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PHOTOFACT® Folder

with CIRCUITRACE®

HEATH  
MODEL GWW-30



HEATH  
MODEL GWW-30

TRADE NAME	Heath Model GWW-30		
MANUFACTURER	Heath Co., A Subsidiary of Daystrom, Inc., Benton Harbor, Michigan		
TYPE SET	Battery Operated Transistorized Portable Citizens Band Transmitter-Receiver		
POWER SUPPLY	9 Volts DC	RATING	12MA @ 9 Volts DC (Receive) 25MA @ 9 Volts DC (Transmit)
TUNING RANGE	Any One of Citizens Band Channels 1 thru 23		

NOTICE

ONLY THOSE PERSONS PROPERLY LICENSED ARE PERMITTED TO MAKE REPAIRS OR ADJUSTMENTS WHICH MAY RESULT IN ILLEGAL OPERATION. (REFER TO FCC RULES & REGULATIONS PART 19, SUBPART D, SECTION 19.71).

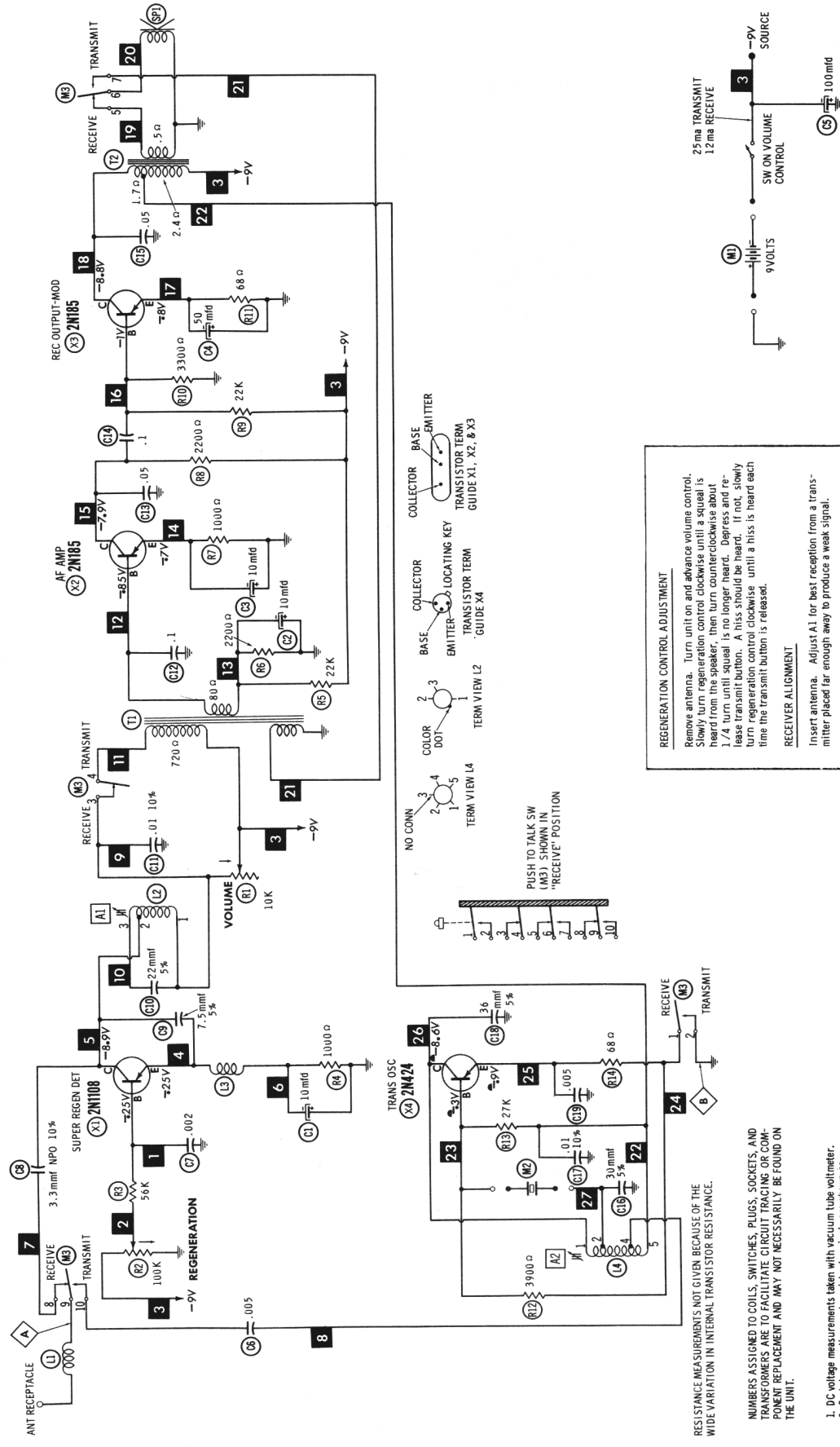
**HOWARD W. SAMS & CO., INC.** Indianapolis 6, Indiana



The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of KZ806

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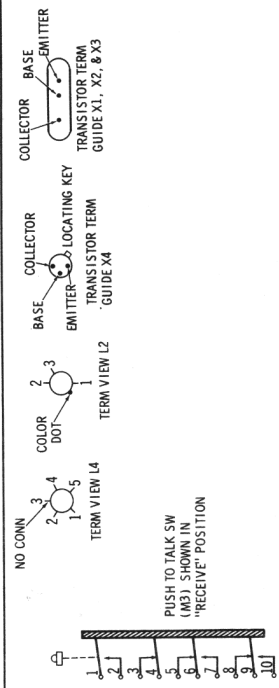
# HEATH MODEL GWW-30



**REGENERATION CONTROL ADJUSTMENT**  
 Remove antenna. Turn unit on and advance volume control. Slowly turn regeneration control clockwise until a squeal is heard from the speaker, then turn counterclockwise about 1/4 turn until squeal is no longer heard. Depress and release transmit button. A hiss should be heard. If not, slowly turn regeneration control clockwise until a hiss is heard each time the transmit button is released.

**RECEIVER ALIGNMENT**  
 Insert antenna. Adjust A1 for best reception from a transmitter placed far enough away to produce a weak signal.

**TRANSMITTER ALIGNMENT**  
 Remove antenna and connect a lamp bulb from point A to point B. Depress transmit button and adjust A2 for maximum bulb brilliance. The bulb should glow each time the button is depressed. If not, adjust A2 slowly clockwise until the bulb does glow each time.  
 NOTE: The glow of the bulb will be dim because of the low Rr output.



RESISTANCE MEASUREMENTS NOT GIVEN BECAUSE OF THE WIDE VARIATION IN INTERNAL TRANSISTOR RESISTANCE.

NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

- DC voltage measurements taken with vacuum tube voltmeter.
- Socket connections or transistor terminals are shown as bottom views.
- Measured values are from socket pin or terminal to common ground.
- Nominal tolerance on component values makes possible a variation of  $\pm 15\%$  in voltage and resistance readings.
- Volume control at maximum, no signal applied for voltage measurements.

A PHOTOFACET STANDARD NOTATION SCHEMATIC with CIRCUITRACE

# PARTS LIST AND DESCRIPTIONS

## TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA		NOTES
			RCA PART No.	RAYTHEON PART No.	
X1	2N1108	Superegen. Det.	2N412		
X2	2N185	AF Amplifier	2N408	2N633	PNP
X3	2N185	Rec. Output-Mod.	2N408	2N633	PNP
X4	2N424	Trans. Osc.			PNP

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING	CAP. VOLT.	REPLACEMENT DATA						
			HEATH PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.
C1	10	10	25-54	PTT39	NLW10-15	MTL-5	TT12X10	MLV10-10	TE-1114
C2	10	10	25-54	PTT39	NLW10-15	MTL-5	TT12X10	MLV10-10	TE-1114
C3	10	10	25-54	PTT39	NLW10-15	MTL-5	TT12X10	MLV10-10	TE-1114
C4	50	10	25-55	PTT45	NLW50-10	MTL-16	TT10X50	MLV50-10	TE-1119
C5	100	10	25-56	PTT46	NLW100-12	MTL-19	TT15X100	MLV100-10	TE-1119.3

## FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELEMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C6	.005		DI-5000	DM-502	H-05S5	CCD-502	TA-250	TG-D50
C7	.002		DI-2000	DD-202	BYA10D2	CCD-202	B-220	5HK-D20
C8	3.3 NFO 10%		NPO-DI 3.3	DTZ-3R3	C10V33C	CCTC-3R3	CNO-533	10TCC-V33
C9	22 5%		1469-000022	TCZ-22	22R5Q22	CM-19B-220J		MS-422
C10	.01 10%		DI-10000			CCD-103		10TS-S10
C11	.05		C80V104AM	DA-104	H-05P1		TA-010	TG-P10
C12	.05		BPD-05	DD-503	H-05S5		TA-150	TG-S60
C13	.05		C80V104AM	DA-104	H-05P1		TA-010	TG-P10
C14	.05		BPD-05	DA-503	H-05S5		TA-150	TG-S60
C15	30 5%		1469-000003	TCZ-30	22R5Q3	CM-19B-300J		MS-43
C16	.01 10%		DI-10000			CCD-103		10TS-S10
C17	36 5%		1469-000036	TCZ-36	22R5Q36	CM-19B-360J		MS-436
C18	.005		BPD-005	DM-502	H-05D5	CCD-502	TA-250	TG-D50

## CONTROLS

ITEM No.	RATING	REPLACEMENT DATA			INSTALLATION NOTES
		HEATH PART No.	CENTRALAB PART No.	CTS-IRC PART No.	
R1	10K	1/4			Volume & Switch Regeneration
R2	100K	1/4	448-10K-W	MLC14A-S	

## RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

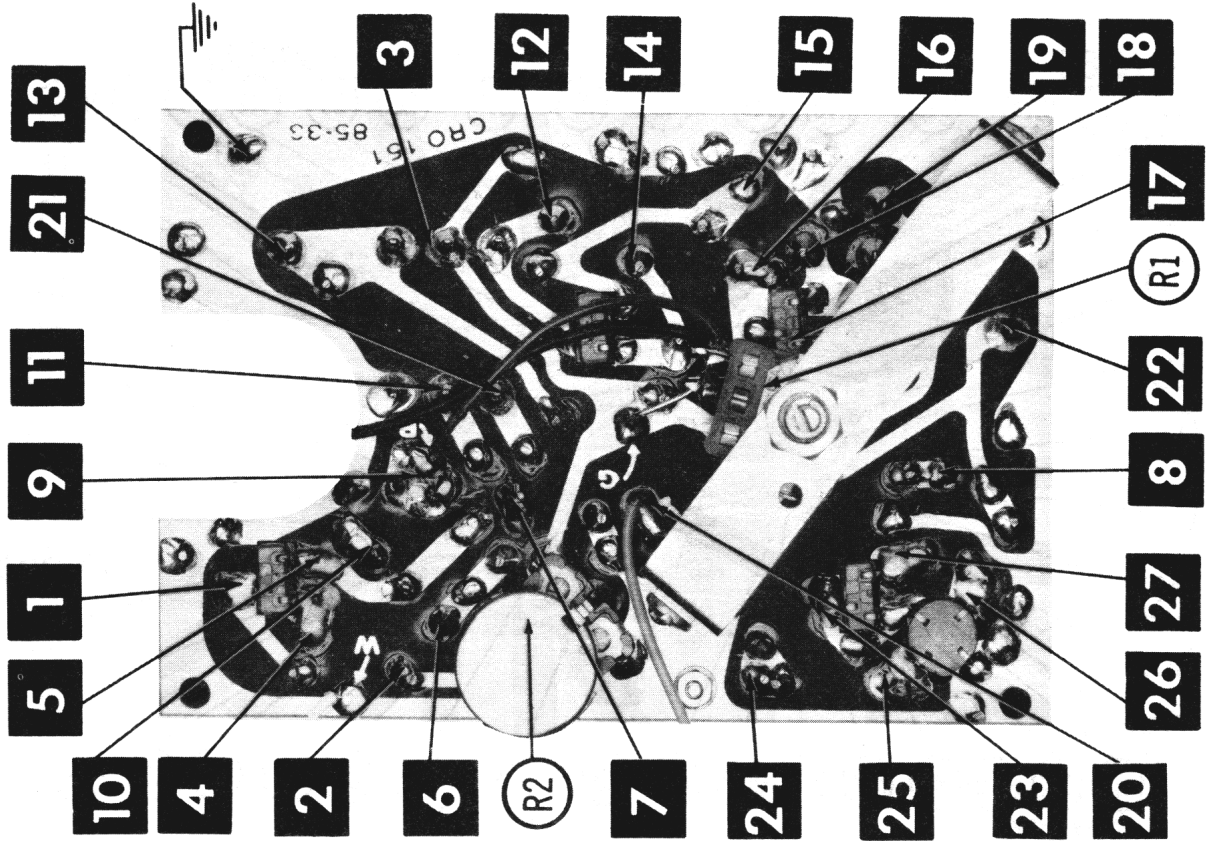
ITEM No.	RATING	REPLACEMENT DATA		REMARKS	REPLACEMENT DATA		REMARKS
		IRC PART No.	WORKMAN TV PART No.		IRC PART No.	WORKMAN TV PART No.	
R3	56K						
R4	1000Ω						
R5	22K			22K			
R6	2200Ω			R10	3300Ω		
R7	1000Ω			R11	68Ω		
R8	2200Ω			R12	3900Ω		
				R13	27K		
				R14	68Ω		

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		HEATH PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	
L1	Ant. Loading(2.2uh)	40-319	BC-563	4606	RTC-8517	T867
L2	Rec. Osc.	40-317	BC-566	4624	RTC-8524	T862
L3	Rf Choke(15uh)	45-51				
L4	Transmitt Osc.	40-318				

# PRINTED BOARD

A Howard W. Sams **CIRCUITRACE** Photo



# PARTS LIST AND DESCRIPTIONS (Continued)

## TRANSFORMER (DRIVER)

ITEM No.	REPLACEMENT DATA				NOTES
	HEATH PART No.	Merit PART No.	Thordarson PART No.	Triad PART No.	
T1	3.5 : 1 SEC. 2	51-86			
	40 : 1				

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REPLACEMENT DATA			NOTES
		HEATH PART No.	Merit PART No.	Thordarson PART No.	
T2	6500 Tap ③ 6000	51-87			

## SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		HEATH PART No.	QUAM PART No.	
SPI	3" PM	401-37		

## BATTERIES

ITEM No.	VOLTAGE	HEATH PART No.	REPLACEMENT DATA			NOTES
			BURGESS	EYEREDY	MALLORY	
M1	9V		"A" 2N6	"B" 246	"B" M-1602	

## MISCELLANEOUS

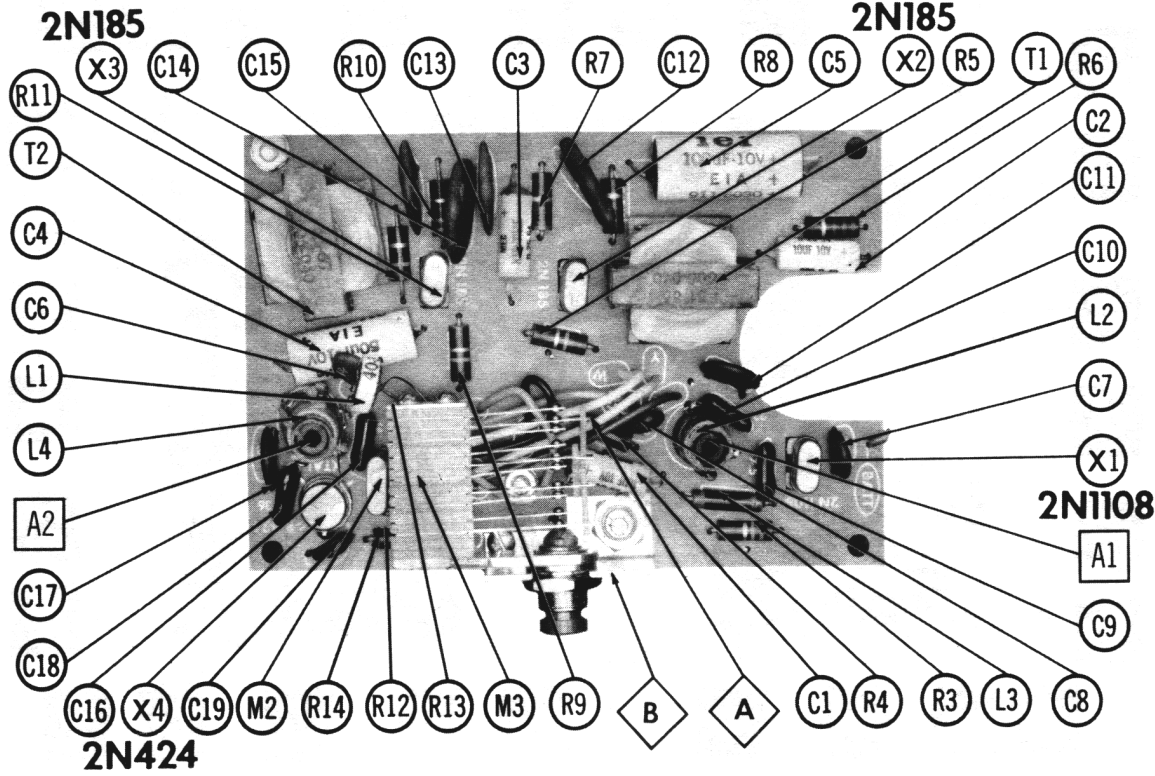
ITEM No.	PART NAME	HEATH PART No.	REPLACEMENT DATA			NOTES
			BURGESS	EYEREDY	MALLORY	
M2	Crytal, Transmit	404-97				26.965MC Channel 1
		404-98				26.975MC Channel 2
		404-99				26.985MC Channel 3
		404-70				27.005MC Channel 4
		404-71				27.015MC Channel 5
		404-72				27.025MC Channel 6
		404-73				27.035MC Channel 7
		404-74				27.045MC Channel 8
		404-75				27.055MC Channel 9
		404-76				27.065MC Channel 10
		404-77				27.075MC Channel 11
		404-78				27.085MC Channel 12
		404-79				27.105MC Channel 13
		404-80				27.115MC Channel 14
		404-81				27.125MC Channel 15
		404-82				27.135MC Channel 16
		404-83				27.145MC Channel 17
		404-84				27.155MC Channel 18
		404-85				27.165MC Channel 19
		404-86				27.175MC Channel 20
		404-87				27.185MC Channel 21
		404-88				27.195MC Channel 22
		404-89				27.205MC Channel 23
M3	Switch	404-10				Push to talk (4 Section Pushbutton Type)
M4	Antenna	442-35				40" Whip, Collapsible to 7 1/2"
	Printed Board	85-33F373				

## CABINETS & CABINET PARTS

(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

NAME	PART NO.	DESCRIPTION
Knob Leather Case	462-109 93-4	Includes Strap

## CHASSIS—TOP VIEW



## WIRING DATA

General-use Unshielded Hook-up Wire ..... Use BELDEN No. 8530 (Solid) Available in Ten Colors  
8524 (Stranded) Available in Ten Colors