

# THE MATCHBOX II™

**HENRY ENGINEERING**  
503 Key Vista Drive  
Sierra Madre, CA 91024  
Tel: 626.355.3656  
Fax: 626.355.0077  
www.henryeng.com

## DESCRIPTION

THE MATCHBOX II is an active interface amplifier that properly interfaces consumer "HiFi" or Semi-Professional (IHF standard) audio equipment with professional studio gear. THE MATCHBOX II is a bi-directional unit, with four independent amplifiers providing stereo input and output audio interface. Two amplifiers convert a stereo IHF HI-Z unbalanced source to LO-Z balanced outputs at studio level. A second pair of amplifiers convert a stereo balanced studio line source to unbalanced IHF compatible outputs. All four output levels are adjustable. The special "HI GAIN" mode increases the system gain to accommodate exceptionally low unbalanced levels. All circuitry is active and direct-coupled for absolute sonic transparency, making THE MATCHBOX II ideal for use with digital sources such as DAT recorders and computer-based digital audio editing systems.

## INSTALLATION

1. Connect the IHF INPUTS of the Matchbox II to the outputs of an unbalanced device, e.g., the "line outputs" of a DAT recorder.
2. Connect the IHF OUTPUTS of the Matchbox II to the inputs of an unbalanced device, e.g., the "line inputs" of a DAT recorder.
3. Connect the STUDIO INPUTS of the Matchbox II to the outputs of a balanced signal source, e.g., the line-level outputs of a professional audio console. NOTE: If the source feeding the Matchbox II is unbalanced, install a jumper between pins 1 & 3 on the male XLR plug.
4. Connect the STUDIO OUTPUTS of the Matchbox II to the inputs of balanced studio equipment, e.g., the line-level inputs of a professional audio console. NOTE: If the Matchbox II is used to feed an unbalanced load, connect to pins 1 (Gnd) and 2 (HI) only! DO NOT short pin 3 to ground.

All XLR connectors should be wired as follows: Pin 1=Gnd Pin 2=HI Pin 3=LO  
Pin 1 (audio ground) is isolated from the AC ground, which is connected to the Matchbox II chassis.

The Matchbox II is shipped with all level controls set so that unbalanced input/output levels of -10dBv will produce balanced input/output levels of +4dBm. If other output levels are required, the Matchbox II gains may be readjusted via the OUTPUT ADJ holes in the front panel. Use a small screwdriver to carefully adjust the trimpots.

**HI GAIN MODE:** Some unbalanced equipment, such as computer-based digital audio editing systems, use unbalanced audio levels that are lower than IHF standard. In this case, the HI GAIN mode should be used. Refer to the Component Layout on the reverse side. Remove the Matchbox II from its case, and move J1 and J2 to their HI GAIN positions. This will increase the IHF-to-Studio gain by 10dB. It may also be necessary to reduce the IHF OUTPUT levels (on front panel) to prevent overdriving the audio inputs of the device being used.

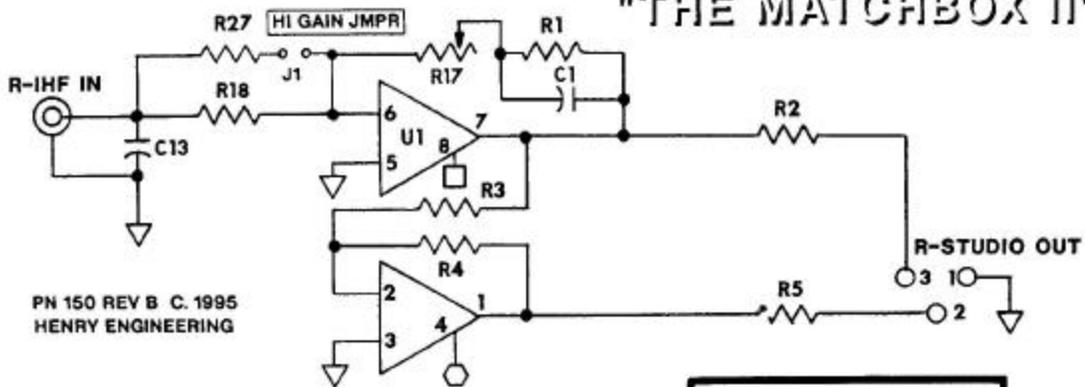
## SPECIFICATIONS

	IHF Input to STUDIO Output	STUDIO Input to IHF Output
INPUT LEVEL	-10dBv nom (HI GAIN: -20dBv)	0dBm to +8dBm nominal
INPUT IMPED	25K ohms (HI GAIN: 9K ohms)	50K ohms
GAIN	+6 to +20dB (HI GAIN: add 10dB)	-8dB to infinity (off)
OUTPUT LEVEL	0 to +8dBm nom, +26dBm max	-10dBv nom, +16dBv max
OUTPUT LOAD	600 ohms or higher, balanced	2K ohms or higher, unbalanced
FREQ RESPONSE	DC to 30kHz, +/- 0.25dB	DC to 30kHz, +/- 0.25dB
NOISE LEVEL	85dB below nom output level	80dB below nom output level
DISTORTION	.008% at any frequency	.008% at any frequency
POWER INPUT	115/230 VAC, 50/60Hz, 3 W	
PHYSICAL DIMEN	6.25"w X 3.50"h X 2.25"d	2lbs Rev. 1/98

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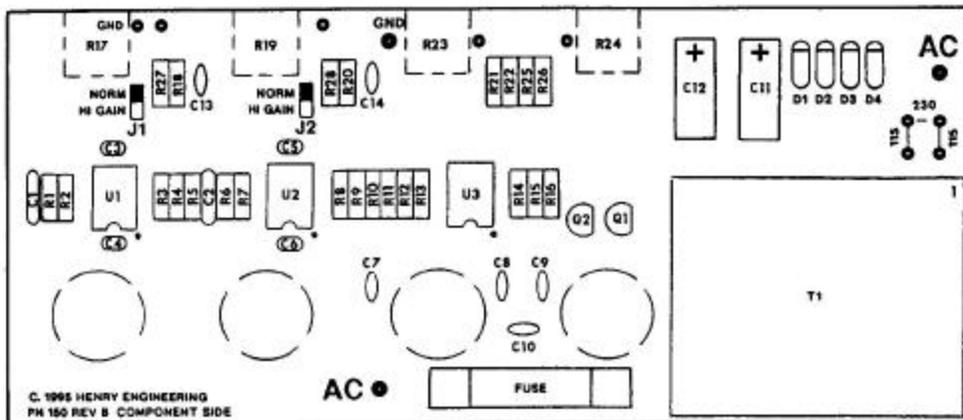
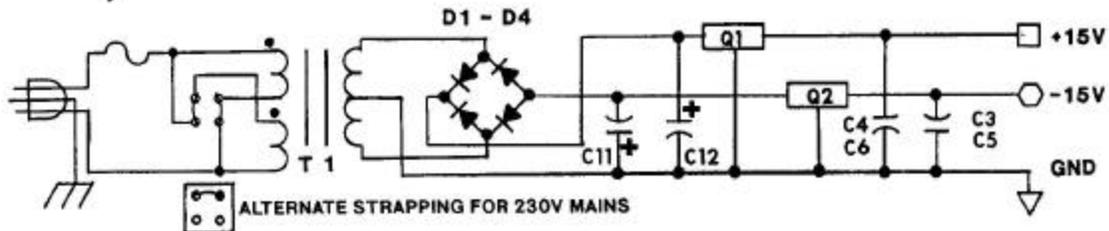
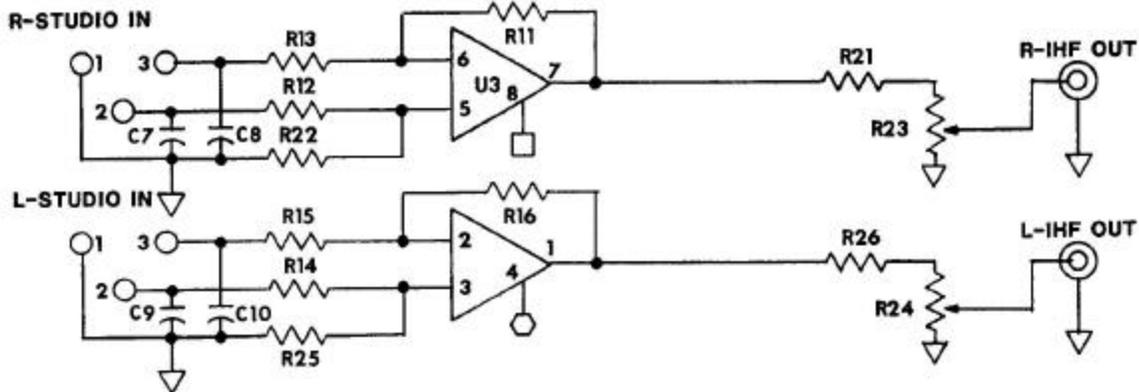
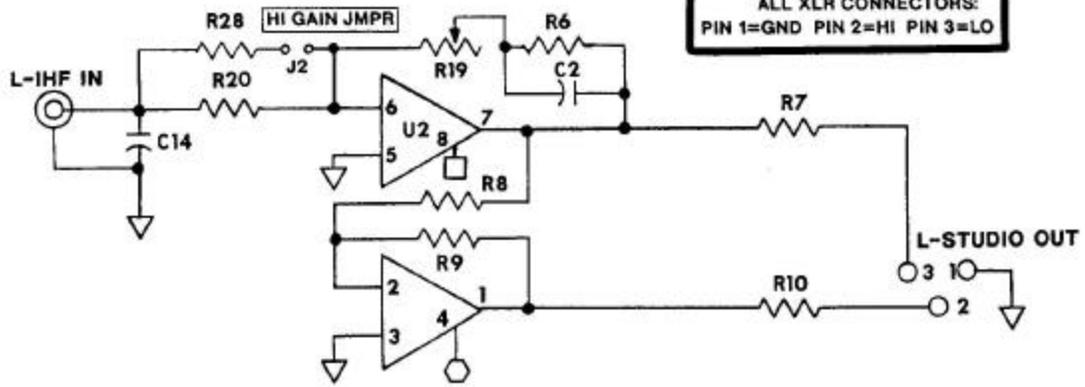
Specifications subject to change without notice.

# "THE MATCHBOX II"



PN 150 REV B C. 1995  
HENRY ENGINEERING

ALL XLR CONNECTORS:  
PIN 1=GND PIN 2=HI PIN 3=LO



## COMPONENTS LIST

R11, 16, 22, 25, 27, 28	14.7k
R21, 26	1.00k
R23, 24	2.5k
R17, 19	100k
R2, 5, 7, 10	47ohm
All other R	24.9k
C1, 2	30pf
C3 - 6	.1uf
C7-10, 13, 14	.001uf
C11, 12	100uf
D1-D4	1N4004
U1, U2	NE5532
U3	LF353N
Q1	LM7815
Q2	LM7915
T1	SPW-061
FUSE	.10A

C. 1995 HENRY ENGINEERING  
PN 150 REV B COMPONENT SIDE

Rev. 10/95