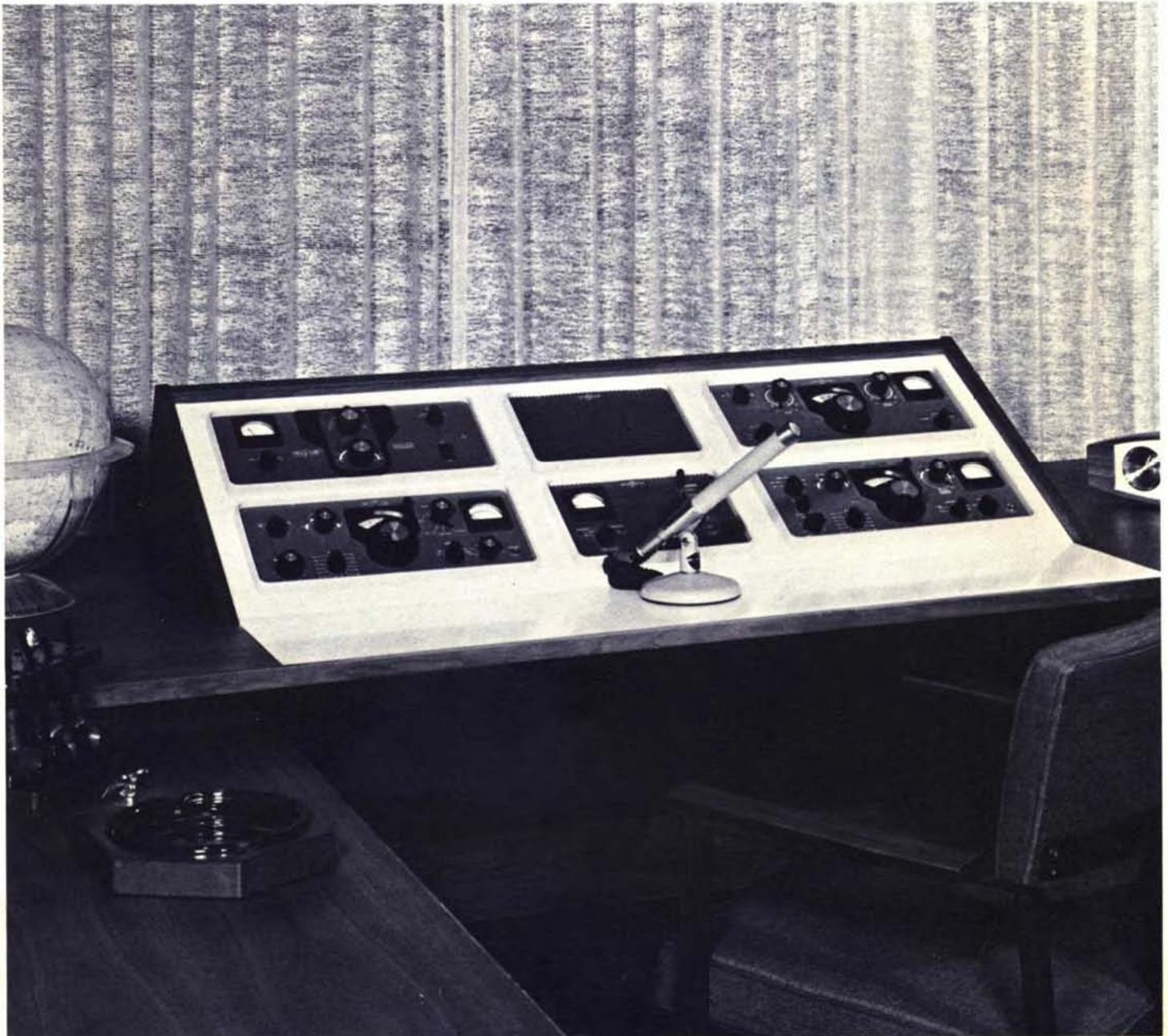


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AMATEUR RADIO EQUIPMENT CATALOG

No. 32





Collins Radio Company, with more than 30 years' experience in research, development and manufacture of distinctive amateur equipment, has dedicated itself to the objective of product excellence.

Whatever the field — amateur radio, avionics, commercial broadcasting, space electronics, communication, computation or control — Collins' uncompromising standards of excellence begin with product development and continue through every step of manufacture, quality control and test.

Collins' amateur radio equipment has been the standard used by DXpeditions around the world in environmental extremes seldom encountered by the average ham.

Collins' single sideband products have long been used by the U.S. military team. During the early years of single sideband communication, the size and weight of the equipment limited its use principally to point-to-point circuits between fixed stations. Continued development following World War II has resulted in a wide variety of high performance equipment for airborne, transportable, vehicular and shipboard, as well as fixed station, use.

The Strategic Air Command commanders' net, the Strategic Air Command aircraft control net and the Navy Tactical Data System are but a few of the major installations using Collins' single sideband. The Universal Radio Group, latest generation of Collins' SSB equipment, is a highly flexible and sophisticated HF communication design used by the U.S. Armed Forces, NATO and space centers.

Collins' research and development, plus the Company's never-ending emphasis on quality control, assure each Collins' amateur equipment owner that he has the most advanced and most thoroughly tested equipment available and that it will retain its value through the years.

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The Versatile KWM-2 Transceiver

Superior single sideband performance in a variety of installations, automobile, airplane, boat or fixed station, is assured by the Collins KWM-2 Mobile Transceiver. Engineered for the amateur who desires an 80 through 10 meter mobile transceiver, the KWM-2 design incorporates time-proven and advanced communication concepts.

Laboratory and field tested for many months before it was made available to amateur radio operators, the KWM-2 has since proved itself time and time again throughout the world. The KWM-2 has gone through rugged field and air operations with combat units of American and allied military forces. It has consistently given reliable communication service for Civil Defense and rescue crews in hurricanes, earthquakes, floods and other emergencies. The KWM-2 has also proved to be a "top point maker" during annual radio Field Day contests.

With this 18-pound compact transceiver, you can move your operation from the desk top of your ham shack to the mobile mount in your car in a matter of minutes. There's no time

consuming bolting or unbolting for you when you go mobile with your Collins' KWM-2. The KWM-2 slides easily into its specially designed mount beneath the instrument panel of your car. The KWM-2 connects automatically into the power, antenna, antenna selector and car speaker plugs in the mount. Just tighten two wing nuts on the cantilevered arm of the mobile mount and your KWM-2 is ready to operate.

With the Collins lightweight PM-2 Portable Power Supply and CC-2 Carrying Case you can have a completely operational and portable SSB station from microphone to antenna—with the whole station weighing less than 45 lbs.

Reflecting Collins' emphasis on system-engineering and flexibility in its single sideband amateur radio equipment, the KWM-2 can be used in fixed station operation with the 312B-5 Permeability-Tuned Oscillator Console. Add the Collins 30S-1 Linear Amplifier to the KWM-2 system and you gain the full legal power input for SSB and CW. The KWM-2 can be used without accessories to drive the 30S-1 or 30L-1.



KWM-2 Transceiver



Unmatched for versatility, dependability and mobility, the Collins KWM-2 maintains a reputation of outstanding performance in mobile and fixed station applications.

The KWM-2 power input is 175 watts PEP on SSB or 160 watts on CW. It transmits on voice or CW with a nominal output of 100 watts for complete coverage on 80 through 10 meters. Crystals are provided for all HF bands except 10 meters where one crystal is supplied with provision for two additional crystals.

The transceiver is finished in light gray enamel with a simulated leather front panel to match the S/Line.

The first available amateur mobile SSB transceiver was in the Collins KWM series. The KWM-2 continues to lead the field with the following features:

FILTER TYPE SSB GENERATION providing unsurpassed performance on both transmit and receive.

AUTOMATIC LOAD CONTROL which keeps the signal level adjusted to its rated PEP, resulting in an increase in average talk power.

INVERSE RF FEEDBACK which improves linearity and reduces distortion products, giving the cleanest signal on the air.

PERMEABILITY-TUNED VARIABLE OSCILLATOR with linearity and stability providing the best frequency calibration available.

ONE KC DIVISION on all bands, eliminating frequency searching and allowing you to meet anyone on sked, on any band 80 through 10 meters.

Compactness and efficiency of the KWM-2 are achieved through Collins' advanced design of having all tuned circuits and several tubes function in the dual role of transmitting and receiving. The same oscillators, Mechanical Filter and RF amplifier serve both the transmitter and receiver. CW break-in and monitoring sidetone circuits are built in.

Easily accessible controls on the front panel of the KWM-2 include the OFF-ON-NB-CAL SWITCH, EXCITER TUNING, ZERO SET, PA TUNING, LOADING, MIC GAIN, BAND SWITCH, AF GAIN, RF GAIN, EMISSION and METER SWITCH.

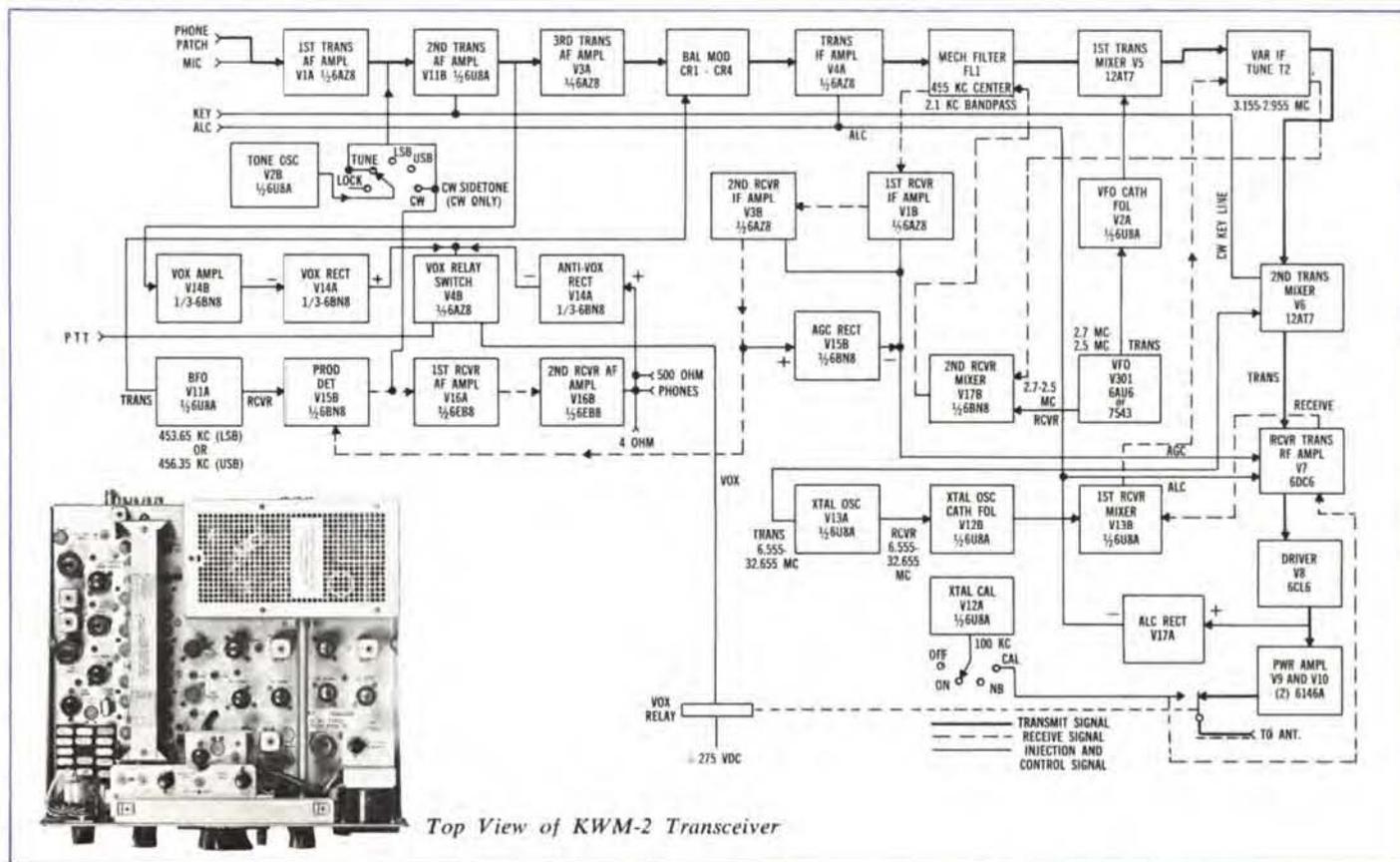
The KWM-2A is an extended frequency version of the KWM-2 for MARS (Military Affiliate Radio Service) and military applications. The KWM-2A has an additional crystal board permitting the operator to add 14 crystals to cover frequencies outside the amateur bands. The KWM-2A has a front panel switch and indicator, allowing instant switching between the two crystal boards.

Specifications

FREQUENCY RANGE: 3.4-5.0 and 6.5-30.0 mc; with crystals furnished, bands are as follows:

80 meters — 3.4-3.6 mc, 3.6-3.8 mc and 3.8-4.0 mc.

40 meters — 7.0-7.2 mc and 7.2-7.4 mc.



20 meters — 14.0-14.2 mc and 14.2-14.4 mc.
 WWV — 14.8-15.0 mc.
 15 meters — 21.0-21.2 mc, 21.2-21.4 mc and 21.4-21.6 mc.
 10 meters — 28.5-28.7 mc.
 MODE: SSB (either sideband selectable) or CW.
 TYPE OF SERVICE: SSB continuous; CW 50% duty cycle.
 POWER REQUIREMENTS: 115 v, 50-60 cps; power consumption approximately 235 watts in receive function and approximately 475 watts in transmit.
 In mobile operation, 800 v dc required at approximately 175 ma; 275 v dc at 190 ma; a bias supply adjustable between -60 v and -80 v; and 6 v, 12 v or 24 v dc at 11.0, 5.5 or 2.75 amps respectively.
 PLATE INPUT: 175 watts PEP on SSB; 160 watts on CW.
 POWER OUTPUT: 100 watts PEP (nominal) into 50 ohms.
 HARMONIC AND OTHER SPURIOUS RADIATION: Carrier suppression -50 db; unwanted sideband -50 db; oscillator feed-through and/or mixer products -50 db. Second harmonic -40 db. Third order distortion -30 db.
 NOISE LEVEL: 40 db below single tone carrier.
 AMBIENT TEMPERATURE RANGE: 0°-50° C.
 AMBIENT HUMIDITY RANGE: 0%-90%.
 ALTITUDE: 0-10,000 ft.
 SIZE: With feet—14¾" W, 7¾" H, 14" D (37.47 cm W, 19.69 cm H, 35.56 cm D).
 WEIGHT: 18 lbs. 3 oz. (8.25 kg).

FREQUENCY STABILITY: Within 100 cps after warm-up.
 CALIBRATION ACCURACY: 1 kc.
 BACKLASH: Not more than 50 cps.
 VISUAL DIAL ACCURACY: 200 cps on all bands.
 OUTPUT IMPEDANCE: Variable, 50 ohms nominal, capable of matching up to 2:1 SWR.
 KEYING CHARACTERISTICS: Keying is free of chirps and clicks. Break-in CW and sidetone provided.
 AUDIO INPUT: High impedance microphone or phone patch.
 AUDIO FREQUENCY RESPONSE: 300-2400 cps ± 6 db.
 AUDIO COMPRESSION CHARACTERISTICS: ALC operates on IF and RF amplifier stages and is capable of 10 db compression.
 RF FEEDBACK: Approximately 10 db of RF feedback around PA and driver for improved linearity.
 RECEIVER SENSITIVITY: 0.5 uv for 10 db signal-to-noise ratio in amateur bands.
 RECEIVER SELECTIVITY: 2.1 kc bandwidth at 6 db down; 4.2 kc bandwidth at 60 db down.
 RECEIVER SPURIOUS RESPONSE: Image rejection better than 50 db. Internal spurious below 1 uv equivalent antenna input.
 RECEIVER OUTPUT LEVEL: 1.0 watt maximum.
 AUTOMATIC GAIN CONTROL: The audio output level does not change more than 20 db as the input signal is changed from 5 uv to 1 v. Fast attack and slow release provide excellent AVC action on voice and CW.
 VIBRATIONS: 2 g at 10-33 cps.

A combination of features that can't be matched

As an owner of the Collins S/Line or KWM-2, you possess sturdy lightweight aluminum cabinets containing a combination of features found in no other equipment on the amateur market. In addition to the features of the equipment, the Collins owner acquires many "less obvious" but equally impressive and valuable owner benefits.

DESIGN

When you buy Collins equipment you benefit from the talents of design engineers who are experienced in the rigid requirements of commercial and military communication. The same engineering talent is responsible for the design and development of Collins amateur equipment.

Collins Radio Company, specialists in styling, thermal conductivity, human-engineering, and circuitry, solve the design problems related to each of these areas. These teams of specialists are key factors in maintaining the company's position as the "creative leader in electronics."

Throughout the design of amateur equipment, the safety of the operator is a prime consideration of the Collins engineers. Built-in safety devices are included in all equipments and contribute to the protection of the owner.

INSPECTION AND TEST

Experienced test technicians put each piece of equipment through rigorous tests and inspections. Equipment may get a "Reject and Re-do" stamp for reasons which are barely discernible. An escutcheon a shade off center, a blemish in the enamel finish, an electrical connection not quite sturdy enough—any one of these reasons can prevent an equipment from getting the Collins stamp of approval.

Each equipment is subjected to a vibration test in which the equipment must be operational while on the shake table. A heat run subjects each radio to twenty-four hours of alternately being turned on and off for preset time intervals.

After the equipment has gone through every feasible electronics testing device from a simple voltmeter test to the \$15,000 custom-made spectrum analyzer, Collins is still not satisfied. The company insists that the equipment needs one

final test—a test called operation "talk out." This is the test of "human acceptance." The final test technician fires up the set into a dummy load and must be completely satisfied that the radio plays, tunes, loads and meets all specifications.

Then it is slipped into a polyethylene bag, sealed and packaged for shipment.

QUALITY ASSURANCE

Collins' Quality Assurance engineers have established quality standards and procedures for every phase of amateur equipment production.

Audit, test, inspection and analysis are the tools of the men responsible for maintaining the preset standards. Outside quality, product process surveillance, fabrication process surveillance, fabrication quality audit, reliability analysis, manufacturing analysis and field report analysis are some of the departments within the Quality Assurance division of Collins Radio Company. Collins' capabilities — and the men behind them — will continue to make Collins products your best investment.

PRODUCT SUPPORT

When you own Collins amateur equipment you have the security of knowing that your equipment is backed by a company that has been in business for 30 years and will continue to be in business for a long time.

Collins maintains two company-owned service centers and has numerous franchised service agencies throughout the world. Most authorized Collins distributors have Collins trained service personnel. A technical answering service in Cedar Rapids is available for assistance in problem solving.

Collins supplies Service Parts support on all equipment for a minimum of ten years with selective service parts available after ten years.

Operational features, design features, system engineering and service combine to give you many years of enjoyment when you invest in Collins amateur equipment. Collins trade-in value is proof of the engineering, quality and craftsmanship that goes into each product.

Design • Craftsmanship • Service • Owner Benefits





Collins S/Line gives you the finest in fixed station SSB and CW performance

For the advanced amateur radio operator who wants the finest system-engineered fixed station available, Collins offers its famous S/Line.

With design based on the latest systems concepts, each of the carefully constructed units of the Collins S/Line augments the others in giving single sideband operation at its best.

Finished in light gray tones, with clean, smooth lines and front panels of dark gray simulated leather, Collins S/Line is equally welcome in your ham shack, den or family room.

Swift, sure and precise tuning are features of each unit. Because of the flexibility of the complete Collins station, you can operate it either as a transceiver or on separate frequency control. Plug-in patch cords interconnect the transmitter and receiver, permitting the VFO and HF crystal oscillator in the

receiver to control the transmitter frequency in transceive operation. A switch on the transmitter panel permits selection of either transceiver or separate frequency control. Two CW bandwidth positions for use with optional filters are available on the receiver for maximum CW capability.

Collins' exterior styling, flexibility and precise tuning add up to only a fraction of what the S/Line offers you. Inside each sturdy, lightweight aluminum cabinet you'll find the latest circuitry, the craftsmanship and the quality components which make Collins S/Line the finest fixed station amateur radio equipment available anywhere.

Each time you go on the air with a complete Collins S/Line you can be certain of the cleanest, clearest signal on the amateur bands.

75S-3B Receiver



The Collins 75S-3B is a versatile receiver with exceptionally sharp selectivity and operation in any of three modes — SSB, CW and RTTY. AM reception is provided, and the passband can be optimized by the installation of an optional 3.1, 4.0 or 6.0 kc Mechanical Filter. Two CW mode switch positions with optional plug-in filters offer up to three degrees of selectivity in the CW/SSB function.

The 75S-3B combines all Collins' proven qualities in design engineering and workmanship with unexcelled frequency stability and these other features:

REJECTION TUNING by a single control provides 50 db nominal rejection of unwanted heterodynes and carriers.

VARIABLE BFO results in additional convenience to CW and RTTY operators. The variable BFO can be utilized in either the CW or SSB mode.

OPTIONAL 500, 800 or 1500 cps Mechanical Filter offers sharp selectivity for CW. An optional 200 cps crystal filter is also available.

2.1 KC MECHANICAL FILTER assures sharp skirt selectivity and optimum passband for SSB. Background noise is effectively reduced by restricting bandwidth to only that required for communication. It can also be used for CW and RTTY.

ZENER REGULATED OSCILLATORS provide increased stability and less variance due to line voltage changes.

AGC CONTROL KNOB disables AGC or selects two AGC decay time constants. This permits choice of AGC characteristics to suit operating conditions.

CONCENTRIC RF AND AUDIO GAIN CONTROL arrangement on

the 75S-3B receiver offers increased operating convenience.

AUDIO OUTPUT of 3.0 watts assures adequate speaker levels.

The 75S-3B Receiver can be combined with the 32S-3 Transmitter and 312B-4 Station Control to make a completely integrated station. The 75S-3B, when used with the 32S-3, is capable of transceiver-type operation with the receiver PTO controlling the transmitting frequency. The 75S-3B can also be used conveniently with the Collins KWS-1, as well as the Collins KWM-1 or KWM-2 Transceiver.

Coverage outside the amateur bands, or additional 10 meter-band frequency coverage, can be obtained by plugging in the appropriate crystals.

The pitch for CW reception can be varied by turning the BFO control on and adjusting the knob for the most pleasing beat note, with the desired signal centered in the filter passband. The calibration marks can be used to shift from high mark to low mark when you are copying RTTY.

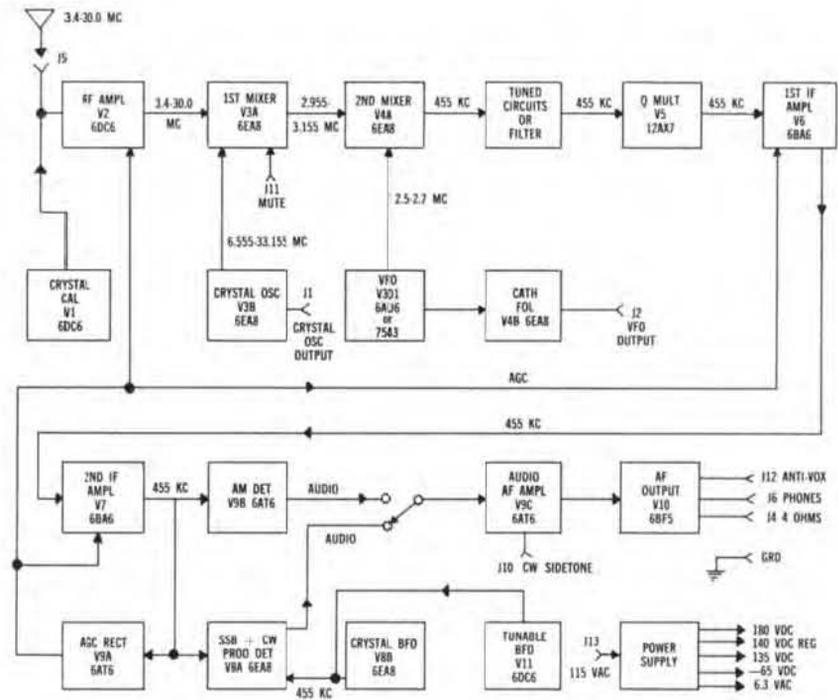
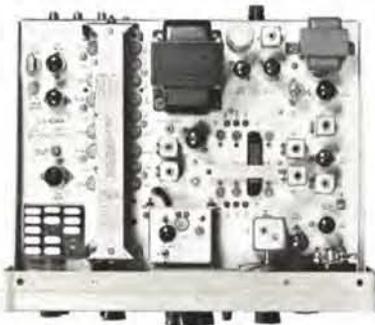
When the BFO knob pointer is at the 0 reference mark, the BFO frequency is approximately the same as crystal BFO in USB position. With the knob in the off position, the crystal BFO is in operation.

RTTY operation requires a conventional converter and printer. Fine tuning in this mode is easily accomplished with the variable BFO.

Also available is the 75S-3C, providing extended range coverage. It is identical to the 75S-3B except that an additional HF crystal board and front panel selector switch are included. The board for additional crystals is located on the top of the



Top View of 75S-3B Receiver



chassis and the standard group of amateur band crystals is mounted in a board on the underside of the chassis.

75S-3B Specifications

FREQUENCY RANGE: 3.4-5.0 mc and 6.5-30 mc, with crystals furnished for the following bands:

80 meters — 3.4-3.6 mc, 3.6-3.8 mc and 3.8-4.0 mc.

40 meters — 7.0-7.2 mc and 7.2-7.4 mc.

20 meters — 14.0-14.2 mc and 14.2-14.4 mc.

WWV — 14.8-15.0 mc.

15 meters — 21.0-21.2 mc, 21.2-21.4 mc and 21.4-21.6 mc.

10 meters — 28.5-28.7 mc.

MODE: Selectable USB, LSB, CW or AM.

TYPE OF SERVICE: Selectable single sideband, CW, RTTY and AM continuous.

POWER REQUIREMENTS: 115 v, 50-60 cps. Power consumption is approximately 85 watts. Power can be provided by an external supply which delivers 185 v dc at 125 ma and -62 v dc at 5 ma. Filament power can be ac or dc as follows: 6-7 v at 5.5 amps, 12-14 v at 2.75 amps or 24-28 v at 1.4 amps.

HARMONIC AND OTHER SPURIOUS RESPONSE: Image rejection better than 50 db. Internal spurious signals below 1 uv equivalent antenna input.

AUDIO NOISE LEVEL: Not less than 40 db below 1 watt.

AMBIENT TEMPERATURE: 0°-50° C.

AMBIENT HUMIDITY RANGE: 0%-90%.

ALTITUDE: 0-10,000 ft.

PROTECTIVE DEVICES: The ac line has a 1 amp SB fuse.

SIZE: Receiver with feet — 14³/₄" W, 7³/₄" H, 12¹/₂" D (37.47 cm W, 19.69 cm H, 31.75 cm D).

WEIGHT: 20 lbs. (9.07 kg).

CALIBRATOR: 100 kc crystal.

FREQUENCY STABILITY: Within 100 cps after warm-up.

CALIBRATION ACCURACY: 1 kc after midband calibration.

BACKLASH: Not more than 50 cps.

VISUAL DIAL ACCURACY: 200 cps on all bands.

SENSITIVITY: 0.5 uv for 10 db signal-plus-noise-to-noise ratio in SSB mode.

SELECTIVITY: SSB — 2.1 kc, 2:1 shape factor. CW — two switch positions and sockets; no filters supplied. AM — 5 kc. Optional filters for 0.2, 0.5, 0.8, 1.5, 3.1, 4.0 or 6.0 kc are available.

VARIABLE BFO: Tunes 452.35-458.35 kc.

AUTOMATIC GAIN CONTROL: AGC threshold—1.5-3.0 uv, 1.5 nominal. Selectable AGC time constant, Fast, Slow and Off. Attack time is 1 millisecond in both Fast and Slow. Fast release time is 190 milliseconds. Slow release time is 600 milliseconds.

AUDIO OUTPUT LEVEL: 1 watt at AGC threshold, 3 watts maximum.

ANTENNA INPUT: 50 ohms nominal $\pm 50\%$.

AUDIO OUTPUT REQUIREMENTS: Speaker — 3-4 ohms. Headphones — 500 ohms or higher.

AUDIO DISTORTION: Not more than 10% at 1 watt.

MUTING: Receiver silenced during transmit.

32S-3 Transmitter



Collins' highly flexible 32S-3 Transmitter covers all the amateur bands between 3.4 mc and 30 mc with a power input of 175 watts PEP on SSB or 160 watts on CW. It has a nominal output of 100 watts.

All of the dials and controls are clearly marked and human-engineered for operational efficiency. In the 32S-3, Collins design engineers have produced a transmitter with a minimum number of controls to offer you precise tuning.

The 32S-3 can also be adapted for RTTY operation because of the high degree of stability of the unit. Grid block keying in CW with adjustment of characteristic from "soft" to "hard" for individual operator is provided.

A combination of features found in no other transmitter on the amateur market gives you that top performance which you expect — and get — only in Collins transmitters. These features include:

DUAL CONVERSION with the high frequency oscillator crystal-controlled, and low frequency oscillator variable, resulting in a frequency stability for Collins transmitters which has become the standard of the amateur field.

COLLINS AUTOMATIC LOAD CONTROL which aids in preventing overmodulation and provides up to 10 db compression for higher average talk power.

COLLINS RF INVERSE FEEDBACK for improved linearity and reduction of distortion products and splattering.

CW SPOTTING CONTROL which allows the 32S-3 frequency to

be quickly and easily adjusted to zero beat with a signal tuned on the receiver. The carrier is momentarily keyed in the low level stages without disabling the receiver. A level control facilitates zero adjustment.

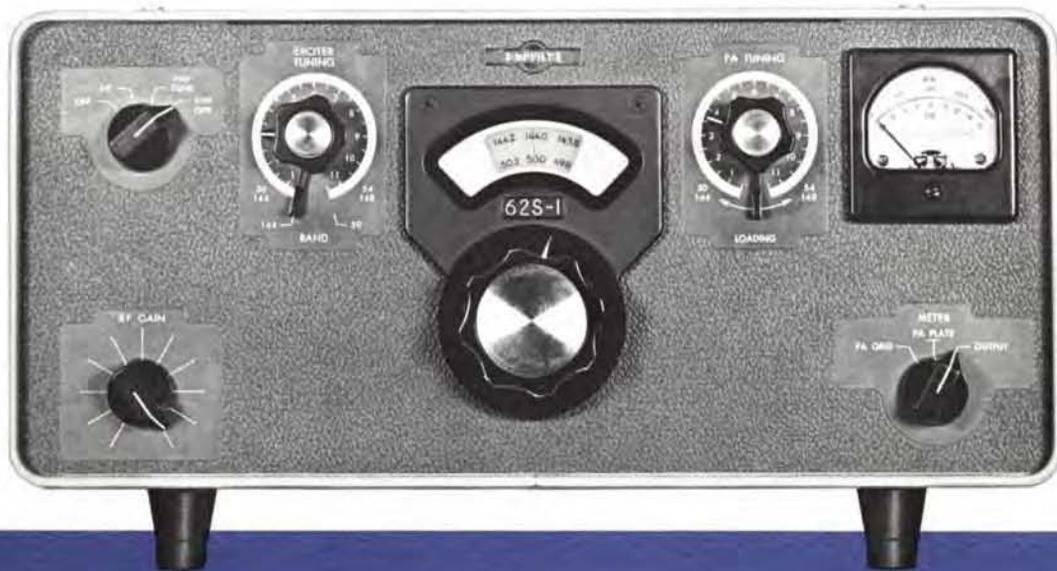
COLLINS MECHANICAL FILTER providing a clean, clear signal without need for adjustment, additional audio filters, or special microphones.

The 32S-3 comes equipped with the crystal sockets, crystals and bandswitch positions for eleven 200 kc bands. Crystal sockets and bandswitch position also are provided for two additional 200 kc bands between 28 mc and 30 mc. A fourteenth position, corresponding to the WWV position on the receiver, can be used for an additional 200 kc band in the 9.5-15.0 mc range, if desired. Regulation of oscillator voltages insures high frequency stability.

The 32S-3 can be operated on any frequency in the range of 3.4-30 mc, except 5.0-6.5 mc, by installing an appropriate crystal. Plug-in crystals are available to convert any of the above amateur band channels to out-of-band channels. Easy access is provided to crystal oscillator patch cables from top of cabinet. Front panel selection of receiver VFO or transmitter VFO provides optional transceiver operation at the flick of a switch.

While the 32S-3 provides ample RF power for excellent communication, it can be used without modification to excite the Collins 30L-1 or 30S-1 Linear Amplifier.

62S-1 VHF Converter



Collins' 62S-1 permits you to enjoy operation on either 6 or 2 meters by simply snapping a switch. No cable patching is required when changing from the HF to VHF frequencies. The self-contained unit, using the exciter's high voltage, supplies a 3-5 db receiver noise figure and transmitter input of 160 watts PEP. It can be used in any operational mode, as determined by the companion receiver and transmitter.

Reflecting Collins' emphasis on system engineering and flexibility in amateur equipment, the 62S-1 is designed for use with the S/Line, KWM-2 and KWM-1; however, it will convert signals from most amateur equipment operating in the 14.0-14.2 mc range.

Collins' 62S-1 assures you of outstanding performance with the following features:

EXCELLENT FREQUENCY STABILITY with carefully designed oscillator circuits using 0.005% crystals.

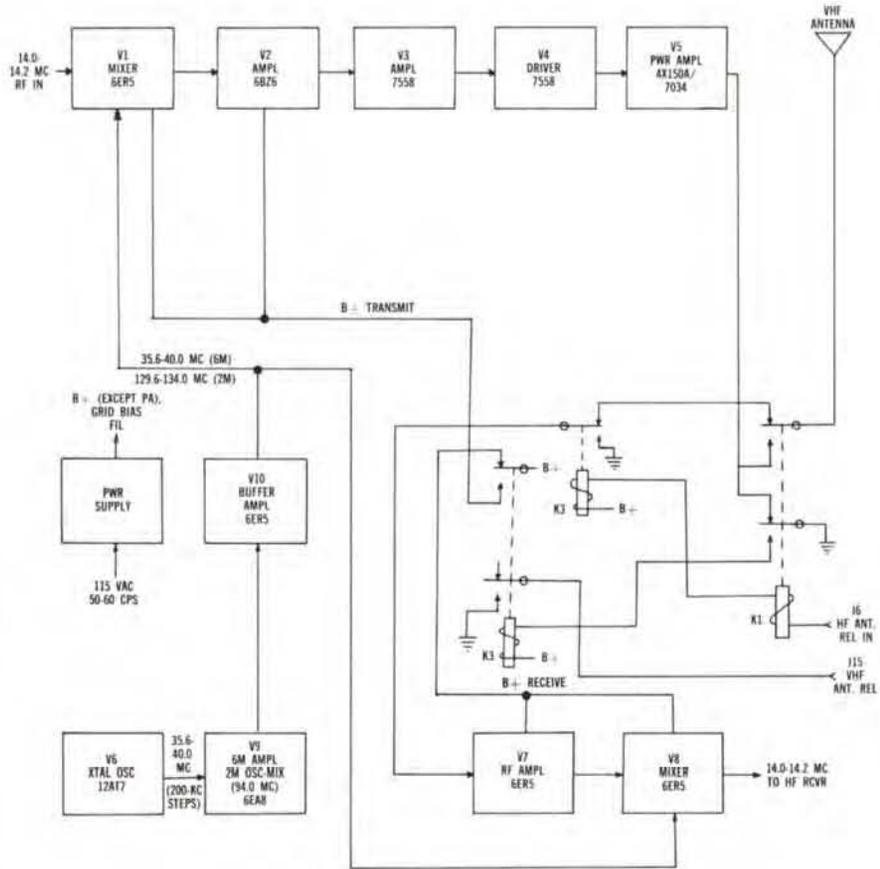
LINEAR DIAL CALIBRATION provides equivalent of 21 feet of bandspread on both 6 and 2 meters.

SPURIOUS RADIATION meets FCC, Part 15, Sub Part C, regu-

lations covering all very high frequency receiving equipment. **LOW CROSS MODULATION** resulting in excellent rejection of strong adjacent signals is provided by three tuned circuits in the first RF stage. These circuits are retuned every 200 kc. **EASE OF OPERATION** is assured when used in conjunction with the Collins S/Line on all amateur bands between 80 and 2 meters with no connecting or disconnecting of cables. **CHOICE OF MODES** includes SSB, CW or AM, as determined by associated transmitter and receiver.

The 62S-1 offers complete coverage of 49.6-54.2 mc and 143.6-148.2 mc frequency ranges in 200 kc increments using an oscillator-amplifier injection system for frequency conversion with 23 crystals (MARS band crystals not furnished) which can be selected for heterodyning down to 14.0-14.2 mc on receive, and up from 14.0-14.2 mc on transmit.

The 62S-1 Converter is finished in light gray enamel with the front panel chemically etched to simulate leather and is compatible in appearance and styling with other Collins S/Line units.



Top View of 62S-1 VHF Converter



62S-1 Specifications

FREQUENCY RANGE: 49.6-54.2 mc; with crystals furnished, bands are as follows:

6 meters — 50-54 mc in 200 kc increments.

2 meters — 144-148 mc in 200 kc increments.

MODE: SSB, CW, AM or RTTY on transmit and receive, as determined by exciter and receiver.

TYPE OF SERVICE: Attended operation. Continuous on receive and transmit.

POWER REQUIREMENTS: 115 v ac, 50-60 cps at approximately 75 watts. Power can be delivered by an external power supply which must furnish 800 v dc at 220 ma for the PA plate circuit; 275 v dc at 20 ma for the PA screen circuit.

PLATE POWER INPUT: 160 watts.

POWER OUTPUT: 65 watts PEP minimum into a 50 ohm load.

NOISE LEVEL: 40 db below rated PEP output.

HARMONIC AND OTHER SPURIOUS RADIATION: Oscillators and

mixer products at least 60 db below PEP. Second harmonic at least 35 db below PEP.

AMBIENT TEMPERATURE RANGE: 0°-50° C.

AMBIENT HUMIDITY RANGE: 0%-90%.

PROTECTIVE DEVICES: Primary fusing in power supply.

SIZE: With feet—14 $\frac{3}{4}$ " W, 7 $\frac{3}{4}$ " H, 13" D (37.47 cm W, 19.69 cm H, 33.02 cm D).

WEIGHT: 25 lbs. (11.34 kg).

FREQUENCY STABILITY: 0.005% crystals are used throughout in the 62S-1.

OUTPUT IMPEDANCE: Variable; 50 ohms nominal, capable of matching 2:1 SWR.

SENSITIVITY: 2 meters — 1.2 uv maximum for 10 db S+N/N using 3 kc audio bandwidth (NF approximately 4); 6 meters — 1.3 uv maximum for 10 db S+N/N using 3 kc audio bandwidth (NF approximately 4).

SPURIOUS RESPONSES: At least 50 db below a 1 uv desired signal level. Image rejection greater than 100 db on 6 meters. Greater than 60 db on 2 meters.

30L-1 Linear Amplifier



The Collins 30L-1 Linear Amplifier has 1000 watts PEP power input on SSB and 1000 watts average on CW on all bands. It can be driven by the Collins 32S-3 Transmitter Collins KWM-2 or KWM-1 Transceiver, or most 70-100 watt exciters. Finished in the same attractive light gray as Collins' famous S/Line equipment and the KWM-2, the 30L-1 has all the controls conveniently accessible on the front panel.

This linear amplifier is completely self-contained and designed for table-top use. It is easily transported in a CC-2 Carrying Case. The Collins 30L-1 features:

AUTOMATIC LOAD CONTROL allowing a high average level of modulation and optimum power output from the amplifier, within the rated limits of distortion.

RF INVERSE FEEDBACK reduces distortion products giving cleanest signal on the air.

SOLID STATE RECTIFIERS resulting in heat reduction.

SELF-CONTAINED POWER SUPPLY with safety interlock circuits for grounding the high voltage when the cover is removed.

AUTOMATIC ANTENNA TRANSFER ON THE ON-OFF SWITCH permits the 30L-1 to be switched in or out of the circuit at will by operating the switch.

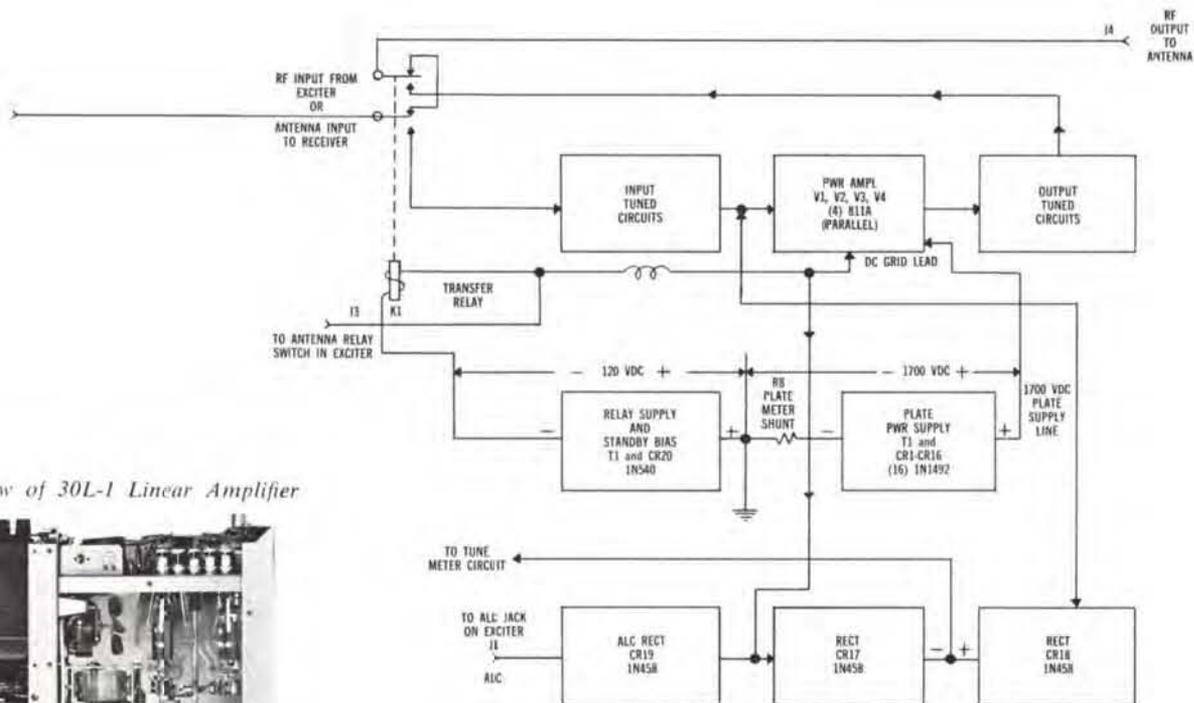
The 30L-1 provides SSB and CW emission and covers the

80, 40, 20, 15 and 10 meter bands. Provisions are made for general coverage use, too. Automatic Load Control voltage from the 30L-1 is fed back to the exciter, providing maximum talking power without overdriving and distortion. In combination with RF inverse feedback, Collins' exclusive Automatic Load Control provides not only more power, but a sharper signal than any comparable unit in the amateur field.

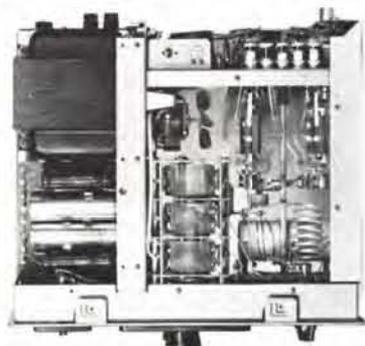
The 30L-1 is a grounded grid linear amplifier with four 811A Triodes. They can be replaced without removing the unit from the cabinet. The 811A's are instantly heated; thus, there is no delay in warm-up.

Indicating devices on the 30L-1 include a panel meter monitoring final amplifier plate current, plate voltage, and tuning circuit. With the meter switch in tune position, the 30L-1 uses an exclusive comparator circuit which can be operated by simply adjusting tuning and loading controls to zero the meter.

The 30L-1's RF and power supply compartment covers operate safety interlock switches for protection of the operator. Cover removal closes these switches and shorts the high voltage to ground. This arrangement protects the operator from accidentally coming in contact with high voltage dc, which is present in either compartment.



Top View of 30L-1 Linear Amplifier



The unit can be operated outside amateur band limits; however, retuning the input circuits may be necessary. Such retuning presents the proper load impedance to the exciter.

30L-1 Specifications

FREQUENCY RANGE: 3.4-30.0 mc, covering 80, 40, 20, 15 and 10 meter amateur bands.

By retuning input circuit as necessary, the following general coverage bands can be accommodated:

FREQUENCY BAND	TOTAL COVERAGE
3.5 mc	3.4-5.0 mc
7.0 mc	6.5-9.5 mc
14.0 mc	9.5-16.0 mc
21.0 mc	16.0-22.0 mc
28.0 mc	22.0-30.0 mc

MODE: SSB or CW.

TYPE OF SERVICE: Attended operation SSB continuous; CW 50% duty cycle.

POWER REQUIREMENTS: 115 v or 230 v, 50-60 cps; CW,

key closed, 1200 watts ac; SSB, no modulation, 300 watts ac; SSB, speech modulated, 550 watts ac.

DRIVE POWER: 70-100 watts for full output.

PLATE POWER INPUT: 1000 watts PEP on SSB; 1000 watts on CW on all bands.

POWER OUTPUT: 500 watts PEP into 50 ohms on all bands.

HARMONIC AND OTHER SPURIOUS RADIATION: Second harmonic -40 db; third order distortion -30 db at full output.

NOISE LEVEL: 40 db below one tone carrier.

AMBIENT TEMPERATURE: 0°-50° C.

AMBIENT HUMIDITY RANGE: 0%-90%.

ALTITUDE: 0-10,000 ft.

PROTECTIVE DEVICES: All removable panels interlocked. Input line fused — 8 amps on each side.

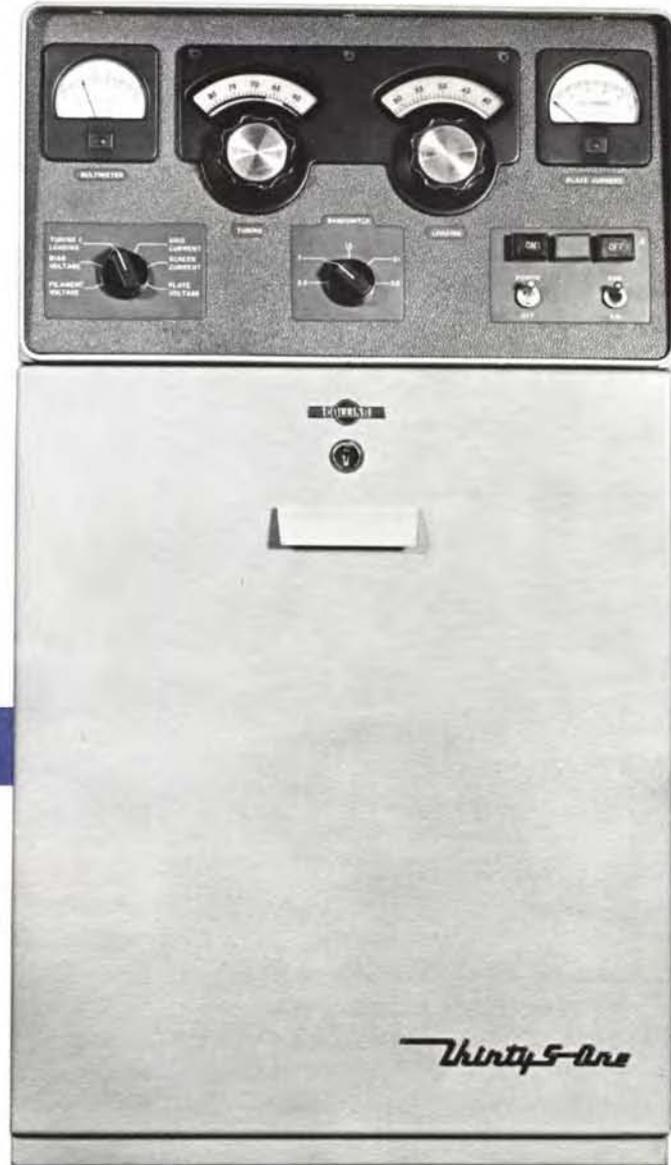
SIZE: With feet—14 $\frac{3}{4}$ " W, 7 $\frac{3}{4}$ " H, 13 $\frac{3}{4}$ " D (37.47 cm W, 19.69 cm H, 34.93 cm D).

WEIGHT: 38 lbs. (17.24 kg).

OUTPUT IMPEDANCE: Variable. Nominally 50 ohms unbalanced with not more than 2:1 SWR on the amateur bands.

AUDIO COMPRESSION CHARACTERISTICS: ALC operates from the amplifier RF plate voltage. Threshold is adjustable and factory preset.

30S-1 Linear Amplifier



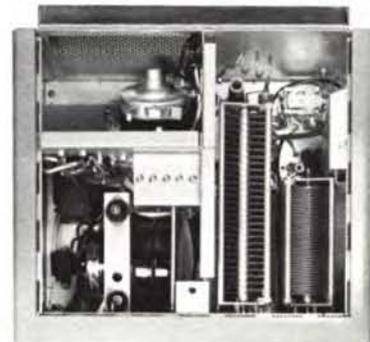
Add the Collins 30S-1 Linear Amplifier to your station and you will have the cleanest, loudest signal on the air. The Collins 30S-1 Linear Amplifier features:

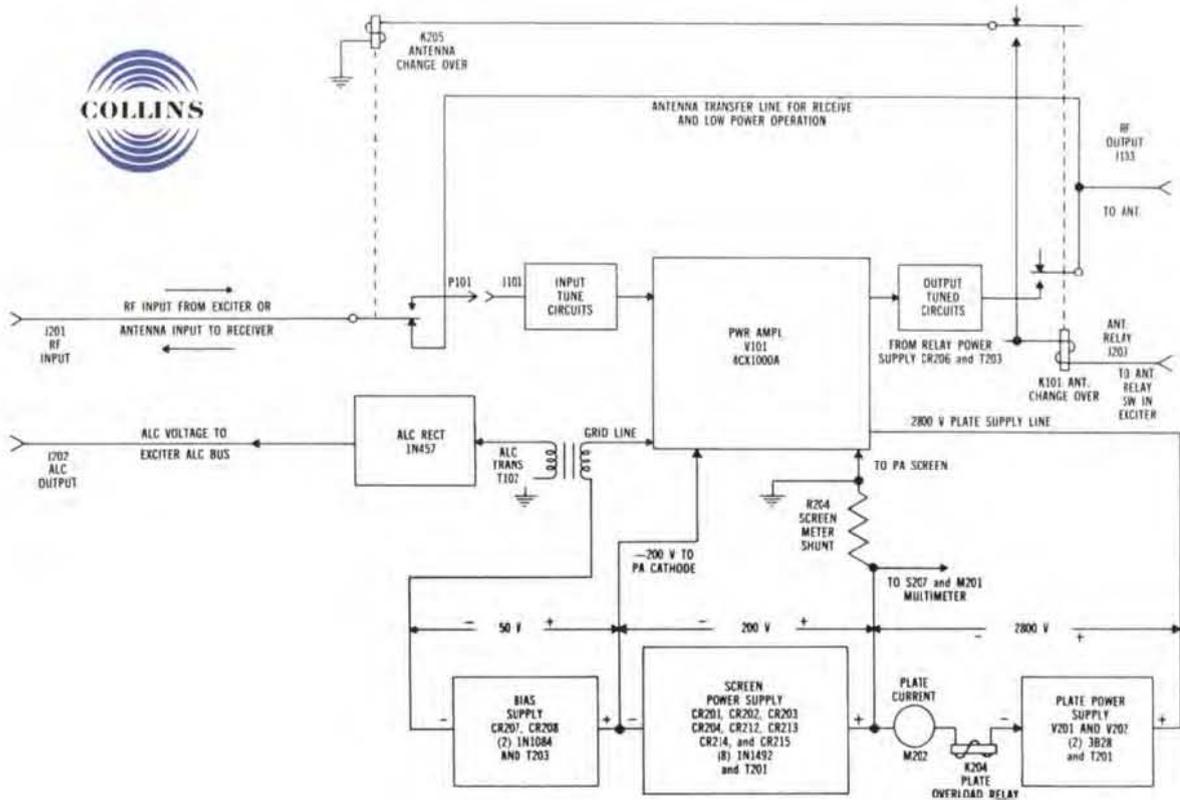
- RF INVERSE FEEDBACK for better linearity.
- INSTANT SWITCHING between low and full kilowatt power.
- QUICK AND ACCURATE TUNING, offering the amateur a bonus in ease of operation and optimum operating efficiency.
- AUTOMATIC LOAD CONTROL, assuring a clean signal.
- COOLING SYSTEM which operates quietly and efficiently.
- SIMPLE AND DIRECT CONNECTION between the 30S-1 and the exciter and station control unit.
- PROTECTIVE CIRCUITRY which protects tubes and other components from damage due to mistuning or malfunction.

Requiring 70-100 watts driving power (supplied by the Collins 32S-3 Transmitter or KWM-2 Transceiver) the 30S-1 Linear Amplifier provides your SSB and CW station with the full legal power input for SSB (1 kw average) or 1 kw input for CW transmission.

All the 30S-1 controls are easily accessible on the front panel. This front panel design allows you to tune the 30S-1 swiftly, surely and easily. With the push of a button you can switch instantly from the 100 watt power level of your S/Line transmitter to the full kilowatt output of the 30S-1; yet you retain high linearity and clean signal. The 30S-1 can also be tuned to frequencies outside of the amateur bands.

Top View of 30S-1 Linear Amplifier





Automatic Load Control voltage from the 30S-1 is fed back to the transmitter, assuring you of maximum talking power without overdriving and distortion. Collins' Automatic Load Control, in combination with Collins' RF inverse feedback, is a major design feature in the 30S-1 which gives you more talking power with a cleaner signal than any other linear amplifier in the amateur field.

The 30S-1 is a completely self-contained, single tube, grounded grid linear amplifier. The tube used is the commercially popular Eimac 4CX1000A.

Correct tuning and loading are indicated by a zero reading on a full scale multimeter. The loading control and PA tuning control are simply adjusted to obtain zero meter indication.

30S-1 Specifications

- MODE: SSB or CW.
- TYPE OF SERVICE: Attended operation SSB continuous; CW 50% duty cycle.
- POWER REQUIREMENTS: 115 v or 230 v, 50-60 cps, single phase, 2000 watts maximum.
- DRIVE POWER: 60-100 watts for full output.

PLATE POWER INPUT: Nominal average, 1000 watts on SSB; 1000 watts on CW.

POWER OUTPUT: 1000 watts PEP.

FREQUENCY RANGE: 3.4-30.0 mc, covering 80, 40, 20, 15 and 10 meter amateur bands. By retuning input coils as necessary, the following general coverage bands can be accommodated:

FREQUENCY BAND	TOTAL COVERAGE
3.5 mc	3.4-5.0 mc
7.0 mc	6.5-9.5 mc
14.0 mc	9.5-16.0 mc
21.0 mc	16.0-22.0 mc
28.0 mc	22.0-30.0 mc

HARMONIC AND OTHER SPURIOUS RADIATION: Second harmonic -40 db; all others at least 50 db down. Third order distortion at 1000 watts PEP output 35 db below signal.

NOISE LEVEL: 40 db below one tone carrier.

AMBIENT TEMPERATURE: 15°-45° C.

AMBIENT HUMIDITY RANGE: 0%-90%.

ALTITUDE: 0-6000 ft.

SIZE: 17" W, 30³/₈" H, 18³/₄" D (43.18 cm W, 77.79 cm H, 47.63 cm D).

WEIGHT: 160 lbs. (72.58 kg).

OUTPUT IMPEDANCE: Variable; 50 ohms nominal, unbalanced with not more than 2:1 SWR.

Accessories

312B-4 SPEAKER CONSOLE

The 312B-4 integrates the 75S-3B, 32S-3, 30S-1 and accessories into an operating system. The KWM-2 and 30S-1 can also be integrated into an operating system by the 312B-4. A speaker, RF directional wattmeter with 200 and 2000 watt scales, and a phone patch are included in the console. Size: 10" W, 7¾" H, 12¼" D (25.4 cm W, 19.69 cm H, 31.12 cm D). Weight: 8½ lbs. (3.86 kg).



312B-3 SPEAKER

The 312B-3 contains a 5" x 7" (12.7 cm x 17.78 cm) speaker and connecting cable and is styled to match the S/Line and KWM-2. Size: 10" W, 7¾" H, 8" D (25.4 cm W, 19.69 cm H, 20.32 cm D). Weight: 4 lbs. (1.81 kg).



516F-2 AC POWER SUPPLY

The 516F-2 can be used with the 32S-3 and KWM-2, supplying all voltages for them; 115 v, 50-60 cps, 400

cps with minor change. Size: 10" W, 7¾" H, 12" D (25.4 cm W, 19.69 cm H, 30.48 cm D). Weight: 28 lbs. (12.7 kg).



DL-1 DUMMY LOAD

The DL-1 is a 100 watt resistive load which can be used for various tuning functions without putting the transmitter on the air. The DL-1 can be switched in and out of the circuit by a front panel switch or can be remotely controlled by the addition of another switch in the operating position. This unit reduces tune-up and testing QRM and requires no connecting or disconnecting of wires prior to operation. Weight is 2 lbs. 14 oz. (1.3 kg).



180S-1 ANTENNA TUNER

The 180S-1 is basically a 1 kw pi network for matching various antenna impedances to a 50 ohm coaxial transmission line in the range of 3-30 mc. In most cases it is used as an L network, but when the L network cannot match the desired antenna, the complete pi circuit is used. The variable vacuum capacitor employed in the output circuit can be connected either in series or shunt with the an-

tenna. The 180S-1 is useful for tuning trailing wires on large aircraft.



302C-3 DIRECTIONAL WATTMETER

The 302C-3 is valuable for checking the antenna system. It measures forward and reflected RF power. Two scales are provided: 0-200 watts and 0-2000 watts accommodating both high and low power transmitters. The 302C-3 is contained in two units: the coupler for connecting into a 50 ohm transmission line and the meter panel which is styled to match the S/Line.



312B-5 VFO CONSOLE

Designed for use with the KWM-2 in fixed station operation, the 312B-5 provides limited separation of receive and transmit frequencies, phone patching facilities and a directional wattmeter. It includes a 5" x 7" permanent magnetic speaker. The PTO control selector can be set as follows: (1) Receive KWM-2, Transmit 312B-5; (2) Transceive KWM-2; (3) Transceive 312B-5. Other control functions are Voice Operated, Receive Only, Transmit Only, Phone Patch On-Off, and Station Mute. Cables are furnished for connections to the KWM-2. Size: 10" W, 7¾" H, 12¼" D (25.4 cm W, 19.69 cm H, 31.12 cm D). Weight: 8½ lbs. (3.86 kg).



PM-2 PORTABLE POWER SUPPLY

The PM-2 is a lightweight, limited duty cycle power supply providing voltages needed for the KWM-2. The PM-2 quickly slides into place and connects to the rear of the KWM-2, ready to operate in minutes from either 115 v ac or 220 v ac at 50-400 cps as a complete portable SSB or CW station. Both transceiver and power supply can be packed in the lightweight CC-2 Carrying Case for portability. A small auxiliary speaker is included in the PM-2 for emergency use. Size: 14 $\frac{3}{4}$ " W, 7 $\frac{3}{4}$ " H, 4" D (37.47 cm W, 19.69 cm H, 10.16 cm D). Weight: 13.5 lbs. (6.12 kg).



MP-1 MOBILE POWER SUPPLY

The MP-1 converts a 12-volt automobile, aircraft or boat battery to the voltages required for the Collins KWM-1, KWM-2 or KWM-2A. The MP-1 includes a high voltage supply for the transmitter PA, bias and a low voltage supply for the amplifier. Size: 5 $\frac{3}{4}$ " W, 3 $\frac{3}{4}$ " H, 11" D (14.61 cm W, 9.53 cm H, 27.94 cm D). Weight: 7 $\frac{1}{2}$ lbs. (3.4 kg).



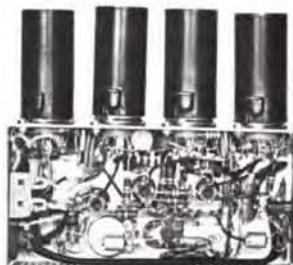
351D-2 MOBILE MOUNT

The 351D-2 provides secure mounting for the KWM-2 in most automobiles. Cantilever arms fold out of the way when the KWM-2 is removed. The connector at the right end is the power plug; the connector at the left end can be used for control of antennas having band switching circuitry. Cables 20 feet in length are attached to each plug.



136B-2 NOISE BLANKER

The 136B-2 is designed for use with the KWM-2 under mobile operating conditions. This noise blanker provides effective reduction of impulse-type noise. It differs from simple audio clipping circuits or series-type limiters by silencing ahead of the selective sideband filters. All necessary hardware and instructions are furnished for simple installation into the KWM-2. The 136B-2 requires a 40 mc antenna which can be used as a standard whip for the car radio. Weight is 1 $\frac{1}{4}$ lbs. (0.567 kg).



TD-1 DIPOLE ANTENNA

The TD-1 is designed for use when portability and operation on different frequencies are primary considerations. The molded plastic housing holds two steel tapes calibrated in meters, decimeters and centimeters. These tapes can be extended to the required length for a given frequency and locked in place. A permanent frequency-to-meters conversion chart is attached to the antenna housing. Each end of the tape is attached to a length of nylon line which acts as an insulator and a means for securing the antenna to structures of suitable height. A directional wattmeter should be used for initial tune-up to insure the proper frequency setting.



399B NOVICE ADAPTERS

The 399B-4 is a crystal-controlled oscillator which is used for frequency control in place of the VFO in the 32S-3 Transmitter. Sockets are provided for four crystals which are selectable by switch. The 399B-5 is used in place of the VFO to control the transmit frequency in the KWM-2 Transceiver. The receiver remains PTO tuned. Crystals are not provided with either adapter.



Accessories

351E MOUNTING PLATES

The 351E can be used to secure the S/Line or KWM-2 equipments to bench or table in shipboard, airborne or vehicular installations. The 351E-1 will accommodate either the 75S-3B,-3C Receiver or the 32S-3 Transmitter; the 351E-2 will mount either the 516F-2 Power Supply or the 312B-4 Station Control; the 351E-3 will mount the 312B-3 Speaker. The 351E-4 has two snap-in clamps for secure installation of the KWM-2. The equipment can be easily unclamped for removal without the use of tools. The unit is removed by pulling forward and lifting from the mounting plate.



351R RACK MOUNTING ADAPTERS

The 351R-1 is a matching gray rack panel for mounting the 75S-3B,-3C, 32S-3, KWM-2, 30L-1, 62S-1 or 51S-1. The 351R-2 Rack Adapter is a panel for mounting the S/Line and KWM-2 accessories. The 516F-2, 312B-4 and 312B-5 can be mounted in the 351R-2. Both adapters are 8 $\frac{3}{4}$ " H and 13 $\frac{3}{16}$ " D (22.23 cm H and 33.5 cm D) behind the front panel. A supporting shelf holds the unit securely. Mounting hardware is furnished with each rack mount.



BANDPASS FILTERS

Plug-in filters are available for use in the 75S-3B Receiver to effectively reduce background noise by restricting the 455 kc IF bandwidth to that necessary for communication. The F455FA series of Mechanical Filters is available in 500 and 800 cps bandwidths for CW, 1500 cps bandwidth for teletype, 2.1 kc for SSB and 3.1, 4.0 or 6.0 kc for AM applications.

The X455KQ-200 Crystal Filter with a 200 cycle bandwidth can be employed for maximum selectivity in CW.



SM-1 DESK TOP MICROPHONE

Collins SM-1 is a high impedance, nonmetallic dynamic mike with a frequency response from 100-3500 cycles per second. It has an output level of -53 db. Finished in brushed satin chrome, this compact microphone is equipped with a rubber isolated stand and a five-foot length of Coiled Kord. Like the SM-2, it can be adjusted for various operating positions.



SM-2 MICROPHONE

Collins SM-2 is a slender, gray and chrome desk-top unit which blends

perfectly with Collins' other station equipment. The SM-2 is omnidirectional and provides excellent transmission for the amateur operator. The frequency response of the SM-2, 200-3,000 cycles, matches that of the S/Line and KWM-2. The SM-2 has an output level of -53 db and is equipped with a five-foot length of Coiled Kord and plug. It is mounted on a rubber isolated stand. A swivel permits a 60° swing for position adjustment.



MM-1 MOBILE MICROPHONE

The Collins MM-1 is a pressure-operated dynamic microphone designed to fit your hand comfortably. This mike is engineered for maximum voice response, and its die-cast case is finished in brushed satin chrome. With its mounting button on the front, the MM-1 slips easily into a dashboard bracket supplied with the mike. When the MM-1 is removed from the dashboard bracket, the microphone is in position for instant transmission. A five-foot length of Coiled Kord with mike plug is supplied with the 22-ounce microphone. The MM-1 has a frequency response from 200-10,000 cycles per second and has an output level of -48 db.



MM-2 MICROPHONE

The Collins MM-2 includes a high impedance reluctance microphone and single earphone which can be used in either a fixed station installation or with a mobile unit. The MM-2 has a frequency response from 100-7,000 cycles per second and an output level of -50 db. In mobile use, the ear-piece and microphone unit permit the driver to operate his car with both hands while carrying out radio voice communication. Although it weighs only 3½ ounces (0.099 kg), the Collins MM-2 is built to withstand the strenuous demands of daily mobile operation. Its microphone boom has a 360° adjustment making it possible to angle the mike to the best pickup position. The MM-2 Microphone has a magnetic stray field shield to exclude unwanted noises. For optimum reception of signals, an adjustable tone arm in the MM-2 pipes sound directly into the operator's right or left ear, but does not cover the ear as conventional earphones do. The MM-2 is equipped with both mike and phone plugs.



CC-2 CARRYING CASE

The CC-2 is designed to hold the components of a portable Collins SSB or CW station. The KWM-2 plus the PM-2 Power Supply, the KWM-2 alone, the 30L-1, or the 51S-1 can be transported in the case. The CC-2 is adapted from the Samsonite Silhouette and includes a shock-resistant interior for the equipment. Weight: 9.5 lbs. (4.31 kg) empty.



CC-3 CARRYING CASE

The CC-3 is a specially built case for accessory components of a portable Collins SSB or CW station. The CC-3 has the same styling features as the CC-2. A molded interior allows the CC-3 to accommodate a 312B-5 (or 312B-4) Station Control Console, a 516E-2 (or MP-1) Power Supply, a TD-1 Dipole Antenna, as well as a supply of spare tubes and fuses. Weight: 10 lbs. (4.54 kg) empty.



AMATEUR SINGLE SIDEBAND

Written exclusively for the amateur radio operator, this hard bound book will be a valuable addition to any ham shack. The seven-chapter book covers the following areas:

- Introduction to Single Sideband •

- The Nature of SSB Signals • Single Sideband Exciters • RF Linear Amplifiers • Single Sideband Receivers • Tests and Measurements • The Amateur SSB Station.



CT-1 CABLE DUCT

Neutral gray, fire-resistant plastic cable ducts add to the trim appearance of the ham shack and enclose all of the connecting cables needed for Collins S/Line or KWM-2 single sideband station. Available in lengths of two feet, the ducts are equipped with fittings for easy and quick mounting on the side or top of the operating desk. Duct covers slide off to allow adding, rearranging or removing cables.

440E-1 CABLE

The 440E-1 is similar to the cable which is supplied with the Collins 351D-2 Mobile Mount. This cable can be used to connect the KWM-2 with the MP-1 or 516E-2 Power Supply when the mobile mount is not used.

440F-1 CABLE

The 440F-1 is five feet in length and can be used to connect either the S/Line or the KWM-2 to the 516F-2 Power Supply, allowing the 30S-1 to be placed a greater distance from other units of the S/Line and permitting greater flexibility of fixed station installations.

CP-1 CRYSTAL PACKET

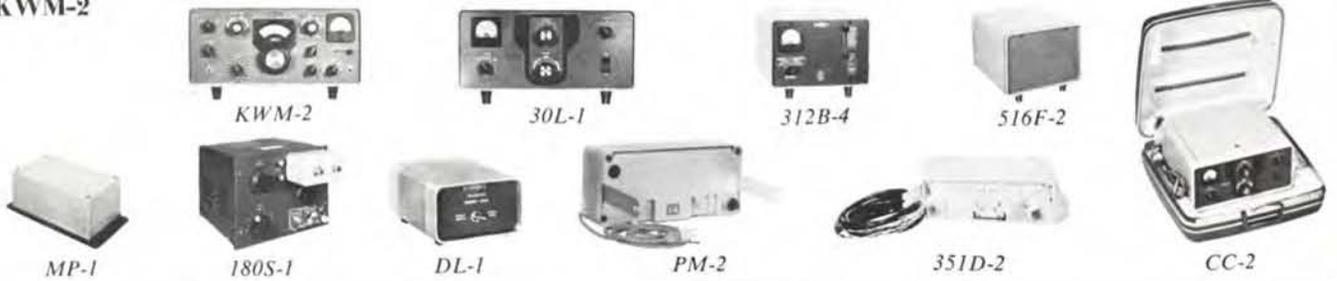
The CP-1 contains a set of crystal grippers and all the crystals for operation of the S/Line receiver, the S/Line transmitter or the KWM-2, 2A throughout the complete operating range. The crystals not supplied are those for the range of 5.0 to 6.6 mc and those which are already provided with the equipment. The packet is of a waterproof plastic material containing a pouch for each crystal and one for the grippers. The complete packet can be fastened into the CC-2 Carrying Case.

Station Configurations

A major feature of Collins' amateur equipment is the system engineering and compatibility which allows many complete station configurations to be assembled. Following are a

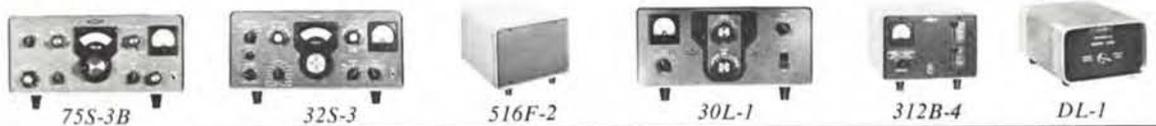
few possible configurations, including recommended accessories required for operation.

KWM-2



STATION CONFIGURATION			ACCESSORIES																	
FIXED STATION Deluxe													•	•	•	•	•	•	•	
													•	•	•	•	•	•	•	•
FIXED STATION Basic													•	•	•	•	•	•	•	•
PORTABLE										•	•	•	•	•	•	•	•	•	•	
										•	•	•	•	•	•	•	•	•	•	•
MOBILE													•	•	•	•	•	•	•	•
AIRBORNE													•	•	•	•	•	•	•	•

S/LINE



STATION CONFIGURATION			ACCESSORIES								
Deluxe							•	•	•	•	•
							•	•	•	•	•
Basic							•	•	•	•	

VHF



62S-1



75S-3B



32S-3



30L-1



312B-4



516F-2

STATION CONFIGURATION				ACCESSORIES							
Deluxe	62S-1	75S-3B		SM-1 or SM-2 Microphone (plug included)	CT-1 Cable Duct	351R-1 Rack Mount	351R-2 Rack Mount	440F-1 Power Supply Cable Extension	DL-1 Dummy Load	312B-3/4 Speaker Console	312B-3/4/5 Speaker Console
	32S-3	30L-1	312B-4	*	*	*	*	*	*		
Basic (with S/Line)	62S-1	75S-3B	32S-3	*	*	*	*	*		*	
Basic (with Transceiver)	62S-1	KWM-2	516F-2	*	*						*

Ten Reasons Why Collins Amateur Equipment Gives Superior SSB Communication

FREQUENCY STABILITY Unsurpassed frequency stability on all bands is achieved by using a low frequency variable oscillator (PTO), tunable over the same frequency range for all bands. Each PTO is individually temperature compensated. A crystal oscillator is used for high frequency *heterodyning* and band changing.

MECHANICAL FILTERS Collins Mechanical Filter sideband generation results in steep-sided skirts on *both* sides of the passband with a 2.5:1 bandwidth shape factor at the 60:6 db points. It assures you of clean voice signals without additional audio filters. Collins' high degree of selectivity is due to Mechanical Filters.

AUTOMATIC LOAD CONTROL Collins ALC keeps the signal level adjusted to its rated peak envelope power. This results in an increase in average talk power, a reduction in distortion to a noticeable degree, and elimination of the need for riding mike gain.

INVERSE RF FEEDBACK Inverse RF feedback around the driver and PA stage improves linearity and reduces distortion products.

ONE KC DIVISION ON ALL BANDS Permits you to meet anyone on a sked without searching. A clearly marked dial calibrated in 1 kc increments is easily interpolated to 250 cycles with reasonable reset accuracy.

MORE QSO'S PER KILOCYCLE Collins 32S-3 Transmitter and KWM-2 Transceiver use a 2.1 kc Mechanical Filter with steep-skirted frequency response on both sides of the selectivity curves. This design limits the bandwidth of the transmitted signal to only that amount required for clean, clear and crisp signals.

DUAL OR SINGLE PTO CONTROL A flick of a switch selects a single control for transceiver operation, or two controls for transmit and receive on separate frequencies.

EASE OF INSTALLATION Collins amateur equipment is system engineered to include antenna relays, as well as muting and external keying circuits. The station is connected by simple patch cords with no external accessory parts required.

LIGHTWEIGHT Modern, compact design makes Collins S/Line easy to move and assemble. The KWM-2, with the PM-2 Power Supply and CC-2 Carrying Case, offers you a completely portable station weighing less than 45 pounds.

COMPLETE STATION COMPATIBILITY All Collins equipment is designed on the system-engineered principle, with each unit augmenting the function of other units in the station. From microphone to antenna, Collins offers a completely system-engineered station with the cleanest, clearest signal on the amateur bands.

Collins Communication Van

It is quite possible that you might see Collins' communication van at your next hamfest. It carries a complete Collins S/Line. You are cordially invited to see it perform and find out how little it costs to put a complete Collins S/Line rig in your shack.



creative leader in electronics



Collins Radio Company, *Cedar Rapids, Dallas, Los Angeles,
New York.* International Division, *Dallas, Texas*
Collins Radio Company of Canada, Ltd., *Toronto*

PEDRO B. PELAEZ

Amateur
pricing schedule
**AMATEUR RADIO
EQUIPMENT**

Effective 31 August 1966



Collins Radio Company, Cedar Rapids, Iowa

Collins Amateur Equipment Guarantee

The Collins Amateur Equipment described herein is sold under the following guarantee:

Collins agrees to repair or replace, without charge, any equipment, parts, or accessories which are defective as to workmanship or materials and which are returned to Collins at its factory or its designated Service Agency, transportation pre-paid, provided:

- (a) Buyer presents properly executed Warranty Verification Certificate.
- (b) Notice of the claimed defect is given Collins or an authorized Service Agency, or an authorized Distributor, in writing, within 180 days from the date of purchase and goods are returned in accordance with Collins instructions.
- (c) Equipment, accessories, tubes, and batteries not manufactured by Collins or from Collins designs are subject to only such adjustments as Collins may obtain from the supplier thereof.
- (d) Any failure due to use of equipment for purposes other than those contemplated in normal amateur operations or in violation of Collins applicable Instruction Book shall not be deemed a defect within the meaning of these provisions.

This Warranty is void with respect to equipment which is altered, modified or repaired by other than Collins or Collins Authorized Service Agencies.

Collins reserves the right to make any change in design or to make additions to, or improvements in, Collins products without imposing any obligations upon Collins to install them in previously manufactured Collins products.

No other warranties, expressed or implied, shall be applicable to said equipment, and the foregoing shall constitute the Buyer's sole right and remedy under the agreements contained in these paragraphs. In no event shall Collins have any liability for consequential damages, or for loss, damage or expense directly or indirectly arising from the use of the products, or any inability to use them either separately or in combination with other equipment or materials or from any other cause.

NOTICE: With each equipment or set of equipments purchased, the distributor should furnish a Warranty Verification Certificate. It is necessary that this certificate accompany the equipment when it is returned for warranty repairs. *Be sure that you get it from your distributor.*

Warranty Repairs

On the opposite page are listed the Service Agencies authorized to perform warranty repair on Collins Amateur Equipments.

If you should wish to return material or equipment direct to Collins under the guarantee, you should notify Collins, giving full particulars including the details listed below, insofar as applicable. If the item is thought to be defective, such notice must give full information as to nature of defect and identification (including part number if possible) of part considered defective. Upon receipt of such notice, Collins will promptly advise you respecting the return. Failure to secure our advice prior to the forwarding of the goods or failure to provide full particulars may cause unnecessary delay in handling of your returned merchandise.

ADDRESS:

Collins Radio Company
Amateur Product Office
Cedar Rapids, Iowa

INFORMATION NEEDED:

- (A) Type number, name and serial number of equipment
- (B) Date of delivery of equipment
- (C) Date placed in service
- (D) Number of hours of service
- (E) Nature of trouble
- (F) Cause of trouble if known
- (G) Name of distributor from whom the equipment was purchased.

Equipment returned to the Service Agency or Collins for warranty repair *must* be accompanied with the Warranty Verification Certificate.

Out-of-warranty Repair, Modifications, Addition of Accessories, Alignment, etc.:

For information on service of this type write to the address shown below. If you wish to return your equipment for repairs, etc., without prior correspondence, be sure to include the following information attached to the equipment inside the packing carton:

- (1) Complete instructions detailing work to be performed.
- (2) Your return address.
- (3) Method of shipment by which the equipment should be returned.
- (4) Special instructions.

DIRECT YOUR CORRESPONDENCE TO:

Collins Radio Company
Factory Service Department
Cedar Rapids, Iowa

HOW TO ORDER REPLACEMENT PARTS:

When ordering replacement parts, you should direct your order to one of the listed Collins distributors.

Please furnish the following information insofar as applicable:

INFORMATION NEEDED:

- (A) Quantity required.
- (B) Collins part number (9 or 10 digit number) and description
- (C) Item or symbol number obtained from parts list or schematic
- (D) Collins type number, name and serial number of principal equipment
- (E) Unit subassembly number (where applicable)

COLLINS RADIO COMPANY
AMATEUR RADIO
EQUIPMENT

Effective 31 August 1966

All prices are exclusive of any federal, state or local sales, use or excise taxes and are subject to change without notice.

Prices listed herein supersede all previous price lists.



COLLINS RADIO COMPANY

Authorized Distributors

ALABAMA

Ack Radio Supply Company
3101 Fourth Avenue S.
Birmingham, Alabama

Electronic Wholesalers, Inc.
2310 Bob Wallace Avenue S.W.
Huntsville, Alabama

Specialty Distributing Company
1276 Belt Line Highway S.
Mobile, Alabama

ALASKA

Yukon Radio Supply, Inc.
P.O. Box 406
645 I Street
Anchorage, Alaska

ARIZONA

Elliott Electronics, Inc.
418 N. Fourth Avenue
Tucson, Arizona

Henry Radio Company
6116 N. 27th Avenue
Phoenix, Arizona

Southwest Electronics Services
P.O. Box 3751
Second Street at Madison
Phoenix, Arizona

ARKANSAS

Moory's Wholesale Radio Company
P.O. Box 506
12th & Jefferson Streets
DeWitt, Arkansas

CALIFORNIA

Alcom/Amrad
999 Howard Avenue
Burlingame, California

Amrad Supply, Inc.
3425 Balboa Street
San Francisco, California

Dymond Electronics
501 Blackstone Road
Fresno, California

Elmar Electronics
140 11th Street at Madison
Oakland, California

Henry Radio, Inc.
931 N. Euclid
Anaheim, California

Henry Radio Company, Inc.
P.O. Box 64398
11240 W. Olympic Blvd.
Los Angeles, California

Mission Ham Supplies
3316 Main Street
Riverside, California

Quement Industrial Electronics
P.O. Box 527
1000 S. Bascom Avenue
San Jose, California

Radio Products Sales, Inc.
1501 S. Hill Street
Los Angeles, California

Weatherbie Industrial Electronics, Inc.
1280 N. Fourth Street
San Jose, California

Western Radio & TV Supply Company
P.O. Box 1728
1415 India Street
San Diego, California

COLORADO

Burstein-Applebee Company
800 Lincoln Street
Denver, Colorado

CONNECTICUT

Corky's Division, Hatry of Hartford
120 High Street
Hartford, Connecticut

DISTRICT OF COLUMBIA

Electronics Wholesalers, Inc.
2345 Sherman Avenue N.W.
Washington, D.C.

FLORIDA

Amateur Electronic-Supply
10 Azalea Park Shopping Center
Orlando, Florida

Amateur Radio Center, Inc.
2805-9 N.E. Second Avenue
Miami, Florida

Electronic Wholesalers, Inc.
9390 N.W. 27th Avenue
Miami, Florida

Grice Electronics, Inc.
320 E. Gregory Street
P.O. Box 1911
Pensacola, Florida

Kinkade Radio Supply
1719 Grand Central Avenue
Tampa, Florida

GEORGIA

Ack Radio Supply Company
554 Deering Road N.W.
Atlanta, Georgia

Southeastern Radio Parts Company
430 W. Peachtree
Atlanta, Georgia

Specialty Distributing Company, Inc.
763 Juniper Street N.E.
Atlanta, Georgia

HAWAII

Honolulu Electronics
819 Keeaumoku Street
Honolulu, Hawaii

ILLINOIS

Amateur Electronic Supply
6450 N. Milwaukee Avenue
Chicago, Illinois

Klaus Radio & Electric Company
403 E. Lake Street
Peoria, Illinois

Newark Electronics Corp.
500 N. Pulaski Road
Chicago, Illinois

INDIANA

Graham Electronics Supply, Inc.
112 S. Senate Avenue
Indianapolis, Indiana

Radio Distributing Company, Inc.
P.O. Box 1499
1212 High Street
South Bend, Indiana

IOWA

Radio Trade Supply Company
1224 Grand Avenue
Des Moines, Iowa

World Radio Laboratories, Inc.
P.O. Box 919
3415 W. Broadway
Council Bluffs, Iowa

LOUISIANA

Crescent Electronic Supply, Inc.
537 S. Claiborne Avenue
New Orleans, Louisiana

Radio Parts, Inc.
1112 Magazine Street
New Orleans, Louisiana

MARYLAND

Uncle George's Radio Ham Shack
11324 Fern Street
Wheaton, Maryland

MASSACHUSETTS

DeMambro Radio Supply, Inc.
1095 Commonwealth Avenue
Boston, Massachusetts

Graham Radio, Inc.
505 Main Street
Reading, Massachusetts



MICHIGAN

Electronic Distributor, Inc.
1960 Peck Street
Muskegon, Michigan

Purchase Radio Supply
327 E. Hoover Avenue
Ann Arbor, Michigan

Radio Supply & Engineering
90 Selden Avenue
Detroit, Michigan

Warren Radio Company
1710 S. Westnedge
Kalamazoo, Michigan

MINNESOTA

Lew Bonn Company
1211 LaSalle Avenue
Minneapolis, Minnesota

Electronic Center, Inc.
107 Third Avenue N.
Minneapolis, Minnesota

MISSOURI

Walter Ashe Radio Company
1125 Pine Street
St. Louis, Missouri

Burstein-Applebee Company
1012-1014 McGee Street
Kansas City, Missouri

Henry Radio Company
211 North Main
Butler, Missouri

NEW HAMPSHIRE

Evans Radio
P.O. Box 312 Bow Junction
Route 3A
Concord, New Hampshire

NEW JERSEY

Federated Purchaser, Inc.
155 U.S. Rt. 22
Springfield, New Jersey

NEW YORK

Adirondack Radio Supply
P.O. Box 88
185-191 W. Main Street
Amsterdam, New York

Ft. Orange Radio Distributing Company, Inc.
904-16 Broadway
Albany, New York

Harrison Radio Corporation
144-24 Hillside Avenue
Jamaica, Long Island

Harrison Radio Corporation
225 Greenwich Street
New York, New York

Harvey Radio, Inc.
103 W. 43rd Street
New York, New York

Steller Industries, Outercom of Ithaca
222½ S. Cayuga Street
Ithaca, New York

NORTH CAROLINA

Electronic Wholesalers, Inc.
938 Burke Street
Winston-Salem, North Carolina

Freek Radio & Supply Company, Inc.
38 Biltmore Avenue
Asheville, North Carolina

OHIO

Custom Electronics, Inc.
1918 S. Brown Street
Dayton, Ohio

Pioneer Electronic Supply Company
5403 Prospect Avenue
Cleveland, Ohio

Selectronic Supplies, Inc.
3185 Bellevue Road
Toledo, Ohio

Universal Service
114 N. Third Street
Columbus, Ohio

OKLAHOMA

Radio, Inc.
1000 South Main
Tulsa, Oklahoma

OREGON

Portland Radio Supply Company
1234 S.W. Stark Street
Portland, Oregon

PENNSYLVANIA

Cameradio Company
1121 Penn Avenue
Pittsburgh, Pennsylvania

Ham Buerger
815 Greenwood Avenue
Jenkintown, Pennsylvania

Radio Electric Service Company
N.W. Corner 7th & Arch Streets
Philadelphia, Pennsylvania

RHODE ISLAND

W. H. Edwards Company
116 Hartford Avenue
Providence, Rhode Island

SOUTH DAKOTA

Burghardt Radio Supply
P.O. Box 746
621 Fourth Street S.E.
Watertown, South Dakota

TENNESSEE

Electra Distributing Company
1914 West End Avenue
Nashville, Tennessee

W & W Distributing Company
P.O. Box 436
Memphis, Tennessee

TEXAS

McNicol Company, Inc.
3012 Yandell
El Paso, Texas

Amateur Electronics, Inc.
2802 Ross Avenue
Dallas, Texas

Electronic Equipment &
Engineering Company
P.O. Box 3687
805 S. Staples Street
Corpus Christi, Texas

Electronic Equipment &
Engineering Company
2606 Westheimer
Houston, Texas

Howard Radio Company
1475 Pine Street
Abilene, Texas

Radio & TV Parts
1828 N. St. Mary's
San Antonio, Texas

UTAH

Manwill Supply Company
2511 S. State Street
Salt Lake City, Utah

WASHINGTON

Cascade Electronic Supply
19721 Scriber Lake Road
P.O. Box 563
Lynwood, Washington

C. & G. Electronic Company
2502 Jefferson Avenue
Tacoma, Washington

HCJ Electronics
6904 East Sprague
Spokane, Washington

WEST VIRGINIA

Mountain Electronics
P.O. Box 106
708 Bigley
Charleston, West Virginia

WISCONSIN

Amateur Electronic Supply
4828 W. Fond du Lac Avenue
Milwaukee, Wisconsin

Harris Radio Corporation
289 N. Main Street
Fond du Lac, Wisconsin

Satterfield Electronics, Inc.
1900 S. Park Street
Madison, Wisconsin



**51S-1 RECEIVER PRICE SCHEDULE
(Military Nomenclature R1122/GR-R1156/GR)**

Collins type 51S-1 commercial communications receiver provides reception of USB, LSB, AM and CW signals with continuous coverage from 2 to 30 mc. With the 55G-1 pre-selector, listed under accessories, performance between 200 kc and 2 mc is improved providing coverage over the 200 kc to 30 mc range. The receiver is equipped with 2.75 kc SSB filters and 800 CPS CW filter. Other filters are available as options. The 51S-1 and 51S-1F operate from 115/230 VAC, 50-60 CPS (400 CPS with reduced hum specifications) single phase power source by selection of the correct power cable assembly listed below. The 51S-1A and 51S-1AF operate from 28 VDC power source. Purchase order must specify cable assembly required and option if other than the standard version. Antenna mating connector furnished. Prices are subject to change without notice.

TYPE	DESCRIPTION	PART NUMBER	LIST PRICE
51S-1	HF receiver mounted in cabinet with tubes and mechanical filters. Operates on 115/230 VAC. Price includes one power cable which must be selected from accessory list. Military Nomenclature R1122/GR.	522-2245-030	\$1,828.00
51S-1F	Same as 51S-1 except for standard 19' rack mtg. Price includes one power cable which must be selected from accessory list. Military Nomenclature R1156/GR.	522-2498-030	1,828.00
51S-1A	Same as 51S-1 except for 28 VDC operation. Includes correct power cable.	522-2546-030	1,998.00
51S-1AF	Same as 51S-1A except for standard 19' mtg.	522-3156-030	1,998.00

OPTIONS

Option 1	Upper and lower 2.4 kc sideband filters for 300 CPS to 2700 CPS selectivity.		34.00
Option 2	300 cycle CW filter		34.00
Option 3	6 kc AM mechanical filter.		136.00

ACCESSORIES

55G-1	Pre-selector.	522-3982-002	192.00
312B-3	Cabinet speaker.	522-1166-00	32.00
351R-1	Conversion kit to convert 51S-1 cabinet model to a 51S-1F rack mtg. model. Panel dimension 19" x 8-3/4".	522-2665-00	32.00
351R-2	Conversion kit to convert 312B-3 cabinet speaker to a 19" rack mtg. speaker. Panel dimension 19" x 8-3/4".	522-2666-00	32.00
NTN	Conversion kit to convert 51S-1F or 51S-AF rack mtg. receiver to a cabinet model receiver (51S-1/1A).	522-2449-00	40.00
312C-3	Triple speakers, rack mtg., panel dimension 19" x 8-3/4".	522-3528-00	73.00
350 D-5	Shockmount	522-3970-00	79.00
NTN	Kit to convert 51S-1 for shockmount installation. Includes 350D-5, mounting plate and screws.	757-2787-001	87.00



NTN Power cable kit for 115 VAC operation with 51S-1 and 51S-1F. Includes power cord and fuses and 3 to 2 prong plug adaptor.

NTN Power cable kit for 230 VAC operation with the 51S-1 and 51S-1F. Includes power cord and fuses.

554-7055-00 One power cable ass'y is included in the basic price of the radio. The purchase order should state which power cable assembly is to be shipped.

554-7056-00

ACCESSORIES INCLUDED WITH 51S-1

DESCRIPTION	WITH MODEL	PART NUMBER	QTY.
Fuse, 6 amp	51S-1A/1AF	264-4100-00	1
Bristol Wrench #4	51S-1/1A/1F/1AF	024-2900-00	1
Bristol Wrench #6	51S-1/1A/1F/1AF	024-9730-00	1
Bristol Wrench #8	51S-1/1A/1F/1AF	024-0019-00	1
Phono plugs	51S-1/1A/1F/1AF	361-0062-00	6
6 V Pilot lamp bulb #47	51S-1/1A/1F/1AF	262-3240-00	1
6 V Pilot lamp bulb #44	51S-1/1A/1F/1AF	262-3220-00	1
12-24 x 5/8" screws	51S-1F/1AF	348-0008-00	4
10-32 x 1/2" screws	51S-1F/1AF	319-0165-00	4
Finishing washers	51S-1F/1AF	310-0092-00	4
Finishing washers	51S-1F/1AF	310-0086-00	4



75S-3B/C RECEIVER PRICE SCHEDULE

Collins 75S-3B/C receiver provides reception of USB, LSB, CW, AM and RTTY signals with coverage from 3.4 to 30.0 mc available. With crystals supplied, the 80, 40, 20, 15 and 200 kc of the 10 meter amateur bands are covered. The 75S-3C has provisions for 14 additional crystals which can be used for frequencies outside the amateur bands. 2.1 kc mechanical filter is supplied; other filters available, refer to accessory list below. Power requirements; 115/230 VAC, 50-400 CPS. Receptacle to operate with external DC power source is provided. Prices are subject to change without notice.

TYPE	DESCRIPTION	PART NUMBER	LIST PRICE
75S-3B	HF receiver. Requires external speaker listed below.	522-3316-00	\$ 658.00
75S-3B	HF receiver. Requires external speaker listed below. AM filter socket wired in to accept FA series mechanical filter & normal transformer coupling wired out of circuit.	522-3316-011	673.00
75S-3C	HF receiver with 28 crystal positions. Requires external speaker listed below.	522-3317-00	728.00
75S-3C	HF receiver with 28 crystal positions. Requires external speaker listed below. AM filter socket wired to accept FA series mechanical filters & normal transformer coupling wired out of circuit.	522-3317-011	743.00

ACCESSORIES

CP-1	Crystal packet. Includes plug-in crystals for all frequencies between 3.4 and 30.0 mc except 5.0-6.5 mc.	597-0404-00	480.00
X455KQ200	Crystal filter 200 cycle.	526-7677-00	107.15
F455FA-05	Mechanical filter 500 cycle.	526-9494-00	61.43
F455FA-08	Mechanical filter 800 cycle.	526-9446-00	61.43
F455FA-15	Mechanical filter 1500 cycle.	526-9495-00	60.72
F455FA-21	Mechanical filter 2100 cycle.	526-9427-00	35.72
F455FA-31	Mechanical filter 3100 cycle.	526-9496-00	50.00
F455FA-40	Mechanical filter 4000 cycle.	526-9497-00	50.00
F455FA-60	Mechanical filter 6000 cycle.	526-9498-00	50.00
TD-1	Portable antenna.	099-1106-00	125.00
312B-3	Cabinet speaker.	522-1166-00	32.00
312B-4	Cabinet speaker, phone patch and directional wattmeter.	522-1167-00	195.00
351E-1	Table mount for 75S-3B/C.	522-1479-00	24.00
351E-2	Table mount for 312B-5	522-1480-00	24.00
351E-3	Table mount for 312B-3.	522-1481-00	24.00
351R-1	Rack mount adaptor for 75S-3B/C.	522-2665-00	32.00
351R-2	Rack mount adaptor for 312B-3/4E; 516F-2	522-2666-00	32.00



ACCESSORIES INCLUDED WITH 75S-3B/C

DESCRIPTION	PART NUMBER	QTY.
Phono-type connector	361-0062-00	2
AC power plug adaptor	368-0138-00	1
Fuse, 1 amp, 250 V	264-4280-00	1
SCH screw #8	024-0019-00	1
AC power cord	544-3121-00	1
Cable marker card	280-2946-00	1
Instruction book	523-0756-533	1
Logbook	523-0755-820	1
SCH screw key #10	024-9710-00	1
SCH screw key #6	024-9730-00	1
SCH screw key #4	024-2900-00	1



KWM-2/2A TRANSCEIVER PRICE SCHEDULE

Collins KWM-2/2A mobile or fixed transceiver provides 175 watt PEP input on USB or LSB and 160 watt input on CW with coverage available from 3.4 to 5.0 mc and 6.5 to 30.0 mc. With crystals supplied, the 80, 40, 20, 15 and 200 kc of the 10 meter amateur bands are covered. The KWM-2A has provisions for 14 additional crystals which can be used for frequencies outside the amateur bands. Power supplies are available for 12 and 24 volts DC; 115/230 volts AC. Refer to accessory list below. Prices are subject to change without notice.

TYPE	DESCRIPTION	PART NUMBER	LIST PRICE
KWM-2	HF transceiver, less power supply. Select one of the power supplies listed below.	522-1611-00	\$1,150.00
KWM-2 w/ 136B-2	HF transceiver with 136B-2 noise blanker installed, less power supply and noise blanker antenna. Select noise blanker antenna and one of the power supplies listed below.	522-1611-012	1,296.00
KWM-2A	HF transceiver with 28 crystal positions, less power supply. Select one of the power supplies listed below.	522-1792-00	1,250.00
KWM-2A/ 136B-2	HF transceiver with 28 crystal positions and 136B-2 noise blanker installed, less power supply and noise blanker antenna. Select noise blanker antenna and one of the power supplies listed below.	522-1792-011	1,396.00

ACCESSORIES

CC-2	Carrying case for KWM-2/2A, PM-2.	597-0393-00	85.00
CC-3	Carrying case for 312B-4/5, MP-1 or 516-F2 and TD-1.	597-0403-00	107.00
CP-1	Crystal packet. Includes plug-in crystals for all frequencies between 3.4 and 30.0 mc except 5.0-6.5 mc.	597-0404-00	480.00
DL-1	Dummy load, 100 watt. May be switched in line manually or remotely.	522-2771-00	99.75
MM-1	Mobile microphone, hand-held with PTT feature. Complete with cord.	097-5945-00	25.00
MM-2	Mobile microphone with ear-phone	097-6027-00	44.00
MP-1	12/14 VDC power supply. Supplies all voltages for KWM-2/2A. Power cable not included.	522-2750-00	198.00
NTN	Noise blanker antenna. For use with 136B-2 noise blanker/Newtronics type NB-40.	097-2535-00	13.50
PM-2	Portable AC power supply. 115/230 volt, 50-400 CPS supplies all voltage for KWM-2/2A. Contains small loudspeaker.	522-2639-004	168.00
SM-1	Fixed station microphone. Complete with stand and cord.	097-5944-00	36.00
SM-2	Fixed station microphone. Complete with stand and cord.	097-5946-00	48.00
TD-1	Portable antenna.	099-1106-00	125.00



TYPE	DESCRIPTION	PART NUMBER	LIST PRICE
180S-1	Antenna tuner. Manually tuned 1 kw coupler for matching various antenna impedances to 50 ohm coaxial line. Useful for long wires, etc.	522-0651-00	740.00
312B-3	Cabinet speaker.	522-1166-00	32.00
312B-4	Cabinet speaker, phone patch and directional wattmeter.	522-1167-00	195.00
312B-5	Cabinet speaker, phone patch, directional wattmeter and external PTO to separate transmit and receive frequencies.	522-1168-00	350.00
350D-3	Shockmount for 180S-1.	505-2782-002	48.00
351D-2	Mobile mount for KWM-2/2A. Provides secure mounting for mobile applications. Includes 20' cables to power supply and any antenna switching networks.	522-1726-00	120.00
351E-2	Table mount for 516F-2, 312B-4/5.	522-1480-003	24.00
351E-3	Table mount for 312B-3.	522-1481-003	24.00
351E-4	Table mount for KWM-2/2A.	522-1482-003	24.00
351R-1	Rack mount adaptor for KWM-2/2A.	522-2665-00	32.00
351R-2	Rack mount adaptor for 312B-3/4/5, 516F-2.	522-2666-00	32.00
440E-1	Power cable. MP-1 or 516E-2 to KWM-2/2A.	522-2051-00	17.00
440F-1	Power cable, extension 5'. Allow 516F-2 to be located farther from KWM-2/2A.	522-2114-00	17.00
516E-2	24/28 VDC power supply. Supplies all voltage for KWM-2/2A. Power cable not included.	522-0984-005	470.00
516F-2	AC power supply. Supplies all voltage for KWM-2/2A. 115/230 VAC 50-60 CPS by changing wiring of transformer. 400 CPS with minor change.	522-1170-00	153.00

ACCESSORIES INCLUDED WITH KWM-2/2A

DESCRIPTION	PART NUMBER	QTY.
Microphone plug	361-0001-00	1
Phone plug	361-0062-00	2
Cable marker card	280-2946-00	1
Instruction book	523-0176-00	1
Logbook	523-0755-820	1
Key SCH screw #10	024-9710-00	1
Key SCH screw #8	024-0019-00	1
Key SCH screw #6	024-9730-00	1
Key SCH screw #4	024-2900-00	1



32S-3 TRANSMITTER PRICE SCHEDULE

Collins 32S-3 transmitter provides 175 watt PEP input on USB or LSB and 160 watt input on CW with coverage available from 3.4 to 5.0 mc and 6.5 to 30.0 mc. With crystals supplied, the 80, 40, 20, 15 and 200 kc of the 10 meter amateur bands are covered. Requires 516F-2 power supply listed below. Prices are subject to change without notice.

TYPE	DESCRIPTION	PART NUMBER	LIST PRICE
32S-3	Transmitter less power supply.	522-2055-00	\$ 795.00
ACCESSORIES			
DL-1	Dummy Load, 100 watt. May be switched in line manually or remotely.	522-2771-00	99.75
SM-1	Fixed station microphone. Complete with stand and cord.	097-5944-00	36.00
SM-2	Fixed station microphone. Complete with stand and cord.	097-5946-00	48.00
TD-1	Portable antenna.	099-1106-00	125.00
180S-1	Antenna tuner. Manually tuned 1 kw coupler for matching various antenna impedances to 50 ohm coaxial line. Useful for long wires.	522-0651-00	740.00
312B-4	Cabinet speaker, phone patch and directional wattmeter.	522-1167-00	195.00
350D-3	Shock mount for 180S-1.	505-2782-002	48.00
351E-1	Table mount for 32S-3.	522-1479-003	24.00
351E-2	Table mount for 516F-2, 312B-4/5.	522-1170-00	24.00
351R-1	Rack mount adaptor for 32S-3.	522-2665-00	32.00
440F-1	Power cable, extension 5'. Allows 516F-2 to be located farther from 32S-3.	522-2114-00	17.00
516F-2	AC power supply. Supplies all voltage for 32S-3. 115/230 VAC 50-60 CPS by changing wiring of transformer. 400 CPS with minor change.	522-1170-00	153.00

ACCESSORIES INCLUDED WITH 32S-3

DESCRIPTION	PART NUMBER	QTY.
RF Cable, 4'	426-5076-00	3
Phone plug	361-0062-00	1
Shielded cable, 4'	426-2027-00	3
Cable marker card	280-2946-00	1
Instruction book	523-0755-011	1
Logbook	523-0755-820	1
SCH screw key #10	024-9710-00	1
SCH screw key #8	024-0019-00	1
SCH screw key #6	024-9730-00	1
SCH screw key #4	024-2900-00	1



30L-1 POWER AMPLIFIER PRICE SCHEDULE

Collins 30L-1 linear amplifier provides 1000 watt PEP input on SSB and CW from 3.4 to 30.0 mc. Operation outside of amateur bands may require retuning of input circuits. Requires 70 to 100 watt drive from exciter. Power requirements 115/230 VAC, 50-60 CPS. Operation on 400 CPS by providing 50-60 CPS to present blower; changing to a 400 CPS blower, or supplying air from other sources. Prices are subject to change without notice.

TYPE	DESCRIPTION	PART NUMBER	LIST PRICE
30L-1	HF linear amplifier.	522-2375-00	\$ 520.00

ACCESSORIES

CC-2	Carrying case	597-0393-00	85.00
TD-1	Portable antenna	099-1106-00	125.00
302C-3	Directional wattmeter	522-1696-00	130.00
351E-4	Table mount for 30L-1	522-1482-00	24.00
351R-1	Rack mount adaptor for 30L-1	522-2665-00	32.00

ACCESSORIES INCLUDED WITH 30L-1

DESCRIPTION	PART NUMBER	QTY.
SCH screw key #8	024-0019-00	1
SCH screw key #6	024-9730-00	1
Fuse, 8 amp	264-4110-00	6
RF output connector	357-9261-00	1
AC power plug adaptor	368-0138-00	1
RF output connector	357-9113-00	1
Shielded cable 4'	426-2027-00	2
RF input cable 4'	426-5076-00	1
Instruction book	523-0122-00	1
Logbook	523-0755-820	1



30S-1 POWER AMPLIFIER PRICE SCHEDULE

Collins 30S-1 linear amplifier provides 1000 watt average input on SSB or 1000 watt input on CW or RTTY. Operation outside of amateur bands may require retuning of input circuits. Requires 70 to 100 watts drive from exciter. Power requirements, 115/230 VAC, 50-60 CPS single phase. Prices are subject to change without notice.

TYPE	DESCRIPTION	PART NUMBER	LIST PRICE
30S-1	HF linear amplifier.	522-1286-00	\$1,795.00

ACCESSORIES

TD-1	Portable antenna	099-1106-00	125.00
180S-1	Antenna tuner. Manually tuned 1 kw coupler for matching various antenna impedances to 50 ohm coaxial line. Useful for long wires, etc.	522-0651-00	740.00
302C-3	Directional wattmeter	522-1696-00	130.00

ACCESSORIES INCLUDED WITH 30S-1

DESCRIPTION	PART NUMBER	QTY.
Straight-through phono adaptor	360-0171-00	1
Cable marker card	280-2946-00	2
Fuse, 3.2 amp, 125 V	264-0216-00	3
Fuse, 8 amp, 125 V	264-0395-00	3
Fuse, 1 amp, 125 V	264-4280-00	3
Fuse, 12 amp, 125 V	264-0397-00	6
Door lock keys #CAT 104	NPN	2
Plastic bag #2 containing:	NPN	1
RF input cable, 20.6'	426-5079-00	1
RF output cable, 10'	545-3122-00	1
AC power cable, 10'	545-3123-00	1
Shielded cable, 10'	426-2029-00	2
RF input extension cable, 2.6'	426-5081-00	1
Spiral wrapping	152-3370-00	6'
Shipping bag #2 containing:	024-0100-00 or	
	024-0260-00	1
Cable clamp	150-1543-00	1
Washer, flat, 1/4 I.D.	310-0050-00	10
Washer, lock, 1/4	310-0288-00	6
Washer, flat #6	310-6360-00	1
Washer, lock #6	310-0071-00	1
Screw mach., 1/4-20 x 7/8	343-0268-00	6
Screw mach., 1/4-20 x 1-1/2	343-0272-00	2



DESCRIPTION	PART NUMBER	QTY.
Screw mach., 6-32 x 3/4	343-0174-00	1
Nut, hex 1/4-20	313-0082-00	2
Nut, hex 6-32	313-0045-00	1
Bushing	015-0132-00	2
Post, shelf support	544-9790-00	2
Instruction book	520-5879-00	1
Logbook	523-0755-820	1



62S-1 PRICE SCHEDULE

Collins 62S-1 VHF converter provides both reception and 65 watt PEP output on the 6 and 2 meter amateur bands. Use with KWM-2 or S/Line. With crystals supplied, coverage is 50-54 mc and 144-148 mc. The 62S-1 also covers 49.6 to 50.0, 54.0 to 54.2, 143.6 to 144.0 and 148.0 to 148.2 mc with optional crystals. Output on receive and input in transmit is in the 14.0 to 14.2 mc range. Power requirements, 115 VAC, 50-60 CPS, 800 VDC and 275 VDC (from KWM-2 or 32S-3). Prices are subject to change without notice.

TYPE	DESCRIPTION	PART NUMBER	LIST PRICE
62S-1	VHF converter.	522-2376-00	\$ 895.00

ACCESSORIES INCLUDED WITH 62S-1

DESCRIPTION	PART NUMBER	QTY.
Cable assembly, power	548-9267-00	1
Cable assembly, RF	426-5076-00	6
Fuse, 1.5 amp	264-0007-00	2
AC power plug adaptor	368-0138-00	1
Lamp #51	262-0264-00	2
Cable assembly Y	426-5408-00	1
Connector Type N	357-9261-00	1
Instruction book	523-0755852-001311	1
Logbook	523-0755-820	1
Cable marker card	280-2946-00	1
Phono plug	361-0062-00	3



180S-1 ANTENNA COUPLER PRICE SCHEDULE

Collins 180S-1 antenna coupler manually tunes a frequency range of 3.0 to 30.0 mc. For operation with the KWM-2/2A or 32S-3 and amplifiers 30L-1 or 30S-1. Use with long wire antenna. Power handling capability is 1 kw. No external power required. Prices are subject to change without notice.

TYPE	DESCRIPTION	PART NUMBER	LIST PRICE
180S-1	Antenna tuner, 1 kw manual.	522-0651-00	\$ 740.00
350D-3	Shockmount for 180S-1.	505-2782-002	48.00

MISCELLANEOUS ACCESSORIES

(Available from Collins Service Parts Department)

CRYSTALS

Extra Crystals for S-Line, KWM-2	**See Note
Extra BFO Crystals for 75S-1	
For CW	290-8707-00
For RTTY Crystal Freq. 452.45	290-8708-00
For RTTY Crystal Freq. 457.55	290-8709-00
Crystals for 399B-4/B-5	**See Note

SPINNER KNOB

Spinner Knob for S-Line, KWM-2	553-5787-003
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SPRAY CANS OF MATCHING PAINT FOR:

Cabinet of KWM-1/2, S-Line, 62S-1	097-6161-00
Panels of S-Line, KWM-2/2A, 62S-1	097-6162-00
Style Ring of S-Line, KWM-2/2A, 62S-1	097-6163-00

PATCH CABLES

Gray RG58U Coax with RCA Connectors	
4 foot length	426-5076-00
20 foot length	426-5079-00
Gray RG58U Coax Type N to RCA Connector	
4 foot length	426-6026-00
Shielded Cable Right Angle RCA to Straight RCA Connector	
3 foot length	426-3026-00
4 foot length	426-3028-00
6 foot length	426-3027-00
Cable Labels	280-2946-00

**Refer to appropriate Instruction Book for Collins Part Numbers.



COLLINS AMATEUR RADIO LITERATURE

	LIST PRICE
Amateur Single Sideband	\$4.00
Station Logbooks	1.00
Current Equipment Instruction Books	3.00
Discontinued Equipment Instruction Books	5.00
Schematics50

SHIPPING DATA

TYPE	NET (LBS)	GROSS (LBS)	CONTAINER SIZE (INCHES)	CUBIC FT.
CC-2/CC-3	10	15	23 X 10 X 21	2.8
DL-1	4	6	13 X 8 X 8	.5
KWM-2/KWM-2A	19	23	18 X 11 X 17	2.1
MM-1	2	4	13 X 8 X 8	.5
MM-2	3	5	14 X 12 X 10	1.0
MP-1	8	14	17 X 13 X 11	1.4
PM-2	15	20	18 X 10 X 16	1.7
SM-1	2	3	13 X 5 X 6	.3
30L-1	38	59	25 X 24 X 18	6.3
30S-1	(109	127	23 X 20 X 38	10.1
(Pwr Xfmr)	(56	59	11 X 10 X 9	.6
32S-3	16	22	19 X 12 X 16	2.1
62S-1	25	30	18 X 11 X 17	2.1
75S-3B/3C	20	25	19 X 12 X 16	2.1
302C-3	4	6	12 X 9 X 10	.6
312B-3	4	6	13 X 10 X 10	.8
312B-4/B-5	9	17	14 X 13 X 19	2.0
351D-2	17	22	19 X 10 X 12	2.0
516E-2	13	18	17 X 13 X 11	1.4
516F-2	29	39	14 X 13 X 19	2.0
51S-1	28	32	18 X 11 X 19	2.6



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