refer to the rear of the product for fuse and mains voltage information.



This product is designed to comply with international directives on the Restriction of Hazardous Substances (RoHS) in electronic equipment. The wheelie bin logo indicates compliance and that these products must be recycled or processed as according to these directives.



General Safety Instructions

All safety and operation instructions should be read carefully before the 250i is operated. Keep the Owners Manual in a safe place for future reference.

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use the device near water, for example near a bathtub, kitchen sink, in a wet basement, near a swimming pool, etc.
- Clean only with a dry cloth.
- Mounting to a wall or ceiling should be via a heavy-duty bracket or shelf designed for audio equipment use.
- The device should be situated away from heat sources such as radiators, stoves, or other appliances that produce excessive amounts of heat.
- DO NOT place the device directly onto carpeted surfaces.
- Avoid exposing the device to extremely high or low temperatures.
- The device should be connected to a mains power supply only of the type described in the operating instructions, and/or as marked on the rear of the unit.
- DO NOT defeat the safety earth of the grounding type mains plug, severe injury or death may result. If the provided plug does not fit into your outlet, contact your dealer or consult an electrician.
- The power cord should be routed so that it is not likely to be walked on or pinched by items placed on or against it.
- Unplug the device during lightning storms or when unused for long periods of time.
- DO NOT let objects or liquids fall into the device, expose the device to dripping or splashing or place a vessel containing liquid on top of the device.
- Keep this device out of reach of children.
- DO NOT operate the device with the cover removed.
- DO NOT bypass any fuse, replace only with the value and type specified.
- DO NOT attempt to repair the device. In the event of a problem, please contact your Perreux dealer.
- DO NOT operate this product in an explosive atmosphere.



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Introduction

The éloquence 250i integrated amplifier

Congratulations on your éloquence 250i integrated amplifier purchase. To realise the full potential of your unit you need to appreciate all aspects of its operation.

Before installing the 250i into your system, read the entire manual carefully. Endeavour to understand every detail by familiarising yourself with the controls and features as you read. You will find it easier to install using the relevant sections of this manual as a reference.

We have attempted to explain every feature and operation facet clearly and concisely. Your Perreux dealer will be happy to assist if you encounter any unforeseen problems.

Read this manual, install your unit correctly and realise the sonic significance of your investment in Perreux.

Perreux products are designed to provide the utmost in sonic realism and electronic reliability, with a functional yet elegant appearance that reflects the care and craftsmanship applied during all stages of construction.

Features at a Glance

- Highly refined circuit design
- Capacitor-free signal path
- Precision volume control
- Non-invasive balance control
- MOSFET technology
- Balanced input
- Intuitive user interface
- Highly customisable
- Infrared remote control
- Smart home integration
- Protection
- Construction
- Optional modules

We maintain the human-link throughout; from design and construction, through to the ultimate test – your music, your system, your ears.

Because we too listen to our products, we know that with your éloquence integrated amplifier you will discover many more of the musical secrets we strive to reveal.

From all of us at Perreux, thank you for choosing the éloquence 250i integrated amplifier.



Features

Highly Refined Circuit Design

All Perreaux analogue amplification stages are based on circuits that have been extensively optimised over many years of continuous development. By starting with excellent circuit designs and working with them over the years, we are able to discover the many small refinements that add up to superlative performance, in a variety of applications.

Capacitor-Free Signal Path

The inputs of the éloquence 250i are DC coupled and there is not a single capacitor in the signal path that the audio signal passes through, improving low-frequency response and linearity. There are no capacitors to degrade over time and hinder performance, so the amplifier will essentially sound the same years after its initial purchase.

Precision Volume Control

5

The éloquence 250i uses a solid-state stepped attenuator offering precise resolution with exceptional channel matching. The sealed package and lack of mechanical contacts, results in an ageless volume control – wiper noise and component drift is a thing of the past.

Non-Invasive Balance Control

Balance control in the éloquence 250i is accomplished without the addition of any further circuitry, thereby removing its potential effects on the audio signal. The balance control benefits from the same precise resolution offered by the volume control.

MOSFET Technology

As with all Perreaux products, the éloquence 250i integrated amplifier capitalises on the benefits of using MOSFET technology in its output stages – excellent high-frequency response, improved distortion performance and reliability.

Balanced Input

The éloquence 250i features a balanced input via XLR connectors, allowing optimal performance with the many high-end CD players and other audio components that utilise the benefits of balanced outputs.

Intuitive User Interface

The interface knob on the front panel of the éloquence 250i is the heart of the user interface experience – allowing fundamental control of the volume, and intuitive navigation and adjustment within the éloquence menu system.

Highly Customisable

Many settings of the éloquence 250i are user customisable – inputs may be named appropriately, select only inputs that are used, precisely match volume levels between inputs, set inputs to bypass the volume control, set initial and maximum volumes. Essentially, the amplifier can operate as if it were custom designed for your system. These are only a selection of the available settings you can customise; continue reading for discussion on other customisable settings.

Infrared Remote Control

The supplied infrared (IR) remote control offers complete control over the éloquence 250i in a small and functional package. External control by IR is also offered via the IR input on the rear panel, should the amplifier be inside a cabinet or outside line-of-sight of the remote control.

Smart Home Integration

The éloquence 250i can easily be integrated into any smart home, using the RS-232 port at the rear of the amplifier and interfacing to devices from the likes of Control4™, AMX™ and Crestron™. Coupled with the IR input and Trigger input, smart home integration has never been easier.



Protection

The éloquence 250i employs several forms of protection, both for its own self-preservation as well as the protection of loudspeakers and other components to which it is connected. The protection mechanisms include DC offset, over-current, AC power, internal DC fuse and thermal protection.

Construction

Regardless of the technology used, numerous details must be executed to fully realise the potential of a Perreux design. The quality of individual components, the care and craftsmanship with which they are assembled and the exhaustive inspection and testing we employ help raise the value of Perreux products. In addition to yielding the best performance, careful attention to details is the secret to achieving both reliability and longevity.

Optional Modules

The éloquence range offers optional phono and digital-to-analogue converter (DAC) modules. The phono module has selectable gain and is suitable for both moving magnet (MM) and moving coil (MC) cartridges. The DAC module provides up-sampling to 24-bit/192kHz and offers connectivity via coaxial (BNC), optical (Toslink) and USB. Addition of these modules will ensure seamless integration into any current or future system.



Installation

Unpacking

The éloquence 250i is supplied with the following accessories:

- Remote control
- Mains lead
- This manual

We recommend you retain the packaging for reuse in case you need to transport the unit at a later date.

Placement

Your éloquence 250i integrated amplifier should generally be placed close to your primary source component, keeping interconnect cabling short. Position all other components of your system close enough to your 250i to avoid having to stretch or extend any of the interconnect cables.

7 Ventilation Requirements

Your éloquence 250i requires dissipating considerable power in the form of heat. It should be placed in a position that does not restrict the airflow around it.

As a “rule of thumb”, allow at least 80mm (3 inches) above and to each side of the unit and mount the éloquence 250i on a flat surface for air circulation to allow this heat to dissipate. Do not sit directly onto a carpeted surface as it will prevent the heatsinks from operating as designed

If the device is used in a cabinet, air must be able to flow through. An enclosed cabinet will severely restrict heat dissipation.

Ensure that nothing is placed above or below the amplifier that might block or restrict the vents.

If the éloquence 250i has inadequate ventilation and/or is played very enthusiastically for a period of time, its temperature may rise above the designated operating level and the over-temperature protection will trip – disconnecting the output until it has cooled sufficiently.

Other Devices

Ideally, your éloquence 250i integrated amplifier should not be located directly above or adjacent to other heat-producing products such as radiators, other power amplifiers, etc. If multiple amplifiers are being used and space is restricted, placing them side by side is preferable to stacking.

It is advisable to position your éloquence 250i away from (and if possible, connected to a power socket on a different circuit from) powerful electrical or electronic products such as TV sets, computers, cookers, fridges etc. This will prevent the possibility of the strong electrical and electromagnetic emissions or interference given off by such devices adversely affecting the performance of your amplifier.



Quick Start

If you are like us, the first thing you will want to do is to play your favourite piece of music through your new éloquence 250i integrated amplifier. The following instructions are written to enable you to achieve this as quickly as possible. These are not comprehensive instructions, but are designed to enable you to play music now!

Please take the time to read this manual thoroughly, as the éloquence 250i incorporates many features which enhance its operation.

Turn off associated components

This minimises the potential to damage your éloquence 250i, or any other components, when connecting the device into your system.

Connect a source component

For example, connect the balanced outputs of your CD player to the left and right balanced (XLR) inputs at the rear of your éloquence 250i.

Connect loudspeaker cables

Connect the left and right channel loudspeaker cables to the appropriate speaker binding posts at the rear of the amplifier.

Switch on source component

Turn on the source component, making sure you have your favourite recording ready to play.

Switch on your éloquence 250i

After checking the supply voltage compatibility with the voltage rating on the rear panel, insert the power cord supplied into the rear of the unit and into the wall socket. Switch on the amplifier using the button on the front panel.

Select the appropriate input

Using the $\wedge/\vee$ buttons on the front panel of your éloquence 250i, or the remote control, select the input to which the source component is connected.

Play your source material

Start playing your favourite recording.

Increase the volume

Slowly increase the volume on your éloquence 250i to achieve a comfortable listening level.

Congratulations!

Now that you have achieved your first objective, sit back, relax and please read the rest of the manual at your own pace, in your favourite armchair, whilst enjoying a glass of wine. You'll find the whole experience much more pleasurable whilst listening to music.



Before making any connections, switch off the mains power to all components in your system.

The balanced (XLR) inputs accept signals from a source component with balanced outputs.



Pin 1: Signal ground
Pin 2: Signal + (non-inverting)
Pin 3: Signal - (inverting)
Shield ground: Chassis ground

Please refer to the owner's manual of your balanced output source to verify that the pin assignments of the output connectors correspond to the éloquence 250i. If this is not the case, wire the cables so that the appropriate output pin connects to the equivalent input pin.

2 Amp In

The unbalanced (RCA) amp in inputs allow direct connection to the power amplifier sections of your éloquence 250i when used in conjunction with the Separate function (see Separate, page 24).

3 Pre Out

The unbalanced (RCA) preamp outputs provide a single-ended preamp level audio signal for connection to an external power amplifier or active subwoofer.

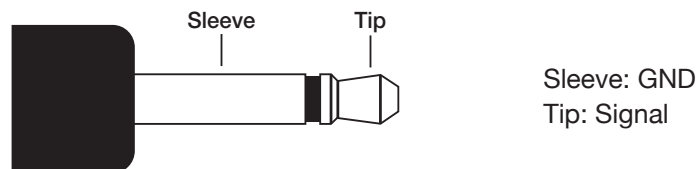
4 Tape Out

The unbalanced (RCA) tape outputs provide a single-ended line level audio signal, suitable for recording from the selected source input. This output is disconnected when INPUT 5 is selected; to prevent any potentially damaging feedback loops if the tape output is connected to this input.

5 Trigger Input

The trigger input allows your éloquence 250i integrated amplifier to be brought in and out of standby by a remotely connected device; for example, another audio component or a home automation system. The trigger input uses a mono 3.5mm (8") plug and accepts voltages of 0V DC up to 12V DC. A trigger voltage between 3V and 12V DC will bring the amplifier out of standby and it will enter standby when the trigger voltage is 0V DC.

The trigger input plug must meet the specifications shown below:

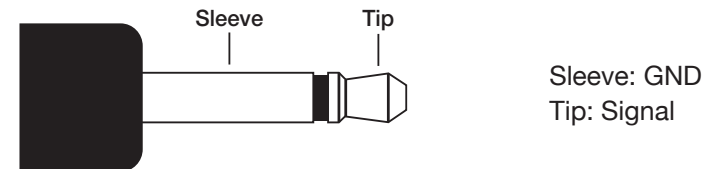


6 Trigger Output

The trigger output allows your éloquence 250i to control the standby state of a remotely connected device. The remote trigger output accepts a mono

3.5mm (1/8") plug. The trigger output voltage is 12V DC when the amplifier is not in standby and is 0V DC when in standby.

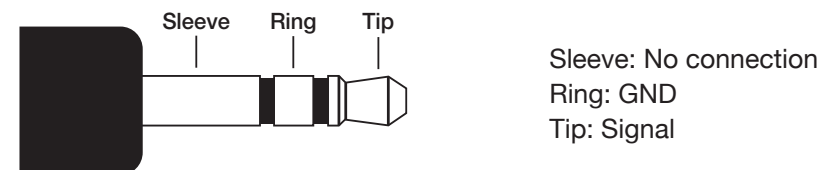
The trigger output plug must meet the specifications shown below:



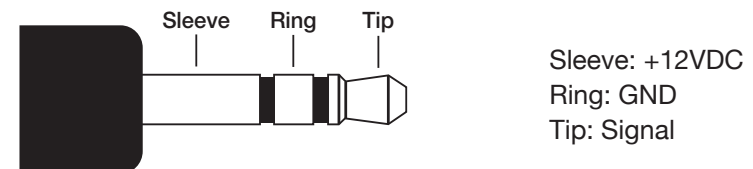
7 IR Input

The IR (infrared) input allows your éloquence 250i to receive un-modulated commands from home automation systems or other components.

The IR input uses a stereo 3.5mm (1/8") plug, and accepts voltages of 0V DC up to 12V DC. The plug must meet the specifications shown below:



Using an external IR receiver module (for example, Xantech 490-30 Micro Link™ IR receiver) allows the amplifier to be placed inside a cabinet or outside the normal line-of-sight of the remote control. The plug must meet the specifications shown below:



Note: Do not use a mono 3.5mm (1/8") plug, this may cause damage to the IR input.

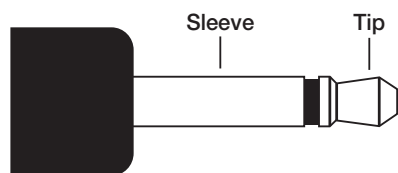


Connecting - Rear panel continued

8 IR Output

The IR (infrared) output allows your éloquence 250i to relay un-modulated commands received via the IR sensor on the front panel, or to pass on commands from home automation systems or other components received via the IR input.

The IR output uses a mono 3.5mm ($\frac{1}{8}$ ") plug, and transmits voltages from 0V DC up to 12V DC. The plug must meet the specifications shown below:



Sleeve: GND
Tip: Signal

11 9 RS-232 Port

The RS-232 (RJ45) port is used both for downloading new operating software into your éloquence 250i integrated amplifier (for example, should new features ever be added), and also for external control of the amplifier by systems such as Control4™, AMX™ and Crestron™. For more information, please contact your dealer and ask about home automation systems.

10 Analogue Inputs

The unbalanced (RCA) analogue inputs accept signals from source components with single-ended outputs.

Input 1 / phono

If you have a turntable you would like to use with the system, an optional phono module is available from your Perreux dealer. Once installed in your éloquence 250i, the Input 1 connectors become your phono inputs, and the phono options in the menu system become active.

Input 4 / Theatre

Input 4 is set as a home theatre loop (HT LOOP) straight from the factory and bypasses the volume control. Please ensure the volume level of the connected processor or receiver is suitably attenuated before selecting this input.

11 AC Mains Input

The IEC standard AC mains input is used with the removable power cord to supply your éloquence 250i integrated amplifier with power.

Prior to connection to the AC mains, please check the voltage label on the rear panel to ensure that your amplifier conforms to the power supply in your area. Never attempt to connect the unit to an incorrect voltage – severe damage may result.

12 AC Mains Fuse

The AC mains fuse is user serviceable, and should always be replaced with the same type and rating (see Technical Specifications, page 27).

Notes: Fuses do not usually blow without a reason. Any doubts about fuse failure should be conveyed directly to your Perreux dealer.

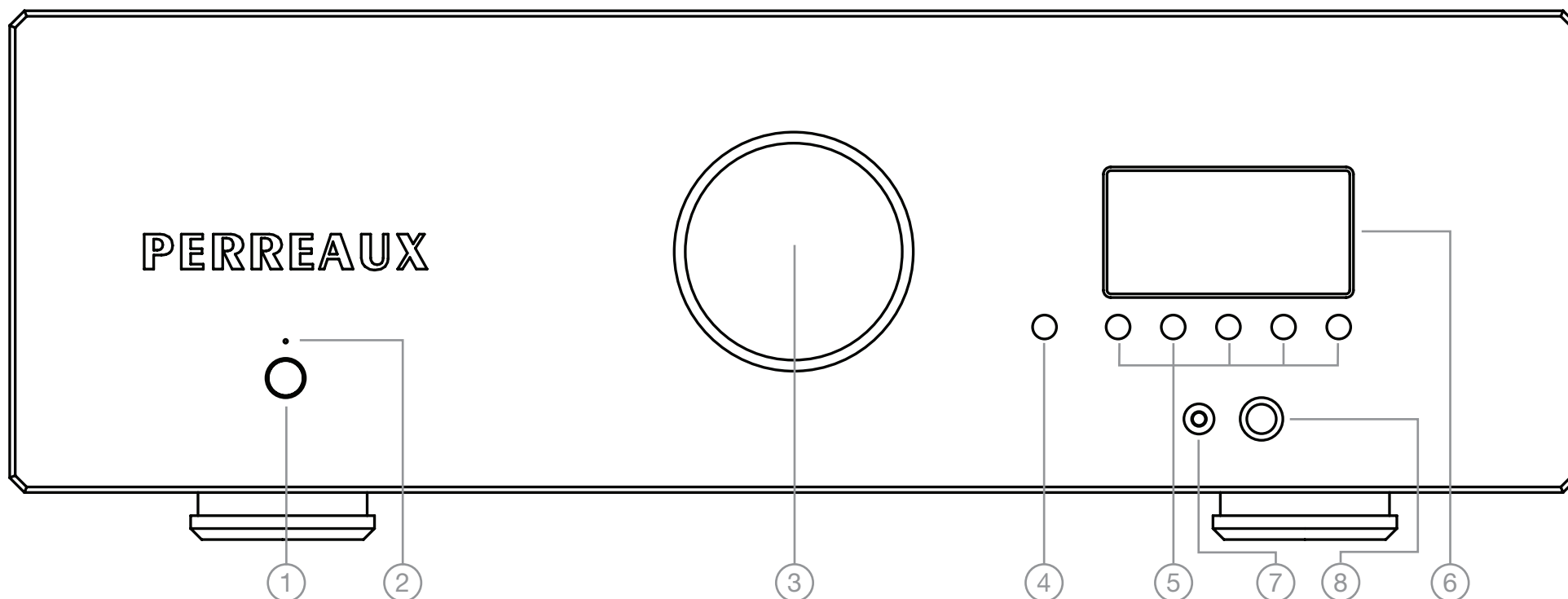
Ensure your éloquence 250i is disconnected from the mains power before attempting to change the fuse.

13 Ground Terminal

The ground terminal on your éloquence 250i is most often used for the ground wire of a turntable, if you have the optional phono preamplifier installed. Connecting the ground wire from your turntable's tonearm to this terminal usually minimises any hum or buzzing to which the turntable may otherwise be susceptible. Your authorised Perreux dealer can assist you in handling this problem if it should arise.



Operation - Front Panel



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1 Standby Button

The standby button switches the amplifier between normal operation and standby.

2 The LED indicator

The LED indicator shows the AC mains power status of your éloquence 250i. The LED is illuminated when the power switch at the rear of the amplifier is switched on and flashes slowly to indicate the unit is powering up and initialising. The LED flashes at a fast rate to indicate the protection has tripped and/or the amplifier requires user intervention.

3 Volume Control/Interface Knob

Rotate to adjust the volume level of the loudspeaker output and the preamp output. It does not affect the TAPE output.

The volume is raised or lowered in precise 0.5dB increments throughout the entire gain range. The volume increment will increase the faster the knob is rotated, making it easier to move quickly between extremely low and normal listening levels.

Note: When the home theatre input (HT LOOP) is selected, or an input is set to bypass the volume control (see Bypass, page 22), the interface knob



Operation - Front panel continued

will have no effect on the volume level.

The interface knob is also used in navigating the éloquence menu system (see The Menu System, page 16).

4 Infrared Sensor

Receives infrared (IR) commands from the supplied remote control. Ordinarily, your éloquence 250i must have unobstructed line-of-sight with the remote control in order to respond to remote control commands.

If your integrated amplifier is to be placed inside a cabinet, you may use the IR input at the rear of the unit (see IR Input, page 10) to solve the problem.

5 Front Panel Buttons

Use these buttons to control your éloquence 250i integrated amplifier. They are also used to navigate the éloquence menu system and, along with the interface knob, make any changes to the settings.

Note: The function of these buttons will differ depending on which state the amplifier is in.

6 Display

The liquid crystal display (LCD) used to show information relating to the operation and status of your éloquence 250i integrated amplifier.

7 Auxiliary Input

The auxiliary input allows the connection of a portable auxiliary source, for example an iPod™ MP3 player. The auxiliary input accepts a 3.5mm (1/8") stereo plug.

Notes: The AUXILIARY input will automatically be selected as the current source when a plug is connected. When the plug is disconnected, the input will revert to the last selected source, unless another source input was selected while the auxiliary was still connected.

The volume of the auxiliary source should be set to the highest level which provides the best performance without distorting the audio.

8 Headphone Output

The headphone output allows connection of headphones with a 6.4mm (1/4") plug. Headphones with an impedance of between 32Ω and 600Ω are recommended. When the headphones are connected, the output to the loudspeakers is disconnected.



Operation - Remote Control

The éloquence 250i integrated amplifier comes supplied with an infrared remote control.

1 Standby

The standby key switches the amplifier between normal operation and standby. Pressing this button puts the 250i into standby, disconnecting all power supplies except the digital power supply for the microcontroller and turning off the remote trigger outputs. Standby is indicated by a single dot on the display and operation can be resumed by pressing standby again or selecting a source input.

2 Time

The time key shows the time on the display of the amplifier.

3 Navigation Keys

The navigation keys are used to navigate your way around the éloquence menu system and adjust various settings (see The Menu System, page 16).

4 Menu

The menu key calls up the éloquence menu system, allowing you to customise various settings for integration into your system (see The Menu System, page 16).

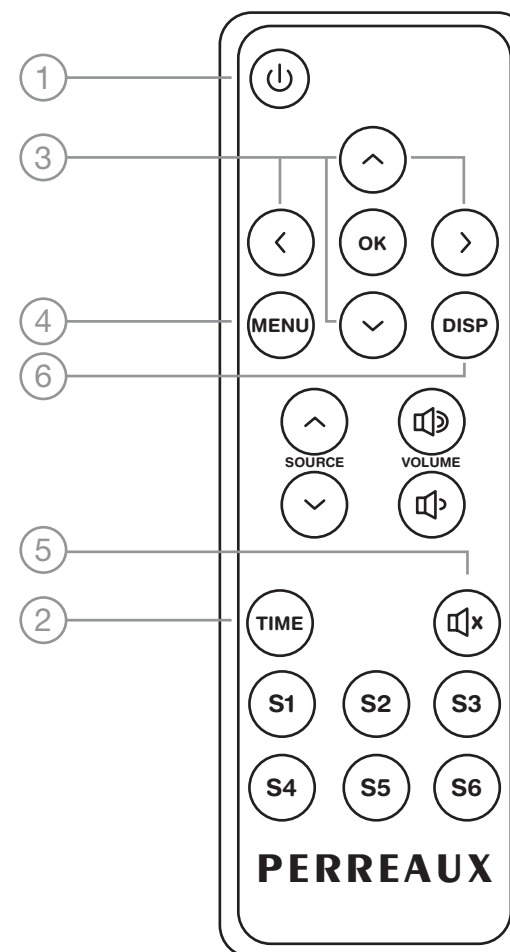
5 Mute

The mute key causes the volume of the amplifier to be muted, or attenuated by a user customised amount (see Mute, page 16).

6 Display

The display key adjusts the display options, scrolling through FULL, MEDIUM and LOW brightness and display OFF.

Notes: If the display is set to OFF, the display will turn on when user input is detected then automatically turn off after the timeout duration has elapsed.



Operation - Remote Control continued

Setting the display option using the remote control is only temporary and will revert to the settings in the menu system when the amplifier is brought out of standby. To make the display options permanent you must set the appropriate display settings in the menu system (see Display, page 23).

7 Volume Up and Down

The volume keys adjust the volume of the amplifier. The volume is adjusted slowly at first and progressively increases the longer the volume keys are held. This allows both fine adjustments while making it easier to move quickly between extremely low and normal listening levels.

Note: When the home theatre input (HT LOOP) is selected, or an input is set to bypass the volume control (see Bypass, page 22), the volume keys will have no effect.

8 Source Up and Down

The source keys scroll through the source inputs, provided they are enabled (see Enable, page 20). If an input is disabled it will not be available for selection using the source keys, although it can still be selected using the s-keys.

9 S-Keys

The s-keys provide direct selection of source inputs, and can be customised to select your six most frequently used inputs (see S-Keys, page 25).



The Menu System



The menu system can be used to configure the éloquence to customise aspects of its operation to suit your requirements, to operate in a particular type of installation, or to view important functional data.

Home Screen

The home screen provides easy access to the basic functions of the integrated amplifier: volume control, input selection and mute. It also provides an easy to read and highly legible depiction of the selected input and current volume setting.

Volume Control

Adjust the volume setting using the interface knob on the front panel (or using the remote control). The display will show the volume level in decibels (dB). The maximum volume setting is +31.5dB, while lower volume settings progress into the negative range with the minimum being -96.0dB.

Input Selection

Scroll through the available inputs using the $\wedge/\vee$ buttons on the front panel (or using the remote control).

Notes: The labels for the inputs, as displayed on the front panel, can be customised for your convenience (see Labels, page 19). Disabling an input (see Enable, page 20) removes it from selection by scrolling from the front panel or remote control (although it is still available for selection via the menu system and the remote control s-keys).

Mute

Mute the volume by pressing the MUTE button on the front panel (or using the remote control). The mute mode is indicated by the volume level being replaced with MUTED in the display, which flashes while mute mode is enabled.

If you increase the volume while mute is enabled, the mute mode will be cancelled and the volume will increase from the muted level. This is a safety measure to avoid situations where the volume might be increased while muted, only to have the system un-muted to an unexpectedly high volume.

When mute is cancelled, the volume level replaces MUTED in the display and stops flashing.

If you decrease the volume while attenuation is enabled, the volume level will reduce whilst remaining in the attenuated mode. When mute is cancelled, the volume level will increase by the set attenuation level.

Notes: If the mute level is set to a customised setting (see Mute Level, page 22) the volume level will be attenuated by this amount when mute is enabled. The attenuated mode is indicated by the volume level changing to the reduced level in the display, which flashes while attenuated.



The Menu System continued

Entering and Navigating the Menus

Using the remote control:

- Press MENU.
- Navigate up or down the options within a menu using $\wedge/\vee$.
- Press > or OK to select an option.
- Press < to go back to the previous option or menu.
- Alter the setting using </>.
- Press OK to save a setting.
- Press MENU while setting an option to return to the menu.
- Press MENU while in the menu screen to exit the menu and return to the home screen.

or

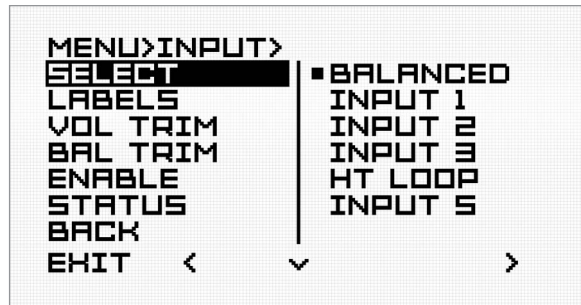
Using the front panel:

17

- Press the MENU button.
- Navigate up or down the options within a menu by rotating the interface knob left or right or using the $\wedge/\vee$ buttons.
- Press the interface knob or the > button to select an option.
- Press the interface knob or the EDIT button to alter a setting.
- Press the < button to go back to the previous menu.
- Alter the setting by rotating the interface knob left or right or using the $\wedge/\vee$ buttons.
- Press the interface knob or the SET/SAVE button to select or store a setting.
- Press the BACK button to return to the menu when altering a setting.
- Press the EXIT button to exit the menu and return to the home screen.

Note: For each option, currently selected enabled settings are indicated by a solid box ■.





Main Menu

The menu system is comprehensive and intuitive, and provides access to settings and features that allow you to customise how the éloquence 250i works within the context of your system.

The main menu is the top-level of the menu system and consists of five sub-menus:

Input

Volume

Headphone

Clock

Options

System

Input Configuration

Each input on your éloquence 250i integrated amplifier can be customised in several ways to enhance either the performance or the ease of use of the system.

Select

The select menu allows you to choose a source input. An input will be available for selection even if it is disabled.

Notes: The optional Phono and DAC modules must be installed for the phono and digital inputs to become available.

The factory default input is BALANCED.



The Menu System continued

Labels

The labels menu allows you to customise the input name as it appears on the display. Any name can be entered, up to a maximum of 11 characters (including spaces).

To change the selected input name via the front panel:

- Rotate the interface knob or press the </> buttons to scroll through the available characters.
- Press the interface knob to add the selected character to the input label and advance the label cursor.
- Press the DEL button to delete characters from the input label and move the label cursor back.
- Press the SAVE button to store your customised input label.
- Press BACK to cancel changes and return to the menu

To change the selected input name via the remote control:

- Press </> to scroll through the available characters.
- Press ^ to add the selected character to the input label and advance the label cursor.
- Press v to delete characters from the input label and move the label cursor back.
- Press the OK button to store your customised input label.
- Press MENU to cancel changes and return to the menu

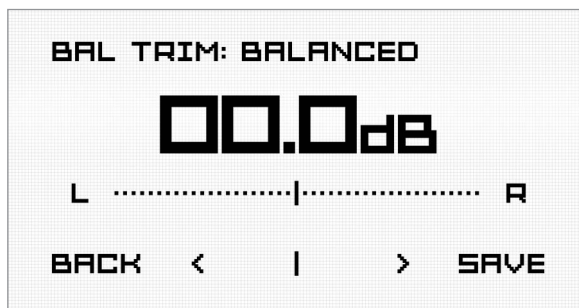
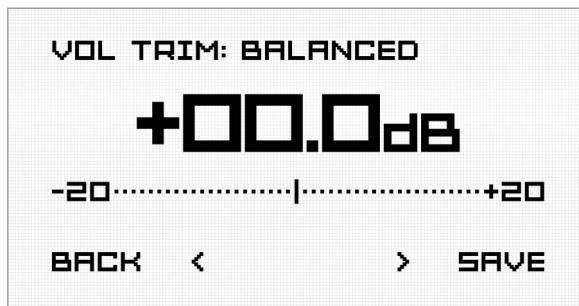
The factory default labels are as follows:

Input	Default Label
Balanced	BALANCED
Input 1	INPUT 1
Input 2	INPUT 2
Input 3	INPUT 3
Input 4	HT LOOP
Input 5	INPUT 5

Volume Trim

The volume trim screen allows the volume level of each input to be adjusted up or down, relative to the others, to equalise the volume across all sources. For example if a CD player and a radio tuner are connected, the CD player's output volume may be louder than that of the tuner so this feature saves volume adjustment when switching between these sources.





Note: The volume difference will not be visible on the volume display – so when switching between offset sources, the volume display will not reflect the offset.

The factory default volume trim is $\pm 00.0\text{dB}$.

Balance Trim

The balance trim screen gives you control over the relative volumes of the left and right channels for each input. The volume of one channel relative to the other can be changed in increments of 0.5dB, up to a maximum of 20.0dB.

This allows for compensation of any slight imbalance that may be present on a particular source component. For example, the finest handmade cartridges are subject to small channel imbalance problems.

The factory default balance trim is 00.0dB.

Enable

The enable menu allows you to select which inputs are available when scrolling through the inputs via the front panel or the remote control.

Note: If an input is disabled, you will still be able to select it via the input select menu, or the remote control s-keys.

The factory default has all available inputs enabled.

Status

The status screen displays all the user customisable settings for a particular input.

A factory default setting is not applicable to the status screen.



The Menu System continued

Volume Configuration

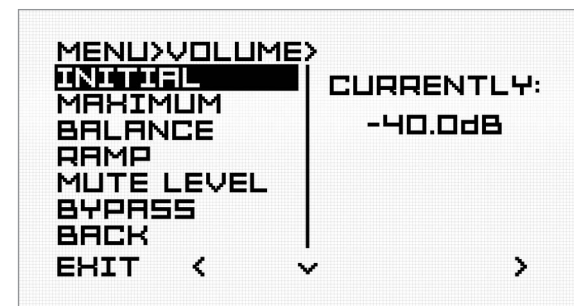
The volume is not directly adjusted by the knob on the front panel, as per traditional potentiometer volume controls; instead it is adjusted by software controlled volume circuitry. Since the volume control circuitry is under software control, it is possible to customise its behaviour in a number of ways.

Initial Volume

The initial volume screen allows you to set the volume level that the amplifier will be set to when it is powered up.

Note: The volume level will change to reflect the current initial volume setting and will change as you alter the initial volume setting, giving you an indication of what the volume level is.

The factory default initial volume is -40.0dB.

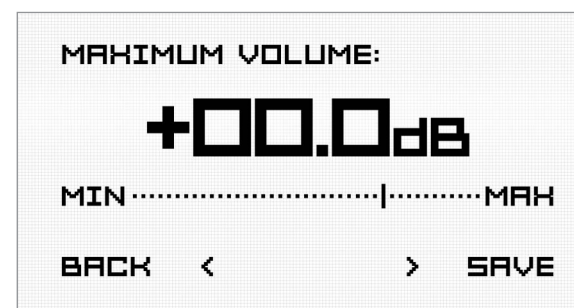


Maximum Volume

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The maximum volume screen allows you to establish a maximum level to which the volume can be set. It is particularly useful if the system is sometimes used by people who may not be as careful as you would be – teenaged children come to mind.

The factory default maximum volume is +00.0dB.



Balance

The balance screen gives you fine control over the relative volumes of the Left and Right channels. The volume of one channel relative to the other can be changed in increments of 0.5dB, up to 40.0dB – beyond this; the output of the reduced channel will be muted entirely.

The factory default balance is 00.0dB.

Ramp

The volume ramp menu allows you to select the rates at which the volume will ramp up or down when changing between inputs and when muting.

Selecting OFF results in no ramping of volume when changing between inputs and a direct change in volume to the muted level. Selecting FAST, MEDIUM or SLOW will result in a corresponding volume ramp rate. The factory default volume ramp is MEDIUM.



Mute Level

The mute level menu allows you to select the level of attenuation the mute level employs when it is engaged. Selecting MUTED will attenuate the output entirely, whilst -10.0dB, -20.0dB, -30.0dB and -40.0dB will attenuate the output by the respective level.

The factory default mute level is -40.0dB.

Bypass

The bypass menu allows you to select if the volume control is bypassed for any of the analogue inputs. When a bypassed input is selected, it becomes a unity gain (00.0dB) input and the volume control of the éloquence 250i is disabled.

This is useful in situations where the éloquence 250i is being used to pass through a signal from a component with its own volume control, for example a surround processor or receiver. Care should be taken to adjust the volume control of the other component before selecting a bypassed input, as the resulting volume level may be uncomfortably loud.

Note: INPUT 4 has the volume bypassed straight from the factory, and by default is set to be used as a home theatre loop (HT LOOP).

Headphone Configuration

The headphone amplifier in your éloquence 250i can be customised to ensure your headphones seamlessly integrate into your system.

Volume Trim

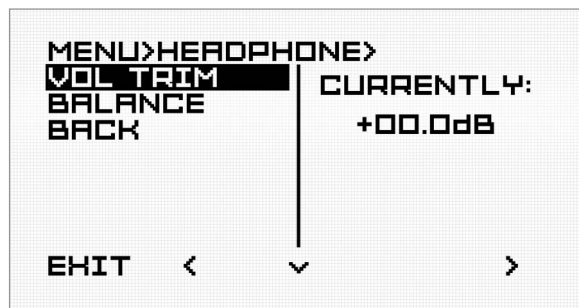
The volume trim screen allows the volume level of the headphone output to be adjusted up or down to compensate for the different outputs of different headphone types.

The factory default headphone volume trim is $\pm 00.0\text{dB}$.

Headphone Balance

The headphone balance screen gives you fine control over the relative volumes of the Left and Right channels. The volume of one channel relative to the other can be changed in increments of 0.5dB, up to 40.0dB – beyond this; the output of the reduced channel will be muted entirely.

The factory default headphone balance is 00.0dB.



The Menu System continued

Clock Configuration

Adjust

The adjust screen allows you to set the time.

Format

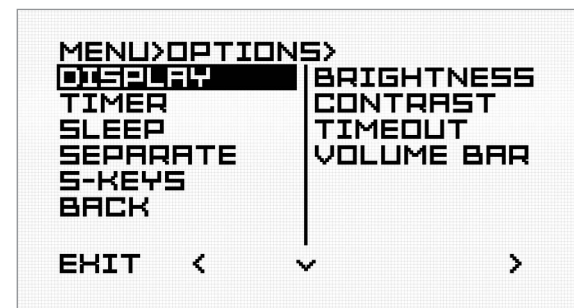
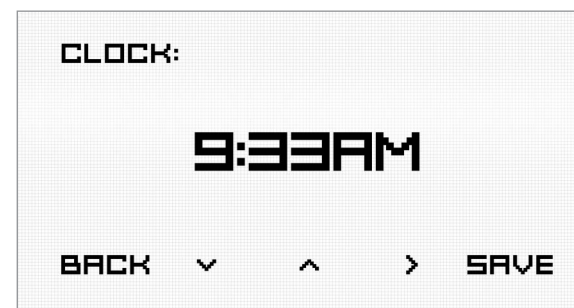
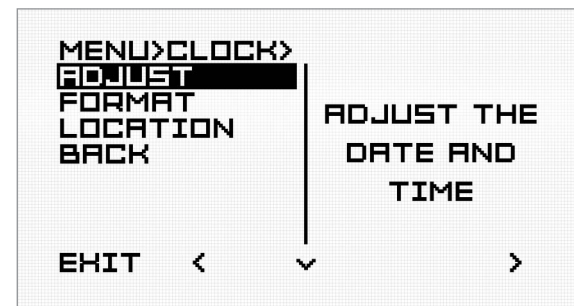
The format menu allows you to select between normal and 24-hour time format.

The factory default format is 12 H:MM

Location

The location menu allows you to select where the clock is displayed. HOME shows the clock on the home screen only, STANDBY shows the clock only while the amplifier is in standby, BOTH shows the clock on the home screen and in standby, while DISABLED hides the clock from being displayed altogether.

The factory default location setting is DISABLED.



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Options

Display

The display menu allows you to configure various attributes of the LCD screen and display layout.

Brightness

The brightness screen allows you to adjust the brightness of the display, or turn off the backlight altogether. The available settings range from 0, backlight off, to a maximum of 10.

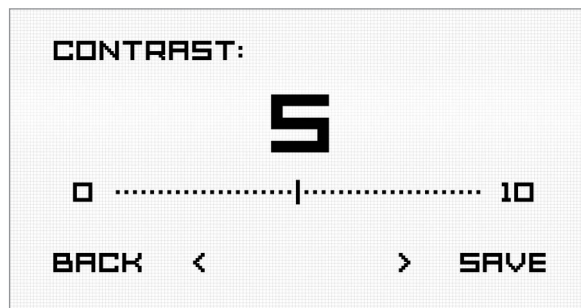
The factory default brightness setting is 5.

Contrast

The contrast screen allows you to adjust the contrast of the display. The available settings range from 0, minimum contrast, to a maximum of 10.

The factory default contrast setting is 5.





Timeout

The timeout menu allows you to select a time after which the display will turn off.

Note: If the display timeout is enabled, the display will turn on when user input is detected then automatically turn off after the timeout duration has elapsed.

The factory default timeout setting is DISABLED.

Volume Bar

The volume bar menu allows you to select if the volume bar is displayed on the home screen. The factory default volume bar setting is SHOW.

Timer

The timer menu allows you to configure your éloquence 250i to turn on and/or off at a particular time of the day.

It is particularly useful to ensure your amplifier is at optimal operating temperature upon your return home from work, or used as a deterrent to would be burglars while you are away on holiday where it can turn on for a period of each day.

The factory default timer setting for the timers is OFFDISABLED.

Sleep

The auto-off sleep menu allows you to select a period of time after which your éloquence 250i will go to sleep and enter standby.

The factory default auto-off setting is OFFDISABLED.

Separate

The separate menu allows you to break the connection between the preamplifier and power amplifier sections of your integrated amplifier, letting you use the preamplifier and power amplifier sections independently of each other. This is particularly useful for inserting components between the pre and power sections, for example room correction, graphic equaliser or active filter.

The factory default separate setting is DISABLED.



The Menu System continued

S-Keys

The s-keys menu allows you to configure which source inputs the remote control s-keys have instant, direct selection of. Enables direct selection of your six most frequently used source components.

The factory default s-key settings are as follows:

S-Key	Default Input
S1	BALANCED
S2	INPUT 1
S3	INPUT 2
S4	INPUT 3
S5	HT LOOP
S6	INPUT 5

System

Unit Info

The unit info screen displays information relating to your amplifier – software version, serial number, etc.

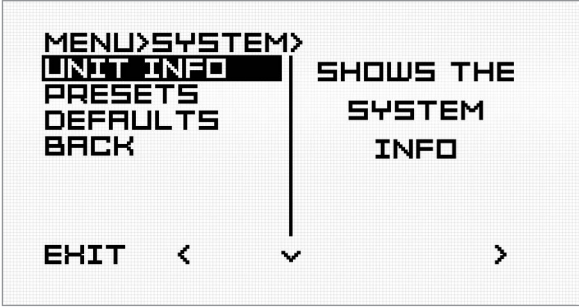
Preset

The preset menu allows you to save and restore user settings for your éloquence 250i integrated amplifier.

Defaults

The defaults menu allows you to reset the system configuration to the factory default settings.

Note: Resetting the factory default settings causes any customisation of the amplifiers configuration to be lost – including input labels, gain settings, volume trims, etc. Although, customised user settings may be recalled from the preset menu if they were saved.



Protection System

Your éloquence 250i integrated amplifier employs a proprietary protection system to ensure reliability and long life of the unit and the speakers it is connected to. The protection system comprises of five main protection methods.

DC Detection

The DC detection mechanism offers loudspeaker protection if the output of the amplifier goes to a high DC voltage because of excessive DC at a source input or some internal fault.

When DC detection occurs the output to the speakers are disconnected and the PROTECT! screen is displayed. The éloquence 250i will try to compensate for the amount of DC voltage present, if successful the PROTECT! screen will disappear and operation will resume as normal.

If the PROTECT! screen remains for a prolonged period of time, switch off the amplifier. Wait a few seconds before switching back on and checking the operation at a reduced volume level. If the DC fault occurs again please contact your retailer for service.

Over Temperature Detection

Over temperature is caused by high listening levels and/or low impedance speakers. The over temperature detection constantly monitors the heat generated by the output MOSFETs. If the monitored temperature reaches a high level (suitably within the limits of the output devices) the output to the speakers will be disconnected and the PROTECT! screen is displayed.

The amplifier will remain in this state until it has cooled down adequately – at which time the PROTECT! screen will disappear and the output to the speakers re-engaged.

The volume should ideally be reduced to allow the amplifier time to cool down adequately. If the unit has not fully cooled down then the temperature may reach the limit again soon after the amplifier has resumed operation.

If the loudspeaker impedance is low the temperature of the amplifier will rise faster as the amplifier is working harder. If the amplifier is mounted in a cabinet or the ventilation slots are obstructed the over temperature detection may activate/reactivate after a short listening time.

DC Fuse Fail Detection

AC Fail Detection

Over Current Detection

The over current detection system ensures the output devices are constantly operating within their safe operating limits and provides a fast response to temporary overload conditions.

When over current detection occurs the output to the speakers are disconnected and the PROTECT! screen is displayed. The amplifier will need to be switched off and the source of the fault resolved before the amplifier can be switched on again.

Over current detection can occur due to a short across the speaker terminals, a speaker driver/crossover fault or excessive current demand exceeding the amplifiers current rating.



Technical Specifications

The correlation between published specifications and sonic quality can be unreliable. A list of numbers reveals virtually nothing. All technical measurements must be subject to qualitative as well as quantitative interpretation. Measurements of the éloquence 250i reveal excellent results by any standards.

All specifications are accurate at the time of printing. Perreaux Industries Ltd. reserves the right to adjust specifications without notice. All specifications measured at 230V after a 10 minute warm up period.

Rated Power Output:	250Wrms per channel into 8Ω 500Wrms per channel into 4Ω
Maximum Power Output:	360Wrms per channel into 8Ω 530Wrms per channel into 4Ω

Output Voltage:

Amplifier	52 Vrms
Pre Outs	7.8 Vrms
Tape Outs	7.8 Vrms

Frequency Response:

Amplifier	+0dB, -0.1dB from 20Hz to 20kHz +0dB, -0.6dB from 10Hz to 60kHz
Preamplifier	+0dB, -0.05dB from 20Hz to 20kHz +0dB, -0.15dB from 10Hz to 60kHz

Distortion (THD + noise):

Amplifier	0.002%, 1kHz at 1W into 8Ω <0.01%, 20Hz to 20kHz at 1W into 8Ω 0.002%, 1kHz at 250W into 8Ω <0.01%, 20Hz to 20kHz at 250W into 8Ω
Preamplifier	0.001%, 1kHz (RCA) <0.002%, 20Hz to 20kHz (RCA) 0.001%, 1kHz (XLR) <0.002%, 20Hz to 20kHz (XLR)

Signal to Noise Ratio (unweighted):

Amplifier	better than 98dB, ref. rated output into 8Ω
Unbalanced Inputs	120dB, ref. 1Vrms at 0dB (RCA)
Balanced Inputs	120dB, ref. 1Vrms at 0dB (XLR)
Damping Factor:	800 at 1kHz
Slew Rate:	+55V/μS, -55V/μS

Maximum Current:

Continuous (electronically limited)	23Arms
Short duration	45Arms

Input Sensitivity:	1.65Vrms for rated output
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Input Impedance:

Unbalanced Inputs	10kΩ (RCA)
Balanced Inputs	20kΩ (XLR)
Main Inputs	33kΩ (RCA)

Input Overload:

Unbalanced Input	7.8Vrms (RCA)
Balanced Inputs	7.8Vrms (XLR)



Gain:

Amplifier	28.8dB
Preamplifier	-96.0dB to +31.5dB
Gain Resolution:	0.5dB

Channel Separation:

Amplifier	better than 105dB, 20Hz to 20kHz
Preamplifier	better than 95dB, 20Hz to 20kHz (RCA) better than 95dB, 20Hz to 20kHz (XLR)

Channel Balance:

Amplifier	better than ± 0.2 dB
Preamplifier	better than ± 0.2 dB

Phase Accuracy:

Amplifier	$\pm 0.5^\circ$, 20Hz to 20kHz
Preamplifier	$\pm 0.5^\circ$, 20Hz to 20kHz

Output Impedance:

Amplifier	0.01 Ω
Pre Outs	47 Ω
Tape Outs	47 Ω

Audio Inputs:

Unbalanced	5 pairs RCA line in 1 pair RCA main in
Balanced	1 pair XLR line in

Audio Outputs:

Unbalanced	1 pair RCA preamp level 1 pair RCA line level
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Other Connections:

Mains Receptacle	IEC C14 socket
Earth Ground Terminal	mini binding post
IR Input	3.5mm ($\frac{1}{8}$ ") stereo jack
IR Output	3.5mm ($\frac{1}{8}$ ") stereo jack
Trigger Output	3.5mm ($\frac{1}{8}$ ") stereo jack
RS-232	RJ45

Optional Modules:

MM/MC Phono Module	please refer separate manual
Digital to Analogue Conversion (DAC) Module	please refer separate manual

Power Consumption:	10W at standby 50W at idle 1900W maximum at 500W into 4 Ω
Mains Voltage:	100VAC - 120VAC 220VAC - 240VAC (set within the unit at time of manufacture)

Mains Fuse Rating:	100VAC - 120VAC, 2 x 15A/250V, 5mm x 20mm (slow blow) 220VAC - 240VAC, 2 x 10A/250V, 5mm x 20mm (slow blow)
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Overall Dimensions (WxHxD):	425mm x 143mm x 363mm (16.7" x 3.9" x 14.3")
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Weight:	19.5kg (43lb)
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Ensure the AC power cord is connected securely.
Ensure the mains plug is fully inserted into the wall socket and is switched on.
Check the mains fuse of the amplifier.
Check fuse in the mains plug or adaptor.

Check that the source component is properly connected.
Check that the source component is playing.
Check that the speakers are properly connected.
Make sure the amplifier is not muted.

Ensure the balance control is in the correct position.
Check speaker connections.
Check interconnects.

Ensure no interconnects are loose or defective.
Ensure that your tape deck/turntable is not too close to the amplifier.
Unable to make or play tape recordings
Check TAPE OUT has been connected correctly.

Ensure the speakers are not wired out of phase.

See section on éloquence protection system.

Check that the battery has not expired.
Ensure that nothing is blocking the remote sensor.



Please record the serial number of your éloquence 250i integrated amplifier for future reference.

Serial Number:

Care and Maintenance

The 250i has been designed to provide many years of trouble free enjoyment. It is important to keep the exterior of the unit clean.

Notes: Always switch the unit off and remove the power cord from the rear of the amplifier before attempting to clean your éloquence 250i integrated amplifier in the manner described below.

Never apply liquid directly to the amplifier.

Never use abrasives.

Never rub in a circular motion.

Front Panel and Cover

The front panel and cover feature a durable, high-quality anodised finish.

To remove finger marks and dirt, simply rub the surface with a soft cloth.

If the dirt is not removed, use a small quantity of isopropyl alcohol on a rag and rework the effected area.

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