

PATTERSON *All Wave* RADIO

Installation

Standard models of these All-Wave radios are built to operate on any alternating current of 50-60 cycles at a voltage of 100 to 130. Special models are supplied for 220 volts A.C. to 240 volts A.C.

Before connecting the receiver, be sure the current supply is as indicated above. If in doubt call your local power company. To use with different frequency (cycles) will result in poor operation. To use with DIRECT current—will DAMAGE your radio.

Tuning

Put up a good outside single wire aerial, No. 8 or 10, as high as possible, the higher the better. Length from 50-75 feet including lead-in. Don't use an old aerial as it may be corroded and therefore inefficient. Your editor erects a new aerial annually. Use pyrex insulators. Keep aerial free of obstructions. A good type of doublet antenna is efficient. Shielded lead-in, or any type of freak antenna is not recommended. Should you operate your All-Wave receiver in a locality 100 miles or more distant from nearest station, you can lengthen your aerial to 250 feet. For receiving short waves there is lower static noise and louder signal on a long aerial. Some of our all-wave radio owners use 800 feet. Reception can be much impaired by poor antenna installation.

1. Turn switch knob, which also controls volume, from left (soft) to right loud. Now turn station selector knob until in the slot appears the band you desire. The bands are, reading down, 1st, 550-1500 kilocycles; 2nd, 1.6-3.5 megacycles; 3rd, 3.5-7.5 megacycles; 4th, 7.5-16.5 megacycles; 5th, 16-33 megacycles. In a moment the tubes will heat.

2. When you tune for Short Wave stations, tune very slowly, because some are close together. Do not be discouraged if the station you are trying for is not heard. You may not hear it for several reasons. (1) Wave length changed since February, 1935, (date of printing this folder). (2) Not operating at the time you are tuning. (3) Not heard in your locality. (4) Electrical or atmospheric noises smothering the signals. (5) Not broadcasting, etc., etc.

3. Short wave reception is very fascinating. National and foreign programs may be tuned in that are not heard on broadcast band.

4. Be patient. Weak or fading signals may come in loud with careful tuning. Learn to operate your receiver. You will be amply paid for your trouble.

5. During daylight hours tune for short wave stations below 10 megacycles.

6. Short wave reception, unlike broadcast, is extremely sharp, so tune very slowly or you may pass over an enjoyable program.

7. Novices can operate our All-Wave receivers.

8. In addition to short wave stations regularly or irregularly on the air, there are experimental stations which are used to relay broadcast programs, occasionally. These may also be tuned in, subject to conditions as noted above.

9. There are numerous phone stations broadcasting police orders, amateur conversations and some commercial short wave telephone stations, airplane dispatches from plane to ground, from ground to plane, etc. These add to the enjoyment of short wave entertainment.

NOTE: Our complete 1935 log book will replace this temporary log as soon as it is prepared.

10. Broadcast tuning is familiar to those who own radio receivers. Supposing this is your first all-wave receiver and you desire to listen to local stations only. Turn Station Selector to, say, 900 on the dial. Then your receiver is tuned to 900 kilocycles.

11. If you live in a quiet neighborhood you may wish to fish for distant broadcasting stations. Say you are operating the receiver in California. Try tuning at 830 Kcs. in the evening, the station will no doubt be KOA, Denver. Then try others.

12. When you, at first a novice, have learned to tune in near-distant stations, you may wish to hear programs outside of the U. S. A. Residents of California and adjacent Western States who have learned to operate our All-Wave receivers, play Oriental and Australasian stations on the broadcast band, so can you.

13. Soon after familiarizing yourself with exact places on the dial of your receiver, where local, near-distant and far off stations may be played, try tuning in on the Short Waves.

14. Some evening change the Band Selector to the 3.5-7.5 megacycle band. You will hear Pittsburgh, Bound Brook, Chicago, Philadelphia and others. Like thousands of other short wave enthusiasts, you will soon learn to tune in foreign programs.

15. Should you write to stations in the U. S. A., enclose a stamped self-addressed envelope for reply. When writing to foreign stations, enclose an International Reply Coupon, which you can purchase from your post office.

16. Tuning the PR-12 is just as simple as tuning the non-professional receivers when you have spent a short while learning how to operate it.

17. The use of a ground is optional. Avoid the use of gas or water pipes. They are often noise makers. Our engineers advise a galvanized pipe 6-8 feet long driven entire length into earth that is kept moist, and as near to the receiver as possible. Connect a good ground clamp to the pipe and use heavy copper wire from it, as short as convenient, to the receiver.

18. The lightning arrestor is a decidedly important piece of apparatus. Not only is it necessary to use an arrestor of high quality for the protection it affords, but for the assurance that the arrestor will not short circuit and cause a total loss of reception.

The arrestor does not protect one materially from a direct stroke of lightning—neither does the antenna provide a hazard in this respect. The arrestor does protect the set from the ravages of heavy static discharges which may readily burn out the input coils.

We would advise every short wave listener to join the International Short-Wave Club to which we are indebted for considerable information printed herein. Mail \$1.00 to East Liverpool, Ohio, U. S. A. Membership Certificate and Club Magazine will be sent to you for 12 months.

How to Use Silent Tuning

(Primarily intended for Broadcast Band . . . Can Also Be Used to Advantage on Short Wave Bands)

1. Turn on switch at rear of chassis.
2. Tune set off of any station.
3. Adjust silent tuning screw to the point where static noise just disappears or is practically eliminated.

Now you can tune from local station to local station, or average distance, without any noise in between stations.

To tune extreme distance—turn switch to off position, cutting out silent control.

SHORT WAVE BROADCASTING STATIONS

Call	Location	P.S.T.	Call	Location	P.S.T.
4-5 MEGS. 75-60 METERS			11-12 MEGS. 27-25 METERS		
RV15	Khabarovsk, U.S.S.R.,	11 P.M.-6 A.M.	FYA	Paris, France, 4-9 P.M.	
5-6 MEGS. 60-50 METERS			CJRX	Winnipeg, Canada, 5-9 P.M.	
HJ5ABC	Call, Colombia, 5-7 P.M.		PHI	Huizen, Holland, 4:30-9 P.M.	
OA4AD	Lima, Peru, 5-8 P.M., Irreg.		GSD	Daventry, England, Midnight-2 A.M.—10 A.M.-2 P.M.	
TGX	Guatemala City, 4:30-9 P.M.		DJD	Zeesen, Germany, 9 A.M.-2 P.M.	
YV5RMO	Maracaibo, Venezuela, 5-8:30 P.M., Irreg.		W2XE	Wayne, U.S.A., Noon-2 P.M.	
HJ4ABE	Medellin, Colombia, 6-8 P.M., Irreg.		GSE	Daventry, England, 6:15-7:45 A.M.	
HVJ	Vatican City, 2-2:30 A.M., Sun.		W8XK	Pittsburgh, U.S.A., 1:30-7 P.M.	
COC	Hava a, Cuba, 6:30-8 P.M., Irreg.		FYA	Paris, France, 7:15 A.M.-3 P.M.	
XEBT	Mexico City, 3-11:30 P.M., Irreg.		RNE	Moscow, U.S.S.R., 3-4 A.M. Sat. and 7-8 A.M. Sun.	
6-7 MEGS. 50-43 METERS			12-13 MEGS. 25-23 METERS		
HJ1ABG	Barranquilla, Colombia, 4:30-7 P.M.		CT1CT	Lisbon, Portugal, 4-6 A.M., Sun.; 1-3 P.M., Thur., Irreg.	
DJC	Zeeze, Germany, 2:30-7:30 P.M.		RABAT	Morocco, 4:30-6 A.M. Sun.	
W8XAL	Cincinnati, U.S.A., 7-11 P.M.		13-14 MEGS. 23-21 METERS		
CP5	La Paz, Bolivia, 5-6 P.M.		14-15 MEGS. 21-20 METERS		
VE9GW	Bowmanville, Canada, 6-9 P.M.		15-16 MEGS. 20-19 METERS		
W9XF	Chicago, U.S.A., 5:30-10 P.M.		GSEF	Daventry, England, 3-6 A.M.	
W3XAL	Bound Brook, U.S.A., 5-10 P.M.		DJB	Zeesen, Germany, 1-3 A.M.	
YV2RC	Caracas, Venezuela, 5:30-7 P.M., Irreg.		W8XK	Pittsburgh, U.S.A., 7 A.M.-1 P.M.	
YDA	Ba dseng, Java, 2-8 A.M.		FYA	Paris, France, 4-7 A.M.	
W2XE	Wayne, U.S.A., 5-8 P.M.		W2XE	Wayne, U.S.A., 8-10 A.M.	
W8XK	Pittsburgh, U.S.A., 1:30-11 P.M.		W2XAD	Schenectady, U.S.A., 11:30 A.M.-12:30 P.M.	
CJRO	Winnipeg, Canada, 5-9 P.M.		16-17 MEGS. 20-18 METERS		
HJ3ABF	Bogota, Colombia, 6-8 P.M.		17-18 MEGS. 18-16 METERS		
HJ5ABD	Call, Colombia, 5:30-7 P.M., Irreg.		W3XAL	Bound Brook, U.S.A., 7 A.M.-1 P.M.	
PRADO	Riobamba, Ecuador, 6-8:30 P.M., Thur.		GSG	Daventry, England, 3-5 A.M.	
HC2RL	Guayaquil, Ecuador, 6-8 P.M., Tue.		18-19 MEGS. 16-15 METERS		
TIEP	San Jose, Costa Rica, 3-7 P.M., Irreg.		THE GLOBE		
JVT	Nasaki, Japan, 11 P.M.-5 A.M.		5100 SO. BROADWAY		
7-8 MEGS 43-37 METERS			LOS ANGELES, CALI		
HJ4ABB	Manizales, Colombia, 5-7 P.M., Irreg.				
OA4AC	Lima, Peru, 6-8:30 P.M.				
HJ3ABD	Bogota, Colombia, 3-6 P.M., Irreg.				
8-9 MEGS. 37-33 METERS					
PSK	Rio de Janeiro, Brazil, 3-4:30 P.M., Irreg.				
9-10 MEGS. 33-30 METERS					
IRS	Rome, Italy, 3-5 P.M., Irreg.				
COH	Havana, Cuba, 5-7 P.M., Irreg.				
PRF5	Rio de Janeiro, Brazil, 2:30-3:30 P.M.				
GSB	Daventry, England, 12:30-1:30 A.M., 8-11 A.M.				
VK3ME	Melbourne, Australia, 2-4 A.M., Wed., Sat.				
W2XAF	Schenectady, U.S.A., 3:30-8 P.M.				
DJA	Zeesen, Germany, 5-8:30 A.M., 2:30-7 P.M.				
W1XAZ	Boston, U.S.A., 3 A.M.-8 P.M.				
VK3LR	Melbourne, Australia, Midnight-5 A.M.				
GSC	Daventry, England, 3-5 P.M.				
W3XAU	Philadelphia, U.S.A., 8 A.M.-4 P.M.				
VK2ME	Sydney, Australia, 9 P.M. Sat.-8:30 A.M. Sun.				
EAQ	Madrid, Spain, 2:15-4 P.M., except Sat.				
10-11 MEGS. 30-27 METERS					
LSX	Buenos Aires, Argentina, 3:15-4:15 P.M.				

Selectivity of 1935 model actually exceeds the 1934 model, which was the most selective set on the market. Any apparent broadness of tuning of the broadcast band is due entirely to the greatly enlarged effective dial circumference of the Patterson All-Wave, which is $39\frac{1}{4}$ inches, compared with only 19 inches for such well-known all-wave radios as the RCA Magic Brain or Zenith 835 and 880 and the 1934 model Patterson. For example, the sector of circumference between 550 and 600 kilocycles of the 1935 Patterson is approximately $1\frac{1}{2}$ inches against $\frac{3}{4}$ inch for the 1934 Patterson and the other well-known makes.

THE GLOBE

5100 SO. BROADWAY
LOS ANGELES, CALIF.

Model PR-12; 8-550 meters. 12 tubes; the wonder set of all time; successor to world famous PR-10; will outperform any set, at any price, on any band; 5 bands; every feature of value known to radio science, several exclusive with this model; new 6-section tuning condenser; modulation meter and R meter; crystal filter, monitor switch; unit construction; astounding selectivity and sensitivity; the world's finest tone; doublet antenna input system; Patterson Selector-Band Dial; 10 to 1 and 50 to 1 vernier tuning; automatic volume control; full 10" matched dynamic speaker; heavy gauge auto body steel case, with baked enamel finish. Size: $19\frac{3}{4}$ " wide; $10\frac{1}{2}$ " deep; 11" high; 12 matched 6-volt tubes. Price complete, nothing else to buy . . . **\$139.50;** with crystal **\$149.50**

