

**T**HE SYMETRIX 506E HEADPHONE AMPLIFIER provides a complete monitoring solution. We've designed a flexible front end and added our proprietary high-voltage drive technology to create a uniquely powerful, reliable, and comprehensive control center for headphone monitoring. This stereo program input plus mono cue input x 6 output amplifier can drive high impedance headphones with the equivalent output voltage of a much larger power amplifier, while providing ample current for low impedance phones. Extensive additional features make the 506E the perfect headphone amplifier for any on-air studio, production room, home studio or state-of-the-art recording facility.

The 506E offers comprehensive controls for maximum versatility. The Stereo/Mono switch allows the amplifier to be used several ways. As a normal stereo amplifier, the left and right inputs are used for stereo signals, which feed the left and right outputs. Switching to mono with a stereo input provides a quick check of the mono compatibility of a stereo mix. For that matter, you may want to monitor in mono.

In mono mode, one signal fed to either input will feed both outputs. Using this mode you could also feed two different mono signals to the left and right inputs, where they will be mixed to feed both the left and right outputs. The inputs are electronically balanced, but will operate normally in an unbalanced configuration when 2-conductor 1/4" plugs are inserted. The front panel outputs are 1/4" stereo connectors with individual volume control knobs.

Live remote setups, on-air studios and state-of-the-art recording facilities alike will benefit from the 506E's unique L-C-R assignable Mono Cue Input. This connection is perfect for feeding a mix minus or IFB from a producer into the main mix during a live broadcast, or it can feed a click track during a recording session. A three-way toggle switch allows for the Cue Input to be assigned to either left, right or both channels. A front panel volume control adjusts the input level into the main mix.

For added versatility the 506E has discrete, direct inputs to each output channel located on its rear panel. With a 1/4" TRS connector inserted into an individual rear panel direct input, that channel's outputs are isolated from the main mix. When no connector is inserted, the main mix is fed to the front panel stereo headphone jack and to the rear panel stereo 1/4" TRS jack, which is designed to provide output to our optional HR-1 Headphone Remote box.

The 506E also features an internal power supply, eliminating the "lump-in-the-line" or "wallwart" power supplies typical of competing units. So when you discover that your intern accidentally left the power cord at the last remote site, there's no need to order overnight delivery of a new one. Just reach into your overabundant supply of standard IEC-type connectors... and you've got juice.

With its unmatched feature set and affordable price, the Symetrix 506E Headphone Amplifier will prove to be an invaluable monitoring tool no matter what your application. •

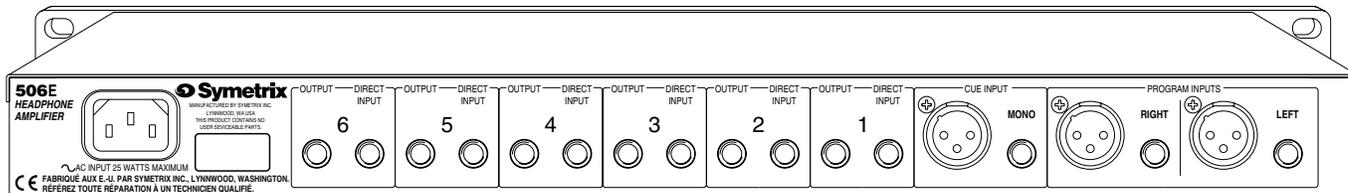
## APPLICATIONS

- On-Air Broadcast
- 
- Live Remote
- 
- Recording Studio
- 
- Production Room
- 
- House of Worship
- 
- Home Studio
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## FEATURES

- Internal Power Supply (no "wallwart" or "lump-in-the-line")
- 
- Unique Mono Cue Input
- 
- Proprietary High Voltage Drive Technology
- 
- Mono/Stereo Switch
- 
- Direct Input/Output/Level Control For Each Individual Amplifier
- 
- Optional Headphone Remote Box
- 

# 506E



## SPECIFICATIONS

Specifications subject to change without notice.

|                         |   |                    |   |
|-------------------------|---|--------------------|---|
| <b>Input/Output</b>     |   | <b>Connections</b> |   |
| Maximum Input Level     | +21 dBu   | Input              | Program Inputs and Cue Input: Balanced XLR and Balanced TRS   |
| Maximum Output Level    | 2000 ohm Load: 12 volts RMS<br>600 ohm Load: +21 dBm<br>60 ohm Load: 3.3 volts RMS      | Output Power In    | Direct Channel Inputs: Unbalanced TRS<br>Unbalanced TRS<br>Standard IEC Power Inlet                             |
| Input Impedance         | Program and Cue Inputs: 20K ohms Balanced<br>Direct Channel Inputs: 20K ohms Unbalanced | <b>Physical</b>    |   |
| Output Impedance        | 100 ohms  | Size (hwd)         | 1.72 x 19 x 7.25 inches, 4.4 x 48.3 x 18.4 centimeters  |
| <b>Indicators</b>       |   | Weight             | 7.6 lbs (3.5 kg) net  |
| Clip LED                | Lights at 2 dB below onset of clipping  | <b>Electrical</b>  |   |
| Signal LED              | Lights at -30 dBu output level  | Power requirements | 115 VAC nominal, 105 to 125 VAC, 60Hz, 25 watts max<br>230 VAC nominal, 220 to 240 VAC, 50 – 60Hz, 25 watts max |
| <b>Performance Data</b> |   |                    |   |
| Frequency Response      | 20 Hz to 20 kHz, +0, -0.5 dB  |                    |   |
| THD+Noise               | <0.05%  |                    |   |
| Residual Output Noise   | <-90 dBu  |                    |   |
| Maximum Gain            | Program and Cue Inputs: 20 dB<br>Direct Channel Inputs: 10 dB                           |                    |   |
| Separation              | 70 dB @ 1000 Hz typical   |                    |   |

## 506E ARCHITECTS AND ENGINEERS SPECIFICATIONS

The headphone amplifier shall have stereo left and right program inputs with a mono/stereo switch and a mono cue input that is assignable to left, right and center. The headphone amplifier shall have six stereo outputs. Each output shall have its own volume control, amplifier and signal LED. Each output channel shall also have a direct input, which interrupts the signal from the program and cue inputs to that output channel.

The headphone amplifier shall have a program input gain control with a mono/stereo switch. A cue input gain control with LCR toggle switch shall also be provided. All inputs shall be balanced bridging inputs. Outputs shall be suitable for driving headphones in the range of 8 ohms to 2000 ohms. The output source impedance shall be 100 ohms. The headphone amplifier shall be equipped with a program input clip LED, a cue input clip LED and a power LED.

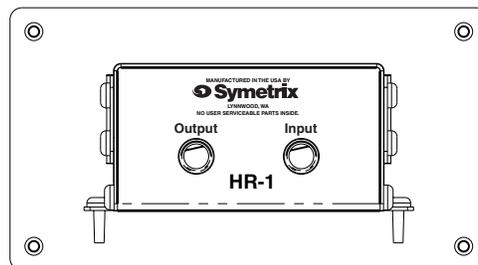
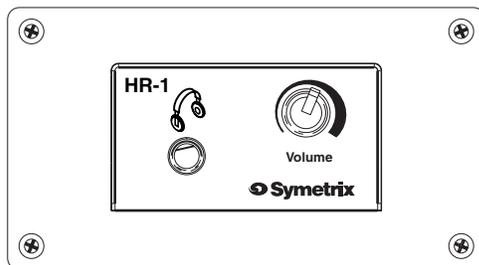
The headphone amplifier shall be capable of delivering 35 volts peak-to-peak into a 2000-ohm load.

The headphone amplifier shall be capable of operating by means of its own built-in power supply connected to 115 VAC nominal (105 to 125V), 60 Hz or 230 VAC nominal (220 to 240V), 50 – 60 Hz.

The headphone amplifier shall be a Symetrix Incorporated model 506E Headphone Amplifier.

## HR-1 HEADPHONE REMOTE

The Symetrix HR-1 Headphone Remote box features a 1/4" stereo headphone jack with individual volume control, a 1/4" TRS stereo input jack and a 1/4" stereo output jack to allow for daisy-chaining of multiple HR-1s. By removing the adjustable faceplate the HR-1 can be used as a desktop box, or it can be mounted on a microphone stand using the microphone mounting bracket (included). Flanges on the bottom of the HR-1 allow it to be mounted flush to any flat surface. With the adjustable faceplate the HR-1 can be mounted into studio console furniture in a recessed, flush, or extruded position.



# 506E