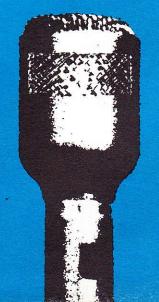


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5. M. GOLDIN

TURNER Microphones



THE TURNER COMPANY

Since its founding in 1931, The Turner Company has kept pace with and provided leadership in the development of microphones which meet the challenge of a dynamic electronic industry. In accomplishing this, our engineering, production and test facilities have been continually expanded and refined to provide our customers with quality microphones at fair prices. Today, the Turner plant and laboratory is equipped with the most modern test and measurement facilities, including three anechoic chambers.

The entire Turner facility exists for just one purpose—the design, manufacture and sale of microphones and related products. Our confidence in our products is reflected in our full-year warranty and fully supported by our cus-

tomer service department.

In addition to our Turner brand line of microphones, for many years Turner has been a contract supplier of microphones to many well-known industrial and manufacturing firms—in the aggregate totaling many hundreds of thousands of microphones. In each such case, the microphone was designed and built to the customer's exacting requirements for performance and environmental reliability. Many of these customers have their own acoustic test facilities and constantly monitor microphone performance-our returns have been gratifyingly low. Inquiries are invited from manufacturers needing a microphone to complete their product package.

How to choose a microphone

To help you find the one best microphone for your specific use, the catalog is divided into sections, as listed in the table of contents on the opposite page. These sections are based on your application rather than our design. Within each section, the microphones are individually different and these differences are fully explained. There are, however, a number of basic points about microphones in general which may be of help in your selection, and these points are briefly covered in the following paragraphs.

Sensing

Every microphone has a sensing element, or transducer, to convert sound vibrations into electrical signals. Some microphones have carbon interiors. some ceramic, ribbon, capacitor, crystal, or dynamic. Each has a use and Turner manufactures almost every kind. Microphones utilizing the moving coil principal are classified as dynamic microphones. This word is used to identify the type of construction, hence, either omni-directional or uni-directional microphones may be dynamic. The moving coil construction produces rugged, dependable microphones capable of smooth, peak free performance. For broadcast, stage, recording and public address applications, a dynamic microphone generally provides the best combination of stability, fidelity, and ruggedness required. For mobile and base station communications systems primarily involved with voice transmission, ceramic interiors offer good thermal and humidity stability and satisfactory response in the voice frequency range. A crystal interior is similar in construction to a ceramic offering slightly more output level but is considerably more susceptible to damage from physical abuse and temperature and humidity conditions. A carbon interior, similar to those used in telephones, offers a rugged interior for relatively low fidelity applications.

Frequency Response

Frequency response describes the manner in which a microphone responds to sound that it is exposed to. Microphones are designed to cover a specific response range with upper and lower frequency limits. Generally speaking, microphones are designed with consideration given to the frequency response requirements of typical applications. For straight voice communication, a limited frequency response range of 350 to 3,000 cycles is preferred. For recording applications, often the frequency range must be extended to the limits of the average human ear or from 40 or 50 Hz up to 12 to 13,000 Hz. Recording of a symphony orchestra would require use of a microphone with an extended response range of from 40 Hz up to perhaps 15,000 Hz. Generally, extension of the frequency range increases cost so there is no economic or audio value in using a microphone with a greater response range than you require. For good fidelity, the response over the frequency range must be flat, with no distortion at either end. However, in many applications the frequency response of a microphone must be tailored to fit the application and

this is taken into consideration in the design of the microphones in this catalog.

Pick-up

Microphones are designed to provide specific directional characteristics. Omni-directional microphones are microphones that are equally sensitive to sounds arriving from all directions and uni-directional or cardioid microphones are designed to be more sensitive to sounds arriving from the front and less sensitive to sounds arriving from the rear of the microphone. For some Twe performance situations cardioid microphones can be very helpful in eliminating feedback howl and squeal which is caused by the microphones picking audience, background, and speaker noises and sending them through the system again. The cardioid or heart shaped pick-up pattern eliminates or greatly reduces the pick-up of sounds arriving from the rear of the microphone. The shaping of the pick-up pattern is accomplished by interna damping or baffles. Every single Turn cardioid microphone is individually tested for front-to-back discrimination before leaving the factory. Response curves are charted on each microphone's performance. If both the front response and the cancellation of sound arriving from the rear do not meet specifications, it is rejected. Turner does not make seconds (even for private labels). All Turner production must pass rigid quality control requirements before it is allowed to leave our plant.

Input and Output

Microphones are a component part of an audio system and must be electrically compatible with the other system components. Microphones come in low impedance (150 ohm) or high impedance (40-50,000 ohm), or in combinations of both. It is very important that you select a microphone with the proper impedance to match the microphone input on your equipment. Many of the microphones in this catalog are

available in either high or low impedance or combinations of both, taking into consideration the varied impedance requirements of typical applications. Output levels are an indication of the loudness, or sensitivity of a microphone and are measured in decibels (db). This figure is presented in relation to 0 decibels, so a minus number is used since the output of an unamplified microphone is many decibels below 0. A rating of —54 db indicates a higher output level than one shown at —60 db.

Microphones in this catalog have their sensitivity specified in two ways.

The first gives the output voltage from high impedance microphones in decibels below 1.0 volt for an applied sound pressure of 1.0 microbar, with no load connected.

The second gives the power developed in a matched resistance load in terms of decibels with reference to 1.0 milliwatt when 10 microbars of sound pressure are applied. This rating is, in general, most useful with low impednce microphones.

Styling

Styling is a very important consideration in the selection of a microphone. This is one reason we have so many listed in this catalog. If you want a microphone for a check-out stand, you probably want it on a flexible gooseneck (see Model SR585D on Page 19), if you want a mobile microphone for your car, you want one that fits nicely in your hand (see mobile communications microphones, Pages 10 and 11). Perhaps you want a rugged metal microphone with a ball screen head for stage work (see our 700 series, Pages 6 and 7), or a light plastic one for tape recording (see Pages 14 and 15). Perhaps you want it silver or gold or blue or black. If you're going to use a microphone, don't be shy about styling, get Turner which you'll be proud to own

and happy to use. Select the microphone which gives you the best combination of styling, performance and reliability for your money.

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Turner 500 Series, Dynamic Cardiod Microphones

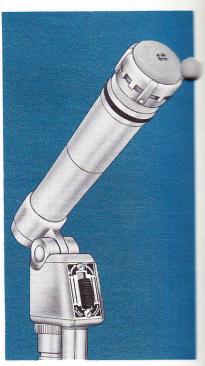
Turner's 500 series microphones are specified for many difficult applications where background noise creates a problem and where extreme fidelity of reproduction is required. They have a wide range, smooth response. Uniformity of performance, microphone to microphone, is assured by a series of intensive checks and tests during manufacture, including comprehensive response measurement after final assembly. Each microphone is individually adjusted during tests! The result is a cardioid pick-up pattern such that sensitivity to sounds arriving from the rear is minimal; front to back discrimination is unmatched in the industry. For critical applications where feedback is a problem, the 500 series, due to its extremely uniform response and excellent front to back discrimination, will provide more usable gain before feedback.

Internal screening and baffling substantially reduces unwanted noises and pops from wind or explosive breath sound during close-talking use. Rubber shock mounting is used to reduce mechanically transmitted shocks, jars and handling noises.

Styling is attractive, construction is rugged, and the satin chrome finish is durable and easily kept clean. For church installations, the 500G and S-500G in gold finish are available.



MODEL 510 ON C-7 STAND



MODEL FM500

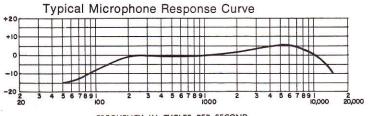


MODEL 500 ON G-12 STAND MODEL 505





MODEL S-500-06 MATCHED STEREO PAIR



FREQUENCY IN CYCLES PER SECOND



MODEL 777

Specifications, 500 Series

Type: Cardioid dynamic

Impedance: 150 ohms (matches 50 to 250 ohm inputs) or high impedance (40,000 ohms) selected at the terminal end of the cable

Output level: High impedance -55 db (0 = 1 volt/microbar)150 ohms

-57 db (0 = 1 mw./10 microbars)

Frequency response: 40-15,000 Hz Discrimination: Typically 20 db to 25 db over the frequency range

Connector: 4-pin

Cable: Detachable, 20-foot, three-conductor, shielded, black PVC jacket

Case: Die-cast zinc alloy, satin chrome

finish

Dimensions: 6-13/16" length, 1-17/32" diameter

Weight: 12 ounces, without cable. Shipping weight, 3 pounds

All models except the FM500 are supplied with rugged Cycolac swivel stand adaptor-5/8"-27 thread.

Model 500

As listed in the specifications, without onff switch.

Model S-500 With Rotary On-Off Switch

Similar to the Model 500, but with a positive-action rotary switch and clearly identified positions.

Model S-500-06 Matched Stereo Pair

Here the uniformity of the 500 microphones is further improved by careful selection to offer a pair of S500's so closely matched in sensitivity and frequency response they will enhance any stereo system. With standard 1/4" phone plugs.

Model 505

Combines the superior cardioid features of the Model 500 with the acoustical advantages of an adjustable bass response. Bass response is controlled by a rotary switch, marked "normal" and "less bass." Frequency response is 40-15,000 Hz in "normal" position, 100 to 15,000 Hz in "less bass" position. Bass roll-off is helpful when the microphone must be used close to the sound source, either the speaking or singing voice.

Model FM500 **Fixed Mount**

The new FM500 series includes a switch and a non-switch model. A Model 500 microphone is permanently mounted on a coupler assembly and is excellent for use in churches, schools and auditoriums for fixed mounted applications, or where microphone theft could be a problem. Low (150 ohm) impedance only, -57 db output level, with Amphenol PC3F 3-pin connector. All other specifications same as Model 500. Specify Model A50200 with switch and A50201 without switch.

Model 510

Built to exacting standards in the Turner engineering lab, the 510 is recommended by audio consulting experts for use with notch-filter sound systems because of the flatness of response, the uniformity of front to back ratio across entire frequency range and the uniformity achieved in production from one unit to another of these fine microphones. The Model 510's exceptionally flat response over the 40-15,000 Hz range is illustrated in the accompanying chart. Low impedance only-50 or 200 ohms may be chosen at the terminal end of the cable. Finished in non-reflective broadcast gray, shipped with desk stand, Cycolac stand adaptor, and broadcast wind screen. Shipping weight is 4 pounds.

Model 777 Jet Star The Entertainer's Cardioid

All of the acoustical and functional features most desired by entertainers are included in the Model 777 "Jet Star." True cardioid performance; excellent ease of switching from hand-to-stand; no extra adaptors to buy; the best on-off switch, a rotary type that's clearly marked and easy to see and use; 100-15,000 Hz frequency response; tailored roll-off bass response which permits close-to-mouth use without popping or breath noise; rugged all-metal case; detachable cable.

Specifications, Model 777

Type: Cardioid dynamic

Impedance: 150 ohm (matches 50 to 250 ohm inputs)

Output level: -56 db (0 = 1 mw./10 microbars)

Frequency response: 100-15,000 Hz Discrimination: Typically 20 to 25 db over

the frequency range Connector: 3-pin

Cable: Detachable, 20-foot, three-conductor, shielded, black PVC jacket

Case: Die-cast zinc alloy, satin chrome finish

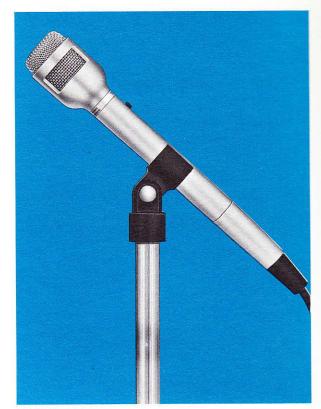
Dimensions: 7-1/2" length, 1-17/32" diameter

Weight: 12 ounces without cable. Shipping weight, 3 pounds

Model 500		\$100.00
Model 500G (gold finish).		116.00
Model S-500		105.00
Model S-500G (gold finish)		120.00
Model S-500-06		210.00
Model 505		120.00
Model FM500		98.00
Model 510		150.00
Model 777		120.00
Model C-7 desk stand .		11.00
Model G-12 floor stand .		20.00



MODEL 600



MODEL 2203



MODEL 700

Turner 600 Series Dynamic Cardioid Microphones

The low cost of these microphones, which entails no sacrifice of performance, makes them an outstanding value. Response is smooth and wide-range. Internal baffling minimizes unwanted wind and breath noises. The active element is mounted in special rubber shock mounts which effectively reduce noise arising from handling, rubbing and jarring. The directional pickup characteristic is unexcelled-comparison is invited with microphones at any price -and is truly helpful when dealing with the problems of audience or equipment noise and acoustic feedback.

Attractively styled in satin chrome finish and black Cycolac. Has line shorting on-off switch. Attached cable. All models are supplied with rugged Cycolac swivel stand adaptors, 5/8"-27 thread.

Specifications, 600 Series

Type: Cardioid dynamic

Impedance: High (40,000 ohms-Model 600) or low (150 ohms-Model 602)

Output level: High impedance -55 db (0 = 1 volt/microbar)150 ohms

-57 db (0 = 1 mw./10 microbars)Frequency response: 50-15,000 Hz

Discrimination: Typically 20 to 25 db over

the frequency range

Cable: 12-foot, single-conductor, shielded (high impedance); two-conductor, shielded (low impedance)

Dimensions: 6" length, 15%" diameter Case: Die-cast zinc alloy, satin finish, Cy-

colac plastic front

Weight: 14 ounces, shipping weight, 3 pounds

Turner 700 Series **Dynamic Cardioid** Microphones

Ideal for the performing arts, these ball screen uni-directional microphones find wide use with small instrumental and singing groups. Features of this design are the spherical ball screen, internal wind and breath pop baffling, rubber shock mounting, all coupled with wide range response and truly effective back wave discrimination. Use them for close-in voice for faithful but pop-free reproduction. All models supplied with rugged Cycolac swivel stand adaptor, 5/8"-27 thread.

Specifications, Model 700

Type: Cardioid dynamic

Impedance: 150 ohms (matches 50 to 250 ohm inputs) or high impedance (40,000 ohms), chosen at terminal end of cable

Output level: High impedance -55 db (0 = 1 volt/microbar)

150 ohms

-57 db (0 = 1 mw./10 microbars)

Frequency response: 40-15,000 Hz Discrimination: Typically 20 db over the frequency range

Cable: 20-foot, three-conductor, shielded, detachable, black PVC jacket

Connector: 4-pin

Case: Die-cast zinc alloy, satin chrome finish case, bright chrome finish screen Dimensions: 6" length, 2" diameter

Weight: 20 ounces without cable, shipping weight, 3 pounds

Specifications, Model 701

Type: Cardioid dynamic

Impedance: High (40,000 ohms)

Output level: -55 db (0 = 1 volt/micro-

Frequency response: 40-15,000 Hz Discrimination: Typically 20 db over the

ed, detachable, grey PVC jacket

Case: Die-cast zinc alloy, satin chrome finish case, bright chrome finish screen

Dimensions: 51/2" length, 2" diameter Weight: 20 ounces without cable, shipping

Model 2203

Professionally Styled Dynamic Cardioid Microphone

A new dynamic cardioid microphone designed to today's high style requirements with the excellent performance characteristics built into all Turner cardioid dynamic microphones. Excellent balance for handheld use. It's relatively small and light weight, yet rugged to stand the day to day abuse of professional performers. This attractive microphone features a professional locking 3-pin connector and all steel case for years of trouble-free use.

Specifications, Model 2203

Type: Cardioid dynamic

Impedance: 150 ohms/balance line output Output level: -57 db (0 = 1 mw./10 mi-

crobars)

Frequency response: 50-15,000 Hz Switch: On-off line shorting type

Cable: 20-foot, 2-conductor, shielded,

black PVC jacket

Connector: 3-pin, Switchcraft type Case: Machine steel, satin chrome finish

frequency range Cable: 12-foot, single-conductor, shield-

Connector: Amphenol MC1F, screw on

weight 3 pounds

List Prices

Model 600, high impedance . . . \$65.00 Model 602, low impedance 65.00 Model 700, high/low impedance . 95.00 Model 701, high impedance only . 65.00 Model 2203, low impedance . . . 90.00

Turner "Mini-Mike" Lavaliers

Model 35 Series Dynamic Lavalier Microphones

No longer is it necessary to be impeded by making-do with heavy, clumsy microphones in lavalier applications. These new, very small, light weight microphones are designed specifically for lavalier applications, including a tailored response over the entire speech range with no discrimination or distortion. Omni-directional pickup pattern. Lavalier cord and clothing clip included. Desert gold finish.

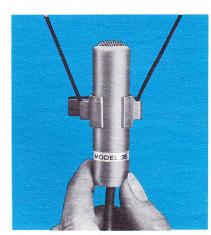
Model G-18 stand adaptor and Model G-16 desk stand are complementary accessories.

Model 35

34" diameter by 3" length. High-low impedance combination. 25-foot, three-conductor, shielded cable. Weighs only 41 grams (less cable). Output level: Hi imp. -60 db (0=1 volt/microbar); 150 ohm -60 db (0=1 mw./10 microbars). Frequency response: 50-12,000 Hz.

Model 35A

21/4" long, 3/4" diameter. 150 ohm impedance. Output level: —60 db (0 = 1 mw./10 microbars). 50-12,000 Hz frequency response. Broadcast model, desert gold finish, chrome grill. 25-foot, two-conductor, shielded cable. Weighs only 29 grams (less cable). Packaged in attractive leatherette covered permanent carrying case.



MODEL 35

Turner 2300 Series Professional Omni-directional Microphones

Professionally styled, omni-directional, dynamic recording, public address, and broadcast microphone. Omni-directional sound pick-up provides a natural sound, with live presence, particularly desirable for live recording. Also excellent choice when more than one person uses the microphone at the same time in live entertainment situations. Small diameter (3/4") machined steel case, satin chrome finish, steel grill-easy to handle, rugged and durable, will provide many trouble-free years of excellent performance. Wide, peak free 50-15,000 Hz frequency response, built-in wind screen to reduce pop and breath noise. -56 db output. Detachable 20-foot cable with professional 3-pin connector. On-off switch. Model 2300 is high impedance. Model 2302 is low impedance.



MODEL 2300



MODEL 35A

Model	35 .				٠							ė.		\$70.00
Model	35A		·			i.e		*			8			80.0
Model	2300							٠						75.00
Model	2302					•						3.*	,	75.00
Model	G-16	d	es	sk	S	ta	n	d	8.00				٠	7.00
Model	G-18	S	ta	no	t	ac	la	pt	or	-				5.00

Balladier Musician's Cardioid Dynamic Microphones with Carrying Cases

The Turner Balladier line of cardioid dynamic microphones was designed specifically to reproduce the high volume sounds of today's musical groups. Each Balladier microphone is packaged in a personalized carrying case and includes a 20-foot cable with phone plug for direct plug-in to any guitar amplifier. Each microphone is supplied with a rugged stand adaptor for inhand or on-stand use. All Balladier microphones have a carefully defined cardioid pick-up pattern to accommodate high levels without feedback. All have built-in plast filters to eliminate "pop," "how!" or wind noise. All are high impedance. A variety of styles and prices are available.

Model 866

Cardioid performance at a low price. Ball screen styling. 100-13,000 Hz frequency response. Permanently attached cable. No on-off switch.

Model 766

Ball screen styling, excellent cardioid performance, 40-15,000 Hz frequency range. Heavy duty chrome finish. Removable 20foot cable, on-off switch.

Model 566

Traditional professional styling, heavy duty satin chrome finish. Unexcelled front to back discrimination to provide more usable gain before feedback. 50-15,000 Hz frequency response. Removable 20-foot cable, on-off switch.



INDIVIDUAL CARRYING CASE.

Model 2266

Modern styling, rugged steel case, functional design. Highly directional ideal cardioid pattern to cut out background and speaker noises to reduce feedback. 50-15,000 Hz frequency response, extremely flat to eliminate distortion. On-off switch, professional locking type 3-pin connector. 20-foot removable cable.



MODEL 866



MODEL 766



MODEL 2266



MODEL 566

Model 866	\$40.00
Model 766	70.00
Model 566	95.00
Model 2266	90.00
Carrying Cases for above models.	8.00

Mobile Communications

When selecting a mobile microphone, it is essential to consider a model which provides the impedance, switching capabilities and performance characteristics required for proper transceiver operation. Turner offers all of the widely accepted types; crystal, ceramic, dynamic, carbon and a variety of transistorized units in a choice of styles in either rugged Cycolac or durable die-cast zinc alloy with satin chrome finish. All mobile microphones are supplied with 5-foot extended coiled cord, dash mounting knob and hardware.

The variety of case styles offers the user a choice of sizes, pushbutton or lever switch action, and a selection of colors. The transistorized models, with adjustable output, are nearly universal in their application. Included with each of these microphones is a booklet which identifies nearly a hundred transceiver models which are compatible, and detailed wiring instructions to make the installation easy.





MODEL M+2/U



MODEL SR-90



MODEL 360



MODEL 350C



MODEL 355C

Model 360 Series

Designed to provide the convenience of reduced size and weight in rugged Cycolac; to complement the newest solid state transceivers and portable public address systems. All models have a shipping weight of 12 ounces.

Model 360

Ceramic microphone for operation of high impedance tube type transceivers as well as medium, 50k ohm transistorized inputs. Wired for relay operation with three-conductor (one shielded) coiled cord. Frequency response of 300-3,000 Hz. Output level: —65 db (0 = 1 volt/microbar). Black Cycolac case.

Model J-360

For transceivers requiring a ceramic microphone wired for electronic switching.

Model 360R

Carbon microphone utilizes a rugged telephone type interior for maximum output with minimum distortion. Wired for relay switching with four-conductor (unshielded) coiled cord. Impedance 80 ohms, frequency response of 200-4,000 Hz. Output evel: -15 db (0 = 1 mw./10 microbars).

Model 360 Lo-Z

High capacity ceramic microphone for transistorized transceivers requiring a low impedance type of microphone input. Write for a free listing of sets utilizing this special microphone.

Model 350C

Ceramic microphone offers traditional mobile styling in the most widely accepted original equipment microphone in CB communications history. Temperature stable ceramic interior provides compatibility for high impedance transceivers and portable paging systems. Wired for relay switching with three-conductor (one shielded) coiled cord, frequency response of 80-7,000 Hz. Output level: —54 db (0 = 1 volt/microbar). Charcoal Cycolac case, shipping weight, 1 pound.

Model 355C

Ceramic microphone with full grip-to-talk switch for ease of operation. Three-conductor (one shielded) coiled cord wired for relay switching of high impedance transceivers. Frequency response 80-7,000 Hz. Output level: —51 db (0 = 1 volt/microbar). Charcoal Cycolac case. Shipping weight, 1 pound.

Model 90 Series Mobile Communications Microphones

Features Turner's slender style zinc alloy die-cast case in satin chrome with exclusive front hanger button. Relay switching is accomplished with professional quality direct-acting leaf-type switches. Shipping weight of 1 pound, 6 ounces.

Model SR90D-5

Dynamic microphone, Hi impedance, frequency response of 200-10,000 Hz. Output level: -52 db (0 = 1 volt/microbar). Three-conductor (one shielded) coiled cord.

Model SR90D-6

Dynamic microphone, 200 ohms impedance. Four-conductor (two shielded) coiled cord. Frequency response 200-10,000 Hz. Output level: -52 db (0 = 1 mw./10 microbars).

Model SR90R

Carbon microphone with durable telephone type carbon interior for maximum intelligibility and minimum distortion. Impedance 80 ohms, frequency response 200-4,000 Hz. Output level: $-15 \, \text{db} \, (0=1 \, \text{mw./10 microbars})$. Neoprene jacketed, four-conductor, unshielded, coiled cord.

Transistorized

Model M+2/U

Transistorized ceramic mobile microphone combines the humidity and temperature stability of a two-stage silicon transistor amplifier with a ceramic generating element. Output level of the M+2/U is controlled by a calibrated ten-position volume control which is located on the upper rear case housing. M+2/U's built-in amplifier provides a gain of 15 db over conventional ceramic microphones and is powered by a self-contained 7-volt mercury battery. M+2/U is wired for relay switching with three-conductor (one shielded) coiled cord in a blue Cycolac case. Frequency response 300-3,000 Hz. Output level: -33 db (0 = 1 mw./10 microbars). Shipping weight is 12 ounces.

Model JM+2/U

Includes all the features of the M+2/U in a model wired for transceivers requiring electronic switching. Write for free booklet detailing sets compatible with Models M+2/U and JM+2/U.

Model +350

Transistorized dynamic mobile microphone designed to provide consistent modulation and improved intelligibility as a replacement for many transceivers which normally require carbon microphones. Two-stage silicon transistor amplifier is installed in a dark gray Cycolac 350 style housing with a three-conductor (one shielded) coiled cord wired for relay switching. Frequency response 350-4,000 Hz. Output level: —24 db (0 = 1 mw./10 microbars). Shipping weight, 12 ounces.

Model J+350

Includes all the features of the ± 350 in a model wired for transceivers requiring electronic switching. Write for a free listing of transceivers which can use Models ± 350 and J ± 350 .

Model 360	\$17.00
Model J360	17.00
Model 360R	21.00
Model 360 Lo-Z	18.00
Model 350C	15.00
Model 355C	17.00
Model SR90D	45.00
Model SR90R	36.00
Model M + 2/U	45.00
Model JM + 2/U	45.00
Model +350	40.00
Model J + 350	40.00

Base Station Communications

Turner base station communications microphones are standard equipment in thousands of installations. The base station operator may choose between traditional crystal or ceramic interiors, or ceramic interiors with a transistorized pre-amplifier. Each model is housed in a sturdy die-cast case, with touch-to-talk switch actuator and a lock-lever for longer transmissions.

The transistorized +2 and +3 models are particularly appealing to many base station operators. In both models, the adjustable output level makes the microphone universally efficient with a wide variety of transceivers. Both are wired to function with either relay-operated or electronicswitching sets-a slide switch in the base of the microphone permits easy selection. The adjustable volume control allows the operator to speak into the microphone at a greater distance from the unit, and provides the capability to boost the signal from a fading set. The +3 model adds a compression amplifier circuit which assures you that, with the volume control properly set, you can vary the distance from the microphone by a ratio of 6 to 1 and still maintain 100 percent modulation at all times, without overmodulation-maximum performance and full modulation are guaranteed by this Modu-Gard® feature.

Each +2 and +3 unit is packaged with an informative booklet which provides complete installation instructions for a large variety of transceiver models.



MODEL 254X



MODEL +3



MODEL 454X



MODEL 754C



MODEL +2

Model 254X

Provides optimum performance features at a minimal cost. Die-cast case finished in light grey hammertone utilizes a crystal nterior providing a high output level for nigh impedance tube-type transceivers requiring relay or electronic switching. Equipped with push-to-talk touch bar, lever-lock control and 7-foot, three-conductor shielded, straight cable. Frequency response 100-8,000 Hz. Output level: —48 db (0 = 1 volt/microbar). Height, 7¾"; depth, 5½". Shipping weight, 3 pounds.

Model 254C

Ceramic microphone provides all the features of the Model 254X with the heat and humidity stability of a ceramic generating element. Output level: —52 db (0 = 1 volt/microbar).

Model 454X

Offers single-sideband frequency response (300-3,000 cps) with the high output level of a crystal interior. Satin black finished die-cast case with push-to-talk touch bar at lever-lock control for continuous operation. Equipped with a three-conductor (one shielded) coiled cord, the Model 454X is wired for relay or electronic switching, and may be wired for VOX. Frequency response 300-3,000 Hz. Output level: —48 db (0 = 1 volt/microbar). Shipping weight is 3 pounds.

Model 454C

Ceramic microphone provides all of the features of the Model 454X with the heat and humidity stability of a ceramic generating element. Output level: -52 db (0 = 1 volt/microbar).

Model 754C

A new conventional ceramic base station microphone with the styling of Turner's famous +3. Stylish new case in rugged die-cast metal with grey hammertone finish. Choice of touch-to-talk or lock on-off switching. May be used for either relay or electronic switching merely by movement of slide switch in the base of the microphone. New Turner exclusive design high output ceramic interior provides a frequency response of 300-3,000 Hz. Output level: —52 db. Equipped with three-conductor, 1 shielded, black PVC coiled cord, 5-foot extended, 11" retracted. Shipping weight 3 pounds.

TRANSISTORIZED

Model +3

Transistorized Pre-Amp plus Modu-Gard®

A two-stage, battery powered silicon transistor pre-amplifier with volume control, plus a compression amplifier circuit which provides adjustable voltage gain of 0 to 33 db and at the same time guards against over-modulation. With proper adjustment of the volume control, the signal must come in loud and clear, with no over-modulation interfering with other channels. New functional styling in rugged die-cast metal case with grey hammertone finish designed with the base station operator specifically in mind. New ceramic interior. 300-3,000 Hz frequency response range for best voice transmission. Touch-to-talk front bar, slide lock for extended transmission. Self-contained 9V battery. Output level -23 db. Three-conductor (one shielded) coiled cord. Matches either relay or electronic switching, comes complete with wiring instructions for over 100 popular transceiver models. Shipping weight is 4 pounds.

Model +2

Transistorized ceramic base station microphone features a two-stage silicon transistor amplifier powered by a self-contained 9V battery with a convenient volume control. The Model +2 was designed to meet the need of a base station microphone with adjustable modulation capability combined with maximum temperature and humidity stability. Light blue finished die-cast case is complemented by a matching three-conductor (one shielded) coiled cord, bright chrome front and black push-to-talk touch bar and lever-lock control. Relay or electronic switching is accomplished by positioning a slide switch in the base. Self-contained 9V battery powers an adjustable amplifier. Voltage gain from 0 to 35 db. Frequency response 300-3,500 Hz. Output level: -23 db (0 = 1 mw./10 microbars). Weighs 1 pound, 8 ounces. Shipping weight is 3 pounds.

Model	254X							\$32.00
Model	254C			•			anny.	32.00
Model	454X							 36.00
Model	454C							36.00
Model	754C							35.00
Model	+3	•	•					75.00
Model	+2					•		55.00