

# INSTRUCTIONS PHILCO

## BALANCED UNIT RADIO

### Model 19

110 VOLTS

50-60 CYCLES A. C.

**DESCRIPTION**—Philco Model 19 is a superheterodyne receiver for use on 110-volt, 50- or 60-cycle house current. It is designed to receive either regular broadcasting programs or police and aircraft stations. The frequency range is from 540 to 3240 kilocycles.

To obtain the excellent results this receiver is designed to give, the instructions below should be followed carefully.

#### PRELIMINARY STEPS

—Remove all packing material from around the tubes. Make sure that all tubes are firmly seated in their sockets by pressing firmly on top of each. See that the thimble cap is tightly set on the terminal at the top of the four tubes having these top terminals. See that the metal shields used on three of these tubes are firmly seated on their bases.

**AERIAL**—For best results, we recommend the use of the Philco "Three-Purpose Antenna System." This specially designed equipment gives maximum range and clearness of reception and reduces static caused by local electric appliances and machinery; it also makes possible the use of more than one radio from the same antenna. The "Three-Purpose Antenna System" can be obtained from your Philco dealer. Complete instructions for installing are supplied with the kit.

Satisfactory results may also be obtained with a well-constructed outside antenna. This should consist of a single straight copper wire from 50 to 100 feet long, as high as possible, and supported by glass or porcelain insulators at both ends. The antenna should be one continuous wire down to receiver, to avoid joints, and both the upper portion and the lower part should be kept as far as practical from the building and other objects, especially metal pipes, tin roofing, wires, and rain spouts. The lower end of the antenna wire should be brought through the window by means of a porcelain tube or window lead-in strip. Attach the bared end of the wire to the metal clip terminal at rear corner of chassis (marked AERIAL in Fig. 1).

If an outside antenna cannot be installed, reception may be obtained by using an indoor arrangement consisting of a straight length of 30 to 40 feet of insulated wire run through a hallway or in some convenient manner.

**GROUND**—No ground connection is required in most installations. In some localities, however, hum from the power line or "man-made static" may interfere with the reception.

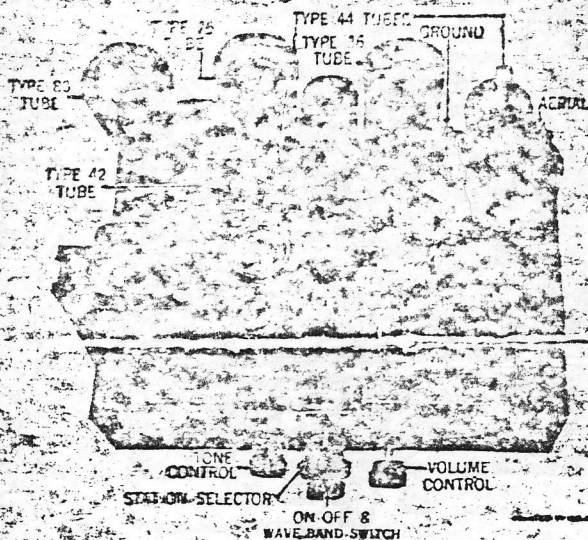


Fig. 1

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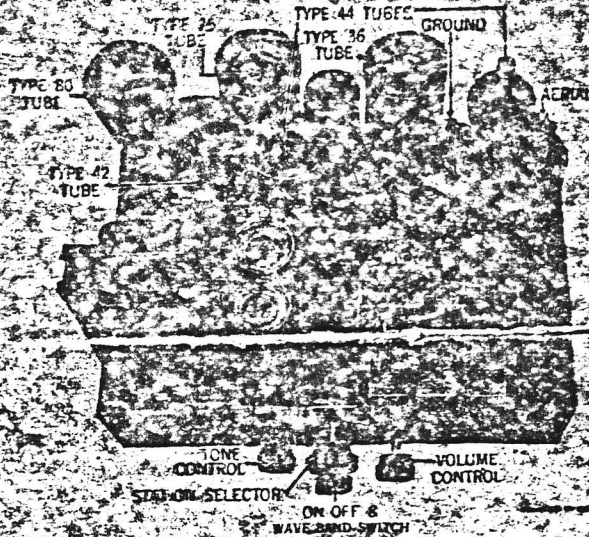


Fig. 1

(darker copy of first page)

## PHILCO RADIO MODEL 19 INSTRUCTIONS

grams. In such cases a ground connection is recommended. This is obtained by running a wire from the other terminal clip at rear of chassis (marked GROUND in Fig. 1) to the nearest water pipe or radiator pipe. Use a "ground clamp" for making the connection to the pipe, and be sure that the section of pipe used is scraped clean and shiny before attaching clamp.

**POWER SUPPLY**—Insert the plug at the end of the attachment cord supplied with the set into the nearest 110-volt A. C. outlet.

### The Receiver is Now Ready to Operate

Refer to Fig. 2 so as to become familiar with the locations of the several controls before operating the set.

Turn the "Combined On-Off and Wave-band Switch" part way to the right (clockwise). This turns the set "on," as indicated by the dial becoming illuminated.

Turn the Volume Control knob clockwise about one-half of its range of movement. In about 30 seconds the tubes will be heated and you may now receive Standard Broadcasts.

Then turn the Station Selector until a suitable program is located. To obtain best possible reproduction of the desired station, obtain your adjustment by means of Shadow Tuning (described below).

The larger figures on the right side of the dial, with a "zero" added, represent the frequencies of standard broadcast stations as given on your newspaper radio page. For example, a station listed as 760 kilocycles will come in at 76, one at 1500 kilocycles at 150, etc. A list of principal broadcast stations will be found on the last page of this folder.

**SHADOW TUNING**—The small window directly above the dial is the shadow tuning screen.

After the desired station has been obtained, adjust the Station Selector knob until the dark band on tuning screen is as narrow as it can be made. This will be the point of best reproduction. Then adjust the volume to suit your taste by means of the volume control.

Do not reduce volume by means of the Station Selector, as this will injure the tone of reception.

### BASS COMPENSATING TONE CONTROL

—The right-hand knob on the panel operates the Bass Compensating Tone Control. There are four positions or settings of this control. Starting with the extreme left position—as the knob is turned to the right (clockwise) the bass or low notes of the program are brought out with increasing emphasis, the extreme right-hand position giving maximum prominence to the bass in the music.

"Bass compensation" is a development whereby an apparent absence or lack of bass

in certain programs or at certain amounts of volume, is effectively overcome by the tone control. The amount of bass compensation is determined by the position of the volume control as well as the setting of the tone control. There is a tendency for the human ear to miss the low notes at low volume. To correct this, bass compensation increases the bass notes when the control is set for low volume.

In general, we suggest the following positions of the tone control for the different types of programs:

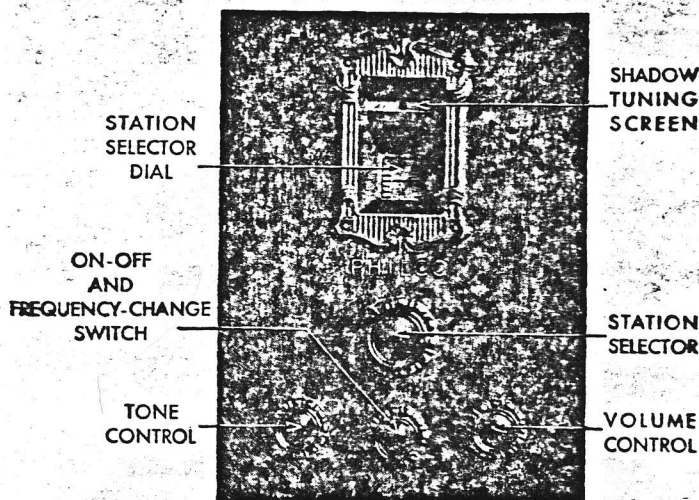


FIG. 2

## PHILCO RADIO MODEL 19 INSTRUCTIONS

Point 1 (left). Gives maximum brilliance. Best for speech or local stations broadcasting music containing little or no bass.

Point 2. Moderate bass compensation. For local musical programs where the bass does not require much additional emphasis.

Point 3. Full bass compensation. For general reception: nearby or moderately distant stations where an increased bass accentuation rounds out and improves the effect for the listener. Especially good for orchestra and band music.

Point 4. Full bass compensation with a reduced amount of the extreme high tones. This setting is recommended for distant stations where background noise or static may be objectionable.

NOTE: In the event you have a local station whose programs have a severe "back ground hum" or rumble, Point 1 of the Tone Control should be used.

A little experience with the different settings of the Tone Control on different programs will soon enable the user to obtain the best position for any particular type of program. It should be remembered that the Bass Compensating effect is noticeable only on programs having bass in the music.

**POLICE, AIRCRAFT AND AMATEUR STATIONS**—These stations may be received by turning the Combined On-Off and Wave band Switch *all the way* to the right. Use the center scale of the dial (small figures) for tuning in these programs.

The figures on this scale refer to megacycles (a megacycle is 1000 kilocycles).

Amateur radio stations may be heard between 1.88 and 2 on the dial; aircraft (airplane and airport) stations between 2.85 and 3.24. On several other positions of the dial police reports are available. Refer to the list of police stations and their frequencies at the end of this folder.

When tuning in these stations, the Station Selector knob should be turned slowly, as these signals tune very sharply and may easily be passed over if the knob is too rapidly revolved.

**AUTOMATIC VOLUME CONTROL**—Automatic Volume Control is one of the features of this receiver. This tends to keep the volume of all stations at the level to which the volume control knob has been adjusted. It also keeps the volume of local stations within comfortable limits and counteracts the "fading" of distant stations. The volume of reproduction will not change greatly, even though you suddenly shift from a weak station to a strong one, or *vice versa*.

**SERVICE**—Should your radio require service at any time, communicate with your Philco dealer, or a local member of RADIO MANUFACTURERS SERVICE. The latter is a Philco Service Plan whereby highly trained radio men, located in every section of the country, are available at all times for prompt, courteous service to Philco owners.

### STANDARD WARRANTY

*We warrant each new Radio Receiver and Speaker manufactured by us to be free from defects in material and workmanship under normal use and service, our obligation under this warranty being limited to making good at our factory or factory depots any part or parts thereof which shall, within ninety (90) days after delivery of such Receiver to the original purchaser, be returned to us 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 persons to assume for us any other liability in connection with the sale of our Receivers or Speakers.*

*This warranty shall not apply to any Receiver or Speaker which shall have been repaired or altered outside of our factory or factory depots 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 Receiver or Speaker which has been connected otherwise than in accordance with the instructions furnished by us.*

# PHILCO

REG. U.S. PAT. OFF.

PHILADELPHIA - TORONTO - LONDON

## STANDARD BROADCASTING STATIONS

Dial	CALL	LOCATION	Dial	CALL	LOCATION	Dial	CALL	LOCATION
65	WGR	Auburn, N. Y.	87	WENR	Chicago, Ill.	119	KOB	State College, N. M.
66	WPI	Philadelphia, Pa.	88	WLS	Crete, Ill.	118	WBGY	Minneapolis, Minn.
67	WLIT	Philadelphia, Pa.	89	WRAQ	Canadian Stations	119	WOAI	San Antonio, Texas
68	WNAX	Yankton, S. D.	90	KHJ	San Juan, Porto Rico	120	WIL	St. Louis, Mo.
69	WWNC	Ashville, N. C.	91	WKY	Los Angeles, Calif.	121	WCEB	Springfield, Ill.
70	KKAC	Mankato, Kans.	92	KOMO	Oklahoma City, Okla.	122	KFKU	Lawrence, Kans.
71	WOW	Spokane, Wash.	93	WJW	Canadian Stations	123	WDAE	Tampa, Fla.
72	KYSD	Omaha, Neb.	94	WBRC	Seattle, Wash.	124	KYA	San Francisco, Calif.
73	KYBC	San Diego, Calif.	95	KOIN	Troitt, Mich.	125	WAGC	Waco, Texas
74	WIP	San Francisco, Calif.	96	KMG	Birmingham, Ala.	126	WYZZ	Detroit, Mich.
75	KGW	Philadelphia, Pa.	97	KMBC	Honolulu, T. H.	127	KFMX	Northfield, Minn.
76	WTMJ	Portland, Ore.	98	WRC	Portland Ore.	128	KIDQ	Boise, Idaho
77	WOS	Brookfield, Wis.	99	WCPL	Independence, Mo.	129	KOIL	Council Bluffs, Iowa
78	KFI	Jefferson City, Mo.	100	KDKA	Washington, D. C.	130	WGAM	Jackson, Miss.
79	WOI	Los Angeles, Calif.	101	WBZ	Canadian Stations	131	WDDO	Camden, N. J.
80	WOL	Ames, Iowa	102	WBA	Chicago, Ill.	132	KDYL	Chatanooga, Tenn.
81	WAF	Nashville, Tenn.	103	WHO	Pittsburgh, Pa.	133	WJAS	Salt Lake City, Utah
82	WMAO	New York, N. Y.	104	WOC	E. Springfield, Mass.	134	WIOD	Pittsburgh, Pa.
83	KFO	Chicago, Ill.	105	WIS	Boston, Mass.	135	WIBD	Miami Beach, Fla.
84	WFTJ	San Francisco, Calif.	106	KFKK	Des Moines, Iowa	136	WTRC	Miami Beach, Fla.
85	WFTJ	Raleigh, N. C.	107	KYW	Columbia, S. C.	137	KGMB	Elkhart, Ind.
86	WLV	Canadian Stations	108	KITHS	Chicago, Ill.	138	WADC	Honolulu, T. H.
87	WLV	Cincinnati, Ohio	109	KFKB	Canadian Stations	139	WFAQ	Tallmadge, Ohio
88	WGN	Newark, N. J.	110	KNX	Fort Springs, Ark.	140	WSPD	Sioux City, Iowa
89	WLIB	Chicago, Ill.	111	WBAL	Milford, Kans.	141	KW	Twp. Washington, Wis.
90	KMMJ	Canadian Stations	112	WTIC	Hollywood, Calif.	142	WFLB	Toledo, Ohio
91	WBB	Clay Center, Neb.	113	WTAM	Baltimore, Md.	143	KMAC	St. Louis, Mo.
92	WJR	Atlanta, Ga.	114	WBT	Avon, Conn.	144	WBOA	Syracuse, N. Y.
93	KVI	Detroit, Mich.	115	KMOX	Cleveland, Ohio	145	WHK	San Antonio, Tex.
94	WJZ	Amarillo, Tex.	116	WPG	Charlotte, N. C.	146	WRAA	La Crosse, Wis.
95	WJZ	New York, N. Y.	117	KSOO	St. Louis, Mo.	147	WJSA	Fayetteville, Ark.
96	KFAB	Lincota, Neb.	118	WRVA	New York, N. Y.	148	WJSA	Cleveland, Ohio
97	WBBM	Chicago, Ill.	119	WDBO	Atlantic City, N. J.	149	WJSA	West Lafayette, Ind.
98	WMC	Memphis, Tenn.	120	KSI	St. Louis, Mo.	150	WJSA	Amarillo, Tex.
99	KGO	Oakland, Calif.	121	WJJD	Richmond, Va.	151	WJSA	Chicago, Ill.
100	WGY	Schenectady, N. Y.	122	KVOO	Orlando, Fla.	152	WJSA	Los Angeles, Calif.
101	WRAP	Fort Worth, Texas	123	WAPI	Salt Lake City, Utah	153	WJSA	Peoria, Ill.
102	WFAX	Grapevine, Texas	124	WAPI	Tulsa, Okla.	154	WJSA	Shreveport, La.
103	WCOO	Minneapolis, Minn.	125	WHAM	Birmingham, Ala.	155	WJSA	Weecott, Minn.
104	WHAS	Louisville, Ky.	126	WOWO	Rochester, N. Y.	156	WJSA	St. Vernon Hills, Va.
105	KOA	Denver, Colo.	127	KINT	Wheeling, W. Va.	157	WJSA	Spokane, Wash.
106	WRUF	Gainesville, Fla.	128	WCAU	Muscatine, Iowa	158	WJSA	Nashville, Tenn.
107	KWKH	Canadian Stations						Amerst, N. Y.
108	WVW	Shreveport, La.						Covington, Ky.
109	WVW	New Orleans, La.						Santa Ana, Calif.
110	WABC	New York, N. Y.						

## POLICE BROADCASTING STATIONS

CITY	STATION	CITY	STATION	CITY	STATION
<b>MUNICIPAL POLICE</b>		Denver, Colo.	KGPX	Swarthmore, Pa.	WPEA
1712 K.C. (1.7 on Dial)		Des Moines, Iowa	KGZG	Syracuse, N. Y.	WFLA
Arkington, Mass.	WPED	Detroit, Mich.	WCK	Tacoma, Wash.	KGZN
Beaumont, Texas	KGPF	El Paso, Texas	WPKX	Toledo, Ohio	WRDO
Brookline, Mass.	WPEL	Flint, Mich.	WMO	Toms River, N. J.	WFFF
Chicago, Ill.	WPDR	Fort Wayne, Ind.	WPDZ	Topeka, Kansas	KGZC
Cincinnati, Ohio	WPDC	Fresno, Calif.	WPEB	Tulsa, Okla.	WPGA
Dallas, Texas	WPDD	Gary, Ind.	WRDR	Tulsa, Okla.	KGPO
Fort Worth, Texas	WKDC	Grand Rapids, Mich.	WPKK	Vallejo, Calif.	KGPC
Hammond, Ind.	KVP	Hackensack, N. J.	WPKQ	Washington, D. C.	WPDW
Highland Park, Ill.	KGPF	Honolulu, T. H.	WMDZ	Wichita, Kans.	KGZP
Houston, Texas	WPFJ	Indianapolis, Ind.	WPPG	Woonsocket, R. I.	WPEM
Lexington, Ky.	WPFJ	Jacksonville, Fla.	WPPR	Yonkers, N. Y.	WPFY
Los Angeles, Calif.	WPFJ	Johnson City, Tenn.	WPPR	Youngstown, Ohio	WPDG
New Bedford, Mass.	WPFJ	Kansas City, Mo.	WPPR		
Newton, Mass.	WPFJ	Klamath Falls, Ore.	WPPR	<b>MARINE POLICE</b>	
Pasadena, Calif.	WPFJ	Knoxville, Tenn.	WPPR	1558 K.C.	
Pittsburgh, Pa.	WPFJ	Kokomo, Ind.	WPPR	(1.5-1.6 on Dial)	
Providence, R. I.	WPEI	Lakeland, Fla.	WPPR	Boston, Mass.	WEY
St. Louis, Mo.	WPEC	Lansing, Mich.	WPPR	Detroit, Mich.	WKDT
Somerville, Mass.	WPEC	Louisville, Ky.	WPPR	Seattle, Wash.	KIDA
Waco, Texas	WPEC	McAlester, Okla.	WPPR		
Wichita Falls, Texas	WPEC	Memphis, Tenn.	WPPR	<b>STATE POLICE</b>	
		Miami, Fla.	WPPR	1534, 1574 K.C.	
		Milwaukee, Wis.	WPPR	(1.5-1.6 on Dial)	
		Minneapolis, Minn.	WPPR	Baton Rouge, La.	WPEO
		Mt. Pleasant, N. Y.	WPPR	Des Moines, Iowa	KGHO
		Muskogon, Mich.	WPPR	East Lansing, Mich.	WRFJ
		New Orleans, La.	WPPR	Frammingham, Mass.	WPEZ
		New York, N. Y.	WPPR	Middleboro, Mass.	WPEL
		Oklahoma City, Okla.	WPPR	Northampton, Mass.	WPEW
		Omaha, Neb.	WPPR	Shreveport, La.	KGPY
		Palm Beach, Fla.	WPPR		
		Passaic, N. J.	WPPR	2506 K.C.	
		Pawtucket, R. I.	WPPR	(2.5 on Dial)	
		Philadelphia, Pa.	WPPR	San Antonio, Texas	KGZE
		Phoenix, Ariz.	WPPR		
		Portland, Me.	WPPR		
		Portland, Ore.	WPPR		
		Richmond, Ind.	WPPR		
		Rochester, N. Y.	WPPR		
		St. Paul, Minn.	WPPR		
		Salem, Ore.	WPPR		
		Salt Lake City, Utah	WPPR		
		San Diego, Calif.	WPPR		
		San Francisco, Calif.	WPPR		
		San Jose, Calif.	WPPR		
		Santa Barbara, Calif.	WPPR		
		Sacramento, Calif.	WPPR		
		Seattle, Wash.	WPPR		
		Shreveport, La.	WPPR		
		Sioux City, Iowa	WPPR		