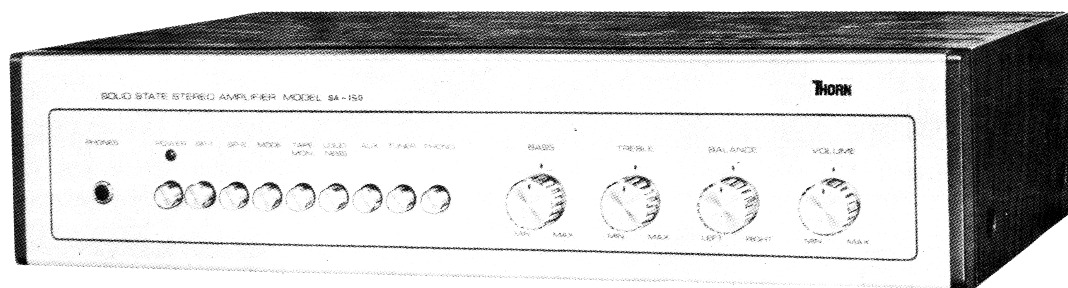


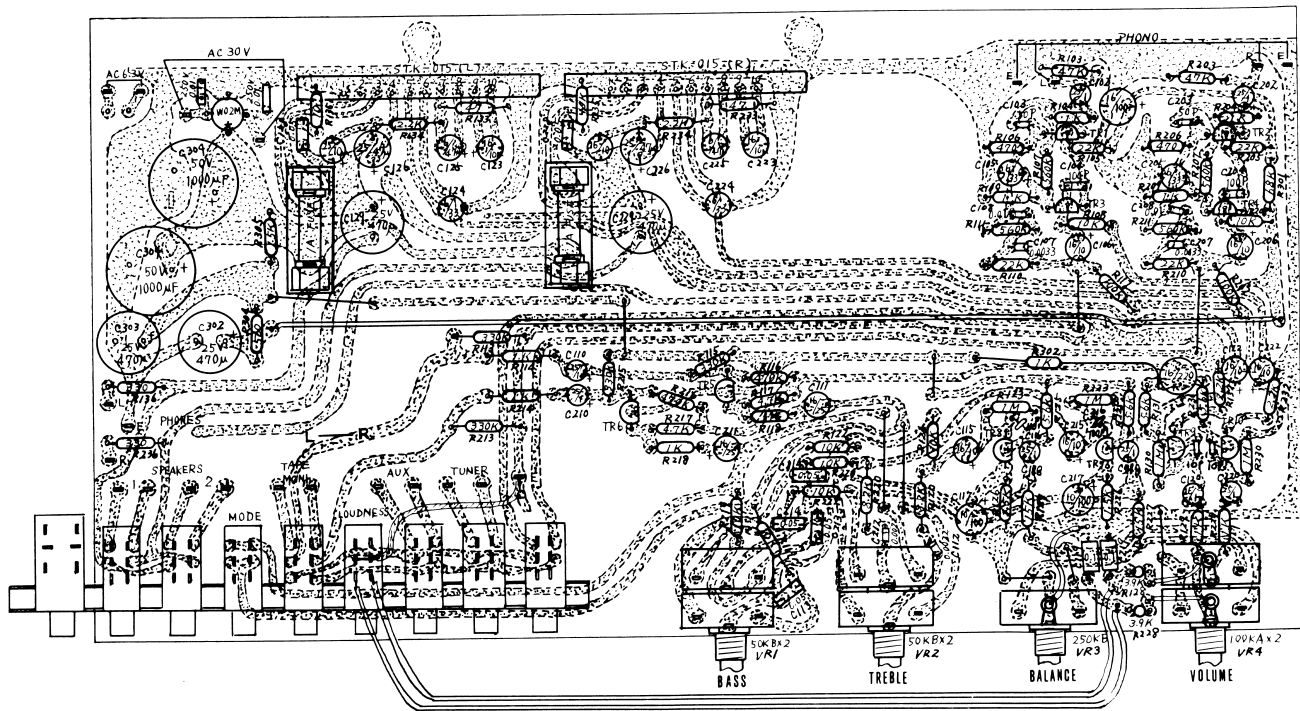
SERVICE MANUAL-

THORN SA - 150

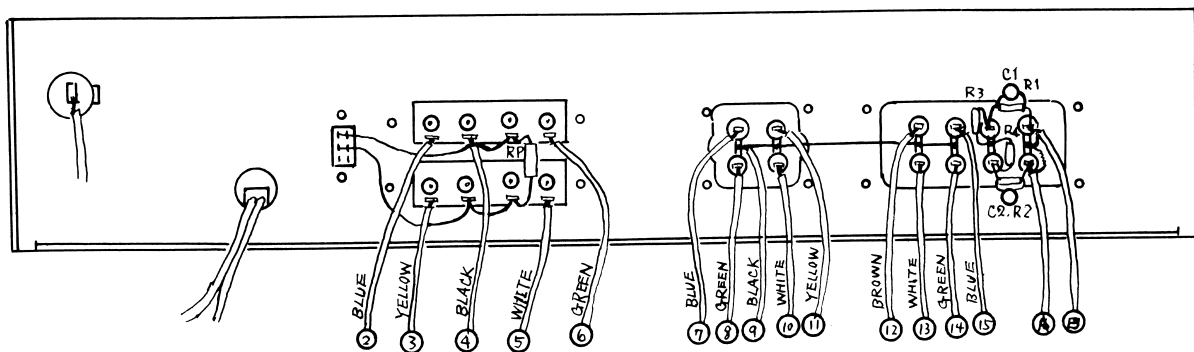


SPECIFICATIONS

| | |
|--------------------|---|
| Power Output: | 15w R.M.S. music power 12w R.M.S. sine wave. |
| Input Sensitivity: | Phono (47K ohm) 3mV Aux. (100K ohm) 150mV Tuner (100K ohm) 150mV Phono overload 70mV |
| Hum & Noise: | Phono 65db Aux. 70db Tuner 70db Residual 2mV |
| Tone Control: | Bass (50Hz) ± 10 db Treble (10KHz) ± 10 db Loudness Control (vol - 30db) ± 10 db Frequency response 25Hz - 45KHz Channel Separation (1KHz) 50db |
| Power Supply: | AC - 240v, 220, 117v, 110v Freq. 50 - 60Hz. |



WIRING of BACK PANEL



C1, C2. CERAMIC CON. 50 PF
 R1, R2. RESISTOR 2.2MΩ
 R3, R4. " " 220KΩ
 RP " " 3W 10Ω

| | COLOR | DESCRIPTIONS | | |
|---|--------|---|---|--------------------------------|
| ① | | | Ⓐ | SHIELD WIRE TO PHONO PIN RIGHT |
| ② | BLUE | TO SPEAKER PIN NO.1 LEFT | | |
| ③ | YELLOW | TO " " " RIGHT | Ⓑ | " " " LEFT |
| ④ | BLACK | TO PHONES PIN "E" | | |
| ⑤ | WHITE | TO SPEAKER PIN NO.2 RIGHT | | |
| ⑥ | GREEN | TO " " " LEFT | | |
| ⑦ | BLUE | TO PUSH SWITCH PIN (TAPE MONITOR SWITCH) LEFT | | |
| ⑧ | GREEN | TO " " " (" " ") RIGHT | | |
| ⑨ | BLACK | TO PIN "E" | | |
| ⑩ | WHITE | TO TAPE MONITOR PIN RIGHT | | |
| ⑪ | YELLOW | TO " " " LEFT | | |
| ⑫ | BROWN | TO AUX. PIN LEFT | | |
| ⑬ | WHITE | TO " " RIGHT | | |
| ⑭ | GREEN | TO TUNER PIN RIGHT | | |
| ⑮ | BLUE | TO " " LEFT | | |

49109 K.M.

Removal of top cover

Remove the four base securing screws and washers, 2 located on either side of unit top cover, gently lift off the cover. The component side of the printed circuit board will then be easily accessible. To gain access to copper side of the printed circuit board unscrew the four self tapping screws securing the rectangular cover plate located on the under side of the unit.

Removal of Printed Circuit board assembly from chassis.

Replacement of Pots & Switches.

Pull off the front control pot. knobs, undo the three self tapping screws from the top flange escutcheon and the three self tapping screws from the bottom flange, pull escutcheon off gently.

Remove securing nuts on control pots., screws and nuts from the switching assembly bracket and 2 self tapping screws from either end of escutcheon mounting bracket. Undo the three self tapping screws from the under side of escutcheon mounting bracket, securing nut and washer from headphone socket and allow the socket to fall loose. Pull escutcheon mounting bracket off gently, taking care not to damage switch assembly, knobs and control shafts.

RETAIN ALL SCREWS, NUTS & WASHERS FOR RE-ASSEMBLY OF UNIT.

Switches and controls will now be accessible for servicing.

GENERAL ELECTRICAL PARTS

| | |
|--------|---|
| RF-1 | Silicon Rectifier (bridge type) W-02 |
| PL-1 | Pilot Lamp 6.3v, 30mA (Miniature type) Pilot Lampholder. Pilot Lamp Lens. |
| P.T. | Power Transformer SA-150 |
| V.S. | Voltage Selector Socket |
| V.P. | Voltage Selector Plug (9209) |
| F1, F2 | 1A Fuse & Wafer type Fuseholder. |
| F3 | 1A Fuse & Moulded Fuseholder. |
| P.SW | 9 Gang Push Switch (9PFS-164-109-1) |

SEMICONDUCTORS

| | |
|-----------|--------------------------|
| TR1, TR2 | Transistor, NPN 2SC-732. |
| TR3, TR4 | Transistor, NPN 2SC-732. |
| TR5, TR6 | Transistor, NPN 2SC-373. |
| TR7, TR8 | Transistor, NPN 2SC-373. |
| TR9, TR10 | Transistor, NPN 2SC-732. |
| IC1, IC2 | STK-015 |

POTENTIOMETERS

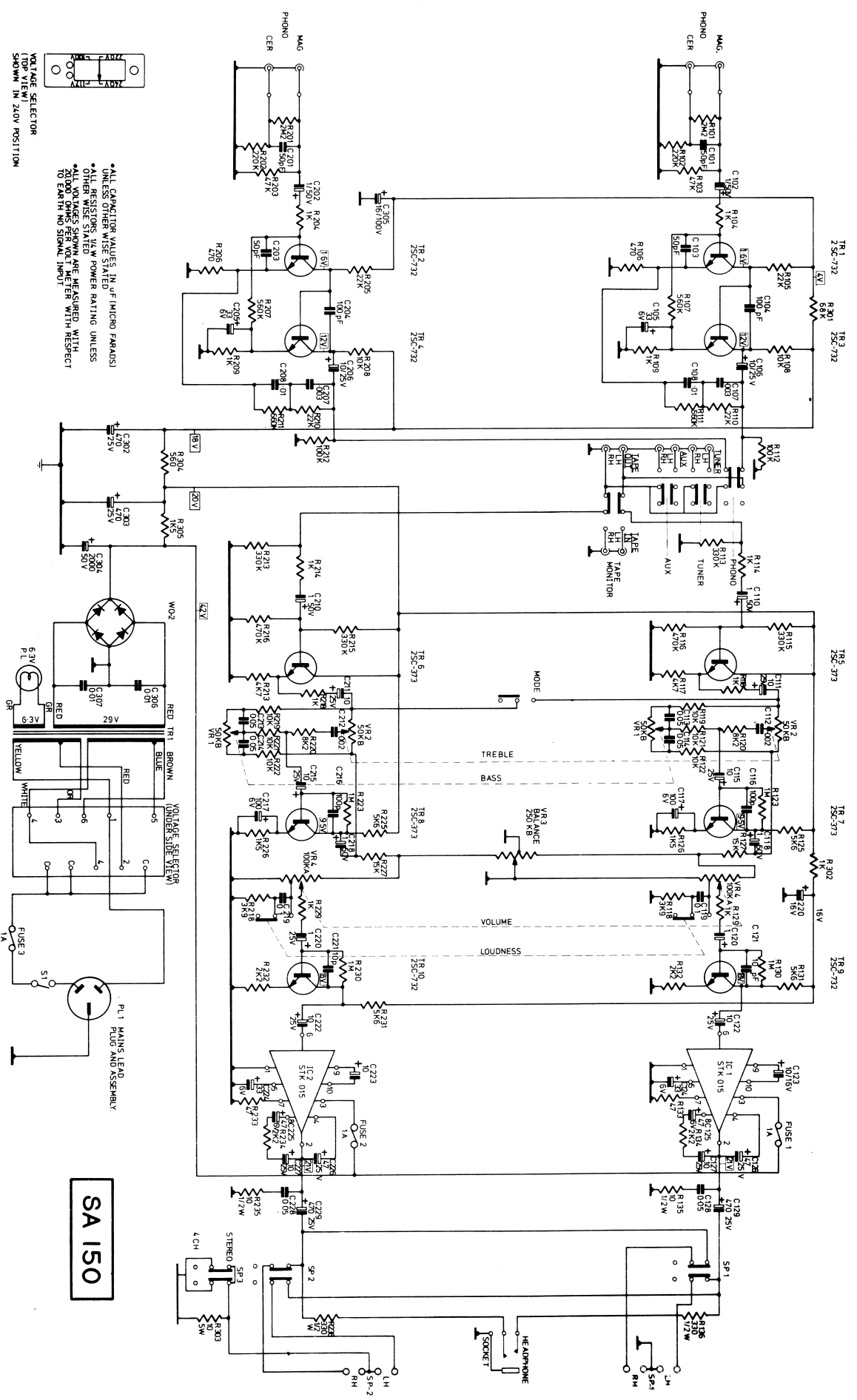
| | |
|-----|--------------------------------------|
| VR1 | 50K ohm x 2 B type (Bass control) |
| VR2 | 50K ohm x 2 B type (Treble control) |
| VR3 | 250K ohm B type (Balance control) |
| VR4 | 100K ohm x 2 A type (Volume control) |

RESISTORS

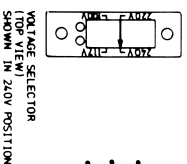
| | |
|--------------|--|
| R101 to R305 | carbon resistors $\frac{1}{4}w \pm 10\%$ |
| R303 | Cement corted wire resistor 10 ohm 3w $\pm 10\%$. |

CAPACITORS

| | |
|------------|--------------------------------------|
| C101, C201 | 50pF 50v $\pm 10\%$ cer. |
| C102, C202 | 1mF 50v electro. |
| C103, C203 | 50pF 50v $\pm 10\%$ cer. |
| C104, C204 | 100pF 50v $\pm 10\%$ cer. |
| C105, C205 | 33mF 6.3v electro. |
| C106, C206 | 10mF 25v electro. |
| C107, C207 | .0033mF 50v $\pm 10\%$ myler film. |
| C108, C208 | .01mF 50v $\pm 10\%$ cer. |
| C110, C210 | 1mF 50v electro. |
| C111, C211 | 10mF 25v electro. |
| C112, C212 | .0022mF 50v $\pm 10\%$ myler film. |
| C113, C213 | .056mF 50v $\pm 10\%$ myler film. |
| C114, C214 | .0056mF 50v $\pm 10\%$ myler film. |
| C115, C215 | 10mF 25v electro. |
| C116, C216 | 100pF 50v $\pm 10\%$ cer. |
| C117, C217 | 100mF 6.3v electro. |
| C118, C218 | 1mF 50v electro. |
| C119, C219 | .1mF 50v $\pm 10\%$ myler film. |
| C120, C220 | 1mF 25v electro. |
| C121, C221 | 10pF 50v $\pm 10\%$ cer. |
| C122, C222 | 10mF 25v electro. |
| C123, C223 | 10mF 25v electro. |
| C124, C224 | 33mF 6.3v electro. |
| C125, C225 | 47mF 6.3v electro. |
| C126, C226 | 47mF 25v electro. |
| C127, C227 | 10mF 25v electro. |
| C128, C228 | .056mF 50v $\pm 10\%$ myler film. |
| C129, C229 | 470mF 25v electro. |
| C301 | 220mF 16v electro. |
| C302 | 470mF 25v electro. |
| C303 | 470mF 25v electro. |
| C304 | 2200mF 50v electro. or 2 x 1000mF |
| C305 | 100mF 16v electro. |
| C306, C307 | .01mF 250v $\pm 10\%$ cer. |



• ALL CAPACITOR VALUES IN μ F (MICRO FARADS) UNLESS OTHERWISE STATED
 • ALL RESISTOR VALUES ARE IN OHMS UNLESS OTHERWISE STATED
 • ALL VOLTAGES SHOWN ARE MEASURED WITH 20,000 OHMS PER VOLT METER WITH RESPECT TO EARTH IN SIGNAL INPUT



SA 150