

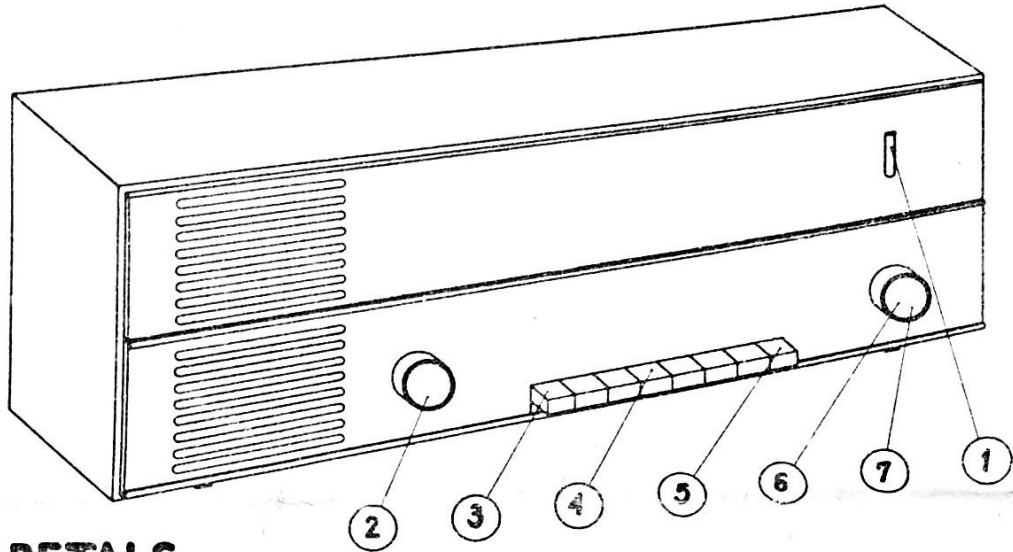


SERVICING INSTRUCTION

ZAKŁADY RADIOWE KASPRZAKA - WARSZAWA

UNITRA K-101

- 1 TUNING INDICATOR
- 2 VOLUME
- 3 BASS
- 4 WAVE RANGE SWITCH
- 5 TREBLE
- 6 TUNING
- 7 AFC SWITCH



TECHNICAL DETAILS

POWER SUPPLY 220-240V 50-60c/s

WAVE RANGES: AM-LONG WAVES LW 150-285kc/s 1050-2000m
 -MEDIUM WAVES MW 525-1605kc/s 187-572m
 -SHORT WAVES SW 6+16 Mc/s; 18,75-50 m

FM-ULTRA SHORT WAVES UKF 87,5-108 Mc/s; 2,73-3,44 m

IF-FREQUENCY: AM-465 kc/s
 FM-10,7 Mc/s

SENSITIVITY: AM-50 μ V at 50 mW OUTPUT POWER
 FM-10 μ V at 50 mW OUTPUT POWER

NOMINAL OUTPUT POWER: 1,7VA

VALVES: ECC-85-HF AMPLIFIER, MIXER AND OSCILLATOR FM
 ECH-81-MIXER AND OSCILLATOR AM, IF AMPLIFIER FM
 EBF-89-IF AMPLIFIER AM AND FM, AM DETECTOR
 ECL-86-AF AMPLIFIER AND POWER AMPLIFIER
 EM-84-TUNING INDICATOR

GERMANIUM DIODES 2xDD6-53

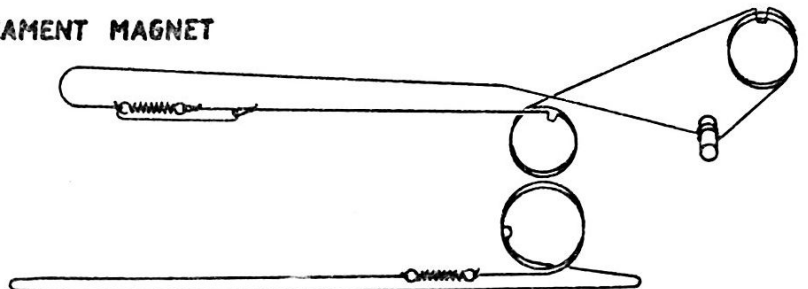
SELENIUM BRIDGE RECTIFIER SPS-6B-250V-C-100mA

DIAL LAMP: 6,3V Q2A

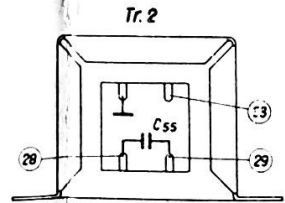
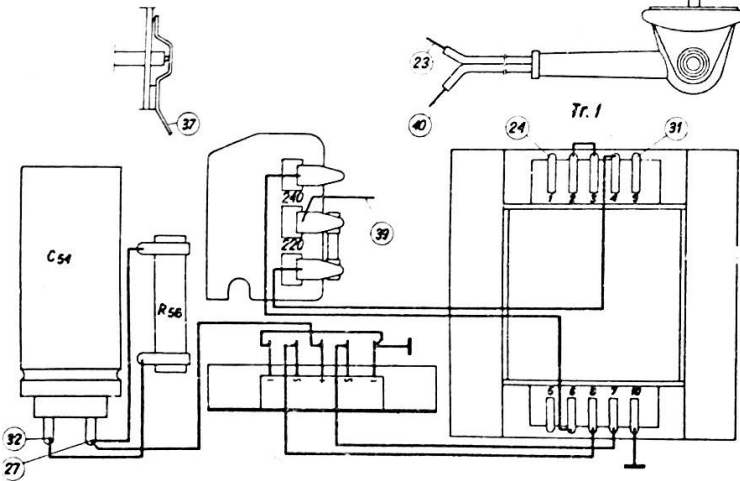
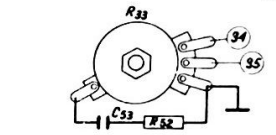
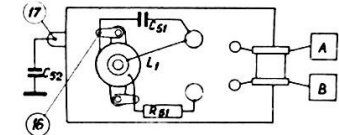
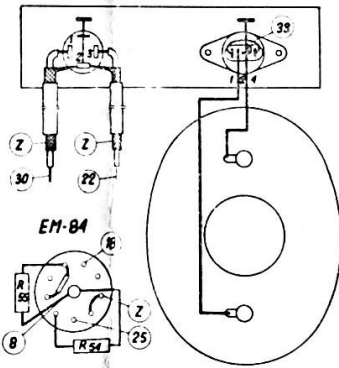
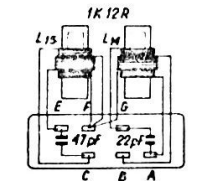
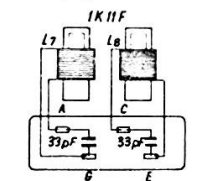
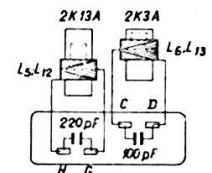
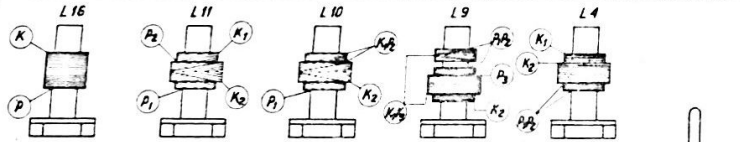
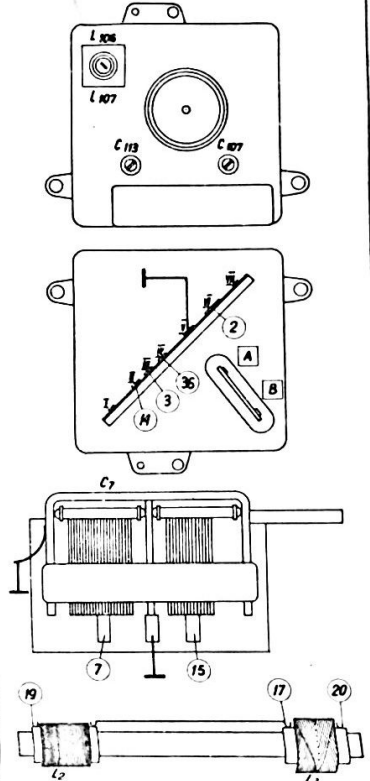
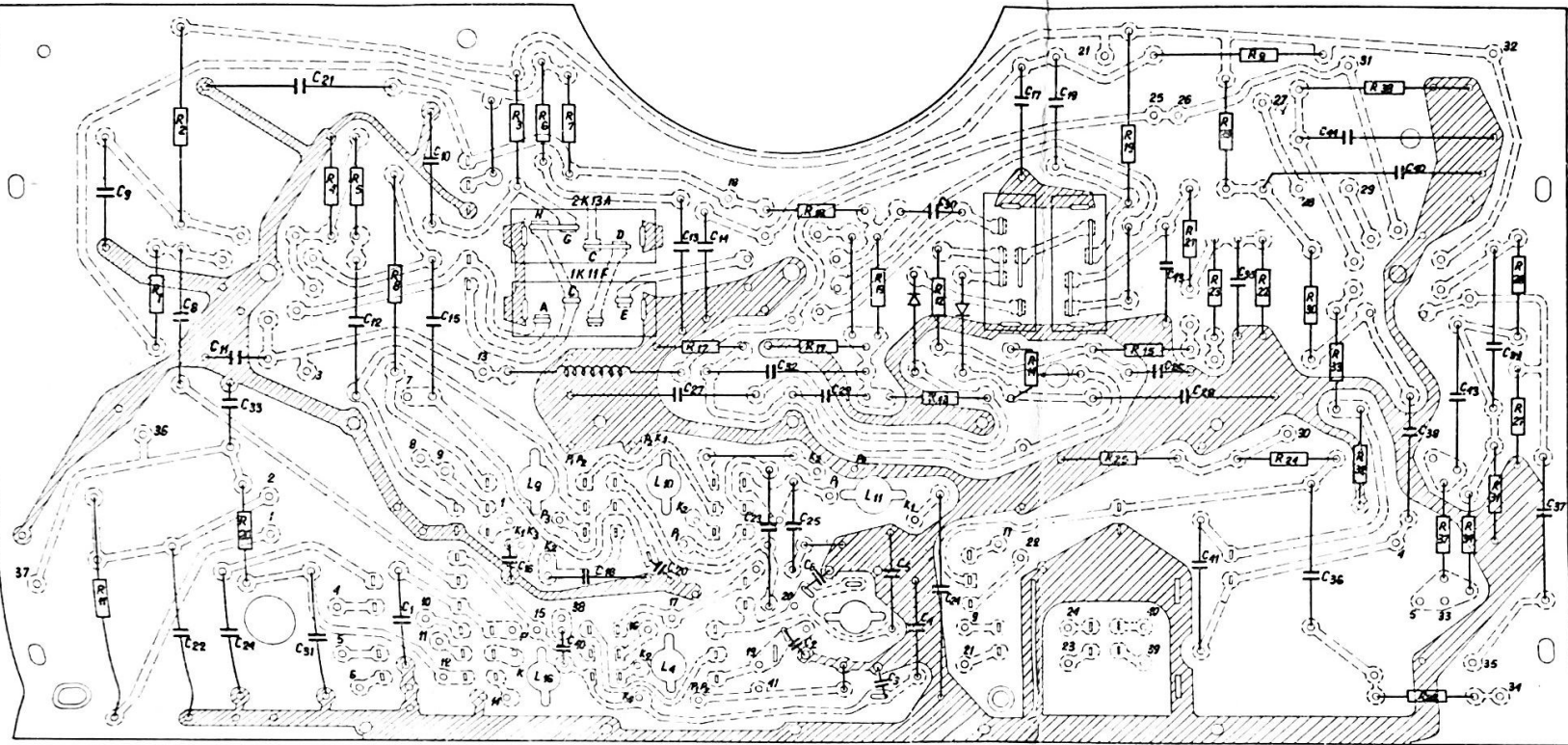
LAUDSPEAKER; GDS-10-13/2 PERMAMENT MAGNET

FUSE: T 0,315 B

DRIVING CORD



CONDENSERS			RESISTORS		
N ^o			N ^o		
C ₁	33 pF ± 5% - 250 V	ceramic	R ₅	180 Ω ± 20% 0,125 W	carbon
C ₂	3 - 6 pF	trimmer	R ₆	220 Ω ± 20% 0,125 W	carbon
C ₃	3 - 30 pF	trimmer	R ₇	820 Ω ± 20% 0,125 W	carbon
C ₄	15 pF ± 10% - 250 V	ceramic	R ₈	33 kΩ ± 20% 1 W	carbon
C ₅	68 pF ± 5% - 250 V	ceramic	R ₉	50 kΩ ± 20% 0,5 W	carbon
C ₆	3 - 30 pF	trimmer	R ₁₀	2,2 kΩ ± 20% 0,5 W	carbon
C _{7a}	500/375 pF	tuning	R ₁₁	10 kΩ ± 20% 2 W	carbon
C _{7b}		condenser	R ₁₂	47 Ω ± 20% 0,125 W	carbon
C ₈	150 pF ± 10% - 250 V	ceramic	R ₁₃	1 kΩ ± 10% 0,125 W	carbon
C ₉	10000 pF ± 50% - 20% - 500 V	ceramic	R ₁₄	5 kΩ	potentiometr
C ₁₀	10000 pF ± 50% - 20% - 500 V	ceramic	R ₁₅	22 kΩ ± 10% 0,125 W	carbon
C ₁₁	1500 pF ± 50% - 20% - 250 V	ceramic	R ₁₆	15 kΩ ± 10% 0,125 W	carbon
C ₁₂	150 pF ± 10% - 250 V	ceramic	R ₁₇	15 kΩ ± 10% 0,125 W	carbon
C ₁₃	220 pF ± 20% - 250 V	ceramic	R ₁₈	1 MΩ ± 20% 0,125 W	carbon
C ₁₄	10000 pF ± 50% - 20% - 500 V	ceramic	R ₁₉	1 MΩ ± 20% 0,125 W	carbon
C ₁₅	150 pF ± 10% - 350 V	ceramic	R ₂₀	1 MΩ ± 20% 0,125 W	carbon
C ₁₆	51 pF ± 5% - 250 V	ceramic	R ₂₁	220 kΩ ± 20% 0,125 W	carbon
C ₁₇	10000 pF ± 50% - 20% - 500 V	ceramic	R ₂₂	330 kΩ ± 10% 0,125 W	carbon
C ₁₈	10 pF ± 5% - 250 V	ceramic	R ₂₃	33 kΩ ± 10% 0,125 W	carbon
C ₁₉	10000 pF ± 50% - 20% - 500 V	ceramic	R ₂₄	2,2 MΩ ± 20% 0,125 W	carbon
C ₂₀	3 - 6 pF	trimmer	R ₂₅	47 kΩ ± 20% 0,125 W	carbon
C ₂₁	0,1 μF ± 20% - 250 V	paper	R ₂₆	47 kΩ ± 20% 0,125 W	carbon
C ₂₂	10 μF - 350 V	elektrolytic	R ₂₇	1 MΩ ± 20% 0,125 W	carbon
C ₂₃	330 pF ± 2% - 250 V	ceramic	R ₂₈	2,2 kΩ ± 10% 0,125 W	carbon
C ₂₄	510 pF ± 2% - 250 V	ceramic	R ₂₉	22 kΩ ± 20% 0,125 W	carbon
C ₂₅	135 pF ± 2% - 250 V	ceramic	R ₃₀	220 kΩ ± 20% 0,25 W	carbon
C ₂₆	1500 pF ± 50% - 20% - 250 V	ceramic	R ₃₁	100 Ω ± 10% 0,125 W	carbon
C ₂₇	330 pF ± 10% - 250 V	ceramic	R ₃₂	1 MΩ ± 20% 0,125 W	carbon
C ₂₈	330 pF ± 10% - 250 V	ceramic	R ₃₃	10 kΩ ± 20% 0,125 W	carbon
C ₂₉	1500 pF ± 50% - 20% - 250 V	ceramic	R ₃₄	5,6 kΩ ± 5% 0,125 W	carbon
C ₃₀	15 pF ± 20% - 350 V	ceramic	R ₃₅	15 kΩ ± 10% 0,125 W	carbon
C ₃₁	2700 pF ± 10% - 100 V	polyester	R ₃₆	190 Ω ± 5% 0,125 W	carbon
C ₃₂	5 μF 70/80 V	elektrolytic	R ₅₁	5,1 kΩ ± 5% 0,125 W	carbon
C ₃₃	4700 pF ± 50% - 20% - 250 V	ceramic	R ₅₂	33 kΩ ± 20% 0,125 W	carbon
C ₃₄	75 pF ± 10% - 250 V	ceramic	R ₅₃	1/0,12 MΩ ± 20% 0,125 W	potentiometr
C ₃₅	51 pF ± 10% - 250 V	ceramic	R ₅₄	33 kΩ ± 20% 0,125 W	carbon
C ₃₆	0,022 μF ± 20% - 250 V	paper	R ₅₅	470 kΩ ± 20% 0,125 W	carbon
C ₃₇	0,022 μF ± 20% - 250 V	paper	R ₅₆	1 kΩ ± 10% 8 W	wire
C ₃₈	0,01 μF ± 20% - 400 V	paper	R ₅₇		
C ₃₉	5 μF 70/80 V	elektrolytic	COILS AND IF-TRANSFORMERS		
C ₄₀	10 μF 350 V	elektrolytic	L ₁	IF-eliminator circuit	
C ₄₁	150 pF ± 10% - 250 V	ceramic	L ₂	RF-coil LW	
C ₄₂	2200 pF ± 10% - 100 V	polyester	L ₃	RF-coil MW	
C ₄₃	0,022 μF ± 20% - 250 V	paper	L ₄	RF-coil SW	
C ₄₄	50 μF - 12 V	elektrolytic	L ₅ L ₆	IF-transformer AM	type 2K13A
C ₄₅	1000 pF ± 10% - 100 V	polyester	L ₇ L ₈	IF-transformer FM	type 1K11F
C ₄₆	2200 pF ± 10% - 100 V	polyester	L ₉	oscillator coil SW	
C ₄₇	0,01 μF ± 20% - 250 V	paper	L ₁₀	oscillator coil MW	
C ₄₈	50 ± 50 pF - 350 V	elektrolytic	L ₁₁	oscillator coil LW	
C ₄₉	2200 pF ± 20% - 400 V	paper	L ₁₂ L ₁₃	IF-transformer AM	type 2K3A
C _{4a}	5 pF ± 20% - 250 V		L ₁₄ L ₁₅	IF-transformer FM	type 1K12R
R ₁	1 MΩ ± 20% 0,125 W	carbon	L ₁₆	IF-coil FM	
R ₂	33 kΩ ± 20% 1 W	carbon	Tr 1	Mains-transformer	
R ₃	2,2 kΩ ± 20% 0,25 W	carbon	Tr 2	Loudspeaker-transformer	
R ₄	47 kΩ ± 20% 0,125 W	carbon		FM-tuner 87,5 - 108 Mc/s	DED-2



Tuning of	Wave switch	Dial indicator	Measuring frequency	Signal generator	Alignment of	
IF transformer A11	MW	535 Kc/s	465 Kc/s	Through 100pF to grid ECC85	L5 L6 L12 L13	max. output
IF eliminator	MW	535 Kc/s	465 Kc/s		L1	min. output
Medium MW	MW	600 Kc/s 1000 Kc/s	600 Kc/s 1000 Kc/s	Through 100 pF to aerial jack	L10 L2 C20 C2	max. output
Long LW	LW	175 Kc/s tune to signal	175 Kc/s 270 Kc/s		L11 L3 C6	max. output
Short SW	SW	6.6 Mc/s tune to signal	6.6 Mc/s 15.2 Mc/s		L10 L4 C3	max. output
IF transformer FM	FM		107 Mc/s 122.5 Kc/s	To the screening cup on ECC-85. The caps. connected from earth	L4 L8 L7 L16	max.
	FM		107 Mc/s AM-400 c/s		L107	between 2 max.
FM tuner	87.5 108 Mc/s	87.5 Mc/s	87.5 Mc/s	FM input jack	C113	max. output
		108 Mc/s	99 Mc/s			C107

Align first the MW range

Correct tuning only by oscilloscope

