



HAMMARLUND COMMUNICATIONS EQUIPMENT



Hammarlund communications
equipment is world renown
for quality
and dependability
at realistic prices.

Complete technical information
on any or all of the units shown
is available on request.



Hammarlund Manufacturing Company, Inc.

An Affiliate of TELECHROME

53 West 23rd Street, New York 10, N. Y.

International Division: 13 East 40th Street, New York 16, N. Y.



HQ-100A



GENERAL COVERAGE VERSATILITY AT LOW COST

For the short wave listener, the novice, and even the most discriminating amateur, the new Hammarlund HQ-100A now offers the most wanted features and outstanding performance — at a popular price.

A redesigned version of the world-famous HQ-100, this new instrument contains a separate, variable BFO — completely independent of the Q-multiplier — permitting simultaneous use of both. But this is only part of the quality story. Such important Elements as Auto-Response, Automatic Noise Limiter, stability, and 10 tube superheterodyne circuit are some of the basic reasons why the Hammarlund HQ-100A is a standout in its price class.

\$305^{25*}

Amateur Net

- **VERSATILE** — Continuously tunable 540 KCS to 30 MCS in four bands.
- **BANDSPREAD** — Dial markings every 10 KCS on 80, 40, and 20 meter bands; every 20 KCS on 15 meter band, and every 50 KCS on 10 meter band.
- **Q-MULTIPLIER** — Permits continuously variable selectivity to meet all operating conditions.
- **AUTO-RESPONSE** — Automatically adjusts audio response to fit receiving conditions.
- **AUTOMATIC NOISE LIMITER** — Minimizes static bursts and ignition interference.
- **CITIZENS BAND** — Channel markings supplied for use at operator's discretion.
- **MAXIMUM AUDIO OUTPUT** — 1.0 watt (undistorted)
- **SENSITIVITY** — An average of 1.75 μ Volt produces 10-1 signal-to-noise ratio.
- **ANTENNA INPUT** — 100 ohms nominal.
- **ANTENNA COMPENSATOR** — Compensates for loading effect of various antenna types or balanced transmission line.
- **BFO** — Variable from zero beat to ± 3 KCS.
- **POWER SUPPLY** — 105-125 volts, 50-60 cps. 68 watts.
- **"S" METER** — Calibrated 1 to 9 in steps approximately 6 db. Also includes db scale above S-9 to plus 40 db.

*24 hr. Clock Timer \$14.65 optional

HQ-110



The ever popular Amateur Band Receiver DESIGNED WITH THE AMATEUR IN MIND!

The Hammarlund HQ-110 is a dual conversion, 12 tube superheterodyne receiver featuring optimum selectivity of the desired signal and excellent image response rejection. Stability is maintained at high levels through use of a voltage regulated, temperature compensated high frequency oscillator, plus a crystal-controlled second conversion oscillator. Ideally suited to amateur use, the HQ-110 may be used with either ear-phones or loudspeaker. The phone plug automatically silences the speaker upon insertion.

Here is a quality-laden multi-purpose receiver any amateur will be proud to own!

\$354^{80*}

Amateur Net

- **FREQUENCY RANGE**—Full dial coverage of the 6, 10, 15, 20, 40, 80, and 160 meter amateur bands.
- **SINGLE SIDEBAND**—Separate linear detector for optimum reception of SSB and CW signals.
- **Q-MULTIPLIER**—Permits continuously variable selectivity.
- **BEAT FREQUENCY OSCILLATOR**—Separate, stabilized BFO for SSB and CW reception.
- **CRYSTAL CALIBRATOR**—Built-in 100 KC crystal calibrator.
- **AUTOMATIC NOISE LIMITER**—Minimizes static bursts and ignition interference.
- **MAXIMUM AUDIO OUTPUT**—1.0 watt (undistorted)
- **OUTPUT IMPEDANCE**—3.2 Ohms (RETMA standard)
- **AVC ACTION**—Operates on RF and IF stages. Provides fast, smooth action. Separate, delayed AVC for RF stages.
- **VARIABLE SELECTIVITY**—One position for high quality AM, 6 KCS. Q-Multiplier continuously variable from 100 cps to 3 KCS.
- **SENSITIVITY**—An average of 1.5 μ Volt produces a 10:1 signal-to-noise ratio.
- **BEAT FREQUENCY OSCILLATOR**—Variable from zero beat to ± 4 KCS.
- **"S" METER**—Calibrated 1 to 9 steps approximately 6 db. Also includes db scale above S-9 to 40 db.

*24 hr. Clock Timer \$14.65 optional

HAMMARLUND



HQ-105-TR
HQ-105-TRS



†\$362.79

OPTIONAL 8 channel push-button selector unit available after Jan. 1962.

NEW CITIZEN-HAM BAND TRANSCEIVER

A full-fledged Hammarlund-quality receiver, skillfully combined with a five watt input, single crystal controlled transmitter.

The HQ-105 TR can be utilized for both CB and Ham operation. The transmitter can be easily retuned—thus permitting the citizens band operator to swing to amateur radio as soon as a general license has been granted. Features push-to-talk or switch-to-talk operation, S-meter and tuning indication, separate Q-multiplier and BFO, built-in automatic noise limiter, and unique auto-response circuit. HQ-105 TRS has built-in speaker in place of clock-timer.

\$354⁷⁵*

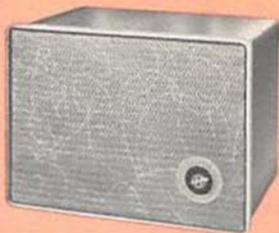
Amateur Net

- **TRANSMITTER** — 5 watt input — 100% modulation. For CB or 10 meter operation. CB crystal supplied.
- **RECEIVER** — Continuously tunable from 540 KCS to 30 MCS with outstanding sensitivity and selectivity.
- **Q-MULTIPLIER** — Permits continuously variable selectivity to meet most operating conditions.
- **BEAT FREQUENCY OSCILLATOR** — Highly stable. Variable from zero beat to ± 3 KCS.
- **AUTO-RESPONSE** — Automatically adjusts audio response to fit receiving conditions.
- **CIRCUIT** — 11 tube transceiver design.
- **POWER SUPPLY** — 105-125 volts, 50-60 CPS, 70 watts.
- **"S" METER** — Calibrated 1 to 9 in steps approximately 6 db. Also includes db scale above S-9 to 40 db.
- **SENSITIVITY** — An average of 1.75 μ Volt produces a 10:1 signal-to-noise ratio.
- **VARIABLE SELECTIVITY** — One position for high quality broadcast. One position for Q-multiplier continuously variable from 100 CPS to 3 KCS.
- **AVC ACTION** — Operates on RF and IF stages. Provides fast, smooth action.
- **MAXIMUM AUDIO OUTPUT** — 1.0 watt (undistorted)

S-100 speaker for use with HQ-105 TR \$14.95

*24 hr. Clock Timer \$14.65 optional
†HQ-105 TRS (Built-in Speaker) \$362.79

HQ-145-X



GENERAL COVERAGE and NEW SINGLE CRYSTAL CONTROLLED FIXED FREQUENCY CHANNEL

Solid contacts with weak signals on crowded bands—made possible by combining an adjustable 60 db slot filter and the exclusive Hammarlund crystal filter.

Just right for the amateur desiring general coverage, or the short wave listener who insists on commercial-quality performance. The HQ-145X is an 11 tube super-heterodyne featuring dual conversion of the 10 to 30 MCS range for improved image rejection, built-in automatic noise limiter, and crystal controlled fixed-frequency operation—invaluable in "net" communications, commercial fixed-frequency use and many other applications where crystal-controlled stability is required.

\$433^{30*}

Amateur Net

- **FREQUENCY RANGE**—540 KCS to 30 MCS in four bands.
- **BANDSPREAD**—80, 40, 20, 15, and 10 meter amateur bands.
- **CRYSTAL FILTER**—with six position switch for adjustable selectivity.
- **ADJUSTABLE SLOT FILTER**—up to 60 db attenuation. Range ± 5 KCS of center frequency.
- **S-METER**—Calibrated 1 to 9 in steps approximately 6 db. Also includes db scale above S-9 to +40 db.
- **CRYSTAL CONTROLLED CHANNEL**—High precision—for use at any point within entire frequency range. (crystal not supplied)
- **POWER SUPPLY**—105-125 volts, 50-60 cps. Power consumption 80 watts.
- **MAXIMUM AUDIO OUTPUT**—1.0 watt (undistorted)
- **SENSITIVITY**—An average of 1.75 microvolts produces a 10:1 signal-to-noise ratio on AM, CW average 0.6 microvolts.
- **AVC ACTION**—Operates on RF and IF stages. Provides fast, smooth action.
- **BEAT FREQUENCY OSCILLATOR**—Variable from zero beat to ± 2 KCS.
- **Quartz crystals**—Second conversion oscillator crystal-controlled. Two other crystals (100 KC calibrator and crystal controlled channel) optional.

XC-100P&Crystal Calibrator optional \$22.95

*24 hr. Clock Timer \$14.65 optional

HAMMARLUND



HQ-170



the Amateur Band SPECIALIST

Recognized... by everyone that has come in contact with this receiver... as the finest Single Sideband unit on the market today. Dual and triple conversion — 17 tube superheterodyne circuit — in fact, a whole raft of star-studded features that make this unit ideal for the radio amateur — offering and delivering everything he can order in performance, tuning techniques and dependability.

\$509^{80*}

Amateur Net

- **FREQUENCY RANGE** — Full dial coverage of 6, 10, 15, 20, 40, 80, and 160 meter amateur bands.
- **ADJUSTABLE SLOT FILTER** — Razor-sharp, ± 5 KCS over passband with up to 60 db attenuation.
- **SEPARATE VERNIER TUNING** — ± 3 KCS for effortless SSB tuning.
- **SEPARATE LINEAR & AM DETECTORS** — for optimum CW, SSB, and AM reception.
- **TUNED IF AMPLIFIER** — Seven positions provide mechanical filter-type skirt selectivity.
- **CRYSTAL CALIBRATOR** — Built-in 100 KC crystal calibrator.
- **POWER SUPPLY** — 105-125 volts, 50/60 cps. power consumption 120 watts.
- **MAXIMUM AUDIO OUTPUT** — 1.0 watt (undistorted)
- **BEAT FREQUENCY OSCILLATOR** — Variable from zero beat ± 2 KCS.
- **NOISE LIMITER** — Adjustable series type for both positive and negative clipping. For severe noise problems areas, the Hammarlund Noise Silencer is recommended.
- **SENSITIVITY** — An average of 1.5 μ Volts produces a 10:1 signal-to-noise ratio on AM approximately .7 μ Volts on CW.
- **ADJUSTABLE SELECTIVITY AND SELECTABLE SIDEBANDS** — 6 db bandwidths. Upper Sideband 1-2-3-KCS, Lower Sideband 1-2-3 KCS, Both Sidebands 0.5-2-4-6 KCS.

*24 hr. Clock Timer \$14.65 optional

HQ-180



GENERAL COVERAGE AT ITS *SSB* BEST!

The Hammarlund HQ-180 meets the most critical needs of both commercial and amateur user for a general coverage, SSB communications receiver. Modern tuning techniques yield optimum performance in the most crowded bands. The combination of bandspread and ± 3 KCS vernier tuning, slot filter, selectable sideband, tuned IF, separate linear detector, extreme selectivity, and inherent Hammarlund craftsmanship creates a receiver whose qualities are unsurpassed — at any price.

Literally thousands of users throughout the world will attest to the quality and performance of this outstanding receiver — convince yourself, just ask the man who owns one!

\$689^{45*}

Amateur Net

- **TRIPLE CONVERSION** — 18 tube superheterodyne circuit with automatic noise limiter.
- **FREQUENCY RANGE** — Full dial coverage from 54 KCS to 30 MCS.
- **BANDSPREAD** — Bandsread calibration for 80, 40, 20, 15, and 10 meter amateur bands.
- **BFO CONTROL** — ± 2 KCS.
- **CRYSTAL CALIBRATOR** — Built-in 100 KCS crystal calibrator.
- **AUTO-RESPONSE** — Exclusive design automatically adjusts audio passband to fit receiving conditions.
- **AVC ACTION** — Operates on RF and 3 IF stages. Provides fast attack adjustable decay, smooth acting AVC. Delayed AVC applied to the RF stage. Better than .001 second attack time and .01-.1-1 second decay time. Off Position.
- **ADJUSTABLE SELECTIVITY AND ADJUSTABLE SIDEBANDS** — 6 db bandwidths. Upper sideband 1-2-3 KCS. Lower sideband 1-2-3 KCS. Both sidebands 0.5-2-4-6 KCS.
- **SENSITIVITY** — An average of 1.5 μ Volts AM and approximately .7 μ Volts on CW produces 10-1 signal-to-noise ratio.
- **POWER SUPPLY** — 105-125 volts, 50/60 cps. ac. Power consumption 120 watts.
- **NOISE LIMITER** — Adjustable series-type provides both positive and negative clipping. For severe noise problem areas **THE HAMMARLUND NOISE SILENCER** is recommended.

*24 hr. Clock Timer \$14.65 optional

HAMMARLUND



HX-50



NEW, COMPACT FILTER-TYPE TRANSMITTER

Here is a new Hammarlund transmitter that is loaded with design extras to give you top-dollar value. Rated at 130 watts Two Tone P.E.P. and CW input, it covers all the amateur bands 80 to 10 meters and in addition provides a 160 meter band switch position for use with an optionally available kit. Slide rule dial has band-in-use indication and is calibrated every 100 KC. Readability to 2 KC or better. Stability after warmup is less than 250 cps. The new HX-50 offers superior performance in upper or lower SSB, AM or CW.

\$565⁴⁰

Amateur Net

- **PUSH-TO-TALK CIRCUITRY.**
- **BUILT-IN ANTENNA CHANGEOVER, VOX AND CW BREAK-IN KEYING RELAY.**
- **ALL CONVERSION CRYSTALS INCLUDED.**
- **CARRIER AND UNWANTED SIDEBAND SUPPRESSION 50 db OR BETTER.**
- **3rd AND 5th ORDER DISTORTION DOWN 30 db OR BETTER.**
- **AMATEUR BANDS COVERED — 80, 40, 20, 15 and 10 meters — OPTIONAL — Kit available for 160 meter operation.**
- **BANDWIDTH 2.7 KC AT 6 db DOWN — 4.5 KC AT 50 db DOWN.**
- **POWER SUPPLY — 105-125 volts, 50/60 cps. Power consumption 300 watts at maximum CW output.**
- **FIXED FREQUENCY CRYSTAL CONTROLLED OPERATION — 4 channels provided for MARS, Novice or other use (crystals not supplied).**
- **OUTPUT POWER — Two tone SSB and CW — 50 watts at 10 meters to 75 watts at 80 meters. AM is 25% of SSB/CW values.**
- **VFO STABILITY — Better than 250 cycles after warmup.**
- **NUMBER OF FREQUENCY CONVERSIONS — 2.**

HAMMARLUND

HX-500



A SUPERB FEATURE-PACKED *SSB* TRANSMITTER FOR THE AMATEUR

Thoroughly field-tested in side-by-side comparisons with many comparably priced transmitters, the Hammarlund HX-500 proved conclusive superiority of operation. The HX-500 offers the best in SSB, DSB, CW, FM, FSK, for RTTY plus 40 cps keyed shift. Separate dial scale for each band provides better than 200 cps readout. Stability after warm-up is better than 100 cps. Everything has been included to make this the finest transmitter ever — all crystals, front panel operational controls, and a host of outstanding features that make this transmitter the finest that money can buy.

\$975⁰⁰

Amateur Net

- **CARRIER SUPPRESSION** — 50 db or better.
- **UNWANTED SIDEBAND SUPPRESSION** — 50 db or better.
- **3rd and 5th ORDER DISTORTION** — Down 30 db or better.
- **SPURIOUS FREQUENCIES** — Down 50 db or better.
- **BANDS COVERED** — 80, 40, 20, 15, and complete 10 meter band.
- **TUNING ACCURACY** — Main slide rule dial is calibrated every 10 KCS. Vernier tuning knob is calibrated every 200 cps.
- **NUMBER OF FREQUENCY CONVERSIONS** — 3.
- **OUTPUT POWER** — 100 watts P.E.P. SSB; 100 watts CW; 25 watts AM; 100 watts FM; 100 watts FSK.
- **VFO STABILITY** — Better than 100 cycles after warmup.
- **60 KCS CARRIER OSCILLATOR STABILITY** — Better than 10 cycles after warmup.
- **POWER SUPPLY** — 105-125 volts, 50/60 CPS. Power consumption, 400 watts, at max. CW output.
- **OUTPUT METER** — Calibrated 0 to -60 db.
- **LOW FREQUENCY SSB FILTER** — 60 KCS.

HAMMARLUND



MR-50X
MR-60X



TRUE SPLIT CHANNEL PERFORMANCE

Crystal-controlled, split channel instruments that permit loud, clear signals on the most congested communication bands within respective frequency ranges. Pre-determined channels provide the ultimate in reception with crystal controlled stability.

The MR 50X is factory tuned to any pre-determined channel within the frequency range of 147 to 174 MCS; the range of the MR 60X is 25 to 54 MCS. If more than one channel is required, an optional channel selector circuit may be added at the time of purchase or in the field, permitting selection of up to six channels within 1% of nominal operating frequency.

\$284⁵⁵

Amateur Net

- **FREQUENCY RANGES** — 147 to 174 MCS on any single channel (MR 50X) 25 to 54 MCS on a single channel (MR 60X). Multi-channel kits available permitting front panel selection up to 4 channels within 1% of nominal operating frequency.
- **POWER REQUIREMENTS** — 117 volts, AC, 75 watts.
- **DUTY CYCLE** — Continuous.
- **FREQUENCY STABILITY** — $\pm .001\%$. Optional oven available permitting $\pm .0005\%$.
- **SENSITIVITY** — 0.5 μ Volt or less for 20 db quieting.
- **SELECTIVITY** — 5 KC (or greater) at 6 db down, 17 KC (or greater) at 100 db down.
- **SPURIOUS RESPONSE ATTENUATION** — At least 85 db down.
- **INTERMODULATION ATTENUATION** — At least 65 db down.
- **AUDIO RESPONSE** — +1 to -3 db from 300 to 3000 cps, (1000 cps reference) of a 6 db/octave de-emphasis curve.
- **AUDIO OUTPUT** — At least 1.0 watt at less than 10% distortion into built-in speaker.
- **HUM AND NOISE LEVEL** — Squelched, at least 50 db down from rated output . . . Un-squelched at least 40 db down from rated output.
- **SQUELCH** — Signal-to-noise ratio type, front panel adjustable, .15 microvolt or less at threshold.

HAMMARLUND

RDF-10



RADIO DIRECTION FINDER



The Hammarlund RDF-10 offers the kind of marine insurance you just can't afford to be without! Provides an accurate radio "fix" that points you to home port through the deepest fog or blackest night.

But that's not all! It offers three separate radio bands; Broadcast for shipboard enjoyment of news and music; Marine for up-to-date information on weather, fishing and sailing conditions and Beacon to get your fix point.

\$199⁵⁰
Amateur Net

ACCESSORIES

ELECTRONIC KEYSER HK-1B



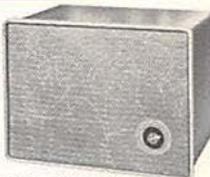
New compact fully transistorized code generator that combines all of the desirable features of electronic sending with distinctive dot/dash control to give messages your "personal touch". Instant speed range makes it ideal for novice and expert alike.

\$56.70
Amateur Net

S-100 SPEAKER

S-200 SPEAKER

Electrically and mechanically matched extended range 6" x 9" speakers with 8 watt capacity. Enclosed in functionally attractive metal cabinets. S-100 for use with HQ-100A, HQ-110 receivers and HQ-105 TR transceiver. S-200 for use with HQ-145X, HQ-170 and HQ-180 receivers.



S-100 **\$21.50**
Amateur Net
(not illustrated)

S-200 **\$28.70**
Amateur Net

CRYSTAL CALIBRATOR XC-100



For use with any receiver. New XC-100P (not illustrated) is a plug-in type designed specifically for the HQ-145X. Features plug-in electrical and mechanical connections.

XC-100 **\$22.95**
XC-100P **\$22.95**

IMPROVED NOISE SILENCER

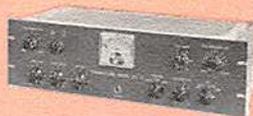
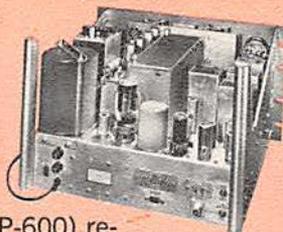
Suppresses impulse noise level in any location for HQ-170 and HQ-180 receivers. Renders receiver inoperative during peak at any individual noise pulse—"hole" not noticeable because of extremely short duration. Makes possible reception of signals that could not otherwise be heard due to heavy ignition or other pulse-type noise. Complete, ready to install.

\$48.20
Amateur Net

HAMMARLUND



SUPER-PRO 600



SPC-10

The Super-Pro (Model SP-600) receivers have established a record for performance and dependability second to none. Literally thousands of commercial, military and amateur users throughout the world will attest to this simple fact — you just can't buy a finer, more sensitive receiver . . . anywhere.

This 20 tube dual conversion superheterodyne is available in three frequency models ranging from 10 KCS to 54 MCS. Professional quality SSB reception is obtained by adding the SPC-10 converter — which can be integrated with any standard communications receiver having an IF frequency of 450 to 500 KCS.

SP-600 JX
Standard High Frequency Model
6 Bands — 0.54 to 54 MC
\$1862.35

SP-600 JX-17
Special Diversity Model
Same as SP-600 JX except provisions
for master or slave operation
\$2010.85

SP-600 JLX
Low Frequency Model
6 Bands — 100 KC to 400 KC
1.35 to 29.7 MC
\$2010.85

SP-600 VLF
Very Low Frequency Model
6 Bands — 10 to 540 KCS
Price on request

Above prices are for cabinet models. All units also available for rack mounting.

SPC-10 SSB/CW, AM/MCW Converter. Rack Mounted **\$452.55**

Complete technical specifications on all SP-600 receivers and SPC-10 converter will be sent on request.

Printed in the U.S.A.

APD 756

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