Service Data for the Healing Receiver

MODEL 728T

A 15 TRANSISTOR *Superheterodyne Broadcast band receiver, with a 4 speed Stereophonic Record Changer*

TUNING RANGE: 515 – 1620 KHz

INTERMEDIATE FREQUENCY: 455 KHz

MAINS INPUT: 240 or 250 volts A.C. 50 Hz

POWER CONSUMPTION:
Radio only: 10 Watts.
Gramo Operation: 20 Watts.

SPEAKERS: 9" x 6" Oval twin cone – Rola 9/6LX–00 F69–15

VOICE COIL IMPEDANCE: 15 ohms

RECORD CHANGER: GARRARD 2025TC

PICK UP CARTRIDGE:
Sonotone KS40A with Diamond Stylus

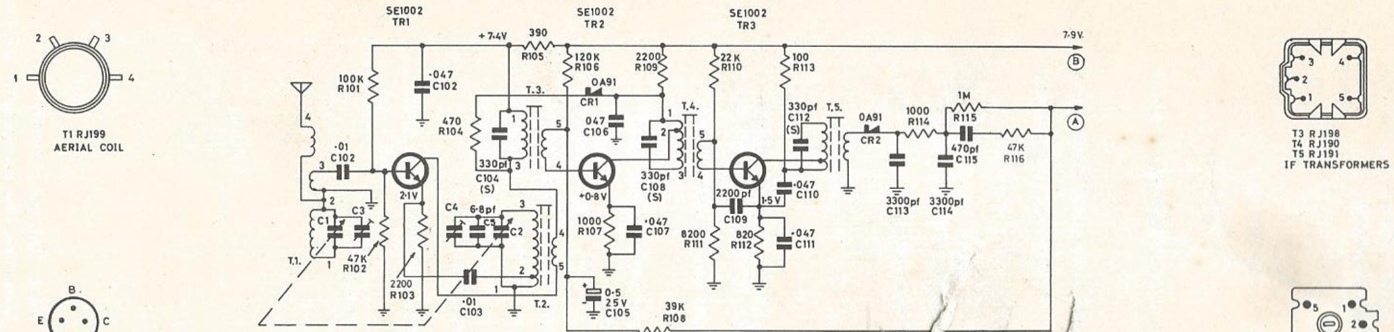
TRANSISTOR COMPLEMENT:

TR1	SE1002 Converter
TR2	SE1002 1st IF Amp.
TR3	SE1002 2nd IF Amp.
TR201A/B	SE4010 1st Audio Amp.
TR202A/B	SE4010 2nd Audio Amp.
TR203A/B	SE4010 3rd Audio Amp.
TR204A/B	AX6210 Audio Driver
TR205A/B	AY8139 Complementary Output
TR206A/B	AY9139 Complementary Output
CR1	OA91 AGC Overload Diode
CR2	OA91 Detector and AGC
CR201A/B	AN2005 Bias Stabilization Diode
CR202	EM401 Power Supply Rectifier
CR203	EM401 Power Supply Rectifier
CR204	EM401 Power Supply Rectifier
CR205	EM401 Power Supply Rectifier

COMPONENTS NOT DESCRIBED ON CIRCUIT

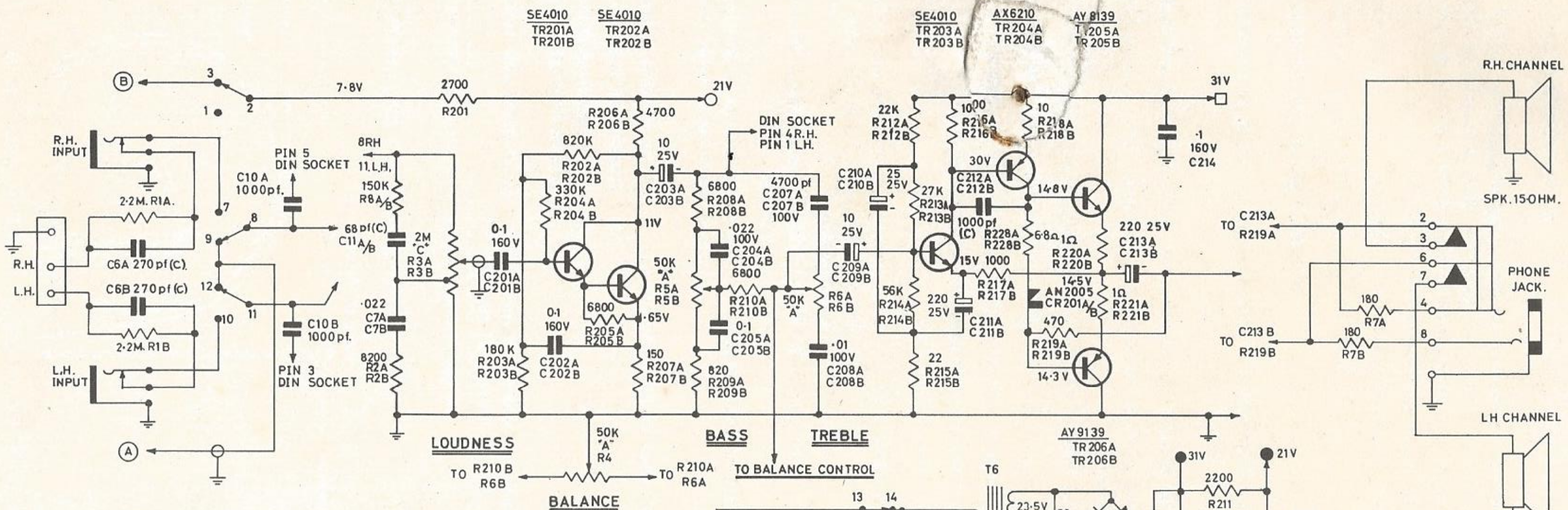
Circuit Ref.	Description	Part No.
C1–C4	Capacitor Variable, 2 Gang Padderless M.S.P. K2XT.	RL1188
T1	Transformer, Aerial B/C	RJ197
T2	Transformer, Oscillator B/C	RJ189
T3	Transformer, I.F.	RJ198
T4	Transformer, I.F.	RJ190
T5	Transformer, I.F.	RJ191
T6	Transformer Power	RK71
SW1	Switch, 3 Push Button	R1251
R5A R5B	Resistor Variable, 5OK/5OK Ganged Linear (Bass)	RL1242
R6A R6B	Resistor Variable, 5OK/5OK Ganged Linear (Treble)	RL1242
R4	Resistor Variable, 5OK Linear (Balance)	RL1241
R3A R3B	Resistor Variable, 2M/2M Tapped 8OK/8OK Ganged matched elements Log C (Loudness)	RL1240

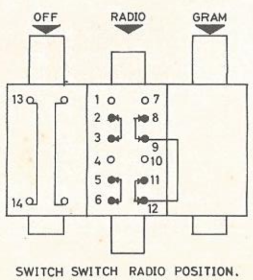
HEALING — Model 728T



NOTES

1. ALL CAPACITORS ARE 10% TOL UNLESS OTHERWISE SPECIFIED
2. ALL CAPACITORS ARE POLYESTER UNLESS OTHERWISE SPECIFIED(S) STYROSEAL.
3. ALL RESISTORS ARE IN OHMS 10% TOL $\frac{1}{2}$ WATT RATING.
4. VOLTAGE MEASUREMENTS TAKEN WITH RESPECT TO CHASSIS USING AN AVO MODEL 8 20,000 OHMS VOLT METER. NO SIGNAL INPUT 240V MAINS INPUT.
5. IF FREQUENCY— 455 KHz.

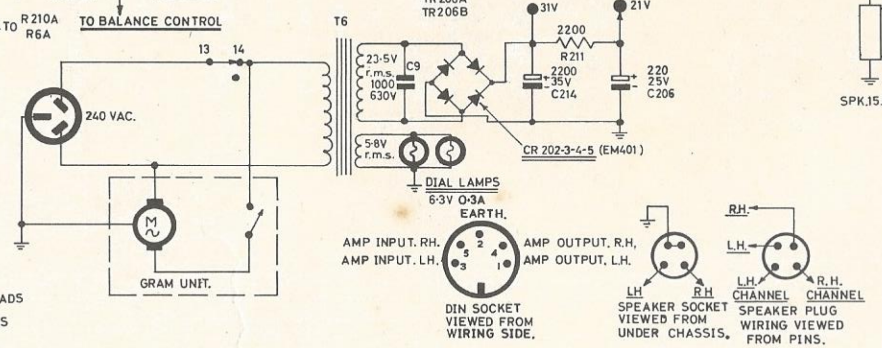




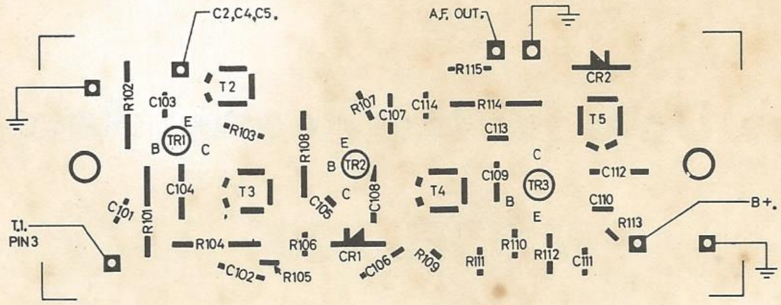
NOTES:

1. ALL CAPACITORS ARE 10% TOL UNLESS OTHERWISE SPECIFIED.
2. ALL CAPACITORS ARE POLYESTER UNLESS OTHERWISE SPECIFIED, eg "C" CERAMIC.
3. ALL RESISTORS ARE IN OHMS 10% TOL $\frac{1}{2}$ WATT RATING
4. VOLTAGE MEASUREMENTS TAKEN WITH RESPECT TO CHASSIS USING AN AVO MODEL 8 20 000 OHMS VOLT METER. NO SIGNAL INPUT 240V MAINS INPUT.
5. IF FREQUENCY 455 KHz.

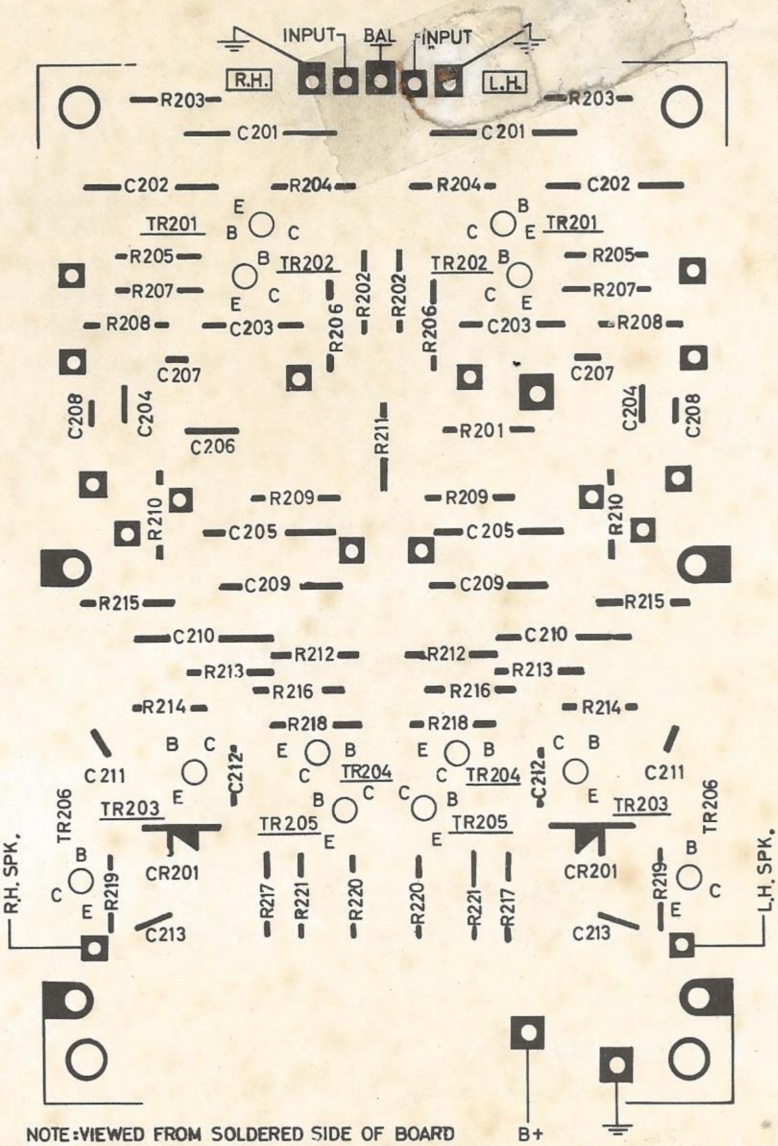
WARNING SHORT CIRCUIT OF LOUDSPEAKER OUTPUT LEADS MAY CAUSE THE DESRUCTION OF OUTPUT TRANSISTORS (TR205& TR206)



CIRCUIT DIAGRAM.: RF MODULE RD333
AF MODULE RD 331



RF Module
Service Component
Lay out



Audio Module
Service Component
Lay out

ALIGNMENT PROCEDURE

I.F. ALIGNMENT 455Kc/s.

Connect generator through a small capacitor (100pF to .01 mfd) to aerial section of gang (C.I). Use minimum signal generator output consistent with a readable signal. Set volume control to maximum, tone controls to centre position and tuning capacitor to minimum capacity.

1. Adjust I.F. transformer cores in order T5, T4, T3.
2. Repeat (1) until alignment is satisfactory.

R.F. AND OSCILLATOR ALIGNMENT

Signal generator should be coupled loosely to receiver, i.e. through a radiating loop, or a wire lying on the bench.

1. Set dial to a low frequency station (about 600 Kc/s) and tune oscillator core until station is received.
2. Set dial to a high frequency station (about 1500 Kc/s) and tune oscillator trimmer (C4) until station is received.
3. Repeat 1 and 2 until no further adjustment is required.
4. Tune receiver to receive 600 Kc/s signal from generator and peak aerial coil on ferrite rod.
5. Tune receiver to receive 1400 Kc/s signal from generator and peak serial trimmer (C3).
6. Repeat 4 and 5 until alignment is satisfactory.

CHASSIS REMOVAL:
1. Remove power plug from wall socket.
2. Remove two 3/16" W x 2½" long bolts holding chassis through bottom of cabinet.
3. Hold knobs and ease chassis forward until chassis can be held securely for final removal.

CHASSIS REPLACEMENT:
1. Reverse above procedure but taking care to dress speaker leads, power leads etc, to avoid fouling of chassis.

RECORD CHANGER REMOVAL:
1. Remove radio chassis as described in Chassis Removal.
2. Disconnect the P.U. plug and power leads to changer.
3. Press down on changer, flip over changer holding clips (access through two holes underneath changer.)

CAUTION:
1. Do not remove chassis or changer unit without first disconnecting power plug from wall socket.
2. Do not connect power to receiver if speaker plug is removed.

DIAL CORD ARRANGEMENT