



instruction book

KWS-1 Transmitter

©Collins Radio Company 1955, 1956, 1957, 1958, 1963

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.

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
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.

COLLINS AUTHORIZED AMATEUR DISTRIBUTORS AND SERVICE AGENCIES

ALABAMA

Ack Radio Supply Company
3101 4th Avenue South
Birmingham 5
Phone: FAirfax 2-0588
Attn: E. C. Atkerson

*Beddo Engineering Services
2424 Tenth Avenue South
Birmingham
Phone: ALpine 1-7582
Attn: Dr. C. P. Beddo
SEE ALSO: Atlanta, Georgia (Ack)

ALASKA

Yukon Radio Supply, Inc.
(P. O. Box 406)
645 1 Street
Anchorage
Attn: A. E. Peterson

ARIZONA

Elliott Electronics, Inc.
418 N. 4th Avenue
Tucson
Phone: MAIn 4-2473
Attn: Jerry Flewelling

**Southwest Electronic Devices
(P. O. Box 3647)
140 S. 2nd Street
Phoenix
Phone: ALpine 2-1743
Attn: Herman A. Middleton

ARKANSAS

Lavender Supply Company
(P. O. Box 1168)
518-520 E. 4th Street
Texarkana
Phone: 2-4195
Attn: Joe M. Lavender

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

CALIFORNIA

**Amrad Supply, Inc.
999 Howard Avenue
Burlingame
Phone: DIamond 2-5757
Attn: Dan Rodriguez

Amrad Supply, Inc.
3425 Balboa Street
San Francisco
Phone: SKYline 1-4661
Attn: J. Steventon

*Communication Receiver Service
5016 Maplewood
Los Angeles 4
Phone: HOllywood 2-2429
Attn: Charles C. Messman

Elmar Electronics
140 11th Street at Madison
Oakland 7
Phone: TE 4-3311
(TXW-OA73)
Attn: Elvin Feige/M. L. Chirone

**Henry Radio Company, Inc.
(P. O. Box 64398)
11240 W. Olympic Blvd.
Los Angeles 64
Phone: GRanite 7-8701
Attn: Ted Henry

Mission Ham Supplies
5474 Mission Blvd.
Riverside
Phone: OV-30523
Attn: Wm. P. Hullquist

Quement Industrial Electronics
(P. O. Box 527)
161 San Fernando
San Jose
Phone: CYpress 4-0464
Attn: Frank Quement

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

Scott Radio Supply, Inc.
266 Alamitos Avenue
Long Beach
Phone: HEmlock 6-1452/7-8629
Attn: Evelyn E. Scott

Valley Electronic Supply Company
1302 W. Magnolia Blvd.
Burbank
Phone: VICTORIA 9-3944
Attn: Frank Eckert/Bud Rand

Western Radio & TV Supply Company
(P. O. Box 1728)
1415 India Street
San Diego 1
Phone: BElmont 9-0361
Attn: A. W. Prather/Art Stewart

COLORADO

Radio Products Sales Co.
16th Street
Denver 2
Phone: CHERRY 4-6591
Attn: Walter Nettles/Willard Wright

CONNECTICUT

Hatry of Hartford, Inc.
100 High Street
Hartford
Phone: JACKson 7-1881
Attn: Edward C. Gedney

Radio Shack Corp. of Connecticut
230 Crown Street
New Haven 10
Phone: SPRuce 7-6871
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: HUDson 3-5200
Attn: Ray Avey

FLORIDA

**Amateur Radio Center, Inc.
2805-7 N. E. 2nd Avenue
Miami
Phone: FRanklin 4-4101
Attn: Wiley Gilkison

**Broad Radio
7231 Central Avenue
St. Petersburg 10
Phone: 72314
Attn: H. G. Palin

**Electronic Wholesalers, Inc.
9390 NW 27th Avenue
Miami 47
Phone: OXFord 6-1620
Attn: Philip Konter

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

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

GEORGIA

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

Specialty Distributing Co., Inc.
763 Juniper St. N.E.
Atlanta 8
Phone: TRinity 3-2521
Attn: J. E. Eaton

HAWAII

**Honolulu Electronics
819 Keeaumoku Street
Honolulu 14
Phone: 995-466
Attn: Thomas Teruya

IDAHO

Robbie's Radio & TV, Inc.
(P. O. Box 5021)
3715 State Street
Boise
Phone: 28892
Attn: W. A. Robinson, Jr.

ILLINOIS

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

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

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

INDIANA

Brown Electronics, Inc.
1032 Broadway
Fort Wayne
Phone: ANthony 3382
Attn: A. A. Brown

Graham Electronics Supply, Inc.
122 S. Senate St.
Indianapolis 4
Phone: MELrose 4-8487
Attn: G. M. Graham/D. A. Hilts/
J. F. Simpson

Radio Distributing Co., Inc.
(P. O. Box 14999)
1212 High St.
South Bend 15
Phone: ATLantic 8-4665
Attn: William A. Davidson

IOWA

Bob and Jack's, Inc.
4507 Forest Avenue
Des Moines 11
Phone: Blackburn 5-0873
Attn: Robert M. Evans/Jack Laundis

Radio Trade Supply Co.
1224 Grand Avenue
Des Moines 9
Phone: ATLantic 8-7237
Attn: Leo Vince Davis/Larry Woolis

World Radio Laboratories, Inc.
(P. O. Box 919)
3415 W. Broadway
Council Bluffs
Phone: 32-81851
Attn: Alan McMillan/Leo Meyerson/
C. H. Williams

KANSAS

The Overton Electric Co., Inc.
522 Jackson Street
Topeka
Phone: CEntral 3-1367
Attn: S. D. Thacher/Frank Thacher

LOUISIANA

**Radio Parts Inc.
1112 Magazine Street
New Orleans 13
Phone: 522-0217
Attn: Irvine J. Levi

MARYLAND

Uncle George's Radio Ham Shack Division
Electronics Distributors, Inc.
11324 Fern Street
Wheaton
Phone: LOKwood 5-2262
Attn: George J. Pasquale

MASSACHUSETTS

DeMambro Radio Supply, Inc.
1095 Commonwealth Avenue
Boston 15
Phone: ALgonquin 4-9000
Attn: Frank DeMambro

Graham Radio, Inc.
505 Main Street
Reading
Phone: 944-4000
Attn: Robert T. Graham, Sr.

Radio Shack Corp.
730 Commonwealth Avenue
Boston 17
Phone: REgency 4-1000
Attn: A. E. Coe

*Two-Way Radio Engineers, Inc.
109-115 Ward Street
Boston
Phone: GARRison 7-3511
Attn: Sherman M. Wolf

MICHIGAN

*Communication Service Company
201 South Lincoln
Charlotte
Phone: 1770-W
Attn: Bart Rypstra

M. N. Duffy & Co.
2040 Grand Avenue W.
Detroit 26
Phone: WOODward 3-2270
Attn: M. N. Duffy/Bill Mains

Purchase Radio Supply
327 E. Hoover Avenue
Ann Arbor
Phone: NORmandy 8-8696/8-8262
Attn: Roy J. Purchase

Radio Supply & Engineering
90 Selden Avenue
Detroit 1
Phone: TEMple 1-3175
Attn: C. N. Houser

Warren Radio Company
1710 South Westnedge
Kalamazoo
Phone: FIREside 2-5720/2-7127
Attn: Frank Smith

MINNESOTA

Lew Bonn Company
1211 LaSalle Avenue
Minneapolis 3
Phone: FEderal 9-6351
Attn: Joe Hotch

**Electronic Center, Inc.
107 3rd Avenue North
Minneapolis 1
Phone: FEderal 8-8678
Attn: Ward Jensen

MISSOURI

Walter Ashe Radio Company
1125 Pine Street
St. Louis 1
Phone: CHEstnut 1-1125
Attn: Joe Novak

Burstein-Applebee Co.
1012-1014 McGee Street
Kansas City 6
Phone: BALtimore 1-1155
Attn: R. H. Friesz/Clyde Fritz

Henry Radio Company
211 North Main
Butler
Phone: ORchard 9-3127
Attn: Bob Henry, Helen DeArmond

NEW HAMPSHIRE

**Evans Radio
(P. O. Box 312)
Bow Junction, Route 3A
Concord
Phone: CApital 5-3358
Attn: Roger Britton

NEW JERSEY

Federated Purchaser, Inc.
1021 U. S. Rt. 22
Mountainside
Phone: ADams 2-8200
Attn: Hal Thorn

12/1/61

**ALSO AUTHORIZED DISTRIBUTOR
*SERVICE AGENCY ONLY

Hudson Radio & Television Corp.
of New Jersey
35 Williams Street
Newark 2
Phone: Market 4-5154
Attn: Joseph Prestia

*Warner Engineering Co., Inc.
239 Lorraine Avenue
Upper Montclair
Phone: Pioneer 6-7900
Attn: Charles K. Atwater

NEW MEXICO

*Simms Communications, Inc.
217 Camino Encantado
Santa Fe
Phone: Yucca 2-9502
Attn: Preston W. Simms

NEW YORK

Adirondack Radio Supply
(P. O. Box 88)
185-191 W. Main St.
Amsterdam
Phone: Victor 2-8350
Attn: Ward Hinkle

Ft. Orange Radio Distributing Co., Inc.
904-16 Broadway
Albany 7
Phone: HEMlock 6-8411
Attn: Harry Miller

Genesee Radio & Parts Co., Inc.
2550 Deleware Avenue
Buffalo 16
Phone: DE 9661
Attn: Martin Feigenbaum

Harrison Radio Corporation
225 Greenwich Street
New York 7
Phone: BARclay 7-7777
Attn: W. E. Harrison/Ben Snyder

Harvey Radio, Inc.
103 W. 43rd Street
New York 18
Phone: JUdson 2-1500
Attn: Harvey Sampson/George Zarrin

NORTH CAROLINA

Dalton-Hege Radio Supply Co., Inc.
938 Burke Street
Winston-Salem
Phone: PARK 5-8711
Attn: Wayne Yelverton

**Freck Radio & Supply Co.
38 Biltmore Avenue
Asheville
Phone: ALpine 3-3631
Attn: T. T. Freck

OHIO

Custom Electronics, Inc.
1918 South Brown Street
Dayton 9
Phone: BALdwin 3-3157
Attn: Richard Sauer/Jim Shupe

Pioneer Electronic Supply Co.
5403 Prospect Avenue
Cleveland 3
Phone: 432-0010
Attn: J. Fred Ohman/Herb Farr

Selectronic Supplies, Inc.
3185 Bellevue Road
Toledo 6
Phone: GReenwood 4-5477
Attn: Glenn Ingersoll

Steinberg's Inc.
633 Walnut Street
Cincinnati 2
Phone: CHerry 1-1880
Attn: Jule Burnett

**Universal Service
114 N. Third Street
Columbus 15
Phone: CApitol 1-2335
Attn: Francis R. Gibb

OKLAHOMA

Radio, Inc.
1000 South Main Street
Tulsa 19
Phone: LU 7-9124
Attn: E. R. Durham

OREGON

Portland Radio Supply Co.
1234 S. W. Stark Street
Portland 5
Phone: CApitol 8-8647
Attn: C. B. Lucas

PENNSYLVANIA

Cameradio Company
1121 Penn Avenue
Pittsburgh 22
Phone: EXpress 1-4000
Attn: Harry Kaplin

Radio Electric Service Company
of Pa., Inc.
N. W. cor. 75th & Arch Sts.
Philadelphia 6
Phone: WALnut 5-5840
Attn: Edward Miller

RHODE ISLAND

W. H. Edwards Company
116 Hartford Avenue
Providence 9
Phone: GASpee 1-6158
Attn: Sal Infantolino

SOUTH CAROLINA

Dixie Radio Supply
1900 Barnwell Street
Columbia
Phone: ALpine 3-5333
Attn: B. W. Krell

Wholesale Radio Supply Co.
(P. O. Box 2223)
515 East Bay St.
Charleston
Phone: RA 22634
Attn: Irving Sonenshine

SOUTH DAKOTA

Burghardt Radio Supply
(P. O. Box 746)
621 4th Street S. E.
Watertown
Phone: TUrner 6-5749
Attn: Stan Burghardt/Al Hodgkin

TENNESSEE

Electra Distributing Company
1914 West End Avenue
Nashville 4
Phone: ALpine 5-8444
Attn: Richard B. Harris

W. & W. Distributing Company
(P. O. Box 436)
644-646 Madison Avenue
Memphis
Phone: JACkson 7-4628
Attn: Mrs. S. D. Wooten, Jr.

TEXAS

All-State Electronics, Inc.
2411 Ross Avenue
Dallas 1
Phone: RI 1-3281
Attn: Walter Clayton/J. Howard Klein

Amateur Electronics, Inc.
2802 Ross Avenue
Dallas
Phone: RIVERSide 8-9198
Attn: Walter L. Jackson

**Busacker Electronic Equipment
Company, Inc.
(P. O. Box 13204)
1216 W. Clay Street
Houston 19
Phone: JACKson 6-2578
Attn: Garth L. Johnson

*Communications Service, Inc.
3209 Canton Street
Dallas 26
Phone: RIVERSide 7-1852
Attn: Cecil A. White, Jr.

Crabtree's Wholesale Radio
2608 Ross Avenue
Dallas
Phone: RIVERSide 8-5361
Attn: R. B. Bryan/Russell Manship

Electronic Equipment & Engineering Co.
(P. O. Box 3687)
805 South Staples Street
Corpus Christi
Phone: TUlip 3-9271
Attn: R. N. Douglas

Hargis-Austin, Inc.
(P. O. Box 716)
410 Baylor Street
Austin
Phone: GReenwood 8-6618
Attn: Mrs. Paul Hargis Joe Fooshe

**Howard Radio Company
1475 Pine Street
Abilene
Phone: ORchard 2-9501
Attn: R. L. Howard

McNicol, Inc.
811 North Estrella Street
El Paso
Phone: LO 6-2936
Attn: C. C. McNicol

Radio & Television Parts Co.
1828 N. Saint Mary's St.
San Antonio 12
Phone: CApitol 6-5329
Attn: Charlie Hildebrand

WASHINGTON

*C & G Radio Electronics Co.
2502-6 Jefferson Avenue
Tacoma 2
Phone: BRoadway 2-3181
Attn: Lloyd Norberg

C & G Radio Electronics Co.
2221 Third Avenue
Seattle 1
Phone: MAin 4-4355
Attn: Dennis Ranier

Northwest Electronics Distributors
East 730 First Avenue
Spokane 3
Phone: KE 4-2644
Attn: J. P. McGoldrick

Pringle Radio Wholesale Company
2101 Colby
Everett
Phone: ALpine 2-6303
Attn: M. U. Baker

WISCONSIN

Amateur Electronic Supply
3832 West Lisbon Avenue
Milwaukee 8
Phone: WESt 3-3262
Attn: Steve Potyandy/Terry Sterman

Harris Radio Corporation
289 North Main Street
Fond du Lac
Phone: WALnut 2-4670
Attn: Terry Sterman/Harris E. Sterman

Satterfield Electronics, Inc.
1900 South Park Street
Madison 5
Phone: ALpine 7-4801
Attn: A. W. Satterfield/W. E. Uhalt

COLLINS AUTHORIZED SERVICE AGENCIES

ALABAMA

*Beddow Engineering Services
2424 Tenth Avenue South
Birmingham
Phone: ALpine 1-7582
Attn: Dr. C. P. Beddow

ARIZONA

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(P. O. Box 3647)
140 South 2nd St.
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Phone: ALpine 2-1743
Attn: Herman A. Middleton

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999 Howard Avenue
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Phone: DIAMond 2-5757
Attn: Dan Rodriguez

*Communication Receiver Service
5016 Maplewood
Los Angeles 4
Phone: HOLlywood 2-2429
Attn: Charles C. Messman

**Henry Radio Co., Inc.
(P. O. Box 64398)
11240 W. Olympic Blvd.
Los Angeles 64
Phone: GRANite 7-6701
Attn: Ted Henry

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Phone: FRanklin 4-4101
Attn: Wiley Gilkison

**Broad Radio
7231 Central Avenue
St. Petersburg 10
Phone: 72314
Attn: H. G. Palin

**Electronic Wholesalers, Inc.
9290 N. W. 27th Avenue
Miami 47
Phone: OXFord 6-1620
Attn: Philip Konter

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

HAWAII

**Honolulu Electronics
819 Keaamoku Street
Honolulu 14
Phone: 995-466
Attn: Thomas Teruya

LOUISIANA

**Radio Parts, Inc.
1112 Magazine Street
New Orleans 13
Phone: 522-0217
Attn: Irvine J. Levi

MASSACHUSETTS

*Two-Way Radio Engineers, Inc.
109-115 Ward Street
Boston
Phone: GARRison 7-3511
Attn: Sherman M. Wolf

MICHIGAN

*Communication Service Company
201 South Lincoln
Charlotte
Phone: 1770-W
Attn: Bart Rypstra

MINNESOTA

**Electronic Center, Inc.
107 Third Avenue North
Minneapolis 1
Phone: FEderal 8-8678
Attn: Ward Jensen

NEW HAMPSHIRE

**Evans Radio
(P. O. Box 312)
Bow Junction, Route 3A
Concord
Phone: CApitol 5-3358
Attn: Roger Britton

NEW JERSEY

*Warner Engineering Co., Inc.
239 Lorraine Avenue
Upper Montclair
Phone: Pioneer 6-7900
Attn: Charles K. Atwater

NEW MEXICO

*Simms Communication, Inc.
217 Camino Encantado
Santa Fe
Phone: YUCCA 2-9502
Attn: Preston W. Simms

NORTH CAROLINA

**Freck Radio & Supply Co.
Biltmore Avenue
Asheville
Phone: ALpine 3-3631
Attn: T. T. Freck

OHIO

**Universal Service
114 North Third Street
Columbus 15
Phone: CApitol 1-2335
Attn: Francis R. Gibb

TEXAS

**Busacker Electronic Equipment
Company, Inc.
(P. O. Box 13204)
1216 W. Clay Street
Houston 19
Phone: JACKson 6-2578
Attn: Garth L. Johnson

*Communications Service, Inc.
3209 Canton Street
Dallas 26
Phone: RIVERSide 7-1852
Attn: Cecil A. White, Jr.

**Howard Radio Company
1475 Pine Street
Abilene
Phone: ORchard 2-9501
Attn: R. L. Howard

WASHINGTON

*C & G Radio Electronics Co.
2502-6 Jefferson Avenue
Tacoma 2
Phone: BRoadway 2-3181
Attn: Lloyd Norberg

**ALSO AUTHORIZED DISTRIBUTOR
*SERVICE AGENCY ONLY



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1.3.2. POWER SUPPLIES.

The power supply portion of the KWS-1 includes a high and low voltage supply in the single cabinet. The high voltage Power Supply consists of two single phase, full wave rectifiers and filter networks for supplying voltages to the plates and screen grids of the Power Amplifier. Also included in the high voltage supply are suitable interlocks for safety purposes, a primary switch, overload fuses and a plate contactor. The low voltage Power Supply provides all operating voltages for the exciter portion.

On cw operation, the high voltage is ON and a grid-block system of bias is used to cut off the r-f excitation to the Power Amplifier. On phone operation, the push-to-talk switch on the microphone, or the voice operate (VOX) system, controls the application of operating voltages by the carrier control relay action. Thus, actual transmitting occurs only when the cw key is depressed on CW, when the operator is talking on SSB or when the push-to-talk switch is operated.

1.4. REFERENCE DATA.

Power Source: 115 or 230 volts ac, 50/60 cycles, single phase.

Power Input Requirements: The maximum overall input power requirement is 1500 watts.

PA Plate Power Input: The nominal rated power input is 1000 watts peak envelope power.

Distortion: Third order distortion is down more than 35 decibels with tone frequencies of 900 and 2500 cps.

Frequency Range:

Band (Meters)	Range (Mc)
80	3.0 to 4.0
40	7.0 to 7.3
20	14.0 to 15.0
15	20.5 to 21.5
11	26.4 to 27.4
10	28.0 to 29.0
10	29.0 to 30.0

Calibration: Direct reading in kilocycles on linear scale.

Dial Accuracy: Within 200 cps.

Frequency Stability:

Warmup: 5 minutes, not more than 1000 cps.
10 minutes, not more than 500 cps.

Normal Operation: After 20 minutes, within 300 cps of starting frequency.
After 30 minutes, within 100 cps over 10-minute period.

Audio Frequency Response: Within plus or minus three decibels from 200 to 2900 cps.

Carrier Suppression: Not less than fifty decibels.

Undesired Sideband Suppression: Not less than fifty decibels.

Spurious Radiation: At least 35 decibels down.

Impedance of Microphone Input: High impedance.

Impedance of Antenna Connection: 52 ohms.
(See section VIII of this book for suggested antennas.)

Impedance of Phone Patch Connection: 600 ohms

Signal Level of Phone Patch: 0.1 volt.

Finish: St James grey wrinkle.

1-5. MODIFICATION FOR CANADA.

Equipments sold in Canada are modified to meet Canadian Department of Transport Power Regulations as follows: Final plate voltage reduced to 1500-V; Final screen voltage reduced to 300-V. This allows the transmitter to be operated at 700 watts input. This modification must not be changed.

1-6. TUBE COMPLEMENT.

Quantity	Tube Type	Reference	Function
1	5749	V001	VFO
1	12AT7	V101	Audio Amplifier
1	12AT7	V102	Audio Output/Squelch Amplifier
1	12AT7	V103	VOX Amplifier/Relay Amplifier
1	12AT7	V104	Low Freq. (250 kc) Oscillator/Amplifier
2	OB2	V105, 106	Voltage Regulators
1	6AL5	V107	VOX and Squelch Rectifiers
1	3TF4A	RT101	Filament Regulator
1	12AT7	V201	First Mixer
4	6BA6	V202, 203, 209	1st, 2nd and 3rd Amplifiers
1	12AT7	V204	Second Mixer
2	6CL6	V206, 207	Drivers
1	6AU6	V208	Crystal Oscillator
2	4X250B	V401, 402	Final Amplifiers
1	6AL5	V403	Automatic Load Control Rectifier
1	6AN5	V205	4th Amplifier
2	866A	V501, 502	Rectifiers, PA plate voltage
1	5Y3-GT	V503	Rectifier, PA screen voltage
1	6AS7-G	V504	Voltage Regulator, PA screen voltage
1	12AX7	V505	Voltage Regulator, PA screen voltage
1	OB2	V506	Voltage Regulator, PA screen voltage
1	5U4-GB	V508	Voltage Rectifier, low voltage
1	6AL5	V509	Bias Rectifier
1	2D21	V507	PA Screen Protect

1-7. ACCESSORIES (Not Supplied).

- | | |
|---|--|
| <p>312A-1 Speaker Control. Provides space for mounting beam direction indicator, clock, etc., and includes a 10-inch speaker for receiver output.</p> <p>020 0186 00 Microphone assembly with push-to-talk stand.</p> | <p>020 0187 00 Microphone assembly with plain stand.</p> <p>522 0649 00 Model 302C-1 Directional Wattmeter</p> <p>522 0475 00 Model SC-101 Station Control System</p> <p>Telegraph Key</p> |
|---|--|