RCA MICROPHONES

FOR PROFESSIONAL-AUDIO/COMMERCIAL-SOUND/HOME-RECORDING/COMMUNICATIONS APPLICATIONS



The RCA microphones described in this catalog have been divided into four broad application classifications—Professional Audio, Commercial Sound, Home Recording, and Communications. It should be noted, however, that these classifications have been selected merely as a general guide to microphone selection. You may find, for example, that a microphone listed in the Professional Audio category has precisely the characteristics you desire for home recording. Detailed descriptions, application information, and technical specifications on each of the microphones described in this booklet are available from your Authorized RCA Microphones Distributor.

MICROPHONES FOR PROFESSIONAL AUDIO APPLICATIONS

Broadcasting/Recording Studios/Motion Picture Studios/Theater and Stage

POLYDIRECTIONAL RIBBON MICROPHONE—77-DX

The quality microphone standard of the broadcast industry, the RCA 77-DX, is available in two models: one with a low-gloss finish for TV, the other a satin chrome and gray enamel finish for AM and FM. The 77-DX offers a choice of unidirectional, bidirectional, or nondirectional pickup patterns which are easily changed by a selector switch. Three frequency response variations on each basic pickup pattern may also be obtained, thus a total of nine different directional and frequency character-istics are available. The 30-to-20,000-Hz frequency response of the 77-DX makes it suitable for every high-fidelity broadcasting and recording application. The low hum-pickup level (-128 dbm) makes the 77-DX useful in high-hum areas. Output impedance is factory connected for 250 ohms; however, it may be easily reconnected for a 30- or 150ohm output impedance. The effective output levels are - 50 dbm in the bidirectional pattern, -53 dbm and -56 dbm in the unidirectional and nondirectional patterns at 1000 Hz (EIA ratings, -144 db and -147 db and - 150 db respectively).

This microphone mounts on a standard ½ inch pipe thread which can be adapted to % inch -27 thread. The 77-DX is supplied with 30 feet of three-conductor shielded cable, less plug. Overall dimensions are 11½ inches long, 3¾ inches wide and 2½ inches deep.



BIDIRECTIONAL RIBBON MICROPHONE—BK-11A

All the advantages of the famous 44-BX microphone have been combined with the latest developments in ribbon microphone design to produce the BK-11A general-purpose microphone. In the studio or at indoor remotes, for a simple interview program or full orchestra pickup, the bidirectional characteristics and excellent frequency response (20 to 20,000 Hz) make the BK-11A an extremely useful production tool. The BK-11A has an effective output level of - 56 dbm @ 1000 Hz (EIA rating, - 150 db). The output can be connected for 30, 150, and 250 ohm operation. A three position switch permits selection of desired frequency ranges for voice and music.

The BK-11A has been designed for use with the inexpensive MA-06 desk stand, and can also be used with any standard ½ inch pipe-thread desk or floor stand. A thirty foot three-conductor shielded cable is supplied, without connector.

NONDIRECTIONAL DYNAMIC MICROPHONE—BK-1A

Ideal for outdoor use or wherever constant handling is required the BK-1A offers smooth response for both voice and music. The BK-1A is also an excellent unit for sports, panel shows, interviews, and remotes. The pressure-actuated microphone provides uniform response from 50 to 15,000 Hz. The swivel mounting of the BK-1A can be used to control directional characteristics. The vertical position is nondirectional, the horizontal position is semidirectional. The output impedance is 250 ohms, but 30- and 150-ohm connections are included. Effective output level of the BK-1A is -52 dbm @ 1000 Hz (EIA rating, - 146 db) while hum pickup is below - 102 dbm.

The BK-1A may be mounted on any type stand having $\frac{1}{2}$ inch pipe thread and is perfect for use with the MA-06 desk stand. A thirty foot three-conductor shielded cable is supplied, less connector.

UNIAXIAL RIBBON MICROPHONE—BK-5B

The BK-5B is a high-quality ribbon instrument designed especially for use in high-noise areas, as well as for general studio purposes. The BK-5B makes an excellent control-room microphone when mounted on an adjustable microphone arm. Maximum sensitivity of the BK-5B is in the major mechanical axis, and this produces an extremely directional cardioid pattern. Frequency response from 30 to 20,000 Hz permits using the BK-5B for all types of high fidelity voice and music pickups. The effective output level is -56 dbm @ 1000 Hz (EIA rating, -150 db). The output is connected for 250 ohms, but may easily be changed to 30 or 150 ohms. The low-luster umber gray finish makes it ideal for TV.

It is supplied with thirty feet of three-conductor shielded cable, less connector. A windscreen is available for outdoor use. The BK-5B is supported by a fork mounting which has a ½-inch straight pipe thread.

MICROPHONES FOR PROFESSIONAL AUDIO APPLICATIONS

Broadcasting/Recording Studios/Motion Picture Studios/Theater and Stage

MI-1006A

KU-3A

LAVALIER DYNAMIC MICROPHONE—BK-6B

The BK-6B is a lightweight microphone with excellent speech balance, ideal for remotes, interviews, and other applications where an inconspicuous microphone is needed. The 2.3 ounce unit is 2^{n}_{16} by 5^{n}_{16} inches, and its effective output level is -65 dbm @ 1000 Hz (EIA ratings, -159db). Wide range frequency response (60-15.000 Hz) permits using the microphone for all speech applications. The 250 ohm output impedance may be changed to 30 or 150 ohms by a simple change of cable connections. Hum pickup is very low (-112 dbm)

The small size and lanyard mounting make the BK-6B extremely versatile. A thirty foot three-conductor shielded cable is supplied, less connector.

BK-6B



BK-12A



SUBMINIATURE LAVALIER DYNAMIC MICROPHONE— BK-12A

The RCA BK-12A is a high-quality subminiature microphone weighing just 20 grams, less cable. It has a wide-range frequency response of 60 to 18,000 Hz, which has been tailored for proper speech balance. Other notable features include a line impedance voice coil that permits use with 30 to 250 ohm unloaded inputs without changing the microphone's impedance. Effective output level is - 60 dbm co1000 Hz (EIA ration; - 154 db).

e1000 Hz (EIA rating, --154 db). The BK-12A has excellent speech balance for use in television broadcasting interviews and public address applications. Its small size and neutral color make it inconspicuous when worn around the neck on a lanyard, clipped to the clothing or concealed in the hand or on the set.

The microphone is complete with neck lanyard, tie-clip holder and cable clip. It is supplied with a 30-foot, two-conductor shielded cable, less connector.

HIGH-OUTPUT UNI DIRECTIONAL CONDENSER MICROPHONE—KU-3A

The RCA KU-3A Unidirectional Microphone, for years the standard of quality comparison in the motion picture industry, is proving popular with recording studios and TV broadcasters in live studio programs. SPECIFICATIONS—KU-3A

Output

EIA Rating (at 1000 Hz) - 143 db Frequency Response 30-15,000 Hz

Directional Characteristics Cardioid External Connection 12" long cable "pigtail" without plug

Dimensions Length 8", width 3" depth 3½" Weight (less suspension

RGA "HOLLYWOOD" MICROPHONES

HIGH SENSITIVITY VARI-DIRECTIONAL CONDENSER MICROPHONE—MI-1006A

The RCA Varidirectional Condenser Microphone is rugged and designed for today's practical production shooting schedules. A small lightweight dry battery supply, employing universally available batteries, will provide for over a year's operation of normal TV or motion picture recording work.

A quickly removable accessory, MA-22, Ultradirectional Attachment, permits changing from a broad cardioid pattern to a very narrow elliptical pickup pattern. In using the narrow pickup attachment the microphone may be worked up to four times the distance away from the source of sound than with conventional microphones and obtain the same relative "presence" effect. SPECIFICATIONS--MI-1006A

Output Impedance 30, 150 or 250 ohms

Load Impedance open circuit (unterminated transformer)

Effective Output Level at 1000 Hz (10 dynes/cm²) - 33 dbm at 30 ohms

Plug receptacle on mounting, with mating plug and 25 ft. of bcom type cord furnished Frequency

Response 30-20,000 Hz Length . 6" without Windscreen 8%" with Windscreen 22" with Ultra directional Attachment Diameter 1%"

without Windscreen; 4½" with Windscreen Weight 1 lb. 12 ozs. without Windscreen 2 lb. 2 ozs. with Windscreen

MICROPHONES FOR COMMERCIAL SOUND APPLICATIONS

The SK-45B microphone is excellent for paging and public address work indoors or outdoors where a rugged, lightweight address work indoors or outdoors where a rugged, lightweight microphone with good response to voice and music is required. It is admirably adapted to commercial and industrial sound installations and also suitable as a close-talk mike. The SK-45B microphone is essentially nondirectional with a -56 dbm output level @ 1000 Hz (EIA rating, -150 db) when connected for a 150 to 200 ohm balanced output, and -58 db below 1V. when specially connected for a 15,000 ohm output. Response from 70 to 12,000 Hz makes it excellent for announce work. Mounting with any $\frac{1}{2}$ is ture thread nermits the use of low cost stands any % inch — 27 fixture thread permits the use of low cost stands. Finish is low gloss gray, and the SK-45B is supplied with a 25 foot two-conductor shielded cable less connector.



The SK-39A is an extremely versatile microphone ideally suited for close-talking announce applications, remote-pickup and mobile use, indoor or outdoor P.A. work. and mobile use, indoor or outdoor P.A. work. This inexpensive dynamic microphone is perfect for cue and talk-back applications. The SK-39A is rugged and relatively insensitive to mechanical shock and wind. Its plastic diaphragm is impervious to moisture and rain. Frequency response is 60-10,000 Hz. Output level is - 54 dbm @ 1000 Hz (EIA rating, - 148 db). The SK-39A may be used with amplifiers having a 150 to 250 ohm input The umber gray unit may be mounted on any input. The umber gray unit may be mounted on any % inch — 27 fixture thread. The microphone is supplied with a 25 foot two-conductor shielded cable (less connector).

The SK-46 is designed for high-quality indoor use. It has excellent frequency response (40-15,000 Hz) and bidirectional pickup characteristics. Output impedance is 200 ohms. but it may be reconnected to produce a 15,000 ohm output. Effective output level @ 1000 Hz is -58 dbm at 200 ohms or -60 db below IV at 15,000 ohms (EIA ration - 150 db) Denendable performance (EIA rating, - 152 db). Dependable performance as well as attractive styling make the SK-46 an ideal choice for applications requiring an economical high quality microphone. The SK-46 has a % inch - 27 mounting thread and is supplied with a 25 foot two-conductor shielded cable (less connector).

The SK-30 is an excellent general-purpose microphone ideal for paging and public address use. Frequency response is exceptionally wide (50 to 14,000 Hz), and although the microphone is essentially nondirectional, it tends to become directional at high frequencies. nondirectional, it tends to become directional at high frequencies. Best results can be had by speaking directly into the mike. The SK-30 is a low-impedance microphone designed for use with 30 to 250 ohm unloaded inputs. Output level @ 1000 Hz is -55 dbm (EIA rating, -149 db). Housed in a rugged zinc alloy case, the SK-30 can be mounted in a number of ways. By removing the threaded end-cap, the microphone may be gooseneck or wand mounted. A swivel adaptor (optional accessory) is available for desk or floor mounting. Attractively finished in midnight blue, the SK-30 is just 1½ inches in diameter and 4½ inches long. It weighs just eight ounces. The SK-30 comes complete with 20 feet of two-conductor shielded cable less connector. complete with 20 feet of two-conductor shielded cable less connector.

MICROPHONES FOR HOME RECORDING APPLICATIONS

High Impedance Microphones for Monophonic and Stereophonic High-Fidelity Home Recording

HIGH FIDELITY RIBBON MICROPHONE—SK-46

The SK-46 ribbon microphone, as noted on the previous page, is connected for an output impedance of 200 ohms as shipped from the factory. Through a very simple wiring change, however, the microphone may be re-connected to produce a 15,000 ohm output for home recording use. The change can easily be accomplished by the user in several minutes, and the instruction book accompanying the unit explains the procedure fully. The SK-46 has excellent frequency responses (40 to 15,000 Hz). The effective output level @ 1000 Hz when re-connected for high-impedance output, is _ 60 db below 1V. (EIA rating, _ 152 db). The directional characteristics of the SK-46 reduce unwanted acoustical background noise, reflections, and feedback. The microphone is not recommended for outdoor use because of the relative sensitivity of this type unit to wind. Attractively finished in TV gray and satin chrome, this microphone is a welcome addition to any home recording installation. The SK-46 has a % inch _ 27 mounting thread, and is supplied with a 25-foot two-conductor shielded cable, less connector.



NONDIRECTIONAL DYNAMIC MICROPHONE—SK-31 The SK-31 is a high-impedance version of the SK-30. Its wide range frequency response (50 to 14,000 Hz) makes it an ideal microphone for high-fidelity home-recording use. Output impedance of the SK-31 is 30,000 ohms. The output level is — 57 db below 1V. Housed in a handsome zinc alloy case, the SK-31 can be mounted in a number of ways. By removing the threaded end-cap, the microphone may be mounted on a gooseneck stand or on the end of a wand. A swivel adaptor is available as an optional accessory permitting the SK-31 to be mounted on any standard floor or desk stand. And, of course, the microphone may be hand held. Attractively finished in midnight blue, the SK-31 is just 1½ inches in diameter and 4½ inches long. It weighs just eight ounces. The SK-31 comes complete with a 20-foot single-conductor shielded cable, less connector.

MICROPHONES FOR COMMUNICATIONS APPLICATIONS

Mobile 2-Way Radio/Citizens' Band/Marine/Amateur Radio



HIGH-IMPEDANCE DYNAMIC MICROPHONE—SK-40 This microphone has excellent response for close talking purposes. Because of its light weight and small size, it is ideal for mobile use. It performs exceptionally well in areas of high noise level because its rising high frequency characteristic gives excellent intelligibility. This feature is also most useful in home recording applications. Either a floor stand or a desk stand may be used as a mounting or it may be fitted with a handle. Frequency response of the SK-40 is 60 to 10,000 Hz. Output impedance is 25,000 ohms. Effective output level is -51 db below 1V. (EIA rating - 100 db). The SK-40 may be mounted with any 5% inches-27 fixture thread. It is finished in low-gloss gray and is supplied with a 25-foot two-conductor cable (less connector).

Excellent microphones for communications use are the SK-31 and the SK-45B (described elsewhere in this catalog). It should be noted that a number of RCA microphones are designed to permit changing the output impedance from low to high by a simple wiring change. Even some of our highest quality professional audio microphones can be converted for use in home recording and communications applications. For complete details on all RCA microphones Distributor.

High Quality RCA Microphones for Broadcasting, Public Address	Polydirectional Ribbon	Non-Directional Dynamic	Uniaxial Ribbon
And Recording Applications. The excellence of RCA microphones is the result of continuous effort on the part of RCA Engineering and Production personnel to produce a superior product. Out of this work have come the several types of microphones and accessories herein described. Each possesses certain attributes which make it particularly well suited for specific applications. These have been noted for each microphone in order to assist in the selection of the microphone best suited for the intended application. TYPE	TTDXG-TV Gray 77 DXG-TV Gray 77 DX-Chrome	BK-1A	BK-5B
DIRECTIONAL CHARACTERISTICS	Directional (Cardiod) Bi-Directional Non-Directional 3 other Limacon patterns	Non-directional (vertical) Semi-directional (horizontal)	Uniaxial Cardioid
ELEMENT TYPE	Ribbon	Dynamic	Ribbon
FREQUENCY RANGE	30-20,000 Hz	50-15,000 Hz	30-20,000 Hz
OUTPUT IMPEDANCE (OHMS)	30/150/250	30/150/250	30/150/250
EFFECTIVE OUTPUT LEVELS AT 1000 Hz	—56 dbm	— 52 dbm	— 56 dbm
HUM PICKUP (1 m gauss field)	128 dbm	— 102 dbm	— 128 dbm
Gm-db		— 146	—150
APPLICATIONS	AM, FM TV broadcast, recording studio, out- doors or indoors to cover varying pickup conditions. Use with stand	AM, FM TV broadcast studio, remote pickup. Outdoor and indoor use. Stand or hand held P.A. work & audience partici- pation.	AM, FM, TV broadcast & recording studio, high fi- delity sound systems.
SIZE	11½" L, 3¾" W, 2½" D	7¾″ L, 1‰″ D	7″ L, 1¾″ D
WEIGHT (less cable)	3 lbs.	18 oz.	1 lb. 11 oz.
CHARACTERISTICS & ADVANTAGES	3-position Voice-Music switch to select best po- erating characteristics, exceptionally well shielded against hum, 3 position shutter switch to select best directional pattern, shock mounted, high quality reproduction over entire audio range, very insensitive to vibra- tion. ½" pipe thread mounting.	Rugged, insensitive to wind & vibration, smooth frequency response, ball and socket swivel mount for desk stand or hand held, 1/2" pipe thread mounting.	3-position Voice-Music switch to select best op- erating characteristics, blast filter protection against loud noises, op- erates in high hum fields, shock mounted, wide fre- quency range & smooth response, very insensitive to vibration. Boom mount (MA 24) and special out- door windscreen (MA 25) available. ½" pipe thread mounting. MA 05 Stand extra.
CABLE	30 feet, 3-conductor tinned cadmium bronze wire (tor longer life). No plug.	30 feet, 3-conductor tinned cadmium bronze wire (for longer life). No plug.	30 feet, 3-conductor tinned cadmium bronze wire (for longer life). No plug.

Subminiature Lavalier	Lavalier	Bi-Directional Ribbon	Non-Directional Dynamic	Non-Directional Dynamic	Non-Directional Dynamic
BK-12A	BK-6B	BK-11A	СК-30	SK-31	K-39A
Non-directional	Non-directional	Bi-directional	Non-directional	Non-directional	Non-directional
Dynamic	Dynamic	Ribbon	Dynamic	Dynamic	Dynamic
50—18,090 Hz	60-15,000 Hz	20-20,000 Hz	50—14,000 Hz	50—14,000 Hz	60-10,000 Hz
30250 ohm unloaded inputs	30/150/250	30/150/250	30—250 ohm unloaded inputs	15,000	250
— 60 dbm	— 65 dbm	— 56 dbm	— 55 dbm	— 60 db below 1 V.	— 54 dbm
— 120 dbm	— 112 dbm	— 130 dbm 🔸	—115 dbm	—90 db re 1 V./mg	— 105 dbm
-154	— 159	150	149	— 152	148
General FM, AM & TV broadcast use or high quality PA use when a lightweight or concealed mike is needed. Excellent for audience participation shows "on-the-spot inter- views," etc	General FM, AM, & TV broadcast use or high quality P.A. use when a lightweight or concealed mike is useful. Excellent for audience participation shows "on-the-spot inter- views," etc.	High Fidelity — AM, FM, TV broadcast & recording studio where highest qual- ity reproduction is re- quired. Especially suited for high fidelity music pick-up.	General purpose PA work, paging, close-talking an- nounce, remote pickup and mobile use. Indoor or outdoor applications.	Excellent for high fidelity home recording, public address work, communi- cations.	Close-talking announce remote pickup and mobile use, indoor or outdoor P.A. work, home record- ing amateur radio, individ- ual soloist use. May be panel mounted.
1½" L, ¾" dia.	2‰″ L, ¼‰″ dia.	8″ H, 2‰″ W, 2‰″ D	4½″ L, 1½″ dia.	4½″ L, 1½″ dia.	2¾″ L, 2⅛″ D
20 grams (71 oz.)	2.3 oz.	2 lbs.	8 oz.	8 oz.	15 oz.
Wide frequency range, ex- cellent speech balance, extremely small and light- weight, easily concealed on clothing. Neck lanyard, tie-clip holder and cable clip included. Easily re- placeable cartridge.	Wide frequency range, ex- cellent speech balance, rugged construction, neck lanyard included. Suitable for goose neck stands; use MA 07 Holder (% "-27 thread).	3-position Voice-Music switch to select best op- erating characteristics, high quality reproduction over entire audio range, operates well in high hum fields. Rugged stainless steel screens, swivel mounted for 45 degree tilt. ½" pipe thread mounting, MA 06 Stand extra.	May be mounted on gooseneck or wand; on any floor or desk stand using accessory swivel adaptor (MA-32); or hand held insensitive to humid- ity and temperature.	May be mounted on gooseneck or wand; on any floor or desk stand using accessory swivel adaptor (MA-32); or hand held. Insensitive to humid- ity and temperature.	Rugged, insensitive to shock, wind & vibration. Relatively insensitive to humidity & temperature. Low cost. Floor or desk stand may be used. %"-27 thread.
30 feet, 2-conductor cad- mium copper for hi flexi- bility and life. Special shielding and jacket. No plug.	30 feet, 2-conductor cad- mium bronze cable for hi flexibility & life, special shielding and jacket, no plug.	30 feet, 3-conductor tinned cadmium bronze wire (for longer life). No plug.	20 feet, 2-conductor shielded. No plug.	20 feet, single conductor shielded. No plug.	25 feet, 2-conductor, no plug.

Non-Directional Dynamic	Non-Directional Dynamic	Bi-Directional Ribbon	Uni-Directional Hi-Output Ribbon	Vair-Directional Condenser
SK-40	SK-45B	SK-46	KU-3A	M1-10006A
Non-directional	Non-directional	Bi-directional	Uni-directional	Vari-directional Cardiod
Dynamic	Dynamic	Ribbon	Ribbon	Condenser
60-10,000 Hz	70-12,000 Hz	40-15,000 Hz	30-15,000 Hz	30-20,000 Hz
25,000	200/15,000	200 and 15,000	30/150/250	30/150/250
-51 db below ! V	— 56 dbm∕ — 58 db below 1 ∨.	— 58 dbm/ — 60 db below 1 v.	—51 dbm	— 36 dbm
—95 dbm	—106 dbm/—88 db below 1 v.		— 128 dbm	. — 128 dbm
— 100 db	— 150	—152	-143	— 128
Communications, home recording, indoor or out- door PA work. Suitable for "close talk."	Paging, PA indoors or out- doors, voice or music, suitable for "close talk."	AM, FM & TV studio & control room announcing. High-fidelity home-record- ing or any indoor applica- tion requiring excellent response and small size. Reduces feedback & back- ground noise. Insensitive to vibration.	TV & motion picture live pickup or wherever boom operation used. High out- put for better signal-to- noise ratio.	TV & motion picture live pickup, long distance pickup, used on boom.
3%" H, 2%" W, 2%" D	5½″ H, 15%″ W, 2″ D	5¼″ H, 1¹⅔″ W, 1¾″ D	8″ L, 3″ W, 3½″ D	6″ L, 1½″ D
15 oz.	15 oz.	13 oz.	2 lbs. 13 oz.	
Rugged, insensitive to shock, wind, and vibration. Relatively insensitive to humidity and temperature. Low cost Floor or desk stand may be used. %" -27 thread.	Rugged, lightweight, small size, hi or low impedance, swivel mount—45° tilt. %″-27 thread.	Rugged construction, small size, excellent fidel- ity, swivel mounting to 85 degree tilt. %"-27 thread.	Very uniform frequency output, response over nor- mal pickup angle rugged time tested. Comes com- plete with Voice-Music switch, and resilient mounting;	Uses small lightweight dry cell batteries. Ultra direc- tional attachment (MA 22) & windscreen (MA 23) available. With MA 22, mike is effective at 4 times the distance of conven- tional mikes. Rugged de- sign.
25 feet, 2-conductor. No plug.	25 feet, 2-conductor, no plug.	25 feet, 2-conductor, no plug.	12" cable pigtail, no plug.	Plug receptacles with mat- ing plug & 25' boom cord. 5103





