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 prepaid, 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. However, alteration or modification in accordance with Collins Service Bulletins shall not affect this Warranty.

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.

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
Service Repair Department
Third Street Building
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)

NOTE: See Distributor List.

1 August 1962
**Collins Authorized Amateur Distributors and Service Agencies**

**ALABAMA**

Ack Radio Supply Company
3101 40th Avenue South
Birmingham 5
Phone: FAirfax 2-0868
Attn: E. C. Akenson
**Redwood Engineering Services**
2450 Tenth Avenue South
Birmingham
Phone: ALine 1-7592
Attn: Dr. C. P. Redwood
SEE ALSO: Atlanta, Georgia (Ach)

**ALASKA**

Yukon Radio Supply, Inc.
(D. O. Box 409)
447 1 Street
Anchorage
Attn: A. E. Peterson

**ARIZONA**

Elliott Electronics, Inc.
418 N. 4th Avenue
Tucson
Phone: Main 4-3473
Attn: Jerry Flewelling

**Southwest Electronic Devices**
(P. O. Box 3647)
145 S. 2nd Street
Phoenix
Attn: Herman A. Middleman

**ARKANSAS**

Lavender Supply Company (P. O. Box 1148)
518-520 S. 4th Street
Texarkana
Phone: 2-4195
Attn: Joe M. Lavender

Ed Moody's Radio & Appliance
12th & Jefferson
DeWitt
Phone: Whitney 6-2820
Attn: Ed Moody

**CALIFORNIA**

**Ammar Electronics**
999 Howard Avenue
Berkeley
Phone: Diamont 2-5797
Attn: J. Stevenson

Amrad Supply, Inc.
3425 Balboa Street
San Francisco
Phone: Skyline 1-4461
Attn: David K. Bradley

**Camaral Electronic Co.**
2183 A. Fulton Ave.
Sacramento
Phone: 487-0633
Attn: Alies M. Hertz

**Communication Receiver Service**
5015 Maplewood
Los Angeles 4
Phone: HOLlywood 3-2429
Attn: Charles C. Messman

Elmar Electronics
140 11th Street at Madison
Oakland 7
Phone: TE 4-3311
(TWX-OATS)
Attn: Elvon Feige/M. L. Chirone

**Henry Radio Company, Inc.**
(P. O. Box 63409)
11240 W. Olympic Blvd.
Los Angeles 44
Phone: GBAnte 5-4701
Attn: Ted Henry

**Henry Radio, Inc.**
931 N. Euclid
Anaheim
Phone: PR 2-8020
Attn: Mary Silva

**Missouri**

Mission Ram Supplies
5674 Mission Blvd.
Riverside
Phone: OV-3053
Attn: Wm. P. Bullquist

Quasten Industrial Electronics
(P. O. Box 527
151 San Fernando
San Jose
Phone: CTpress 4-0646
Attn: Frank Quasten

Radio Products Sales, Inc.
1501 S. Hill Street
Los Angeles 15
Phone: California 8-1271
Attn: Ken Rausin

Scot Radio Supply, Inc.
186 Almaden Avenue
San Jose
Phone: EBlock 6-1452/7-8629
Attn: Evelyn E. Scott

Western Radio & TV Supply Company
(P. O. Box 728)
1415 India Street
San Diego 1
Phone: EBlock 6-1452/7-8629
Attn: A. W. Prather/Art Stewart

**COLORADO**

Colorado Radio & Electric Company
403 E. Lake Street
Pueblo
Phone: RH 8-3401
Attn: Clifford Morris

Newark Electronics Corporation
223 W. Madison Street
Chicago 6
Phone: SW 2-2944
Attn: Leo Wiltkin/A. L. Poncher

**CONNECTICUT**

Connecticut Division
Hartford
100 High Street
Hartford
Phone: Jackson 7-1881
Attn: Edward C. Godfrey

Radio Shack Corp. of Connecticut
230 Crown Street
New Haven 10
Phone: SPene 7-5871
Attn: E.G. Alberino
SEE ALSO: Boston, Massachusetts

**DELAWARE**

Willard S. Wilson, Inc.
403-405 Delaware Avenue
Wilmington 1
Phone: Olympia 5-4321
Attn: Willard S. Wilson

**DISTRICT OF COLUMBIA**

Electronic Wholesalers, Inc.
2345 Sherman Ave. NW
Washington 1
Phone: Bismarck 3-5200
Attn: Ray Avey

**FLORIDA**

**Amateur Radio Center, Inc.**
2405-7 N. 2nd Avenue
Miami
Phone: Fina 4-4101
Attn: Wiley Glikson

**Electronic Wholesalers, Inc.**
9390 NW 27th Avenue
Miami 47
Phone: Oxford 6-1820
Attn: Philip Koster

Grice Electronics, Inc.
(P. O. Box 1911)
300 E. Wright St.
Penacola
Phone: EBlock 3-4616
Attn: F. R. Grice, Jr.

**Inskade Radio Supply, Inc.**
1719 Grand Central Avenue
Tampa
Phone: 8-6043
Attn: E. T. Inskade

**GEORGIA**

Ark Radio Supply Co.
331 Luckie Street NW
Atlanta 13
Phone: JA 4-8477
Attn: T. E. Atkinson

**Southeastern Eng. Service**
1383 Carolyn Dr. N. E.
Atlanta 6
Phone: Harry Minsk

**HAWAII**

**Honolua Electronics**
819 Keeaumoku Street
Honolulu 14
Phone: 955-466
Attn: Thomas Teruya

**IDAHO**

Robbie's Radio & TV, Inc.
(P. O. Box 5021)
371 State Street
Boise
Phone: 38992
Attn: W. A. Robinson, Jr.

**ILLINOIS**

Allied Radio Corp.
100 N. Western Avenue
Chicago 80
Phone: MA 1-6800
Attn: Jim Sommerville/Jason Thomas

Klaus Radio & Electric Company
403 E. Lake Street
Peebles
Phone: RH 8-3401
Attn: Clifford Morris

Newark Electronics Corporation
223 W. Madison Street
Chicago 6
Phone: STate 2-2944
Attn: Lee Wiltkin/A. L. Poncher

**INDIANA**

Brown Electronics, Inc.
1023 Broadway
Fort Wayne
Phone: Anthony 3382
Attn: A. A. Brown

**INFORMATION**

**Robert T. Graham, Sr.**
**Radio Shack Corp.**
**327 E. Hoover Avenue**
**Dallas 20**
**Phone: Woodward 3-2270**
**Attn: M. N. Duff & Bill Mains**

**PURCHASE RADIO SUPPLY**
**327 E. Hoover Avenue**
**Ann Arbor**
**Phone: Normandy 8-6868/8-6862**
**Attn: Roy J. Purchese**

**Radio Supply & Engineering**
**90 Selden Avenue**
**Detroit 1**
**Phone: Trenton 1-317**
**Attn: C. N. Houser**

**Warren Radio Company**
**1711 South Western**
**Kalamazoo**
**Phone: Frieside 3-5720/3-7217**
**Attn: Frank Smith**

**MINNESOTA**

Lew Brom Company
1211 Laisle Avenue
Minneapolis 3
Phone: FIDeral 9-6351
Attn: Joe Hitch

**Electronic Center, Inc.**
107 3rd Avenue North
Minneapolis 1
Phone: FIDeral 8-0868
Attn: Ward Jensen

**MISSOURI**

**Walter A. Moore's Company**
1125 Pine Street
St. Louis 1
Phone: Glastut 1-1125
Attn: Joe Novak

**Barnes-Applebee Co.**
1012-1214 McGee Street
Kansas City 6
Phone: Baltimore 1-1155
Attn: R. R. Frisette/Clyde Frisby

**Henry Radio Company**
211 North Main
Bellevue
Phone: OSBard 6-3127
Attn: Bob Henry/Helen DeArmond

**NEW HAMPSHIRE**

Evans Radio
(P. O. Box 302)
Bow Junction, Route 3A
Concord
Phone: Capital 5-3558
Attn: Eddie Andrews

**NEW JERSEY**

Federated Purchasers, Inc.
1021 S. W. St. 22
Mountainside
Phone: ADAMS 2-8000
Attn: Hai Thorn

**Hudson Radio & Television Corp.**
**35 Williams Street**
**Newark 2**
**Phone: Market 4-5154**
**Attn: Joseph Prestia**
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NOTES:
1. HEADPHONES AND MICROPHONE CONNECT TO APPROPRIATE JACKS ON FRONT OF KWM-2.
2. POWER CONNECTORS ON KWM-2 AND PM-2 PUSH TOGETHER WHEN THE TWO UNITS ARE CLAMPED TOGETHER.
3. ALL LEADS CONNECTED TO PHONO JACKS AT REAR OF KWM-2 ARE BROUGHT DOWN THRU CHANNEL BETWEEN KWM-2 AND PM-2 AND OUT BENEATH PM-2.
4. AC CORD AND PLUG WITH 3RD WIRE GROUND. IF ADAPTOR IS USED, CONNECT GREEN WIRE TO GROUND.
5. CONNECT TO EARTH GROUND.

Figure 1-1. Interconnections with KWM-2/2A Traveling Station
SECTION I
INSTALLATION

1.1 UNPACKING.

Carefully lift the amplifier out of the packing material. Examine for visible damage. If the amplifier has been damaged in shipment, save box and packing material and notify the transportation company. Fill out and mail the equipment registration card. Check tuning controls and switches for freedom of action. Check the equipment included with the amplifier against table 1-1.

Lift the amplifier cabinet lid. Loosen the ten screws in the r-f compartment cover, slide it forward, and lift off. Remove the packing material around the tubes. Replace the cover and tighten screws. Lower the lid.

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<td>A-c power</td>
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<td>UG-21D/U coaxial plug</td>
<td>R-f output connector</td>
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<td>1</td>
<td>Number 6 Bristo wrench</td>
<td>Knob removal</td>
<td>024-9730-00</td>
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<td>1</td>
<td>Number 8 Bristo wrench</td>
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<td>Right-angle cable plug</td>
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1.2 POWER TRANSFORMER CONNECTIONS.

The 30L-1 is shipped with the transformer primary connected for 115 volts a-c. If 230-volt a-c operation is planned, the primary connections must be changed on terminal board TB1. Refer to figure 7-2. This board is located at the bottom of the power supply compartment. The a-c power cord is connected to this board. To obtain access, refer to paragraph 4.2.

WARNING

DO NOT BLOCK INTERLOCK SWITCHES. Dangerous voltages are present in this equipment. The high voltage is interlocked with the amplifier covers. Make no attempt to put the amplifier into service until all compartment covers are in place.

1.3 CABLEING.

Interconnections with other station equipments are described in the following paragraphs. Assembly instructions for type N connectors, such as the UG-21D/U, are shown in figure 7-1.

1.3.1 TRAVELING STATION.

The 30L-1 is particularly applicable to traveling station use in conjunction with portable transceivers such as the KWM-2/2A. Refer to figure 1-1. IN THIS SERVICE, MAKE SURE THE TRANSFORMER PRIMARY IS CONNECTED FOR PROPER LINE VOLTAGE.

1.3.2 HOME STATION.

Connect to KWM-2/2A, KWM-1, or S-Line as shown in figures 1-2, 1-3, and 1-4.
Figure 1-2. Interconnections with KWM-2/2A Home Station
NOTES:
1. THIS CABLE IS FURNISHED WITH 30L-1 IN 20.5 FT LENGTHS.
2. CONNECT HEADPHONES TO PHONES JACKET, FRONT OF KWM-1. CONNECT MICROPHONE TO MIC JACKET, FRONT OF KWM-1.
3. CABLE TO ANTENNA SWITCHING RELAYS (IF USED).
4. SEE DETAIL A FOR EXTERNAL RELAY CONNECTIONS FOR KWM-1 SWITCHING OF 30L-1 (KWM-1 SERIAL NUMBERS BELOW 861).
5. AC PLUG AND CORD WITH 3RD WIRE (ROUND PIN) GROUND. IF ADAPTER IS USED, CONNECT GREEN WIRE TO GROUND.
6. HIGH VOLTAGE PRESENT. EXTERNAL CIRCUITRY SHOULD BE ENCLOSED FOR PERSONNEL PROTECTION.

Figure 1-3. Interconnections with KWM-1
Figure 1-4. Interconnections with S-Line
1.3.3 KWM-1 SERIAL NUMBERS ABOVE 861.

If KWM-1 models above serial number 861 are used with the 30L-1, it will be necessary to bring out alc and "ground-on-transmit" connections from the 516F-1 power cable plug, P-1, as shown in figure 1-3. Make the alc connection to terminal 19, and the "ground-on-transmit" connection to terminal 20. Use a shielded wire, and connect to 30L-1 ALC and ANT. RELAY jacks with phono plugs.

1.3.4 KWM-1 SERIAL NUMBERS BELOW 861.

If models below serial number 861 are used with the 30L-1, it is necessary to make connections inside the KWM-1 for alc and antenna relay control.

a. Use an ohmmeter to locate the feedthrough capacitor, C169, which is connected to pin 19 of J5.

b. Connect a wire from this feedthrough capacitor to pin 7 of tube socket XV10.

c. Using an ohmmeter to trace the wiring, locate the feedthrough capacitor, C206, which is connected to terminal 20 of J5 in KWM-1.

d. Connect a wire from terminal 8 of TB1 in KWM-1 to C206.

e. Make corresponding breakout connection to P1 terminal 19 with shielded wire, and connect to the 30L-1 ALC jack with a phono plug.

f. Refer to figure 1-3, Detail A. External to the KWM-1, connect a 10,000-ohm, 5-watt resistor and a relay coil in series from J5 terminal 20 to a ground on the rear of the KWM-1 chassis. Use a relay, such as Collins part number 972-1346-00, with a 10,000-ohm, 10-ma coil, and a set of normally open contacts.

g. Connect the normally open contacts through a piece of shielded wire and a phono plug to the 30L-1 ANT. RELAY jack.

**WARNING**

BE CAREFUL to protect the operator from the 260-B+ present on the relay coil and resistor connections. It is recommended that this circuitry be enclosed in a suitable shield box.

**NOTE**

The r-f cable supplied for connecting the 32S-1, KWM-2/2A, or KWM-1 to the 30L-1 is 20.5 feet long. This length results in slightly lower system distortion than normally is obtained with other lengths of cable; however, a shorter length can be used for convenience.

1.4 INSTALLATION WITH OTHER MAKES OF EXCITERS.

Connect the r-f output of the exciter to the RF INPUT jack on the 30L-1. Existing antenna switching equipment between receiver and exciter may be left intact. To transmit, a ground must be supplied to the ANT. RELAY jack on the 30L-1. This removes blocking bias from the 811A tubes and energizes the internal antenna relay. Due to the variety of circuits involved, specific instructions for use of alc cannot be given. A detailed study of paragraph 3.7 will be helpful if it is desired to utilize the alc provisions in the 30L-1.