

WIRELESS SET (CDN.) No. 9 Mk. I

Parts and Identification List

Instruction No. 1

Ord. No.	Mfrs. Part No.	Circuit Ref.	Description	Type	Value	% Tol.	Rating
	CMC113040	C29B	Fixed tuning, Band "B" V3A tank circuit	Silver Mica	1000 μ fd.	\pm 5	600 V.
	CMC113041	C30A	Fixed tuning, Band "A" V3A tank circuit	Silver Mica	500 "	\pm 5	600 V.
	CMC113041	C30B	Fixed tuning, Band "B" V3A tank circuit	Silver Mica	500 "	\pm 5	600 V.
	CMC113042	C31A	D.C. Blocking, sidetone circuit	Paper	.25 μ fd.	\pm 20	100 V.
	CMC113043	C32A	+1000V. line decoupling	Oiled paper	.5 "	\pm 20	2000 V.
	CMC113044	C33A	Meter adjustor	Oiled paper	1.75 "	\pm 20	25 V.
	CMC113045	C34A	Fixed tuning, V3A tank	Oiled paper	1. "	\pm 20	500 V.
	CMC108537	C35A	Interference suppressor, Dynamotor	Oiled paper	1. "	\pm 20	750 V.
	CMC113046	C36A	Grid coupling, V1B	Oil filled	40 μ fd.	\pm 10	500 V.
	CMC113047	C37A	Grid coupling, V3B	Mica	.01 μ fd.	\pm 20	600 V.
	CMC113048	C38A	Grid coupling, V1F	Mica	.350 μ fd.	\pm 20	500 V.
	CMC113049	C39A	Fixed tuning, V1F	Electrolytic	150 "	\pm 10	
	PC67193C	C40A	Bias by-pass	Var.	5 μ fd.	\pm 30	
	Part of ganged condenser	C41A	Parallel trimmer, V1A	Var.	15 μ fd.	\pm 10	
		C41B	Parallel trimmer, V1C	Var.	15 "		
	CMC108404	C42A	P.A. Tuning, V4A	Var.	25-250 "		
	CMC108404	C42B	P.A. Tuning, V4A	Var.	25-250 "		
	CMC113050	C43A	Screen decoupling, V3A	Oiled Paper	.02 μ fd.	\pm .25	400 V.
	CMC113051	C44A	R.F. decoupling, fil. V3A	Oiled Paper	.05 "	\pm 20	400 V.
	CMC113051	C44B	R.F. decoupling, fil. V4A	Oiled Paper	.05 "	\pm 20	400 V.
	CMC119005	C45A	R.F. coupling, to V5B	Oiled filled	.01 "	\pm 20	600 V.
	CMC119007	C46A	R.F. coupling, Cal. to Rcvr.	Ceramic	2 μ fd.	\pm 25	
	CMC119006	C47A	R.F. coupling, V5B	Ceramic	80 "	\pm 2	
	CMC119006	C47B	R.F. coupling, V5B	Ceramic	80 "	\pm 2	
	CMC113052	C48A	Grid coupling, V4A	Ceramic	50 "	\pm 10	600 V.
	PC66758C	C49A	Xtal. filter	Ceramic	.001 μ fd.	\pm 25	
	CMC113053	C50A	Gang condenser trimmer	Ceramic	3-13 μ fd.	\pm 30	500 V.

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	RESISTORS						
	CMC119010	R1A	A.V.C. decoupling, V1A		100,000 ohms	± 10	1/4 W.
	CMC119010	R1B	A.V.C. decoupling, V1C		100,000 "	± 10	1/4 W.
	CMC119010	R1C	A.V.C. decoupling, V1D		100,000 "	± 10	1/4 W.
	CMC119010	R1D	Grid leak, V1B		100,000 "	± 10	1/4 W.
	CMC119010	R1E	A.V.C. decoupling		100,000 "	± 10	1/4 W.
	CMC119010	R1F	A.V.C. voltage divider		100,000 "	± 10	1/4 W.
	CMC119010	R1G	Plate load, V1F		100,000 "	± 10	1/4 W.
	CMC111100	R1H	Plate load, V5B		100,000 "	± 10	1/4 W.
	CMC113054	R2A	Cathode bias, V1A		300 "	± 10	1/2 W.
	CMC113054	R2B	Cathode bias, V1D		300 "	± 10	1/2 W.
	CMC113054	R2C	Cathode bias, V1E		300 "	± 10	1/2 W.
	CMC113054	R3D	Cathode bias, V1B		300 "	± 10	1/2 W.
	CMC113055	R3A	Screen & Plate decoupling, V1A		3,000 "	± 10	1/2 W.
	CMC113055	R3B	Screen & Plate decoupling, V1D		3,000 "	± 10	1/2 W.
	CMC113055	R3C	Screen & Plate decoupling, V1E		3,000 "	± 10	1/2 W.
	CMC113056	R4A	Cathode bias, V1C		1,000 "	± 10	1/4 W.
	CMC113056	R4B	Signal diode load, V2A		1,000 "	± 10	1/4 W.
	CMC113056	R4C	Cathode bias, V1F		1,000 "	± 10	1/4 W.
	CMC113057	R5A	Screen & Plate decoupling, V1C		50,000 "	± 10	1/4 W.
	CMC119013	R6A	A.V.C. diode load, V2A		500,000 "	± 10	1/4 W.
	CMC119013	R6B	A.V.C. decoupling		500,000 "	± 10	1/4 W.
	CMC119013	R6C	Grid leak, V5A		500,000 "	± 10	1/4 W.
	CMC119013	R6D	A.V.C. decoupling		500,000 "	± 10	1/4 W.
	CMC113059	R7A	Screen decoupling, V1G		20,000 "	± 10	1/4 W.
	CMC113061	R8A	Cathode bias, V1G		600 "	± 10	1/4 W.
	CMC113062	R9A	Meter multiplier, R.F. output		10,000 "	± 10	1/4 W.
	CMC113062	R9B	Plate decoupling, V1F		10,000 "	± 10	1/4 W.
	CMC113062	R9C	Grid leak, V3A		10,000 "	± 10	1/4 W.
	CMC113390	R10A	Volume control, V1G		100,000 "	± 20	1/4 W.
	CMC113063	R11A	Plate load, V1B		5,000 "	± 10	1/4 W.
	CMC108245	R12A	H.F. gain control, cathode bias circuit		10,000 "	± 20	1/4 W.
	CMC113064	R13A	Voltage dropping, cathode bias circuit		40,000 "	± 10	1/4 W.
	CMC108244	R14A	Beat note control, V1F		2,000 "	± 20	1/4 W.
	CMC113065	R15A	A.V.C. Time constant increase		4 megs	± 10	1/4 W.
	CMC113065	R15B	A.V.C. Time constant		4 "	± 10	1/4 W.
	CMC113066	R16A	Signal diode load, V2A		25,000 ohms	± 10	1/4 W.
	CMC113067	R17A	A.V.C. diode load, V2A		250,000 "	± 10	1/4 W.

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	CMC113068	R18A	Grid bias, V4A		450 ohms	± 5	5 W.
	CMC113112	R19A	Voltage dropping, fil. V4A		.4 "		40 W.
	CMC113069	R20A	Voltage dropping, +200V line S.U.		1,000 "		5 W.
	CMC113070	R21A	Parasitic suppressor, V4A		130 "	± 10	1 W.
	CMC113071	R22A	Parasitic suppressor V5A		50 "	± 10	½ W.
	CMC113072	R23A	Voltage dropping, sidetone		5,000 "	± 5	¼ W.
	CMC113073	R24A	Meter multiplier, MOD		2,500 "	± 10	¼ W.
	CMC119012	R25A	Plate load, V5B		5,000 "	± 5	¼ W.
	CMC113075	R26A	Static charge leak, AE		10 meg	± 20	1 W.
	CMC113076	R27A	Damping resistor, T5A		330 ohms	± 10	¼ W.
	CMC113077	R28A	Damping resistor, T5A		27 "	± 10	½ W.
	CMC113078	R29A	Audio voltage divider, V3B		25,000 "	± 10	1 W.
	CMC113079	R30A	Voltage dropping, Mic		35,000 "	± 10	½ W.
	CMC113080	R31A	Cathode bias, V3B		250 "	± 10	2 W.
	CMC113081	R32A	Beat note control, V1F		500 "	± 10	¼ W.
	CMC113082	R33A	Plate load, V3B		15,000 "	± 10	1 W.
	CMC113082	R33B	Feedback limiter, V3B		15,000 "	± 10	1 W.
	CMC113082	R33C	Audio voltage dropping, V3B		15,000 "	± 10	1 W.
	CMC113083	R34A	Audio voltage divider, V3B		10,000 "	± 10	1 W.
	CMC113083	R34B	Audio voltage divider, V3B		10,000 "	± 10	1 W.
	CMC11121	R37A	Output pot, V5B		5,000 "	± 20	
	CMC113086	R38A	Loading, T1A		2 meg	± 10	¼ W.
	PC81264C	R39A	Meter scale reading adj.		20,000 ohms	± 20	
	CMC113087	R40A	Meter multiplier, Output		4,000 "	± 10	¼ W.
	CMC113088	R41A	Grid bias, V4A		1,500 "	± 5	10 W.
	CMC113089	R42A	Grid bias, V4A		150 "	± 5	5 W.
	CMC113090	R43A	Meter multiplier, L.T.		30,000 "	± 2	¼ W.
	CMC119011	R44A	Meter multiplier, Bias		300,000 "	± 5	¼ W.
	CMC119011	R44B	Grid resistor, V5B		300,000 "	± 5	¼ W.
	CMC119011	R44C	Grid resistor, V5B		300,000 "	± 5	¼ W.
	CMC113091	R45A	Meter multiplier, + 150 V.		600,000 "	± 5	¼ W.
	CMC113091	R45B	Meter multiplier, + 200 V.		600,000 "	± 5	¼ W.
	CMC113092	R46A	Voltage dropping, dial lights		8 "	± 5	5 W.
	CMC113092	R46B	Voltage dropping, pilot lights		8 "	± 5	5 W.
	CMC119009	R47A	Plate load, V5B		200,000 "	± 5	¼ W.
	CMC119008	R48A	Plate load, V5B		10,000 "	± 5	¼ W.

Ord. No.	Mfrs. Part No.	Circuit Ref.	Description	Type	Value	% Tol.	Rating
INDUCTANCES AND R.F. TRANSFORMERS							
	CMC108525	L1A	A.E. coupling transformer				
	CMC95150	L2A	R.F. coupling transformer				
	CMC95114	L3A	Osc. coil, V1B				
	CMC108806	L4A	Input transformer, 1st band-pass filter				
	CMC108806	L4B	Input transformer, 2nd band-pass filter				
	CMC108806	L5A	Output transformer, 1st band-pass filter				
	CMC108806	L5B	Output transformer, 2nd band-pass filter				
	CMC105305	L6A	I.F. output transformer				
	CMC105300	L7A	B.F.O. tank coil, V1A				
	CMC105318	L8A	R.F. choke, Dyn. input				
	CMC89522	L9A	+ 150 V. filter choke, Dyn.				
	CMC89521	L10A	+ 200 V. filter choke, Dyn..				
	CMC89521	L10B	Filter choke, Dyn.				
	CMC108491	L16A	R.F. choke, grid, V4A				
	CMC108491	L16B	R.F. choke, grid V3A				
	CMC108491	L16C	R.F. choke, screen V3A				
	CMC108496	L17A	R.F. choke, plate V4A				
	CMC110171	L18A	M.O. tank coil, Band "A"				
	CMC110171	L18B	M.O. tank coil, Band "B"				
	CMC108903	L19A	A.E. tuning coil				
	CMC97673	L20A	Osc. tank coil, V3B				
	CMC11107	L21A	Crystal osc. coil, V5A				
	PC7915C	L22A	R.F. choke, meter				
	PC77371C	L23A	R.F. output meter transformer				
PLUGS, SOCKETS AND CONNECTORS							
	CMC108517	PL-1A	Rcvr. connector plug				
	CMC108518	PL-2A	Sender connector plug				
	CMC108532	PL-3A	Sender connector plug				
	CMC108573	PL-4A	Sender connector plug				
	CMC108272	PL-5A	Connector (cradle to rcvr.)				

Ord. No.	Mfrs. Part No.	Circuit Ref.	Description	Type	Value	% Tol.	Rating
	CMC108271 CMC113115 CMC108225 CMC108230 CMC108215 PC76340C PC76340C CMC106490 CMC108220 CMC113185 CMC113186 CMC113157 CMC113207	PL-6A PL-7A PL-8A PL-9A PL-10A PL-11A PL-12A PL-12B PL-13A PL-14A PL-19A PL-20A PL-21A PL-22A	Connector (cradle to rcvr.) Connector (cradle to sender) Connector (cradle to sender) Connector (battery to supply unit) Connector (L.P. dyn. to supply unit) Connector (H.P. dyn. to supply unit) Connector (Headgear No.1 to supply unit) Connector (Headgear No.1 to supply unit) Connector (L.P. dyn. to supply unit) Connector (L.P. dyn. to supply unit) Connector (H.P. dyn. to supply unit) Connector (M.O. to sender) Connector (Mod. to sender) Connector (Mod. to sender) Connector (Mod. to sender)				

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	TRANSFORMERS						
	CMC89523	T1A	Intervalve audio coupling transformer—V1G	ARP3	ARP3		
	CMC97693	T2A	Output transformer	ARP3	ARP3		
	CMC97672	T3A	Modulation transformer	ARP3	ARP3		
	CMC97660	T4A	Mic. transformer	ARP3	ARP3		
	CMC108490	T5A	AE current transformer	ARP3	ARP3		
	VALVES						
	CMC108016	V1A	R.F. amplifier	12Y4	(ARDD1)		
	CMC108016	V1B	Local oscillator	6V6G	6V6G		
	CMC108016	V1C	Mixer	813	813		
	CMC108016	V1D	I.F. amplifier	12SC7	12SC7		
	CMC108016	V1E	I.F. amplifier	12SC7	12SC7		
	CMC108016	V1F	BFO				
	CMC108016	V1G	A.F. amplifier				
	CMC108015	V2A	Detector, A.V.C.				
	PC86185C	V3A	Master oscillator				
	PC86185C	V3B	Modulator				
	CMC108018	V4A	Power amplifier				
	CMC108017	V5A	Crystal oscillator				
	CMC108017	V5B	Multivibrator				
	MISCELLANEOUS						
	RCA111820	J1A	Key jack				
	RCA111820	J1B	Mic. jack				
	CMC108239	J2A	Headphone jack				
	CMC108239	J2B	Headphone jack				
	CMC105317	M1A	Test & tuning meter				
	CMC105317	M1B	AE tuning meter				
	CMC108124	MG1A	H.P. dynamotor				
	CMC108123	MG2A	L.P. dynamotor				
	CMC108019	P1A	"A" vernier dial lamp				
	CMC108019	P1B	Main tuning dial pilot lamp				
	CMC108019	P1C	"B" vernier dial lamp				
	CMC108019	P1D	M.O. "A" band pilot lamp				
	CMC108019	P1E	M.O. "B" band pilot lamp				
	CMC108500	SPKR1A	Loudspeaker				
	PC90747C	W1A	Rectifier AE current meter				
	PC90747C	W1B	Rectifier for mod. meter				
	CMC111123	XTAL1A	Crystal oscillator B5A				

END

WIRELESS SET (CDN) NO. 9 MK. I

GENERAL DATA

Instruction No. 1

General

1. Wireless Set (Cdn) No. 9, Mk. I is a combined sender/receiver designed for operation in a vehicle or on the ground.

2. Frequency Range 1.87 - 5.00 Mc/s.
Intermediate frequency - Receiver 420 Kc/s.

3. Sender Valves ..	V3A	Master Oscillator	6V6G
	V4A	Power Amplifier	813
	V3B	Modulator	6V6G
Receiver Valves ..	V1A	R.F. Amplifier	ARP3
	V1B	Conversion Oscillator	ARP3
	V1C	Mixer	ARP3
	V1D	1st I.F. Amplifier	ARP3
	V1E	2nd I.F. Amplifier	ARP3
	V1F	Beat Frequency Oscillator	ARP3
	V2A	Detector and A.V.C.	12Y4 (ARDD1)
	V1G	Audio Amplifier	ARP3
	V5A	Calibrator Oscillator	12SC7
	V5B	Calibrator Multivibrator	12SC7
4. Power Supply	Filament supply - 12 V. Accumulator (through supply unit)		
	200 V. and 1000 V. - supplied to sender by Dynamotor		
	150 V. - supplied to receiver by Dynamotor		

5. Power Input and Output.

Type of Operation	Input Watts	Output Watts
Receive	54	
Net	72	
R/T (High Power)	276	30
M.C.W. (High Power)	288	
C.W. (High Power)	360	50
R/T M.C.W.) - (Low Power) C.W.)	229	5
C.W. Key Up (High and Low Power)	156	
Remote Receiver and ZE 11 SU	36	

6. Working Range .. With 16 foot rod aerial and vehicle stationary,
probable range may be:-

R/T 25 miles
C.W. 50 "

7. Weights and Dimensions.

Unit	Dimensions Ins.	Weight Lbs.
Complete Equipment (in carrier)	16 $\frac{3}{4}$ x 43 x 13 $\frac{1}{4}$	230
Sender	14 $\frac{1}{4}$ x 15 $\frac{1}{4}$ x 11 $\frac{1}{2}$	43
Aerial Tuning Coil	8 $\frac{1}{2}$ x 15 $\frac{1}{2}$ x 10 $\frac{1}{2}$	14
Receiver	14 $\frac{1}{4}$ x 15 $\frac{1}{4}$ x 11 $\frac{1}{2}$	69
Supply Unit	14 $\frac{3}{8}$ x 8 $\frac{1}{4}$ x 12 $\frac{3}{4}$	59
ZE 11 Supply Unit	8 $\frac{3}{8}$ x 10 $\frac{1}{8}$ x 8	26