



A. C. RADIOS
FOR HOMES WITH
A. C. CURRENT

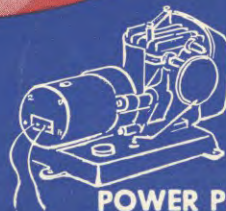
HOW TO OPERATE
YOUR



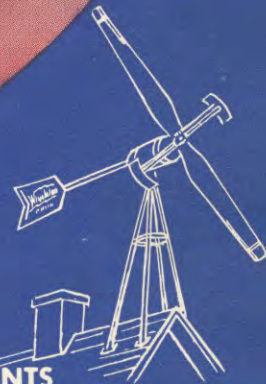
RADIO
LOG BOOK
and
SERVICE MANUAL



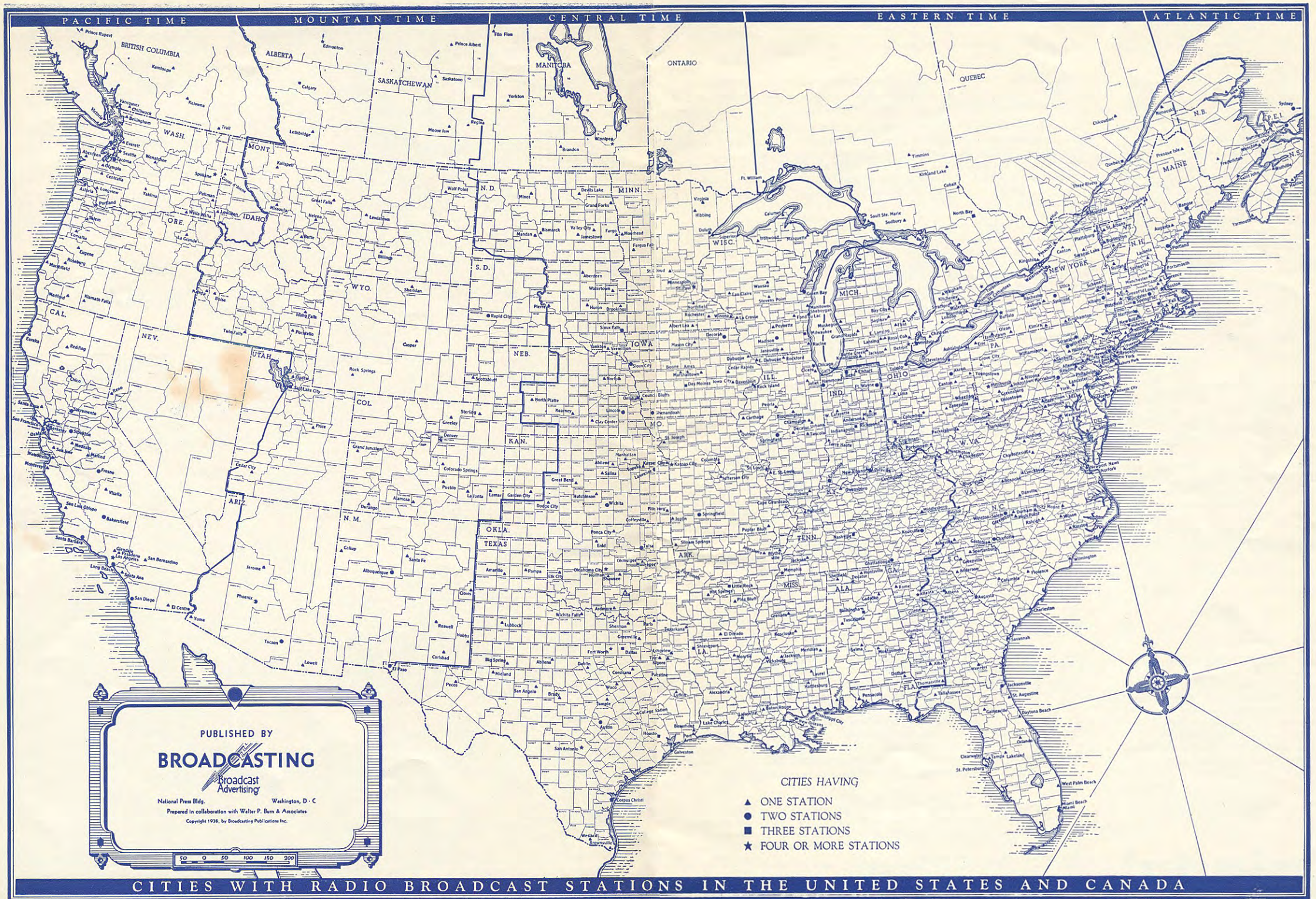
BATTERY RADIOS FOR HOMES
THAT REQUIRE BATTERY POWER



POWER PLANTS
FOR EVERY PURPOSE



CHICAGO, **Spiegel** ILLINOIS
INC.

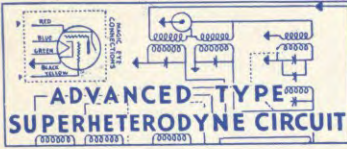


Reproduced from the 22"x30" wall map available for 35c from Broadcasting Magazine, National Press Bldg., Washington, D.C.

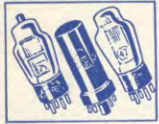


"The Voice of Two Worlds"

This Service Manual and Log Book was designed by Spiegel's to help you get the finest possible performance and the greatest possible pleasure from your Air Castle Radio.



Every Air Castle chassis is constructed with this outstanding engineering feature! Perfected with latest patents from R. C. A. and Hazeltine laboratories — your guarantee of the finest in the world of radio!



Super Air Castle Tubes

Every Air Castle is equipped with R. C. A. licensed Super Air Castle tubes. Countless rigid tests have proven the vast superiority of these tubes. Improved shielding in both glass and all metal tubes adds greater sensitivity and clearer tone.

AIR CASTLE BATTERIES

Every battery-operated Air Castle is equipped with Air Castle batteries! The Bureau of Standards of the U.S. Government sets the standards for all batteries and Air Castle batteries have been constructed and tested to exceed even these rigid specifications.

Just as it would be unwise to try to operate a machine as intricate as a camera without first reading the instructions carefully, so it is with your radio. You will be amply rewarded if you will spend just a few minutes NOW with this booklet. Read it through from beginning to end — see just which stations you can expect to receive on your radio; see WHY you may not be able to receive certain other stations.

If your radio is designed to pick up Short Wave stations you have an extra treat in store, for the distance-getting powers of your Air Castle will delight you. On pages 18 and 19 there is a log of Intermediate and Short Wave stations. It shows you at just what time Short Wave stations in all parts of the world are broadcasting, and it automatically adjusts itself to YOUR time zone.

A convenient log of stations of the Standard or Long Wave band and the Weather band has been compiled on pages 12 and 13, detailed instructions for tuning and operating your Air Castle — with special attention to the tuning peculiarities of each band — appear on pages 6 and 7.

On pages 20 and 21 you will find a list of all the Standard broadcast stations in North America, arranged alphabetically.

Do not forget that many forces beyond man's control often prevent best reception — storms, man-made electrical disturbances such as power signs, ignition systems, metal eaves, etc. But there are many things you can do to assure yourself the best possible reception. First of all, have your tubes and batteries tested frequently; one defective tube or worn out battery may undermine the work of good tubes and batteries in your set. Plan to test the tubes every six months to a year, depending on the amount of time your set is in operation.

The quality of reception depends largely on your aerial — be sure you install it correctly. Before you even attempt to locate any stations on your Air Castle, be sure you have made the proper aerial and ground connections. Very often the only difference between good and poor reception is in the installation of your aerial. For best results a good OUTDOOR aerial should be used. We strongly recommend an Air Castle All-Wave Doublet Antenna system for greater distance-getting power and clarity.

The regular Single Wire aerial is the next best type. Erect your aerial as high as possible and as far away from power lines, telephone lines, metal eaves, rain pipes, trees and other obstructions. If it is impossible to avoid these obstructions, erect your aerial at right angles to them. If you live on or close to a highway with considerable traffic it is very important that the aerial be kept as far away from the road as possible because of the motor ignition interference from passing cars and trucks. Also a number of household electric appliances may cause interference. This interference is especially noticeable on short wave reception particularly below the 25 meter band.

On pages 12 and 13 you will note that the super-power stations are printed in extra large type. Score 2 points for each of these stations you receive on your radio and see how close to 100 you can reach — 50 stations. 60 points (30 stations) indicate that your tubes, batteries and aerial are in good shape.

Keep this booklet near your radio at all times. Get in the habit of consulting it often.

Best wishes for the finest radio performance and enjoyment.

Spiegel INC.

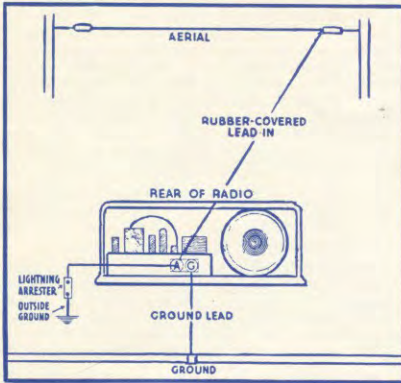
IMPORTANT

Before your Air Castle was shipped to you it was tested in our Radio Laboratories and its reception and tone qualities were found to be 100% satisfactory. If you have any difficulties, they are probably caused by some local condition in your community or as a result of damage in transit.

In case of any service difficulty, fill out questionnaire attached and await your reply from our RADIO ENGINEERING DEPARTMENT.



IF YOU HAVE A SINGLE WIRE AERIAL:



This type of aerial should be erected between 50 and 60 feet including the lead-in wire. Erect as high as possible and as far away from power lines, telephone lines, metal eaves, rain pipes, trees, etc., as is convenient. Connect the lead-in wire to the screw marked "A" at the rear of the radio and connect the ground wire to the screw marked "G". If your set is equipped with aerial and ground lead wires, hook the aerial to the Blue lead wire and hook the ground to the Black lead wire. The length of the aerial can be increased for better daytime reception. Further detailed instructions are included with your aerial.

Experiment to find which length brings most satisfactory results, then keep it as short as possible, consistent with good reception.

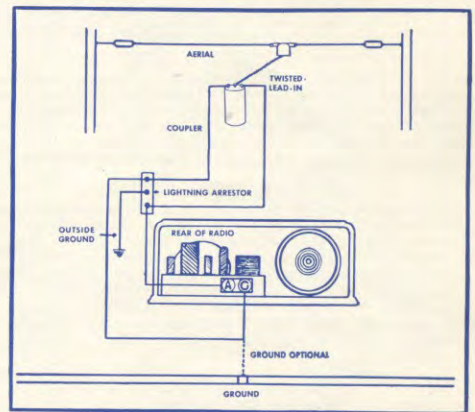
IF YOU HAVE AN ALL-WAVE DOUBLET ANTENNA:

Splice the twisted leads from aerial to the twisted lead wires of the radio set coupler. When splicing, the red lead from the coupler should be connected to the red lead of the transmission line. When possible, solder each connection and cover the splicing with electrician's tape.

The radio set coupler may be mounted outside of the building on the window casement, or inside the building near the radio.

Connect a wire from the post marked (A) on the radio set coupler to either of the outside binding posts on the lightning arrester. Continue this wire to the antenna connection (A) on the radio. The ground connection to post marked (G) on the radio set coupler is to be connected to the opposite outside binding post, on the lightning arrester, and continued to the ground (G) on the radio set. Connect an external ground to the center connector on the lightning arrester.

For best results follow the diagram shown at the right—detailed instructions are included with your antenna system.



GROUND INSTRUCTIONS

In most instances a good ground connection will tend to improve reception and decrease the noise level. Connect the ground wire to either a cold water pipe or a steam radiator if possible. If these are not avail-

able, drive an iron pipe 3 or 4 feet into the ground in a moist place and connect the ground wire to it. Connect other end of ground wire to the screw at the rear of the radio marked "G".



How to Operate



READ CAREFULLY BEFORE TUNING YOUR RADIO

Anxious as you probably are to start tuning, you will be amply repaid if you take just a few minutes to check your aerial and ground connections first; see page 5. If your *Air Castle* has the wonderful new Automatic Push-Button Tuning, follow the instructions included with your set to make the few simple adjustments necessary to enable you to tune in on your favorite stations by merely pressing a button.

If you have a battery-operated *Air Castle*, consult the battery chart enclosed with your radio; make sure every connection has been made correctly. If yours is an electrically-operated *Air Castle*, plug it into an outlet socket of proper voltage.

NEXT, CHECK YOUR TUBES CAREFULLY

Reach into the back of the chassis and press each tube down firmly into its socket, making sure each tube is securely in place and leaving no chance for poor connections. Also be sure that the leads to the tops of those tubes having caps are firmly attached to these caps.

Examine the dial of your *Air Castle*. You will notice that it consists of from one to four distinct bands, depending on the number of wave bands your particular radio is equipped to receive.

Locate the logs or lists of stations in this book on pages 12 and 13 and on pages 18 and 19. When you tune in on stations on the standard Broadcast band you will refer to pages 12 and 13; when tuning on the Short wave and Intermediate bands refer to pages 18 and 19.

Locate the knob labeled "Band Switch" on the front of your radio. If you do not have such a knob, your set is designed to receive standard Broadcast reception only. If there is a Band Switch knob on your set you may or may not have a wave band indicator on the dial.

NOW YOU ARE READY TO TUNE

Turn the knob marked "VOLUME" to the right until it clicks. This turns on the power. After allowing about 30 seconds for the tubes to warm up, your *Air Castle* is ready for operation.

STANDARD BROADCAST BAND TUNING

USING THE LOG

DIAL LOCATION. All standard Broadcast stations are located by using the standard Broadcast dial band, marked 540 to 1720 kilocycles (shortened for convenience to 54 to 172) or 540 to 1600 (shortened to 54 to 160). Standard Broadcast stations are found up to 1550 (or 155); several police call broadcasts occupy the balance of this band.

GEOGRAPHICAL LISTING

On pages 12 and 13 you will find all standard Broadcast stations in North America grouped geographically. This log shows at a glance which stations you are most likely to receive in your community, and the most powerful stations in each geographic group are set in large type. For example, if you live in Minnesota, which is in the Middle Western group, and you set the needle on your dial at 57, you will most likely get station WNAJ rather than stations with the same kilocycle reading in more distant localities.

VARIATION FROM LOG

In many localities stations do not come in at the exact kilocycle reading this log indicates. This is no fault of your radio, but is due to ungovernable influences. However, all stations will vary from their respective log readings to the same degree, and once you have located one station, and noted its kilocycle variation, all other stations will vary from their log readings the same number of kilocycles. For this reason, there is a column down the center of the page of your log on which we suggest that you put down the exact location of every station, as you locate it, for later reference.

When you are not operating your radio, be sure to turn the

Turn the Band Switch knob to the band on which you wish to tune. We strongly recommend that you first tune in on the standard Broadcast band because reception conditions are more nearly ideal on this band. Consult the paragraphs below dealing with the band on which you are tuning.

If your set has Automatic Push-Button Tuning and you have already made the adjustments described above, you have only to press the button bearing the label of the station you want and that station will come in instantly, automatically and accurately. To tune other stations, see instructions following, remembering that the knob marked "TUNING" turns the needle indicator on the dial.

Because of *Air Castle's* high sensitivity you may find that there is some noise interference BETWEEN stations. It is therefore very important that you tune slowly and carefully to find just that point on the dial where reception of the particular station you are tuning in is clearest and loudest; this point is known as the "PEAK". After station is tuned on PEAK, increase or decrease volume to desired level by using Volume Control knob only. DO NOT TUNE STATION OFF PEAK TO ADJUST VOLUME!

Science's latest development to aid you to tune perfectly is SIGNALITE TUNING EYE. Refer to section below for proper use of SIGNALITE if your *Air Castle* is equipped with it.

ADJUSTING THE VOLUME. Locate the knob marked "VOLUME". On all *Air Castles* this is incorporated with the On-Off switch. To increase the volume, turn this knob to the right; to decrease volume turn knob to left. This is the only proper way to regulate volume — do not tune station off PEAK in an effort to adjust the volume.

TONE CONTROL. If your set is equipped with a "Tone Control" knob you may wish to adjust the tone to that pitch most pleasing to you. By turning this knob to the right you bring out the treble or high notes more clearly; by turning this knob to the left the bass or low notes predominate.

Stations marked T, U, V, W and Z can generally be heard from coast to coast at night, frequently in preference to stations much nearer you but with less power. Lower powered stations of the same kilocycle readings sign off in favor of these higher powered stations at local sunset.

TUNING

Set the Tuning knob to that figure on the dial that corresponds to the kilocycle reading of the station you are looking for, and turn it slowly until the desired station is tuned in on PEAK, or where reception is best. Remember, unless you are exactly on PEAK your radio may pick up noise interference.

SIGNALITE TUNING EYE

If your *Air Castle* is equipped with a Signalite Tuning Eye, locate PEAK in this way: rotate the tuning knob after station has been picked up until the shadow in the Signalite Tuning Eye is as narrow as it will get. When this shadow is narrowest, your radio is tuned on PEAK; as the shadow broadens you are tuning off peak with greater distortion as a result.

The shadow becomes even narrower if you are using a good outside aerial and if the station is powerful. The success of the operation of Signalite depends on the power of the station, not on the power of your *Air Castle*.

It is not necessary to have the volume tuned up high to work Signalite. We recommend that the volume be kept low while Signalite is being used and until the station is tuned on peak, then turn up the volume to the desired strength.

SHORT WAVE BAND TUNING

USING THE LOG

For successful Short Wave band tuning you must have not only great patience but a precise knowledge of exactly WHEN and WHERE to tune! The log on pages 18 and 19 was prepared to give you exactly this information!

With your pencil cross out the four rows of hour figures that do not apply to your community, leaving only YOUR time zone. Now it is easy to see between just which hours the prominent stations are broadcasting.

Follow the column for the hour you are tuning and note stations that are broadcasting at that hour; be sure to check whether it is A. M. or P. M. and the days of the week on which that particular station broadcasts.

TUNING

Set your radio to the Short Wave Band. Disregard all other bands on your dial. Turn the Volume Control knob as far to the RIGHT as possible to avoid passing any stations. Turn Tone Control knob as far to the LEFT as possible to remove harshness and interfering noises. Now set your Tuning knob to the megacycle reading that corresponds to the megacycle reading in the log of the station you are trying to locate.

TUNE SLOWLY — CAREFULLY

With slow, careful tuning, faint signals can frequently be developed to great strength. After the station is properly tuned in, turn the Tone Control to the right to bring in speaking voices more clearly, and adjust the Volume Control to suit yourself.

Notice how closely together many of the stations are located; you must tune very SLOWLY not to skip over them. Simply because a station is broadcasting at a given time, do not blame your radio if you are unable to locate it. REMEMBER, THERE ARE MANY FORCES

INTERMEDIATE WAVE BAND TUNING

USING THE LOG

The Intermediate band includes over 200 police calls, It extends either from 1.7 to 5.2 or 1.6 to 4.5 megacycles — depending on the model *Air Castle* you have.

You will notice that all police call stations are located closely together. Patience and fine tuning are required to locate any single station. As many as 15 different stations broadcast their police calls over the same frequency. This simply means that you will only get that station which is nearest you, to the exclusion of the others at that reading.

OVER WHICH MAN HAS NO CONTROL WHICH PREVENT YOU FROM GETTING RECEPTION AT CERTAIN TIMES — SKIP DISTANCES, STORMS, DIRECTIONAL ANTENNAE AND OTHER FORCES.

As soon as you locate a station, mark it in your log book, and mark down the exact location and time, for your later reference.

SHORT WAVE FACTS

Stations in the 15 megacycle band come in best during the summer months, during daylight hours. Stations on the 11 megacycle band come in best in early and late summer during the afternoon and early evening. Those on the 9 megacycle band come in best during spring and early fall in the late afternoon and early evening; and the stations on the 6 megacycle band are heard best in the fall and winter late in the afternoon and evening.

Because it is often necessary to listen for some time to a Short Wave station to determine definitely whether it is local or foreign, we have listed below the call signals of some of the leading foreign stations:

- British stations transmit the striking of Big Ben, London
- German stations play a repeated score, using bells
- Paris, France plays the Marseillaise "Hello, hello, ici Paris"
- Portugal—CT1AA—Cuckoo calls
- Australia—VK2ME—Kookaburra bird calls
- Russia RV59 play the Internationale "Hello, hello, here is Moscow"
- Italy HVJ "Pronto, pronto, Radio Vaticano" ZRO—"Radio Roma-Napoli"
- Netherlands—PHI—"This is Huizen"

TUNING

Set your radio to the Intermediate Wave Band. Disregard all other bands on your dial; turn the Volume Control knob, far to the right; turn the Tone Control knob well to the left. Turn the Tuning knob SLOWLY around the number on the dial corresponding to the megacycle reading of the station in the log; adjust it carefully until you reach the PEAK. Turn the Tone Control knob to the right to bring in speaking voices more clearly.

Before your *Air Castle* was shipped to you it was tested in our Radio Laboratories and its reception and tone qualities were found to be 100% satisfactory. If you have any difficulties, they are probably caused by some local condition in your community or as a result of damage in transit.

In case of any service difficulty, fill out questionnaire attached and await your reply from our RADIO ENGINEERING DEPARTMENT.

IN ALL CASES CONSULT SPIEGEL'S BEFORE YOU RETURN YOUR RADIO!

on-off switch to the left until it clicks. This turns off the power.

Introducing Your Favorite Radio Stars



Alice Frost, 'Ruth'
Big Sister



Louise Fitch, 'Dale'
Maubattan Mother



Elspeth Eric, 'Joyce'
The Girl Interne



Virginia Clark
Romance of Helen Trent



Sunda Love



Peggy Wall, 'Peg'

Stepmother



Eleanor Phelps
Life and Love of Dr. Susan



Adele Ronson, 'Evelyn'
Her Honor, Nancy James



Bess Johnson
Hilltop House



Patricia Dunlap—Marjorie Hannan
Bachelor's Children



Joan Tetzel

Woman of Courage



Selena Royle



Noel Mills, 'Joan'
When a Girl Marries



Templeton Fox, 'Elinor'
This Day is Ours



Jess Pugh, 'Scattergood'

Scattergood



Catherine McCune, 'Clara'

Baines



Frances Langford
Texaco Star Theatre



Kenny Baker



Joan Edwards
With Paul Whiteman



Joe E. Brown
Comedian



Kate Smith
Kate Smith Hour



George and Gracie
Burns and Allen



Barbara Luddy—Les Tremayne
First Nighter



Helen Claire
Grand Central Station



Ethel Plume



Dr. Earl Craig
Professor Quiz



Jimmy Fidler
Hollywood Gossip



Mary Eastman—Bill Perry
Saturday Night Serenade



Freeman Gosden—Charles Correll
Amos 'n Andy



Joan Tompkins, 'Judy'
Your Family & Mine



Dorothy Lowell
Our Gal Sunday



Mitzi Gould, 'Nancy'
Parker Family

Enjoy Them All
With an
AIR CASTLE

National Broadcasting Company



Edgar Bergen



Dorothy Lamour
Chase & Sanborn Program



Nelson Eddy



Jean Dickenson
Album Familiar Music



Jack Benny
Jello Program



Irene Rich
For Welch



Gale Page
Hollywood Playhouse



Richard Crooks
Voice of Firestone



Margaret Speaks



Fred Waring
Pleasure Time



Donna Dae



Bob Hope
For Pepsodent



Horace Heidt
Horace Heidt and His Musical Knights



Lysbeth Hughes



Jim Jordan, 'Fibber'



Marlon Jordan, 'Molly'
Fibber McGee and Molly



Bill Thompson, Dialectician



Jane Ace
Easy Aces



Betty Lou Gerson, 'Connie'
Arnold Grimm's Daughter

Sensational! *Breath-Taking!* Air Castle's **PUSH-BUTTON TUNING**

Check your tubes and batteries from time to time! Remember one worn-out tube or battery can spoil the tone and ruin the reception of the entire set! For greatest value and best tone, replace with AIR CASTLE proven radio equipment.

With your convenient Shopping Terms at Spiegel's you need not delay ordering! Lowest prices—highest quality, and your order handled in 24 hours. You have months to pay and at Spiegel's there is No Charge for Credit.



June Travis, 'Marilee'
Waterloo Junction



Don McNeil



Nancy Martin
Breakfast Club



Jack Baker



Walter Blaufuss
Farm & Home Hour



Evelyn Lynne



Garry Morft

Club Matinee



Virginia Clark, 'Edith'
Woman in White



Willard Farnum, 'John Adams'



Mercedes McCambridge, 'Midge'
Midstream



Betty Winkler
1001 Wives



Roy Shield
Inside Story



June Lyon, Pianist
Lyon & Marlowe

National Broadcasting Company



Clifton Fadiman

Information Please



Franklin P. Adams



Julia Sanderson—Frank Crumit
Battle of Sexes



J. Anthony Smythe, 'Henry'



Barton Yarborough, 'Cliff'
One Man's Family



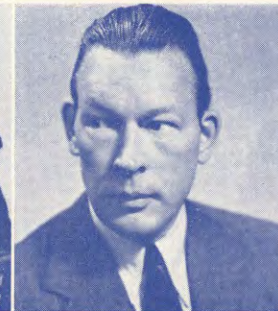
Kathleen Wilson, 'Claudia'



Dave Elman
Hobby Lobby



Kay Kyser—Virginia Simms
College of Musical Knowledge



Fred Allen
Town Hall Tonight



Jess'ea Dragonette
Vocalist



Bob Burns

Kraft Music Hall



Bing Crosby



Connie Boswell

Good News of 1940



Fanny Brice, 'Snooks'



George V. Denny
Town Meeting of the Air



Jack MacBryde, 'Old Ranger'
Death Valley Days



Lucille Manners
Cities Service Concert



Guy Lombardo
For Lady Esther

SHOULD IT EVER BE NECESSARY TO WRITE US CONCERNING YOUR AIR CASTLE RADIO, PLEASE FILL IN THIS FORM COMPLETELY

Please check your radio carefully as you answer each question. If possible, first take your tubes to a local radio dealer or serviceman to be tested. If you have a battery radio, have your battery tested also.

1. Have new tubes been put in since radio was purchased? _____
2. Are all tubes in the correct sockets as shown in the instruction booklet? _____
3. Do the tube shields fit snugly over the shield base on those tubes that are shielded? _____
4. Is a wire with clip firmly attached to all tubes with metal tips? _____
5. Is the wire, with clip, connected to the correct tube with metal tip as shown in the instruction booklet? _____
6. Have you had the tubes tested by your local radio dealer or radio repairman? _____
7. Are you using an outside aerial? _____
8. Have you checked the aerial completely for loose or broken connections? _____
9. How long and how high from the ground is your aerial? _____
10. Is more than one radio being used from the same aerial? _____
11. How is your radio grounded? _____
12. Has your radio ever operated satisfactorily? If so, for how long? _____
13. Have you ever had your radio repaired? If so, by whom? _____
14. Is reception noisy? If so, is it constant or at certain times of the day? _____
15. Is there a competent radio repairman in your community? _____
16. Are there any neon signs, power plant apparatus or other major electrical equipment within two blocks of your home? _____
17. Give model number of your radio (see back of chassis). _____

IF YOU HAVE AN ELECTRIC RADIO:

18. What is the voltage and frequency in cycles of the current supplied in your locality? (This information may be obtained from your local power plant or from the electric meter). _____
19. Is there power at the convenience outlet in which the plug from the receiver is inserted? (To test: Plug in lamp or other electrical appliance). _____

IF YOU HAVE A BATTERY RADIO:

20. Are the batteries connected exactly as shown in the diagram enclosed with your radio? _____
21. List the voltage of each battery. If you cannot test the batteries, have them tested by a radio dealer or local battery service station. _____

Describe in detail on the reverse side of this sheet the nature of the difficulty, provided it has not been covered by the above questions.

PRINT YOUR NAME AND ADDRESS HERE	_____ (First Name in Full) (Second Name in Full) (Last Name)		
	_____ (Street, P.O. Box or R.F.D. No.) (Post Office) (State)		
	_____ (If you have moved since you last bought from us, give old address also)		

IMPORTANT

Should any tube in your radio set prove defective, return it to Spiegel Inc. for our inspection, with a letter of explanation. We cannot be responsible for replacement radio tubes purchased locally.



Oscar Bradley
Screen Guild Theatre



H. V. Kaltenborn
Edits the News



Penny Singleton, Arthur Lake,
Larry Sims in *Blondie*



Andre Kostelanetz
Tune Up Time



Tony Martin



Wayne King
The Walz King



Cecil B. deMille
Lux Theatre



Tom Howard
Model Minstrels



Jean Hersholt
Dr. Christian



Sybil Chism, Organist



Chester Lauck—Norris Goff
Lum and Abner



Hal Kemp
Time to Shine



Helen Menken



Jacqueline DeWitt, 'Valerie'
Second Husband



Lanny Ross
Hit Parade
Columbia Broadcasting System



Helen Ward
Bob Crosby's Bob Cats



Bob Crosby



Johnny Green
Johnny Presents

There are about 900 Stations in North America with less than 100 Channels to accommodate them

WESTERN UNITED STATES, CANADIAN, CUBAN AND MEXICAN STATIONS ALPHABETICALLY.

Table listing stations in Western United States, Canadian, Cuban, and Mexican regions. Columns include call letters, location, and frequency. Includes sub-sections for CUBAN and MEXICAN stations.

EASTERN STATIONS IN ALPHABETICAL ORDER.

Table listing stations in Eastern United States in alphabetical order. Columns include call letters, location, and frequency.

Haynes' Radio Log is revised four or more times each year. Subscribers receive ten or more during two and one half years for one dollar. Individual copies are fifteen cents from 161 W. Harrison St., Chicago.

Use This Map to Know the Correct Time at Any Place in the World



TIME IS DIFFERENT depending upon LOCATION on the world surface. For instance the Standard time in New York is one hour later than in Chicago. If you know the correct time where you live, this TIME ZONE map makes it easy for you to determine the correct time anywhere in the world.

Look at the map and notice the TIME ZONES marked off along the top and numbered 1, 2, 3, etc. Mark the place where you live in the United States, and determine in which TIME ZONE you are located. Now, for example, if you wish to know the time in San Francisco, simply count the number of time zones to the west until you arrive at the

San Francisco zone. The number of zones to the west of your location — including the San Francisco zone — will be the number of hours EARLIER it is in San Francisco than your own time. To determine the time at any point EAST of your location, count the zones in the same way, but the time will be that many hours LATER than your own time.

Quite a number of countries are irregular. They are encircled. Small arrows point to these areas and the numbers at the tail end indicate the minutes to be added to the regular zone time. Bolivia, for example, is 4 hours and 33 minutes earlier than London.

Exclusive
at
Spiegel's



Complete
Radio
Equipment

"the voice of two worlds"

BATTERY RADIO OWNERS:

No matter where you live or whatever your business, there is an *Air Castle* that will bring you the news and entertainment of the world, and priced to fit into your financial scheme conveniently! Turn to the radio pages in the big Spiegel catalog and read about the complete line of *Air Castle* tubes, batteries and aerial equipment—all built to live up to the same rigid specifications as the famous *Air Castle* radios!

It makes no difference if your home is wired for electricity or not—there is a wide range of table and console models to choose from! Every radio is sent to your home for a generous free trial before you make up your mind definitely! And at Spiegel's you pay in conveniently small monthly payments while you and your family are enjoying the entertainment of your choice, and there's **NO CHARGE FOR CREDIT!**

Air Castle Batteries Are Built to Give You EXTRA Power!

Your battery-operated *Air Castle* needs continuous power just as your automobile needs continuous power of gasoline! And just as your auto consumes gasoline, so is your battery-power consumed—requiring replacement from time to time!

It is imperative that all battery connections be made **EXACTLY** as shown in the battery chart included with your radio. Incorrect connections may cause serious damage to your radio and batteries. Do not allow battery wires to lie on the storage battery as any moisture from the battery may eat through the wires, ruining them and cause a "short circuit".



SAVE MONEY WITH A WINCHARGER

Users of six-volt radios can save many dollars by buying a **WINCHARGER**. It not only keeps batteries charged at all times, but can also be used for operating a few lights in the home.

The **WINCHARGER** eliminates trips to the service station with a dead battery, or having to go without one's radio for a few days.

It will also charge auto and tractor batteries, and in addition, many folks find the

WINCHARGER soon pays for itself, by charging six-volt radio and auto batteries for the neighbors.

See your big Spiegel catalog for a complete line of **WINCHARGERS**.



DRY BATTERIES

AIR CASTLE radio dry batteries are constructed of the finest materials, and carefully tested at the factory to assure long life. **WARNING!** Do not attempt to test dry batteries by shorting with a screw driver or other metal implements, as this will shorten their life.

See your big Spiegel catalog for a complete selection of famous *Air Castle* batteries.

WARNING: Be sure your radio switch is turned off when radio is not in use!

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