"STATICLESS"

Stromberg-Carlson

RADIOS

Frequency Modulation

ARMSTRONG SYSTEM

a NEW KIND *of* BROADCASTING

. . . . for FM *radios*

January 1, 1941, is an important date in the history of radio—for that is the day set by the FCC for the first commercial broadcasting by FM stations with sponsored programs on regular schedules, competing with the regular broadcasting stations.

Many of the FM broadcasting stations now experimenting on the air plan to increase their power, and many more stations are under construction. Programs of the originating stations of the NBC, Columbia and Mutual Networks now are being regularly sent out on FM as well as on the regular broadcasting stations. In addition, FM broadcasters will originate many fine musical programs, may even create an additional network or two.

Why was FM *invented*

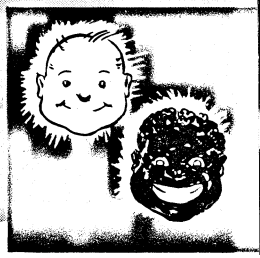
Originally intended just to overcome static, FM has been perfected to meet almost every limitation and shortcoming of the broadcasting art, for listeners located within the primary service area of broadcasting stations—the useful service range of FM broadcasting stations

You will want an FM *radio because you* DON'T *want . . .*

- **the crashes of static marring and making unintelligible your favorite programs;**
- **the buzz and crackle of your neighbor's vacuum cleaner, electric razor or oil burner raising havoc with reception in your home;**
- **two or more stations crowding in and blurring the one to which you wish to listen;**
- **music that is deficient in tone quality—that lacks the bass and treble that you know should be there;**
- **fine orchestral selections that lack color because the sudden crescendos are suppressed, not reproduced in proper proportion.**

The first thing that will strike you, when you hear your first FM program, is undoubtedly the amazing fidelity or naturalness of the speech and music. The full brilliance of the soprano tones, of all percussion sounds, of speech itself, is there to be enjoyed, yet with the bass and middle tones in perfect balance.

How does FM *differ from other types of broadcasting?*



Next, you will probably notice that this more understandable speech—this richer, fuller music—is being reproduced for you against a backdrop of silence. Gone is the static. Gone is the cross-talk from other stations. Gone is the tube hiss in your receiver and carrier hiss of the station you are listening to. There are no extraneous noises to make you want to turn down a tone control and thereby sacrifice part of the music. You will be able to realize the amazement and consternation of a newspaper man who remarked, "Gosh, this thing can transmit silence!"

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After longer experience with FM you will find that reception is the same night and day, winter or summer, regardless of thunder storms, northern lights or sun spots. You will find that fading is practically unknown on FM, and reception is far more reliable whether you live in the mountains, the country, or in the city near a hospital, a trolley line, a power house, factory, or in an apartment or hotel.

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Then, too, FM programs will give you the full volume range of the music as picked up in the studio, unthrottled by an engineer-operator engaged to monitor the station. FM requires no throttling; can give you the same thrill, the same authority, the same "feel" of the music that you would get if present in the studio or concert hall.

What FM brings you

By making possible better, clearer reception, freed from all interference . . . and by paving the way for a faithfulness of tone quality never before achieved . . . FM broadcasting brings radio programs from studio to home so that they pour forth from your loudspeaker brighter, fresher and more realistically natural than you have ever dreamed possible.

Freedom from Static

Static and electrical interference . . . whether man-made or natural . . . are virtually a thing of the past with FM. Your radio may be surrounded by such ordinary reception disturbers as oil burners, elevator motors, dial telephones, electric razors, diathermy machines and kindred devices . . . yet your FM program comes in as silvery-smooth as a mountain lake. A heavy electrical storm may be raging outside . . . yet not a single crackle will come from your radio if you're tuned to an FM station.

Another amazing feature is the total absence of noise or background hum. With FM there's no sound from the moment you switch your set on until music or voice comes forth—perfectly reproduced against a background of silence.

Freedom from interference by other stations

FM also eliminates interference from other stations on the same channel or adjacent channels. Gone are the annoyances of cross-talk, heterodynes and echoes that AM stations, because of their crowded channels and variation of strength, are powerless to prevent. Garbling of two or more programs is simply impossible with FM, because, even though two FM stations occupy the same channel, the stronger will always predominate. You hear only the FM program of your choice—clearly, naturally, without interference.

Greatly extended Musical Range

FM broadcasting permits the transmission and reception of tones and overtones that are lost in regular broadcasting. And FM broadcasters will originate fine musical programs to take full advantage of the extended musical range of this new broadcasting system. FM programs will set the pace for all broadcasters to follow.

Musical perfection never before possible

Just imagine yourself listening to an orchestral program over an FM station. Each note comes across the miles as sharply, as distinctly separate, as if you were sitting in the very studio with the orchestra. The upper ranges of the violins are vivid and distinct. Bass notes never before heard are easily recognized. Each shade of tonal color reaches your ears in startling realism.

A musician taps the triangle; its "ting" is a precise and cool crystal of sound with a lingering afterglow of uncanny clarity. Pianissimo or fortissimo, in shaded orchestral passages, you'll hear each note clearly and at the same volume ratio as the musicians played it.

Between selections the station is so quiet you can hardly believe your set is still tuned in. Voices and music ring against this silent background with a new warmth and richness. A trickle of water, the faintest subtlety of a piano, a sheet of paper crumpled in the announcer's hands—you hear them with unmatched realism when reproduced by FM.

To Fully Enjoy

FM

you need a radio whose

AUDIO SYSTEM

is designed to bring you the most of

RADIO'S GREATEST ADVANCE

Only STROMBERG-CARLSON *has the*

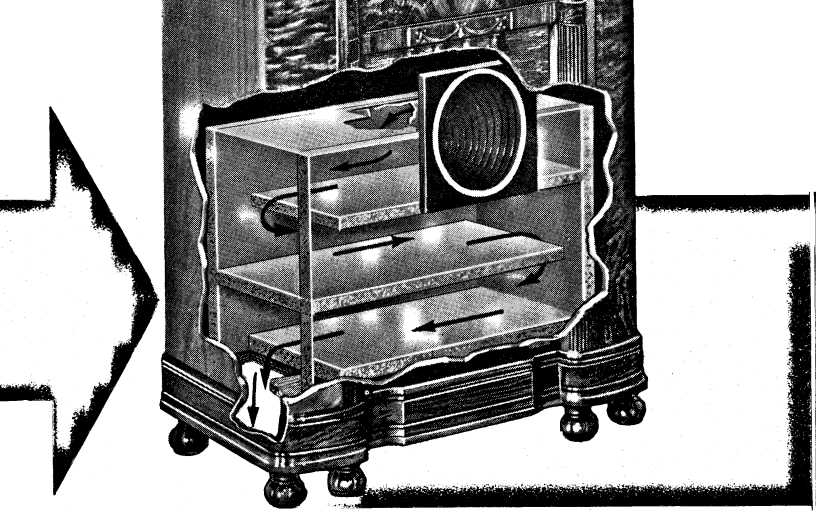
LABYRINTH *and* CARPINCHOE SPEAKER

features that Capture the Utmost of FM's *Extended Musical Range*

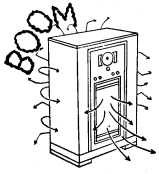
Freed of static and interference limitations, FM programs are broadcast with a naturalness that is startling in its accuracy. To enjoy them fully you need a new FM Stromberg-Carlson . . . the only radio with the Acoustical Labyrinth that assures correct and natural fundamental bass notes — and the Carpinchoe Leather Speaker that delivers more accurate treble tones than ever before heard. Together they form an exclusive speaker system that brings you the utmost of FM's greatly increased fidelity.

THE LABYRINTH

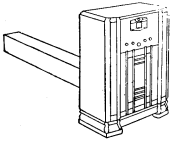
Stromberg-Carlson developed the Labyrinth to (1) Provide extended bass range. (2) Eliminate unnatural "boom." (3) Increase volume handling capacity. (4) Eliminate sounds from back of cabinet. (5) Provide accurate bass response without "blurred" effects.



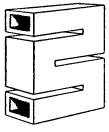
Experiment proved that a long tube, lined with sound absorbing material and placed at the back of the speaker, would absorb and dissipate unwanted sounds and thus prevent "boom". By increasing the air path from front to back of the speaker a large baffle effect was created, and low notes reproduced readily and in proper balance. Since such a tube extending from the back of a radio would be impractical, Stromberg-Carlson engineers *folded it up* into an Acoustical Labyrinth which fits nicely in the cabinet's speaker area.



THE TROUBLE IN AN ORDINARY CONSOLE

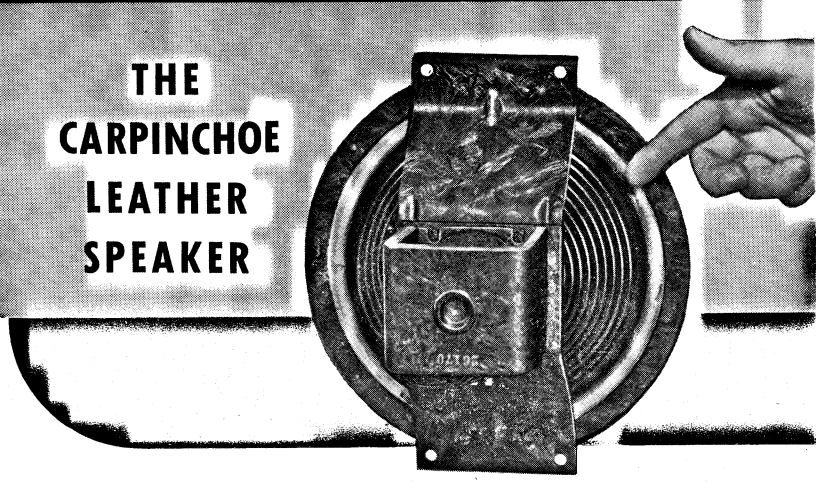


THE THEORETICAL SOLUTION



THE THEORY MADE PRACTICAL

THE CARPINCHOE LEATHER SPEAKER



Another outstanding development of the Stromberg-Carlson Laboratories is the Carpinchoe Leather Speaker—so called because the speaker cone is suspended from the speaker rim with Carpinchoe Leather, noted for its softness and extreme flexibility. This allows the cone to vibrate accurately, avoiding the distortion peaks and valleys in the reproduction that are inherent and distressingly present in regular speaker design. Carpinchoe Leather is unaffected by moisture and will remain soft and pliable throughout the radio's life.

Together . . . . the Carpinchoe Speaker and the Labyrinth form the finest speaker system yet devised for radio. In fact, until the advent of FM broadcasting there were no programs on which these exclusive Stromberg-Carlson features could demonstrate their full capabilities.

STROMBERG-CARLSONS *do* MORE *than just aad* FM *reception . . . they bring you complete enjoyment of* ALL *broadcasts*

Stromberg-Carlson FM radios and radio-phonographs require no extra or special attachments to provide FM reception. They are complete musical instruments, designed, engineered and built to give you the finest possible reception of Standard and Short Wave programs as well as FM.

The Stromberg-Carlson FM radio-phonographs are provided with specially designed automatic record-changers having the new low pressure, (one ounce) permanent, rounded-jewel point, that reduces the wear and surface noise by 10 to 1 and allows playing of records hundreds of times without noticeable damage to the record groove.

Your nearest Stromberg-Carlson dealer will gladly demonstrate one of the new all-purpose, all-program Stromberg-Carlson receivers. See him today. And remember—when you buy a new FM Stromberg-Carlson you buy for the *future* as well as the present!

Stromberg-Carlson is Ready NOW with a Complete Line of Seasoned FM Radios and Radio-Phonographs

Stromberg-Carlson—Radio's leading quality line—is also the leader in FM.

There are more Stromberg-Carlson FM receivers of more types in more homes than there are of any other make.

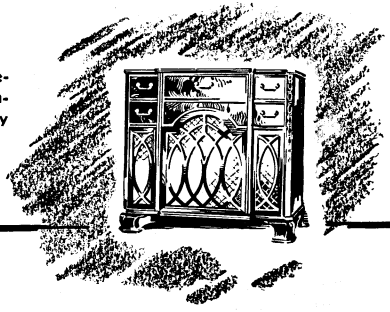
Stromberg-Carlson's complete line of FM radios and radio-phonograph combinations is a SEASONED line backed by more than a year of field experience.

The very fact that Stromberg-Carlson FM receivers have been repeatedly selected to demonstrate Frequency Modulation reception before critical and authoritative groups is indisputable evidence of Stromberg-Carlson's leadership in this new field.

That Stromberg-Carlson should occupy such a position is only natural. No other radio manufacturer has had such long and varied experience in the making of instruments for the transmission and reception of sound. And no one can match Stromberg-Carlson's months of successful manufacture of FM receivers.

There is nothing finer than a STROMBERG-CARLSON

All Stromberg-Carlson FM Receivers are licensed under Armstrong Wide-Swing Frequency Modulation patents



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