Service manual

RADIO PF 039
SERIES 2

ASTOR

SPECIFICATIONS

Tuning Range	–	520 – 1640 KHz.
Intermediate Frequency	–	455 KHz.
Current Consumption (no signal)	–	6 – 8 mA.
Battery (Eveready 216 or equivalent)	–	9 Volts.

ACCESS TO INTERIOR

Prise cabinet back off the front section.

ALIGNMENT

EQUIPMENT: Signal generator
Output meter 32 ohm.

CONDITION: Volume control maximum.
Output meter connected to earphone jack.

I.F. ALIGNMENT

Tuning gang fully open (No. 16 showing in window). Apply 455 KHz signal with .1 uF capacitor in series to base of converter transistor TR1. Peak (T4) IFT. 2 and (T3) IFT. 1 for maximum output, and repeat for maximum results.

R.F. ALIGNMENT

Connect 2 ft. of wire to output of signal generator and fashion it into a vertical position. Place receiver, with the aerial uppermost and horizontal, approx. 1 ft. away from above wire.

Using a 520 KHz signal and the tuning gang fully closed, peak oscillator-coil T2 for maximum output.

Using a 1640 KHz signal and the tuning gang fully open, peak oscillator trimmer for maximum output.

Using a 1400 KHz signal set tuning disc with the dot between the figures 12 and 16 showing in the centre of the window and peak aerial trimmer for maximum output.

Repeat above operations for optimum results.

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3102 305 30851

PARTS LIST

CAPACITORS

Circuit No.		Description	V.W.
C1	20n	Ceramic	25
C2	10n	Ceramic	25
C3	10u	Electrolytic	6.3
C4	20n	Ceramic	25
C5	20n	Ceramic	25
C6	20n	Ceramic	25
C7	1u	Electrolytic	6.3
C8	10n	Ceramic	25
C9	10u	Electrolytic	6.3
C10	5n	Polyester	100
C11	47u	Electrolytic	10
C12	47u	Electrolytic	10
C13	47u	Electrolytic	10
C14	20n	Ceramic	25

RESISTORS

Circuit No.		Description	W	Tol. ± %
R1	820K	Carbon	½	10
R2	2K2	Carbon	½	10
R3	680	Carbon	½	10
R4	47K	Carbon	½	10
R5	470	Carbon	½	10
R6	6K8	Carbon	½	10
R7	68K	Carbon	½	10
R8	150K	Carbon	½	10
R9	390	Carbon	½	10
R10	6K8	Carbon	½	10
R11	22	Carbon	½	10
R12	680	Carbon	½	5
R13	680	Carbon	½	5
R14	3.3	Carbon	½	10
R15	3.3	Carbon	½	10
R16	1K5	Carbon	½	10
R17	6K8	Carbon	½	10

SEMI-CONDUCTORS

			Suitable Replacements
TR1	Converter	AY 1101	BC 108
TR2	I.F. Amplifier	AY 1101	BC 108
TR3	Pre-amp	AY 1101	BC 108
TR4	Pre-amp	AY 1104	BC 328
TR5	Driver	AY 1103	BC 338
TR6	Output	AY 1103	BC 338
TR7	Output	AY 1104	BC 328
D1	Detector	AN 2001	BA 217

MISCELLANEOUS

Circuit No.	Description	Code Number
CV1	Tuning Gang	4802 125 27001
JK1	Earphone Jack	7222-164-01
LS1	Loudspeaker (32 ohm)	4802 240 37001
RV1	Volume Control	4802 101 97001
T1	Aerial	4802 158 67001
T2	Oscillator Coil	4802 156 37001
T3	I.F.T. 1	4802 153 17001
T4	I.F.T. 2	4802 153 17002

STYLING

	BLACK	WHITE	VIOLET
Front Assembly	7099-060-11	7099-060-03	7099-060-04
Back	7006-325-01	7006-325-03	7006-325-04
Tuning Disc	7071-051-15	7071-051-17	7071-051-18
Volume Disc	7071-052-01	7071-052-03	7071-052-04
Carry Case	7040-038-02	7040-038-02	7040-038-02
Swing Strap	7229-058-01	7229-058-01	7229-058-01

CONVERTER | IF. AMPLIFIER | DETECTOR | AUDIO

PRE-AMP | PRE-AMP | DRIVER | OUTPUT

R1 820k, R2 2k2, R3 680, R4 47k, R5 470, R6 6k8, R7 68k, R8 150k, R9 390, R10 6k8, R11 22, R12 680, R13 680, R14 3·3Ω, R15 3·3Ω, R16 1k5, R17 6k8

C1 20n, C2 10n, C3 10u, C4 20n, C5 20n, C6 20n, C7 1u, C8 10n, C9 10u, C10 5n, C11 47u, C12 47u, C13 47u, C14 20n

TR1 1·4V, TR2 1·4V ·8V, TR3 6V 5·5V, TR4, TR5 4·5V, TR6, TR7

T1, T2, T3, T4

CV1, CV2, CV3

D1

RV1 5k VOLUME

B1 9V

6-8mA. NO SIGNAL

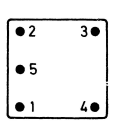
S1

JK1 EARPHONE JACK/SOCKET

LS1 32Ωz

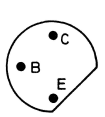
VOLTAGES MEASURED BETWEEN POINTS INDICATED AND CHASSIS WITH A VTVM. (NO SIGNAL)

IF & OSC TRANSFORMER



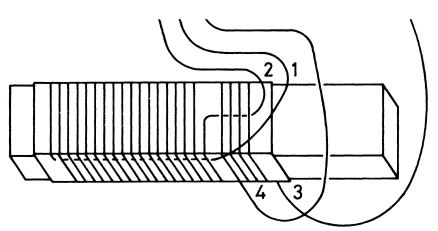
TRANSISTORS

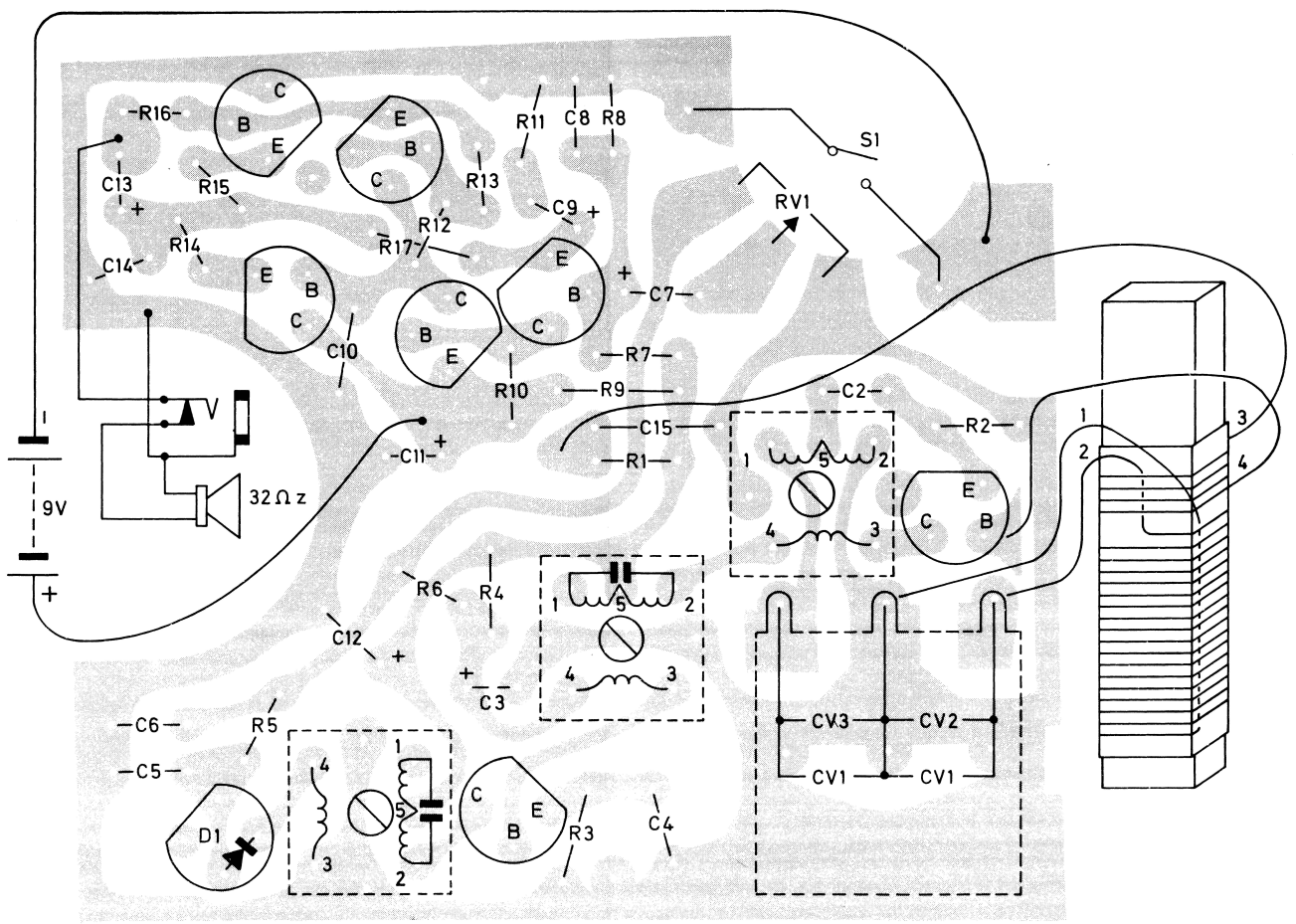
TR1	AY 1101
TR2	AY 1101
TR3	AY 1101
TR4	AY 1104/6
TR5	AY 1103/5
TR6	AY 1103/5
TR7	AY 1104/6



DIODE

AN 2001





COMPONENTS VIEWED FROM COPPERSIDE