

*20 Years of Precision Short Wave Experience  
to Reach*

# This Peak of Perfection!



## Hallicrafters SX-88 communications receiver

Only Hallicrafters, drawing on an unmatched fund of experience in short-wave, could have brought you this set. It embodies engineering skills and manufacturing economies that took twenty years to build. And now, here it is! A receiver with more features and finer performance per pound of weight—per cubic inch of space—per dollars of cost—than any receiver ever built!

Look at this new SX-88 however you will—compare it in any way you can think of with any other communications receiver—and you'll agree—this is a new peak of perfection!

# Only Hallicrafters SX-88 Brings You All These Features - Everyone a Necessity Today!

- ✓ Full precision gear drive for main and band spread tuning.
- ✓ Six position Band Width Control (selectivity) from 250 cycles to 10 kc.
- ✓ 10 watt inverse feed back and push-pull audio output.
- ✓ Exalted B.F.O. for tops in single side band reception.
- ✓ Buffer amplifier in B.F.O. circuit.
- ✓ Antenna trimmer.
- ✓ Amplified and delayed A.V.C.
- ✓ A.V.C. operates for C.W. reception.
- ✓ Built-in 100 kc calibration crystal.
- ✓ Second conversion oscillators crystal controlled.
- ✓ Local oscillator circuits individually temperature compensated for each band.
- ✓ Inertia tuning (fly wheels both dials).
- ✓ Full frequency coverage from 535 kc. to 33.3 mc.
- ✓ Calibrated electrical band spread 160, 80, 40, 20, 15, 11, and 10 meters.
- ✓ Logging scales on each tuning shaft.
- ✓ Dial locks on each tuning shaft.
- ✓ Tuning dial indicators resettable from front panel for maximum calibration accuracy.
- ✓ Auxiliary A.C. socket on rear of chassis.
- ✓ Illuminated band-in-use indicator.
- ✓ Illuminated S meter.

- ✓ Dual S meter calibration S units and microvolts.
- ✓ Auxiliary power socket plus .6 amps at 6.3 volts and 10 ma at 150 volts for accessories.
- ✓ Standard 8 3/4" by 19" panel for rack mounting if desired.
- ✓ 50 kc i.f. output jack via cathode follower for teletype converter, oscilloscopes, etc.
- ✓ Five position response control (tone control).
- ✓ Two r.f. stages.
- ✓ 17 tubes plus voltage regulator, current regulators and rectifier.

## Front Panel Control

Main tuning.  
Band spread.  
Band Selector 6 positions.  
Volume: 0-10 and AC/off.  
Band width in kc: 10, 5, 2 1/2, 1 1/2, .5 and .250.  
Pitch: (B.F.O.) +5-0-5.  
Response: Bass Boost, High Fidelity, Normal, Communications.  
Antenna trimmer +5-0-5.  
Sensitivity 0-10.

## Front Panel Toggle Switch

Noise limiter on/off.  
A.V.C. on/off.  
Calibrator on/off.  
Receiver standby.  
C.W. - AM - SSSC (single side band suppressed carrier).

## Chassis Rear

Speaker terminals 3.2/8/500-600 ohms.  
Antenna terminals 52-600 ohms.  
AC Accessory socket 117 volts at 250 watts.  
Power socket—Octal for ex-

ternal power supply to receiver, such as batteries, and in addition this socket supplies 6.3 volts at 600 ma and 150 dc at 10 ma for future accessories.

Audio Input—phono jack.  
Fuse holder for AC power circuit.

## Frequency Range

(Main tuning dial)

Band 1—535 to 1710 kc.  
Band 2—1690 to 3080 kc.  
Band 3—2980 to 5570 kc.  
Band 4—5370 to 10,000 kc.  
Band 5—9.8 to 18.3 mc.  
Band 6—17.8 to 33.3 mc.

## Sensitivity

Bands 2 - 6 — 1 microvolt for 1/2 watt output.  
1 microvolt for 10 db signal to noise ratio.  
Band 1—10 microvolts for 1/2 watt output.

## Image Rejection

Not less than 80 db on frequencies lower than 20 mc.  
Not less than 60 db on frequencies from 20 to 30 mc.

## Spurious Responses

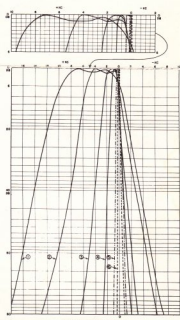
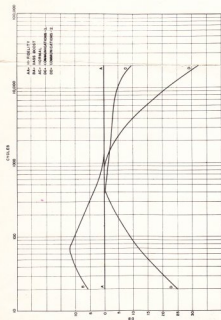
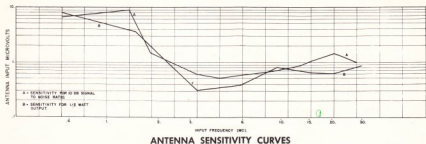
(I.F. and oscillator tweets)

Not less than 80 db except at 1700 kc where it is not less than 50 db.

## Band Width—(Selectivity)

Position	6 db (nose)	60 db (skirts)
10 kc	10 kc	21. kc
5 kc	5 kc	15. kc
2.5 kc	2.5 kc	7.5 kc
1.25 kc	1.25 kc	3.75 kc
.500 kc	500 cps	1.50 kc
.250 kc	250 cps	850 cps

# These Graphs Tell the Story Compare With Any Other Receiver!



**SELECTIVITY CURVES**

## TUBES AND FUNCTIONS SX-88

1st R.F. amplifier  
 2nd R.F. amplifier  
 1st converter }  
 1st oscillator }  
 2nd converter  
 2nd oscillator  
 1st 50 kc I.F. amplifier  
 2nd 50 kc I.F. amplifier  
 3rd 50 kc I.F. amplifier

6CB6 — Detector and A.N.L.  
 6BA6 — B.F.O.  
 6BA6 — B.F.O. amplifier  
 6UB — AVC rectifier and IF output  
 6BA6 — Audio amp. and phase inv.  
 12AT7 — Push pull audio output (2)  
 6BA6 — Voltage regulator  
 6BA6 — 1st oscillator filament current reg.  
 6BA6 — Power rectifier

6AL5  
 6C4  
 6BA6  
 12AU7  
 12AX7  
 6V6  
 0D3  
 4H4  
 5U4G

Specifications subject to change without notice

## GENERAL CIRCUIT DESCRIPTION

This receiver employs dual conversion throughout its entire tuning range of 535 kc to 33.3 Mc. This range is covered in six tuning bands, the first having a frequency ratio of 3:1 and the remaining five 2:1. The second conversion oscillators are quartz crystal controlled. Dual first I.F. frequencies of 2.025 Mc and 1.550 Mc., are employed to eliminate any gap in the tuning range. The second I.F. is at 50 kc and employs eight tuned circuits. Variable selectivity is achieved by changing the degree of coupling between these eight circuits in six steps.

## MECHANICAL DESCRIPTION

This receiver is 20" wide, 10 1/4" high, and 18 1/2" deep overall. It may be removed from the metal cabinet for standard relay rack mounting as the panel is 8 3/4" high by 19" long and is notched for standard racks. The depth behind the front panel is 17". The packed weight of the receiver is 92 lbs. and unpacked is 79 1/2 lbs. The main tuning control and bandspread tuning control are complete gear drive systems and the ratio of each is 50:1. The tuning dials are calibrated over 320°. As each frequency is selected, the appropriate scales are automatically illuminated through the translucent dials.



**MODEL HT-20 TRANSMITTER**

T.V.I. suppressed 100 watt AM-CW transmitter with all spurious outputs above 40 Mc at least 90 db below full rated output.

All stages metered; single meter with eight position meter switch; output tuning indication. Frequency range of 1.7 Mc to 31 Mc continuous on front panel control. Provisions for external VFO.

Gray steel cabinet 20" x 12 1/4" x 17 1/4" deep. Ship. wt. 130 lbs. Seven tubes plus five rectifiers. For 105/125 V. 50/60 cycle AC.



**MATCHING R-46A SPEAKER**

Matching 10" PM speaker for use with Hallicrafters communications receivers SX-88, SX-71, SX-76, SX-73, or SX-62, 80 to 5000 cycle range. Speaker voice coil impedance, 3.2 ohms.

Black steel cabinet matches SX-71 and other Hallicrafters cabinets. Cloth covered metal grille. 15" x 10-7/8" x 10-7/8" deep. Ship wt. 17 lbs.

# hallicrafters

World's Leading Exclusive Manufacturer of Communications and  
 High Fidelity Equipment, Radio and Television

4401 WEST FIFTH AVENUE, CHICAGO 14, ILLINOIS