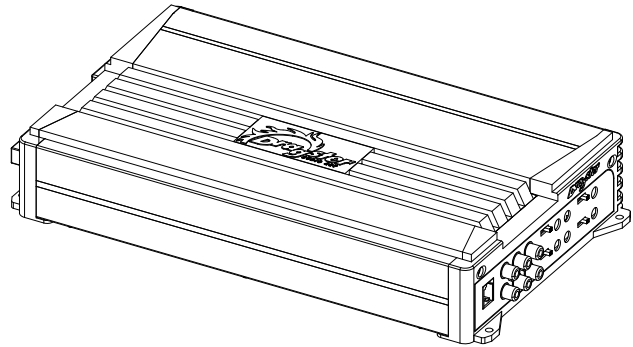




Service Manual



MODEL: DAD 1201

SPECIFICATIONS

DAD 1201 CLASS D Power Amplifier

class "D" technology
input voltage 11-14.4 VOC
frequency response 15Hz~150Hz
S/N ratio [A-weight] >95dB
input level 0.17V~8V
T.H.D. 0.05%
input impedance 10K ohm
low pass crossover variable frequency 50Hz~150Hz
crossover slope 12dB/oct
variable bass boost 0-18dB@45Hz
variable subsonic filter 10~40Hz 12dB/oct
remote subwoofer level control included
phase 0~180°
quiet ON/OFF
lit logo Dragster
fuse rating 40A×4
overall dimensions 186×490×56 mm

To engineers in charge of repair or inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

1. Use specified parts.

The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them. The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.

2. Place the parts and wiring back in their original positions after replacement or re-wiring. For proper circuit construction, use of insulation tubes, bonding, gaps to PCB, etc, is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection. If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.

3. Check for safety after repair. Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary problems around the repaired spots. If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

4. Caution in removal and making wiring connection to the parts for the automobile. Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur. If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

5. Cautions regarding chips.

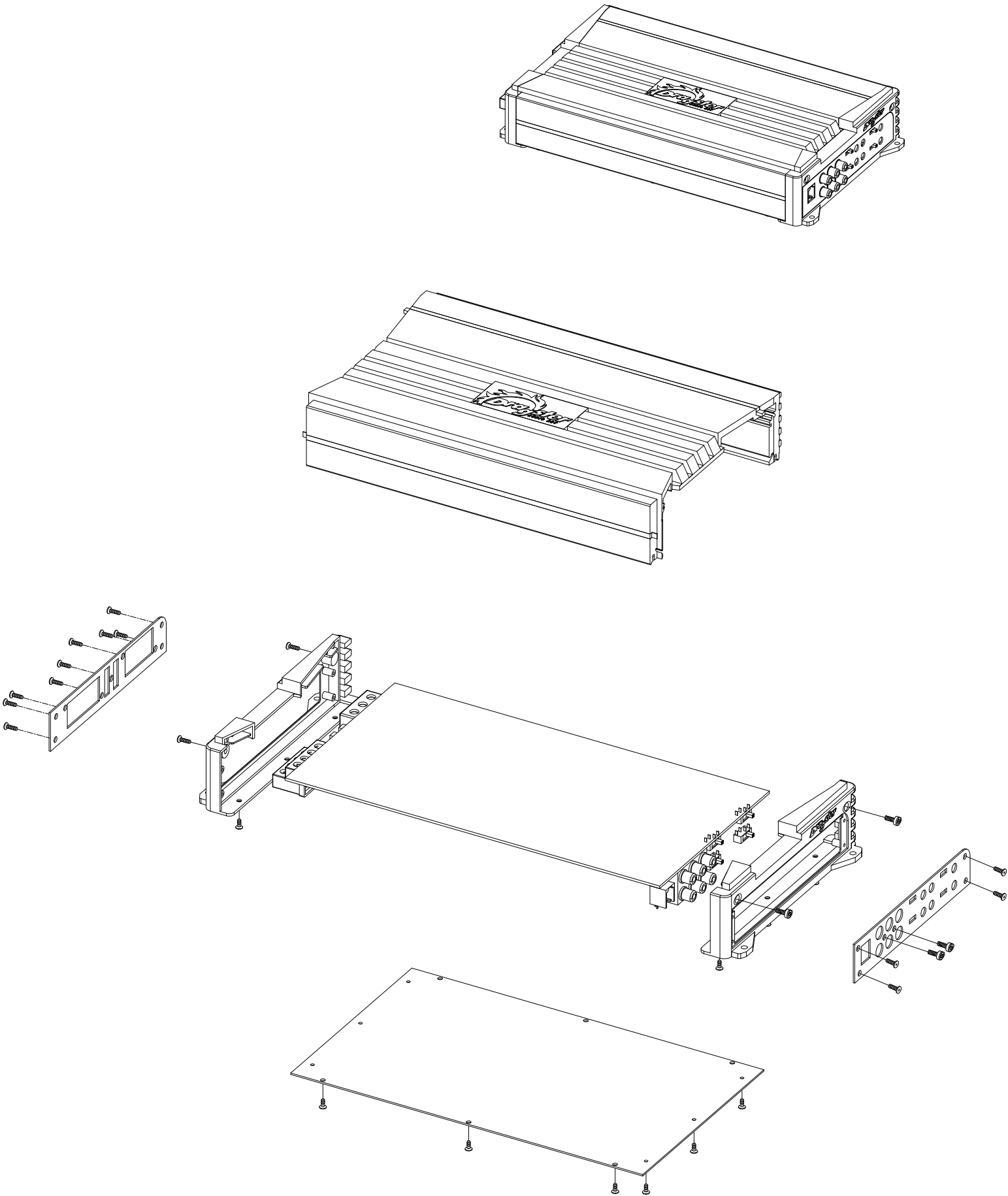
Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc). The negative pole of tantalum capacitors is highly susceptible to heat, so use special care when replacing them and check the operation afterwards.

6. Cautions in handling flexible PCB

Before working with a soldering iron, make sure that the iron tip temperature is around 270... Take care not to apply the iron tip repeatedly (more than three times) to the same patterns. Also take care not to apply the tip with force.

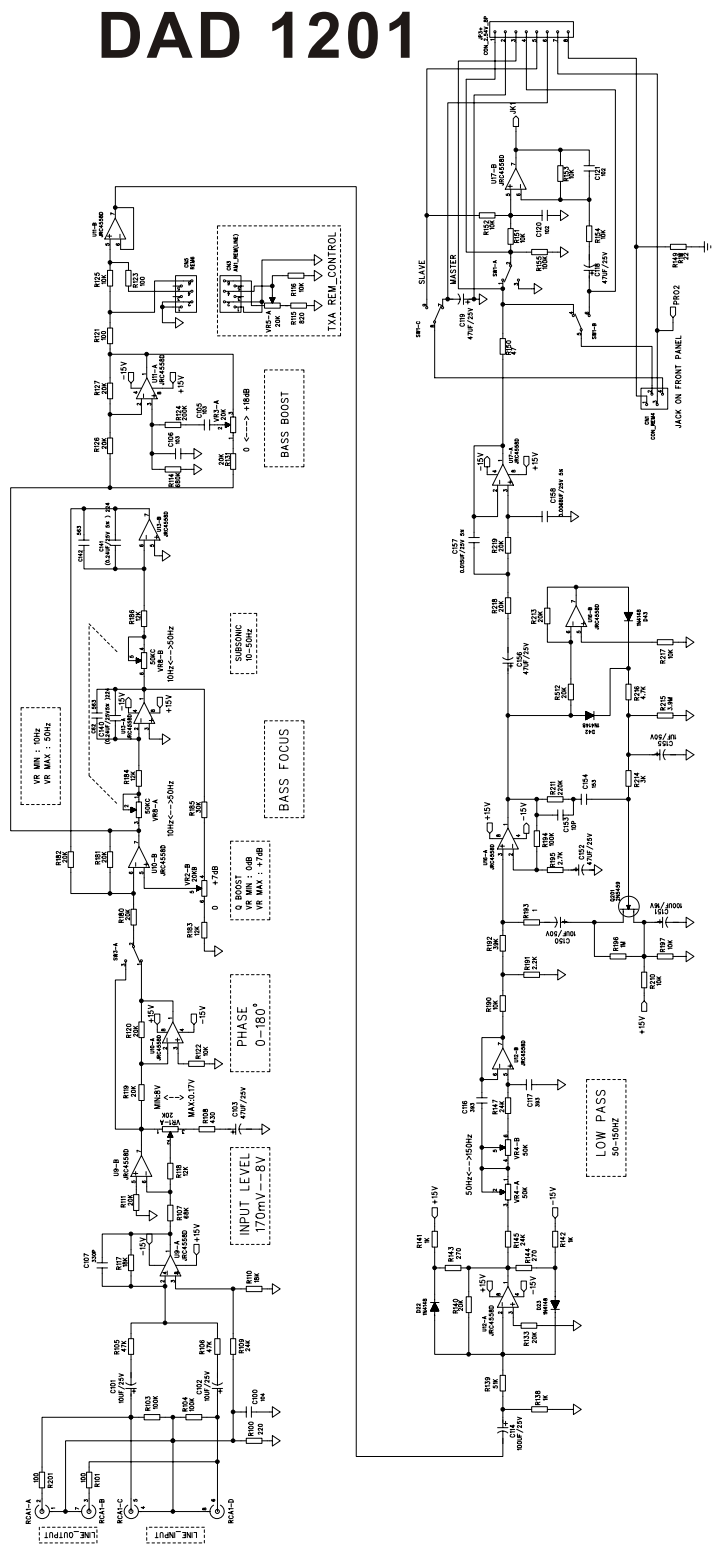
7. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

EXPLODED VIEW



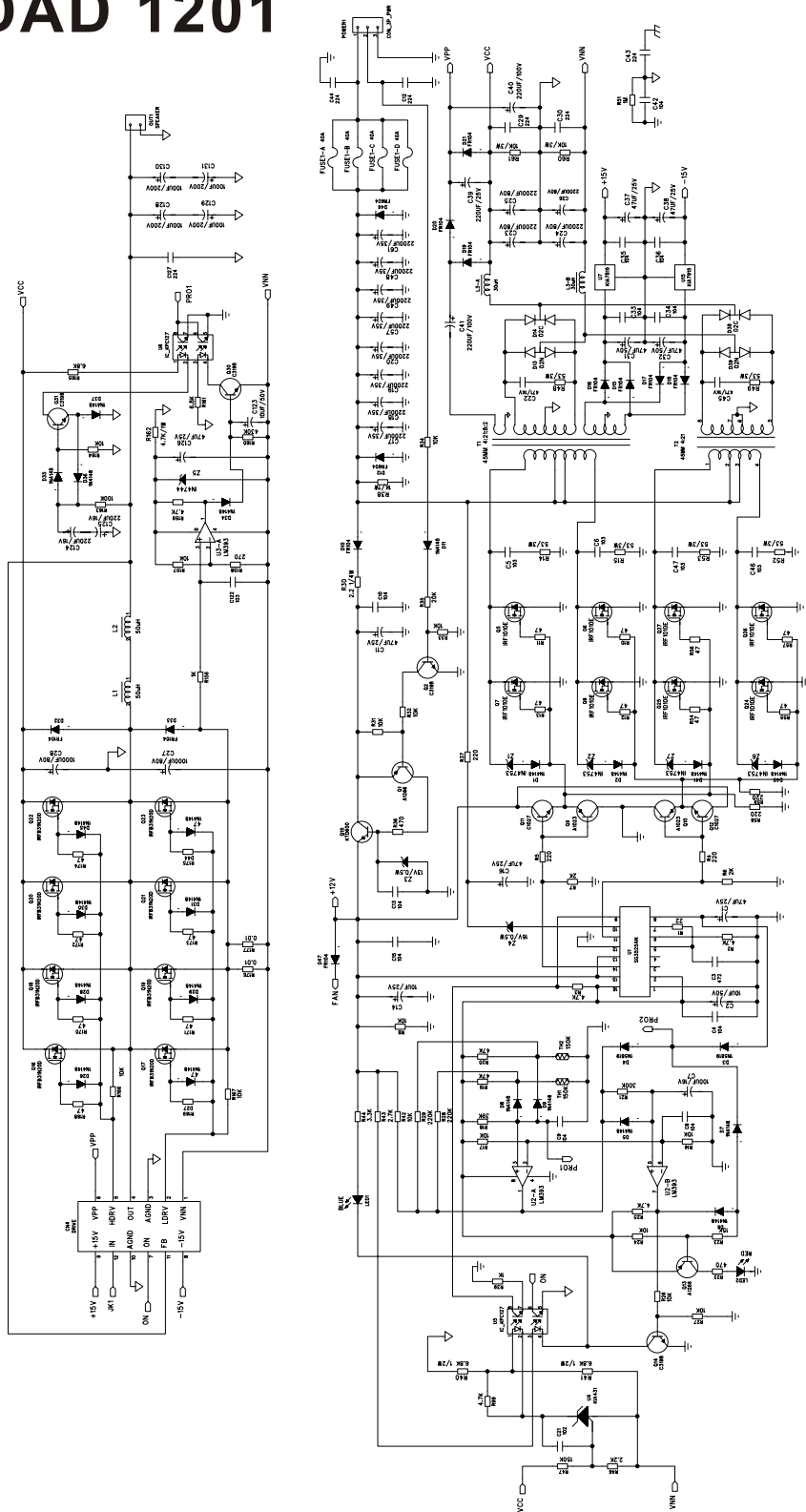
CIRCUIT DIAGRAM 1

DAD 1201



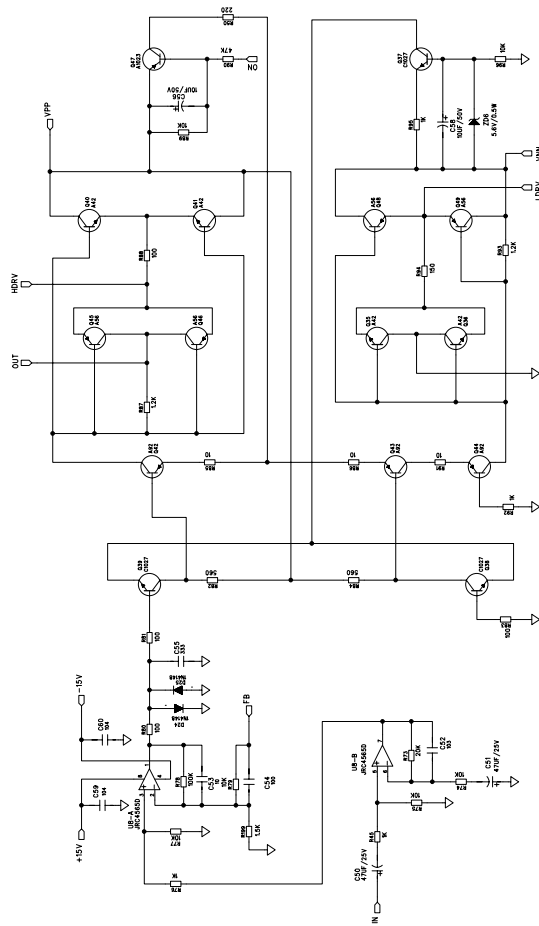
CIRCUIT DIAGRAM 2

DAD 1201

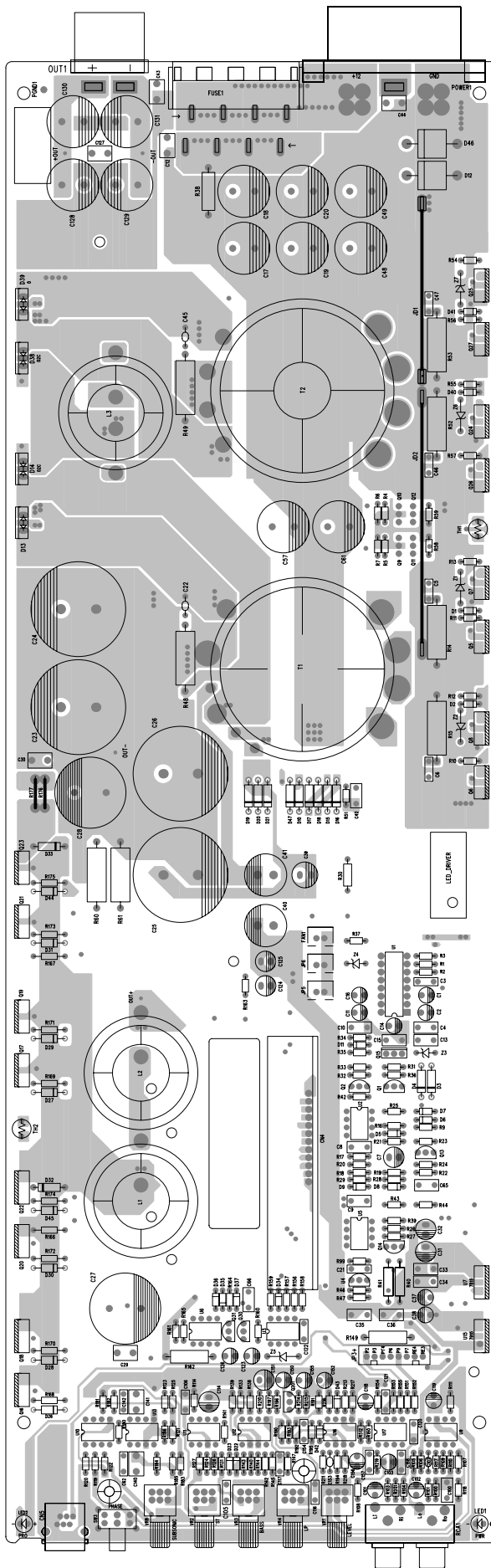


CIRCUIT DIAGRAM 3

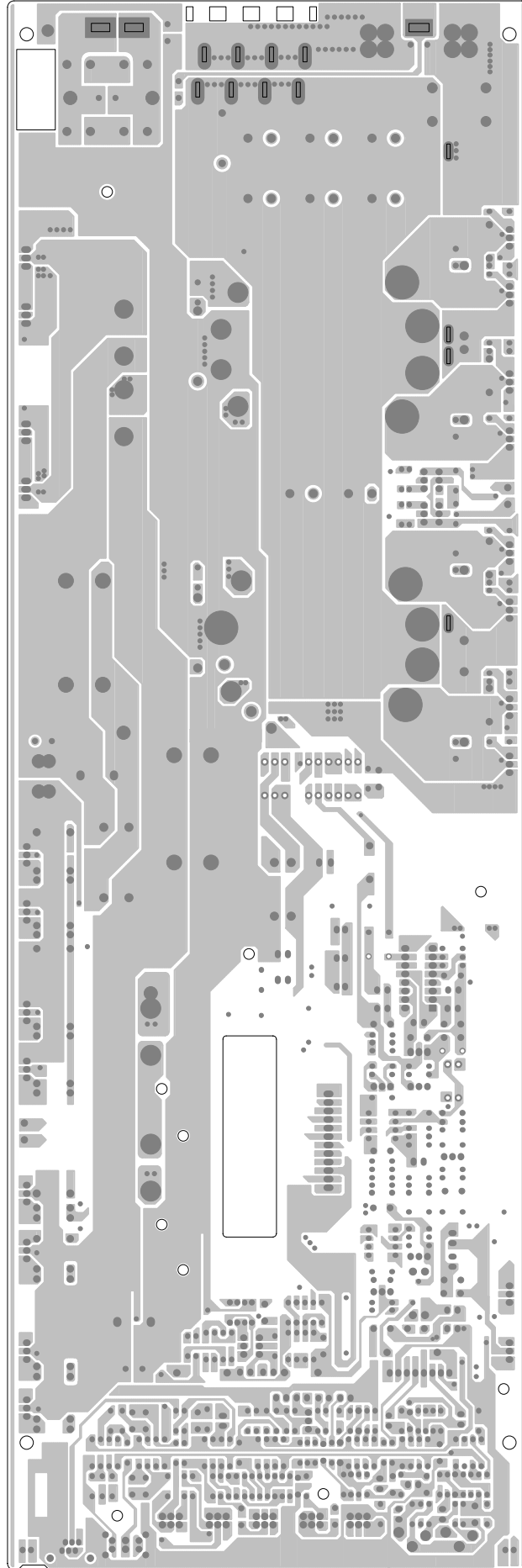
DAD 1201



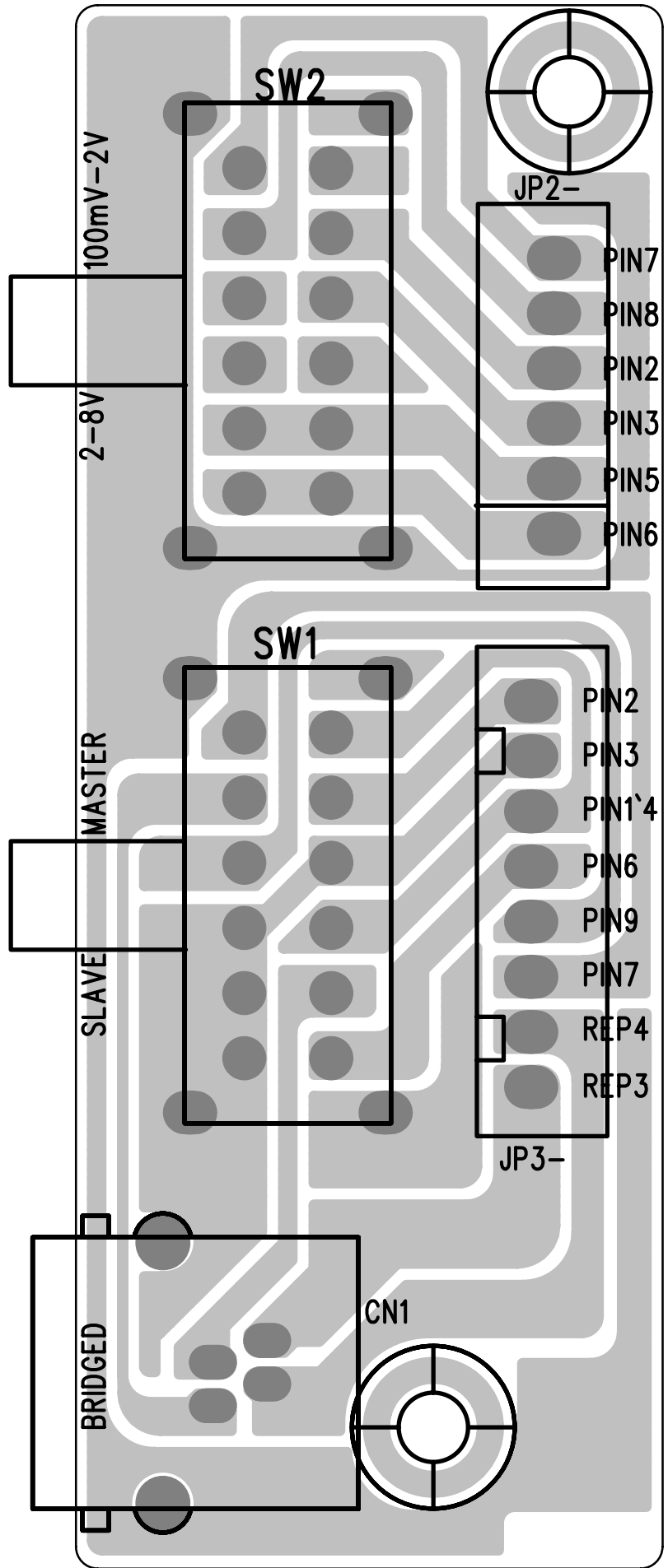
PRINTED CIRCUIT BOARD - 1



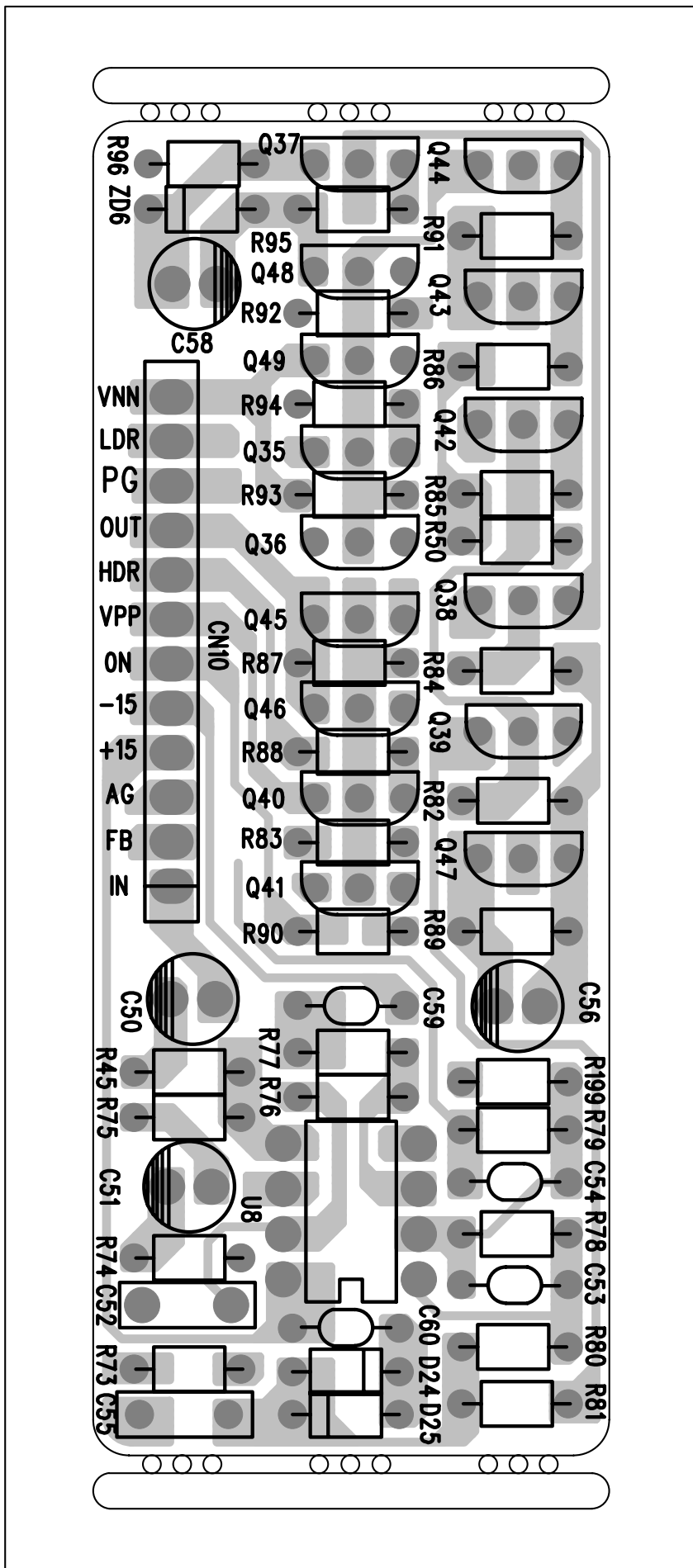
PRINTED CIRCUIT BOARD - 2

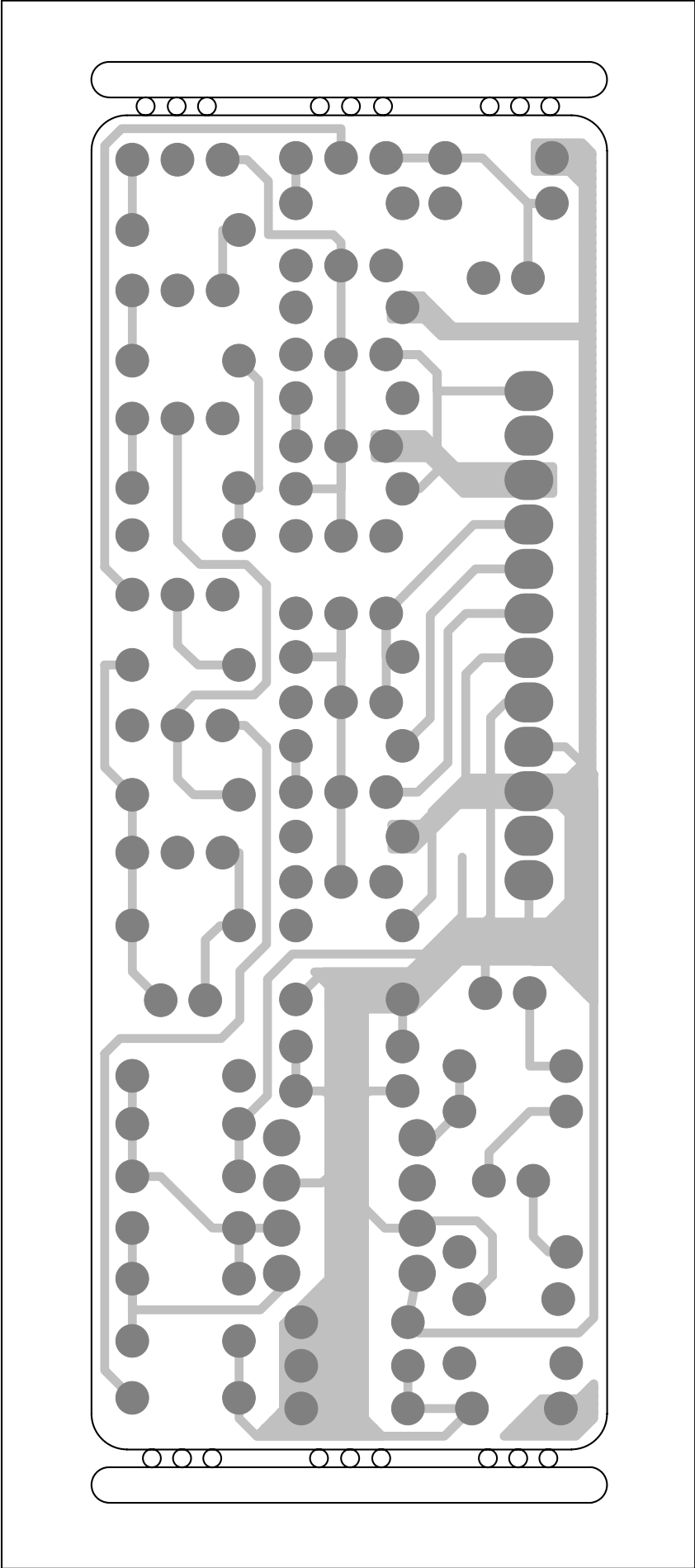


PRINTED CIRCUIT BOARD - 3

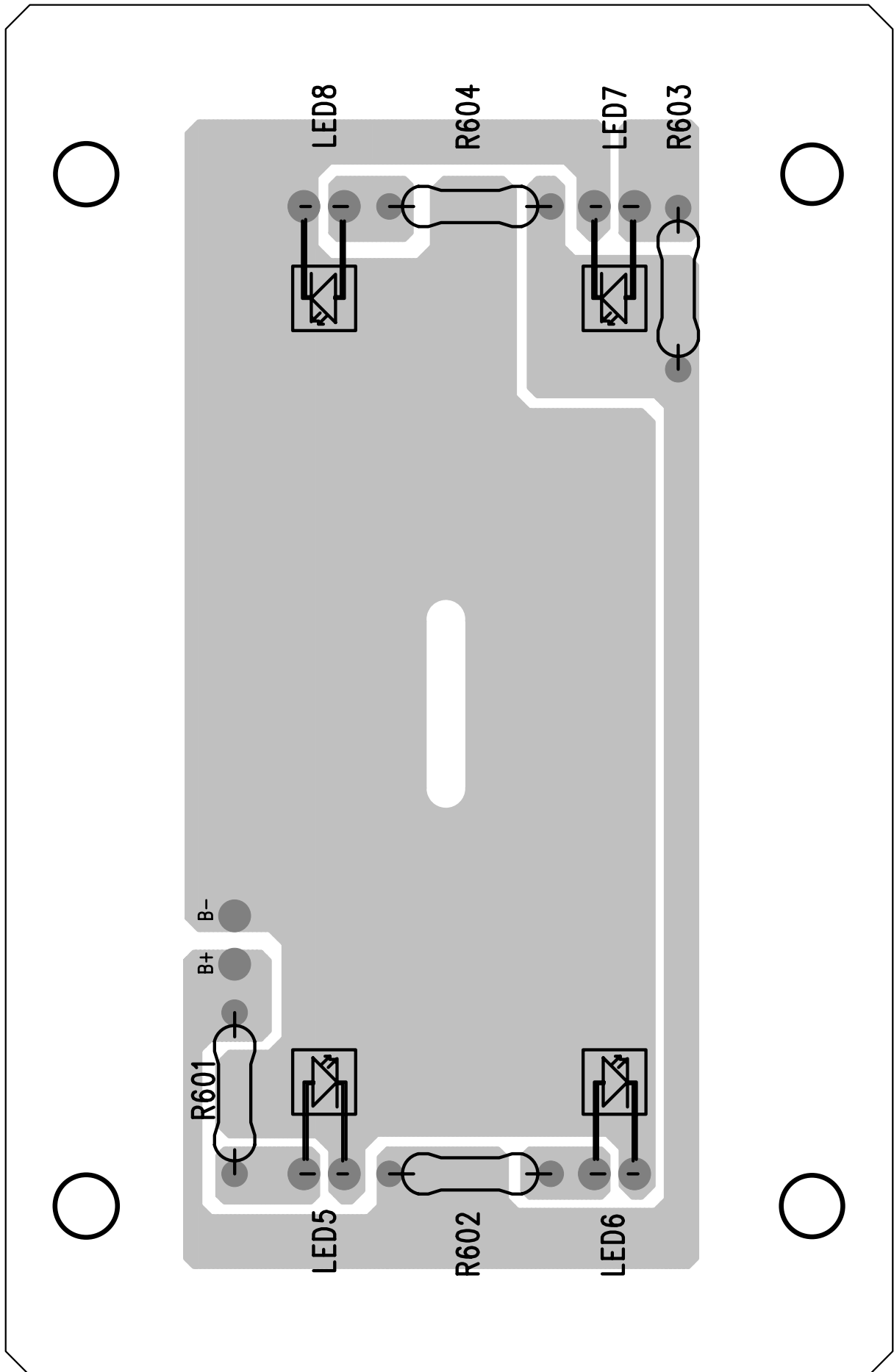


PRINTED CIRCUIT BOARD - 4





PRINTED CIRCUIT BOARD - 6



PARTS LIST - 1

Part Number	desc	Location	qty
1D-SAESA02CXXXXX	Diode ESAC25-02N	D13 D39	2
1D-SAESA02NXXXXX	Diode ESAC25-02C	D14 D38	2
1D-SAFR104XXXXXX	Diode FR104	D10 D15-21 D32-33 D47	11
1D-SAFR604XXXXXX	Diode FR604	D46 D12	2
1D-SA1N4148XXXXX	Diode 1N4148NL	D1-2 D5-9 D11 D22-31 D34-37 D40-45	28
1D-ZA1N5819XXXXX	Zerner 1N5819 DO-41	D3-4	2
1D-ZABZX55XA3VX	Zerner BZX55-C13V/0.5W DO-35	Z3	1
1D-ZABZX55XA6VX	Zerner BZX55-C16V/0.5W DO-35	Z4	1
1D-ZABZX55X56VX	Zerner BZX55-C5.6V/0.5W	ZD6	1
1D-ZA1N4744A5VX	Zerner 1N4744A-G(BULK)LF	Z5	1
1D-ZA1N4753C6VX	Zerner 1N4753A/36V	Z1-2 Z6-7	4
1Q-XAMPSA42XXXXX	Transistor MPSA42	Q35-36 Q40-41	4
1Q-XAMPSA56XXXXX	Transistor MPSA56	Q45-46 Q48-49	4
1Q-XAMPSA92XXXXX	Transistor MPSA92	Q42-44	3
1Q-PAKA1023YXXX	Transistor KTA1023Y/P	Q9-10 Q47	3
1Q-PAKA1266YXXX	Transistor KTA1266Y AT/PF	Q1 Q13	2
1Q-NAKC1027YXXX	Transistor KTC1027Y/P	Q11-12 Q37-39	5
1Q-NAKC3198YXXX	Transistor KTC3198Y AT/PJ	Q2 Q14 Q30-31	4
	Transistor KTD882	Q15	1
	Mosfet 2N5459 DO-92	Q201	1
1Q-XAIRF1010EXX	Mosfet IRF1010E PBF	Q5-8 Q24-27	8
1Q-XAIR31N20DXX	Mosfet IRFB31N20D	Q20-23 Q16-19	8
1C-E10880BV2C0M	E Cap 1000UF/80V	C27-28	2
1C-E22880BC0C0M	E Cap 2200UF/80V	C23-26	4
1C-E10725B63A2M	E Cap 100UF/25V	C7 C151 C114	3
1C-E22835BA6B5M	E Cap 2200UF/35V	C49 C17 C57 C61 C48 C18-20	8
1C-E227A0BA3B5M	E Cap 100UF/250V	C129-131 C128	4
1C-E227A0BA3B5M	E Cap 220UF/100V	C41 C40	2
1C-E22716B63A2M	E Cap 220UF/16V	C124-125	2
1C-E22725B82A2M	E Cap 220UF/25V	C39	1
	E Cap 1UF/50V	C155	1
	E Cap 10UF/50V	C123 C56 C58 C150 C2 C14 C101-102	8
1C-E47625B50A1M	E Cap 47UF/25V	C1 C11 C16 C37-38 C50-51 C103 C118-119 C126 C152 C156	13
1C-E47650B63A2M	E Cap 47UF/50V	C31-32	2
1C-P471J0A5025K	C Cap 471/1KV (Y5P)	C22 C45	2

PARTS LIST - 2

1C-R102A0A7023J	M Cap 102J/100V	C120-121 C21	3
	M Cap 682J/100V	C158	1
1C-R103A0A7023J	M Cap 103J/100V	C5-6 C46-47 C52 C122	6
	M Cap 153J/100V	C154 C157	2
1C-R104A0X7035J	M Cap 104J/100V	C4 C65-66 C8-10 C13 C15 C33-36 C42 C59-60 C100 C105-106	18
1C-R224A0A7045J	M Cap 224J/100V	C29-30 C43-44 C12 C127 C140-141	8
1C-R333A0A7024J	M Cap 333J/100V	C55	1
	M Cap 393J/100V	C116-117	2
1C-R472A0A7023J	M Cap 472J/100V	C3	1
	M Cap 563J/100V	C62 C142	2
1C-A10050C3520K	M Cap 10P/50V (NPO)	C53 C153	2
1C-A10150C3520K	M Cap 101/50V (X7R)	C54	1
	M Cap 331/50V (X7R)	C107	1
1I-LM393PXX208X	IC LM393P DIP-8	U2-3	2
1I-SG3525AN216X	IC ST SG3525AN DIP-16	U1	1
1I-JRC4558D208X	IC JRC4558D DIP-8	U9-13 U16-17	7
1I-JRC4565D208X	IC JRC4565D DIP-8	U8	1
1I-KIA431XX103X	IC KIA431 TO-92	U4	1
1I-L7815CVX103X	IC L7815CV TO-220	U7	1
1I-L7915CVX103X	IC L7915CV TO-220	U15	1
1I-TLP521XX208X	IC TLP521-2	U5-6	2
	LED Ø3 green	LED1	1
1E-O2SQ702528XX	LED Ø3 red	LED2	1
1R-LA000105B12A	Resistor 0.01Ω	R176-177	2
	Resistor 1Ω 1/8W	R193	1
1R-OA122X05BXXX	Resistor 1.2K 1/8W	R87 R93	2
1R-OA152X05BXXX	Resistor 1.5K 1/8W	R199	1
1R-OA100X05BXXX	Resistor 10Ω 1/8W	R85-86 R91	3
1R-OA101X05BXXX	Resistor 100Ω 1/8W	R80-81 R83 R88 R101 R121 R201	7
1R-OA104X05BXXX	Resistor 100K 1/8W	R155 R104 R163 R194 R78 R103	6
1R-OA103X05BXXX	Resistor 10K 1/8W	R31-34 R42 R16-17 R74-75 R77 R79 R89 R96 R122 R125 R151-154 R157 R164 R166-167 R24 R26-27 R190 R210 R217 R116 R197 R216• REM• •R9	33
1R-OA151X05BXXX	Resistor 150Ω 1/8W	R94	1
1R-OA123X05BXXX	Resistor 12K 1/8W	R118 R183-184 R186	4
1R-OA153X05BXXX	Resistor 15K 1/8W	R23	1
1R-OA183X05BXXX	Resistor 18K 1/8W	R110 R117	2

PARTS LIST - 3

1R-OA154X05BXXX	Resistor 150K 1/8W	R47	1
1R-OA102X05BXXX	Resistor 1K 1/8W	R45 R92 R138 R141-142 R156 R95 R76 R39	9
1R-OA202X05BXXX	Resistor 2K 1/8W	R6-7	2
1R-OA222X05BXXX	Resistor 2.2K 1/8W	R191 R46	2
1R-OA272X05BXXX	Resistor 2.7K 1/8W	R43 R195	2
1R-OA203X05BXXX	Resistor 20K 1/8W	R127 R131 R133 R140 R119-120 R111 R35 R73 R180-182 R213 R126 R218-219 R512	17
1R-OA243X05BXXX	Resistor 24K 1/8W	R109 R145 R147	3
1R-OA273X05BXXX	Resistor 27K 1/8W	R124	1
1R-OA220X05BXXX	Resistor 22Ω 1/8W	R1	1
1R-OA221X05BXXX	Resistor 220Ω 1/8W	R4-5 R37 R50 R58-59 R100 R123	8
1R-OA271X05BXXX	Resistor 270Ω 1/8W	R144 R158 R143	3
1R-OA224X05BXXX	Resistor 220K 1/8W	R211 R28	2
1R-OA302X05BXXX	Resistor 3K 1/8W	R214	1
1R-OA332X05BXXX	Resistor 3.3K 1/8W	R44	1
1R-OA303X05BXXX	Resistor 30K 1/8W	R185	1
1R-OA393X05BXXX	Resistor 39K 1/8W	R18 R192	2
1R-OA304X05BXXX	Resistor 300K 1/8W	R21	1
1R-OA472X05BXXX	Resistor 4.7K 1/8W	R2-3 R25 R99 R159 R216(MAIN)	6
1R-OA470X05BXXX	Resistor 47Ω 1/8W	R11-13 R54-57 R150 R168-175 R10	17
1R-OA431X05BXXX	Resistor 430Ω 1/8W	R108	1
1R-OA471X05BXXX	Resistor 470Ω 1/8W	R36 R22	2
1R-OA433X05BXXX	Resistor 43K 1/8W	R114	1
1R-OA473X05BXXX	Resistor 47K 1/8W	R105-106 R90	3
1R-OA434X05BXXX	Resistor 430K 1/8W	R160	1
1R-OA513X05BXXX	Resistor 51K 1/8W	R139	1
1R-OA563X05BXXX	Resistor 56K 1/8W	R20	1
1R-OA561X05BXXX	Resistor 560Ω 1/8W	R82 R84	2
1R-OA684X05BXXX	Resistor 680K 1/8W	R29	1
1R-OA821X05BXXX	Resistor 820Ω 1/8W	R115 R215• REM• •	2
	Resistor 1M 1/8W	R196 R51	2
	Resistor 3.9M 1/8W	R215(MAIN)	1
	Resistor 6.8K 1/8W	R161 R165	2
	Resistor 68K 1/8W	R19 R107	2
1R-OA022X05CXXX	Resistor 2.2Ω 1/4W	R30	1
1R-OA682X05DXXX	Resistor 6.8K 1/2W	R40-41	2
1R-FA102X05EXXX	Resistor 1K 1W	R38	1

PARTS LIST - 4

1R-FA220X05EXXX	Resistor 22 Ω 1W	R149	1
1R-FA472X05GXXX	Resistor 4.7K 1W	R162	1
1R-FA103X05GXXX	Resistor 10K 3W	R60-61	2
1R-FA530X05GXXX	Resistor 53 Ω 3W	R14-15 R48-49 R52-53	6
1R-TA154X05XXXX	Thermistor 150K	TH1-2	2
1S-224025T07H10	Switch 2P2T	SW3	1
1S-429421T07H16	Switch 4P2T	SW1	1
1L-AAM1DRH33224	Inductance 40uH	L3	1
1L-AAM11CH33222	Inductance 50uH	L1-2	2
1T-AAM9EDH45158	Transformer	T2	1
1T-AAM9EDH4515A	Transformer	T1	1
1V-092203T10H6X	VR B20K	VR1-3 VR6 (REM)	3
1V-092503T10H6X	VR B50K	VR4 VR8	2
	Connection Copper Plate 60mm	JD1	1
	Connection Copper Plate 85mm	JD2	1