



Turner
MICROPHONES

The
TURNER COMPANY
Cedar Rapids, Iowa

Turner

When you want crisp, clear reproduction of any sound, turn to a Turner Microphone. These units are scientifically engineered to reproduce faithfully all gradations of volume, amplifying only the vibrations received by the diaphragm, without adding any of the harmonics. Today's Turner Microphones are being used for vital war communications — in War Plants, Air Dromes, Ordnance Plants, Docks, Army Camps, Broadcasting Studios, Police Transmitters and other highly sensitive spots where accuracy is of prime importance.



Turner

As shown above, you'll find Turner Microphones used in Broadcasting Studios throughout the world. Turner Microphones have also won an enviable reputation in Public Address Work, for they reproduce precisely every sound from the faintest whisper to the loudest train whistle without distortion or blasting. Below, a Turner Microphone is playing an important part in the call system of a large industrial plant. Today's urgent need for more intelligible communications is being fully met with Turner Microphones.

Turner

Whatever your need for a Microphone, for indoor or outdoor use, you can be sure of a unit that will give complete satisfaction under any acoustic or climatic condition when you specify Turner. Thousands of satisfied users can vouch for the rugged construction, the accurate response, professional appearance and superb performance of Turner Microphones under the toughest usage.

All Turner Crystal Microphones are Licensed Under Patents of The Brush Development Company.

**THE TURNER
COMPANY**

CEDAR RAPIDS, IOWA



Turner

General Utility

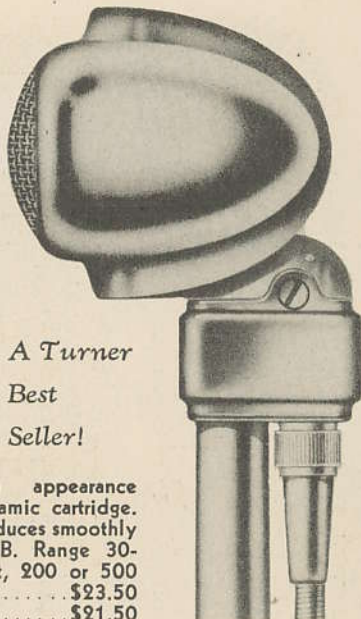
CRYSTAL and DYNAMIC MICROPHONES..

Here are 3 of the most popular microphones in the entire Turner line. For professional appearance and outstanding performance, compare these with units costing much more.

TURNER 22X-22D Crystal or Dynamic

22X CRYSTAL is tops in performance. Reproduces clean and sharp. Smart engineering cuts feedback to the minimum. Tilting head and removable 7 foot cable set. Built-in wind-gag permits outdoor operation. Crystal impregnated against moisture. Automatic barometric compensator. Chrome type finish. High level —52DB. Range 30-7,000 cycles. List.....\$18.50.

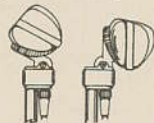
22D DYNAMIC, identical in appearance with 22X, but has high level dynamic cartridge. Dependable indoors and out. Reproduces smoothly at all frequencies. Output —54DB. Range 30-8,000 cycles. With 7 ft. cable set, 200 or 500 ohms or hi-impedance, List.....\$23.50
30-50 ohms. List.....\$21.50



A Turner
Best
Seller!

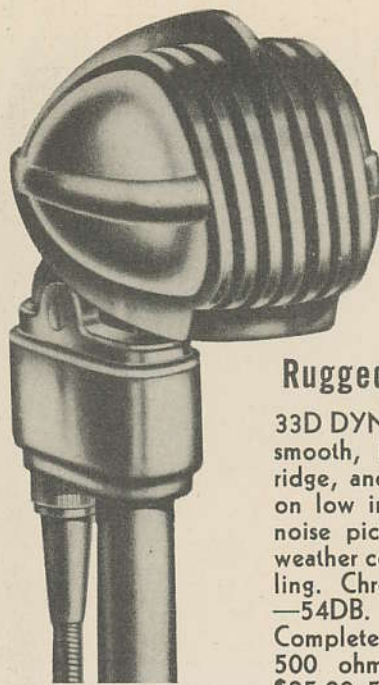
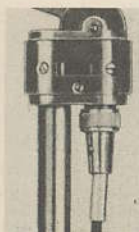
These Microphones All Have Tilting Heads

Turner Microphones 22X, 22D, 33X, 33D and 34X all are equipped with heads which tilt the full 90 degrees. This permits semi- and non-directional operation and allows the operator to work right into the mike without it being in his line of vision.



Available with Switch Equipment

All Turner models on this page may be secured with SWITCH illustrated. This permits fingertip control of mike, regardless of distance from amplifier. Shorts the line quietly and allows mike to be used as "push-to-talk" unit. For S (switch) models of 22,33 or 34, add, List.....\$2.00



TURNER 33 Dynamic or Crystal

Rugged for All Purposes

33D DYNAMIC—Microphone has smooth, high level dynamic cartridge, and the balanced line cable on low impedance units eliminates noise pickup. 33D withstands bad weather conditions and rough handling. Chrome type finish. Level —54DB. Range 40-10,000 cycles. Complete with 20 ft. cable set, 200, 500 ohms or hi-impedance, List \$25.00. 50 ohm model, List \$23.50.

33X CRYSTAL, with high capacity crystal, permits extra long lines. Response 30-10,000 cycles, is free from peaks. You'll appreciate the low feedback. Level —52DB. Ideal for communications, recording or P. A. work. Crystal impregnated against moisture; blast-proofed. A rugged mike in the same style and finish as 33D. Complete with 20 ft. cable set. List.....\$22.50

Turner 34X Semi- Directional Very Smooth Response



A semi-directional Crystal Microphone with particularly smooth response, makes Turner 34X the ideal unit for use where feedback conditions are bad. Crystal is moisture-proof; this mike has automatic barometric compensator, and is blast and mechanical shock-proofed. 50 foot lines may be used. Equipped with 90 degree tilting head. Range 30-10,000 cycles. Level —52DB, with diagrams and 20 ft. removable cable set. Chrome type finish. List \$27.50.



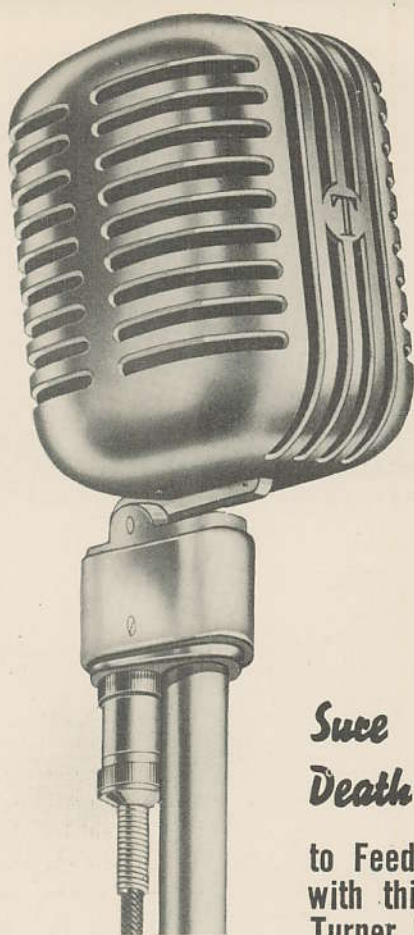
P. A. WORK



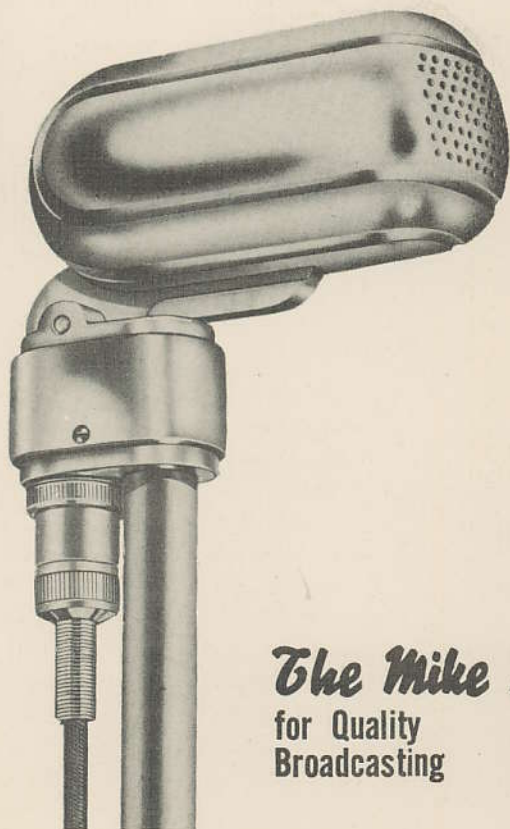
STUDIO



CALL SYSTEM



*Sure
Death . . .*
to Feedback
with this
Turner Cardioid



The Mike . . .
for Quality
Broadcasting

Turner

101 cardioid

Kills Feedback

Where the going is tough, and acoustic conditions practically impossible, this new Turner Cardioid will do the job. Using a 2-element generator, the ribbon velocity and dynamic pressure elements are combined through a specially designed transformer network that properly mixes the two elements — resulting in a unit highly sensitive to sounds originating in front of the mike and completely dead in the rear. NO SACRIFICE of frequency response need be made, as is required with single element mikes. The perfect microphone for studio performance, P. A. men and for recording. Chrome type finish. Complete with tilting head, balanced line output connection and 25 ft. heavy duty cable.

STANDARD MODEL 101A. —59DB below 1 volt per bar for high impedance models. Range 30-9,000 cycles. Front to back ratio: 24 DB at 1,000 cycles. 500 ohm model, output 1.6 millivolt for 10 bar signal; 200 and 250 ohm model, output 1 millivolt for 10 bar signal; 30-50 ohm model, output .16 millivolt for 10 bar signal; 101A List Price, 30, 50, 200, 500 ohms or hi-impedance. \$60.00

DE LUXE MODEL 101B. Same as 101A, but with 3-position switch to allow different pickup patterns. List. \$70.00

BROADCAST MODEL 101C. Same as 101 B, with range extended to 10,000 cycles, and not furnished in hi-impedance. All other impedances available. List. \$75.00.

Turner

211 Broadcast Type

Turner modern engineering has produced this new Dynamic, which offers outstanding performance characteristics, because of the new type magnet structure and acoustic network which is utilized. The high frequency range has been extended and the extreme lows have been raised 2 to 4 decibels, to compensate for over all deficiencies in loud speaker systems. The unique diaphragm structure results in extremely low harmonic and phase distortion, without sacrificing high output level. Equipped with tilting head, balanced line output connection and 20 ft. 2-conductor, heavy duty cable. Chrome type finish.

Level —56DB below 1 volt per bar for hi-impedance models. 500 ohm model has output of 2.5 millivolt for 10 bar signal; 200 ohm model has output of 1.6 millivolt for 10 bar signal; 30-50 ohm model has output of .25 millivolt for 10 bar signal. Range 30-10,000 cycles.

List for 200 ohm, 500 ohm or hi-impedance. \$45.00
List price, 30-50 ohm model. \$42.50

Turner *Hand*

CRYSTAL or DYNAMIC

Does the Job of Several Mikes

Here's a vari-purpose mike you'll want, for it fills the job of two or more units. It fits the hand snugly; has suspension hook for hanging mike applications, stage work and call systems; it can be mounted on any standard floor or desk stand. Especially engineered for maximum voice response and smooth, natural response to music pick ups. Chrome type finish.

POSITIVE CONTACT SLIDE SWITCH

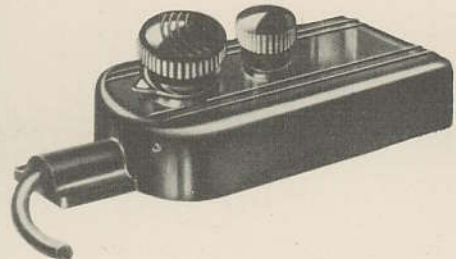
on both crystal and dynamic models permits off-on operation.

9X CRYSTAL will withstand a lot of abuse. Level —48DB. Range 60,7-000 cycles. List.....\$22.50

9D DYNAMIC, particularly recommended for use under bad climatic conditions, intense heat and rough handling. Level —50DB. Response 60-7,000 cycles. With 7 ft. removable cable set, 200-250 ohm, 500 ohm or hi-impedance. List.....\$25.00



MAGNETIC PICKUP FOR MUSICAL INSTRUMENTS MODEL MM



Turner MM Microphone gives you immense volume from any stringed instrument without feedback. The unit has a novel clamp for fastening to violin, banjo, etc. — without use of tools or adhesives. Installed in an instant. Has continuously variable volume control built in. High impedance — works directly to the grid. Withstands rough handling and severe use. Finished in rich brown enamel. Measures 3 1/8 inches long by 1 5/16 inches wide. Model MM, complete with 20 ft. cable, List.....\$16.50
Without Volume Control, List. \$14.50

Turner

THIRD HAND and Special L40 MICROPHONE A Combination that Leaves BOTH HANDS FREE!

For every spot where both hands are needed on the job, Turner 3H-L40 is the lightweight unit to use. Defense plants use it for call systems. Police cars need it for better communications. The "Third Hand" holds the mike close to the mouth, giving tremendous volume without feedback.



TURNER L40 MICROPHONE

This unit has exceptionally high signal level. Gives more intelligible speech reproduction and minimizes feedback. Chest sounds are damped out. Chrome type finish. Level —48DB.



TURNER "THIRD HAND" 3H

Slips over the neck in a jiffy. Goose neck adjusts mike to any position. Can be used with long lines as traveling mike. Many window demonstrators find this Third Hand indispensable. Can be ordered with mike switch at \$1 extra. List Price 3H-L40, Complete.....\$30.00



TURNER LAPEL MIKE L40

CAN BE USED AS A CONCEALED MICROPHONE FOR MANY PURPOSES.

When you want a Microphone with extraordinary high signal level — a unit that can be worn in your lapel or worn concealed, use the Turner L40. An Alligator Clip fastens L40 securely to your clothing and prevents twisting in the lapel. The extra-flexible cable fits the shoulder snugly and comfortably. You'll find this unit minimizes feedback. With a level of —48DB, L40 comes equipped with a 20 ft. black cloth covered cable. Microphone is chrome type finish. List Price.....\$25.00

Turner 99 Dynamic for Sure-Fire Results

IT'S IMMUNE TO TEMPERATURE AND CLIMATE CHANGES

Turner 99 is the most rugged microphone in the entire Turner line. It's the choice of discriminating buyers who want efficiency and dependability at low cost. The absence of peaks lets you work up close to the speaker without blasting. Turner 99 completely disregards climate and temperature changes and is not affected by wind or outdoor set ups. It fits any standard stand, and the adjustable saddle gives choice of semi- or non-directional operation. Cable connector, with special locking feature, allows quick, easy cable changes. Broadcast studios, large city police departments and internationally famous manufacturers specify Turner 99 for crystal clear communications. For real performance — for a rugged, tough mike that stands up and delivers under all conditions, we recommend Turner 99. Gun metal type finish, Level —52DB. Range 40-9,000 cycles. With 20 ft. cable set and diagrams, 200 or 500 ohms or high impedance, List \$32.50
30 or 50 ohms, List \$29.50



3 great
Turner
MICROPHONES

Turner U-9S Fills 4 Impedance Requirements

A TWIST OF THE SWITCH GIVES YOU 50, 200 OR 500 OHMS OR HI-IMPEDANCE

Whatever impedance you need — 50 ohm, 200 or 500 ohms or hi-impedance, you can get it quickly and easily, simply by twisting the switch illustrated at the back of this U-9S. Thus, you can fill practically every need with ONE Microphone. U-9S is adjustable to semi- or non-directional operation. Response is completely free from peaks and holes from 40 to 9,000 cycles. Equipped with 20 ft. cable set and packed with diagrams. Level —52DB at high impedance. Same professional style and finish as Turner 99. List \$37.50

Turner Balanced Line Dynamic No. 999

FOR THOSE WHO MUST HAVE ACCURATE REPRODUCTION FOR CRITICAL NEEDS

Turner 999 Dynamic is especially engineered for the veteran who insists on professional results under all conditions. The voice coil and transformer leads are insulated from the ground and microphone case — according to better broadcast practice. Line is balanced to the ground. Saddle is adjustable to non-directional position. Used by nationally known manufacturers on their higher priced equipment, so you know it's the very best.

Turner 999 is a unit of professional dignity, ruggedly built to withstand reasonably rough handling, and not be affected by any climatic or temperature changes. Always dependable, with smooth response. Gun metal type finish, with 20 ft. balanced line low capacity cable. Range 40-9,000 cycles. Level —52DB. Complete with 3-pin polarized locking connection. 200 ohm, 500 ohm or hi-impedance, List \$35.00. 30-50 ohm, List \$32.50



Get Better Communications with Turner Mikes! . . .

Turner Challenger



BX CRYSTAL

Ideal for recording, public address, and amateur work. Attractive bronze enamel finish. High level —55DB. Range 50-6,000 cycles. Complete with 7 ft. cable. List \$9.95

Turner Challengers challenge comparison in engineering, performance and style, with mikes selling at twice the price! When you want the utmost in quality and appearance at the lowest possible cost, use these Challenger models.

All Crystal Models are complete with shock proof cartridge, barometric valve, moisture-sealed crystal and wind-gag — to prevent blasting.

Dynamic models give clear cut results on voice and music and are exceptionally rugged. You can bank on these models, for they are fully guaranteed by Turner.

BD DYNAMIC

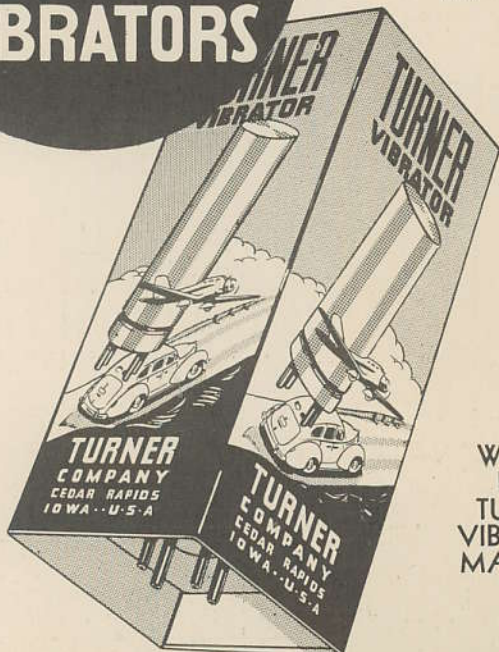
Same appearance as BX. Works equally well indoors or out. Built-in transformer is free from hum pickup. Level —52DB. Range 50-5,000 cycles. 200-250 ohms, 500 ohms or hi-impedance, List \$14.50

CX CRYSTAL

Chrome type finish, with 7 ft. removable cable set using Amphenol connectors. Level —55DB. Range 50-7,000 cycles. A real value at, List \$15.00

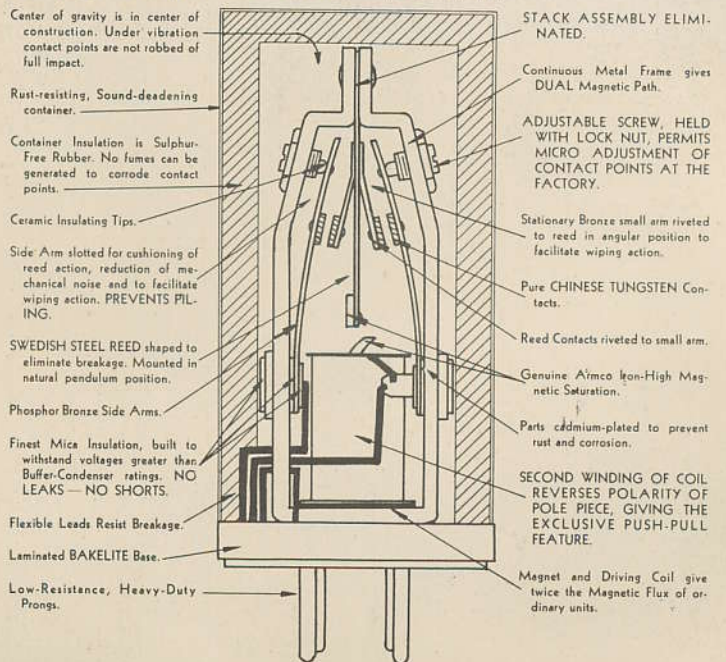
CD DYNAMIC

Same style and finish as CX, with 7 ft. removable cable set. Level —52DB. Range 50-7,000 cycles. In 200-250 ohms, 500 ohms or hi-impedance, List \$18.00



An Engineering Achievement Employing 10 Advanced Principles

See for yourself, in the chart below, how these Turner Vibrators can save servicing, give cleaner, more positive contact. You'll appreciate the self-cleaning contact points, micro-adjusted at the factory, the elimination of the old-fashioned stack type assembly, the low drain and high output of Turner Vibrators.



Write for
FREE
TURNER
VIBRATOR
MANUAL

TURNER

Precision Engineering in Turner Microphones Assures Freedom From Distortions

You'll thoroughly appreciate the accurate, precision engineering, which gives you **FREEDOM** from amplitude, phase and harmonic distortion in Turner Microphones. Make each communication more intelligible, crisp and clear with a Turner, and at the same time you'll gain added pride in your work and in the professional appearance of your unit.

GUARANTEE

All Turner Microphones are guaranteed against defective workmanship and materials for **ONE YEAR**, providing the instructions are fully complied with, and that units are not opened or tampered with in any way.

Due to governmental restrictions which apply from time to time, it may be necessary to make slight substitutions. We give definite assurance that any substitutions made will **NOT** impair the quality or performance of Turner Microphones.

IF YOU HAVE A PRIORITY RATING

Write us, explaining your communications problems, and we will help you select the Turner Microphone best suited to your needs.

THE TURNER COMPANY
Cedar Rapids, Iowa

Longer Life for Your Microphone!

It's always good business to take good care of your Microphones, which are sensitive and delicate instruments and should be treated as such. We offer the following suggestions to help you get the most out of your microphone. To know how to preserve your microphone, you must know why it can fail. The following 5 reasons, given in order of importance, cover most microphone failures. Each reason is accompanied by "Do's" and "Don't's"—so you can see how to protect your microphone.

1. **FALLS:** A fall doesn't have to damage the case in order to damage the mike. The shock is destructive to the interior.

DO:

- If a stand is used, place it where it is least apt to be knocked over.
- Place the cable where it won't be tripped over.
- Clip the cable to the bottom of the floor stand. This lessens the chance of tipping the stand over.
- Be sure the microphone is securely fastened to the stand.
- Remember the weight of the cable can pull a hand mike off a slick table.

DON'T:

- Lay a microphone on a crowded shelf where it is apt to be pushed off.
 - Place a microphone too close to the edge of a table or platform.
2. **HOME REPAIR JOBS**

DO:

- Send your microphone to the factory or its dealer in case it fails or gives trouble.

DON'T:

- Under any circumstances open the microphone case. To do so exposes the sensitive parts to mechanical and chemical damages that can and will ruin the microphone. If the seal is broken on a crystal microphone, the crystal absorbs moisture from the air and becomes useless.
 - Poke anything through the silk or any part of the case. Perforated diaphragms are useless.
3. **GENERAL ABUSE**

DO:

- Use common sense in handling your mike. Don't bang it around as though it were a football.
 - Pack it carefully if you travel rough roads or subject it to vibration in other ways.
4. **IMPROPER CIRCUIT CONDITIONS**

DO:

- READ THE INSTRUCTIONS**
- Be sure the circuit is correct for the type of microphone you are using.

DON'T:

- Use power generating or voltage generating microphones (dynamic, ribbon and crystals) in circuits intended for carbon or condenser mikes.
 - Use a microphone for a loud speaker or headphone.
 - Apply any voltage to any microphone unless the instructions call for it. The battery in an ohm meter can destroy a crystal microphone.
5. **HEAT — MOISTURE — WIND**

DO:

- Make sure your microphone is made for rough weather before exposing it to the elements.

DON'T:

- Leave a crystal microphone near a radiator, in a closed car in the sun, or in a sunny window.
- Never blow or whistle directly into a microphone.

Many microphones are blamed for trouble when it is the cable that has failed. Most microphone cables are composed of part rubber, which deteriorates from contact with such things as heat, light and oil. As much as possible, keep your cables in a cool, dark place. Do not pull hard on microphone cables, as this breaks the wires and makes them useless. Avoid pinching, twisting, pulling and kinking the cable, to keep from breaking the wires and the insulation. Avoid winding the cable tightly on objects of small diameters, like microphone stands, hooks, nails, etc.

The proper selection of a microphone will not only make the user better satisfied, but, in many cases, will prolong the life of the microphone. Some mikes are built with an especially rugged element, to withstand severe conditions. To gain this ruggedness, frequency response must be sacrificed, so that the microphone is sensitive to only about 6,000 or 7,000 cycles per minute. This is all right for intelligible speech transmission, but would be of little value as a studio microphone which is required to go as high as 10,000 to 15,000 cycles.

In general, if we realize how delicate the parts in microphones are, we will treat them with a little more respect, and help them live to a ripe old age.

Herald Kave

CHIEF ENGINEER
The Turner Co.