



Broadcast Devices, Inc.

Technical Reference Manual

ACS-300 Audio Control System

**Broadcast Devices, Inc.
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I. Introduction

The ACS-300 Audio Control System comprises of six balanced inputs and six balanced outputs for which the input level can be dimmed by 10, 20, or 30 dB upon remote control command. In addition, the unit can be commanded to mute all channels or any one of six channels upon separate remote control commands. The ACS-300 is intended for radio, television and recording control rooms for which control/muting of up to six channels that are normally fed to a monitor amplifier system. The ACS-300 is particularly suited for use with Dolby Digital, Dolby Surround and/or DTS multi channel sound systems. The front panel of the ACS-300 has six channel active LEDs in addition to Dim and Mute status. All control of the unit is accomplished by remote control through simple switch closure or through a companion accessory remote control box available from BDI.

II. Unpacking and Inspection

Carefully inspect the unit after unpacking and make certain that no damage has occurred during shipping. If damage is noted, contact the shipper immediately and file a claim for damages. Each unit is carefully packed and carries full insurance against damage. Inspect the packing list and make sure that the contents of the package match those described on the packing list.

III. Installation and Connections

Before installing the unit it is a good idea to decide what input sensitivity you would like the unit to have and to decide how much dimming the unit should provide. The unit can be configured in a variety of ways. Each channel input can be configured to accept a balanced +4, 0, or -10 dBm nominal signals. Simply remove the cover and place the jumpers in the desired positions. Factory default is +4 dBm nominal input on each channel. Next, locate the dimmer sensitivity jumpers and select the desired amount of dimming. -30, -20 and -10 dB of dimming is available to any channel. If no dimming is desired on a particular group of channels, simply remove the dimming jumpers from the desired channels. Factory default is -20 dB on all channels.

IV. Features and Operation

The ACS-300 Audio Control System is designed to control up to six audio channels to Remote control and remote status of the unit is accessed through the rear panel 15 pin D connector. Simple ground closure to the appropriate pin will command the unit to dim or mute as long as the closure is maintained. The ACS-300 supplies +5 V.D.C. for powering open collector actuators.

V. Remote Control/Status DB15 pin connections

1	Remote Mute Channel 1
2	Remote Mute Channel 2
3	Remote Mute Channel 3
4	Remote Mute Channel 4
5	Remote Mute Channel 5
6	Remote Mute Channel 6
7	Remote Mute All Channels
8	Remote Dim All Channels
9	NC
10	NC
11	NC
12	NC
13	Ground
14	Remote Mute Status
15	Remote Dim Status

VI. Specifications

Inputs:	Six - -10, 0, or +4 dBm balanced bridging nominal any input
Outputs:	Six - +4 dBm balanced 600 ohms
Frequency Response:	+/- 0.2 dB from 20 Hertz to 20 KHz
Total Harmonic Distortion:	less than .05% any channel at any frequency
Maximum Output level:	+18 dBm
Mute Isolation:	70 dB or greater all channels from 20 Hertz to 20 KHz
Remote Control:	Maintained ground closure selects mute or dim function
Remote Status:	Active low ground, +5 VDC inactive TTL compatible
Front Panel Indicators:	Mute, Dim and six channel active indicators
Power Requirements:	120/240 V.A.C. @ 0.25A; 50 – 60 Hz.
Operating Environment:	0 – 60 Degrees Celsius Non Condensing Atmosphere
Physical:	19"W X 8"D X 1.75"H Mounted via Standard E.I.A. 19" rack one rack unit occupied. Weight: 9 LBS.

VII. Warranty

Broadcast Devices, Inc. products are warranted against failure due to faulty materials or workmanship for a period of one year from the date of shipment to the ultimate user. The warranty covers repair or replacement of defective parts at the factory, provided the unit has been returned prepaid by the user. All shipments to the factory shall have affixed to the outside of the container an R. A. number obtained from the factory. The above warranty is void if the unit has been modified by the user outside of any recommendations from the factory or if the unit has been abused or operated outside of its electrical or environmental specifications. If customer conducted field tests suggest that the unit may be faulty, whether or not the unit is in warranty, a full report of the difficulty should be sent to Broadcast Devices, Inc. factory at Cortlandt Manor, New York. The office may suggest further tests or authorize return for factory evaluation.

Units sent to the factory should be well packed in the original packing if possible and shipped to Broadcast Devices, Inc. 5 Crestview Avenue, Cortlandt Manor, NY 10567. Remember to affix the R.A. number to the outside of the carton. Any packages received without such R.A. number will be refused. Note: freight collect shipments will also be refused. When the unit has been received, inspected and tested, the customer will receive a report of the findings along with a quotation for recommended repairs, which are found falling outside of the standard warranty. Units returned for in-warranty repairs which are found not to be defective will be subject to an evaluation and handling charge. In-warranty units will be repaired at no charge and returned via prepaid freight.

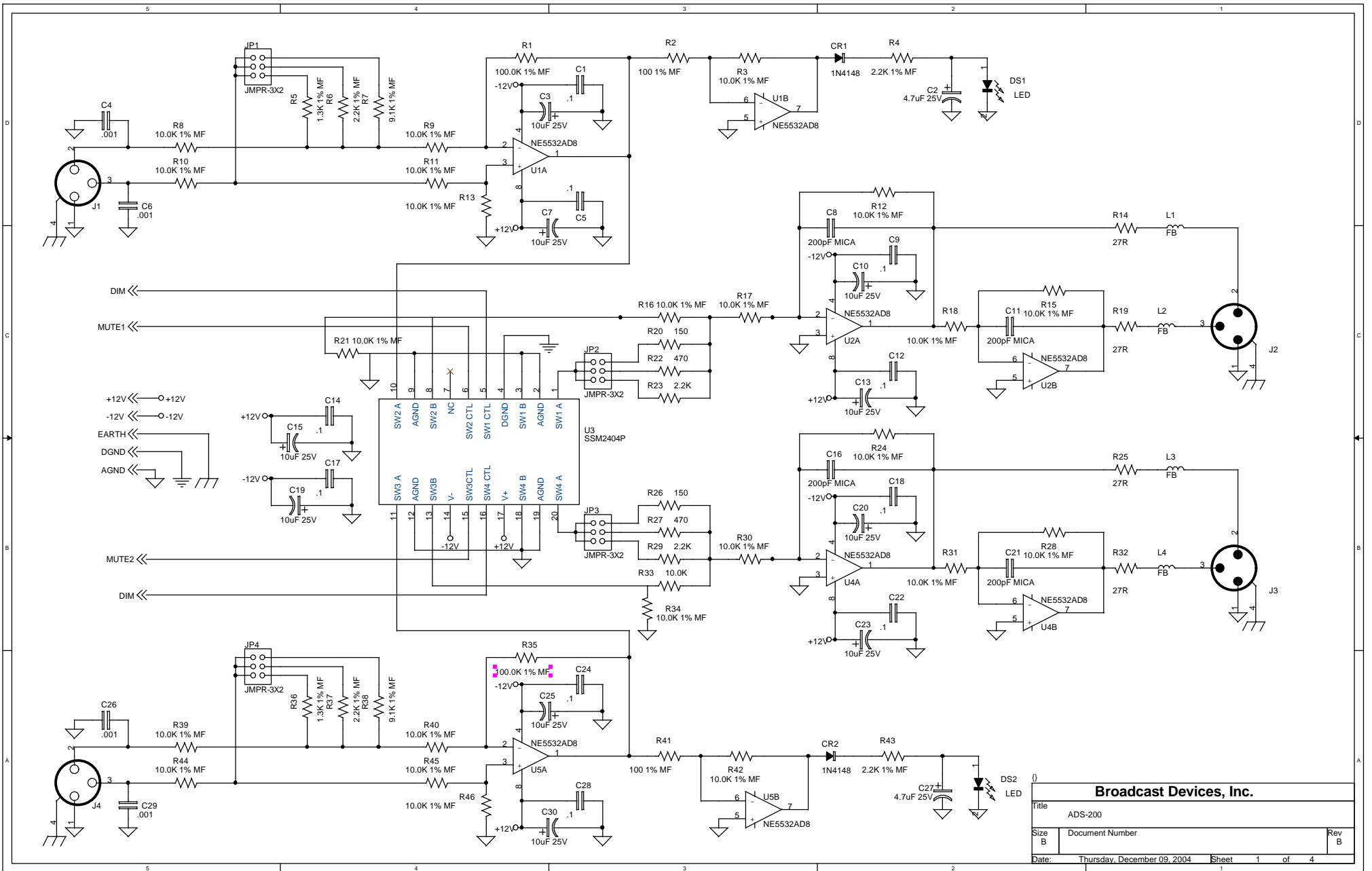
Out-of-warranty units needing repair require a purchase order and will be invoiced for parts, labor, and shipping charges.

When ordering replacement part, always specify A) Part number or Description, and Quantity; B) Date of Purchase, Where Purchased; C) Any Special Shipping Instructions. Always specify a street address, as shipping companies cannot deliver to a postal box.

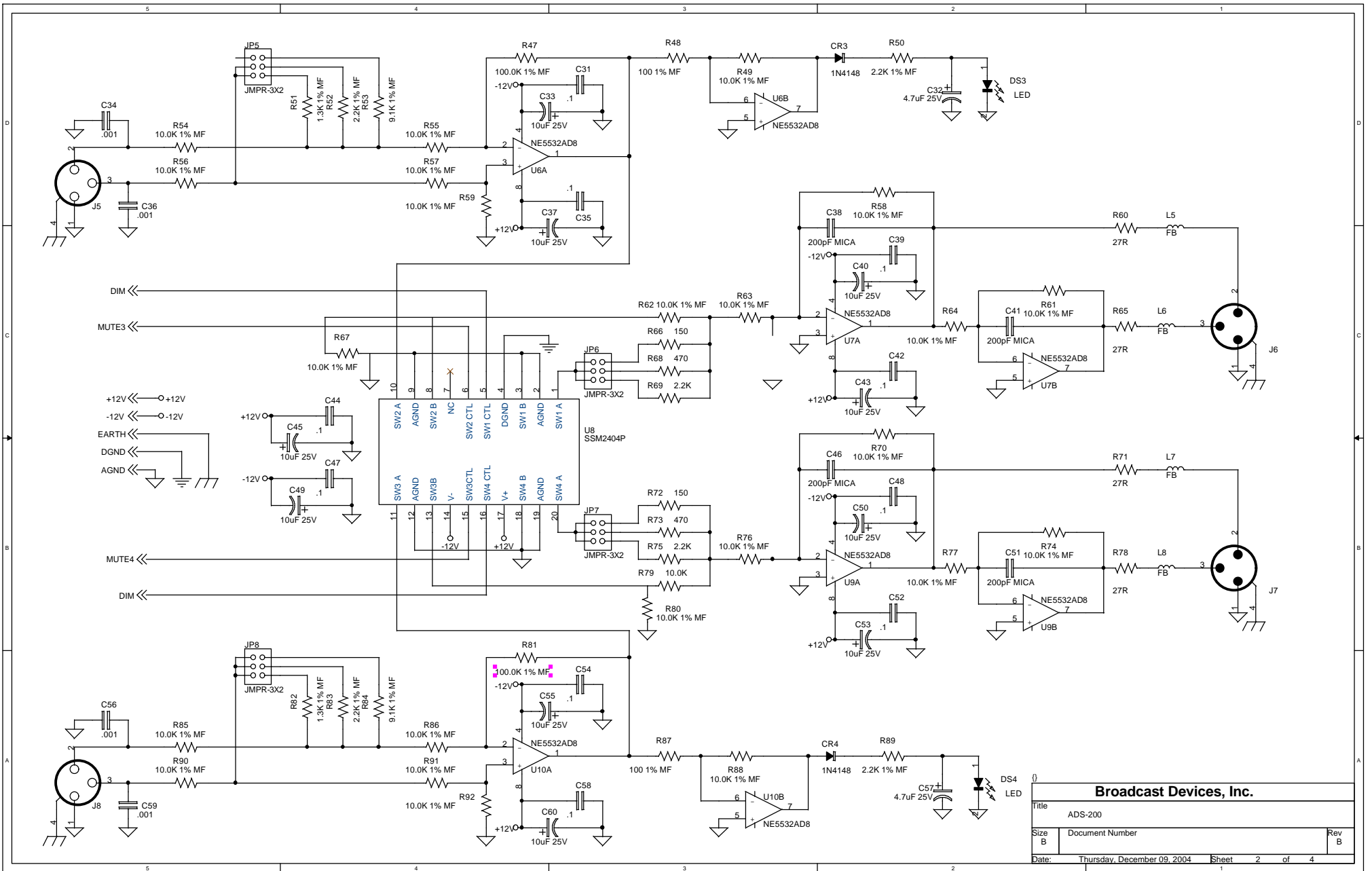
Broadcast Devices, Inc. is not responsible for any other manufacturer's warranty on original equipment. Nor are we responsible for any failure, damage, or loss of property that may occur due to the installation or operation of our equipment outside of recommended specifications.

Broadcast Devices, Inc. may from time to time make changes to the materials used in the manufacture of its equipment and reserves the right to do so without further notice.

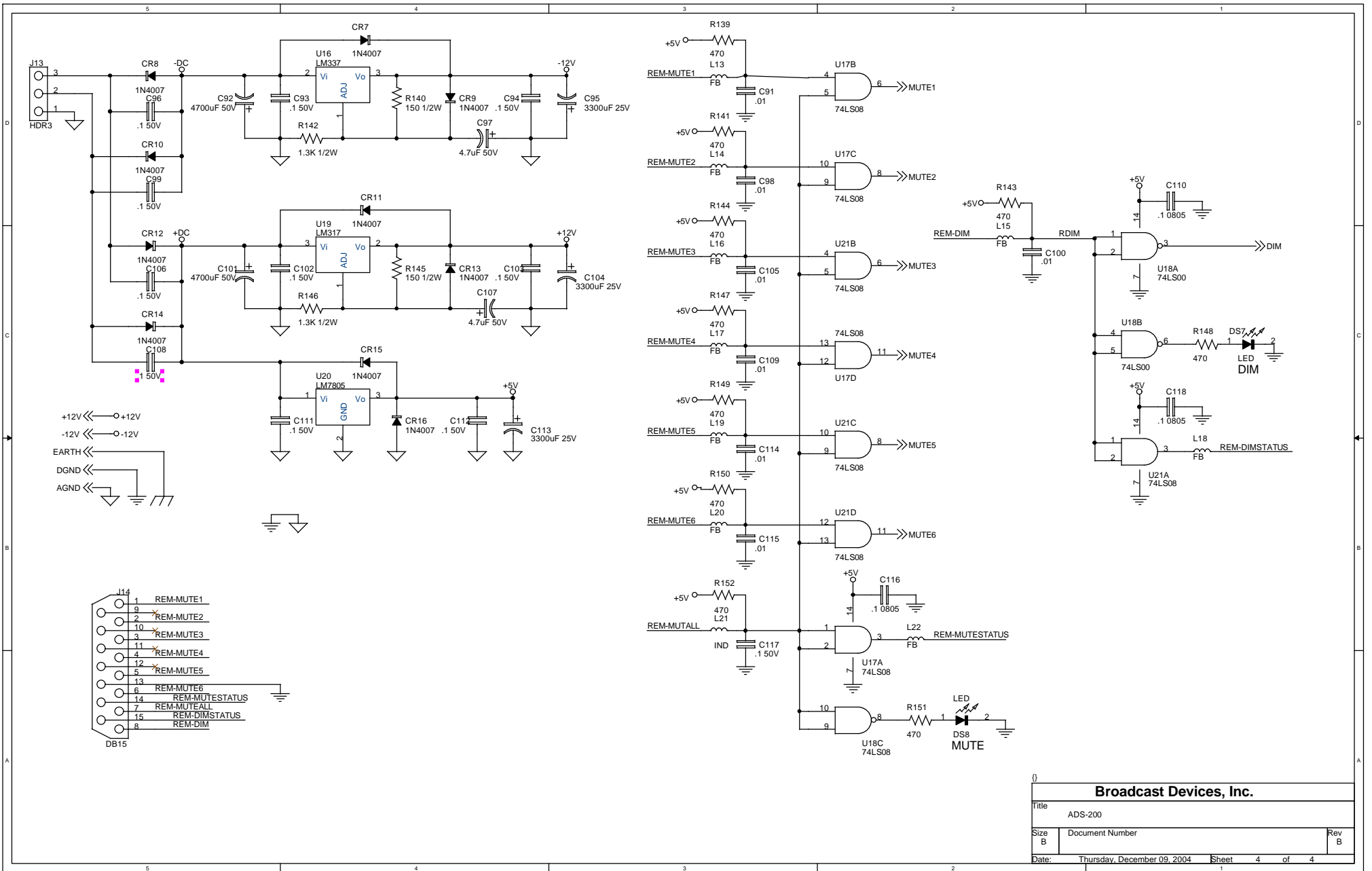
VIII. Schematic Diagrams



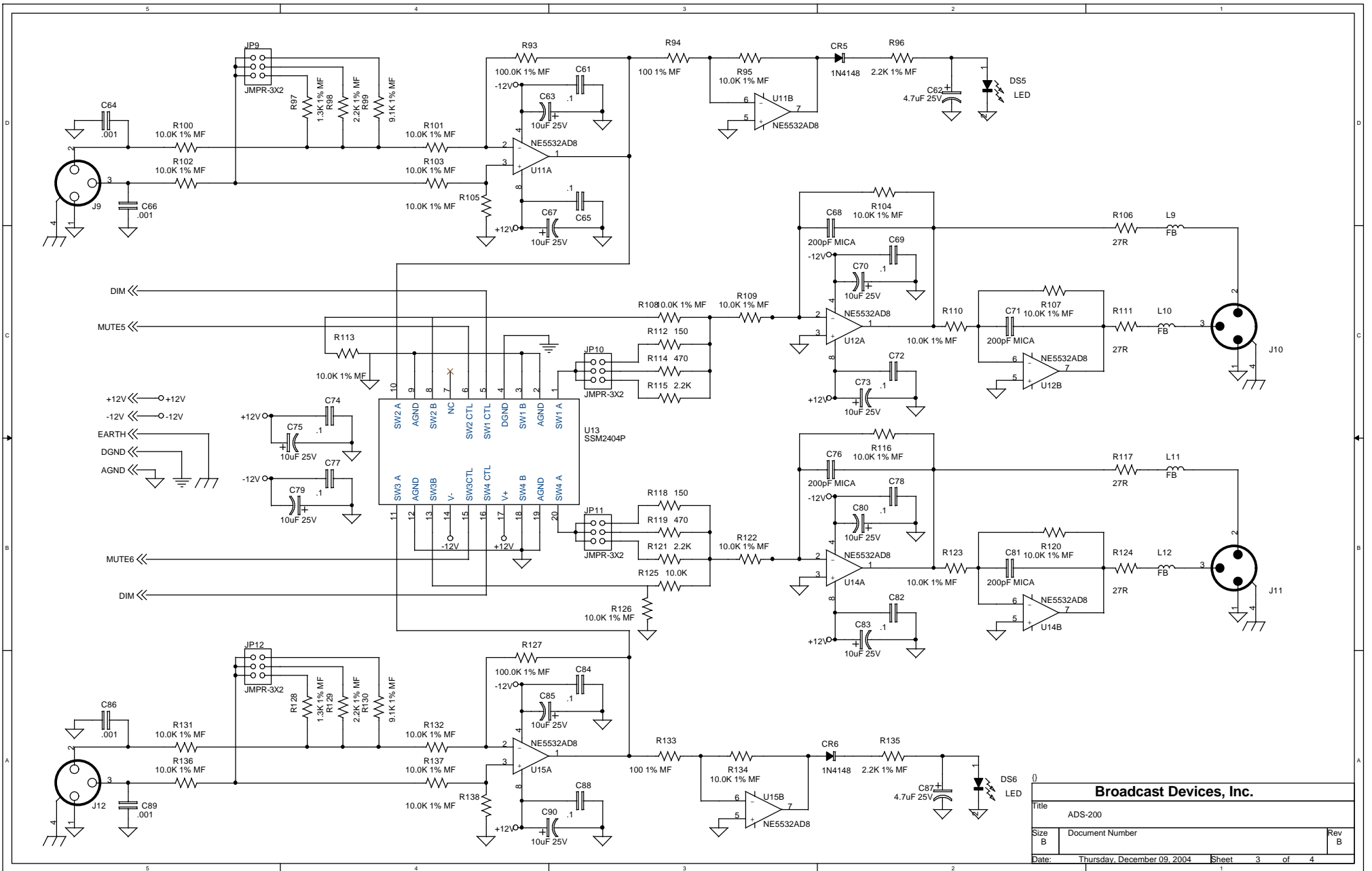
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Ch.6
INPUT
SENS.
JP12



Ch.5
INPUT
SENS.
JP9



Ch.4
INPUT
SENS.
JP8



Ch.3
INPUT
SENS.
JP5



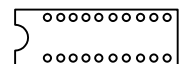
Ch.2
INPUT
SENS.
JP4



Ch.1
INPUT
SENS.
JP1



Ch.6
DIM
LEVEL
JP11



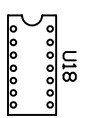
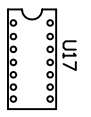
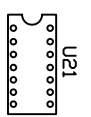
Ch.5
DIM
LEVEL
JP10

Ch.4
DIM
LEVEL
JP7

Ch.3
DIM
LEVEL
JP6

Ch.2
DIM
LEVEL
JP3

Ch.1
DIM
LEVEL
JP2



ACS-300 JUMPER CHART