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Electro Voice

# MICROPHONE FACTS

FOR THE OPERATING ENGINEER

April 13, 1959

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You probably have already leafed through the new catalogue and found that alterations and additions to the line have been made. All of these changes have been in response to requests from you in the field.

#### THE NEW MODEL 666R JOINS THE 666 FAMILY

The response of the popular 666 has been altered to create the 666R, an addition to the line which in conjunction with the 666 will handle most of the bothersome microphone problems involving low-frequency reverberation in studios or on location. The 666 R is ideal for boom use where it has been impossible to get the reach you need without rolling off the bass, to such an extent that everything below 100 cps is sacrificed. You probably can name many other problems that have turned up where your only solution was to sacrifice bass to get rid of rumble.

For a moment, let's talk about the microphone you are presently using on your boom. If you are using a cardioid microphone other than E-V, and if it has a bass roll-off adjustment switch, the curves of the three positions probably look very much like the dotted line curves A, B and C in chart No. 1.

When you switch from A to B your rumble problem has been reduced but at a terrific sacrifice of low-frequency reproduction. In position C all bottom is eliminated. We felt this compromise was far too drastic, so we decided to investigate what could be done.

Over a period of two years numerous ideas were tried, and many variations in response were used. After many models and extensive field trials, the answer was found. The result is the 666 R.

The solid line curve in chart No. 1 is that of the 666 R. Here the response rises, smooth and peak free from 35 to 2000 cps. Low-frequency response is suitable for both voice and music. After months of testing by twenty-six of the country's top audio engineers in nine different stations, their conclusions were that this treatment of the low end is a solution to many boom problems. The answer is not in the response alone, however, but in combination with superior cardioid characteristics made possible by E-V's exclusive variable-D\* design.

Here, then, is a microphone that through its cardioid pattern will reduce ambient noise and reverberation pickup from double to as much as six times that of cardioid microphones in common use. Combine this with a curve that will reduce the low-frequency reverberation reflected into the front and you have a microphone that will solve problems; all this and a fine low-frequency reproduction, too !

Chart No. 2 shows the complete curve of the 666 R -- smooth rising response up to 2000 cps. From here on out a clean, smooth mid-range and top; the kind of top that will allow you to work at six inches or six feet from the microphone and still have clean, crisp speech at either distance. There are no peaks to cause harsh brittleness in the sibilant range.

We want to thank all of the audio personnel who generously cooperated in the evaluation of the 666 R. You knew what you needed and we are happy that we were able to help solve some of your problems.

## MODEL 6098

We have had so many requests for the Model 667 equalizer for use with other E-V microphones that we are now making it available separately as the Model 6098. This equalizer may be used with any E-V low-impedance microphone. Forty variations of response are possible so that you now can match the response of most microphones in common use.

If you are having troubles with studio acoustics, the 6098 may help you reduce or completely eliminate them. Many have found it an excellent tool.

## MODEL 649A

The 649, as you will note in the catalogue, has been replaced by the 649A.

The transformer is now in the case with the microphone and the case has been lengthened only enough to allow for the transformer; all other dimensions remain the same. The level of the microphone has been raised by 3 db. The cable we are using is the new standard for BC and TV; it meets the specifications selected by the TR-10 subcommittee of the Electronic Industries Association on Broadcasting Practices. Electro-Voice will follow this standard. As soon as our supply of black cable is exhausted, all cable on broadcast microphones will be brown.

And, thanks again to you who were so helpful in this redesign project.

#### TO USERS OF THE MODEL 667 & 6098

We have found that when the 6.5-volt battery is replaced by a 2.5-volt battery, the amplifier hiss is reduced by 6 db or more without a noticeable change in response, level or dynamic range. We suggest MALLORY TR-132; the size is the same as the 6.5-volt battery.

\* Trade Mark Reg.

## SERVICE ON OLD MODEL 666'S

We will completely rebuild and refinish your 666 and at the same time bring it up to date on a par with a new 666, all at a cost of just \$35.00. You may also have your 666 converted to a 666 R at no additional charge. Just send the microphone along with a letter stating your wishes. Be certain to send it to my attention.

Are you the owner of an E-V microphone about which you are not particularly enthused? If, for any reason, you are not happy with a microphone, please let me hear about it. Send the microphone to me along with a letter telling the story. Don't ever feel that you are imposing on us by writing about your problems or sending your microphone in for a checkup. We will not be satisfied with E-V mikes until you are !

We have no hard and fast rules on warranty. No fixed warranty time limit. There are no seals that if broken will void your warranty. Our products are built for a lifetime of normal service and the rule of reason is our guiding precept. Never feel that the age of your microphone lessens our interest in it or your problems. More often than not we can bring that microphone up to date at little expense.

Louis Burrougho

Vice-President Professional Microphones



Chart No. 1