

# 800~1600–Watts H–Class Audio Power Amplifier For 4~8–Ohms Loudspeaker

(Schematic Diagrams)

Version r.1–hv–sis–hc

Revision Number: 2

Created: Sunday, November 28, 2010 20:39:03

Designed By: Heru Himawan Tejo Laksono

Based MATRIX 1.4 Free Audio Power Amplifier Technology (Pre–release R 0.1–HV–SIS BETA, Nov. 2010)

Base Technology Invention By Heru Himawan Tejo Laksono & Mujiono Irkhas

URL: <http://www.matrix14–power–amp.66ghz.com/>

Technical Supports (E–mail): [heru.htl@gmail.com](mailto:heru.htl@gmail.com)







This schematic comes with ABSOLUTELY NO WARRANTY; see the gpl3.txt that came within this schematic, which contains the Version 3 of GNU General Public License, or see <http://www.gnu.org/licenses/>.









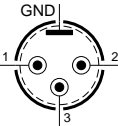
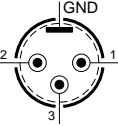
This is free schematic, and you are welcome to redistribute it under certain conditions; see the gpl3.txt that came within this schematic, which contains the Version 3 of GNU General Public License, or see <http://www.gnu.org/licenses/>.

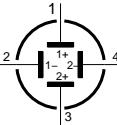



CONVENTIONS (PART-1)

THIS ADDITIONAL PAGE INTENDED TO CONFIRM THE COMPONENT SYMBOLS, ALPHABETICAL SYMBOLS, AND UNIT CONVENTIONS THESE ARE BEING USED WHITIN THE SCHEMATICS.

ALPHABETICAL SYMBOL	COMPONENT/PART NAME	UNIT
C	CAPACITOR	FARAD
CNT	CONNECTORS & HEADERS	UNITLESS
D	DIODE FAMILY	UNITLESS
F	FUSE	UNITLESS
J	JUNGTION, JUMPER, JACK	UNITLESS
L	COIL	HENRY
Q	BIPOLAR JUNCTION TRANSISTOR	UNITLESS
R	FIXED RESISTOR	OHM
SW	SWITCH & RELAY	UNITLESS
T	TRANSFORMER	UNITLESS
XRV	VARIABLE RESISTOR	OHM
XU	INTEGRATED CIRCUIT/SUB-CIRCUIT	UNITLESS






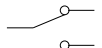
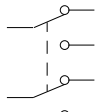
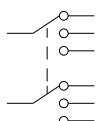
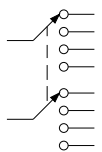
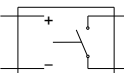
INTER-CONNECTION SYMBOL	DESCRIPTION
	SOLDERED WIRE POLE
	CURRENT/VOLTAGE SUPPLY NET CONNECTION
	OUT TO
	INPUT FROM
	POWER GROUND (0V)
	SYSTEM GROUND

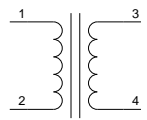
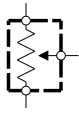
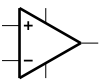
COMPONENT/PART SYMBOL	DESCRIPTION
	CAPACITOR
	POLARIZED ELECTROLYTE CAPACITOR
	JUNCTION DIODE
	BREAKDOWN/ZENER DIODE
	LIGHT EMITTING DIODE
	FUSE
	SINGLE ENDED/LINE INPUT/OUTPUT SIGNAL SOCKET JACK
	DUAL ENDED/LINE INPUT/OUTPUT SIGNAL SOCKET JACK
	BALANCED INPUT/OUTPUT SIGNAL SOCKET JACK (MALE)
	BALANCED INPUT/OUTPUT SIGNAL SOCKET JACK (FEMALE)



COMPONENT/PART SYMBOL	DESCRIPTION
	SPEAKON
	OUTPUT TO SPEAKER TERMINAL
	MAIN ENTRY CORD SOCKET JACK
	COIL

CONVENTIONS (PART-2)

THIS ADDITIONAL PAGE INTENDED TO CONFIRM THE COMPONENT SYMBOLS, ALPHABETICAL SYMBOLS, AND UNIT CONVENTIONS THESE ARE BEING USED WHITIN THE SCHEMATICS.

COMPONENT/PART SYMBOL	DESCRIPTION
	SMALL SIGNAL / MEDIUM POWER NPN BIPOLAR JUNCTION TRANSISTOR
	SMALL SIGNAL / MEDIUM POWER PNP BIPOLAR JUNCTION TRANSISTOR
	HIGH POWER NPN BIPOLAR JUNCTION TRANSISTOR
	HIGH POWER PNP BIPOLAR JUNCTION TRANSISTOR
	FIXED RESISTOR
	SINGLE PAIR WITH TWO SELECTIONS SPDT SWITCH
	DUAL PAIR WITH TWO SELECTIONS SPDT SWITCH
	DUAL PAIR WITH THREE SELECTIONS SPDT SWITCH
	4-POS WITH 2-COM ROTARY SWITCH
	RELAY / VOLTAGE CONTROLLED SWITCH

COMPONENT/PART SYMBOL	DESCRIPTION
	TRANSFORMER
	VARIABLE RESISTOR
	OPERATIONAL AMPLIFIER

SAFETY INSTRUCTIONS SYMBOL	DESCRIPTION
	Alerts you to the presence of insulated dangerous voltage, or indicates a live area on the circuit, that may be sufficient to constitute a risk of shock.
	Alerts you to important maintenance instructions in the accompanying literature.

Important:

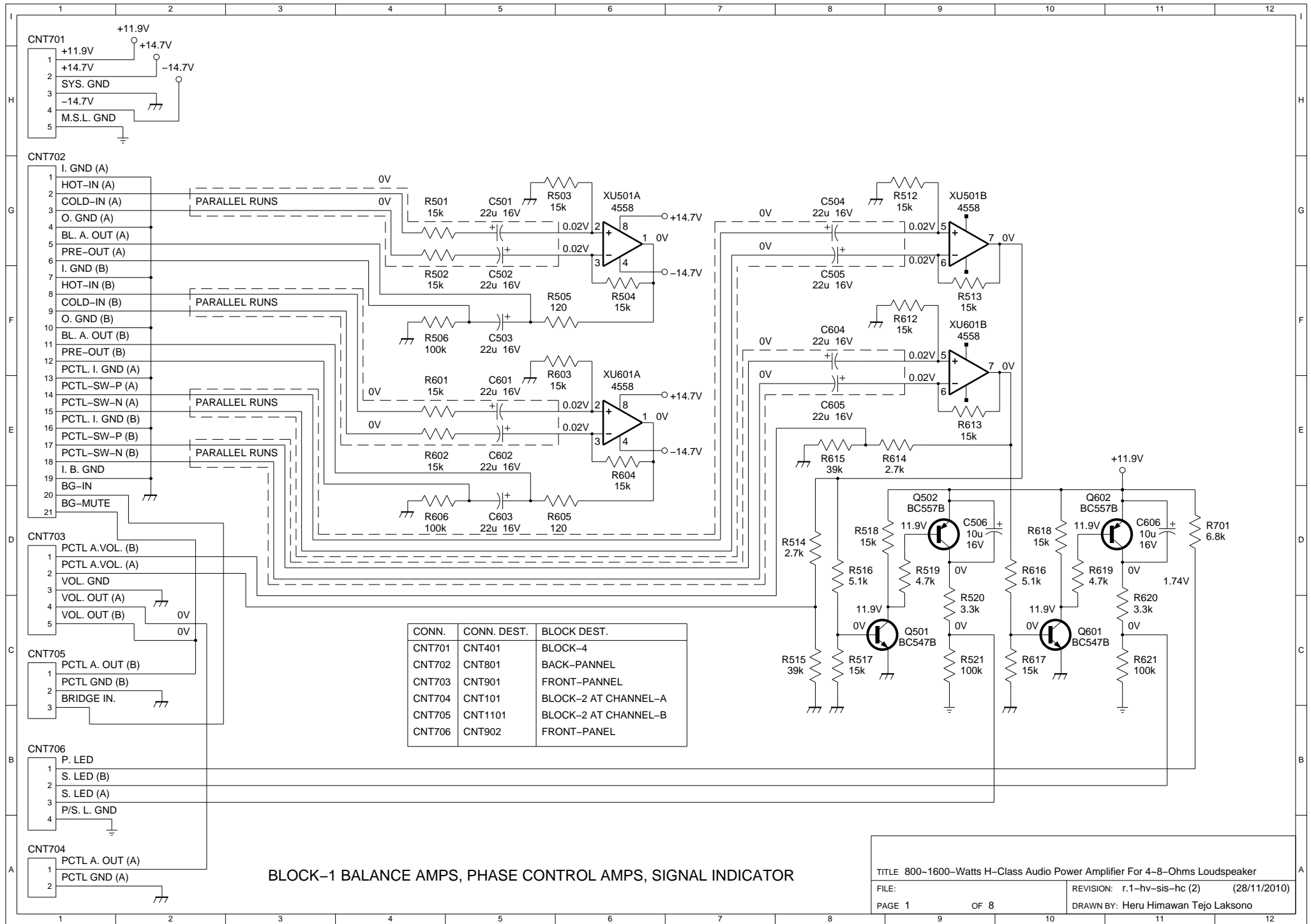
The designated circuits where implemented 2 (two) different ground connections:

1. Power Ground

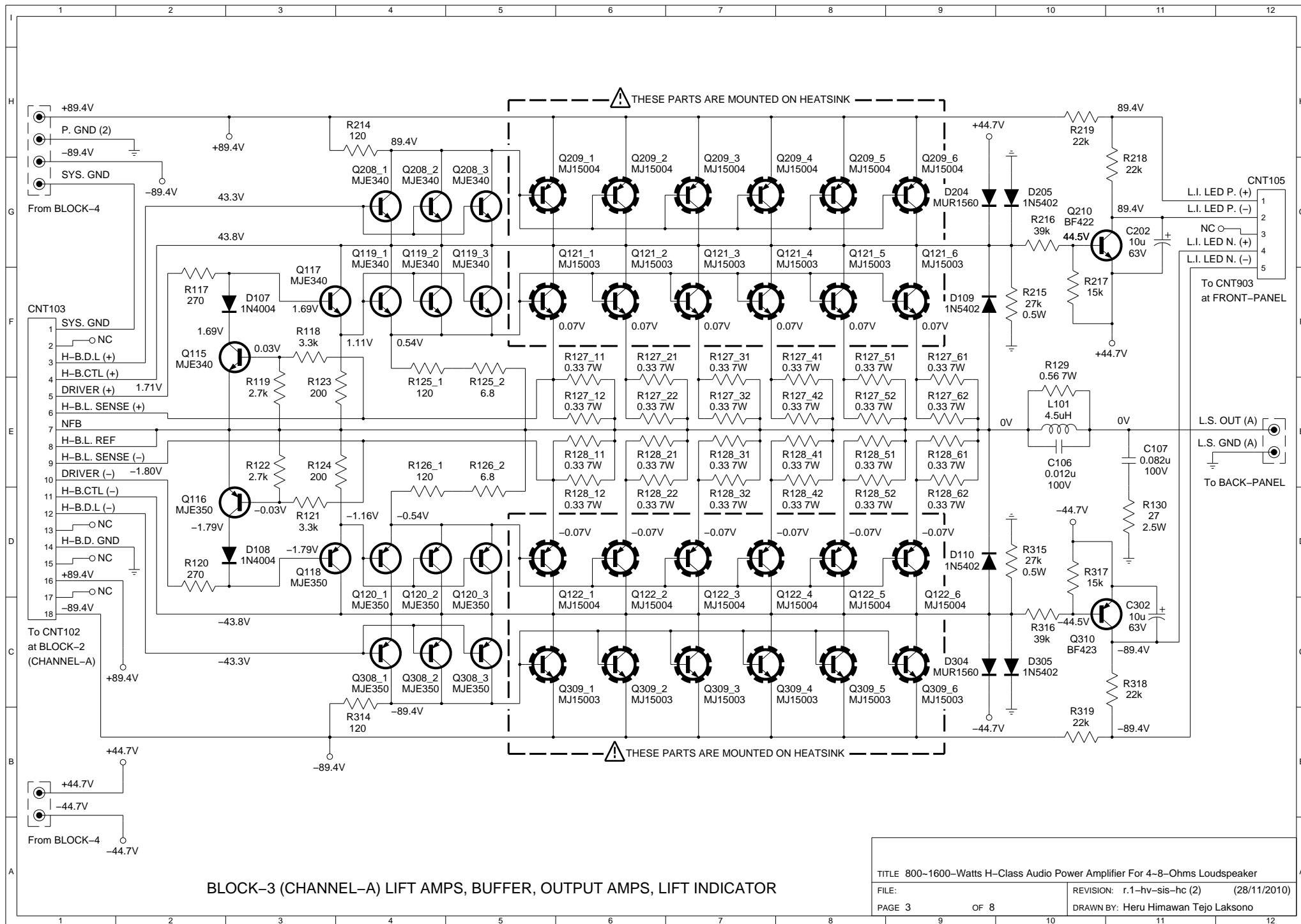
The Power Ground by mean the common ending for all sub-circuits with relative high-current voltage intensity and contains stream/signal that may be carrying the AC hum.

2. System Ground

The System Ground by mean the common ending for all high-sensitive sub-circuits and ending for those processes the small audio signal.







BLOCK-3 (CHANNEL-A) LIFT AMPS, BUFFER, OUTPUT AMPS, LIFT INDICATOR

TITLE 800-1600-Watts H-Class Audio Power Amplifier For 4-8-Ohms Loudspeaker

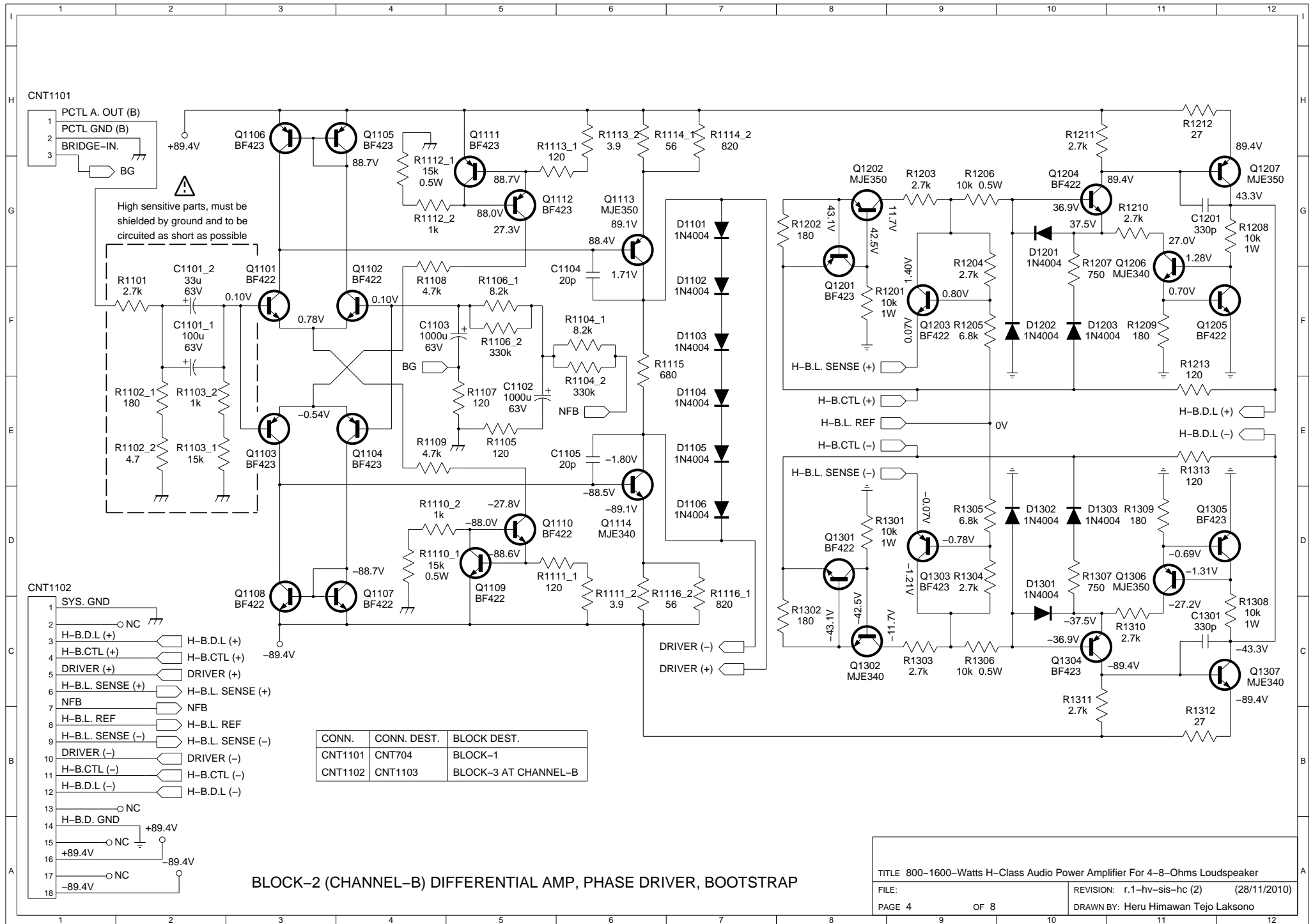
FILE:

REVISION: r.1-hv-sis-hc (2) (28/11/2010)

PAGE 3

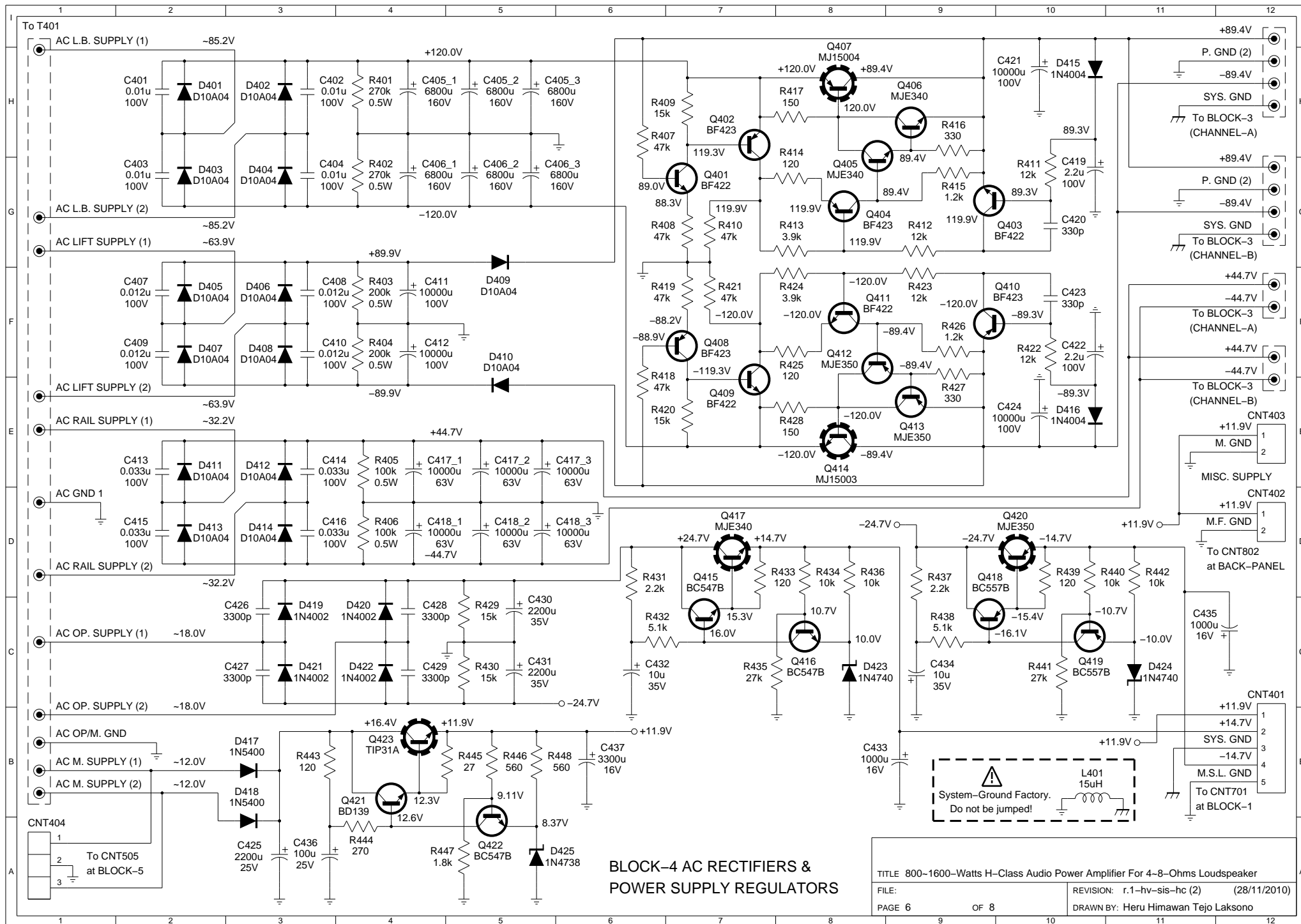
OF 8

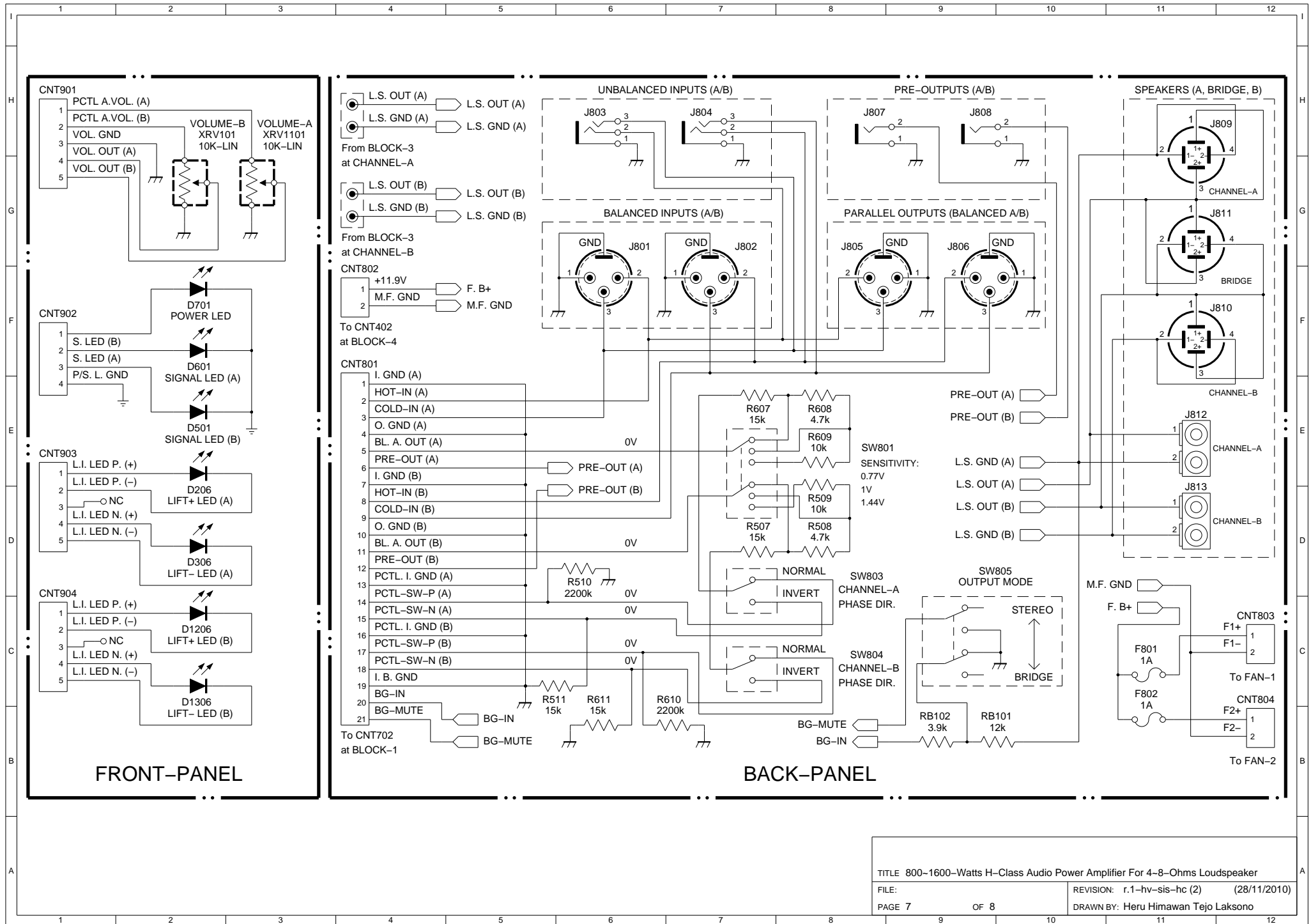
DRAWN BY: Heru Himawan Tejo Laksono

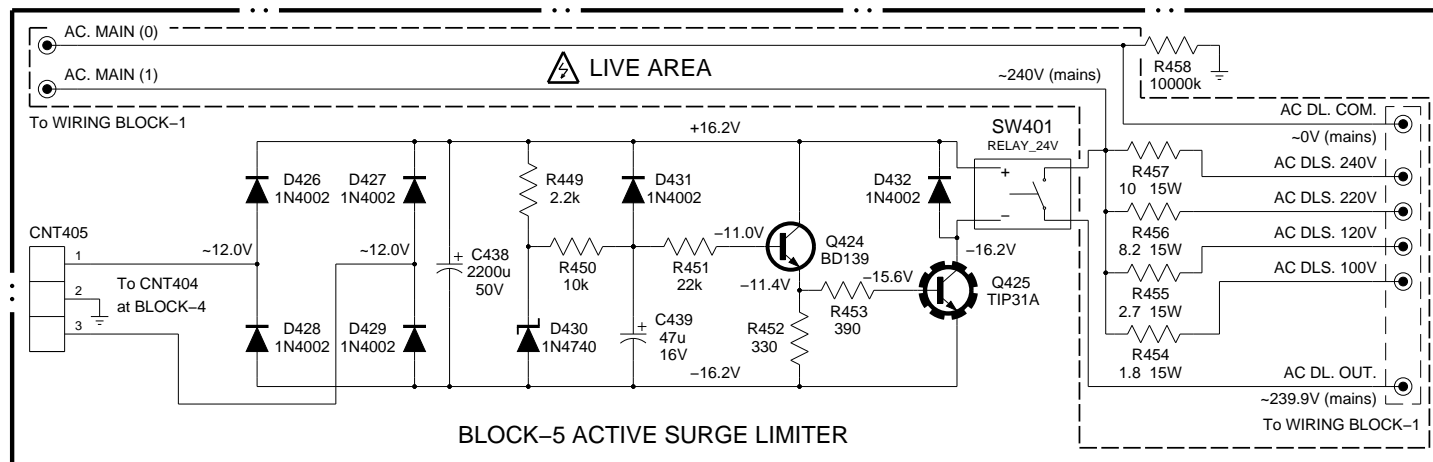
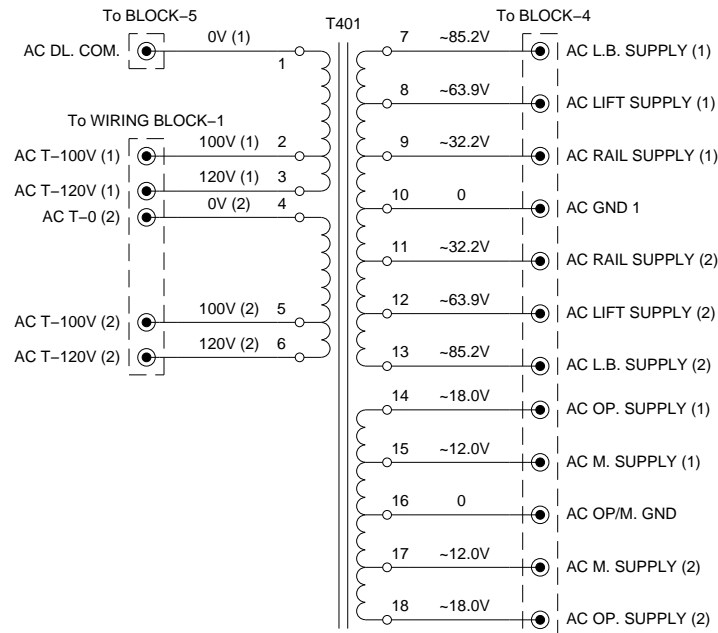
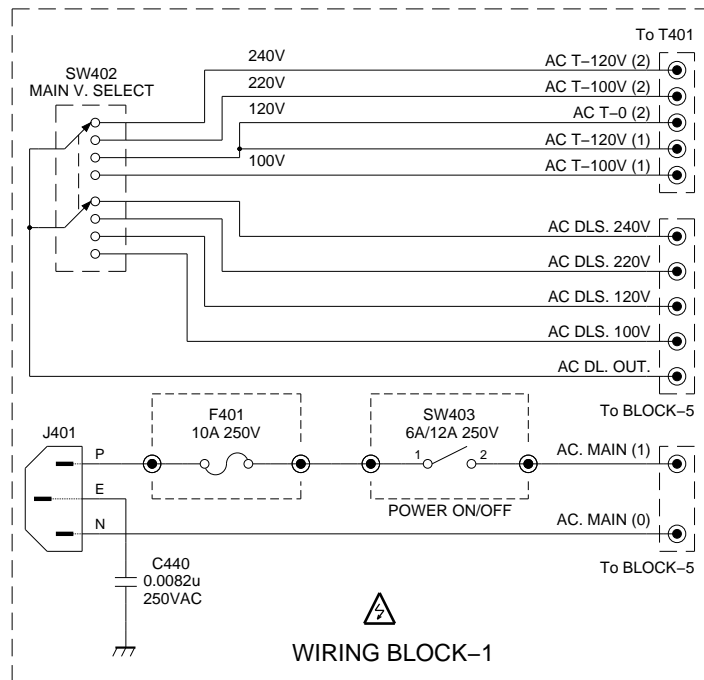












This schematic diagram configured by gsch-packager V.0.1

The gsch-packager is EDA tools in form of shell & PHP script running under GNU/Linux and UNIX variant OS'es, used to integrate the gEDA-gschem, gEDA-gnetlist, ngspice, a2ps, ps2pdf, CUPS/UNIX-Printing, and several UNIX/LINUX based programs -- for compiling the gEDA-gschem schematic into professional electronics schematic diagrams for manufacturing purposes.

The output of gsch-packager not only SPICE3 netlist, but, schematic in PDF, PNG, and Web/HTML presentation view.

The gsch-packager can be purchased in US \$30 (Rp 275000) from:

Heru Himawan Tejo Laksono  
JL. K. S. Tubun, Karang Salam RT 002 RW 005  
Purwokerto – 53152  
Jawa Tengah – INDONESIA

Thank you in advance for your supports.