Primare A32 Amplifier User Guide

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FCC Warning: This equipment generates and can radiate radio frequency energy and if not installed and used correctly in accordance with our instructions may cause interference to radio communications or radio and television reception. It has been type-tested and complies with the limits set out in Subpart J, Part 15 of FCC rules for a Class B computing device. These limits are intended to provide reasonable protection against such interference in home installations.

EEC: This product has been designed and type-tested to comply with the limits set out in IEC 60065 7.

POWER CONNECTION

⚠ **Warning**: Before connecting power check that the required supply voltage, indicated on the back panel, corresponds to your local AC supply. If a different voltage is stated on the type plate do not connect the A32 Amplifier to the mains power, and seek advice from your dealer.

Safety instructions: To prevent fire or shock hazard, do not expose this appliance to dripping or splashing. No objects filled with liquids, such as vases, should be placed on the unit.

Do not place the unit near a heat source such as a radiator or fireplace.

If you want to build in the unit you need to be sure to allow space of at least 20cm behind, 10cm on both sides and 30cm above the top panel of the unit. This is to prevent fire or damage caused by overheating. Also make sure that the main switch is accessible.

Warning: Dangerous voltages inside. Do not open the cabinet. There are no user serviceable parts inside. Repairs should be carried out by qualified service personnel only.

Warning: In use the heatsinks will become too hot to touch (up to 70°C).

Replacing the fuses

Due to the large capacitance of the power supply smoothing capacitors, turn off the mains power and wait at least 15 minutes before replacing a blown fuse. Be sure to replace the fuse with one of the exactly same type and value.

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▶ Introduction

> **Welcome to the Primare A32 Amplifier! This chapter introduces you to its key features, and explains how you can take advantage of its impressive power handling and superb sound in your system.**

WELCOME TO THE A32 AMPLIFIER

The A32 is a high-power fully-balanced power amplifier which combines no-compromise analogue design, for supremely low noise and distortion, with sophisticated digital control and monitoring, for dependable operation even at continuous high power levels.

Fully balanced design

The A32 uses a fully balanced design. This means that the input signal is supplied on two signal lines which carry the same signal with opposite phase. These lines are combined at the power amplifier so that any interference or noise is cancelled out, leaving only the pure original signal.

Generous power handling

The A32 is capable of delivering 250 Watts into 8Ω. It uses 16 Toshiba output devices for each channel, working in a high-bias class AB configuration, to ensure high reliability and performance.

The amplifier is powered by a massive 2000VA toroidal transformer with separate windings for each channel, for minimal crosstalk, and generous smoothing capacitors ensure that there is more than enough power for even the deepest transient.

Comprehensive protection

The A32 is fully protected against overheating, shorted speaker terminals, and DC leakage.

If the temperature of the A32 exceeds 70°C, the amplifier automatically enters a standby mode, with the Standby indicator on the front panel flashing rapidly to indicate overheating, until the temperature falls back to a safe level to protect the components from potential damage.

In addition, the outputs are automatically protected against DC offset, and fuses protect the A32 from damage due to accidental shorting of the speaker cables.

Any abnormal condition or faulty input signal will automatically flash the Standby indicator and disengage the speakers.

Remote power on/off

For convenience the A32 can be powered on and off via a remote trigger input, or RS232 cable, avoiding the need to switch it on or off separately from the preamplifier in the system.

Burn-in

Due to the circuit used in the A32, it requires a significant burn-in period
before it will perform at its maximum.

USING THE A32 WITH OTHER PRIMARE PRODUCTS

Although the A32 is flexible enough to act as the output stage in virtually any
system, it is ideal for use with other products in the Primare range, such as the
Primare PRE30 Preamplifier and CD31 Compact Disc Player, and one or more
A32 amplifiers can be powered on or off remotely from a PRE30 using the
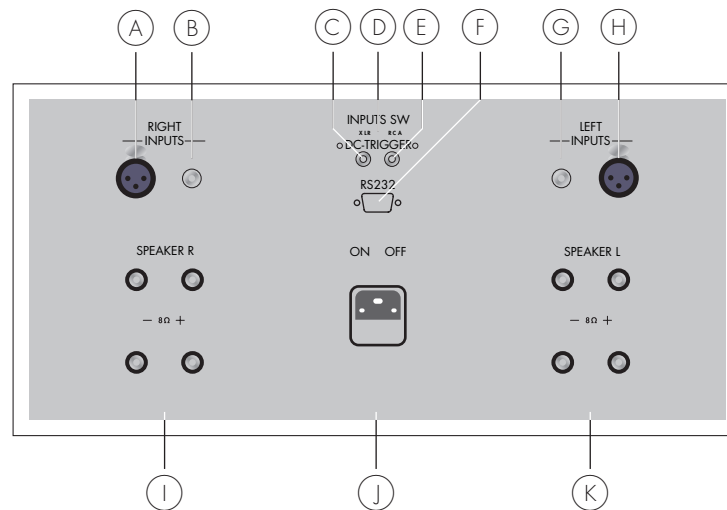remote trigger output.

TECHNICAL SPECIFICATION

Output power per channel	250W into 8Ω, 400W into 4Ω
Unbalanced inputs	2 x RCA connectors
Balanced inputs	2 x XLR connectors
Input impedance	15kΩ
Gain	26dB unbalanced, 20dB balanced
Frequency response	20Hz to 100kHz, -0.5dB
THD+N	<0.05% 20Hz to 20kHz at rated power
Noise	<-100dBV
Trigger input	4 to 15V
Dimensions (WxDxH)	43 x 54 x 23mm
Weight	40kg

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▶ Connecting the A32 Amplifier

This chapter explains how to connect the A32 to the other components in your system, using the connections on the back panel.

BACK PANEL CONNECTIONS

A Right balanced input (XLR).

B Right unbalanced input (RCA).

C Remote trigger input.

D XLR/RCA selector.

E Remote trigger output.

F RS232 control connection.

G Left unbalanced input (RCA).

H Left balanced input (XLR).

I Right loudspeaker outputs (dual).

J Mains power input and fuse.

K Left loudspeaker outputs (dual).

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POWER CONNECTION

Connect the mains power using the enclosed mains cable.

Note: Always disconnect the amplifier and the rest of your equipment from the mains power before connecting or disconnecting any of the cables.

OUTPUTS

Loudspeaker outputs
Connect the left and right loudspeakers to the corresponding terminals. The terminals can accept speaker cables terminated with 4mm banana plugs, spade terminals, 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.

INPUTS

Connect the A32 to the preamplifier or processor using either the left and right XLR inputs (recommended), or the left and right RCA inputs, and switch the selector switch to the appropriate position. If you are using the XLR inputs use high-quality balanced XLR cables. If you are using the RCA inputs use high quality stereo RCA leads.

STANDBY MODES

The A32 provides a choice of two alternative standby modes.

After first applying power press the Standby button in the Primare logo on the front panel to turn on the A32. After a 20 second start-up delay to allow the amplifier to settle down the relays are turned on to connect the loudspeakers to the amplifier outputs.

During the start-up sequence the A32 performs a self check, and if a problem is detected the Standby indicator will flash rapidly.

To switch the amplifier to standby press the Standby button while the amplifier is operating. This disconnects the speakers and reduces the idle current, but leaves the circuitry operating so that the amplifier delivers optimum performance from the moment it is next switched on.

To switch the amplifier off hold down the Standby button for more than one second. This turns off all the amplifier circuitry for minimum power consumption leaving only a small standby circuit running.

If you are not going to use the amplifier for a long period we recommend turning it off, using the power switch on the back panel, to save power.

Trigger input
To power the A32 on and off remotely connect an input of at least 4V to the left-hand TRIGGER socket on the A32, using a twin-core cable terminated in 3.5mm jack plugs. The right-hand TRIGGER socket can be used to daisy-chain the remote output to further A30 series amplifiers.

Operating the trigger input switches the A32 on from standby, or puts it into standby. When the trigger is connected the Standby button will only turn the amplifier off.

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RS232 PORT

The RS232 port allows the A32 firmware to be upgraded, and can be used to
control the A32 using Crestron compatible RS232 codes. For more information
contact Primare.

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