

L787K



Two-Meter Transceiver and Mobile Power Supply



Exclusive distributor for Norway
HAUER RADIO A/S
Kongshavn, 0700 Oslo 3
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HWA17

Dependable, Rugged Mobile Operation . . . with the HWA-17-1 optional solid-state power supply. Goes together in just a few hours. Mount it almost anywhere in the car — 10 feet of connecting cable supplied. No modifications necessary to the HW-17 — just plug it in and you're ready to go.

Heathkit® 2-Meter AM Amateur Transceiver Kit and Optional Solid-State Mobile Power Supply Kit

The Heathkit HW-17 2-Meter AM Transceiver . . . the finest in value and performance for the VHF enthusiast.

Extended Coverage . . . transceives not only on the 2-meter ham band, but also capable of MARS, CAP and U. S. Coast Guard Auxiliary operation.

All Solid-State Receiver . . . the HW-17 receiver section is completely transistorized and employs 15 transistors in a high performance double conversion superhet circuit.

Relayless PTT Operation . . . switching done quickly — quietly by solid-state circuits.

Prebuilt, Prealigned Tuner . . . speeds assembly, minimizes construction errors. Incorporates an advanced design PET (Field Effect Transistor) circuit for low noise, low cross-modulation and higher amplification.

Crystal Controlled or VFO Transmit Option . . . one crystal supplied (145.08 MHz), sockets for three more of your choice. Or plug in the Heathkit HG-10 Series VFO (power and input jacks are provided on the rear apron of the HW-17).

Battery-Saver Switch . . . activates only the receiver section and draws just 100 mA — just the thing for mobile monitoring.

Fixed or Mobile . . . the HW-17 can be quickly switched from one type of operation to the other, thanks to the gimbal mounting bracket and separate power cables.

Built-In AC Power Supply . . . the HW-17 can be operated from either 120 v. or 240 v., 50-60 Hz sources depending on wiring option selected.

High Sensitivity . . . receiver features 1 uv sensitivity for 10 dB signal plus noise to noise ratio.

Dual AGC . . . Automatic Gain Control voltage is derived from both the audio and IF circuits to provide optimum reception of both DX and strong local signals.

Automatic Noise Limiter . . . the ANL is activated by pulling out the squelch control knob and effectively reduces interfering impulse noise.

"Spot" Function . . . helps to quickly determine transmitting frequency by activating the exciter stages of the transmitter.

Optimum Selectivity . . . selectivity of 27 kHz at the 6 dB points is most consistent with ease of tuning and band occupancy.

Squelch Circuit . . . sensitive squelch circuit eliminates background noise between transmissions.

High Output Per Dollar . . . the output of the transmitter is 8 to 10 watts; input to the final is 25 to 30 watts.

Less Sideband Splatter . . . modulating frequencies above 3500 Hz are attenuated to reduce the splatter of higher frequencies in the sidebands.

Short Construction Time . . . the 15 transistor, 20 diode, 3 tube circuit on two circuit boards goes together in about 25 hours.

Fixed Level Microphone Gain . . . provides overmodulation protection by clipping any voice input above the predetermined level.

Relative Power/Signal Strength Meter . . . indicates relative power output when mike button is depressed; signal strength when in receive mode.

Front Panel Controls for Final Load, Final Tune and Driver Tune are easily adjustable for maximum power output.

Built-In Speaker . . . essential for mobile installations where space is at a premium. Delivers up to 2 watts of audio power.

Microphone Supplied . . . a PTT ceramic hand-held microphone is supplied with coil cord and hanger.

Headphone Jack . . . jack for low impedance phones is located on the rear apron.

Handsome . . . the HW-17 is housed in an attractive two-tone green wrinkle finish and matches the latest Heath designs.

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HW-17 SPECIFICATIONS

TRANSMITTER:

Frequency Coverage: 143.2 MHz to 148.2 MHz.

Power Input: 25 to 30 watts.

Output Impedance: 50-72 ohm unbalanced.

Power Output: 8 to 10 watts.

Transmitting Mode: A3 emission (AM).

Modulation Capability: Modulation is automatically limited to 100% or less.

Frequency Control: Limited to four internal crystals or an external VFO, such as the Heathkit Model HG-10B.

Crystal Holder: One HC6/U type and three FT243 types.

Crystal Multiplication: 18 times.

Microphone: Ceramic PTT (furnished).

Tubes: 7059 — oscillator and tripler; tripler, 12GN7 — doubler-driver, 8156 — PA final.

Final Tuning: Series tuned, link coupled.

Note: This transceiver is wired to power the Heathkit Model HG-10 series VFO.

RECEIVER:

Frequency Coverage: 143.2 MHz to 148.2 MHz.

Receiving Mode: Type A3 emission (AM).

Sensitivity: 1 microvolt or less for 10 dB signal-plus-noise to noise ratio (30% modulation at 400 Hz).

IF Selectivity: 27 kHz at 6 dB down.

Intermediate Frequencies: 24.965 MHz and 2 MHz.

Antenna Input Impedance: 50-72 ohm unbalanced.

Audio Output Power: 1 watt at less than 10% distortion.
2 watts maximum.

Transistors: (2) UC734 RF amplifier and mixer; (1) SE5023 HF oscillator; (4) 2N3694 IF amplifiers second mixer, second oscillator; (4) 2N3393 audio preamplifier, microphone amplifier, microphone squelch amplifier; (1) X29A829 Squelch gate; (2) 40050 audio output; (1) 2N1274 audio driver.

GENERAL:

Dial Calibration: Every 100 kHz.

Temperature Range: 20 degree C to +50 degree C.

Power Requirements: 120 or 240 volts AC input, 50-60 Hz.

Battery Saver: 8 watts.

Receiver Trans: 20 watts.

Spot: 35 watts.

Transmit: 100 watts.

Cabinet Dimensions: 14½" W. x 8½" D. x 8½" H. including microphone and feet.

Net Weight: 13 lbs.

HWA-17-1 SPECIFICATIONS

Input Voltage: 12 to 15 volts DC.

Input Current: 10 amperes maximum.

Allowable Ambient Temperature: 10 degrees F to 122 degrees F.

High Voltage Output: 380 VDC, no load; 340 VDC at 150 mA load.

Ripple: Less than 1% at 150 mA.

Duty Cycle: 50%.

Conversion Frequency: 2500 Hz (approx.)

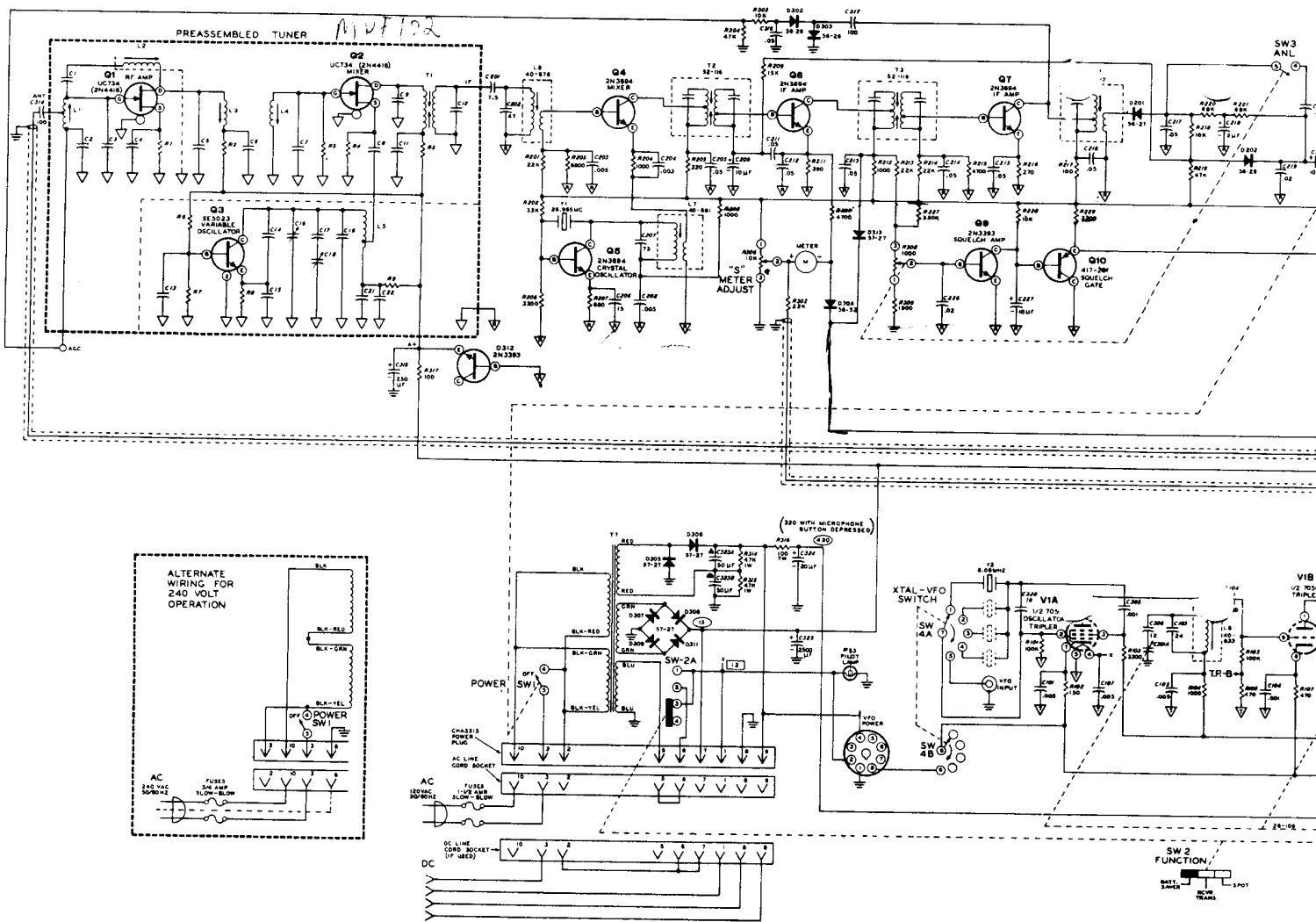
Dimensions: 3¾" W. x 7 5/16" L. x 2½" H.

Net Weight: 3 lbs.

Note: A 13.5 volt DC input was used in determining the electrical specifications.

HEATHKIT-GERÄTE
GmbH

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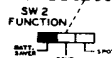
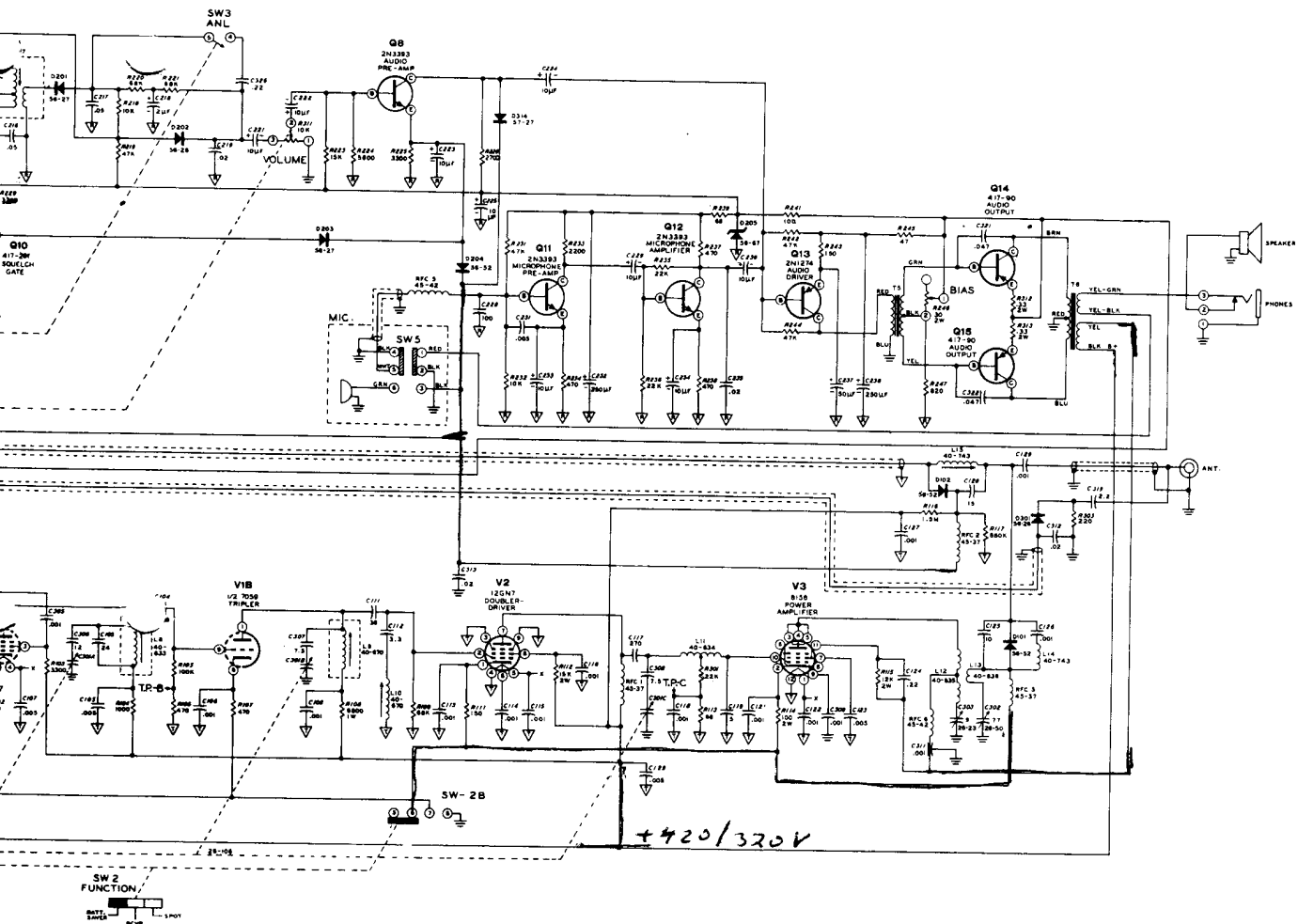


**SCHEMATIC OF THE
HEATHKIT®
TWO METER AM TRANSCEIVER
MODEL HW-17**

- RESISTOR, CAPACITOR, AND DIODE NUMBERS ARE IN THE FOLLOWING GROUPS:
 - 0- 99 PARTS MOUNTED IN THE TUNER
 - 100-199 PARTS MOUNTED ON THE TRANSMITTER CIRCUIT BOARD
 - 200-299 PARTS MOUNTED ON THE RECEIVER CIRCUIT BOARD
 - 300-399 PARTS MOUNTED ELSEWHERE
- ALL RESISTORS ARE 1/2 WATT UNLESS MARKED OTHERWISE. RESISTOR VALUES ARE IN OHMS (K=1,000; M=1,000,000).
- CAPACITOR VALUES LESS THAN 1 ARE IN μ F. VALUES OF 1 AND ABOVE ARE pF UNLESS THEY ARE MARKED OTHERWISE.
- ARROW (↻) INDICATES CLOCKWISE ROTATION OF SWITCH SHAFT (VIEWED FROM KNOB END).
- SWITCHES ARE SHOWN IN THE FOLLOWING POSITIONS:
POWER SWITCH IN OFF.
FUNCTION SWITCH IN BATT. SAVER.
ANL SWITCH IN "ON".
MICROPHONE PTT SWITCH IN "RECEIVE".
- THIS SYMBOL INDICATES A POSITIVE DC VOLTAGE MEASUREMENT, UNLESS MARKED OTHERWISE, TAKEN FROM THE POINT INDICATED TO CHASSIS GROUND WITH AN 11 MEGOHM INPUT VTVM. VOLTAGES MAY VARY $\pm 20\%$. □ THIS SYMBOL INDICATES AN AC VOLTAGE TAKEN FROM THE POINT INDICATED TO CHASSIS GROUND.
- REFER TO CHASSIS PHOTOGRAPHS AND X-RAY VIEWS FOR THE PHYSICAL LOCATIONS OF PARTS.
- POWER TRANSFORMER PRIMARY WIRING CONNECTIONS FOR 240 VAC ARE SHOWN IN THE BOX.
- ▽ THIS SYMBOL INDICATES A COMMON CONNECTION INSIDE THE PREASSEMBLED TUNER.
▽ THIS SYMBOL INDICATES A CONNECTION TO THE RECEIVER CIRCUIT BOARD GROUND FOIL.
▽ THIS SYMBOL INDICATES A CONNECTION TO THE TRANSMITTER CIRCUIT BOARD GROUND FOIL.
≡ THIS SYMBOL INDICATES A CONNECTION TO THE CHASSIS.

NOTES:

- ALL OTHER VALUES
- ALL FAR VALUES
- WITH VOLTS



**SCHEMATIC OF THE
HEATHKIT®
MODEL HWA-17-1
TRANSISTORIZED DC
POWER SUPPLY**

- NOTES:
1. ALL RESISTORS ARE 1/2 WATT UNLESS OTHERWISE INDICATED. RESISTOR VALUES ARE IN OHMS (K=1000).
 2. ALL CAPACITOR VALUES ARE IN MICRO-FARADS (μF)
 3. ALL VOLTAGE READINGS WERE TAKEN WITH AN 11 MEGOHM INPUT VOLTMETER. VOLTAGES MAY VARY AS MUCH AS ±20%.

