



EQ 1510 System Controller – Technical Specifications (rev3 19/11/02)

General Detail.

The EQ 1510 is a two input, three output, system controller that enables the successful combination of a variety of Logic System speaker products. Its main features include:

- Left and right balanced line inputs
- Input limiters (internally selectable range)
- Left and right high pass balanced outputs (**70Hz 2nd order Butterworth**)
- Mono sum bass low pass balanced output (**132Hz 2nd order Linkwitz Riley**)
- High pass filter on mono summed output selectable between:
 - 1) **6th order EQ @ 40Hz**
 - 2) **22Hz high pass filter**
- Tamper proof internal selection for features.

Technical Specification

- THD: • Less than 0.01% 20Hz – 20KHz 0dBV
- En (output): • 22Hz – 22KHz Less than -90dBV
- Mains Voltage: • 230V 50/60Hz
- XLRs wired: • Pin 1 = Earth Pin 2 = Hot Pin 3 = Cold
- Dimensions (1 unit): • 483mm (W) x 44.5mm (H) x 220mm (D)
- Packaged dimensions: • 495mm (W) x 62mm (H) x 305mm (D)
- Weight: • 2.5kg (3kg when packed)

Feature Selection

To select or make adjustments to the controller settings, you will need to remove the controller's lid (6 off pozi screws). You then have the following three options available to you.

- Limiter threshold (selectable between **-6dBv** to **+9dBv**)
- High pass out put drive level (selectable between **0dB** and **-6dB**)
- Selection of high pass filter type on Mono summed output

For the following products, select **EQ ON**; [IS23](#), [IS26/8](#), [IS26/4](#), [IS30](#), [IS36](#), [CS1290B](#), [CS1290SB](#), [CS1000SB](#), [LS150](#), [LS180](#) and [LS300](#).

For the following products, select **EQ OFF**; None Logic Audio System products.

All settings are detailed on labels inside the controller's lid. Standard factory settings are:

- Limiters: **0dBu**
- High pass output attenuation: **0dB**
- Low pass output EQ: **On**

High Pass Output

When flown, full range cabinets are combined with ground stacked bass cabinets, as it is necessary for them to share a common tuning frequency to maintain a correct phase relationship. As the **IS**, **LS** and **CM** full range products have a variety of tuning frequencies, this clearly is not possible. As a consequence, a supplementary high pass filter (70Hz 2nd order Butterworth) is applied to the high pass outputs. This minimises phase irregularities to ensure a coherent low frequency performance.

Limiter settings

When calibrating the limiter setting to your amplifier input gain, the following information may be useful:

- **-2dBv = 0.8 VOLT, 0dBv = 1 VOLT, +3dBv = 1.4 VOLT.**

The equation to calculate other settings is:

$$\text{LEVEL (dBv)} = 20 \times (\text{LOG (V)}) \quad \text{OR} \quad \text{LEVEL (V)} = 10^{(\text{LEVEL (dBv)} / 20)}$$

Miscellaneous

- This product is supplied with a UK specification mains lead. This is packaged in the cardboard tube at the front of the controller.
- For correct operation of the mono summed bass output it is imperative that the controller receives a stereo input. If a mono feed is being used, please feed both left and right inputs with the same signal source. Alternatively, reduce the high pass output drive level by **-6dB** and increase the limiter setting by **6dB**.