SHORT WAVE BROADCASTING STATIONS OF THE WORLD Bold Type Indicates Stations Most Frequently Heard

Approx. Mega- cycles on Philco Dial	Meters	Station	Location	Approx. Mega- cycles on Philco Dial	Meters	Station	Location
4.2 to 4.4 4.25 4.35 4.31 4.97 5.02 5.83 5.95 5.97 6.00 6.01 6.01 6.02 6.04 6.05 6.06 6.07 6.07 6.07 6.08 6.09 6.09 6.11 6.11 6.11 6.11 6.12 6.12 6.12 6.12 6.13 6.14 6.15 6.28 6.32	71.4 to 73.1 73.1 70.65 69.44 66.50 61.15 60.30 65.2.70 52.65 52.65 60.88 49.96 49.50	RV15 G6RX VPN, ZFS G6RX ZFA FIGA HIZABA HIZABA HIGK HIZABA HIX WEYAB HIX WIXAL WIXAL WIXAL WIXAL WIXAL WIXAL WIXAL WIXAL WIXAL VO7LO WIXAAL VO7LO WIXAAL VO7LO WIXAAL VOF5 W9XAA VE9BI VE9GW WIXAAL VE9GW WIXAAL VUC VE9HX VE9GW WIXAAL VIBC VE9HX VIBC VE9HX VIBC WIXAB HIZABBC HJ3ABF HIZABBC HJ3ABF	Ships Khabarovsk, U. S. S. R. Rugby, England Nassau, Bahamas Drummondville, Canada Rugby, England Hamilton, Barmuda Tananrive, Madagascar Ottoria, Colombia Modellin, Colombia Guatemala City, Guatemala Vatican, City, Italy Caracas, Venezuela Drummondville, Canada Moscow, U. S. S. R. Havana, Cuba Montreal, Canada Berlin, Germany Santo Domingo, R. D. Boston, Mass. Miami Beach, Fla. Bogota, Colombia London, England Cincinnati, Ohio Nairobi, Kenya, Africa Philadelphia, Pa. Vancouver, B. C. Skamleback, Denmark Maracaibo, Venezuela La Paz, Bolivia Chicago, Ill. St. John, N. B. Bowmanville, Ont., Can. Bound Brook, N. J. Calcutta, India Caracas, Venezuela Halifax, N. S. Bandoeng, Java Johannesburg, S. Africa New York, N. Y. Pittsburgh, Pa. Caracas, Venezuela Bogota, Colombia Dominican Republic	6.38 6.42 6.45 6.62 6.62 6.67 7.20 7.21 7.22 7.40 7.88 8.19 9.51 9.52 9.53 9.57 9.57 9.59 9.59 9.60 9.60 9.87 9.87 11.18 11.72 11.73 11.75 11.76 11.81 11.83 11.86 11.87 11.90	47.00 46.51 45.31 45.31 45.00 43.86 43.86 41.00 41.00 41.00 41.00 41.00 41.00 31.00	HJSABD W3XL W3XL W3XL BRENDO W3XL BRENDO W3XL HJABB RENDO W1C2RL HAS2 LCL LABB HJABB W1XAZ GSG W3XAF DJA W1XAZ GSG W3XAU W1XAZ GSG W1XAZ W1XAZ GSG W1XAZ	Cali, Colombia Bound Brook, N. J. Barranquilla, Colombia Moscow, U. S. S. R. Rio Bamba, Ecuador Granada, Nicaragua Guayaquil, Ecuador Budapest, Hungary Idoy, Norway Aracealbo, Colombia Bogota, Colombia Bogota, Colombia Geneva, Switzerland Tokio, Japan Rabat, Morocco Rio De Janeiro, Brazil Caracas, Venezuela Melbourne, Australia London, England Skamleback, Denmark Schenectady, N. Y. Berlin, Germany Boston, Mass. London, England Philadelphia, Pa. Sydney, Australia Geneva, Switzerland Lisbon, Portugal Mexico City, Mexico Heredia, Costa Rica Madrid, Spain Tokio, Japan Buenos Aires, Argentina Funchal, Madeira Paris, France Winnipes, Manitoba, Can. Eindhoven, Holland London, England London, England Punchal, Madeira Paris, France Winnipes, Manitoba, Can. Eindhoven, Holland London, England Berlin, Germany Rome, Italy New York, N. Y. London, England Portyk, N. S. R.

STANDARD BROADCASTING STATIONS

Dial	Station	Location	Dial	Station	Location	Dial	Station	Location
54 55 56 57 58 59 59 60 61 61 62 63 64 64 66 67 77 77 77 77 77 77 77	CJRW WGR WFI WLIT WNAX WWNG KSAC KHOO WOW KFSD KFRC WIP WDAF KGW WTMJ WOS KFRC WIP WOS KFAC WSM WMC KGRO WGR WMC KGO KGO WGY	Winnipeg, Man. Buffalo, N. Y. Philladelphia, Pa. Philladelphia, Pa. Philladelphia, Pa. Vankton, S. D. Asheville, N. C. Manhattan, Kans. Spokane, Wash. Omaha, Neb. San Diego, Calif. San Francisco. Calif. Philladelphia, Pa. Kansas City, Mo. Portland, Ore. Milwaukee, Wis. Jefferson City, Mo. Los Angeles, Calif. Ames, Iowa Nashville, Tenn. New York, N. Y. Chicago, Ill. San Francisco, Calif. Raleigh, Nnt. Tonconti, Ohio Newark, N. J. Elgin, Ill. Montreal, Que. Atlanta, Ga. Detroit, Mich. New York, N. Y. Lincoln, Neb. Chicago, Ill. Montreal, Que. Atlanta, Ga. Detroit, Mich. New York, N. Y. Lincoln, Neb. Chicago, Ill. Memphils, Tenn. Oakland, Calif. Schnectady, N. Y.	87 87 88 88 99 90 91 92 92 92 92 93 94 95 95 96 66 101 102 103 104 105 106 107 108 109 110 111 111 111 111 111	WENR WLS CRCO WJAR KHJ WKY CKY KOMO WWJ WBRC KOIN WRG CRCT WCFL KOKA WBZ WBZ WBZ WBZ WHC CKCK KY WGFCN KNX WIS WBAL WTAM WTAM WBAL WTAM WTAM WTAM WTAM WTAM WTAM WTAM WTAM	Chicago, Ill. Crete, Ill. Crete, Ill. Ottawa, Ont. Providence, R. I. Los Angeles, Calif. Oklahoma City, Okla. Winnipeg, Man. Seattle, Wash. Detroit, Mich. Birmingham, Ala. Portland, Ore. Kansas City, Mo. Washington, D. C. Toronto Ont. Chicago, Ill. Pittsburgh, Pa. E. Springfield, Mass. Boston, Mass. Des Moines, Iowa Regina, Sak. Chicago, Ill. Calgary, Alta. Hollywond, Calif. Columbia, S. C. Baltimore, Md. Hartford, Conn. Cleveland, Ohio Charlotte, N. C. St. Louis, Mo. New York, N. Y. Atlantic City, N. J. Sioux Falls, S. D. Richmond, Va. Hamilton, Ont.	122 122 122 123 123 123 124 125 125 125 125 126 127 128 128 128 128 130 131 131 131 132 133 133 133 133 133 133	KFKU WDAE WCAE WREN KYA WNAC CFOC WXYZ WKAQ WODA WCAL KOIL KOIL KOIL WJDX WCAL KOIL WJDX WDAD WDAD WDAD WDAD WDAD WDAD WJAS WIOD KFAC WHAC WSMB KSCAO WDRC WDRC WDRC WDRC WDRC WDRC WDRC WDRC	Lawrence, Kans. Tampa, Fla. Pittsburgh, Pa. Lawrence, Kans. San Francisco, Calif. Boston, Mass. Saskatoon, Sask. Detroit, Mich. San Juan, Porto Rico Paterson, N. J. Northfield, Minn. Council Bluffs, Iowa Jackson, Miss. Camden, N. J. Chattanooga, Tenn. Salt Lake City, Utah Pittsburgh, Pa. Miami Beach, Fla. Los Angeles, Calif. Philladelphia, Pa. Tallmadge, Ohio New Orleans, La. Sioux City, Iowa Sioux City, Iowa Hartfoat Com. Toledo, Ohio St. Louis, Mo. Syracuse, N. Y. San Antonio, Texas Philadelphia, Pa. La Crosse, Wis. Cleveland, Ohio Little Rock, Ark. West Lafayette, Ind. Amarillo, Texas Chicago, Ill.
78 79 79 80 81 81 82 83 83 84 85 85	WMC KGO	Memphis, Tenn. Oakland, Calif.	111	WRVA	Sioux Falls, S. D. Richmond, Va.	140 141	WBAA KGRS	West Lafayette, Ind. Amarillo, Texas

INSTRUCTIONS FOR PHILCO

Model 45

STANDARD and SHORT-WAVE RECEIVER

DESCRIPTION—Model 45 Philco is a Superheterodyne Radio Receiver covering two ranges of frequencies: (1) 540 to 1720 kilocycles, which includes standard broadcasts and many police stations; and (2) from 4.1 megacycles to 13 megacycles, which includes a majority of the popular short-wave stations, both American and Foreign. A switch on the panel permits quick change from one to the other range. The set is designed for alternating current only, of the voltage and frequency indicated on the chassis nameplate.

TUBES SUPPLIED—The following tubes are supplied with the set, installed in their respective sockets: 1 type 6A7, 2 type 39-44, 1 type 75, 1 type 42, 1 type 80.

PRELIMINARIES—Locate the receiver as near as practical to the window thru which the antenna wire will be brought and also within convenient reach of an A.C. electric outlet.

Remove all packing material from around tubes.

Remove the mounting bolts which hold the chassis in the cabinet as per "Mounting Bolt Notice" attached to bottom of cabinet. This will allow the chassis to "float" on its rubber supports.

Make sure all tubes are firmly seated in their sockets. See that the small metal clips are properly secured to the caps on top of four of the tubes. The metal tube shields must be firmly seated on their bases.

ANTENNA—Since satisfactory reception of short-wave stations absolutely requires an efficient antenna, we strongly recommend the use of the Philoo Short-Wave Antenna Kit, which was especially designed for this purpose and contains all necessary parts, selected for efficiency in short-wave use. Your Philoo dealer or local member of Radio Manufacturers Service can make the installation for you.

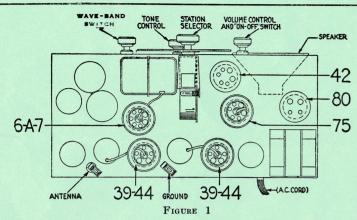
Whether or not the Philco Short-Wave Kit is used, the antenna wire should be as high as possible and as clear as possible of chimneys, trees, other wires and adjoining roofs. It should be supported at the ends by porcelain or better still, glass insulators (as used in the Philco Kit). Joints or sharp bends in the wire should be avoided. If a joint is necessary, both ends of the wire should be carefully scraped and the connection soldered and covered with insulating tape. The best way to avoid joints is to run the antenna wire in one continuous length from the far insulator down to the receiver, or at least to the lightning arrestor. Use a good grade of lightning arrestor, and follow instructions supplied with it.

Use porcelain knobs or "stand-off" insulators to keep the lower part of the antenna away from the wall; bring the wire into the house thru a porcelain tube inserted thru a hole drilled thru the wall or window frame. Do not use the flat type "Window strip" lead-in for this purpose.

Run the antenna wire over to the receiver as directly as possible and attach the bare end to the ANTENNA terminal at rear of chassis. (See Fig. 1.)

Part No. 39-3629A-5-10-34 Printed in U. S. A

PHILCO MODEL 45 INSTRUCTIONS



GROUND- A ground connection is not usually necessary but may sometimes be helpful if there is a "hum" from the A. C. line. If a ground is to be used it can best be made by running a wire from the ground terminal at rear of receiver (marked "GROUND" in Figure 1) to the nearest water pipe or radiator pipe, or to the ground terminal of the lightning arrestor, and thence to a good outside ground. Use a ground clamp (purchasable from your Philco dealer) for making the connection to the pipe, and be sure the section of pipe used is scraped clean and shiny before attaching the

POWER SUPPLY-Insert the plug at the end of the A.C. cord into the nearest A. C. electric outlet.

OPERATING-First refer to the illustration of control panel (Figure 2) to familiarize yourself with the function of the four control knobs.

The extreme left-hand knob is the combined "on-off" switch and volume control. The first movement of this to the right (clockwise) turns on the radio and illuminates the dial; further turning will increase the volume. Turn this knob to the right about one-half of its total range of movement and allow about half a minute for the tubes to become heated.

We suggest that you first become familiar with the tuning-in of standard (American) broadcasts. Turn the wave-band switch to the left (counter clockwise). You are now using the left-hand scale of the dial. Revolve the Station Selector knob until you obtain a suitable program, then adjust the knob very carefully to the exact central point where the station is loudest; finally readjust the volume control to suit your taste. Never cut down the volume by "tuning away from the station" with the Station Dial, as this will spoil the tone.

The numbers on the left-hand scale on the dial, with the addition of a zero, represent kilocycles (frequency), by which the various stations are listed on radio logs and the radio page of the newspaper. A list of principal stations will be found at the end

TONE CONTROL—The lower center knob, directly below the station selector, operates the tone control. There are three positions of this knob. Turning it to the extreme left-hand position emphasizes the high notes, resulting in a higher pitch to the voice or music. This gives distinctness of speech and brilliance in music. The extreme righthand position gives a low pitched tone. This is desirable for distant stations and to reduce background noise or where emphasis of bass is desired. The center position gives a tone midway between these two and may be preferred for regular broadcast reception under normal conditions.

POLICE STATIONS are received with the dial above 150. They will be heard calling police cars, issuing orders and signing off briefly. A number of police stations are listed on the sheet containing standard stations. These stations will be heard in greater number and at greater distance after dark.

PHILCO MODEL 45 INSTRUCTIONS

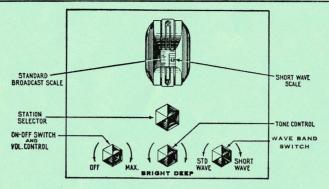


FIGURE 2

RECEIVING SHORT-WAVE STATIONS—The several classes of short-wave stations are obtained by turning the wave-band switch to the right. You will then be using the right-hand scale on the dial.

The numbers on the right-hand scale represent megacycles (a megacycle is 1,000 kilocycles). Refer to the short-wave station list at the end of this folder, where a number of short-wave stations are listed according to megacycles.

Most of the short-wave stations will be found within the portions of the shortwave scale indicated by the dark brackets encompassing some of the division lines. Owing to the peculiarities of short-waves, these bands or groups of stations come in best at certain times of day. The following table will serve as a guide to the best time to tune the various bands: (Note: This schedule applies to Eastern United States. If you are in Western United States or elsewhere add or subtract to compensate for the time difference.)

10 A.M. to 10 P.M. — 11.2 - 12.0 megacycles.
1 P.M. to 11 P.M. — 9.4 - 10.0 megacycles.
5 P.M. to 11 P.M. — 7.7 - 8.3 megacycles.
6 P.M. to Midnight — 5.7 - 6.8;4.0 - 4.4 megacycles.

Exception: Far East and Australian stations are heard daylight to 8 A.M. Having selected the proper band, turn the volume control well "on" (just below the

point where background noise begins to be noticeable).

Turn the Station Selector knob (slowly) until a "swishing" sound is heard — this usually indicates the presence of a short-wave station. Turn the knob back and forth at this point until the music or voice comes out clearly. Finally re-adjust the volume control as necessary.

HINTS FOR SHORT-WAVE TUNING

TIME DIFFERENCE-Those who have been accustomed to listening to distant stations in the standard band know that they get the best results late at night. However, in short-wave tuning this rule does not apply. Owing to the difference in time between the place where you are located and the place where the broadcast comes from, you will hear the various distant short-wave stations at different times during the twenty-four hours. For example, England, France, Germany, Spain, and Italy are heard best here during the day and early evening; Siberia, Japan and Australia in the early morning hours; Central and Sou h American Stations are heard thruout the evening. North American short-wave stations may be heard at any time of the day or night.

AIRCRAFT STATIONS may be heard around 5.6 megacycles. Weather reports to planes are often heard. These broadcasts are usually short and "snappy." Sometimes only one end of the corversation will be heard as the airport station is usually more powerful than the plane.

SHIP STATIONS and other commercial radio telephone stations (sending paid messages or conversations) generally use a "chopper" which distorts the voice so you cannot understand it Occasionally, however, a ship or shore station may be heard using regular voice ransmission for test, and shore phone stations occasionally run musical selections. Ships operate from 4.2 to 4.4 and 8.2 to 8.8 megacycles.

PHILCO MODEL 45 INSTRUCTIONS

Many stations will be heard transmitting in wireless code. These are government, commercial, ship or aircraft stations depending on the position on the dial at which they are received.

LISTING- The short-wave stations in the list at the end of this folder are arranged according to megacycles (frequency) and also according to meters (wave length). Some short-wave stations when "signing off" mention their wave-length in meters. The two columns can be used like a chart or graph to convert meters into megacycles or

RECOGNIZING FOREIGN STATIONS—Many foreign stations sign off or announce in their own language and afterwards in English, for the benefit of American and English listeners. In cases where you do not hear them sign off you may be able to tell by their frequency, the language used, or type of program, just what short-wave station you have tuned in. You will find that once you have heard a station a few times, you will readily recognize it when you tune it in. A little practice will make you proficient in the art of short-wave tuning.

SERVICE... Your Philco dealer is equipped to provide service for your receiver. Complete radio satisfaction requires that your receiver be checked by an expert radio serviceman at least once every six months.

Experts trained by Philco are available in your neighborhood. These men are members of RADIO MANUFACTURERS' SERVICE (a Philco Service Plan) and they have all the necessary test equipment to properly adjust or service your Philco.

These men have received instructions on the proper type of antenna to use or install. They have been trained to help you obtain excellent reception even in congested neighborhoods where man-made static may mar or interfere with the program you wish

Should you or your friends require immediate, courteous radio service -- call a member of Radio Manufacturers' Service.

WHEN REPLACING TUBES: TO MAINTAIN ORIGINAL PERFORMANCE, USE ONLY GENUINE PHILCO TUBES.

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 person 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.



PHILADELPHIA-TORONTO-LONDON