# SERVICE MANUAL
# NAD MODEL 3045
# STEREO AMPLIFER

CONTENTS


| | | |
|---|---|---|
| SPECIFICATION | PAGE | 2 |
| INSIDE VIEW OF UNIT | PAGE | 3 |
| ALIGNMENT | PAGE | 4,5 |
| PCB PARTS LOCATION | PAGE | 6,7 |
| WIRING DIAGRAM | PAGE | 8 |
| CIRCUIT DIAGRAM | PAGE | 9 |
| PARTS LIST | PAGE | 10,11, 12 |




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# SPECIFICATION

* Measurements identified by an asterisk are taken in accordance with the new IHF A-202 amplifier measurement standard.

## Power Amplifier Section

| | | | |
|---|---|---|---|
| * | Continuous average power output at 8 ohms 20–20K Hz both channel driven | | 45W |
| | Rated distortion, 20–20K Hz | | < 0.05% |
| * | Clipping headroom | at 8 ohms | +1.2dB |
| | Clipping power | at 8 ohms | 60W |
| | | at 4 ohms | 80W |
| | | at 2 ohms | 90W |
| | Dynamic headroom | at 8 ohms | +2.2dB |
| | Dynamic power | at 8 ohms | 75W |
| | | at 4 ohms | 100W |
| | | at 2 ohms | 120W |
| * | Reactive load rating | | +1.7dB |
| * | Transient Overload Recovery Time | | < 1μsec. |
| * | Slew Factor | | > 50 |
| | Slew Rate | | 20V/μsec. |
| | Damping factor at 50 Hz (Ref. 8 ohms) | | 75 |
| | T.H.D. 20–20K Hz From 250 mW to 45W | | 0.05% |
| | S.M.P.T.E. I.M.D. (60 Hz + 7KHz, 4:1) From 250mW to 45W | | 0.05% |
| | I.H.F. I.M.D. (19KHz + 20KHz) at 45W | | 0.05% |
| | T.I.M. (15KHz Sine + 3.18KHz Squàre Wave) at 45W | | 0.05% |
| | Frequency Response, 20–20K HZ | | ± 0.5dB |
| | Frequency Response Range ± 3dB | | 5–50K |

## Preamplifier Section

| | | | |
|---|---|---|---|
| * | Input Impedance Resistance/Capacitance | | 50KΩ/100PF |
| | Input Sensitivity (1KHz) | * For 1 watt out | 0.4mV |
| | | 45Watt out | 2.5mV |
| | Input Overload at 1KHz | | 200mV |
| | 20 Hz | | 20mV |
| | 20 KHz | | 2.0V |
| | THD (20–20K Hz) and IMD at + 30dB input level | | 0.01% |
| | RIAA Response Accuracy | | ± 0.3dB |
| | Siqnal to Noise Ratio A–weighted | | |
| | (a) with phono cartridge connected | Ref 10mV | > 82dB |
| | | * Ref 5mV | > 76dB |
| | (b) with short-circuit input | Ref 10mV | > 90dB |

## High level input

| | | | |
|---|---|---|---|
| * | Input impedance Resistance/Capacitance | | 25KΩ/100PF |
| | Input sensitivity * For 1 watt out | | 25mV |
| | For 45 watt out | | 150mV |
| | Siqnal to Noise Ratio, A–Weighted | | |
| | (a) with mute off | * Ref 1 watt out | > 80dB |
| | | Ref 45 watt out | > 92dB |
| | (b) with mute on | Ref 1 watt out | > 85dB |
| * | Maximum input signal | | infinite |
| | Rrequency Response, 20–20K Hz | | ± 0.5dB |

## Controls

| | | |
|---|---|---|
| Bass control, range at 50 Hz | | ± 10dB |
| Treble control, range at 10 KHz | | ± 10dB |
| Infrasonic filter | Turn over frequency | 20 Hz |
| | Slope (dB/octave) | 12 |
| High filter | Turn over frequency | 7 KHz |
| | Slope (dB/octave) | 6 |
| **Mute** | | –20dB |

## Physical Specification

| | | | |
|---|---|---|---|
| Dimensions | W x H x D | inch | 17.7 x 5.5 x 15.6 |
| | | cm | 45 x 14 x 39.5 |
| Net weight | | | 261 lbs/12kg |
| Shipping weight | | | 32 lbs/14.5kg |
| Power Consumption | at | 1 watt out | 30VA |
| | | 45 watt out | 250VA |



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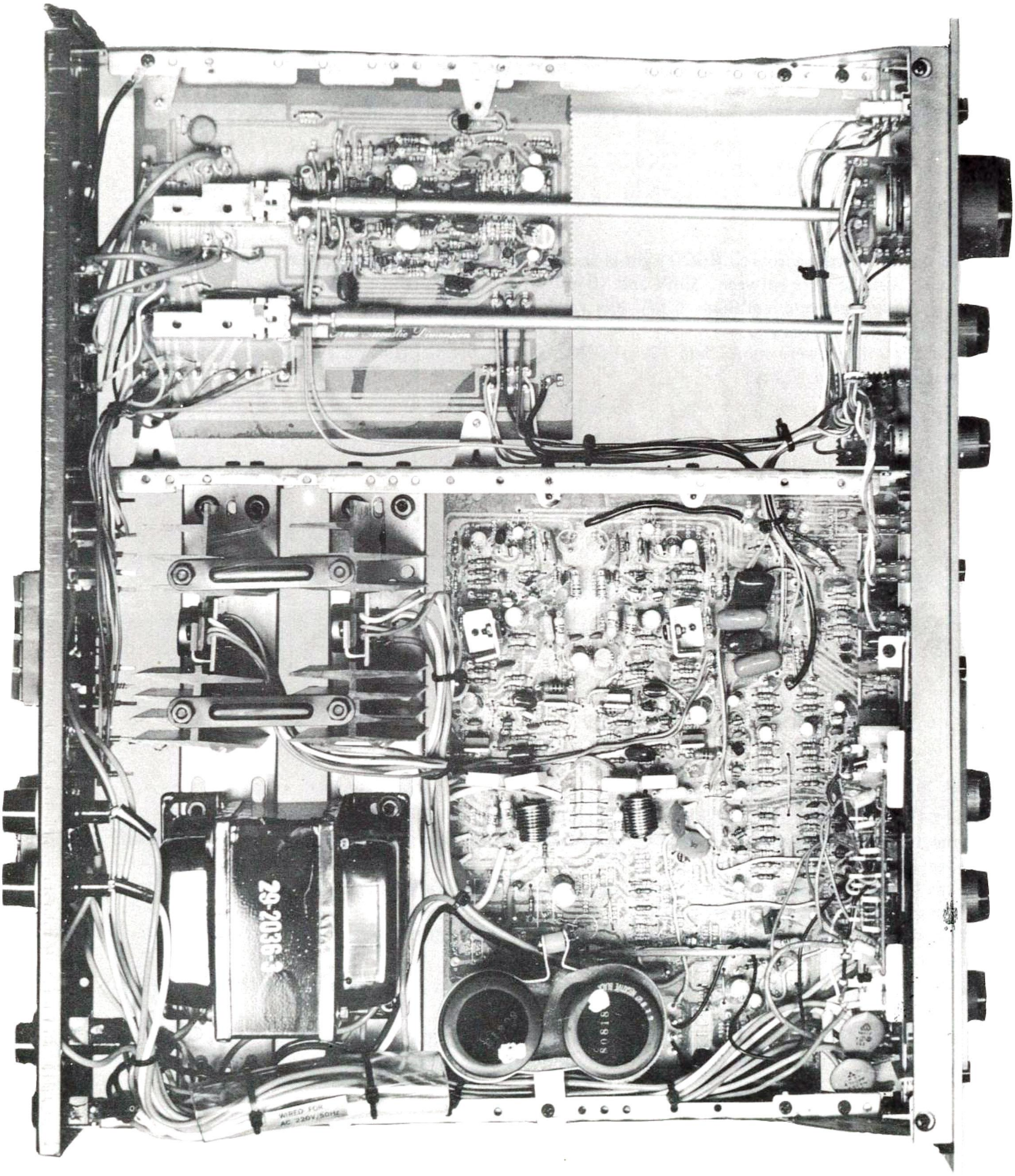
# INSIDE VIEW OF UNIT



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# ALIGNMENT

## 1. IDLE CURRENT ALIGNMENT

1. 5 Minutes minimum pre-heating is necessary for idle current alignment.
2. Set the volume control at minimum position.
3. Speaker switch should be set at off position.
4. Connect DC voltmeter across R665 for right channel and across R666 for left channel. (see fig. 1)
5. Record the reading of DC voltmeter and refer to the following chart to find the appropriate value resistor to connect in parallel with R637 (right channel), or R638 (left channel) on the bottom side (pattern side) of PCB.

* Important notice: The power switch must be in the off position when soldering is done.

| Reading of DC Voltmeter | Parallel Resistor | Reading of DC Voltmeter | Parallel Resistor |
|---|---|---|---|
| 0.4 to 1.1mV | 3K3 | 2.8 to 3.5mV | 5K6 |
| 1.2 to 1.9mV | 3K9 | 3.6 to 4.3mV | 6K8 |
| 2.0 to 2.7mV | 4K7 | 4.4 to 5.0mV | 8K2 |

6. Read the DC voltage across to R665 (right channel) and R666 (left channel) again.
7. If the DC voltage were between 5 mV and 10 mV, then the alignment is completed.
8. If the DC voltage were less than 5 mV, the value of parallel resistor should be increased until the DC voltage is between 5mV and 10mV.
9. If the DC voltage were more than 10 mV, the value of parallel resistor should be reduced until the DC voltage is between 5 mV and 10 mV.

## 2. POWER METER ALIGNMENT

1. Feed a lKHz sine wave approx 150mV RMS to both channel's Aux inputs.
2. Connect an 8 ohm (+20%) dummy load and an AC voltmeter and oscilloscope to the "main speaker" terminals on the rear panel.
3. Set the volume control at maximum position and other controls are set at their normal positions.
4. Set the speaker switch to "main" position.

* 5. Adjust the input signal level till the output voltage is 19.0 V and making sure that no clipping of the waveform is occurring.

6. Adjust VR 2 (for right channel) and VR 1 (for left channel) for a meter indication of 45 W. (or 0 dB). (see fig. 3)

* In cases of poor mains regulation it is possible that slight clipping occurs at 19.0 V when both channels are driven simultaneously. If this is the case, do the calibration one channel at a time.



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# ALIGNMENT

*Rx1 (Right) Rx2 (left) For idle current Aligment

Fig 1. patten side view



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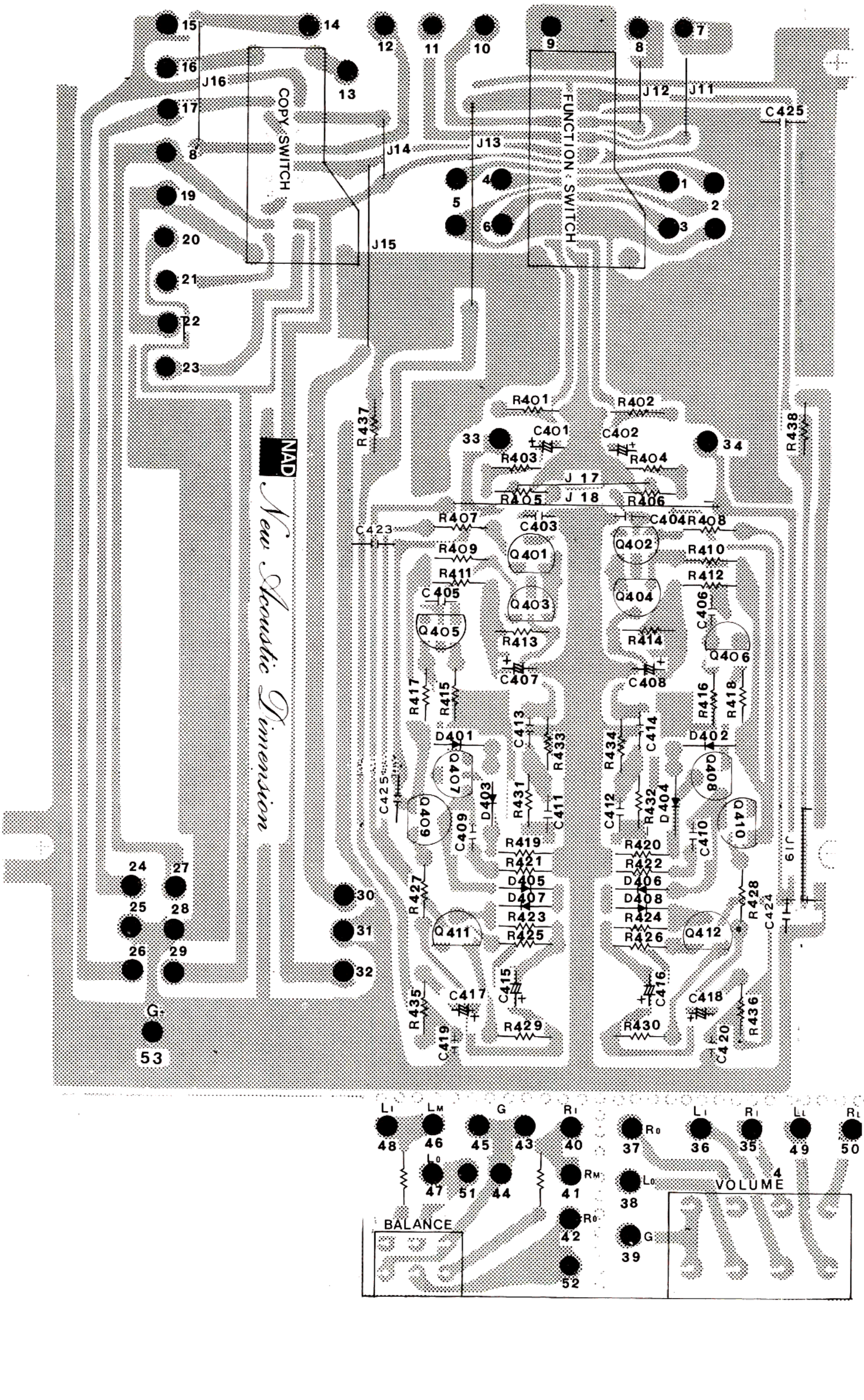
# PCB PARTS LOCATION



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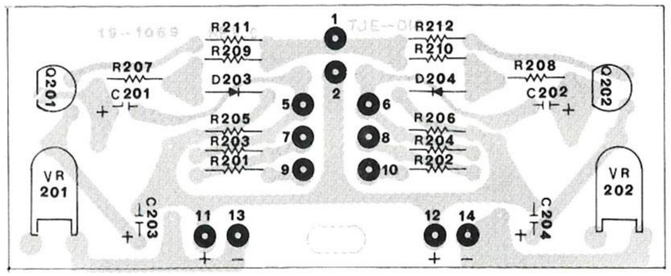
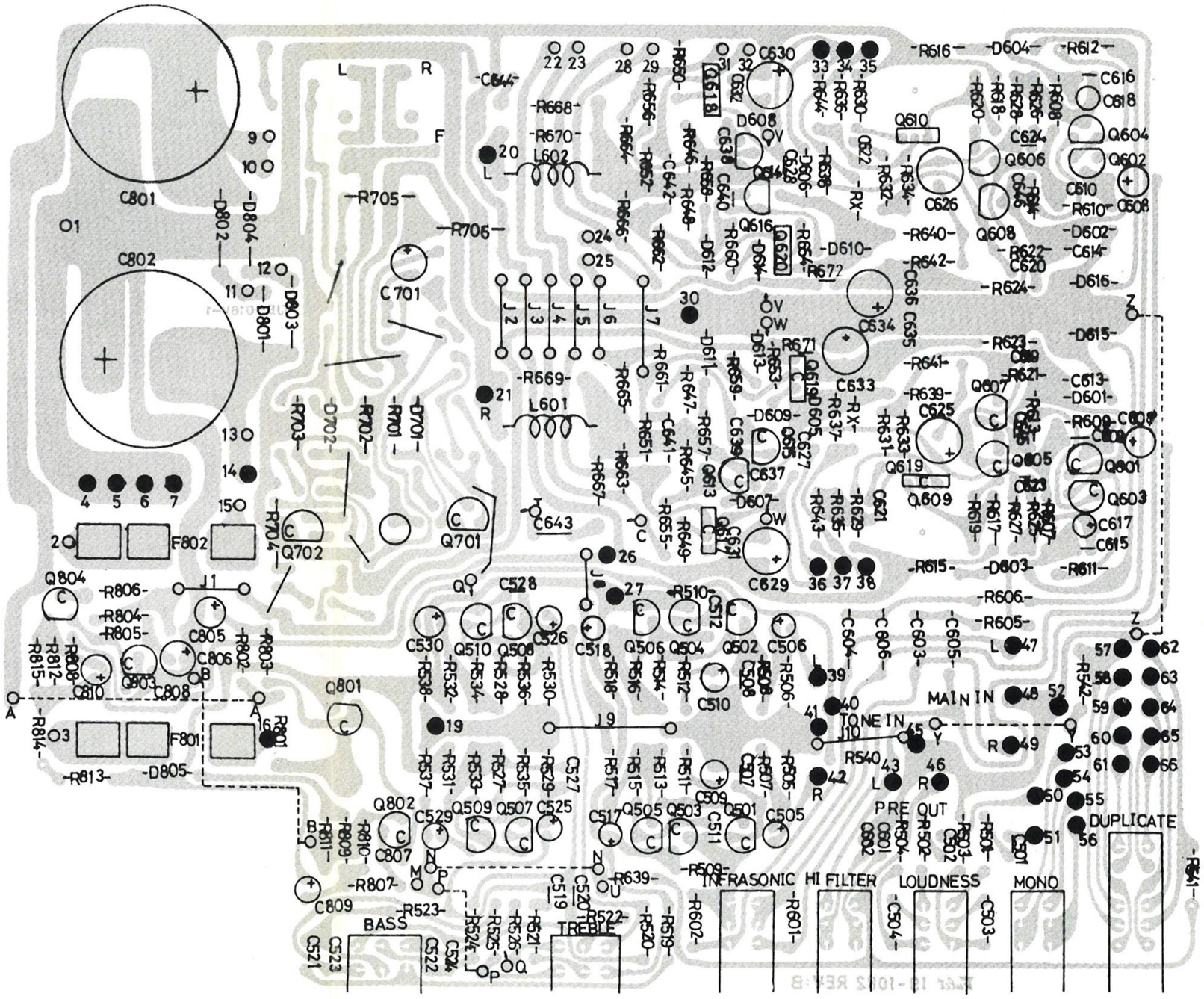

R211
R209
R207
C201
D203
R205
R203
R201
R212
R210
R208
C202
D204
R206
R204
R202
Q201
Q202
VR 201
VR 202
C203
C204
1
2
5
6
7
8
9
10
11
13
12
14

Fig. 3


C801
C802
F802
F801
Q804
Q801
Q802
C809
C701
Q701
Q702
C643
C528
C530
C526
C518
C506
C512
C510
C509
C501
C505
C507
C511
C503
C504
C502
C519
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C521
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C525
C527
C529
C630
C631
C632
C633
C634
C635
C636
C637
C638
C639
C640
C641
C642
C644
C805
C806
C807
C808
C810
D608
D606
D607
D609
D610
D611
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D613
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D615
D616
D617
D618
D619
D620
D621
D622
D623
D624
D625
D626
D627
D628
D629
D801
D802
D803
D804
D805
D701
D702
Q610
Q626
Q608
Q616
Q620
Q607
Q605
Q619
Q609
Q604
Q606
Q602
Q608
Q603
Q601
C616
C618
C610
C624
C614
C620
C615
C617
C613
C601
C609
C605
C607
C621
C622
C623
C625
C627
C629
C626
C612
C604
C606
C603
C605
C602
C608
C610
C611
C613
C615
C617
C619
C621
C623
C625
C627
C629
C631
C633
C635
C637
C639
C641
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C647
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C653
C655
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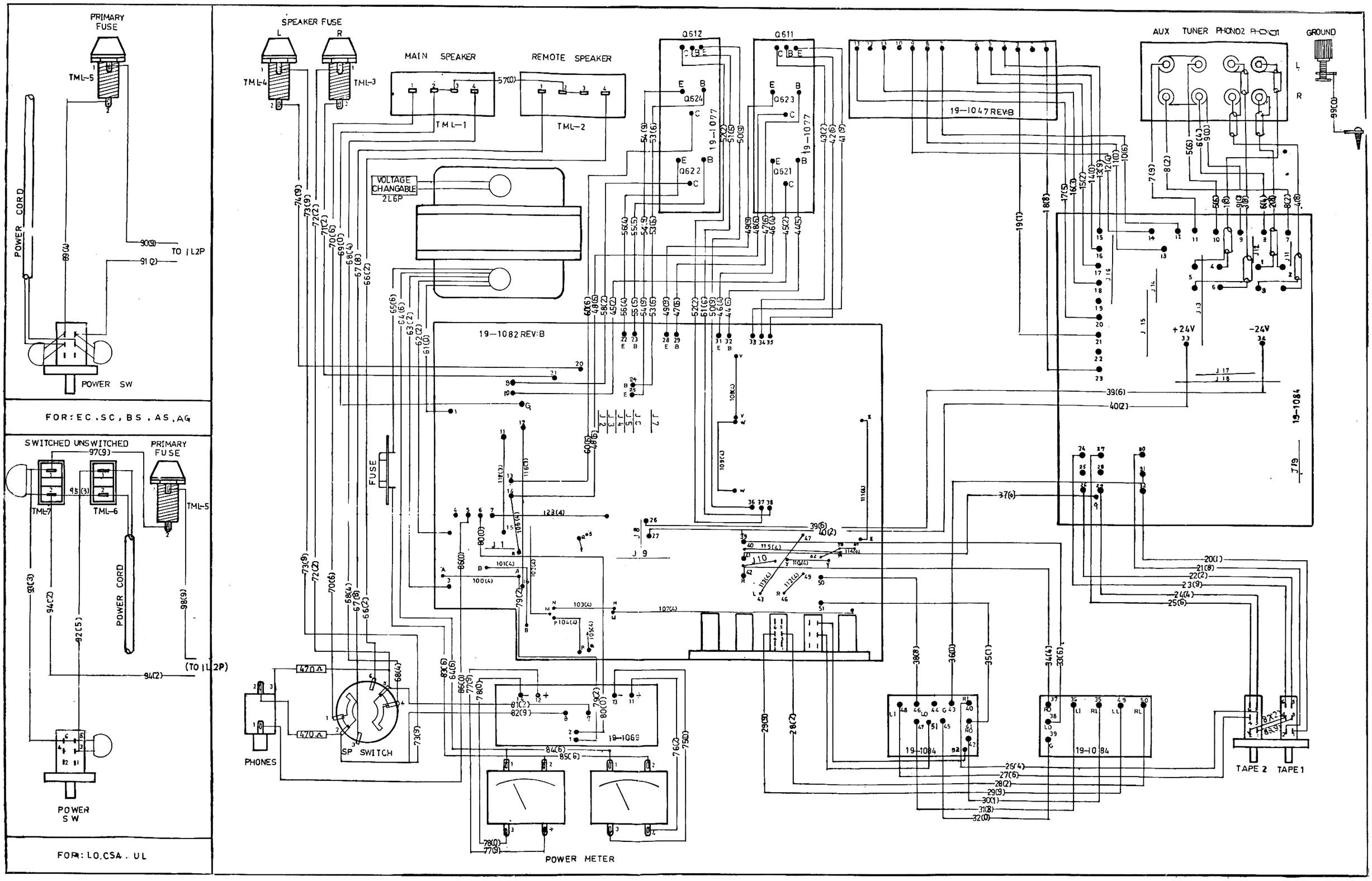
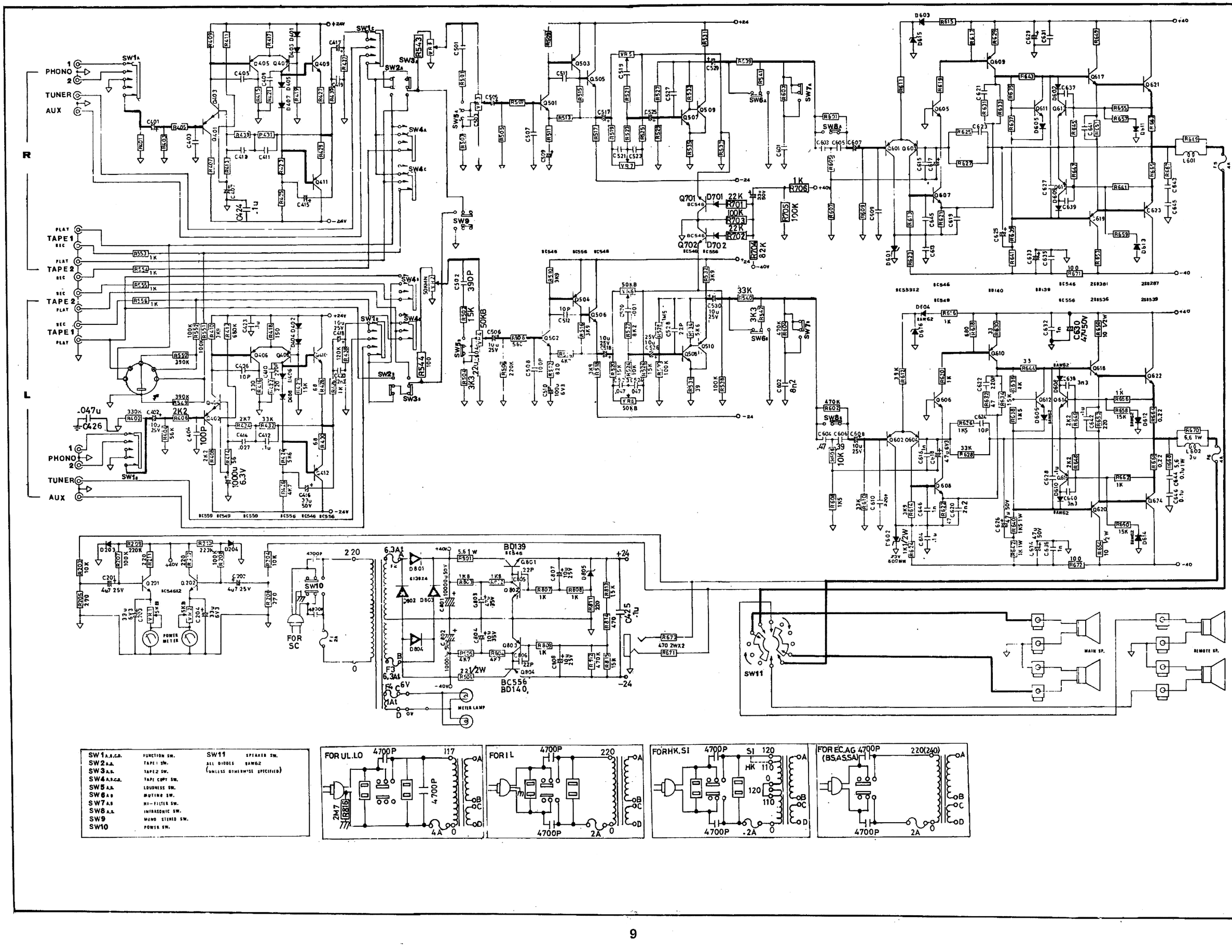
C661
C663
C665
C667
C669
C671
C673
C675
C677
C679
C681
C683
C685
C687
C689

# WIRING DIAGRAM



# CIRCUIT DIAGRAM




| | | | |
|---|---|---|---|
| SW1 A.B.C.D. | FUNCTION SW. | SW11 | SPEAKER SW. |
| SW2 A.B. | TAPE1 SW. | ALL DIODES | BAW62 |
| SW3 A.B. | TAPE2 SW. | (UNLESS OTHERWISE SPECIFIED) | |
| SW4 A.B.C.D. | TAPE COPY SW. | | |
| SW5 A.B. | LOUDNESS SW. | | |
| SW6 A.B | MUTING SW. | | |
| SW7 A.B | HI-FILTER SW. | | |
| SW8 A.B. | INFRASONIC SW. | | |
| SW9 | MONO STEREO SW. | | |
| SW10 | POWER SW. | | |

## 90–3082 MAIN SECTION

| ITEM | PARTS NO | DEXRIPTION | Q'TY | SYMBOL NO |
|---|---|---|---|---|
| 1 | 16–½CP100J | CARBON RES 10 OHM ½W +– 5% | 4 | R650, 649, 654, 653 |
| 2 | 16–½CP102J | CARBON RES 1K OHM ½W +– 5% | 2 | R623, 624 |
| 3 | 16–½CP220J | CARBON RES 220 OHM ½W +– 5% | 1 | R806 |
| 4 | 16–¼CM101J | CARBON RES 100 OHM ¼W +– 5% | 2 | R671, 672 |
| 5 | 16–¼CM102J | CARBON RES 1K OHM ¼W +– 5% | 12 | R619, 620, 635, 636, 621, 622, 655, 656, 807, 808, 809,706 |
| 6 | 16–¼CM103J | CARBON RES 10K OHM ¼W +– 5% | 4 | R523, 524, 605, 606 |
| 7 | 16–¼CM104J | CARBON RES 100K OHM ¼W +– 5% | 6 | R529, 530, 537, 538, 703, 705 |
| 8 | 16–¼CM152J | CARBON RES 1.5K OHM ¼W +– 5% | 6 | R607, 608, 625, 626, 637, 638 |
| 9 | 16–¼CM153J | CARBON RES 15K OHM ¼W +–5% | 14 | R633,R634,R657,R658,R519, R520,R525,R526,R659,R660, R813,R814,R501,R502 |
| 10 | 16–¼CM155J | CARBON RES 1.5M OHM ¼W +– 5% | 2 | R527,R528 |
| 11 | 16–¼CM221J | CARBON RES 220 OHM ¼W +– 5 % | 1 | R811 |
| 12 | 16–¼CM222J | CARBON RES 2.2K OHM ¼W +– 5% | 4 | R645,R646,R647,R648 |
| 13 | 16–¼CM223J | CARBON RES 22K OHM ¼W +– 5% | 2 | R701, 702 |
| 14 | 16–¼CM224J | CARBON RES 220K OHM ¼W +– 5% | 2 | R505,506 |
| 15 | 16–¼CM330J | CARBON RES 33 OHM ¼W +– 5% | 2 | R629,630 |
| 16 | 16–¼CM332J | CARBON RES 3.3K OHM ¼W +–5% | 4 | R503,504,541,542 |
| 17 | 16–¼WCM333J | CARBON RES 33K OHM ¼W +– 5% | 6 | R609,610,627,628,539,540 |
| 18 | 16–¼CM390J | CARBON RES 39 OHM ¼W +–5% | 2 | R535,536 |
| 19 | 16–¼CM392J | CARBON RES 3.9K OHM ¼W +– 5% | 10 | R509,510,515,516,517,518,531, 532,613,614 |
| 20 | 16–¼CM393J | CARBON RES 39K OHM ¼W +– 5% | 2 | R611,612 |
| 21 | 16–¼CM470J | CARBON RES 470OHM ¼W +– 5% | 4 | R631,632,621,622 |
| 22 | 16–¼CM471J | CARBON RES 470 OHM ¼W +– 5% | 1 | R814 |
| 23 | 16–¼CM472J | CARBON RES 4.7K OHM ¼W +– 5% | 4 | R804,805,513,514 |
| 24 | 16–¼CM474J | CARBON RES 470K OHM ¼W +– 5% | 5 | R603,604,601,602,812 |
| 25 | 16–¼CM561J | CARBON RES 560OHM ¼W +– 5% | 2 | R507,508 |
| 26 | 16–¼CM562J | CARBON RES 5.6K OHM ¼W +– 5% | 2 | R533,534 |
| 27 | 16–¼CM821J | CARBON RES 820 OHM ¼W +– 5% | 2 | R511,512 |
| 28 | 16–¼CM822J | CARBON RES 8.2K OHM ¼W +– 5% | 2 | R521,522 |
| 29 | 16–¼CM823J | CARBON RES 82K OHM ¼W +– 5% | 1 | R704 |
| 30 | 16–¼CN102J | CARBON RES 1K OHM ¼W +– 5% | 2 | R615,616 |
| 31 | 16–¼CN182J | CARBON RES 1.8K OHM ¼W +– 5% | 2 | R802,803 |
| 32 | 16–¼CN221J | CARBON RES 220 OHM ¼W +– 5% | 2 | R651,652 |
| 33 | 16–¼CN330J | CARBON RES 330 OHM ¼W +– 5% | 2 | R643,644 |
| 34 | 16–¼CN681J | CARBON RES 680 OHM ¼W +– 5% | 2 | R617,618 |
| 35 | 16–1003 | MPC 71 RES 0.22 OHM 5W | 4 | R663,664,665,666 |
| 36 | 16–1A102J | METAL OXIDE RES 1K OHM 1W +– 5% | 2 | R641,642 |
| 37 | 16–1A152J | METAL OXIDE RES 1.5K OHM 1W +– 5% | 2 | R639,640 |
| 38 | 16–1A5R6J | METAL OXIDE RES 5.6 OHM 1W +– 5% | 5 | R667,668,669,670,801 |
| 39 | 17–0.63E107Y | ELEC CAPA 100μF/6.3V+50–10% | 2 | C509,510 |
| 40 | 17–0.63E476Y | ELEC CAPA 47μF/6.3V+50–10% | 2 | C617,618 |
| 41 | 17–2.5E106Y | ELEC CAPA 10μF/25V+50–10% | 12 | C505,506,517,518,525,526,607, 608,529,530,807,808 |
| 42 | 17–35E106Y | ELEC CAPA 10μF/35V+50–10% | 1 | C804 |
| 43 | 17–5D100D | CER CAPA 10P +– 0.59 50V | 4 | C511,512,623,624 |
| 44 | 17–5D101M | CER CAPA 100P +–20% 50V | 2 | C507,508 |
| 45 | 17–5D102M | CER CAPA 1000P +–20% 50V | 4 | C631,632,635,636 |
| 46 | 17–5D104M | CER CAPA 0.1μF+–20% 50V | 6 | C613,614,643,644,645,646 |
| 47 | 17–5D220M | CER CAPA 22P +–20% 50V | 4 | C805,806,527,528 |
| 48 | 17–5D221M | CER CAPA 220P +–20% 50V | 4 | C609,610,621,622 |
| 49 | 17–5D332M | CER CAPA 0.0033μF +–20% 50V | 4 | C637,638,639,640 |
| 50 | 17–5D391M | CER CAPA 390PF +–20% 50V | 2 | C501,502 |
| 51 | 17–5E336Y | ELEC CAPA 33μF +–50–10% 50V | 1 | C701 |
| 52 | 17–5E476Y | ELEC CAPA 47μF +50–10% 50V | 7 | C625,626,629,630,633,634,803 |
| 53 | 17–5F102J | MYLAR CAPA 0.001μF +–5% 50V | 6 | C519,520,615,616,645,646 |
| 54 | 17–5F104J | MYLAR CAPA 0.1μF +– 5% 50V | 4 | C627,628,641,642 |
| 55 | 17–5F222J | MYLAR CAPA 0.0022μF +–5% 50V | 2 | C619,620 |
| 56 | 17–5F224J | MYLAR CAPA 0.22μF +–5% 50V | 2 | C503,504 |
| 57 | 17–5F394J | MYLAR CAPA 0.39μF +–5% 50V | 2 | C605,606 |
| 58 | 17–5F473J | MYLAR CAPA 0.047μF +– 5% 50V | 4 | C521,522,523,524 |
| 59 | 17–5F474J | MYLAR CAPA 0.47μF +– 5% 50V | 2 | C603,604 |
| 60 | 17–5F822J | MYLAR CAPA 0.0082μF +– 5% 50V | 2 | C601,602 |
| 61 | 19–1082 | PCB (MAIN AMP) | 1 | |
| 62 | 29–1036–1 | AIR COIL 3.3μH | 2 | L601,602 |
| 63 | 29–4028 | TONE CONTROL GM70E–50KBx2 | 2 | |
| 64 | 30–1016 | ZENER DIODE 23V 0.5W | 5 | D805,615,616,601,602 |
| 65 | 30–1017–1 | DIODE G3B | 4 | D801,802,803,804 |
| 66 | 30–1019 | DIODE BAW62 | 14 | D603,604,605,606,607,608,609, 610,611,612,613,614,701,702 |



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| ITEM | PARTS NO | DEXCRIPTION | Q'TY | SYMBOL NO |
|---|---|---|---|---|
| 67 | 30–2082 | TRANSISTOR BD140 | 3 | Q609,610,804 |
| 68 | 30–2083 | TRANSISTOR BD139 | 1 | Q801 |
| 69 | 30–2084–3 | TRANSISTOR BC549C | 2 | Q607,608 |
| 70 | 30–2085–2 | TRANSISTOR BC559B | 4 | Q601,602,603,604 |
| 71 | 30–2086 | TRANSISTOR 2SB536M | 2 | Q619,620 |
| 72 | 30–2087 | TRANSISTOR 2SB381M | 2 | Q617,618 |
| 73 | 30–2090–2 | TRANSISTOR BC546B | 13 | Q501,502,505,506,507,508,701, 702,605,606,613,614,801 |
| 74 | 30–2096 | TRANSISTOR BC556A | 7 | Q503,504,509,510,615,616,803 |
| 75 | 31–1040 | PUSH SW 5KEY 2U | 1 | |
| **90–1084 PHONO SECTION** | | | | |
| 76 | 16–¼CM101J | CARBON RES 100 OHM ¼W +– 5% | 2 | R543,544 |
| 77 | 16–¼CM102J | CARBON RES 1K ¼W +– 5% | 2 | R435,436 |
| 78 | 16–¼CM124J | CARBON RES 120K ¼W +– 5% | 2 | R437,438 |
| 79 | 16–¼CM153J | CARBON RES 15K ¼W +– 5% | 2 | R419,420 |
| 80 | 16–¼CM221J | CARBON RES 220 OHM ¼W +– 5% | 2 | R421,422 |
| 81 | 16–¼CM222J | CARBON RES 2.2K ¼W +– 5% | 4 | R405,406,407,408 |
| 82 | 16–¼CM272J | CARBON RES 2.7K ¼W +– 5% | 2 | R433,434 |
| 83 | 16–¼CM333J | CARBON RES 33K ¼W +– 5% | 2 | R431,432 |
| 84 | 16–¼CM334J | CARBON RES 330K ¼W +– 5% | 2 | R401,402 |
| 85 | 16–¼CM392J | CARBON RES 3.9K ¼W +– 5% | 2 | R409,410 |
| 86 | 16–¼CN472J | CARBON RES 4.7K ¼W +– 5% | 2 | R425,426 |
| 87 | 16–¼CM560J | CARBON RES 56 OHM ¼W +– 5% | 2 | R413,414 |
| 88 | 16–¼CM562J | CARBON RES 5.6K ¼W +– 5% | 2 | R423,424 |
| 89 | 16–¼CM563J | CARBON RES 56K ¼W +– 5% | 2 | R403,404 |
| 90 | 16–¼CM684J | CARBON RES 680K ¼W +– 5% | 2 | R411,412 |
| 91 | 16–¼CN151J | CARBON RES 150 OHM ¼W +– 5% | 2 | R417,418 |
| 92 | 16–¼CN331J | CARBON RES 330 OHM ¼W +– 5% | 2 | R415,416 |
| 93 | 16–¼CN680J | CARBON RES 68 OHM ¼W +– 5% | 4 | R427,428,429,430 |
| 94 | 17–0.63E108Y | ELEC CAPA 1000μF/6.3V+50–10% | 2 | C407,408 |
| 95 | 17–2.5E106Y | ELEC CAPA 10μF/25V+50–10% | 4 | C401,402,417,418 |
| 96 | 17–5D100D | CER CAPA 10P +–0.5P 50V | 2 | C405,406 |
| 97 | 17–5D221M | CER CAPA 220P +– 20% 50V | 2 | C409,410 |
| 98 | 17–5D101M | CER CAPA 100P +– 20% 50V | 2 | C403,404 |
| 99 | 17–5D473M | CER CAPA 0.047μF +– 20% 50V | 1 | C426 |
| 100 | 17–5E336Y | ELEC CAPA 33μF/50V+50–10% | 2 | C415,416 |
| 101 | 17–5F104J | MYLAR CAPA 0.1μF 50V +– 5% | 5 | C424,411,425,423,412 |
| 102 | 17–5F222J | MYLAR CAPA 0.0022μF 50V+– 5% | 2 | C419,420 |
| 103 | 17–5F273J | MYLAR CAPA 0.027μF 50V +– 5% | 2 | C413,414 |
| 104 | 19–1084 | PCB (EQ) | 1 | |
| 105 | 29–4070 | VR GJ 70E–50KBx2 41CLICK | 1 | |
| 106 | 29–4071 | BALANCE CONTROL GM70E–50KMNx2 | 1 | |
| 107 | 30–1019 | DIODE BAW62 | 8 | D401–D408 |
| 108 | 30–2084–3 | TRANSISTOR BC549C | 2 | Q403,404 |
| 109 | 30–2085–2 | TRANSISTOR BC559B | 4 | Q401,402,405,406 |
| 110 | 30–2090–2 | TRANSISTOR BC546B | 2 | Q409,410 |
| 111 | 30–2096 | TRANSISTOR BC556A | 4 | Q407,408,411,412 |
| 112 | 30–1024 | SELECTOR SW SRZ–V044N(12.5) | 1 | |
| 113 | 30–1051 | ROTARY SW SRZ–V043(12.5) | 1 | |
| **90–3069 METER DRIVER** | | | | |
| 114 | 16–¼CM103J | CARBON RES 10K +– 5% ¼W | 2 | R203,204 |
| 115 | 16–¼CM104J | CARBON RES 100K +– 5% ¼W | 2 | R207,208 |
| 116 | 16–¼CM224J | CARBON RES 220K +– 5% ¼W | 2 | R209,210 |
| 117 | 16–¼CM271J | CARBON RES 270 OHM +– 5% ¼W | 2 | R205,206 |
| 118 | 16–¼CN221J | CARBON RES 220 OHM +– 5% ¼W | 2 | R211,212 |
| 119 | 17–0.63E336Y | ELEC CAPA 33μF/6.3V +50–10% | 2 | C203,204 |
| 120 | 17–2.5E475Y | ELEC CAPA 4.7μF/25V + 50–10% | 2 | C201,202 |
| 121 | 19–1069 | PCB (METER DRIVER) | 1 | |
| 122 | 29–4022–1 | SEMIFIXED RES 5K | 2 | VR1, 2 |
| 123 | 30–1019 | DIODE BAW62 | 2 | D203,204 |
| 124 | 30–2090–2 | TRANSISTOR BC546B | 2 | Q201,202 |
| **OTHER** | | | | |
| 125 | 12–2007 | SPEAKER TERMINAL SOCKET | 2 | |
| 126 | 12–2008 | PHONE JACK | 1 | |
| 127 | 12–2015 | DIN JACK | 1 | |
| 128 | 16–¼CM102J | CARBON RES 1K +– 5% ¼W | 4 | R553,554,555,556 |
| 129 | 16–¼CM104J | CARBON RES 100K +– 5% ¼W | 2 | R551,552 |



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| ITEM | PARTS NO | DESCRIPTION | Q'TY | SYMBOL NO |
|---|---|---|---|---|
| 130 | 16–¼CM394J | CARBON RES 390K +– 5% ¼W | 2 | R549,550 |
| 131 | 16–2A471J | METAL OXIDE RES 470 OHM +– 5% 2W | 2 | R671,672 |
| 132 | 19–1077 | POWER TRANSISTOR PCB | 2 | |
| 133 | 19–1047 | DIN JACK PCB | 1 | |
| 134 | 30–2088 | TRANSISTOR 2SD287BR | 2 | Q621,622 |
| 135 | 30–2109 | TRANSISTOR 2SB539BR | 2 | Q623,624 |
| 136 | 30–2083 | TRANSISTOR BD139 | 2 | Q611,612 |
| 137 | 31–1021 | SPEAKER SW SRY–2044 | 1 | |
| 138 | 31–1025T | PUSH SW 2KEY | 1 | |
| 139 | 35–1016 | POWER METER | 2 | |
| **DIFFERENT SECTION** | | | | |
| 1 | 12–2006 | AC OUTLET | | IL,UL,SI,HK,SA,CA |
| 2 | 16–½C275K | CARBON RES 2.7M +– 10% ½W | | UL,CA |
| 3 | 17–2001 | CAPA ECK–DES472MD | | EC,SC,IL,SI,HK,AG,SA |
| 4 | 17–2003 | CAPA ECK–DEL472ZE | | UL,CA |
| 5 | 17–2004 | CAPA ECK–DGS472 MD4 | | UK,AS |
| 6 | 29–2036 | TRANSFORMER | | SI,HK,SA |
| 7 | 29–2036–1 | TRANSFORMER 117V | | UL |
| 8 | 29–2036–2 | TRANSFORMER 240V | | UK,AS |
| 9 | 29–2036–3 | TRANSFORMER 220V | | EC,SC,IL,AG |
| 10 | 29–2036–4 | TRANSFORMER 120V | | CA |
| 11 | 31–1072A | POWER SW SDU395A TV–5 | | UL,CA |
| 12 | 31–1073A | POWER SW SDU 395A/80A 250V | | EC,SC,IL,UK,AS,SI,HK,AG,SA |
| 13 | 32–11001SS | FUSE VDE SEMKO 1A | | SC |
| 14 | 32–16301SS | FUSE VDE SEMKO 6.3A | | SC |
| 15 | 32–12001SS | FUSE VDE SEMKO 2A (20mm) | | EC,SC,IL,UK,AS,AG,SA |
| 16 | 32–14001UT | FUSE UL 4A (30mm) | | UL,SI,HK,CA |
| 17 | 32–12001UT | FUSE UL 2A (30mm) | | SI,HK |
| 18 | 32–14001SS | FUSE VDE SEMKO 4A (20mm) | | EC,SC,IL,UK,AS,AG,SA |
| 19 | 32–2001 | FUSE HOLDER 30mm | | UL,SI,HK |
| 20 | 32–2003 | FUSE HOLDER 20mm | | EC,SC,IL,UK,AS,AG,SA |
| 21 | 32–2005 | FUSE HOLDER | | CA |



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