

U.S.D.A. 2X4™

UTILITY SUMMING & DISTRIBUTION AMPLIFIER

HENRY ENGINEERING

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DESCRIPTION

USDA 2X4 is a 2-in/4-out audio distribution amplifier that has the unique ability to combine as well as "split" audio signals for distribution. The unit has two inputs (one stereo pair) and four outputs (two stereo pairs). USDA 2X4 can be used as a 1X4 or 2X4 DA and can combine a stereo input to a mono output(s) without degrading the separation of the stereo source signal. All inputs are 20K bridging balanced; each output can drive a 600 ohm load to +26 dBm. An output level adjustment is provided for each output channel. Overall gain is adjustable from -12 to +14 dB. Nominal input levels between -10 and +8 dBm are recommended. All USDA 2X4 circuitry is active and direct-coupled.

INSTALLATION

All audio connections are via the plug-in euroblocks. Remove about 1/8" of insulation, insert wires into the plug, and tighten the screws. Be sure that no bare wiring is exposed.

Connect input signals to the USDA inputs, labeled "1" and "2". For unbalanced inputs, install a jumper between the - input and GND. Single (mono) inputs may be fed to all 4 output channels by connecting both 1 and 2 inputs in parallel. Connect output loads to USDA outputs, labeled 1 through 4. For unbalanced loads, connect to the + and GND terminals only. (Do not connect the - terminal to ground.) It is *not necessary* to terminate unused outputs.

OPERATION

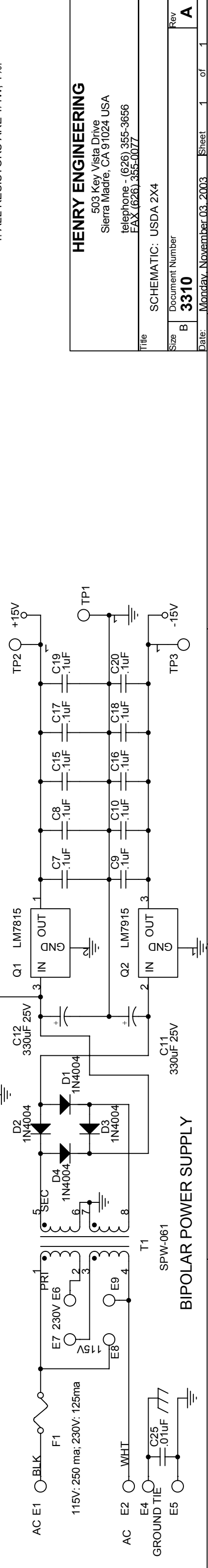
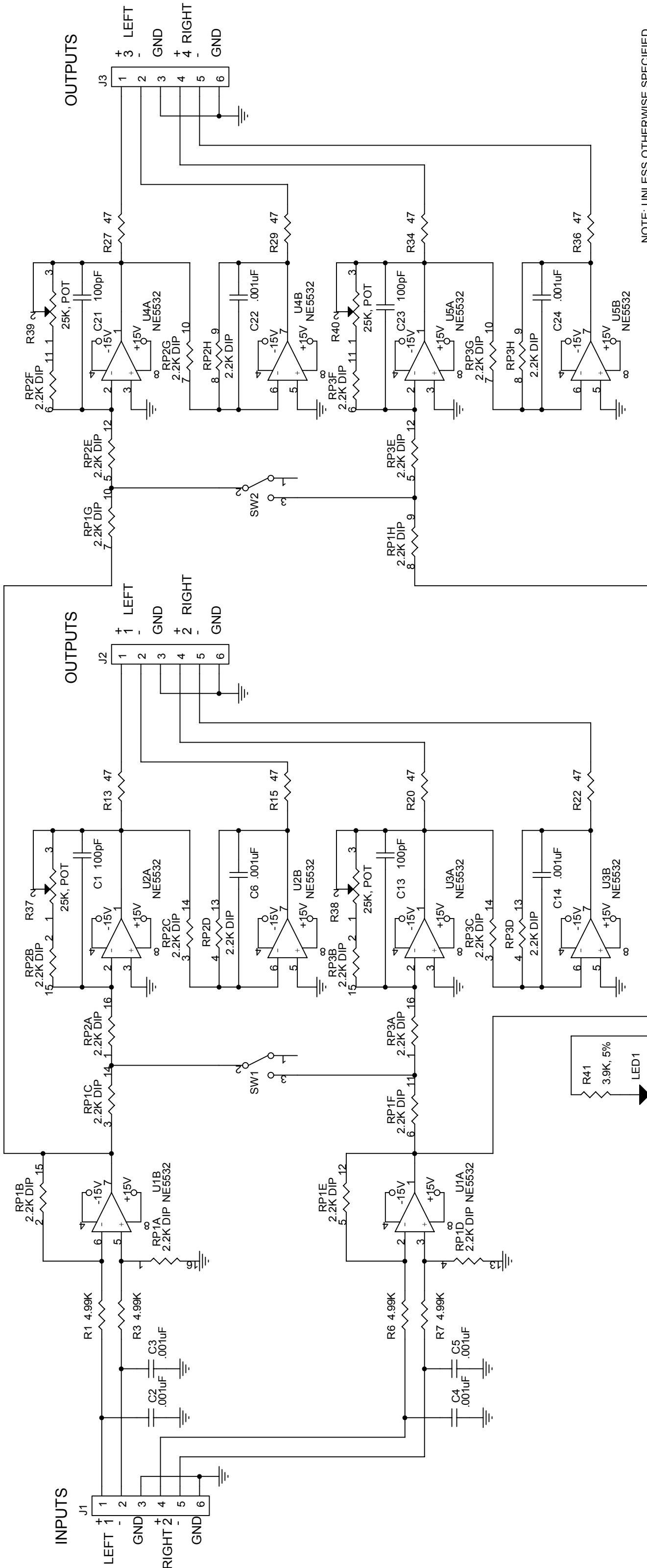
The signal fed to input 1 will appear at outputs 1 and 3. The signal fed to input 2 will appear at outputs 2 and 4. Hence, outputs 1 and 2 are a Left/Right stereo pair, as are 3 and 4. Each stereo output pair has a STEREO-MONO SWITCH. If the switch is in the "S" position, a stereo input will produce a stereo output. If the switch is in the "M" position, that output will be combined to monaural. The two stereo outputs operate independently; switching one output pair to MONO has no effect on the other pair, and does not degrade the separation of the stereo input signal. Each output has a gain adjustment for setting output level. A maximum of +8dBm (average) is recommended. Input levels should be between -10 and +8 dBm. For input levels outside of this range, consult the factory.

SPECIFICATIONS

Input impedance	20K ohms balanced; 10K ohms unbalanced
Input levels	-10 dBm to +8 dBm nominal
Gain	-6 db to +15 db
S/N ratio	100 dB, ref +4 dBm output w/ unity gain
Output source Z	100 ohms balanced; 50 ohms unbalanced
Output load	600 ohms or more per output, X4
Output level	+24 dBm max

Specifications subject to change without notice. P/N 3310 Rev. 6/04.





NOTE: UNLESS OTHERWISE SPECIFIED
 1. ALL RESISTORS ARE 1/4W, 1%.

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Date: Monday, November 03, 2003 Sheet 1 of 1