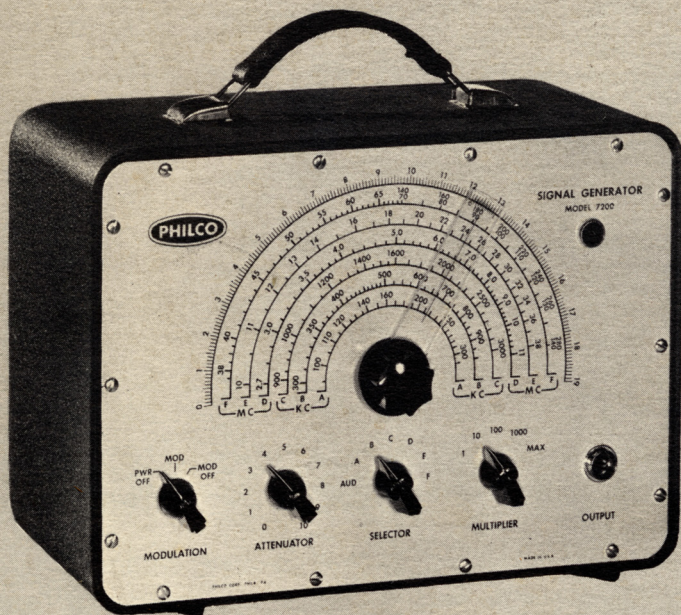


OPERATING INSTRUCTIONS PHILCO® RF SIGNAL GENERATOR MODEL 7200



LOOK AHEAD...
and you'll choose PHILCO

SPECIFICATIONS

- RF Calibration:* 100 KC to 280 MC $\pm 1\%$
- Band Coverage:* A—100 KC to 300 KC
B—300 KC to 900 KC
C—900 KC to 3000 KC
D—2.7 MC to 11 MC
E—10 MC to 38 MC
F—38 MC to 140 MC
“F” band calibration includes second harmonic markings from 140 MC to 280 MC.
- Audio Output:* 400 c.p.s. Maximum audio output at least 3 volts peak-to-peak.
- Power Requirement:* 110-120 volts AC, 25 watts.
- RF Output Circuit:* Shielded 70 ohm multiplier isolated by cathode follower.
- Tube Complement:* 1—6BZ7 RF Oscillator — Cathode Follower
1—6C4 Modulator
1—6X4 Rectifier

GENERAL FEATURES

This generator is designed for precision alignment of radio and television equipment. Its continuous calibration from 100 KC to 280 MC meets all requirements, including Channel 13 television tuner work on 40 MC IF systems. The outer calibration is marked in degrees from 0 to 190. This calibration is used in conjunction with the vernier markings on the pointer to establish the “precise” frequencies regularly used.

In designing and manufacturing Model 7200, special attention was given to control of modulation percentage and freedom from modulation distortion. Consequently, the user can make "point to point" checks while observing BOTH gain and distortion.

OPERATION

Caution:

Many "AC/DC" and "transformerless" radio and television receivers have direct connections between the chassis and/or negative bus and the power line. To prevent shock and equipment damage, power should be supplied to these receivers by an isolation transformer.

Power Switch:

The lower left control contains the main power switch and modulation "off-on" switch. The generator should be turned on at least 10 minutes before it is used for work involving accurate frequency settings.

Selector Switch:

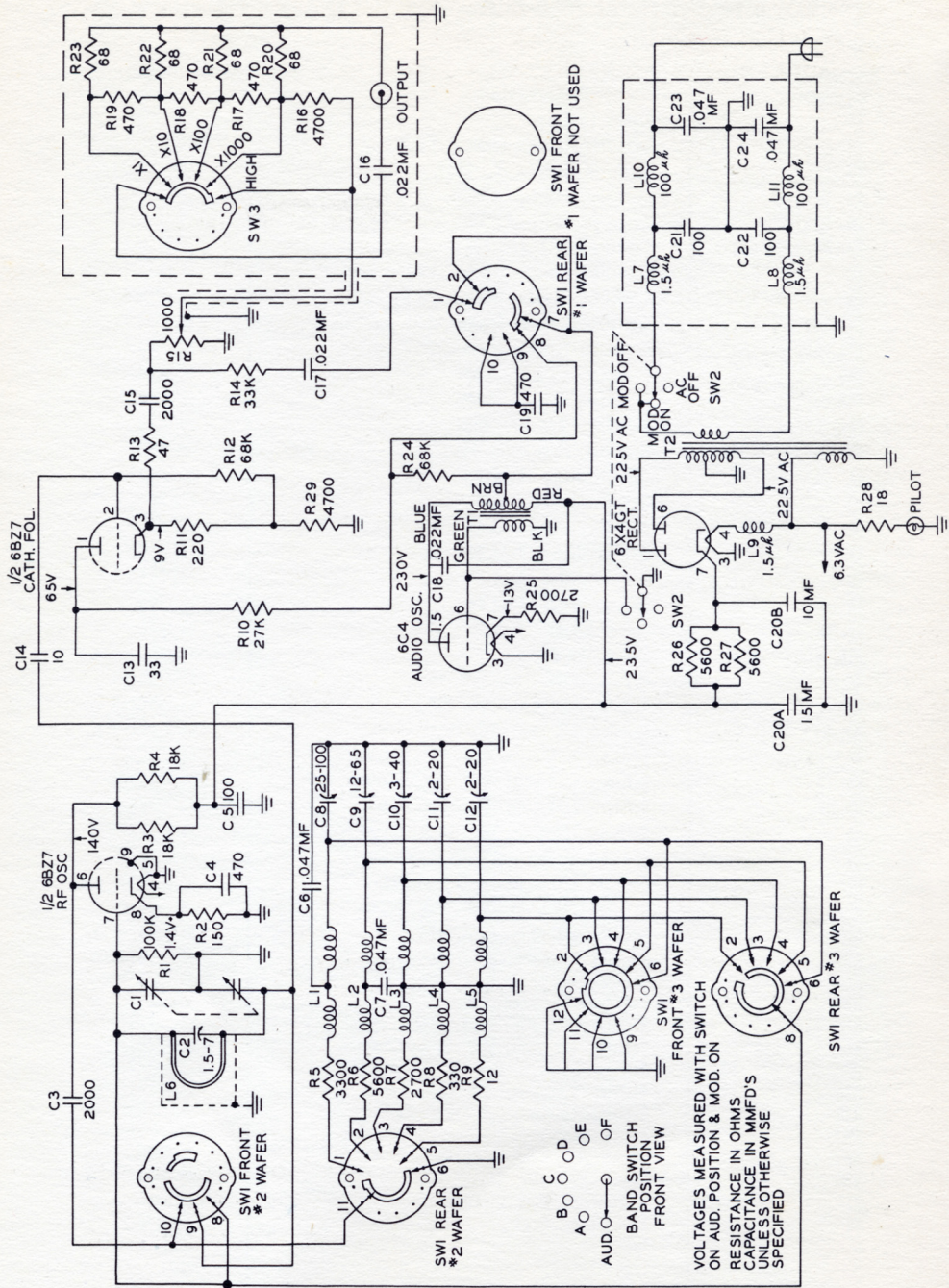
This is located at lower center of the front panel and has seven positions. The letter markings correspond to the dial scale designations. The "AUD" position at full counter-clockwise connects the 400 cycle modulation source to the output cable.

Output Controls:

Two are provided. The "Attenuator" is a potentiometer in the cathode follower circuit. The "Multiplier" consists of a four-step "ladder attenuator" (70 ohms impedance), plus a "MAX" or full output position. These controls are operable in all Selector Switch positions.

Output Connector:

Connect the cable supplied with Model 7200 between this connector and the equipment under test. See manufacturer's maintenance instructions for procedures and methods of connection.



REPLACEMENT PARTS LIST

Reference Symbol	Description	Service Part No.
C1	Tuning Condenser	321-0003
C2	Capacitor, Variable Trimmer, 1.5-7 $\mu\text{mf.}$	31-6480-2
C3, C15	Capacitor, 2000 $\mu\text{mf.}$, 500V	60-20205314
C4, C19	Capacitor, 470 $\mu\text{mf.}$, 500V	60-10475017
C5, C21, C22	Capacitor, 100 $\mu\text{mf.}$, 500V	60-10105417
C6, C7, C23, C24	Capacitor, .047 $\mu\text{f.}$, 400V	30-4650-45
C8	Capacitor, Variable Trimmer, 25-100 $\mu\text{mf.}$	31-6534-4
C9	Capacitor, Variable Trimmer, 12-65 $\mu\text{mf.}$	31-6534-3
C10	Capacitor, Variable Trimmer, 3-40 $\mu\text{mf.}$	31-6534-2
C11, C12	Capacitor, Variable Trimmer, 2-20 $\mu\text{mf.}$	31-6534-1
C13	Capacitor, 33 $\mu\text{mf.}$, 500V	60-00335417
C14	Capacitor, 10 $\mu\text{mf.}$, 500V	60-00105420
C16, C17, C18	Capacitor, .022 $\mu\text{f.}$, 400V	30-4650-43
C20 (C20A, C20B)	Capacitor, Electrolytic, 15 $\mu\text{f.}$, 450V; 10 $\mu\text{f.}$, 450V	30-2552
L1	Coil, Oscillator (Band A)	322-0075
L2	Coil, Oscillator (Band B)	322-0076
L3	Coil, Oscillator (Band C)	322-0077
L4	Coil, Oscillator (Band D)	322-0078
L5	Coil, Oscillator (Band E)	322-0079
L6	Coil, Oscillator (Band F)	32-4295
L7, L8, L9	Choke, 1.5 μh	32-4178
L10, L11	Choke, 100 μh	32-4011
R1	Resistor, 100K ohms, $\frac{1}{2}\text{W}$, 10%	66-4108340
R2	Resistor, 150 ohms, $\frac{1}{2}\text{W}$, 10%	66-1158340
R3, R4	Resistor, 18K ohms, 2W, 10%, Carbon	66-3185340
R5,	Resistor, 3.3K ohms, $\frac{1}{2}\text{W}$, 10%, Carbon	66-2338340
R6	Resistor, 5.6K ohms, $\frac{1}{2}\text{W}$, 10%, Carbon	66-2568340
R7, R25	Resistor, 2.7K ohms, $\frac{1}{2}\text{W}$, 10%, Carbon	66-2278340
R8	Resistor, 330 ohms, $\frac{1}{2}\text{W}$, 10%, Carbon	66-1338340
R9	Resistor, 12 ohms, $\frac{1}{2}\text{W}$, 10%, Carbon	66-0128340
R10	Resistor, 27K ohms, 1W, 5%, Carbon	66-3274240
R11	Resistor, 220 ohms, $\frac{1}{2}\text{W}$, 10%, Carbon	66-1228340
R12, R24	Resistor, 68K ohms, $\frac{1}{2}\text{W}$, 10%	66-3688340
R13	Resistor, 47 ohms, $\frac{1}{2}\text{W}$, 10%, Carbon	66-0478340
R14	Resistor, 33K ohms, $\frac{1}{2}\text{W}$, 10%, Carbon	66-3338340
R15	Potentiometer, 1200 ohms	33-5533-1
R16, R29	Resistor, 4.7K ohms, $\frac{1}{2}\text{W}$, 10%, Carbon	66-2478340
R17, R18, R19	Resistor, 470 ohms, $\frac{1}{2}\text{W}$, 10%, Carbon	66-1478340
R20, R21, R22, R23	Resistor, 68 ohms, $\frac{1}{2}\text{W}$, 10%, Carbon	66-0688340
R26, R27	Resistor, 5.6K ohms, 1W, 10%, Carbon	66-2564340
R28	Resistor, 18 ohms, $\frac{1}{2}\text{W}$, 10%, Carbon	66-0188340
SW1	Switch, Band	422-0022
SW2	Switch, Modulation & Power	42-1769
SW3	Switch, Multiplier	42-1738
T1	Transformer, Modulation	32-8365
T2	Transformer, Power	32-8276-2
	Tube	6BZ7
	Tube	6CA
	Tube	6X4

REPLACEMENT PARTS LIST (Continued)

Description	Part Number	Description	Part Number
Cable, Output	76-3624	Lamp, Pilot #51	32-2040
Connector	76-3601	Panel, Front	228-0091
Cord, Line	L2183	Pointer Assembly	328-0120
Foot (4)	227-0014	Screw, 6/32 x 1/4 (14)	1W46764FA39
Handle Assembly	328-0005	Shield, Tube	56-5629-22
Housing	228-0089	Socket, 7 Pin Miniature (2)	27-6203
Instructions	329-0260	Socket, 9 Pin Miniature	27-6203-19
Knob (4)	54-4281	Socket Assembly, Pilot	76-1658
Knob, Tuning	227-0036-1		

Standard Warranty

"We warrant Philco Test Equipment to be free from defects in material and workmanship under normal use and service, our obligation under this warranty being limited to making good any part or parts thereof which shall, within one (1) year after delivery of such product to the original purchaser, be returned to us through our distributor with transportation charges prepaid, and which our examination shall disclose to our satisfaction to have been thus defective; this warranty being expressly in lieu of all other warranties expressed or implied, and of all other obligations or liabilities on our part, and we neither assume nor authorize any representative or other person to assume for us any other liability in connection with the sale of our products.

"We reserve the right to make changes in design or to make additions to or improvements upon this product, without incurring any obligation to modify such previously manufactured product.

"This warranty shall not apply to any product which shall have been repaired or altered in any way so as, in our judgment, to affect its stability or reliability, nor which has been subject to misuse, negligence or accident, nor which has had the serial number altered, effaced or removed. Neither shall this warranty apply to any product which has been connected otherwise than in accordance with the instructions furnished by us."

PHILCO CORPORATION

Accessory Division

Philadelphia 34, Pennsylvania