

# Westinghouse

RADIO APPARATUS

## AERIOLA SR. RECEIVER

Type 21F Style 31554



including items  
A B C D

- 1 Erect Antenna, as explained in instructions included with Type AD Antenna Outfit.
- 2 Turn Rheostat as far as it will go toward full of screw.
- 3 Connect head phones as shown.
- 4 Connect to positive (middle) terminal of 22 1/2 volt dry cell.
- 5 Connect wire between this post and ground side of 22 1/2 volt dry battery.
- 6 Connect to positive terminal marked + of 22 1/2 volt dry battery.
- 7 Connect antenna wire from Protective Device to terminal marked for amateur and broadcasting stations below 250 meters. Do not run closer than 1 foot to ground wire.
- 8 Connect antenna wire to this terminal for stations between 300 and 500 meters.
- 9 Insert Type WD-11 Aeriola Tube. Note holes in base which receive tuning or tickler prongs; register with holes and then press in. Turn Rheostat (2) toward point of screw marked dull red. Do not try to burn tube brightly as it will deteriorate.
- 10 Place Ticker pointer on 0 point of scale.
- 11 Move tuning handle slowly over wide band of time in hand set for signals. Adjust to best position and increase Ticker (10) until maximum strength of signal is obtained. If Ticker is turned too far toward maximum, signals will lose their character; time and reception of telephone signals will be very difficult.

WESTINGHOUSE ELECTRIC & MANUFACTURING CO.  
EAST SPRINGFIELD, MASS.

**EVERYMAN RADIOPHONE RECEIVER**  
Type DT-600

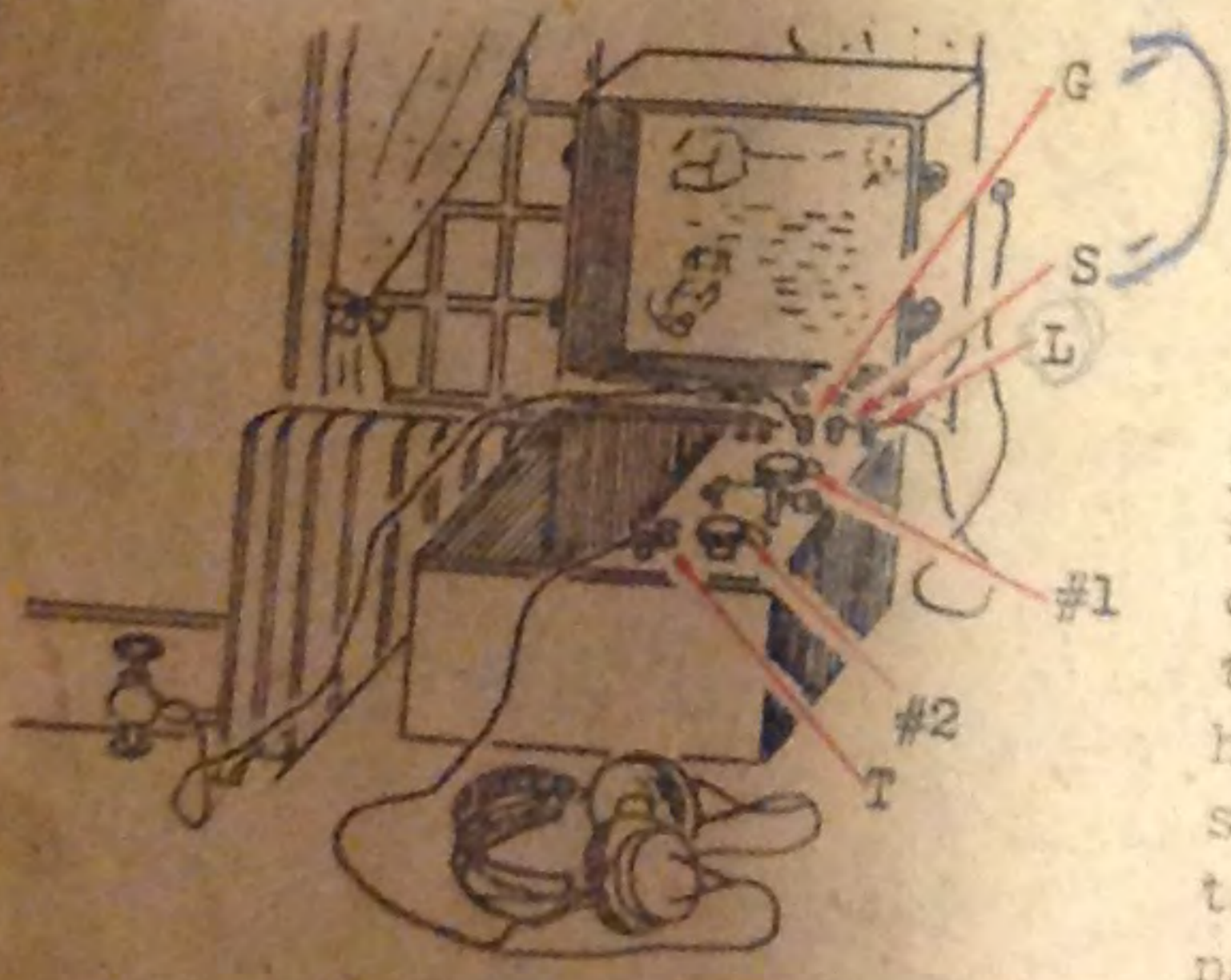


Screw eye  
Clothes line or wire  
Antenna  
Goose-egg insulator  
Lead-in

Porcelain bushing  
Lightning arrester  
Lightning ground

**ANTENNA AND GROUND:** Suspend a single wire #14 bare copper 100 ft. long at least 30 ft. high from the ground with insulator at both ends, which should be kept at least one foot away from points of support. In apartment houses suspend wire from chimney to chimney or from clothes poles. Attach "lead-in wire" to the suspended antenna wire (between the two insulators) at the end. Bring "lead-in wire" down to top stud of "lightning arrester" mounted in convenient place, such as window frame or side of house, and continue the same thru a porcelain bushing inside house. "Lead-in wire" should not touch any part of house. Connect bottom stud of "lightning arrester" to "lightning ground" outside of house, such as waterpipe or metal plate buried in the ground.

**INSTALLATION:** Set up instrument on table or any convenient place near window. Connect antenna "lead-in wire" to binding post marked "S". Connect a wire from binding post "G" to waterpipe or radiator, thus forming your inside "receiving ground". To ensure good contact clean pipe with file or sandpaper before attaching ground clamp. Attach head telephones to binding posts marked "T". The set is now ready for operation.



**OPERATION:** Set pointer of knob #2 in middle of scale. Turn knob #1 (wave length control) slowly over the scale and try different points of contact on crystal at the same time until signal is heard. Then readjust knob #2 for greater signal strength. After this do not disturb or let crystal detector adjustment. For reception of signals on longer wave lengths than 700 meters, a plug mounting is provided for increasing the wave length range by means of plugging in dual lateral coils. When using Dual lateral coils for these longer wave lengths disconnect antenna "lead-in wire" from post "S" and connect to post "L". Then turn knob #2 over to the knob #1 for wave length adjustment.



NATIONAL RADIO INSTITUTE  
WASHINGTON, D.C.



TRANSISTOR  
POWER

RELEASE

ON — PULL — OFF — PUSH —

VOLTAGE

VOLTS — MA — 10 MA — 100 MA

FUNCTION — METER — RANGE

(+) RED

BLACK



LO  
M  
HI



MODEL  
BN

# CAPACITOR BRIDGE

SERIAL



PAT-  
ENTED 1



OPEN

SHORT

VOLTS

110

60

CORNELL-DUBILIER ELECT. CORP.  
SO. PLAINFIELD, N.J., U.S.A.





# CONAR COLOR GENERATOR

INTEGRATED CIRCUIT

MODEL 980

SOUND

PATTERN

POWER

CROSSHATCH  
DOTS

HORIZONTAL

VERTICAL  
COLD

PATTERN

NORMAL

MIN

MAX

RED

OFF

ON

BLUE

OFF

ON

GREEN

OFF

ON

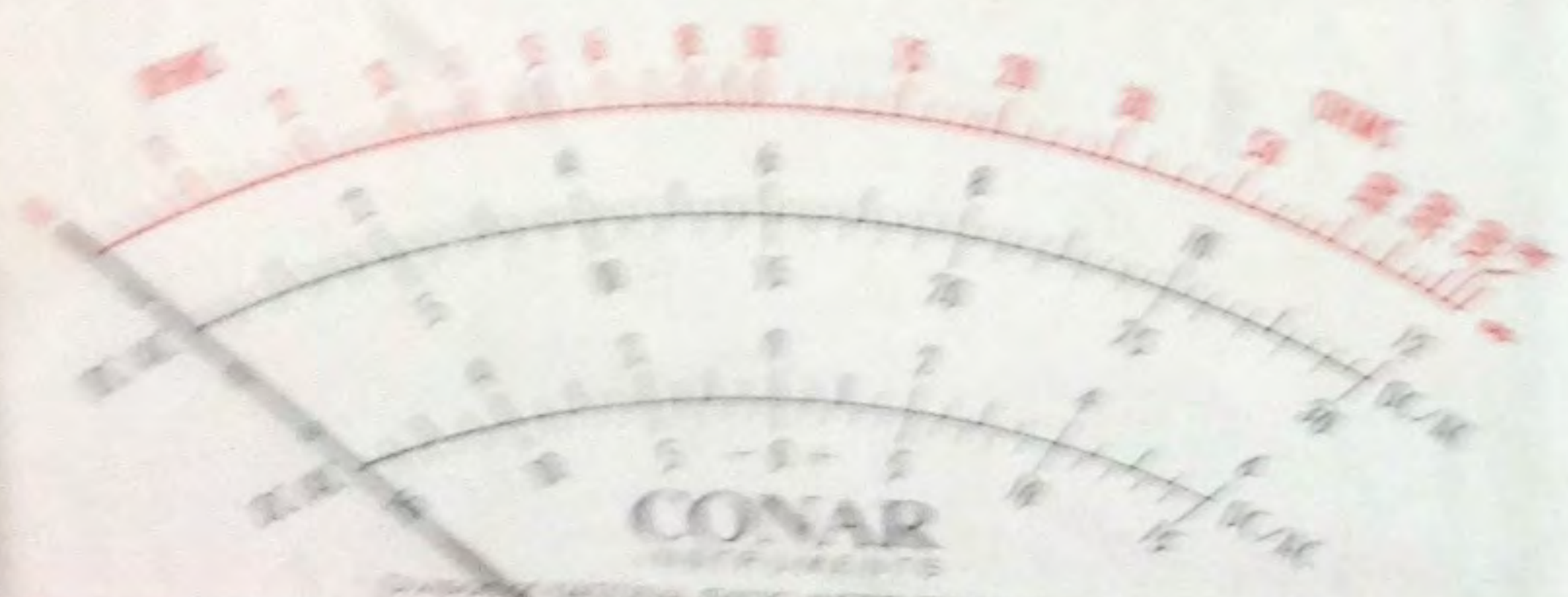
DIVISION OF NRI - WASH. D.C.



1879  
EDISON LAMP REPLICA 1979



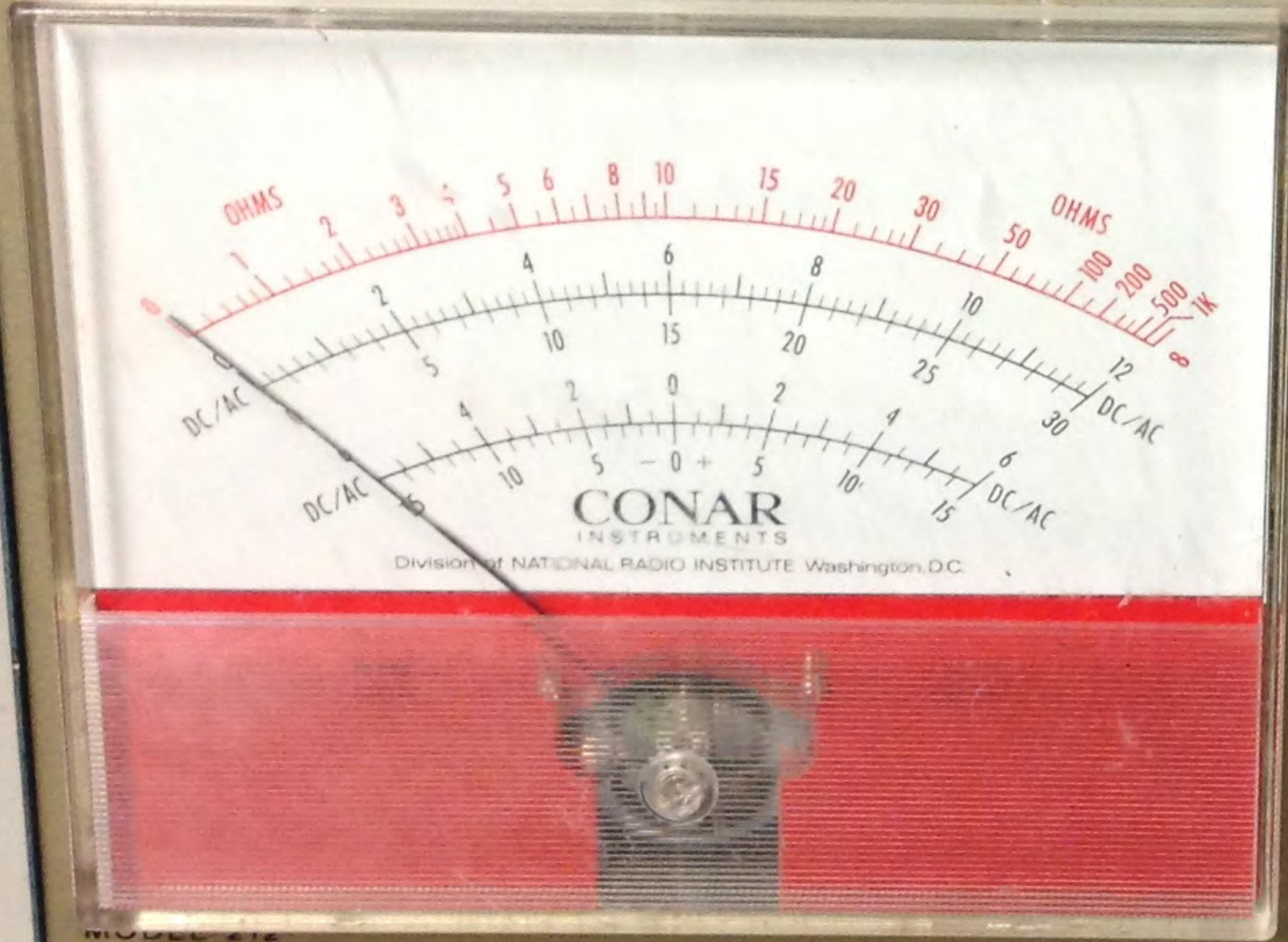
W. W. W. W. W.



12V X100  
3V X10  
1.2V X1  
20K  
20K X10  
20K X100  
20K X1000  
20  
20K X1000

ZERO CONAR

NORM REV OFF ON



The control panel includes the following components:

- Left Rotary Switch:** Controls the voltage range. Labels include:
  - 3V X10
  - 12V X100
  - 30V X1K
  - 120V X10K
  - 300V X100K
  - 1200V X1MEG
- Right Rotary Switch:** Controls the mode. Labels include:
  - AC
  - DC
  - OHMS
- Zero Control:** A small rotary knob labeled "ZERO".
- Ohms Control:** A small rotary knob labeled "OHMS".
- Indicators:** Four small indicators labeled "NORM.", "REV.", "OFF", and "ON".

MODEL 512



**CONAR**  
INSTRUMENTS

Division of NATIONAL RADIO INSTITUTE Washington, D.C.

30V X1K  
12V X100  
3V X10  
120V X10K  
300V X100K  
1200V X1MEG  
AC  
DC  
OHMS

ZERO  
OHMS

NORM. REV. OFF ON

MODEL 212



DIVISION OF **CONAR** instruments  
NATIONAL RADIO INSTITUTE



**Model 211**



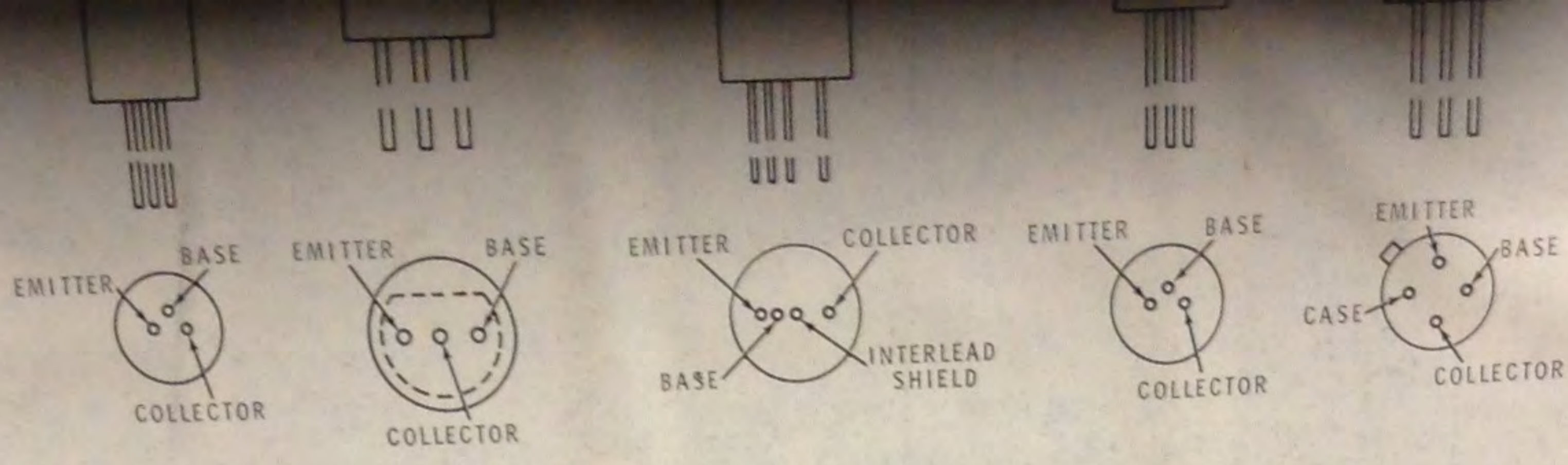




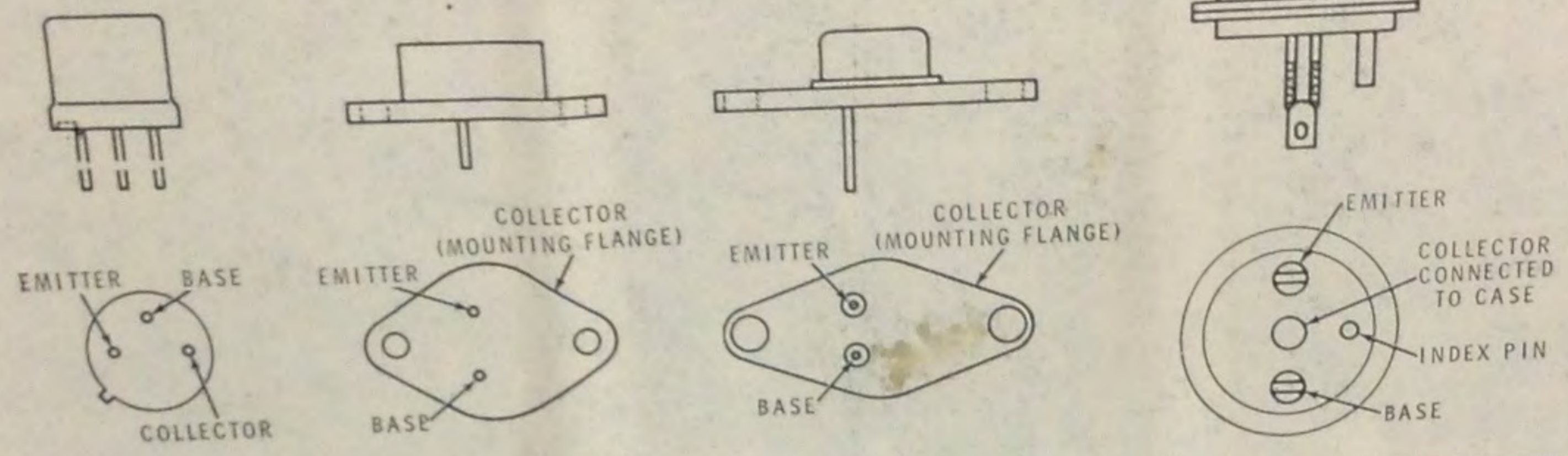








W-E  
R-C  
G-B



390-235



BETA CAL.      NPN      OFF      PNP

BETA

$I_{CEO}$        $I_{CBO}$

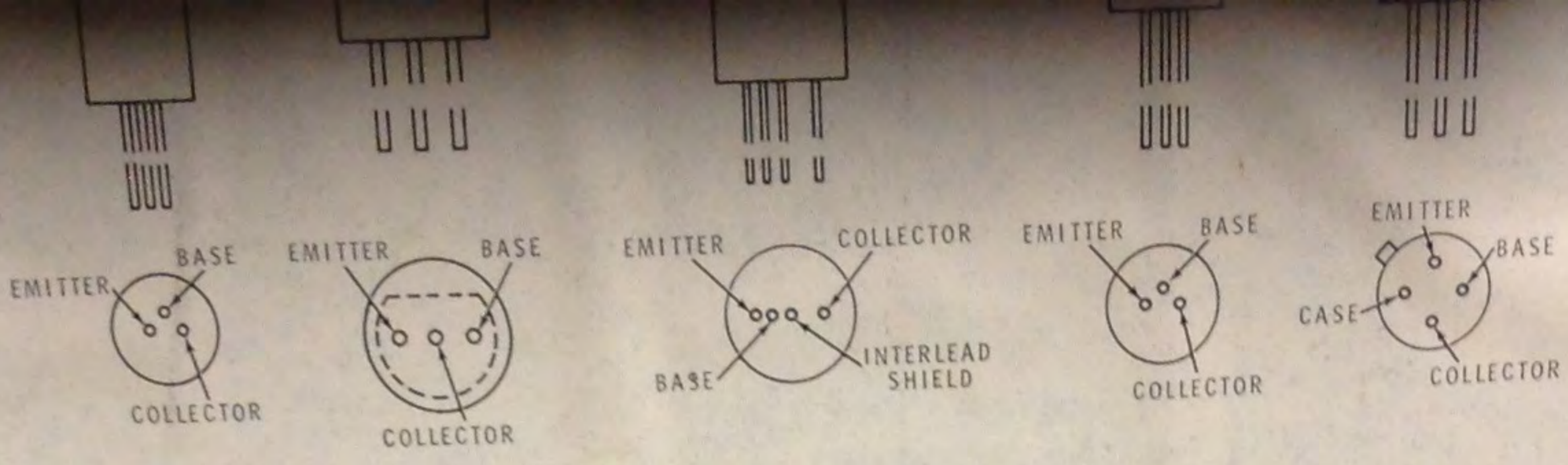
X1      BETA      X10

E WHT.  
B GRN.  
C RED

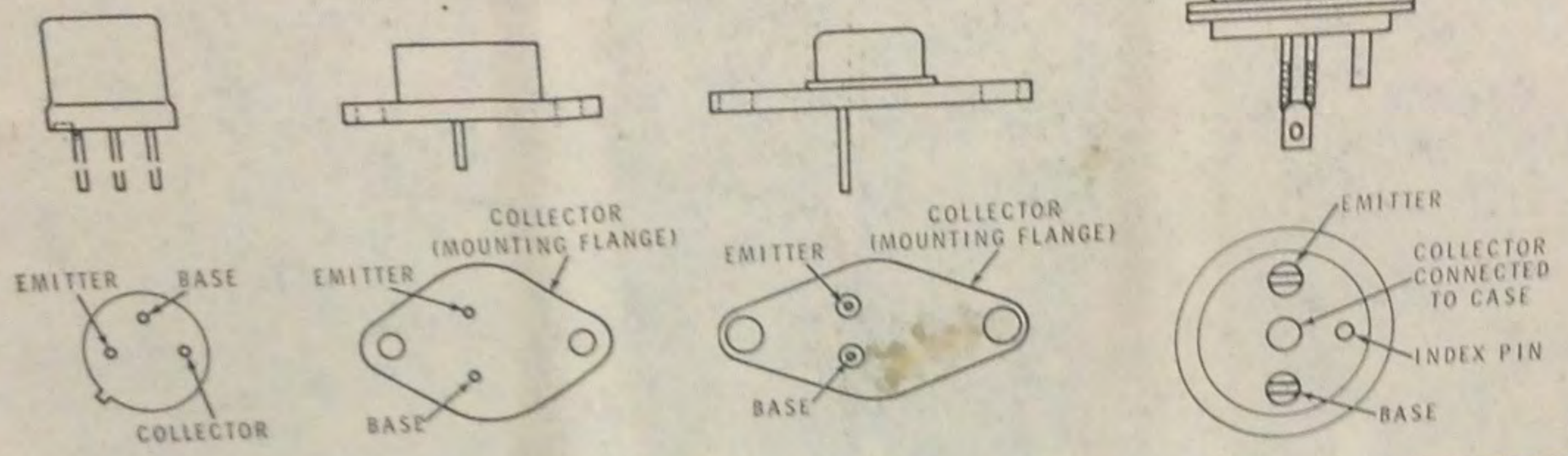
CAL.      TEST

MODEL 1718





W-E  
R-C  
G-B



390-235



BETA CAL.      NPN      OFF      PNP

BETA

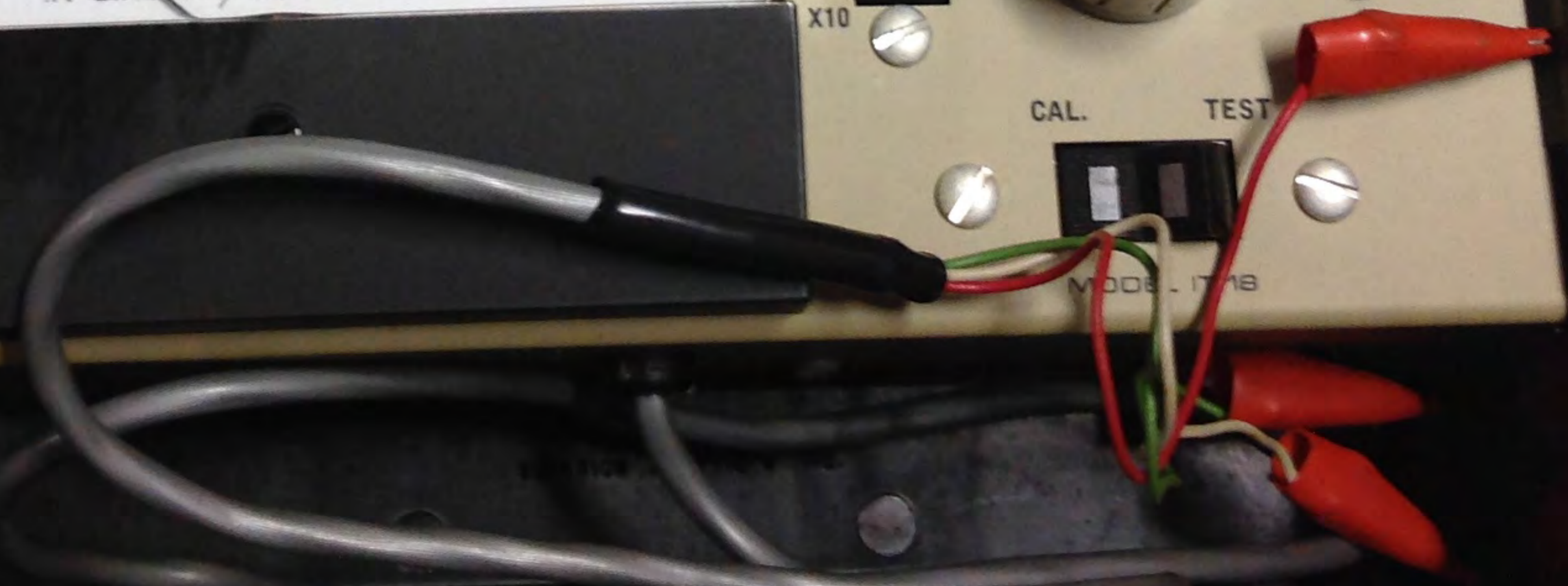
$I_{CEO}$        $I_{CBO}$

X1      BETA      X10

E WHT.  
B GRN.  
C RED

CAL.      TEST

MODEL 1718







Jewell Electrical Instrument Company

CHICAGO - ILLINOIS

Made in U. S. A.

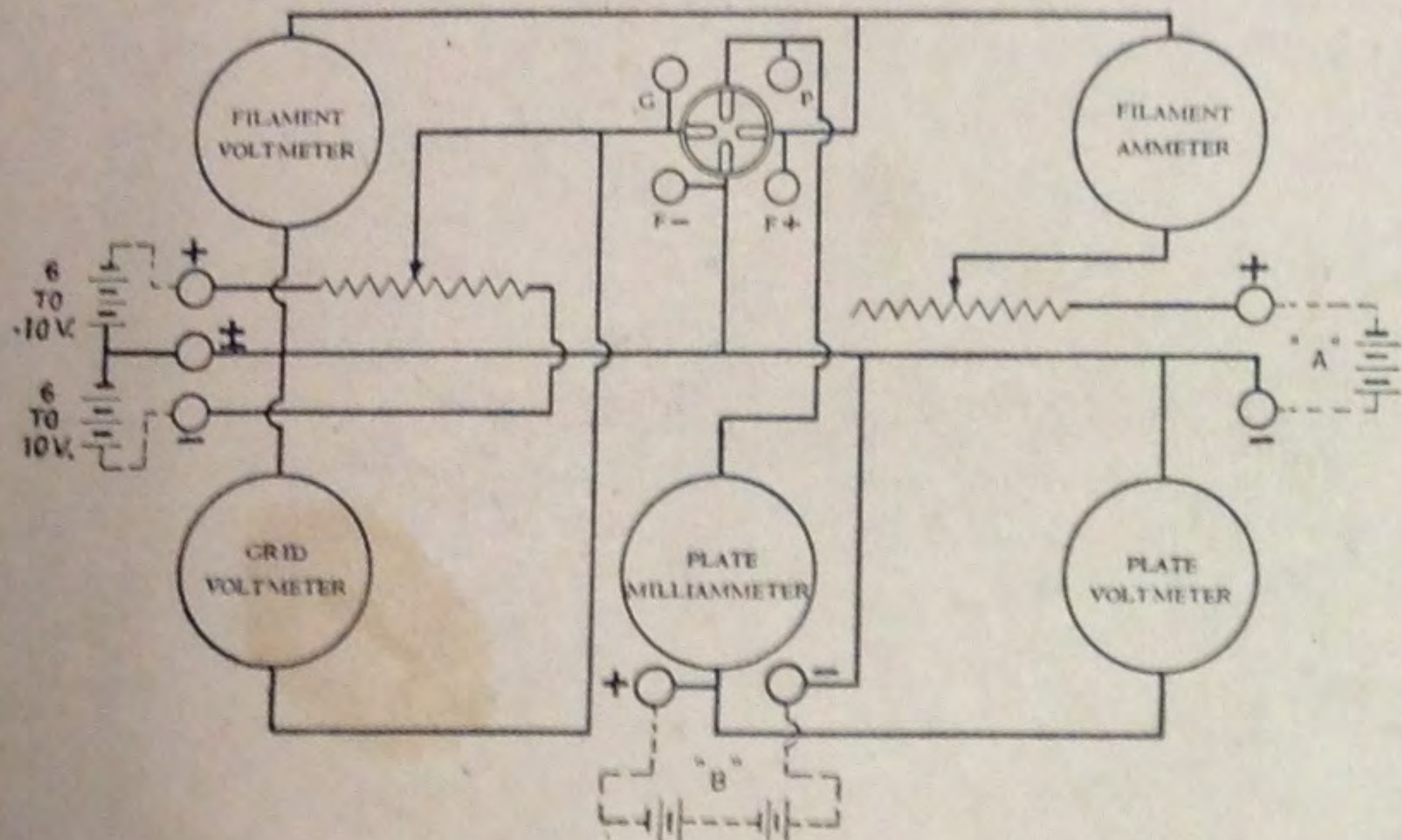




# JEWELL RADIO TEST SET

PATTERN No. 95

SERIAL No. 416499



The many tests possible with this instrument, such as the taking of vacuum tube characteristics and characteristic curves, resistance measurements of receivers, transformers, grid leaks and the like, as well as battery voltage tests, are fully described in the instruction leaflet. A pad of cross-section paper for plotting the characteristic curves of vacuum tubes is enclosed with this instrument.

The diagram shows the internal connections. To take "A" battery voltage only, connect to the two right hand posts, and the full voltage will be indicated on the filament voltmeter. To test a "B" battery, connect to the two bottom posts and the voltage will be shown on the plate voltmeter.

This instrument is guaranteed to be free from defects in workmanship and material for a period of one year from date of sale.

Each of the instruments is further guaranteed to be correct within 2% of full scale deflection at 25° Centigrade.

Tested Oct. 4, 1924

By [Signature]

Approved John H. Miller  
In Charge of Standardization.

[Signature]

Jewell Electrical Instrument Company

CHICAGO - ILLINOIS

Made in U. S. A.





POWER  
OFF ON

AVC  
OFF ON

ANE  
OFF ON

PHONE

BAND SPREAD

ANTENNA

BAND SELECTOR

VOLUME

SENSITIVITY

TUNE



**k** *knigh* Star Roamer

ALLIED RADIO CORPORATION • CHICAGO



AC DC

1 2 3 4 5 6 7 8 9

600MA 120MA  
 600V 30MA  
 300V 3MA  
 60V 300Ω  
 12V 300Ω  
 3V 30MEGΩ

SHORT INDICATOR

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

20 25 30 35 40 45 50

20 25 30 35 40 45 50

1 2 3 4 5 6 7 8 9 10 11 12

LINE ADJUSTMENT

100 AMPERES

NOISE TEST

MICROAMPS  
 +60 +300

6000V AC 6000V DC 1200V EXT. TEST

BATTERY TEST

OFF FILAMENT CONTINUITY A B C D E F G H I READ METER TUBE MERIT

SUPER-SENSITIVE TESTER - 10,000 OHMS PER VOLT D.C.

TUBE	SECTION	A	B	C	D	E	F	DEPRESS
650	diode-2	1	2	3	4	5	6	
	triode-1	7	8	9	10	11	12	
	triode-2	13	14	15	16	17	18	

**SERIES 954 ELECTRONAMIC TUBE AND SET TESTER**  
 PRECISION APPARATUS COMPANY, BROOKLYN, N.Y., U.S.A.



RESISTIVE TESTER - 20,000 OHMS PER VOLT D.C.

SERIES 754 ELECTRONIC TUBE AND SET TESTER  
PRECISION ELECTRONICS COMPANY, CHICAGO, ILL. U.S.A.

Handwritten note on a small piece of paper attached to the bottom right of the case.













DUAL



h

FOCUS

FRAME

270

VOLUME

0  
1

20  
105  
90  
80

Z E N I T H

LESTER



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20

20  
105  
90  
80

Z E N I T H

LITTON



OHMS  
RX 1K  
RX 100  
RX 1  
100  
10  
1  
1200  
3000  
6000  
9000  
V-O-A







**CONAR**  
*instruments*

DIVISION OF NATIONAL RADIO INSTITUTE



NULL  
INDICATOR



R. C. TESTER  
MODEL 311



LEAKAGE TEST VOLTAGE



POWER FACTOR



**CONAR**  
*instruments*

DIVISION OF NATIONAL RADIO INSTITUTE



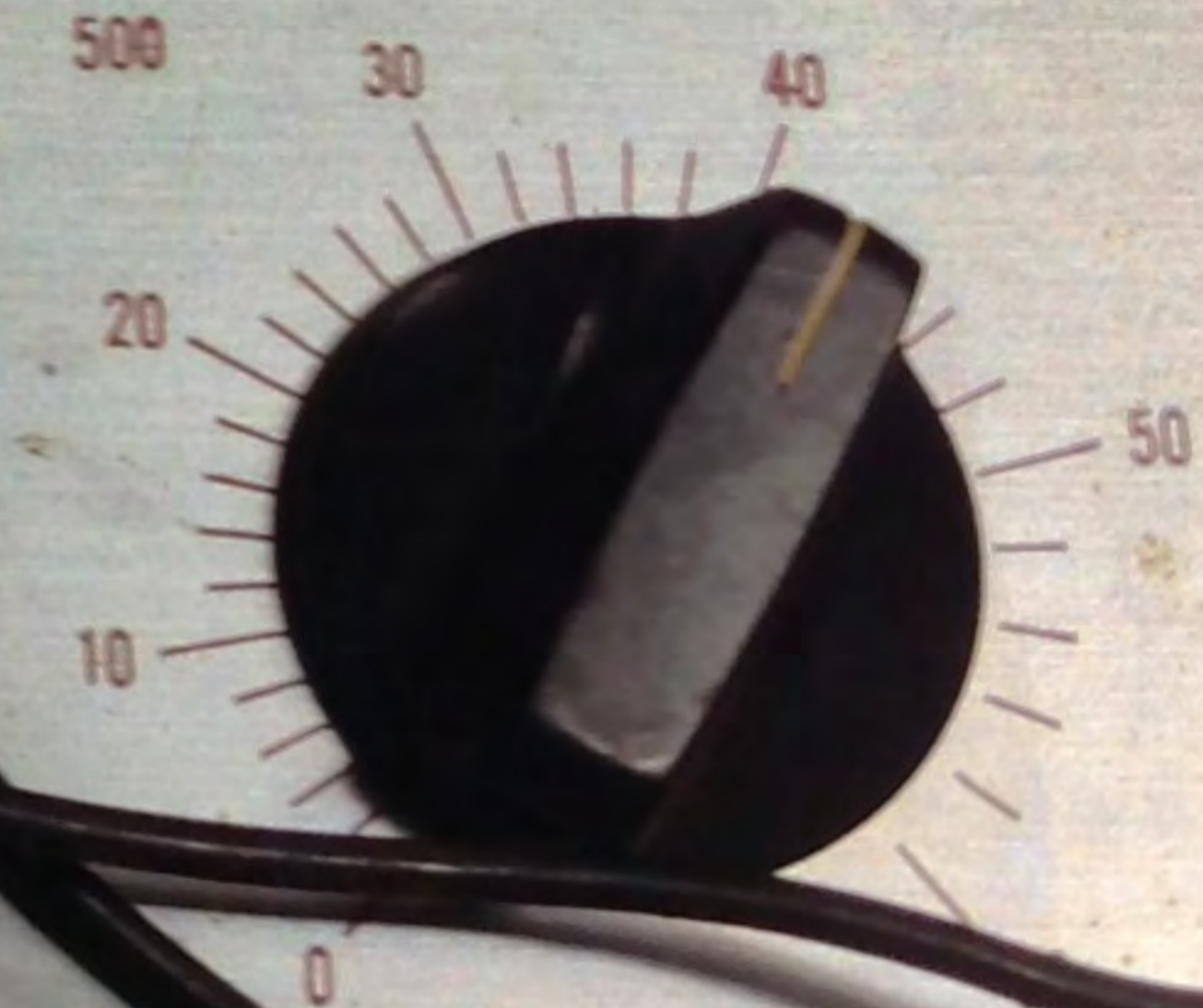
NULL  
INDICATOR



R. C. TESTER  
MODEL 311



LEAKAGE TEST VOLTAGE



%  
POWER FACTOR





ADJUST LINE  
OFF

FIL-CONT SHORTS AND LEAKAGE

PRESS TO READ METER

A  
2  
3  
4

TUBE	A	B	C	D	CATH. SHORTS	TEST
6BY6	s 3	8 3	16	2		1-6
6BY7	s 3	8 3	16			1-5-6-7
6BY7	2	8 4	14	1-3		2-7-8
6BY7—Must show short on 1-3—Cathode short test—Throw 1-3 together						
6BY8	pe 3	8 4	16	9		1-2-7-8
6DZ4						1-7 & 2-6
6DY7	pe 2	8 2	16	8		5-6
6DX8	t 2	8 4	14	3		1-2
6DW5	pe 2	8 4	14	7		6-8-9
6DW5	pe 2	8 4	14	7		1-3-6-9
33GT7	pe 3	12 7	14	8		9-11-10-5
33GT7	pe 3	12 7	14	8		9-11
33GY7	di 4	12 7	12	4		2
33GY7	pe 3	12 7	14	8		5-9-10-11
33GY7	pe 3	12 7	14	8		9-10
33JV6	pe 3	14 12	14	2		3-4-7-10-11

**CONAR** instruments  
MODEL 223 TUBE TESTER

B  
9  
8  
7  
6  
5  
4  
3  
2  
1

C  
1 2 3 4 5 6 7 8 9 10 11 12  
TEST  
NORMAL

D  
40  
30  
20  
10  
0  
50  
60  
70  
80  
90  
100

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ADJUST LINE

OFF

FIL-CONT SHORTS AND LEAKAGE

PRESS TO READ METER

A

1 2 3 4

TUBE	A	B	C	D	CATH. SHORTS	TEST
6BY6	s3	83	16	2	1-6	1-6
6BY7	s3	83	16	2	1-5-6-7	2-7-8
6BY7	2	84	14	1-3	1-3	1-3
6BY7—Must show short on 1-3—Cathode short test—Throw 1-3 together						
6BY8	pe3	84	16	9	1-2-7-8	1-2-7-8
6DZ4	3	84	16	8	1-7 & 2-6	5-6
6DY7	pe2	82	16	8	1-3	1-3
6DX8	t2	84	14	3	1-2	1-2
6DX8	pe2	84	14	7	6-8-9	6-8-9
6DW5	2	84	14	7	1-3-6-9	1-3-6-9
33GT7	d14	127	12	4	9-11	9-11-10-5
33GT7	pe3	127	14	8	9-11	9-11-10-5
33GT7	d14	127	12	4	9-11	9-11-10-5
33GY7	pe3	127	14	8	5-9-10-11	5-9-10-11
33GY7	d14	127	12	4	9-10	9-10
33JV6	pe3	1412	14	2	3-4-7-10-11	3-4-7-10-11

CONAR instruments MODEL 223 TUBE TESTER

B

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

C

1 2 3 4 5 6 7 8 9 10 11 12

TEST

NORMAL

D

0 10 20 30 40 50 60 70 80 90 100

DIVISION OF NRI, WASHINGTON, D. C.









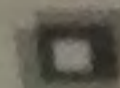


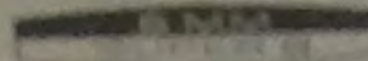






REWIND POSITION

 BELL & HOWELL

COMPATIBLE  8MM AUTOLOAD

OFF MOTOR LAMP

SUPER 8

8 MM

Bell & Howell

COMPATIBLE  8MM AUTOLOAD

REWIND  
POSITION

 **BELL & HOWELL**  
COMPATIBLE  **8 MM** AUTOLOAD

OFF  LAMP **SUPER 8**  
**Bell & Howell**  
COMPATIBLE  **8 MM** AUTOLOAD

8342

B  
SPECIAL 2.3 2.5 3.0 3.5 4.0 5.0  
A  
STANDARD 55 60 70 80 100  
C  
PORT WINE 9.3 9.5 10 11  
RC



