

equipment catalog

Cedar Rapids Division / Collins Radio Company, Cedar Rapids, Iowa

Amateur Radio 1963-64



ACCESSORIES



312B-4 SPEAKER CONSOLE Integrates the 75S-3, 32S-3 and 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. 10" W, 7 $\frac{3}{4}$ " H, 12 $\frac{1}{4}$ " D (25.4 cm W, 19.69 cm H, 31.12 cm D). Weight: 8 $\frac{1}{2}$ lbs. (3.86 kg).



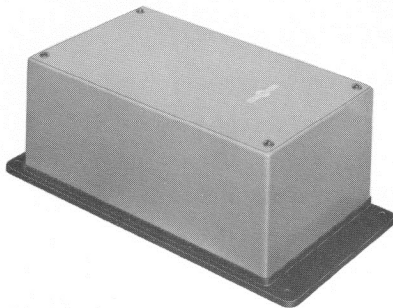
312B-3 SPEAKER Contains a 5" x 7" (12.7 cm x 17.78 cm) speaker and connecting cable. Styled to match the S/Line and KWM-2. 10" W, 7 $\frac{3}{4}$ " H, 8" D (25.4 cm W, 19.69 cm H, 20.32 cm D). Weight: 4 lbs. (1.81 kg).



399C-1 EXTERNAL VFO UNIT Includes a 70K-2 Oscillator and a permanent magnetic speaker. The 399C-1 operates with the KWM-2 Transceiver to provide limited separation of receive and transmit frequencies within the same 200 kc band when desired. 10" W, 7 $\frac{3}{4}$ " H, 12 $\frac{1}{4}$ " D (25.4 cm W, 19.69 cm H, 31.12 cm D). Weight: 8 $\frac{1}{2}$ lbs. (3.86 kg).



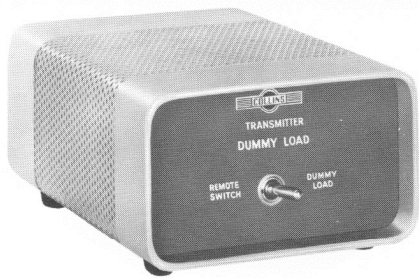
516F-2 AC POWER SUPPLY Used with the 32S-3 and KWM-2, supplying all voltages for them. 115 v, 50-60 cps. 400 cps with minor change. 10" W, 7 $\frac{3}{4}$ " H, 12" D (25.4 cm W, 19.69 cm H, 30.48 cm D). Weight: 28 lbs. (12.7 kg).



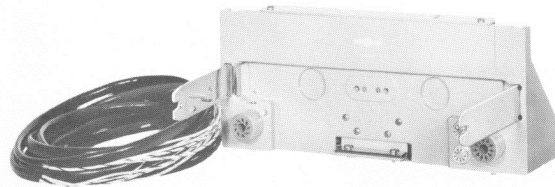
MP-1 MOBILE POWER SUPPLY The MP-1 converts a 12 volt automobile, aircraft or boat battery to the voltages required for operation of the Collins KWM-1, KWM-2 or KWM-2A. The MP-1 includes a high voltage plate supply for the transmitter PA, and a low voltage supply for the amplifier circuits. 5 $\frac{3}{4}$ " 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).



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 control, phone patching facilities and a directional wattmeter. The PTO control selector may be set as follows: (1) Receive KWM-2, Transmit 312B-5; (2) Transceive KWM-2; (3) Transceive 312B-5. Other control functions are normal (VOX), Receive Only, Transmit Only, Phone Patch On-Off, and Station Mute. Cables are furnished for connections to the KWM-2. 10" W, 7 $\frac{3}{4}$ " H, 12 $\frac{1}{4}$ " D (25.4 cm W, 19.69 cm H, 31.12 cm D). Weight: 8 $\frac{1}{2}$ lbs. (3.86 kg).



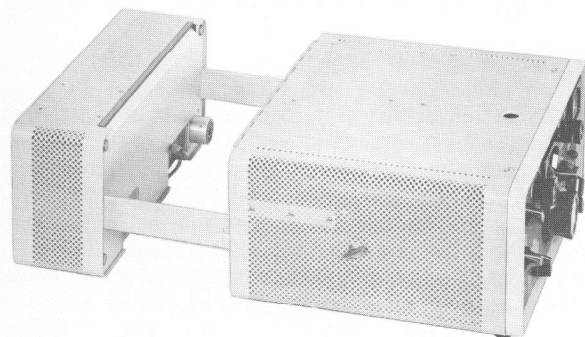
DL-1 DUMMY LOAD The DL-1 is a 100 watt resistor load which may be used for various tuning functions without putting the transmitter on the air. The DL-1 may be switched in and out of the circuit by a front panel switch or may be remotely controlled by the addition of another switch in the operating position.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



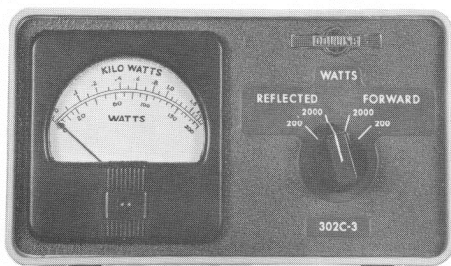
351D-2 MOBILE MOUNT Provides secure mounting for the KWM-2 in most automobiles. Cantilever arms fold out of the way when the KWM-2 is removed. The plug at the right end is the power plug; plug at the left end may be used for control of antennas having band switching circuitry. Cables 20 feet in length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



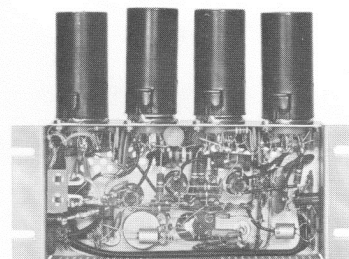
180S-1 ANTENNA TUNER The 180S-1 is basically a 1 kw pi network for matching various antenna impedances to a 50 ohm coaxial transmission line in the range of 3-30 mc. In most cases it is used as an L network, but when the L network cannot match the desired antenna, the complete pi circuit is used. The 180S-1 is useful for tuning trailing wire antennas on large aircraft.



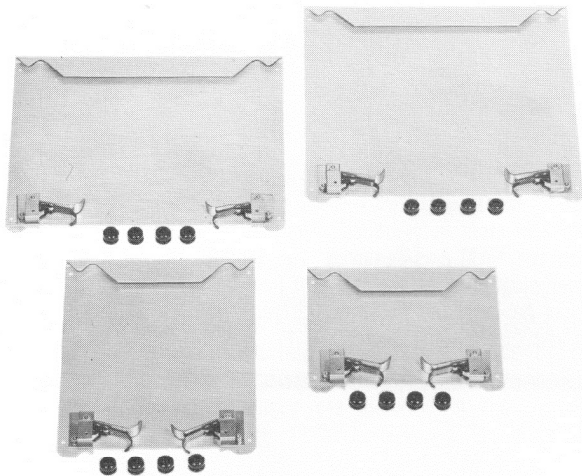
PM-2 PORTABLE POWER SUPPLY The PM-2 is a lightweight, limited duty cycle power supply providing voltages needed for the KWM-2. The PM-2 quickly slides into place and connects to the rear of the KWM-2, ready to operate in minutes from either 115 v ac or 220 v ac at 50-400 cps as a complete portable SSB or CW station. Both transceiver and power supply may be packed in the lightweight CC-2 Carrying Case for portability. A small auxiliary speaker is included in the PM-2 for emergency use. 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).



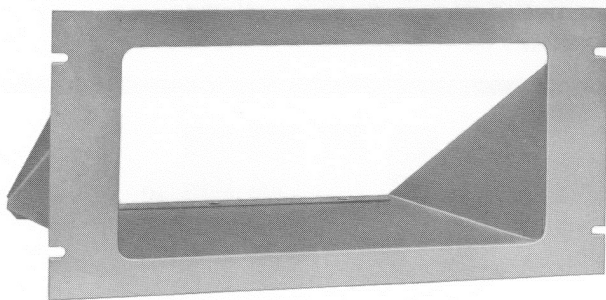
302C-3 DIRECTIONAL WATTMETER The 302C-3 is valuable for checking the antenna system. It measures forward and reflected RF power. Two scales are provided: 0-200 watts and 0-2000 watts accommodating both high and low power transmitters. The 302C-3 is contained in two units: the coupler for connecting into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



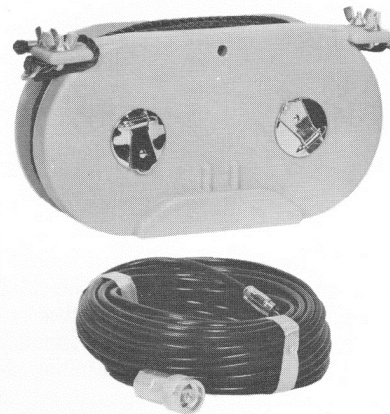
136B-2 NOISE BLANKER The 136B-2 is designed for use with the KWM-2 under mobile operating conditions. This noise blanker provides effective reduction of impulse type noise. It differs from simple audio clipping circuits or series type limiters by silencing ahead of the selective sideband filters. All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



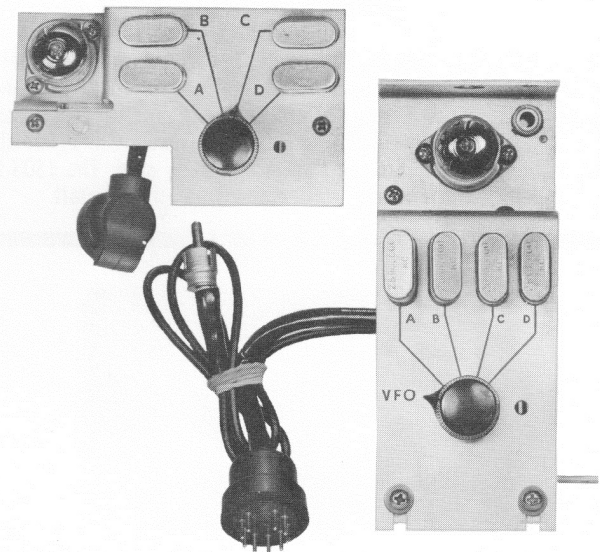
351E MOUNTING PLATES The 351E may be used to secure the S/Line or KWM-2 equipments to bench or table in shipboard, airborne or vehicular installations. The 351E-1 will accommodate either the 75S-3 Receiver or the 32S-3 Transmitter; the 351E-2 will mount either the 516F-2 Power Supply or the 312B-4 Station 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 may be easily unclamped for removal without the use of tools. The unit is removed by pulling forward and lifting.



351R RACK MOUNT The 351R-1 is a matching gray rack panel for mounting the 75S-3, 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, 399C-1, 312B-4 and 312B-5 may 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.



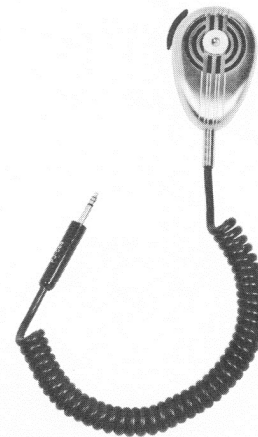
TD-1 DIPOLE ANTENNA The TD-1 is designed for use when portability and operation on different frequencies are primary considerations. The molded plastic housing holds two steel tapes calibrated in meters, decimeters and centimeters. These tapes may be extended to the required length for a given frequency 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 and positioning. 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.



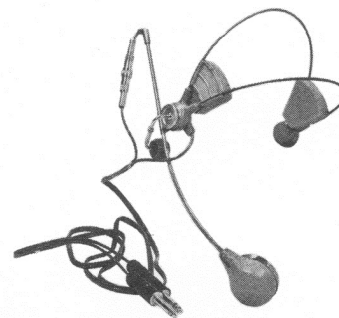
COLLINS SM-1 DESK TOP MICROPHONE Collins SM-1 is a high impedance, nonmetallic dynamic mike with a frequency response from 100-3500 cycles per second. It has an output level of -53 db. Finished in brushed satin chrome, this compact microphone is equipped with a rubber isolated stand and a five foot length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



COLLINS 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 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.



COLLINS 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.



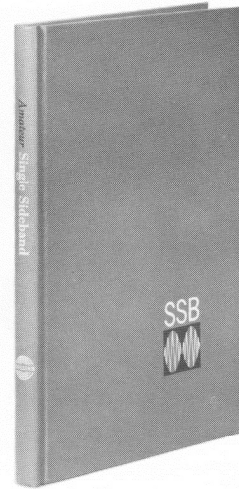
COLLINS MM-2 MICROPHONE The Collins MM-2 includes a high impedance reluctance microphone and single earphone which may be used in either a fixed station installation or with a mobile unit. The MM-2 has a frequency response from 100-7,000 cycles per second and an output level of -50 db. In mobile use, 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 comes 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. Either the KWM-2 plus the PM-2 Power Supply, the KWM-2 alone, the 30L-1, the 51S-1, or the 62S-1 can be transported in the case. The CC-2 is adapted from the Samsonite Silhouette and includes a shock-resistant molded interior for the equipment. The CC-2 weighs 9.5 lbs. (4.31 kg) empty.



CC-3 CARRY 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 90 day supply of spare tubes and fuses. Weight: 10 lbs. (4.54 kg) empty.



AMATEUR SINGLE SIDEBAND Written exclusively for the amateur radio operator. A hard bound book that will be a valuable addition to any ham shack. This 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.

CP-1 CRYSTAL PACKET The CP-1 contains a set of crystal grippers and all the crystals for operation of the S/Line receiver, 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 a waterproof plastic material containing a pouch for each crystal and one for the grippers. Each pouch is marked with appropriate band information and crystal frequency. The complete packet may be fastened into the CC-2 Carrying Case for transportation as part of a transportable station.

CABLE DUCTS 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 or three feet, the ducts are equipped with fittings for easy and quick mounting on the side or top of the operating desk. Duct covers quickly slide off to allow rearranging, adding or removing cables.

440E-1 CABLE KIT The 440E-1 is the same cable which is supplied with the Collins 351D-2 Mobile Mount. This cable may 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 Cable is five feet in length and may 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.

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.

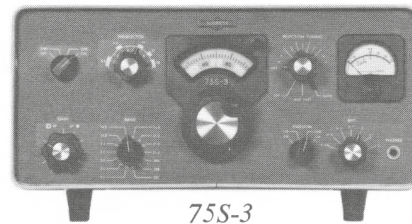
VHF basic (with S/Line)

ACCESSORIES

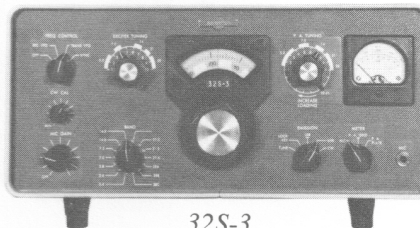
- SM-1 or SM-2 Microphone (plug included)
- CT-2 Cable Trough
- 440F-1 Power Supply Cable extension
- 312B-3/4 Speaker Console
- 351R-1 Rack Mount
- 351R-2 Rack Mount



62S-1



75S-3



32S-3

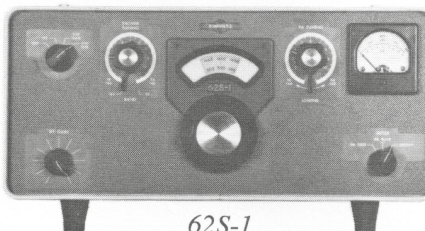


516F-2

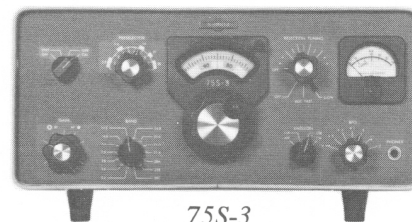
VHF deluxe

ACCESSORIES

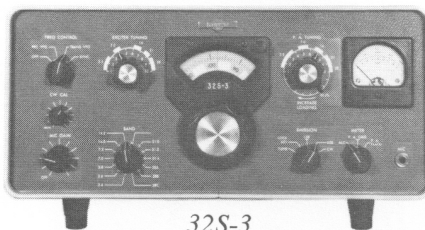
- SM-1 or SM-2 Microphone (plug included)
- CT-2 Cable Trough
- 440F-1 Power Supply Cable Extension
- 351R-1 Rack Mount
- 351R-2 Rack Mount
- DL-1 Dummy Load



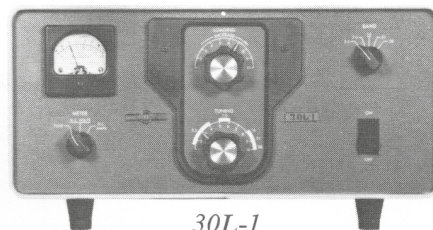
62S-1



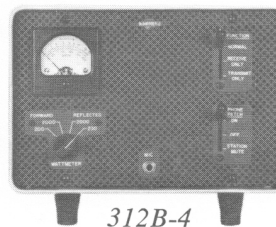
75S-3



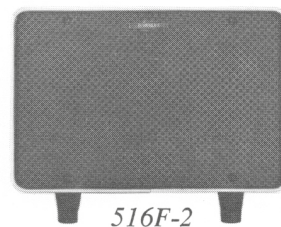
32S-3



30L-1



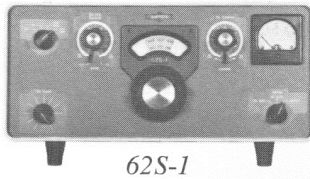
312B-4



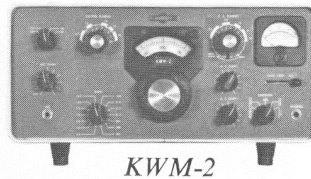
516F-2

CONFIGURATIONS

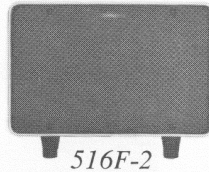
VHF
basic
(with Transceiver)



62S-1



KWM-2



516F-2

ACCESSORIES

- SM-1 or SM-2 Microphone (plug included)
- 312B-3/4/5 Speaker Console
- CT-2 Cable Trough

S/LINE
basic



75S-3



32S-3



516F-2

ACCESSORIES

- SM-1 or SM-2 Microphone (plug included)
- 312B-3/4 Speaker Console
- 440F-1 Power Supply Cable Extension
- DL-1 Dummy Load
- CT-2 Cable Trough

S/LINE
deluxe



75S-3



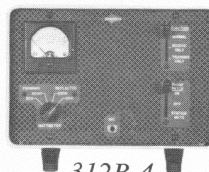
32S-3



516F-2



30L-1



312B-4



DL-1

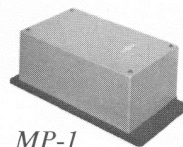
ACCESSORIES

- SM-1 or SM-2 Microphone (plug included)
- CT-2 Cable Trough
- 440F-1 Power Supply Cable Extension

KWM-2
mobile



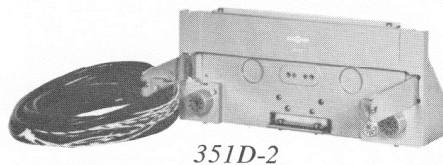
KWM-2



MP-1

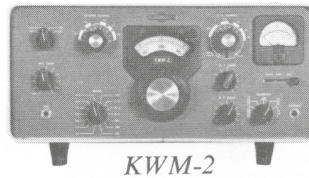
ACCESSORIES

- MM-1 or MM-2 Microphone (plug included)
- 302C-3 Directional Wattmeter
- 136B-2 Noise Blanker

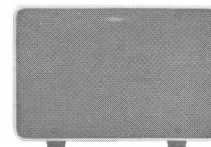


351D-2

KWM-2
fixed station



KWM-2



516F-2

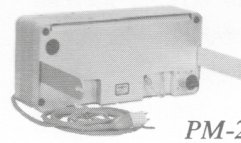
ACCESSORIES

- SM-1 or SM-2 Microphone (plug included)
- DL-1 Dummy Load
- 302C-3 Directional Wattmeter
- PM-2 Lightweight Power Supply (in lieu of 516F-2)
- 351R-1 Rack Mount
- 351R-2 Rack Mount
- 312B-3/4/5 Speaker Console
- CT-1 Cable Trough

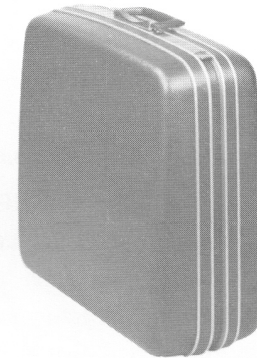
KWM-2
portable



KWM-2



PM-2



CC-2

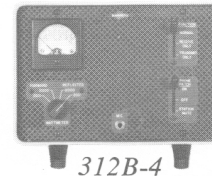
ACCESSORIES

- MM-1 Microphone (plug included)
- CC-3 Carrying Case (for 312B-5, MP-1 and spares)
- TD-1 Adjustable Antenna

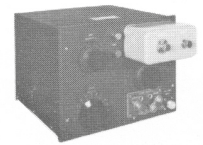
KWM-2
airborne



KWM-2



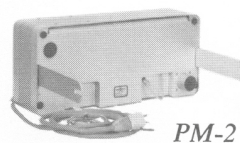
312B-4



180S-1

ACCESSORIES

- MM-1 or MM-2 Microphone (plug included)
- 351E-4 and 351E-2 Table Top Mounts
- 516F-2 Heavy Duty Power Supply (in lieu of PM-2)

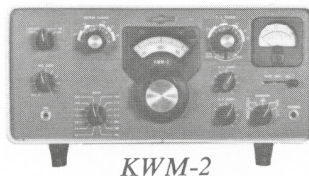


PM-2

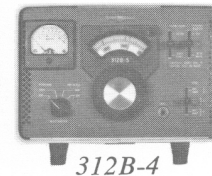


DL-1

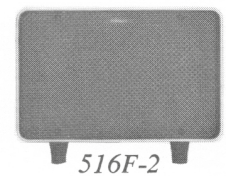
KWM-2
fixed station deluxe



KWM-2



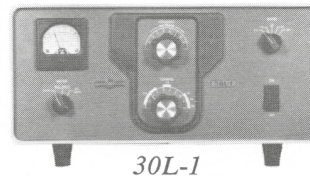
312B-4



516F-2

ACCESSORIES

- SM-1 or SM-2 Microphone (plug included)
- CT-2 Cable Trough
- 440F-1 Power Supply Cable Extension
- DL-1 Dummy Load
- 351R-1 Rack Mount
- 351R-2 Rack Mount
- 312B-3/4 Speaker Console (in lieu of 312B-5)
- 30S-1 Linear Amplifier (in lieu of 30L-1)



30L-1

price list

AMATEUR RADIO EQUIPMENT

effective May 1, 1964



COLLINS RADIO COMPANY
Cedar Rapids, Iowa

Type No.	Part No.	Description	Amateur Net Price
TRANSCEIVERS			
KWM-2	522 1611 00	Transceiver	\$1,150.00
KWM-2 with 136B-2	522 1611 012	Transceiver with Noise Blanker	1,296.00
KWM-2A	522 1792 00	Transceiver	1,250.00
KWM-2A with 136B-2	522 1792 011	Transceiver with Noise Blanker	1,396.00
RECEIVERS			
75S-3B	522 3316 00	Receiver	620.00
75S-3B	522 3316 011	Receiver with AM filter socket wired in to accept FA series mechanical filters. Normal transformer coupling wired out of circuit.	635.00
75S-3C	522 3317 00	Receiver	690.00
75S-3C	522 3317 011	Receiver with AM filter socket wired in to accept FA series mechanical filters. Normal transformer coupling wired out of circuit.	705.00
TRANSMITTERS			
30L-1	522 2375 00	Linear Amplifier	520.00
30S-1	522 1286 00	Linear Amplifier	1,795.00
32S-3	522 2955 00	Transmitter	750.00
VHF CONVERTER			
62S-1	522 2376 00	VHF Converter	895.00
ACCESSORIES			
312B-3	522 1166 00	Speaker (S/Line, KWM-2, 51S-1)	32.00
312B-4	522 1167 00	Speaker Console (S/Line, KWM-2)	195.00
312B-5	522 1668 00	PTO Console (KWM-2)	350.00
399C-1	522 1597 00	PTO Speaker (KWM-2)	164.00
MP-1	522 2750 00	14 V DC Power Supply (KWM-2)	198.00

AMATEUR SINGLE SIDEBAND

A Collins publication written exclusively for the amateur radio operator. A hard bound book that will be a valuable addition to any ham shack.

This seven-chapter book covers the following areas:

1. Introduction of Single Sideband
2. The Nature of SSB Signals
3. Single Sideband Exciters
4. RF Linear Amplifiers
5. Single Sideband Receivers
6. Tests and Measurements
7. The Amateur SSB Station

Available at your nearest distributor —
Price \$4.00.

AMATEUR EQUIPMENT PRICE SCHEDULE

Type No.	Part No.	Description	Amateur Net Price
PM-2	522 2639 004	Portable Power Supply (KWM-2)	\$ 150.00
516E-2	522 0984 005	28 V DC Power Supply (KWM-2)	400.00
516F-2	522 1170 00	AC Power Supply (32S-3, KWM-2)	115.00
DL-1	597 0361 00	Dummy Load	58.00
180S-1	522 0651 00	Antenna Coupler	640.00
350D-3	505 2782 002	Mount (180S-1)	48.00
302C-3	522 1696 00	Directional Wattmeter	130.00
136B-1	522 1583 00	Noise Blanker (KWM-1)	124.00
136B-2	522 1661 00	Noise Blanker (KWM-2)	124.00
351D-2	522 1726 00	Mobile Mount (KWM-2)	120.00
351E-1	522 1479 003	Table Mount (32S, 75S)	24.00
351E-2	522 1480 003	Table Mount (516F-2, 312B-4/5)	24.00
351E-3	522 1481 003	Table Mount (312B-3)	24.00
351E-4	522 1482 003	Table Mount (KWM-2)	24.00
351R-1	522 2665 00	Rack Mount (32S, 75S, KWM-2)	32.00
351R-2	522 2666 00	Rack Mount (516F-2, 312B Series)	32.00
399B-4	522 1780 00	Novice Adapters (32S) (less crystals)	40.00
399B-5	522 1781 00	Novice Adapters (KWM-2) (less crystals)	46.00
TD-1	099 1106 00	Portable Antenna	152.00
SM-1	097 5944 00	Fixed Station Microphone	32.00
SM-2	097 5946 00	Fixed Station Microphone	48.00
MM-1	097 5945 00	Mobile Hand Microphone	25.00
MM-2	097 6027 00	Mobile Boom Microphone with Earphone	44.00
CC-2	597 0393 00	Carrying Case (KWM-2, -2A, 30L-1, 51S-1, or 62S-1)	85.00
CC-3	597 0403 00	Carrying Case (312B-4 or 312B-5 & MP-1 or 516E-2 & TD-1 plus spares)	107.00
CP-1	597 0404 00	Crystal Packet	396.00
CT-1	097 6192 00	Cable Trough (KWM-2)	8.00

Type No.	Part No.	Description	Amateur Net Price
440E-1	522 2051 00	Cable (MP-1 to KWM-2)	17.00
440F-1	522 2114 00	Cable (Extension Cable 516F-2, PM-2)	17.00

MECHANICAL FILTERS

Type No.	Part No.	Description	Amateur Net Price
F455FB-21	526 9448 00	Mechanical Filter (experimental usage)	26.50
X455KQ200	526 7677 00	75S3B/3C	95.00
F455FA-05	526 9494 00	Mechanical Filter (75S-3B/3C)	57.50
F455FA-08	526 9446 00	Mechanical Filter (75S-3B/3C)	57.50
F455FA-15	526 9495 00	Mechanical Filter (75S-3B/3C)	57.50
F455FA-21	526 9427 00	Mechanical Filter (75S-3B/3C, 32S-3)	32.50
F455FA-31	526 9496 00	Mechanical Filter (75S-3B/3C)	47.00
F455FA-40	526 9497 00	Mechanical Filter (75S-3B/3C)	47.00
F455FA-60	526 9498 00	Mechanical Filter (75S-3B/3C)	47.00
F455Q-5	526 9367 00	Mechanical Filter (75S-1/2)	52.00
F455K-15	526 9168 00	Mechanical Filter (75S-1/2)	60.00
F455Y-21	526 9337 00	Mechanical Filter (75S-1/2, KWM-2/2A, 32S-1/2)	50.60
F455Y-31	526 9338 00	Mechanical Filter (75S-1/2)	50.60
F455Y-40	526 9339 00	Mechanical Filter (75S-1/2)	50.60
F455Y-60	526 9340 00	Mechanical Filter (75S-1/2)	50.60

PRINTED MATERIAL

Description	Part No.	Amateur Net Price
Amateur Single Sideband	523 0720 00	\$ 4.00
Instruction Books for KWM-1, KWS-1, 75A-1,-2,-3,-4, 32V-2,-3, 310B-1,-3		5.00
Current Equipment Instruction Books		2.00
All Schematics		.50
Logbooks	097 7629 00	1.00

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



Reprinted from the Collins Radio Company
Amateur Radio Catalog 1963-1964

With the permission of Rockwell Collins 12-12

This brochure is not reprinted in complete form.
Rather, information is included which does not appear in this format
in other brochures

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*