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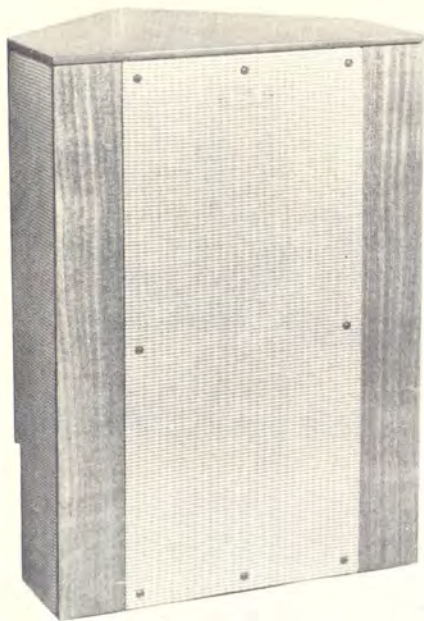
# Rebel

BY KLIPSCH



A CORNER HORN LOUDSPEAKER SYSTEM

*for fine sound reproduction*



*The Rebel K-27 in hand-rubbed mahogany finish*

# T H E

# Rebel

# A CORNER HORN LO

DEVELOPED BY

Designer of

## • GENERAL INFORMATION

A horn construction in which room walls form part of the horn is the important feature of this loudspeaker, in which respect it is similar to the Klipschorn. Horn loading is employed for bass tones and direct radiator action for middle and treble ranges. An acoustic filter transfers radiation from the front of the cone to the corner-horn-loaded rear of the cone for full range performance. This loading increases the efficiency in the extreme bass range, and at the same time provides damping and reduces diaphragm excursion—whereby distortion over the entire tonal range is reduced.

The same general principles are employed in the Rebel as in the Klipschorn, and the technical background may be found in the same literature listed in the technical bibliography in the Klipschorn data sheets. The Rebel is based on and protected by the same patents which cover the Klipschorn.\*\*

The Rebel enclosure reduces distortion and hang-over, and extends the bass range. With properly qualified driver units, Rebel offers such outstanding performance that many observers feel it is bettered only by Klipschorn.

It is designed for drive units up to 15" diameter, coaxial or separate. It has been used successfully with 12" drive units.

\* Trade Mark

\*\* U. S. Patents 2,238,023 - 2,310,243 - 2,373,692 - 2,537,141 - and D163,700

Canadian Patent 434,947  
And Pending Applications

*Electro-Voice, Inc., of Buchanan, Michigan, builds the "Regency," "Aristocrat," "Baronet" and other models under license. The Northern Electric Company of Montreal, Canada, affiliate of the Western Electric Company, enjoys Canadian manufacturing rights. The G & H Wood Products Company of 75 N. 11th Street, Brooklyn 11, N. Y., manufactures under license a series of horns called the "Rebel IV."*

## • SPECIFICATIONS

To the extent of capabilities of a direct radiator to give approximately uniform response, the Rebel extends that response down nearly to 30 cycles. Best response will be had with drivers of approved and tested types. Klipsch and Associates will be glad to advise in driver selection, and also to supply complete Rebel units with such approved and selected drivers as are available.

The basic efficiency of the Rebel is the same as that of the driver employed, except in the bass range. The acoustic crossover is approximately 100 cycles and from crossover down to cutoff the corner horn loading provides fundamental output that would otherwise be lacking. The high frequency crossover depends on the treble driver used. Rebel has been rated at 20 watts input for approximately one to two acoustic watts output. Good results and satisfactory volume level have been obtained using a low-distortion 10-watt amplifier.

## • CONSTRUCTION

Physical dimensions: Maximum 37" high, 25 $\frac{1}{8}$ " wide, and 22" deep front to back.

Super Deluxe models are offered in choice of blond prima vera, natural or dark mahogany, hand rubbed finish, and complete with matching front and side grilles. Deluxe models are available in the same style and colors with satin finish. All permanent joints are solidly glued, with additional metal fastenings; separable joints anti-vibration packed. Klipsch-built Rebels should not be confused with simpler housings and baffles.

Utility models are hardwood plywood front and top without grilles.

Styling is simple, dignified and functional. Inspired by the acceptance of the style 7 Klipschorn, the Rebel has been designed with the same simple effective lines. Taking full advantage of the room corner for bass response, and placing the direct radiator system as high as possible to avoid shadowing from surrounding objects, have resulted in a functionally correct design. The very factors which make the unit functionally

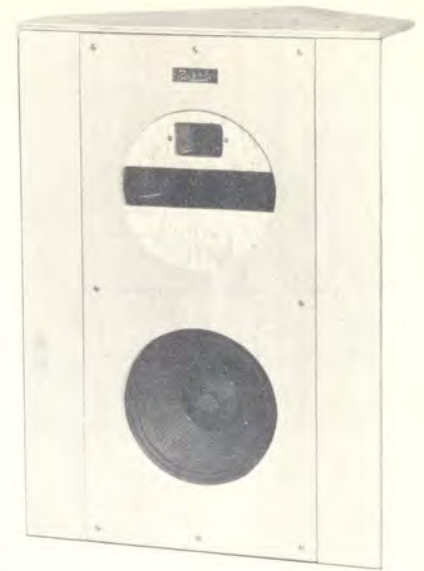
# Rebel

BY KLIPSCH

## LOUDSPEAKER SYSTEM

PAUL W. KLIPSCH

the Klipschorn



*Rebel K-26 utility model, unfinished. Also available with grilles.*

correct lend directly to an order of styling that is highly effective. No problems of shadowing, rattling or increased bulk of a separate housing exist because the functional unit bears the surface finish. The fact that only two outer surfaces require finishing results in economy.

### • DRIVE SYSTEMS

Rebel horns series K-26 and K-27 will accommodate separate 2- and 3-way drive systems such as Electro-Voice 15 W-1 or 12BW-1 woofer driver, T-10 or T-25 top-end driver, and a tweeter if desired. Jim Lansing separate 2-way components have been used. Most separate "top ends" can be installed within the Rebel structure. Any 12 or 15 inch coaxial may be used; the original development of the Rebel was to enable the owner of a coaxial drive system to employ it to maximum advantage.

Best Rebel performance is with separate 3-way system using well selected components including a good tweeter and 3-way crossover network. The utility model pictured utilizes an Electro-Voice 12" woofer, Electro-Voice 8 HD squawker horn with Stephens 108 driver and a University 4401 tweeter. The crossover network used is shown on page 4.

The cover board, furnished without perforation, may be used to blank the lower hole when a coax is used in the top, or may be perforated for any desired combination of top end for a 2- or 3-way system, such as the squawker-tweeter mounting in the 3-way illustrated.

No physical change is necessary to accommodate either 12" or 15" woofers; naturally better performance is obtained with 15" units having efficient magnets.

In any combination, the tweeter should be located as high as feasible, up to ear level. The arrangement shown is excellent.

Rebel performance depends on the driver elements used. Distortion is reduced by the bass horn loading but to a lesser extent than provided in the high-efficiency Klipschorn.

### • APPLICATION

The Rebel is employed for home listening, studio monitoring, musical education, speech correction, and many other uses. In fact, any application where the Klipschorn would be desirable, but where expense is a governing factor, the Rebel offers a reasonable approach to Klipschorn at about a third the price.

### • ASSOCIATED APPARATUS

The same recommendations regarding amplifiers apply to the Rebel as to the Klipschorn and Klipschorn brochure should be consulted for recommendations relative to a long-range plan for a low-obsolescence sound system. Although the Rebel is more tolerant than the Klipschorn whereby less costly associated apparatus may be used, one should guard against false economy.

We suggest that Klipsch and Associates or your nearest authorized Klipschorn dealer be consulted both for best equipment for immediate needs and for long-range planning of the ultimate in sound reproduction perfection.

## KLIPSCH AND ASSOCIATES

HOPE, ARKANSAS

Telephones

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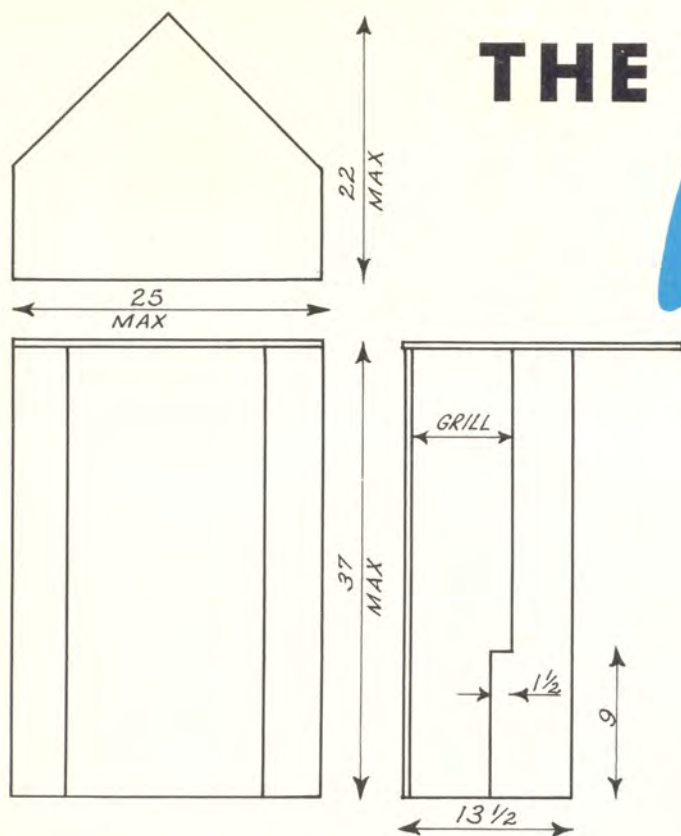
January 1954

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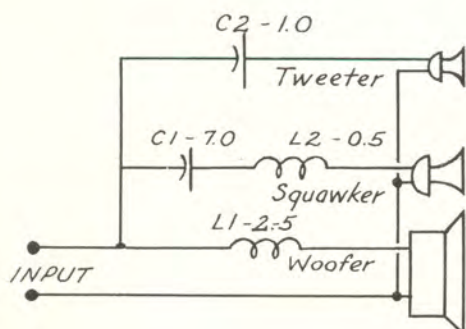
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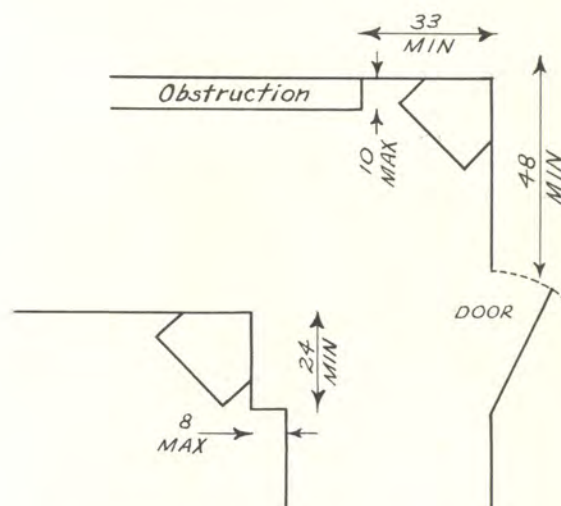


Outline Dimensions showing maximum values and standard grille cutout.  
K-26 and K-27 Rebels

Grilles shown on side elevation are used on K-26-G and K-27 models only.



Suggested crossover network for 3-way Rebel. Constants are given for 16 ohms, 1000 and 5000 cycle crossover frequencies; values in micro-farads, millihenrys. This network has proved superior to more complicated and expensive networks. Inductors are available from Klipsch and Associates.



Preferred maximum and minimum spacing to bookcases, doors, columns, etc. which experience shows are not deleterious to performance.

Maxima and minima may be violated with resultant loss in performance dependent on amount of violation.

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