

# P R I M A R E

## **Primare PRE 30 Two-Channel Pre-Amplifier**

The PRE30 is a high-quality two-channel preamplifier with a tape output, and a special surround bypass feature.

### **Balanced design from input to outputs**

The PRE30 provides balanced outputs and two balanced inputs, giving an entirely balanced signal chain when used in conjunction with a balanced power amplifier, such as the Primare A33.2, and a source that provides balanced outputs, such as the Primare CD31 CD Player.

Balanced signal transmission means that two signal lines are used, which carry the same signal with opposite phase. On the receiver side the signals are mixed, and since any interference that has arisen during the transmission will be present in both lines with identical phase, such noise and distortion products are cancelled out leaving only the pure original signal. Balanced connection therefore keeps the signal as free as possible from interference.

### **Audiophile circuit design**

The first stage is the input selector, which consists of Zettler small signal relays together with high quality DG409 C-Mos switches from Intersil. Next is the buffer stage before the volume circuit, which uses the OPA2134 from Burr-Brown. The volume control is based around DS1666 from Dallas Semiconductors whose topology is that of a rotary switch connected to passive resistors, which shunt the incoming signal to ground. This configuration produces very low distortion and an excellent frequency response regardless of the volume setting. The next stage is the totally discrete single-ended amplifier stage, which uses MosFet transistors together with active current sources instead of passive resistors. The final stage is completed directly in the XLR outputs and the balanced to unbalanced conversion stage for the RCA outputs, consisting of the NE5532 from Philips Semiconductors.

The signal is always treated balanced in the PRE30, an unbalanced source is quickly converted to a balanced one.

### **Clean power supply for the best possible performance**

Each part of an electronic design has specific power requirements. Primare's forensic approach to ensuring that clean power is supplied throughout the design is a key part of its design philosophy and has significant sonic benefits.

The PRE30 incorporates a massive torodial transformer with separate windings for all the preamplifier's different power requirements (audio, digital, etc). Each one is individually regulated in seven steps. A massive 23000uF electrolytic bank (divided into smaller capacitors for extremely low impedance) ensures that enough power is available for even the deepest sonic transient that can be recorded.

### **Careful design for operational stability**

As with all Primare units, the PRE30 is housed in an alloy heavy gauge steel chassis, which provides strength, rigidity, and screening, while being effective at damping vibrations from external sources.

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## **Display and audio circuits are isolated**

The front panel design isolates the display circuitry from the audio circuitry to avoid interference

## **Shortest signal paths**

The PRE30 uses shortest possible signal paths and there are no capacitors in the path; something that is common in competitor products. The amplifier is flat from DC to 100kHz and does not incorporate a servo circuit, which can adversely affect low frequency performance. Instead the DC-offset parameters are individually adjusted by Primare's engineers on the assembly line.

## **Flexible inputs and outputs**

The PRE30 provides seven inputs for sound sources such as a CD player, radio tuner, and tape recorder: two sets of balanced inputs (XLR) and five unbalanced inputs (RCA). You can adjust the sensitivity of each input to allow for differences in the output level produced by each source.

The PRE30 outputs include one balanced (XLR) and two unbalanced outputs (RCA) as well as an independently selectable record output.

In addition there are two data ports for future expansion and a 5V trigger for the remote operation of a power amplifier.

## **Surround bypass**

A special surround bypass switch is provided if your system incorporates surround processor that includes its own volume control and you want to use the PRE30 in bypass mode.

## **Intuitive user interface**

In keeping with the philosophy of the Primare range of systems, the PRE30 can be controlled through a very simple and intuitive set of front panel controls.

Alternatively all the functions can be controlled by the C22 Remote Control supplied with the PRE30, along with the other Primare components in your system.

Although the PRE30 is flexible enough to work with virtually any other equipment you have in your system, it is ideal for use with the other products in the Primare range, such as the Primare CD31 CD Player and Primare A33.2 Amplifier. A particular benefit of using the PRE30 with other Primare sources is that you can control your entire system with a single remote control, to give you a fully integrated system with the simplest possible user interface.

## **Specifications**

**Balanced inputs 560mV**

**Line inputs 280mV**

**Sensitivity adjustment -20dB to +20dB**

**Tape outputs 280mV**

**Gain 16dB**

**Frequency response DC to 100kHz  $\pm$  0.1dB**

**THD <0.01%**

**Signal-to-noise ratio -118dB**

**Crosstalk -113dB**

**Mains 100/115/230V**

**Dimensions (WxDxH) 430 x 410 x 100mm**

**Weight 9.5kg**

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