

Auricon
Model NR-25

VARIABLE-AREA OR VARIABLE-DENSITY
SOUND-ON-FILM
RECORDING AMPLIFIER

After many tests, the new Auricon "Model NR-25" Sound-On-Film Recording Amplifier is being used successfully by Studios and Television Stations throughout the country. This proof of professional results is assured by the Auricon 30 day money-back guarantee.

The Auricon NR-25 Amplifier is housed in a convenient carrying case which also contains the batteries for the Amplifier and for the sound-track Exposure Lamp in the Camera or Recorder. The case is made of triple-plywood covered with wear-proof fibre. The bottom section of the Amplifier case contains the batteries with a battery-replacement instruction sheet, and also provides room for cables, and other accessories.

The NR-25 Amplifier has two sound-inputs so that speech and music can be mixed and adjusted with individual volume-controls. Thus it is possible to mix a "live" microphone pick-up with music and sound effects from phonograph records.

Low-impedance input No. 1 (50 ohms) is provided with a continuously adjustable four-position "Speech-Music" Tone Control. High-impedance input No. 2 is intended for music recording from phonograph records. In addition to the "Speech Music" Tone Control, the "Model NR-25" Amplifier now features a sibilance suppressor which automatically controls the manner in which "S"

sounds are recorded on the sound track. Thus a person with a loud or spitting "S" sound in his speech will be recorded on the film sound-track just as well as the person having a professional "radio announcer" type of voice. This makes it possible to record clean, intelligible speech under poor acoustical conditions such as indoors in small rooms, regardless of the speech habits of the people speaking!

Two meters are provided for exact control of the sound-track being recorded. The left-hand meter operating in conjunction with a selector switch has "A" and "B" battery-test scales and an exposure scale for adjusting the brightness of the sound-track Exposure-Lamp in the Camera or Recorder. Correct sound-track film exposures for various films are given in the Auricon Instruction Book.

The right-hand Meter is a Visual Volume-Indicator, to allow control of the loudness of the sound-track. The meter indicates "low," "correct," and "over," allowing easy reference for sound monitoring. Confining the sound volume within the "low" range will provide back-ground music, and permitting the pointer needle to swing to the top of the "correct" range will give full volume of speech or music on the sound-track. Black meter faces and white pointers are used for highest visibility and accuracy.

Amplification in the Auricon Model NR-25 Unit is obtained by using five audio stages, approximately 105DB gain, with a reserve power output sufficient for full modulation of the sound track. Four 1U5 triode-connected input tubes provide "high fidelity" recording without tube noise, microphonics, or hiss. The recorded frequency compensation is designed to correct for film printing and sound-projector losses, and the Auricon recording range of 40 to 7000 cycles is wider than that of most commercial 16mm sound projectors.

Elimination of technical electrical terms from the amplifier panel and simplification of operation, makes it possible to quickly obtain successful Auricon sound-tracks. The newest model "Stethoscope" type headphones permit listening to the sound for rehearsal purposes, for unwanted noises, etc.

The batteries used with the NR-25 Amplifier are of the standardized portable-radio type and can be obtained locally. Sometimes a private owner will record only a few rolls of film a month, and a set of these batteries will last for a year. For professional use the batteries require more frequent replacement. Small batteries are used to keep the equipment light in weight, and portable. Spare batteries can easily be taken along when needed, making it unnecessary to carry large and heavy batteries with extra capacity which would not be used until months later.

We are sometimes asked why a battery operated amplifier is used instead of 115 volt A.C. operation. There are several reasons why batteries are desirable for 16mm sound-on-film equipment. A great many 16mm talking pictures are not made in a studio. The equipment is very often used away from A. C. power lines. In this case, if the amplifier were 115 volt A.C. operated it would be necessary to carry 32 volts of heavy storage batteries and an expensive 32 volt D.C. to 115 volt A.C. generator. Instead, for portable work the Auricon

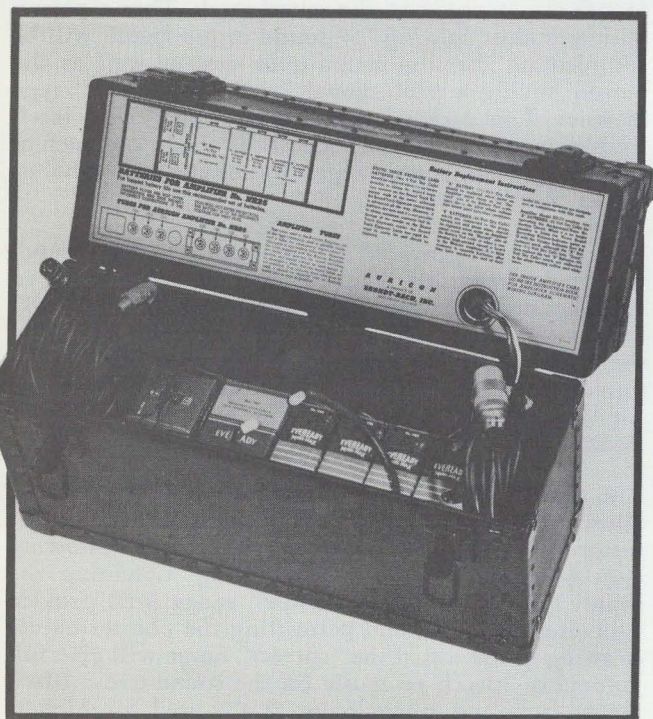
Amplifier with batteries is easy to carry. Taking these facts into consideration, the direct current obtained from batteries is steady and hum troubles are eliminated, at low cost and with maximum portability of the Auricon equipment.

However, for those desiring 115 volt A.C. operation where house current is available, Auricon Battery Eliminators, Model EB-10 and EB-20, which operate from 115 volt, 50 to 60 cycle alternating current, are available. These Battery Eliminators incorporate an *electronic* voltage control, allowing the 115 volt A.C. power line to fluctuate without affecting the amplifier operation. With the EB-10 Model, all four 45 volt "B" batteries are eliminated, when the Auricon NR-25 Amplifier is being used where there is an A.C. power line. (The model EB-10 "B" Battery Eliminator is more fully described and illustrated on another page.) With the Model EB-20 Battery Eliminator, all batteries, including "A," "B" and sound-track exposure batteries, are eliminated and the NR-25 Amplifier then becomes all A.C. operated, but can still operate from batteries for portable use, whenever desired. (In addition, the all A.C. operated Model NR-40 Auricon Amplifier is available for those desiring equipment for studio use only.)

Almost all professional sound-on-film variable-area or variable-density recording utilizes "noise-reduction." The Auricon Model NR-25 Amplifier therefore incorporates a special noise-reduction circuit which automatically adjusts the sound-track being recorded on the film, so that only the particular volume of sound recorded at any instant is accommodated by the track. Thus, during portions of the picture when little or no sound is recorded, the sound-track is darkened or "closed down" to its minimum size, and during subsequent projection as a talking-picture, this prevents dirt and scratches on the sound-track portion of the film, as well as photo-cell hiss in the sound projector, from reproducing in the form of noise along with the wanted sounds which have been recorded on the sound-track. Background noise (which sounds similar to needle scratch on a phonograph record), is thereby reduced, hence the term "noise-reduction" Amplifier.

The NR-25 Amplifier has two tubes for automatic noise-reduction-biasing of the sound-on-film recording galvanometer. It also provides a "Lab Test" push-button for removing the noise-reduction from the sound-track during recording of a test strip, for subsequent film laboratory measurements which require a silent, unbiased sound-track when making densitometer readings to determine sound-track density.

The Auricon Model NR-25 Amplifier is sold on a 30 day money-back guarantee which insures satisfaction, and is covered by a one year guarantee against defective parts or materials.



◀ BOTTOM SECTION OF AMPLIFIER SHOWING BATTERIES AND CABLE STORAGE SPACE.

BACH
Auricon®