

NEW M SERIES FLEX - PAK® PUBLIC ADDRESS AMPLIFIERS AND VERSATILE PREAMPLIFIERS

Presenting Bogen's exciting new "M" series PA amplifiers, the deluxe MX60 and MX30, and the superb M60 and M330. Features of the deluxe "MX" models: Master gain control.—Built-in Remote Gain-Control Circuit allows changes in gain from distances up to 2,000 feet.—Plus all the other features listed below. Features of the superb "M" models: Constant voltage output taps simplify calculations for speaker matching transformers—Power stage screen regulation for higher output, greater efficiency.—Special filters to improve speech clarity.—Equalized phono input for all

cartridges,—Separate bass and treble controls.—Plug-in sockets for low impedance transformers.—Quick maintenance; four thumbscrews remove cage, no tools needed.—Broadcast-type (Cannon XL Series) microphone connectors. Pencil-in, erase-out identification strips for all channels. Sturdy leather carrying handles.—Variable level markers permit resetting of controls to previously determined levels.—A host of accessories for completely flexible operation.—Handsome, compact design, finished in silver, gray and black.



MX30-MX60



M60



NEW MX60, DELUXE 60-WATT PA AMPLIFIER

With master gain control . . . built-in remote gain-control circuit . . . four microphone channels (one converts to phono) . . . exclusive variable level markers. Power output: 60 watts at less than 1% distortion, Power consumption: 270 watts. Frequency response: ± 2 db, 35 to 20,000 cycles. Gain: microphone: 125 db; tuner: 85 db; magnetic phono: 115 db. Hum: (below rated output): microphone: —60 db. Output impedance: 4, 8, 16 and 38 ohms, balanced 25-volt line, 70-volt line. Tubes: total of ten. 3-c3234, 2-7027A, 4-12AX7, 1-7247. Tone controls: treble (10 kc): +10 db to —10 db; bass (50c): +10 db to —10 db. Overall dimensions: 16¼" wide. 13" deep, 5%" high. Shipping weight: 37 lbs. __\$290.00 (Zone 2: \$293.75)

NEW MX30, DELUXE 30-WATT PA AMPLIFIER

NEW M60, SUPERB 60-WATT PA AMPLIFIER

With exclusive variable level markers... three microphone channels (one converts to phone)... speech filters. Power output: 60 watts at less than 1% distortion. Power consumption: 270 watts. Frequency response: ± 2 db, 55 to 20,000 cycles, Gain microphone: 125 db; tuner: 80 db; crystal phono: 80 db; magnetic phono: 115 db. Hum: (below rated output): microphone: -50 db. Output impedance: 4, 8, 16 and 83 ohms, balanced 25-volt line, 70-volt line. Tubes: total of nine. 3-6234, 2-7027A, 3-12AX7, 1-7247. Overall dimensions: 161/4" wide, 13" deep, 53/8" high. Shipping weight: 37 lbs. List bridge. S231.25 (Zone 2: \$235.00)

NEW M330, SUPERB 30-WATT PA AMPLIFIER



VERSATILE BOGEN PREAMPLIFIERS

RP-2 . . . LOW-NOISE PROGRAM PREAMPLIFIER

CAGVU2 cage with meter, List Price. \$31.25 (Zone 2: \$32.00)

NEW MXM MIXER-PREAMPLIFIER

------ \$237.50 (Zone 2: \$239.58)



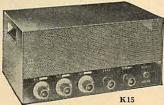
BOGEN-PRESTO CO.

the sound way

AMPLIFIERS - BOOSTER AMPLIFIERS AND NEW POWERFUL MOBILE 25-WATT TRANSISTOR AMPLIFIER









BT 25 MOBILE P.A. AMPLIFIER



A product of Bogen research... the BT25 is the first commercially available fully transistorized public address amplifier offering 25 watts of power from a 12-volt battery. So versatile it will serve scores of P.A. applications, the amplifier is 80 small it will fit in the glove compartment of your car. The BT25 is perfect for use in cars, trucks and busses for regular public address or emergency use. Its hefty 25 watts of power make it ideal for fire department or police use, for disaster work and civil disturbances. It is also recommended for ships, carnivals, electioneering... wherever a small, hish-powered, reliable P.A. amplifier is needed. Bogen's unique fully transistorized circuitry provides maximum power with minimum battery drain. When operated from a 12-volt battery, the drain is approximately 3 amperes at full output—85% lower than comparable vacuum tube amplifiers. When operated from a 6-volt battery, current drain is only 1.4 amperes at full output. The inputs of the BT25 are individually controllable, permitting mixing. A transistorized circuit insures ruggedness and long, trouble-free service not possible with conventional amplifiers (Bogen guarantees the BT25 for a full year). There are no tubes to burn out, no vibrators to replace. It is completely hum-free.

BT25 Mobile P.A. Amplifier

List: \$120.00 (Zone 2: \$120.90)

BOGEN - PRESTO CO.

K1630Y PHONO-TOP 30-WATT AMPLIFIER

Features a three-speed manual phono-top complete with tone arm and Ronette turn-over cartridge, other features include: Controlled positive feedback; universal operation from 6- or 12-volt DC or 117-volt AC; one phono and two microphone channels. Power Output: 30 watts at less than 2% distortion. Peak Power: 45 watts. Frequency Response: ± 2 db, 20 to 20,000 eps. Gain: Microphone (125 db; Crystal Phono, 85 db. Hum: (below rated output) Microphone, —60 db; Phono, —70 db. Output Impedance: 4, 8, 16 and 163 ohms, balanced 25-volt line, 70-volt line, Tubes: (8) 2-6AVSGA; 2-6AXSGT; 1-12AXT; 1-6AVS; 1-6GCT; 1-6US. Overall Dimensions: 15¼" wide, 10" deep, 10¾" high. Shipping Weight: 35 lbs.

Bogen Model K1630Y Phono-Top Amplifier—List Price \$235.00 (Zone 2: \$242.00)
Bogen Model K1630 Amplifier—Amplifier only, less phono-top. Overall Dimensions: 15½" wide, 10"
deep, 8¾" high. Shaping Weight: 30 lbs. List Price \$212.75 (Zone 2: \$218.15)

K130 ECONOMICAL 30-WATT AMPLIFIER

With separate bass and treble controls, constant voltage output taps and socket for plug-in, low-impedance transformers. Erasable identification strips. One microphone input. Power Output: 30 watts at less than 2% distortion. Peak Power: 45 watts Frequency Response: ± 2 db, 20 to 20,000 cps. Gain: Microphone, 120 db; Phono 80 db. Hum: (below rated output) Microphone, —60 db; Phono, —70 db. Output Impedances: 4, 8, 16 and 163 ohms, balanced 25-volt line, 70-volt line. Tubes: (8) 2-6AV56A: 2-5V3GT; 1-6CGT; 1-6US; 1-12AXT; 1-6AV6. Overall Dimensions: 144" wide, 8%" deep, 6%" high (K130Y: 10%" high). Shipping Weight: K130, 30 lbs.; K130Y, 35 lbs.

Bogen Model K130 Amplifier—List Price \$127.50 (Zone 2: \$132.90)
Bogen Model K130Y Phono-Top Amplifier—Model K130 Amplifier with three-speed manual phono top, tone arm and Ronette turnover cartridge. List Price \$155.00 (Zone 2: \$181.30)

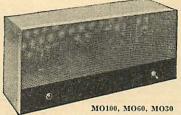
K15 ECONOMICAL 15-WATT AMPLIFIER

K10 ECONOMICAL 10-WATT AMPLIFIER

With six-position SelecTone tone control, constant voltage output taps, socket for plug-in, low impedance transformers. One microphone input. Power Output: 10 watts at less than 3% distortion. Peak Power: 15 watts. Frequency Response: ± 2 db, 20 to 20,000 cps. Gain: Microphone, 110 db; Phono, 72 db. Hum: (below rated output) Microphone, —55 db; Phono, —65 db. Tone Control: SelecTone—Natural, Mellow, Bass, Deep Bass. Brilliant, Crisp. Output Impedances: 4, 8, 16 and 500 ohms, 70-volt line, Tubes: (5) 2-6AQ5; 1-6BW4/EZS0; 1-12AX7; 1-6AU6. Overall Dimensions: 11" wide, 7½" deep, 6½" high. Shipping Weight: 15 lbs.

Bogen Model K10 Amplifier-List Price----

POWER PACKED BOOSTER AMPLIFIERS



NEW MO SERIES BOOSTER AMPLIFIERS

BOOSTER AMPLIFIERS

Bogen's new MO series booster amplifiers embody the most advanced developments in design and techniques of construction. They are ideal for sound systems in industrial plants, airports, stadia, shipyards . . . wherever undistorted high power is required. Note their exceptionally wide-range response characterissics. An input signal of just 2 volts or less will drive any of the boosters to rated output. The MXM and RP-2, described on another page, are ideal preamplifiers for these boosters. Built-in provision for paralleling several MO series power amplifiers to multiply power output.

MO60, 60 WATT BOOSTER AMPLIFIER

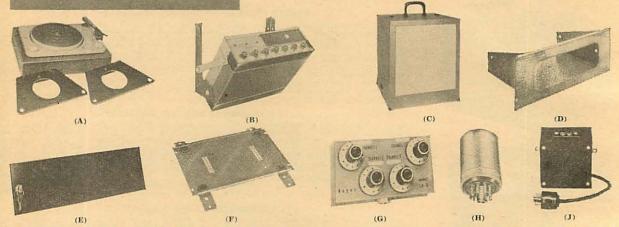
Provision for balanced low impedance line input... provision for remote control of standby operation. Power output: 60 watts at less than 1% distortion. Power consumption: 260 watts. Frequency response: ± 2 db, 35 to 20,000 cycles. Input: high impedance 1 megohm. With low impedance transformer (7161): 500 ohms. Sensitivity: high impedance: 2 volts; low impedance (with T161 transformer): 0.5 volts. Hum: below rated output): —80 db. Output impedance: 4, 8, 16, and 82 ohms, balanced 25-volt line, 70-volt line. Tubes: total 7, 3-GZ34, 2-70Z74. 1-12AX7, 1-6C4. Overall dimensions: 17¼" wide, 6½" deep., 7¾" high. Shipping weight: 23 lbs. List Price \$169.83)

MO30, 30-WATT BOOSTER AMPLIFIER

Provision for balanced low impedance line input. Power Output: 30 watts at less than 2% distortion. Power Consumption: 150 watts. Frequency Response: ± 2 do 35 to 20,000 cycles. Input: (1) high impedance: 1, megohm, With low impedance transformer (T161): 500 ohms. Sensitivity: high impedance: 2.0 volt. low impedance (with T161 transformer): 0.5 volts. hum: (below rated output):—80 db. Output Impedance: 4, 8, 16 and 163 ohms, balanced 25-volt line, 70-volt line Tubes: total 5. 1-6234, 2-616GC, 1-12AX7, 1-6C4. Overall dimensions: 1714" wide, 6½" deep, 7¾" high. Shipping weight: 21 lbs. List._\$119.88 (Zone 2: \$121.97)

BOGEN the sound way

FLEX-PAK® ACCESSORIES FOR BOGEN P. A. AMPLIFIERS



(E)

(A) M AND MX SERIES PHONO TOPS come in kits consisting of phono top, mounting brackets and all necessary hardware. Two types are available. Both are easily installed without tools and can be ordered with the amplifier or at any subsequent time. Standard Kits include 3-speed manual phono tops complete with tone arm and Ronette turnover cartridge. Model LPA-3, for M330 . List Price: \$42.25 (Zone 2: \$43.00). Model LPB-3 for MX\$0, M60 and MXM same price as LPA3. DeLuxe Kits include 4-speed vibration-isolated, manual phono top with variable speed control, tone arm and Ronette turnover cartridge. Model LPA-4, for M330 . List Price: \$69.00 (Zone 2: \$89.75). Model LPB-4, for M350, MX30, M60 and MXM: same price as LPA-4, For K series phono tops, see page 4.

K series phono tops, see page 4.

(B) WALL-MOUNTING KITS.
Keep your equipment ready when you need it, yet safely, neatly out of the way when not in use. Bogen wall-mounting kits can be used with M and MX amplifiers and the MXM. You can set your equipment flat against the wall when idle or at any angle for operation. Model LWM wall-mounting kit, complete with all hardware, mounting template and instructions. List Price: \$15.00 (Zone 2: \$15.45).

(F)

(C) CARRYING CASES AND SPEAKERS. Carrying cases for portable systems are available with or without speakers. With speakers installed, each half of the split case acts as a baffle. Cases with speakers include 25' cables with plugs. For M330, K130 and K15: Model LK12S, with two Bogen L123 speakers. List Price: \$74.15 (Zone 2: \$41.55). For M330Y, K130Y and K15Y: Model LKP12S, with two Bogen L123 speakers. List Price: \$77.25 (Zone 2: \$81.70) and Model LKP12. Case only List Price: \$77.25 (Zone 2: \$81.70) and Model LKP12. Case only List Price: \$77.25 (Zone 2: \$80.30) and Model LKP12. Case only List Price: \$16.75 (Zone 2: \$80.30) and Model CK10S, with two Bogen L121 speakers List Price: \$77.25 (Zone 2: \$80.30) and Model CK10 (Zone 2: \$80.30) and Model CK10 (Zone 2: \$80.30) and Model CK10 (Zone 2: \$45.90). Slzes: LK12, 16½" x 19½" x 15½"; LKP12, 16½" x 21¾" x 15½"; LKP12, 16½" x 21¾" x 15½"; LKP12,

(D) RACK PANEL MOUNTING KITS. Choose either factory mounting or kits for rack installations. For factory mounting (on 19" x 7" panels for M, MX and K models, 19" x 8% panels for MO models) add suffix "-R" to amplifier model number, and add \$25.00 to list price of M and MX amplifiers and \$24.25 to list price of K amplifiers. Kits contain pre-

cut and pre-drilled panel, hardware and mounting brackets. . . . List Price for M and MX ampliflers: \$19.50 (Zone 2: \$21.00), List price for K ampliflers: \$14.85 (Zone 2: \$16.60). Note: When ordering kits specify the model number of the amplifler that is to be mounted.

(E) CONTROL GUARD LOCK-ING PLATE. Tampering fingers will never disturb your advance settings when you protect them with the Control-Guard Locking Plate. Set them and forget them. Model LK-1, for M330 M60 and LK-2, for MX60, MX30, M60 and LK-3, for M360 LK-3, for M360 M60 LK-3, for M360 M60 LK-3, for M360 M60 M60 M780, M60 M780, M60 M780, M60 M780, M780, M60 M780, M780, M60 M780, M780, M60 M780, M780, M80 M780, List Price: \$11.00 (Zone 2: \$11.45).

(F) MOBILE AMPLIFIER SHOCK BASE. Model SV3, a spring-loaded shock-isolating base for operating Ki630 and Ki630Y amplifiers in a car or truck List price: \$13.75 (Zone 2: \$14.45). (G) REMOTE CONTROLLERS
Two and four channel remote control units broaden the flexibility
of the deluxe amplifiers, allow you
to mix and fade channels, and
make frequent changes in gain,
even from distances up to 2,000
feet, without sacrificing power or
signal quality. List Prices: two
channel SR2 \$11.25 (Zone 2:
\$11.55), four channel SR4 \$16.50
(Zone 2; \$16.95).

(H) PLUG-INTRANSFORMERS. Bogen microphone and line transformers have been especially designed for plug-in use with Bogen amplifiers. List Prices for microphone input transformers: Model T155 (200 chms) \$17.55 (Zone 2: \$17.65), Model T155 (300 chms) \$12.25 (Zone 2: \$21.40) Model T156 (50 dhms) \$18.75 (Zone 2: \$18.90). List Prices for line transformers: Model T161 (500 ohms) \$16.25 (Zone 2: \$16.40), Model T165A, broadcast-type (500 ohms) \$17.50 (Zone 2: \$17.65).

(J) STANDBY CONTROLLER, Model KR6, plugs into MO100 and MO60, lengthens amplifier life, reduces high voltage power consumption . . . List Price: \$30.00 (Zone 2: \$30.45),

MICROPHONE CONNECTOR — Model CON-1, for all Bogen amplifiers . . . List Price: 82.85.

COMPLETE INDOOR, OUTDOOR AND PORTABLE PA SYSTEMS

OUTDOOR SYSTEMS

Bogen				List Price	
System Number	Ampli- fier	Mikes †	Speakers	Zone 1	Zone 2
MX60X	MX60	F	3-Bogen-University LH trumpets w/3-SAHF	\$608.75	\$629.35
MX30X	MX30	F	2-Bogen-Univ. LH trum- pets w/2-SAHF drivers	462.65	479.15
M60X	M60	F	3-Bogen-Univ. PH trum- pets w/3-MA25 drivers	502.50	520.95
M330X	M330	C	2-Bogen-Univ. PH trum- pets w/2-MA25 drivers	352.50	364.35
M330YX	M330+	C	Same as M330X	395.00	406.85
K130X	K130	C	1-Bogen-Univ. PH trum- pet w/1-MA25 driver	239.40	251.30
K130YX	K130Y	C	Same as K130X	265.65	275.90
K15X	K15	C	1-Bogen-Univ. MLC	216.25	226.15
K10X	K10	E	1-Bogen-Univ. MLC	175.00	181.45
K1630YX	K1630Y	E	1-Bogen-Univ. PH trum-	345.00	355.85

PORTABLE SYSTEMS

M330C	M330	C	2-Bogen L123**	8305.00 8315.55
M330YC	M330+	C	2-Bogen L123††	350.00 361.35
K130C	K130	C	2-Bogen L123**	252.50 263.05
K130YC	K130Y	C	2-Bogen L123††	282.50 293.90
K15C	K15	C	2-Bogen L123**	232.50 242.40
K15YC	K15Y	C	2-Bogen L123††	267.50 278.20
K10C	K10	D	2-Bogen L121##	185.75 192.20

INDOOR SYSTEMS

Bogen				List Price		
System Number	Ampli- fier	Mikes †	Speakers	Zone 1	Zone 2	
MX60F	MX60	Λ	6-Bogen WS12-T16*	\$588.65	\$610.00	
MX30F	MX30	A	3-Bogen WS12-T16*	417.90	431.25	
M60F	M60	A	6-Bogen WS12-T16*	530.00	550.00	
M330F	M330	B	3-Bogen WS12-T16*	350.00	360.65	
M330YF	M330+	ABBCCC	3-Bogen WS12-T16*	386.25	397.60	
K130F	K130	C	3-Bogen WS12-T16*	285.00	295.65	
K130YF	K130Y	C	3-Bogen WS12-T16*	309.90	320.55	
K15F	K15	C	2-Bogen L123 12" #	213.75	223.75	
K15YF	K15Y	C	2-Bogen L123 12" #	245.00	255.00	
K10F	K10	D	2-Bogen L121 10"8	155.65	162.10	
K1630YF	K1630Y	E	3-Bogen WS12-T16*	401.25	413.05	

†See Mike Table below. *Includes Bogen L123 12" speaker. T16 matching transformer, WA12 baffle. †Plus LPA-3 3-speed manual phono top. #With 2-WA12 baffles. *With 2-BA12 baffles. **In LK12 carrying case with 2-25' cables, plugs. †#In LKP12 carrying case with 2-25' cables, plugs. ##In CK10 carrying case with 2-25' cables, plugs.

MICROPHONES

A: Bogen-Shure 55S with 18' cable, XL3-11 connector, B: Bogen-EV630 with 18' cable, XL3-11 connector, C: Bogen-Shure 430 with 15' cable, XL3-11 connector, D: Bogen-EV927 with 10' cable, stand, XL3-11 connector, E: Bogen-Shure 420 with 20' cable, XL3-11 connector, F: Bogen-Shure 535 with 18' cable, XL3-11 connector,



BOGEN-PRESTO CO.



PORTABLE TRANSCRIPTION AND **RECORD PLAYERS - POWER MEGAPHONE -**HIGH POWER INTERCOM-PAGING SYSTEM



VP17 SERIES - TRANSCRIPTION PLAYER WITH 10-WATT PREAMPLIFIER

PREAMPLIFIER

MODELS VP17X AND VP17—These two oustanding portables are complete high fidelity phonographs featuring variable speed control from 29 through 86 rpm, with instant selection of 16, 33½, 45 or 78 rpm speeds. Especially suitable for dance or language instruction, square dancing, calisthenics and all other applications requiring these four speeds and variations from them. Both models incorporate a heavy-duty 4-pole motor, weighted (3½ lbs.), and rubber-padded turntable, 10-watt high-fidelity amplifier and 12-inch speaker, all carefully malched and housed in an attractive, compact carrying case. Frequency Response: 40-12,000 cps. ± 1½ db, The VP17X and VP17 will play all records up to 16" in diameter, with splendid sound quality and minimum record wear. Speed variation is accomplished through a precision cone drive, regulated by a single lever with lock-in positions for instantaneous selection of the four standard speeds. The motor velocity remains constant regardless of changes in turntable speed or line voltage. The superb combination of motor and turntable reduces wow, hum and rumble to negligible values. Pick-up arm has "Father Drop" action to protect record and stylus. Separate bass and treble controls are provided, as well as an effective scratch filter. A microphone input with its own volume control enables either model to serve also as a portable 10-watt PA system. Case is constructed of 3%" plywood, shock-mounted, and measures 17" x 14½", x 125%", Speaker is mounted in a removable cover and supplied with 25' of cable. Tubes: VP17 (5): 5X3GT; 6SC7; 6SL7GT; 2-6V6GT. VP17X (6): Same as VP17 plus one 6SJ7. Both 117 volts, 60 cycles.

Bogen Model VP17-With wide range piezoelectric cartridge with dual sapphire-tipped styli. Carrying weight, 36 lbs. List....\$168.10 (Zone 2: \$174.10)



Model 1004 shown

1004 and 9009 PLUG-IN RECORD PLAYERS

Model 1004 portable transcription player. Deluxe 4-speed record and transcription player in a sturdy, easy-to-carry, leatherette-covered wood carrying case. Uses same 4-speed record player as VP 17 above, 95-125 volts, 60 cps, AC. Dimensions: 15%" x 13%" x 7". Carrying weight: 21 lbs. Ready to plug into amplifier, or radio or television set with phono plug.

1004 Transcription Player List price: \$97.50* (Zone 2: \$101.40*)

*Inc. Fed. Tax

Model 9003 portable record player. Budget priced portable three-speed record player for your PA system. Constant speed rim-drive motor for reliable service. Plays records up to 12". Complete with crystal turnover cartridge. In same case as 1004. 110 volts, 60 cycles, AC. Dimensions: 15¾" x 13¾" x 7". Carrying weight: 12 lbs. 9003 Record Player

List price: \$48.62 (Zone 2: \$51.32*)

NEW ... Bogen TAP 1 power megaphone



- sturdy, weatherproof construction
- excellent for indoor or outdoor use
- 10 db of negative feedback
- uses four transistors for low battery
- · completely free of hum

Transistorized, "penlite" battery operated, portable power megaphone is completely hand held. Provides 5 clean watts output—9 watts maximum power. Incorporates a volume control, two-position "tone control" switch, magnetic mike for crystal-clear reproduction.

TAP 1 Power Megaphone

List: \$166.50 (Zone 2: \$167.05)



SA40 shown with IA10 annunciator pedestal

SPECIFICATIONS-MODELS SA10-40

POWER OUTPUT: 10 watts

HIGH POWER INTERCOM-PAGING SYSTEM

TUBES: Total 4: 2-6SJ7, 1-6L6GA, 1-5Y3GT,

POWER CONSUMPTION: 70 watts, 117 volts, 50-60 cycles AC.

DIMENSIONS: 131/4" wide, 9" high, 101/4" deep.

SHIPPING WEIGHT: SA10: 31 lbs., SA20: 33 lbs., SA30: 35 lbs., SA40: 37 lbs.

SPECIFICATIONS-MODELS IA10-40

DIMENSIONS: IA10, IA20: 131/4" wide, 21/2" high, 10¹/₄" deep. 1A30, IA40: 13¹/₄" wide, 5" high, 10¹/₄" deep.

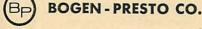
SHIPPING WEIGHT: 1A10: 10 lbs., IA20: 12 lbs., IA30: 23 lbs., IA40: 25 lbs.

SA Series—In dally use in thousands of industrial plants, schools, automotive dealer and service shops; hospitals and department stores, the SA series is an ideal combination of selective paging and high power intercommunication. The ten-watt amplifier, incorporated in the SA master station, has provision for connection of an external phonograph and radio tuner, effecting a most economical overall sound consolette. There is also provision for adding an external booster amplifier.

Upon installation, the SA master station may be set permanently for privacy or non-privacy operation. In privacy operation, no remote may be listened into unless desired.

		LIST P	rice
SA10 - Capacity up to 10 remotes, with tubes	\$182,40	(Zone 2:	\$187.05)
SA20 - Capacity up to 20 remotes, with tubes	215.50	(Zone 2:	220.45)
SA30 — Capacity up to 30 remotes, with tubes		(Zone 2:	250.00)
SA40 — Capacity up to 40 remotes, with tubes			280.30)
IA10 — Annunciator Pedestal Base for SA10			
IA20 — Annunciator Pedestal Base for SA20			
IA30 — Annunciator Pedestal Base for SA30			
IA40 — Annunciator Pedestal Base for SA40			
JU - Junction box (use 1 for each 10 remotes)			
1401S — Two-conductor twisted #20 stranded speaker cable (pe 1102P — Two-conductor SHIELDED #20 twisted and overall p	plastic-	(Zone 2:	200000000000000000000000000000000000000
insulated speaker cable (per 100')		(Zone 2:	
cable is partially exposed to weather (not waterproof) (pe		(Zone 2:	10.70)

INSTALLATION: NORMAL OPERATION (NON-PRIVACY): One SHIELDED twisted pair to each remote. FOR VERBAL CALL INITIATION OR PRIVACY OPERATION: One UNSHIELDED twisted pair to each remote plus one SHIELDED twisted pair common to all remotes. FOR ANNUNCIATORS: One additional twisted UNSHIELDED pair to each remote. As alternate annunciator wiring a wire may be run to each remote using the shield of either the program pair or the privacy pair for the return.





Challenger BY BOGEN

P. A. AMPLIFIERS AND MIXER

CHA75 75-WATT AMPLIFIER





CHA33 33-WATT AMPLIFIER



CHA33 33-WATT AMPLIFIER

CHA33 33-WATT AMPLIFIER

CHA33 33-WATT AMPLIFIER

CHA33 33-WATT AMPLIFIER

CHA34 33-WATT AMPLIFIER

CHA35 34-WATT AMPLIFIER

CHA36 34-WATT AMPLIFIER

CHA37 34-WATT AMPLIFIER

CHA38 AND ALL CHA38 AND AL

CHA620 20-WATT UNIVERSAL MOBILE AMPLIFIER



CHA620 20-WATT UNIVERSAL MOBILE AMPLIFIER

Operates on 117 volts AC, 12 or 6 volts DC, Wide-range response, individual controls for microphone, treble, bass and phono. Separate boost/cut bass and treble controls; advanced design push-pull output circuit with negative feedback; built-in inverter provides 117 volts AC, 60 cps power to built-in or external phono for battery operation; rugged construction; plug-in connectors for speaker line; 70-volt line; decorator styling, Power Output: 20 watts. Response: ±2 db, 30 to 15,000 cps. Inputs: One microphone, one phono. Gain: Microphone, 120 db; Phono, 76 db. Hum and Noise: Fundamental —75 db below rated output. Microphone —55 db and Phono —75 db below rated output. Tone Controls: Bass +12 db to —12 db at 60 cps; Treble, +8 db to —12 db at 10,000 cps, Output Impedance, 4, 8, 16 and 245 ohms; 70-volt line, Tubes: (5) 2-6V6CT; 1-6AXSCT; 2-12AXT. Power: 117 volts 60 cps, 6 or 12 volts DC. Power Consumption: (at full signal), 80 watts at 117 volts: 88 watts with phono at 6 or 12 volts DC. Power Consumption: (at full signal), 80 watts at 117 volts: 88 watts with phono at 6 or 12 volts DC. Dimensions: CHA620, 15¼" wide, 10" deep, 10¾" high: CHA620Y, 30 lbs. AC and DC cable supplied.
CHA620, 25 lbs.; CHA620Y, 30 lbs. AC and DC cable supplied.
Challenger Model CHA620Y amplifier—With tubes and cage. List Price. — \$175.00 (Zone 2: \$177.97) Challenger Model CHA620Y amplifier With Phono Top—With tubes, cage, AC and DC cable, built-in three-speed phono top, Ronette turnover cartridge. — List \$260.00 (Zone 2: \$203.30)



CHA20 20-WATT AMPLIFIER

Wide-range response; individual controls for microphone, treble, bass and phono; separate boost/cut bass and treble controls; advanced design push-pull output circuit with negative feedback; rugged construction; plug-in connectors for speaker line; 70 volt line; decorator styling. Power Output: 20 watts. Response: ±2 db. 30 to 15,000 cps. Inputs: One microphone, one phono. Gain: Microphone, 120 db; Phono, 76 db. Hum and Noise: Fundamental. —75 db below rated output: Microphone, -55 db and Phono, -75 db below rated output. Output Impedance: 4, 8, 16 and 245 ohms; 70-volt line. Tone Controls: Bass, +12 db to -12 db at 60 cps. Treble, +8 db to -12 db at 10,000 cps. Tubes: (5) 2-6V6GT; 1-6AX5GT; 2-2AX7. Power: 117 v., 60 cps. Power Consumption: 30 watts at full signal. Dimensions: CHA20, 14½" vide, 8½" deep, 6½" high; CHA20Y, 14½" wide, 8½" deep 10¾" high. Shipping Weight: CHA20, 20 lbs.; CHA20Y, 23 lbs.

23 hs.

Challenger Model CHA20 Amplifier—With tubes and cage. List Price______\$91.00 (Zone 2: \$93.20)

Challenger Model CHA20Y Amplifier with Phono Top—With tubes, cage, built-in three-speed phono top,

Ronette turnover cartridge. List Price_______\$122.50 (Zone 2: \$125.03)

CHA10 10-WATT AMPLIFIER



CD6 AND CD12 6-WATT AMPLIFIERS, 6 AND 12 VOLT OPERATION

- FEATURES:

 Universal Mounting permits 4 alternate mounting positions
- Remote control of standby to reduce current drain,
- Primary Power Circuit physically isolated from high gain circuit for minimum hum.

CD6 operates from a six-volt battery, CD12 from a 12-volt battery. Universal mounting permits four alternate mounting positions. Remote control of "standby" reduces current drain. Vibrator replaceable from front without dismounting amplifier or removing cage. Complete chassis removable for service by removing four screws. Fused DC power cabe built-in. Circuit for minimum hum. Power Output: 6 watts. Response: Optimum speech. Gain: 109 db. Output Impedances: 4, 8 and 16 ohms. Tabes: (4) 2-6SF5; 1-6LGGA; 1-6X5GT, Dimensions: 34" wide, 8" deep, 7" high. Shipping Weight: 8 lbs. With tubes, cage and DC cable.

Challenger Model CD6 6-Volt Mobile Amplifier—List Price...\$80.00 (Zone 2: \$80.88) Challenger Model CD12 12-Volt Mobile Amplifier—List Price...\$77.50 (Zone 2: \$78.38)





MX6 MIXER-PREAMPLIFIER

MIAO MIXER-PREAMPLIFIER
Self-powered, provides four microphone and
two radio-phono inputs; any four can be
used at once for noiseless mixing and fading.
Output: 6 volts. Response: 50-15,000 cps,
±2 db. Gain: Mike, 59 db; Phono, 30 db.
Hum Level: —70 db below 6 volt input. Output Impedance: Less than 1000 ohms (cathode follower). Controls: Two mike volume,
two mike or phono volume, On-Off. Tubes:
2-12AXT; 1-12ATT. Size: 8" x 434" x 6"½.
Power: 10 w, 117 v, 60 cps. Shipping Weight,
6 lbs.

Bogen Model MX6—List Price.....\$60.00 Zone 2:...... 60.90







Challenger BY BOGEN

SOUND SYSTEMS - INTERCOMS

COMPLETE INDOOR, OUTDOOR AND PORTABLE PUBLIC ADDRESS SYSTEMS

Challenger		Uses				rice
System No.	Type of System	Amplifier Model	Uses Microphone Model	Uses Speakers, Baffles, Horns, Drivers	Zone 1	Zone 2
СНА75В	75-watt Indoor	CHA75	Bogen—E-V Model 927 crystal microphone, stand, 10' cable, MCIF connector.	Four 12" Alnico V PM speakers, each with 25' cable and plug mounted in 12" hand-finished walnut wall baffles.	\$309.43	\$319.3
CHA75T	75-watt Outdoor	CHA75	Bogen—E-V Model 927 crystal microphone with stand, 10' cable and MCIF connector.	Three University PH trumpets with MA25 driver units. (Additional trumpets and driver, List \$58.50. Zone 2; \$61.20).	387.98	396.9
СНАЗЗР	33-watt Portable	CHA33	Bogen—E-V Model 927 crystal microphone with stand, 10" cable and MC1F connector.	Two 12" Alnico V PM speakers, each with 25' cable and plug mounted in split, portable baffle which also carries the amplifier.	207.75	213.9
CHA33YP	Phono	СНАЗЗУ	Same as CHA38P.	Same as CHA33P, except larger carrying case.	241.53	247.8
СНА33В	33-watt Indoor	СНАЗЗ	Bogen—E-V Model 927 crystal microphone, stand, 10" cable, MCIF connector.	Two 12" Alnico V PM speakers, each with 25' cable and plug, mounted in 12" hand-finished walnut wall baffles.	201.75	213.9
CHA33YB	Phono	CHA33Y	Same as CHA33B.	Same as CHA33B.	230.93	237.00
СНА33Т	33-watt Outdoor	CHA33	Bogen—E-V Model 927 crystal microphone with stand, 10' cable, MC1F connector.	One University PH trumpet with MA25 driver unit, (Additional trumpets with driver, List Price \$58.50, Zone 2; \$61.20).	206.98	212.15
CHA33YT	Phono	CHA33Y	Same as CHA33T,	Same as CHA33T.	236.25	241.75
СНА620Т	20-watt Univer- sal	CHA620	Bogen—E-V Model 927 crystal microphone with stand, 10' cable and MC1F connector.	One University PH trumpet with MA25 driver unit. (Additional trumpets with driver, List Price \$58.50, Zone 2: \$61.20).	272.28	277.45
CHA620YT	Phono	CHA620Y	Same as CHA620T.	Same as CHA620T.	300.68	306.18
CHA20P	20-watt Portable	CHA20	Bogen—E-V Model 927 crystal microphone with stand, 10' cable and MC1F connector.	Two 12" Alnico V PM speakers, each with 25' cable and plug, mounted in split portable baffle which also carries am- plifier.	177.80	183,30
CHA20YP	Phono	CHA20Y	Same as CHA20P.	Same as CHA20P except larger carrying case.	211.38	216.76
CHA20B-	20-watt Indoor	CHA20	Bogen—E-V Model 927 crystal microphone with stand, 10' cable and MC1F connector.	Two 12" Alnico V PM speakers, each with 25' cable and plug, mounted in hand-finished walnut wall baffles.	172,78	103.67
CHA20YB	Phono	CHA20Y	Same as CHA20B.	Same as CHA20B.	200.93	206.10
CHA10S	10-watt 1-spkr. Portable	CHA10	Bogen—E-V Model 927 crystal microphone with stand, 10' cable and MC1F connector.	One 8" Alnico PM speaker mounted in portable carrying case.	128.65	131.73
CHA10P	10-watt 2-spkr. Portable	CHA10	Bogen—E-V Model 927 crystal microphone with stand, 10' cable and MC1F connector.	Two 10" Alnico PM speakers, each with 25' cable and plug, mounted in split portable carrying case.	143.40	147.36
CD6U	6-volt, 6-watt Mobile	CD6	Bogen—E-V Model 927 crystal microphone with stand, 10' cable, MC1F connector.	One University IB8 trumpet. (Additional trumpets available. List Price \$34.50. Zone 2: \$35.25).	130.50	132.26
CD12U	12-volt	CD12	Same as CD6U.	Same as CD6U	128.00	129.76



ACCESSORIES

RACK PANEL MOUNTING KITS

For CHA75 Amplifier-19" x 834". With all hardware, Gray metallustre finish, List Price____\$14.85 Zone 2:

For CHA33, CHA20 and CHA10 Amplifiers-19" x 7". With all hardware. Gray metallustre finish. List Price_____\$14.85 _ Zone 2: _____\$16.60

PHONO TOPS

Phonograph tops are available with Models CHA33, CHA620 and CHA20 amplifiers as described on facing page. They must be ordered at the same time as the amplifier (add "Y" to Model No.). The phono top consists of a high quality three-speed phono with a Ronette turnover cartridge installed.

SHOCK-MOUNTING BASE

A spring-loaded, shock isolating base for operating Models CHA620 and CHA620Y amplifiers in a car or truck.

Sla.75

Zone 2: 14.45



CHALLENGER FUTURA INTERCOMS by BOGEN

Challenger presents a new line of handsome, compact, popular priced intercoms with performance characteristics that challenge higher priced systems. Choose a system of six or twelve station capacity as you prefer. You may also select either the convenience and utility of a complete all master system, or a single master station with remote stations. Futura Intercoms provide the simplest way yet devised to modify systems at will so that all remotes have either privacy (for offices, etc.) or non-privacy (for nursery, stock room, etc. where remote must reply without operating controls).

CHM6 master station. For systems up to 6 stations. A dual purpose unit housed in a sturdy gray and black plastic cabinet. Has volume control, press-to-talk button, 7-position selector including "all" and "mute" positions. Any master station can call any other station or all simultaneously. In a single master-multiple remote system, in the non-private mode, the master can silence background sound from the remotes whenever desired by using the "mute" position; remotes can still initiate calls to the master.

CHM6 master station ___ List: \$49.95 (Zone 2: \$46.75) CHM 12 master station. For systems including up to 12 stations CHM12 master station _____List: \$49.95 (Zone 2: \$50.75) CHR remote station, Contains matching speaker, has full width call-initiating bar

CHR remote station ---

CHALLENGER TWOSOME 2-STATION INTERCOM—the low-cost system for home, office, business

The Challenger Twosome is a low priced, complete two-way communication system that can save you countless

simple operation! The master has two controls: a Volume Control that regulates both master and remote, and a Talk-Listen Switch. The remote also has two controls: a Talk-Listen Switch, and a Privacy Switch. In the non-private position the latter control allows the master to receive messages originated at the remote without requiring the Sender to operate the Talk-Listen Switch.

easy installation! plug the master into your outlet. (There is no power connection to the remote.) Then attach the inter-station connecting wire.

twosome system. (Model CHS-2) Master, remote, 50 ft. wire......List Price \$44.95 (Zone 2: \$46.05)



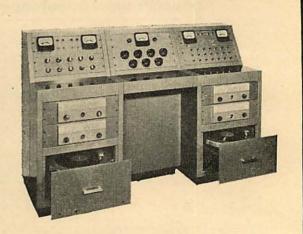


CUSTOM SOUND SYSTEMS INTERCOMS AND TELEPHONES

In industry, office and home look to Bogen for a solution to your every sound problem ... Bogen ... the sound way.

Where the sound problem requires the design of special equipment or the selection and combination of several standard units, you will find the Bogen Cus-tom Division ready to factory-assemble equipment to your requirements.

to your requirements. The large Bogen Custom Division has its own expert engineering staff and production facilities to solve special sound problems. Bogen custom systems are factory-assembled and tested, thus assuring maximum performance. The Division has developed and built many special systems for industry, such as Remington Rand and Sylvania Electric, for hotels, such as the New Yorker, and for institutions, such as the Metropolitan Opera House, and the U.S. Military Academy Academy.



BOGEN INTERCOMS AND PHONES

COMMUNO-PHONE X AND C SERIES

Select your station, depress the talk-listen switch and talk. It's that easy to operate the Bogen Communo-Phones. To receive a reply, remove your finger from the switch. It automatically returns to the listen position. "X" systems incorporate discrete busy signal system. Remote stations are available as listed below.

Models are housed in decorator-styled steel cabinets. Privacy within the system is a feature of both "X" and "C" masters and the addition of "UX2" or "UZ2" handset permits use of communo-phone privately, even while a visitor is present.

TYPE "X" DELUXE 117 V.-A/C SERIES

Bogen Model X110A Master — Will serve installations requiring single master, multiple remotes, all masters, or multiple masters and remotes. Ten selector push-buttons. 7-foot master cable terminating in spaced lug strip for quick solderless connection to junction box.

List Price______ \$116.00 (Zone 2: \$118.25)

Bogen Model X210A Master—Same as X110A, but with 20 selector push-buttons. List Price _______\$140.00 (Zone 2: \$142.40)

Bogen Model RX10 Remote—With push-button break-in to ten masters, volume control and 7-foot master terminating in spaced lug strip for quick solderless connection to junction box.

_ \$46.20 (Zone 2: \$47.25)

Bogen RX1 Remote—With break-in switch to one master, volume con-trol and 7-foot cable. List price _________ \$25.30 (Zone 2: \$25.75)

TYPE "C" DUAL PURPOSE AC-DC SERIES

Models C110A and C210A will operate in systems requiring either a single master and several remote stations or several master stations only. Similar to "X" masters in most other respects.

Bogen Model C110A Master—Similar to X110A. List \$82.50 (Zone 2: \$84.60)

Bogen Model C210A Master—Similar to X210A.

List Price

\$21.45 (Zone 2: \$21.90)

Bogen RCI Remote—With break-in switch to one master and 7-foot cable. List Price

\$21.45 (Zone 2: \$21.90)

Bogen Model 60R—Remote station in gray polystyrene—with initiating call switch). List Price

\$12.93 (Zone 2: \$13.40)

ACCESSORIES FOR "X" AND "C" SERIES



NEW TQ SERIES BOGEN-PHONES

Reach anyone you need, instantly, without leaving your desk, yet keep your outside telephone service free for incoming calls. Bogen-Phones provide simple, push-button intercommunication that is ideal for office, plant, store or home. They save you time and energy, give you the confidential replies of a telephone.

THE IDEAL LOW-COST INTERNAL TELEPHONE SYSTEM

To make a call you simply lift your receiver and press the button (or buttons, for a conference call) of the station(s) you wish to reach. A buzzer sounds at the station you have called. When that station's receiver is lifted you are in communication. Your regular telephone is free for outside calls, and you have not used the switchboard.

Model "TQ" Bozen-Phones have selective ringing with a common talk line (permits conference calls, but only one conversation at a time). They are handsomely styled in gray plastic, and may be used on desk or counter, or wall mounted. Handset, with base, is 9½" x 3½" x 3½" in size, weighs 5 lbs, They are supplied with 4-ft, snarlproof cord. Each system requires one PRS-1 power supply (below).

TQ-1 phones (for 2 station systems)

TQ-1 phones (for 2 station systems)

TQ-6 phone (for up to 7 station systems)

List: (each) \$27.96 (Zone 2: \$50.80)

TQ-12 phone (for up to 13 station systems)

List: (each) \$29.95 (Zone 2: \$28.35)

Power Supply Model PRS-1—Services all of the above TQ systems. The PRS-1 may be plugged into any standard electrical outlet and connected on any of the junction boxes in the system. (One junction box is provided as part of each complete handset.) Power drain is negligible when the system is lnactive.

PRS-1 Power Supply (weighs 4 lbs.)———List: \$30.00 (Zone 2: \$30.30)

ALL prices and specifications subject to change without notice

The MASTER - 24th Edition

Use Index (pg. 2) for Quick, Easy Location of ALL Products

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