

audio record

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1958-1959

QUICK FACTS ON MAGNETIC TAPE RECORDERS

(Additional information can be obtained by writing to the manufacturer)

Manufacturer	Model and Price	Frequency Response	Data
	Continuous automatic tape reproduce for rack mounting Model 4 with pre- \$855.0 Model 45 with combina pre-amp p amplifier mixe \$972.0 Add \$30.00 for 71/2 ips	50-10,000 50D cycles (± 2 db) at $7 \frac{1}{2}$ "/sec. 50DA 50-15,000 cycles (± 4 db) at $7 \frac{1}{2}$ "/sec. 500PA tion power and r (± 2 db)	Ampex-designed, proved, licensed. Plays dual track, pre- recorded, 8-hour tapes continuously. Plays 4 hours on one track, reverses automatically and plays 4 hours on the opposite track, reversing and repeating indefinitely. Signal-to-noise ratio — 50 db, Simplest mechanism driven by one hysteresis synchronous motor and unique Ampex reel take-up system. Includes plug-in electronic section with positive metallic tape impulse automatic re- versing. Exclusive reel change switch. Operates with variety of accessories including Ad Merchandiser. Model 450DA, same as above except has combination pre-amp and 12-watt high fidelity power amplifier with 4, 8, 16 ohm and 70 volt output. Individual volume con- trols for music, microphone, chimetone pager, Ad Merchandiser: master gain control, and tone control. Receptacle for timers, microphones, low impedance transformer, and Ad Merchandiser.
ALTO FONIC MUSIC SYSTEMS, INC. 935 Commercial Street, Palo Alto, Calif.	Model 4 Deluxe Co \$1191. Model 4 \$1140.	nsole 00 166 as above	Model 465 contains Ampex-designed Model 450DA. Completely automatic. Space for Ad Merchandiser unit in top control section exposed by lifting hinged lid. Master volume control and monitor volume control. Ex- tended range monitor speaker in a separate enclosure within console. 37" high, 34" wide, 18" deep. Shipping weight, 161 lbs. Model 466. The same basic unit as 465, in cabinet of Zolotone (no front panel). Master and monitor volume controls and automatic timer control. (T10). (Without T-10 Timer, \$1095.00) Monitor speaker included.
	RACK SERIES Model 455-50V \$1397.00 Model 458 Dual Unit — Auto intermix program system \$223	us above matic	A typical rack installation including rack, 450D, moni- tor panel, T-10 Timer panel, 50WR 50-watt high fidelity amplifier and blank panel. Other combinations are pos- sible with the ad merchandisers, various power ampli- fiers, timers, chimetone, and voice paging. An automatic programming system for FM radio sta- tions, wired music, community television networks, closed circuit systems, etc. Timers and silent sensing provides switching between any desired number of selections from each 450D. Ad Merchandiser also can be used to insert announcements automatically.
	Model 4 Ad Mercha \$345.0 Model 4 (Price reques Model 4 (Price reques	ndiser 0 182 50-7500 on cycles (±2 db) t) at 3 ³ / ₄ "/sec. 183 on	 Provides for automatic insertion of a series of announcements one at a time, between musical selections, with built-in silent sensing. Playback only. Selector switch permits selection of 1 to 10 musical selections between ads. Switch provides for monitoring cartridge without affecting background music. Easy to change snap-in Cousino cartridge 1 to 28 minutes. Larger cartridge provides up to one hour. Mounts in top panel of Alto Fonic consoles, or in drawer of rack systems. Meets all specifications of 450 unit. Plugs into 450DA. Model 482 is same as Model 480 but self-contained and automatic. Play back only. Heavy duty. Cousino cartridge for any length announcements totaling 2 to 60 minutes. Self contained 3-watt amplifier and speaker. High impedance output available for other amplifiers. External switch will trigger start or built-in timer may be set for time intervals from 5 minutes to 1 hour. Model 483 is same as 482 with playback/record combination including microphone and level indicator. Grip to talk switch controls recording.
AMERICAN CONCERTONE Division of American Electronics, Inc. 9449 West Jefferson Blvd. Culver City, Calif.	SERIES 30 Model 31, full track recorder	25.00 cycles (± 2 db) at 3 ³ / ₄ "/sec.	All Series 30 models have following features: Two-speed direct drive hysteresis synchronous motor and two torque motors; 3 heads with provision for 2 more; $4V_2$ " VU- type meter; 2-channel input mixer: A-B test fader for cucing/editing switch. Instant speed selection of 15"/ see. and $7V_2$ "/sec or 334 "/sec and $7V_2$ "/sec. Signal-to- noise, 55 db by proposed NAB Standard (full track). Total harmonic distortion, 2% at zero VU. Total flutter and wow, less than 0.1% rms at 15"/sec., 0.2% at $7V_2$ "/ sec. Fast forward and rewind, less than 60 sec. for 2500 ft. High impedance microphone input and unbalanced bridging input. Output impedance, cathode follower, 600 ohms with plug-in transformer.

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Manufacturer	Model and Price	Frequency Response	Data
AMERICAN CONCERTONE Division of American Electronics, Inc. 9449 West Jefferson Blvd. Culver City, Calif.	SERIES 60 Model 61 \$495.00 Model 62 \$595.00 Model 63 \$695.00 (Cases for above \$60.00 extra)	30-15,000 cycles (±2 db) at 15"/sec. 40-12,000 cycles (±2 db) at 7 ½ "/sec.	All Series 60 models have the following features: two high-speed torque motors with positive self compensat- ing braking system. Direct hysteresis synchronous tape drive for 99.8% accuracy. Torque control switch and concentric playback level control. Five-pushbutton con- trol. VU type meter. Tape speeds are 15 and $7\frac{1}{2}$ or $7\frac{1}{2}$ and $3\frac{3}{4}$ ips. Signal-to-noise ratio is 45 db at $7\frac{1}{2}$ ips single track, 50 db at 15 ips single track. Wow and flutter is 0.15% rms at 15 ips, 0.23% rms at $7\frac{1}{2}$ ips. Bias frequency is 100 kc. Model 61 is half track record/playback. Model 62 is half track record, with half track, full track and stereo play- back. Model 63 is full stereo record/playback.
AMERICAN GELOSO ELECTRONICS, INC. 312 Seventh Ave. New York 1, N. Y.	Model G255 SP Geloso "StenOtape" Portable Recorder \$179.95	60-10,000 cycles at 3 ³ /4 ^{°°} /sec. 80-8,000 cycles at 17/ ₈ ^{°°} /sec.	Imported dual track recorder and dictating/transcriber. Speeds: $17/8$ " and $33/4$ "/sec. Four push-button controls for record, fast rewind, playback and stop. Uses foot pedal and finger-tip "renote" controls (\$19.95 each) for instantaneous start, stop and back space. Automatic erase and correction. Operates in boat or auto with Inverter. "Glo-light" recording level indicator. Special adjustment for line voltages between 110 and 240 AC. Can play up to 128 minutes. Transparent lucite cover for dust pro- tection. Preamp output for hirf system. Extension speaker jack. Many accessories available. Dimensions: $51/2$ " x 97/8" x $57/8$ ". Weight: $71/2$ lbs.
AMPEY	Model 300-C Console Tape Recorder \$2250.00	30-15,000 cycles (±2 db) at 15"/sec. 40-15,000 cycles (±4 db) at 7 1/2"/sec. (±2 db 40 to 10,000 cycles)	Professional-type, single-track, dual-speed recorder oper- ating at 15" and $71/2"$ per second. Signal-to-noise, over 60 db by NAB standards. Instant start and stop. Flutter and wow, less than 0.1% at $15"/sec.$ Rewind time, 1 min. for 2400-ft. reel. Timing accuracy, $\pm 0.2\%$. Push button controls for start, stop and record — may be remotely operated. Separate long-life, plug-in heads for erase, record and playback. Other features as on Model 351 below. Also available for portable or rack mounting. Available only on a factory-direct basis.
AMPEX CORPORATION 934 Charter St. Redwood City California	Model 351 Console Tape Recorder \$1475.00	30-15,000 cycles (±2 db) at 15"/sec. 30-15,000 cycles (±4 db) at 7 $\frac{1}{2}$ "/sec. 50-7,500 cycles (±2 db) at 3 $\frac{1}{2}$ "/sec.	Professional-type single or dual-track recorder with tape speeds of $7\frac{1}{2}$ " and 15" or $3\frac{3}{4}$ " and $7\frac{1}{2}$ ". Signal-to- noise, 60 db (single track) or 55 db (dual track). Flutter and wow, less than 0.2% at 15"/sec. Instantaneous start- ing. Rewind time, 1 min. for 2400 ft. reel. Timing accu- racy, \pm 0.2%. Features new "plug-in" printed circuits, new low-noise input stage, new plus 8 output, new in- ternal power supply, and "de-popped" recording con- trols. Push-button controls for start, stop, fast forward and rewind. Independent record and playback systems permit monitoring input or tape during recording or playback. Also available for portable or rack mounting.
	Other Equipment:		Two and three channel recorders for stereophonic or binaural sound recording and parallel recording. Portable or rack mounting. Information on request.
AMPEX AUDIO, INC. a subsidiary of Ampex Corporation	"Caprice" Portable Model 960 \$650.00 Model 910 \$495.00 Model 2510 Stereo system \$849.50 Model 2560 Stereo system \$849.50 Model 2560 Stereo system \$995.00 Model 2010 Amplifier-Speaker \$199.50	At $7\frac{1}{2}$ /sec. 30-20,000 cycles (±2 db) 50-15,000 cycles At $3\frac{3}{4}$ /sec. 30-15,000 cycles (±2 db) 50-10,000 cycles	Model 960 is a two-speed, stereo recorder that includes an exclusive combination half-track and full-track erase head to permit either stereo recording or half track recording. Plays back half-track, full track, 2-track stereo and 4-track stereo tapes, and has an automatic stop mechanism. Signal-to-noise, better than 55 db below peak record level at $71/2^{"}$ /sec. and 50 db at $33/4^{"}$ /sec. Flutter and wow, under 0.2% at $71/2^{"}$ /sec., 0.25% at $33/4^{"}$ /sec. Rewind time, less than 90 sec. for 1200 tt. Inputs: high impedance line $0.4v$ rms for program level; high imped- ance microphone. Playback output greater than 0.75 rms into high impedance load. Weight: 38 lbs. Model 910 is same as above except for two-speed, half- track stereo, half track and full track. Model 2510 stereo system includes Model 910 and two speaker-amplifiers (2010). Model 2560 stereo system includes Model 960 and two speaker-amplifiers (2010).
Ampex Corporation 1020 Kifer Road Sunnyvale, Calif.	Model 601 Portable Tape Recorder \$595.00	30-15,000 cycles (±4 db) at 7 1/2" / sec. (± 2 db 40 to 10,000 cycles)	Portable, professional-type single-track or dual-track recorder with $7\frac{1}{2}$ " tape speed. Takes up to 7" reels. Signal-to-noise, over 55 db. Flutter and wow, below 0.17%. Starting and stopping time, less than 1/5 second. Fast forward and rewind, 90 seconds for 1200 ft. Timing accuracy \pm 0.2% for 30 minute recording. Separate record and playback amplifiers. Separate erase, record and playback heads. VU meter, independent level con- trols for microphone and line. Weight, 28 lb. Model 601 tape transport with two modified 601 elec-
	Model 620 Model 601-2 Amplifier-Speaker 2-Track Stereophonic \$189.50 Portable \$995.00		tronic chassis. Full-track erase, two-track record and two-track playback. Signal-to-noise, over 50 db either channel. Inter-track crosstalk rejection, over 50 db.

Manufacturer	Model and Pri	ce		Frequency Response	Data
AMPEX AUDIO, INC. a subsidiary of Ampex Corporation 1020 Kifer Road Sunnyvale, Calif.	Oth 4 fr 8	usic Systems 5500 Series \$1895.00 her Consoles: 1000 Series om \$549.50 1000 Series \$2650.00		At 71/2"/sec. 30-20,000 cycles (±2 db) 50-15,000 cycles At 33/4"/sec. 30-15,000 cycles (±2 db) 50-10,000 cycles	Each Crescendo console includes a Model 960 stereo- phonic tape recorder-reproducer, described on page 3, plus: a Garrard 4-speed record changer with stereo/ monaural diamond stylus pick-up, push-button Audio Control Center, Ampex 2-channel AM and FM stereo- phonic tuner, two matched Ampex amplifier speaker units consisting of twin 15-watt amplifiers and six speakers — a 12" bass, 8" mid-range and one omni- directional high-frequency projector for each channel. Available in Contemporary Walnut, Traditional Ma- hogany, Contemporary Teak, French Provincial.
	Mod 610-4 <td>A $\frac{15}{16}$ \$ B 17_8 \$ C $3\frac{3}{4}$ TD $7\frac{1}{2}$ SD $7\frac{1}{2}$ E 15 DM $\frac{5}{16}-7\frac{1}{2}$</td> <td>Price 275 255 275 295 335 355 395</td> <td>300- 2,500 cps 100- 3,000 cps 50- 5,000 cps 50- 7,500 cps 50- 7,500 cps 50- 15,000 cps as above</td> <td>Completely self-contained, battery-operated portables with spring motor drive. Models 610-SD and 'E, one track. Four speed models 610-DM and 'EM, one or two track. All others dual track. Winding interval, 3 to 15 min. Motor can be rewound while operating. Indicator signals 30 sec. before motor rewind. Play- back through headphones or external amplifier. Optional erase. Dimensions, 11" x 8" x 5" for 610-A and B; 11" x 10" x 7" for all others. Weight, 12 to 17 lb.</td>	A $\frac{15}{16}$ \$ B 17_8 \$ C $3\frac{3}{4}$ TD $7\frac{1}{2}$ SD $7\frac{1}{2}$ E 15 DM $\frac{5}{16}-7\frac{1}{2}$	Price 275 255 275 295 335 355 395	300- 2,500 cps 100- 3,000 cps 50- 5,000 cps 50- 7,500 cps 50- 7,500 cps 50- 15,000 cps as above	Completely self-contained, battery-operated portables with spring motor drive. Models 610-SD and 'E, one track. Four speed models 610-DM and 'EM, one or two track. All others dual track. Winding interval, 3 to 15 min. Motor can be rewound while operating. Indicator signals 30 sec. before motor rewind. Play- back through headphones or external amplifier. Optional erase. Dimensions, 11" x 8" x 5" for 610-A and B; 11" x 10" x 7" for all others. Weight, 12 to 17 lb.
	"Ma (Add	eathertite Ignemites" \$30 to price Std. Units)		as above	All standard "Magnemites" available in weather-tight sealed aluminum cases with tongue and grooved edges and built-in neoprene gasket seals. Will successfully withstand severe environmental conditions. Satin fin- ished case anodized to resist corosion.
AMPLIFIER CORPORATION OF AMERICA 398 Broadway New York 13, N. Y.	VU "Magnemite" Mod 610 61	AV ^{15/16} BV 17/8 CV 33/4 IV 71/2 DV 71/2	Price 365 315 345 365 385 425	300- 2,500 cps 100- 3,000 cps 50- 5,000 cps 50- 7,500 cps 50- 7,500 cps 50- 15,000 cps	Completely self-contained battery-operated portables with spring motor drive. 610-DV and EV are single track — others, dual track. Winding interval 3 to 30 min., de- pending on tape speed. Motor can be rewound while operating. VU meter for measuring record level, output level, "A" battery and "B" battery. Playback through earphones or external amplifier. PM erase optional at extra cost. High and low level inputs. Output imped- ance, 50,000 ohms. Incoming signal can be monitored by VU meter or earphones. Dimensions, $61/2^{"} \times 91/2"$ x 14". Weight, approx. 19 lb.
	"Flyweight Magnemi 310- 310- 310- 310- 310- 310- 310- 310-	A ¹⁵ / ₁₆ \$ B 17/8 C 33/4 TD 71/2 SD 71/2	340 290 320 340 360 400	300- 2,500 cps 100- 3,000 cps 50- 5,000 cps 50- 7,500 cps 50- 7,500 cps 50- 15,000 cps	Portable, battery operated electric motor driven recorders with single tape speed. Models 310-SD and 310E are single track, others dual track. Max. reel size, 5". Rewind time, 2 min. Earphone monitor and playback. No erase. PM erase available as optional feature. Powered by 5 replaceable mercury batteries. Dimensions, $51/2$ " x 9" x 12". Net weight: 8 lb.
(other models available)	210-	ler'' B 1 7⁄8 \$;349 ;369	100- 3,000 cps 100- 3,000 cps 50- 5,000 cps	Hidden in zipper compartment of briefcase, operates anywhere on dry cell batteries. Hidden microphone and concealed start-stop clasp switch. Dual track, single or 2-speed recorder operates on replaceable batteries. Maximum reel size 5". Rewind time, 2 min. Earphone playback. No erase. PM erase available as optional fea- ture. Weight complete, including briefcase, 113/4 lb.
	535- 535- 535- 535- 535-	C 3 ³ / ₄ D 7 ¹ / ₂ E 15 UAL CHANNEI B 17/ ₈ \$ C 3 ³ / ₄ D 7 ¹ / ₂	345 365 385 405	50- 2,500 cps 50- 7,500 cps 50-10,000 cps 50-15,000 cps 50- 2,500 cps 50- 7,500 cps 50-10,000 cps 50-15,000 cps	Designed to record and play back any messages, musi- cal programs or sound effects up to 60 min. in length on cartridge-loaded endless loop of std. $\frac{1}{4}$ " tape. Auto- matic erase. Push-button start and stop, switch or relay remote control. Electronic-eye recording level indicator. Microphone and bridging inputs. Output impedance, 600 ohms. Output level, $+6VU$. Headphone monitor- ing. Standard rack panel mounting or custom rack cabinet. Size, $19'' \times 8\frac{3}{4}$ " x $9\frac{1}{2}$ ". Weight, 24 lb.
	"Stereo-Magnemite" 611- 611- 611-	C 33¼ \$	i355 395 435	100- 3,000 cps 50- 7,500 cps 50-15,000 cps	Portable, stereophonic battery operated spring motor recorder. Mechanically similar to 610 series. Two sep- arate channels for stereophonic recording. Independent gain for each channel. Can be monitored with binaural headphones while recording. Optional P.M. erase. In- put impedance, 1 Megohm. Output impedance, 50,000 ohms. Size, 81/2" x 11" x 10". Weight 17 lb.

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Manufacturer	Model and Price	Frequency Response	Data
AUDIO- MASTER CORP. 17 East 45th St. New York 17,	Butoba Portable Recorder \$345.00	50-9,000 cycles (Portable, transistorized, dual-track, battery-operated re- corder with push-button controls. Driven by speci- spring-wound motor with elapsed-time indicator. Tap speeds: 33/4 and 11/6. Running time is 20 and 40 minute respectively. Multi-purpose head: record and playback erase. Volume level indicator is magic eye tube. Play back through built-in oval speaker or external amplifie Telephone conversation recorder adapter optional.
N. Y.	Selectophon Tape-Record-Player \$379.50	40-12,000 cycles (±2 db)	Selectophon is a tape-record-player which records up t 6 hours on a 35 mm endless tape and plays 33, 45 an 78 rpm records. Built-in amplifier and speaker.
	PERFECTONE Continuous Tape Player \$730-\$830	40-15,000 cycles at $7 \frac{1}{2}'$ /sec. 40-8,000 cycles at $3 \frac{3}{4}''$ /sec.	Heavy-duty rack type tape phonograph for providin up to 8 hours of unattended, background music withou repetition. Two speeds. Automatic reversal and shut-oi with unmodified tape. Automatic, continuous re-cyclin or shut-off controlled by switch on panel. Simple con trols, light tape tension. Easy and precise head alignment Signal-to-noise, better than 50 db at $71/2^{"}$ /sec. Hysteresi synchronous capstan motor and two 4-pole torque motors Max. reel size, 14". Price depends on type of amplifie and number of speeds desired.
	CONCERTCASTER Including Perfectone and amplifier \$835-\$1010	as above	This is a complete package consisting of the Perfectone cabinet and power amplifier. The 7/32" crystal glas cover rests on a sponge rubber gasket to exclude dirt and dust. The mechanism pivots for easy access. Price de pends on number of speeds and type of amplifier desired
AUDIOMATION LABORATORIES 7230 Clinton Rd. Upper Darby 23, Pa.		as above	A. AUTOSPERSER The new Autosperser has two Perfectone tape players a control panel for either wired or multiplex service, and an Adcaster tape player for storecasting or similar special services. The Adcaster provides up to 30 minutes of recorded commercial on one track and automatically re- winds and cues to first commercial when played through The twelve-station programming cycle repeats auto- matically. Automatic standby. New Autosperser-24 System available that is identica- to standard Autosperser System excepting control pane- has 24-station programming cycle. B. CONSECUTOR The Consecutor System is comprised of two Perfecton 8-hour machines and a control panel. For unattender operation in broadcast or wired service. Operating cycle Machine #1 player track A reverses review for the player track B.
A (Write to m	A B C (Write to manufacturer for prices)		Machine #1 plays track A, reverses, plays track B, reverses, shuts off, starts machine #2. Machine #2 pe forms same cycle and restarts machine #1. Automat standby. Provision for manual operation so that tape may be changed without interrupting program. C. VARYTAPE Consists of two identical Perfectone automatic 8-hou tape-handling mechanisms arranged for unlimited vari- tion of program continuity by the automatic inter-mixtur of the music content of any two reels. Automatical stops one mechanism and starts the other whenever 3 seconds or more of silence occurs on the tape bein played. Permits up to 16 hours of music without repet tion. Cycling fully automatic. Automatic standby.
BELL & HOWELL COMPANY 7100 McCormick Road Chicago 45, III.	Model 600-M Mahogany \$329.50 Model 600-B Blond Oak \$3344.50 Model 600-L Plywood \$329.50	50-15,000 cycles at 7½″/sec.	New portable stereo recorder with 71/2 ips and 33/4 ip speeds. Monaural record/playback and stereo play back. Twin built-in, extended-range, side-mounted & speakers reproduce both monaural and stereo tape Three-motor drive. Two-position selector dial for mor aural/stereo. Push button controls. Fast forward an rewind. Twin record-level indicators. Resettable pr gram indicator. Wow and flutter less than 0.2% at 71/ ips. Harmonic distortion less than 1%. Signal-to-nois ratio exceeds 40 db minimum. Cut-off mechanism aut matically stops reel at end of tape on record or playbac Two inputs; microphone; radio/phonograph/TV. Tw outputs for external speakers. Weight: 45 lbs.

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Manufacturer	Model and Price	Frequency Response	Data
	Model 730GS Stereo Portable \$269.50	50-15,000 cycles at 7 V ₂ "/sec.	Portable monaural recorder and playback instrumen equipped with stereophonic in-line playback head, stereo phonic output jack. Tape speeds: $7\frac{1}{2}$ or $3\frac{3}{4}$ ips. Stereo phonic playback through companion amplifier speaker or radio, phonograph, TV with pre-amplifier. Round 10 inch speaker positions 2 ways. Automatic reel stop 3-motor operations. Rewinds 1200 feet in 60 seconds Less than $3\frac{6}{6}$ distortion at 7 watts. Wow and flutte below 0.2% maximum at $7\frac{1}{2}$ ips. Signal-to-noise rati- above 40 db minimum. Electromagnetic pushbutton con trols. Accidental erasure interlock. Accurate resettabl program indicator. External amplifier and speaker jacks Dimensions: $16\frac{1}{2}$ " x 17 " x $9\frac{1}{2}$ ". Weight: 39 lbs.
BELL & HOWELL COMPANY 7100 McCormick Road Chirgao 45, 111	Model 775G Portable \$199.95	50-13,000 cycles (±4 db) at 71/ ₂ ″/sec.	Two-speed, dual track portable tape recorder takin reels up to 7" diam. Five-button control. Two 51/4 speakers. Three-position switch for normal, monitor of public address operation. Runs at $71/2$ " or $33/4$ " speed Twin-level recording guides. Special pause contro- eliminates usual clicks when starting or stopping. Singl knob for tone control. 5-watt amplifier. Distortion lei than 1%. Signal-to-noise ratio more than 40 db. Wor and flutter less than 0.5% at $71/2$ "/sec. Weight: 38 lb
Chicago 45, Ill	Model 770G Monaural Portable \$169.95 Model 771 "Stereotone" Stereo Portable \$199.95 Model 076318 Amplifier-speaker \$99.95	as above	Two-speed, dual track monaural portable. Five push button controls. Two 51/4-inch speakers. Tape speeds $71/_2$ and $33/_4$ ips. Recording level guide. Play and Recor- pushbuttons interlocked to prevent accidental erasure Fact rewind: 1200 feet in 80 seconds. Distortion les than 1%. Signal-to-noise ratio more than 40 db. Woo and flutter less than .5%. Input for microphone, radio phonograph or TV. Output jack for external speake Dimensions: 10" x $151/_2$ " x $151/_4$ ". Weight 33 lbs. Model 771 is same as above except for stereo playback head. Has three output jacks: for stereo playback throug 076318 amplifier-speaker, for monaural playback throug uphilier-speaker.
	Tape Transport T210 \$109.95 T211 \$119.95 T212 \$129.95 T216 \$259.95 T218 \$314.95 T218 \$314.95 RP 120 Record/Playback Pre-Amplifier \$59.95 P100 Playback Pre-Amplifier \$39.95	25-12,000 cycles (±2 db) overall record- playback extends to 15,000 cycles playback only	A basic tape transport providing almost unlimited flexibility. Three motors. Two speeds: $7\frac{1}{2}$ and $3\frac{3}{4}$. Signato-noise ratio is better than 50 db. Flutter less tha 0.25% . Distortion less than 1% . Has index counter power off-on switch, piano-key controls, micro-switch automatic stop. Available in following combination: T-210: monaural record/playback; T-211: monaural and stereo playback; T-213: monaural record/playback and stereo record/playback; (above models required the stereo record/playback; (above models required the stereo record/playback; (above models required the stereo record/playback; C-212: monaural record/playback and stereo record/playback; (above models required the stereo record/playback; C-213: monaural record/playback and stereo record/playback; (above models required the stereo record/playback; C-213: monaural record/playback and stereo record/playback; (above models required the stereo record/playback; C-213: monaural record/playback; C-212: monaural record/playback; C-213: monaural record/playback; C-213: monaural record/playback; C-212: monaural record/playback; C-213: monaural record/playback; C-213: monaural record/playback; C-210: monaural record/playback; C-210
BELL SOUND SYSTEMS, INC. 555 Marion Road Columbus 7, Ohio	Model BT-205-1B Monaural Record with inline Stereo Playback \$224.50	30-12,000 cycles at 7 1/2 "/sec.	New 3-motor, dual track portable tape recorder. Tw speeds, $7\frac{1}{2}$ and $3\frac{3}{4}$. Has positive braking, and pian key controls. Power output is 5 watts. Tape lifter remov tape from heads during Stop and High Speeds. Wow ar flutter is less than 0.25% at $7\frac{1}{2}$ ips. Automatic interlo- prevents accidental erasure. Original equipment includ microphone, empty 5" reel and full reel of tape.
	Model T-207-S Home Stereo System \$695.50	as above	New home stereo system that includes stereo/monaut tape recorder and two matching amplifier-speakers. Ta speeds: $71/2$ and $3\frac{3}{4}$ ips. Electro-mechanical keyboa controls. Stereo switch for inline or offset. VU ind counter. Three-motor direct drive. Positive brakin Wow and flutter less than 0.2% . Signal-to-noise rat better than 50 db. Two twin cone 8" wide range speake Inputs: two microphone, two radio/phono. Output four 4-, 8-, 16-ohms, high impedance, one AC outbe Recorder in portable case weighs 52 lbs.
DAVID BOGEN CO., INC. P.O. Box 500 Paramus, N. J.	Model TR-30 \$449.50	40-15,000 cycles at 15"/sec. 50-10,000 cycles at 71/2"/sec.	New low-cost professional type monaural/stereo pla back recording unit. Has direct-drive hysteresis sy chronous capstan motor and two torque motors; dynan braking. Two speeds: 15 and $71/_{2}$ ips. Other featur are: push button function switches, slot loading, aut matic tape lift in high speed, three separate heads, tr self-contained pre-amplifiers (one converts from reco to play for stereo playback), volume level meter, mici phone and tuner inputs, earphone monitor jack. Wo and flutter is 0.2% at 15 ips. Signal-to-noise is 50 c Panel size is $19'' \ge 121/4''$.

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Manufacturer	Model and F	Price	Frequency Response	Data
	Tapak (tape-pack)	Duplex Musicale \$389.25	100-9,000 cycles at 71⁄2″/sec,	The spring-powered equivalent of conventional electric tape recorders featuring the new Gyro Drive mechanica wow and flutter filter for recording serious music. Re cords, erases, monitors, rewinds at high speed, plays back through built-in 4" x 6" loudspeaker, or will feet an external amplifier or public address system. Has unitized amplifier with transistorized AC bias oscillator for low battery drain and extended frequency range Speed $71/2$ " per second. Range 55-58 db.
		Duplex Newscaster \$349.50	as above	Newscaster is same as Duplex Musicale without Gyro Drive. Speed $7\frac{1}{2}$ per second $(3\frac{3}{4})$ optional).
BROADCAST EQUIPMENT	69	Triplex Musicale \$438.75	as above	Same as Duplex Musicale with the addition of a VL meter and 600 ohm output. Serves as a line preampli fier for microphone, or plays back tapes to line at zero level. Speed $71/2^{"}$ per second. Range 55-58 db.
SPECIALTIES CORP.		Triplex Newscaster \$399.75	as above	Newscaster is same as Triplex Musicale without Gyro Drive. Speed $7\frac{1}{2}$ per second ($3\frac{3}{4}$ optional).
P.O. Box 149 Beacon, N. Y.		Simplex Newscaster \$289.50	100-6,000 cycles at $7 \frac{1}{2}$ //sec.	The budget Tapak for general use. Records, rewind at high speed, crystal microphone doubles as listening device, feeds external amplifier or phonograph input o radio for speaker reproduction. Recording characteristic for NARTB on studio equipment or home recorders Speed 71/2" per second (33/4" optional). Range 35-40 db
	ELC.	Pocketape \$349.50	150-6,000 cycles at $7\frac{1}{2}''$ sec. 150-4,000 cycles at $3\frac{3}{4}''$ sec. 150-3,000 cycles at $1\frac{7}{8}''$ sec.	Pocket-size compatible subminiature transistor tape recorder-reproducer. "Investigator" model records at changeable speeds of 1% or 3% ips on dual tracks total ing 2 hours or 1 hour respectively on 600' of 1%" tape "Broadcaster" model records 90-mil track at 71/2 ips for 15 continuous minutes. Erases, records, rewinds instantly and plays back. Interlocks prevent mistakes. Microphome doubles as listening device. Signal-to-noise ratio: 50 db Motion at 71/2 ips suitable for music. Twelve hour motor batteries. Size: $11/2" \times 41/2" \times 67\%$ ". Weight: 2 lbs.
CAPITAL RECORDS, INC. Hollywood and Vine Hollywood 28, California		Model 850 Stereo Portable \$249.95	80-12,000 cycles (±5 db) at 7½"/sec.	New portable tape recorder complete with two externa speakers. Records monaurally, plays back monaural and stereo tapes. Speeds: $71/2$ and $33/4$ ips. Push-button con trols. Stereo balance and hum balance adjustments Monitor switch, tape runout switch and recording safety lock. Wow and flutter is less than $.3\%$. Signal-to-noise ratio is 42 db. Peak power output: 5 watts/channel. Two external speaker outputs; two inputs for radio-phone and microphone. Dimensions: $151/2^{"}$ x $115/8^{"}$ x $91/8^{"}$ Weight: 42 lbs.
COLUMBIA RECORDS, INC. 799 Seventh Avenue, New York 19, N. Y.		Stereo Recorder 570 \$249.95	60-12,000 cycles at 71/ ₂ "/sec.	Complete portable stereophonic playback and monaura recorder with in-line heads. Consists of two matching units, one containing two amplifiers and one set of speak ers and the other containing one set of speakers and storage space for tapes. Push-button control with neor level indicators for recording. Each amplifier capable of 3 watts undistorted, for a total of 6 watts of output Contains two 7" oval speakers and two 4" tweeters. Tape index counter, balancing control and automatic shut-of after completion of tape. Microphone and balancing tape provided with each unit. Cases covered with saddle stitched, washable vinyl.
		Stereo Recorder 575 \$329.95	50-14,000 cycles at 71/2"/sec.	Amplifiers have total output of 15 watts. Contains two 8" speakers and two 4" tweeters. Cases are covered with Neolite. Otherwise same as above.
De JUR AMSCO CORP. 45-01 Northern Blvd., Long Island City 1, N. Y.		Stenorette Dictating and Transcribing Machine \$179.50	ample for voice communication	A dictating transcribing machine that uses "Mylar" magnetic tape. Push-button controls. Duplicate set of controls on microphone/speaker for start, stop, auto- matic review, electronic erase and correction. Functions perfectly in a moving car (with transformer). Has built-in conference setting for recording groups. Recording time — 30 minutes per reel. Transcription accessories — foot pedal control or typewriter control — features remote control backspacer for quick review. Dimensions: $11\frac{1}{2}$ x $9\frac{1}{2}$ x $4\frac{1}{2}$. Weight: 12 lbs.
DELMONICO INTER- NATIONAL 42-24 Orchard St. Long Island City, New York		Saja MK-5 Portable Recorder \$129.95	50-16,000 cycles at 71/2″/sec.	New two-speed West German portable recorder. Speeds are 71/2 and 33/4 ips. Two speakers. Illuminated function indicators. Single knob control. Double effect button for recording over a recording. Automatic end-of-tape shut- off, Magic eye record level indicator. Pause control for record and playback. Lock prevents accidental erase. Dimensions: $153/4$ " x $121/4$ " x 7". Weight: 40 lbs.

Manufacturer	Model and P	rice	Frequency Response	Data
DICTAPHONE CORPORATION		Dictet Portable Recorder \$294.00	200-4,000 cycles	Miniature, dual-track, magazine loaded, magnesium case tape recorder. Powered by two 7-volt mercury batteries for motor, and separate battery for transistor amplifier. Battery life: 20 hours for motor, 40 for amplifier. Battery life indicators. Magazine has self-adjusting spindles; automatic stop at end of reel. Records at $21/2$ ips; 30 minutes recording time on each side of magazine. Wow and flutter: 2.25%. Signal-to-noise: 45 db. Magnetic microphone is both microphone and monitor speaker. Motor operates only when mike is plugged in. Dimen- sions: 2" x $41/2$ " x $61/4$ ". Weight: 2 lbs. 11 oz.
420 Lexington Avenue New York 17, N. Y.		Dictatape Continuous Recorder \$3200.00	300-2,700 cycles (±3 db) at 17/ ₈ "/sec.	Multi-channel recorder that permits simultaneous record- ing of four separate signals on a standard $\frac{1}{4}$ magnetic tape. Up to 16 hours continuous unattended recording. Speed: $1\frac{7}{8}$ ips. Instant start and stop. Six motors. Sep- arate reproduce heads and amplifier provide playback on either unit while recording. Automatic safeguards pre- vent accidental erase. Harmonic distortion: 5% or less at 1,000 cps. Flutter: 1% . Fast forward and rewind.
ELECTRONIC APPLICATIONS		ReVox C36-2K Monaural Portable \$349.00 Model C-362S Stereo Portable \$399.00	40-12,000 cycles (+1 -2 db) 15,000 3 db max. at 71/2"/sec. 50-8,000 cycles at 33/4"/sec.	Single or dual track models; two speeds $3\frac{3}{4}$ and $7\frac{1}{2}$ ips, portable; three motors; separate recording and playback amplifiers; wow and flutter at $7\frac{1}{2}$ ips .15.20% max.; signal to noise 50 db or better at normal levels; 3.5 watt amplifier; 8" coaxial speaker; push button operation; tuning eye recording level indicator; tape counter; end- of-tape switch-off; connections for external speaker, am- plifier, or remote control; up to 10" reels; dimensions: $18\frac{1}{8}$ " x $11\frac{1}{16}$ " x $13\frac{3}{8}$ "; weight: 46 lbs. Model C-36 2S is same as above plus stereo playback; equalized outputs from both channels; cathode followers; no speakers contained.
194 Richmond Hill Avenue Stamford, Conn.	NAGRA III B, C, E (Prices depending on model) \$600.00 to \$850.00	30-15,000 cycles (±2 db) at 15"/sec. 40-12,000 cycles (±2 db) at 71/2"/sec. 50-8,000 cycles at 33/4"/sec.	Portable, professional, completely transistorized unit, available as model B with three speeds $(3\frac{3}{4}, 7\frac{1}{2})$ and 15 ips) and as model E at $7\frac{1}{2}$ ips. Type B and E contain three heads, model III C has two heads. Speed constancy 0.2% or better; wow and flutter $0.1%$ at 15 ips or $0.2%at 7\frac{1}{2} ips; signal to noise 55 db or better; meter forbattery condition and level; outputs 3 volts at 600 ohmsbalanced; self-contained monitor speaker; "speech" filterbuilt in; all normal mike inputs plus 2 line mixers; motorspeed servo-controlled; operates from any 12 volt sourceor self-contained batteries. Accessories available.Prices depending on model: $600.00 to $850.00.$	
ELECTRONIC TEACHING LABORA- TORIES, INC.	000	MONITOR 2-Channel Portable Model E-3 \$297.08 Model E-3C Console \$280.07 Model E-3CS Console \$273.05	50-9,000 cycles (±3 db) at 3¾″/sec.	Professional language laboratory recorder, dual track, unique "split" amplifier performs simultaneous playback and recording function on separate tracks, distinctive in aural/oral laboratory work. Selector switch modes for listen/record, dual playback, master record, master play, duplicate. Volume level meter, separate record/play heads with azimuth adjustment, bias 60KC, signal to noise 45 db or over at 3% harmonic distortion. Model E-3C for console mounting, all components mounted on 3%" aluminum panel, size 19 x 11 x 53%, weight 15 lbs. Special feature: multiple installations have remote con- trol tape duplication facility. Model E-3CS is same as Model E-3C except for omission of master record and master play selector switch modes.
1818 M St., N. W. Washington 6, D. C.		MONITORET 2-Channel Recorder Model E-4 \$247.00	as above	Language laboratory recorder, dual parallel tracks, a "stripped-down" version of Monitor E-3 with same characteristics except only two selector switch modes for listen/record and dual playback. Model E-4C for console mounting.
FAMOUS MODEL CO., INC. Melbourne, Fla.		Privateer Mark VIII \$379.00	to 3,500 cycles at 1 <i>7/₈" </i> sec.	Portable dual track tape recorder, self-contained recharge- able batteries. Rewind electric. No batteries to replace. Battery charger separate unit but included in price. Units may be operated in covert fashion in briefcase from external concealed switch and making use of external concealed microphone. Available accessories include in- put level indicator, headset, external microphone, tele- phone recording adaptor.

Manufacturer	Model and Price	Frequency Response	Data
FAMOUS MODEL CO., INC. Melbourne, Fla.	777 Series Battery PortablesTapo Model 777 (blue)\$295.00 Traveler Model 777-1 (brown)Tapo Medel 777-2 (gray)314.00	to cps at 3,500 - 17/8"/sec. 6,000 - 33/4"/sec. 12,000 - 71/2"/sec.	Portable dual track tape recorders with completely self- contained battery powered tape transport, amplifier and speaker for playback. Rechargeable battery cycle up to eight hours depending on tape speed. Has self-contained battery recharger. May be operated on 110 AC. Rewind is electric: speed 10 to 1. Maximum reel size, 5". May be operated with door open or closed. Monitors while recording. Inputs for microphone and headphone moni- toring. Crystal or ceramic microphone included. Acces- sories include snap-on retractable legs, canvas carrying case and shoulder strap. Weight 21 lbs. Size 6" \times 10' \times 15".
FEN-TONE CORP. 106 Fifth Ave., New York 11, N. Y.	Fen-Tone Brenell Mark IV Tape Deck Mark IV (monaural) \$144.47 Mark IV/B (stereo) \$182.87	30-15,000 cycles (±3 db) at 15"/sec. 50-12,000 cycles (±3 db) at 71/2"/sec. 50-6,500 cycles (±3 db) at 33/4"/sec.	Three-speed tape decks for monaural and stereophonic record/playback, with three-motor drive. All mount up to four heads with individual azimuth adjustment. Cap stan-sleeve speed change. Dual half-track operation for up to 7" reels. Two-knob control, fully interlocked. Wow and flutter, less than 0.2%. Fast forward and rewind 45 sec. for 1200 ft. Monaural deck can be converted to stereo or sound-on-sound recording by installing addi tional heads. Can be used with PRO-2 amplifier.
	Custom Installation Model 66/N (3 ³ / ₄ -7 ¹ / ₂ ips) \$399.50 Model 66/H (7 ¹ / ₂ -15 ips) \$425.00 Portable Model 3A/N Model 3A/NH (3 ³ / ₄ -7 ¹ / ₂ ips) \$379.50 \$425.00	40-15,000 cycles (±2 db) at 15"/sec. 50-10,000 cycles (±2 db) at 7½"/sec.	Dual-speed, dual-track recorders for portable or custom installation, manufactured by British Ferrograph Re- corder Co., Ltd. of London. Accommodates up to $81/4'$ reels. Signal-to-noise ratio, better than 50 db, 200-12,000 cps; 45 db unweighted (including hum). Wow and flut ter less than 0.2% at $71/2''/$ sec. Longterm speed stability. better than 0.5% . Erase and Bias frequency, 53,000 cps Inputs: Two; 1 megohm and 0.1 megohm respectively Outputs: Two; 0.75 volts at 0.1 megohm for external amplifier; 15 ohms at $21/2$ watts (undistorted). 3 motors including hysteresis synchronous drive. "Ferrodexer" counter, clock type with zero setting, factory installed \$20.00 additional. Master control switch for permanent inputs and outputs. Weight: 45 lb.
FERROGRAPH RECORDER CO., LTD. Sole U.S. Agents ERCONA CORP. 16 W. 46 St. New York 36, N. Y.	Stereo Model 35/N (33/4-71/2 ips) \$475.00 \$tereo Model 35/H (71/2-15 ips) \$520.00 "Steread" Unit \$195.00 "Steread" Unit	as above	Model 3S — data on this model identical with 3A Serie: above except for addition of stereo playback. Signals from stacked stereo head may be fed into external dua amplifiers via an equalization chain for each section or to a "Stere-ad" unit which provides all power output for stereo replay requiring only a suitable speaker system Weights: Model 3S: 493/4 lb. "Stere-ad" unit: 121/2 lb
	Model 88 Stereo record and playback \$595.00	40-15,000 cycles (±2 db) at 15"/sec. 50-10,000 cycles (±2 db) at 7½"/sec.	Portable recorder for stereo recording and playback manufactured by British Ferrograph Recorder Co., Ltd of London. Signal-to-noise ratio, better than 50 db, 200 12,000 cps; 45 db unweighted (including hum). Wow and flutter, less than 0.2% at $71/2"$ /sec. Longterm speec stability, better than 0.5% . Erase and bias frequency 53,000 cps. Accommodates up to $81/4"$ reels. Twin recording amplifiers and twin replay preamps terminating at 3 milliwatts across 600 ohms (balanced) Switched VU level meter provides proper recording levels for each track which is served by dual inputs (1 megohm and 0.1 megohm 0.003 V peak and 0.1 V peak respec tively). "Ferrodexer" counter, clock type with zero set ting, factory installed \$20.00 additional. Weight: 48 lb
	E.M.I. Battery Portable \$395.00 Model L2A (3 ³ / ₄ ips) Model L2B (7 ¹ / ₂ ips) Model L2C (15 ips)	50-7,000 cycles (±2 db) at 15"/sec. 50-5,000 cycles (±2 db) at 7½"/sec. 50-2,500 cycles (±2 db) at 3¾"/sec.	Battery-operated recorder manufactured by Electrical & Musical Industries, Ltd. of England. Accommodates 5' reels and requires no external power source. Signal-to- noise, better than 45 db unweighted, when replayed or high quality studio equipment. Wow, less than 0.2% at 15''/sec., $0.25%$ at $71/2''/sec.$ and $0.3%$ at $33/4''/secSeparate recording and playback heads and amplifiers formonitoring and instantaneous playback. VU meter forrecording level. Manually operated geared rewind deviceto conserve battery life. Operates with cover closedWeight, 141/2 lb. complete.$
FILNOR PRODUCTS, INC. 1 Park Avenue New York 16, N. Y.	Teltape Recorder \$29.95	to 4,000 cycles	Transistorized portable recorder with variable speed con trol. Operates on four type C flashlight batteries. Plays for 16 minutes with 3" reel containing 300 feet of $\frac{1}{4}$ magnetic tape. Erase head can be swung out of the way so that erase is optional. Instant braking, fast rewind automatic slack take-up. Plays back through headset fur nished with recorder. Weight: 2 lbs.

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Manufacturer	Model and Pi	rice	Frequency Response	Data
GBC AMERICA CORP. 243 Broadway New York 7, N. Y.		GBC PT/12 Recorder \$169.50	75-7,500 cycles at 3¾″/sec.	New dual track, dual speed Italian portable recorder Speeds: $3\frac{3}{4}$ and $1\frac{1}{6}$. "Picture" push buttons for fas rewind, playback, stop, record, fast forward. Magic eyu volume indicator. Built-in loudspeaker. Undistorted power output: $2\frac{1}{2}$ watts. 80 minutes maximum record ing time. Size in case: $5\frac{1}{2} \ge 10 \ge 11$. Weight: 12 lbs
		Crown Prince Dual Track \$395.00 With In-Line Stereo Playback Added \$480.00	20-30,000 cycles (± 2 db) at 15"/sec. 20-20,000 cycles (± 2 db) at 7 $\frac{1}{2}$ "/sec. 20-10,000 cycles (± 3 db) at 3 $\frac{3}{4}$ "/sec.	All "Crown" series models have the following specifications: wow and flutter: .07% at 15 ips, .09% at 71/2 ips, .20% at $3\frac{3}{4}$ ips; Signal-to-noise ratio: 57 db at 15 ips, 54 db at $7\frac{1}{2}$ ips, 44 db at $3\frac{3}{4}$ ips; Micro-Synce Timing: 99.5% playing measured tape, 99.8% record playback, synchronous motor, 99.75% shaded polymotor. They have: electro-magnetic brakes, "micro-linear" heads, cathode follower out, straight line thread ing, fast forward and rewind, reel locks, three speeds white light for playback, red light for record. Crown Prince is rack-panel mounted unit measuring 19'x 14". Uses $10\frac{1}{2}$ " reels. Safety record light and lock High impedance microphone and phono input. Case optional. Portable. Half-track heads standard.
		Crown Imperial Dual Track \$495.00 With In-Line Stereo Playback Added \$580.00	as above	See "Crown" specifications above. Has 20 watt built-in amplifier. Two microphones and one phono high impe dance input. 4-8-16 ohm output. Cathode follower out Uses 101/2" reels. Portable.
		Crown Broadcaster \$435.00	as above	Same as Crown Imperial except that it can use only u to $71/2^{"}$ reels.
INTERNA- TIONAL RADIO AND		Crown-O-Matic \$495.00	20-20,000 cycles (\pm 2 db) at 71/ ₂ "/sec. 20-10,000 cycles (\pm 3 db) at 33/ ₄ "/sec.	See "Crown" specifications above. Two-speed $(71/2)$ ip and $33/4$ ips) unit for rack mounting. Has forced at cooling. Playback preamp. Cathode follower output Plays sixteen hours without repeating on 14" reels a 33/4 ips. Playback only.
RADIO AND ELECTRONICS CORPORATION South 17th St. & Mishawaka Rd. Elkhart, Ind.		Crown Royal \$845. Less Case	20-30,000 cycles (±2 db) at 15"/sec. 20-20,000 cycles (±2 db) at 71/2"/sec. 20-10,000 cycles (±3 db) at 33/4"/sec.	See "Crown" specifications above. The Crown Royal is a complete stereo recorder which records full or hal track. Four microphone inputs and two 20-watt Hi-F output amplifiers. Heads are in line. Takes up to 101/2 reels. Portable.
	"New" Gold Crown Series	Gold Crown Prince \$425.00 With Stereo Playback Added \$475.00	as above	See "Crown" specifications above. Plug-in heads. And dized aluminum construction. Constructed for rack and panel mounting. Modular design so units may be added to units. Engraved panels. Records and plays half-track monaural. Plays stereo to two cathode follower outputs
		Gold Crown Imperial \$520.00 With Stereo Playback Added \$570.00	as above	Gold Crown Prince plus an outboard power output am plifier. Records and plays monaural with 20 watt output
		Gold Crown Broadcaster \$509.00	as above	For broadcast station use. Records and plays full-trac with full width heads and synchronous motor.
		Stereo-X \$695.00	as above	See "Crown" specifications above. Records and play stereo. Plug-in two or four track heads. Four micro phone inputs. Two cathode follower outputs. All alumn num construction.
		Gold Crown Royal \$865.00	as above	The Stereo-X, plus two-50 watt "micro-linear" outpu amplifiers.

Manufacturer	Model and Price	Frequency Response	Data
JAMES INSTRUMENT LABORATORY 9110 South 52nd Court, Oak Lawn, III.	Audikon Model V-12 amplifier and mechanism for rack or console mounting \$595.00 Carrying Cases \$60.00	20-20,000 cycles (±3 db) at 15"/sec. 30-15,000 cycles (±3 db) at 7 ½"/sec.	Two speed, dual track recorder with three-motor drive and electric push-button control via interlocked relays. Hysteresis synchronous direct-drive capstan. Separate record and playback heads permit monitoring from tape while recording. Head assembly has anti-dropout design and automatic tape lifter. Mixing inputs for 250-ohm balanced mike and 500,000 ohm unbalanced line. Cath- ode follower output, plus push-pull 8 watt monitor with independent loudness control: monitors at any level with- out affecting recording level. In-line stereo playback head with dual channel playback pre-amp circuitry al- lows stereo playback with any power amplifier to serve as second channel. Wow and flutter below 0.2% at $71/_2$ ips. Signal-to-noise ratio: 48 db at $71/_2$ ips, 54 db at 15 ips. Overall distortion is 1% . Rewind time: 1200 ft. in 40 sec. Mechanism weight: 38 lbs., amplifier: 11 lbs.
KIMBERLY INDUSTRIES, LTD. 1081 Lexington Avenue New York 21, N. Y.	Phono-Trix Recorder \$99.95	Suitable for voice recording	Variable speed transistorized West German portable tape recorder that operates on four flashlight batteries for 50 recording hours. Speeds variable from 1 to 8 ips. Record- ing time is 30 minutes on each track of 3" reel of tape at 1 ips. Playback through microphone or speaker. Fast rewind. Color-coded slide button operation. Dimensions: $61/2 \times 43/4 \times 31/2$. Weight: 5 lbs. in case.
KINGDOM PRODUCTS LTD. 514 Broadway New York 12, N. Y.	Fi-Cord Recorder \$330.00	50-10,000 cycles (±3 db) at 7½"/sec.	Dual speed, dual track portable tape recorder that oper- ates on batteries. Speeds: $71/_2$ and $17/_8$ ips. Uses $31/_2''$ reels that will record 36 minutes per track at $17/_8$ ips. Can be operated closed. Fast rewind. Recording level indicator; battery and motor indicator. Inputs: micro- phone and radio/phono. Output for external speaker. Wow and flutter: 0.4% . Noise level: 35 db. Dimensions: $95/_8 \ge 5 \ge 25/_8$. Weight: $41/_2$ lbs.
MAGNECORD, INC. P.O. Box 7186 Tulsa, Okla.	Model 100 Series Stereo Recorders WITH FORMICA CASE Mechanical Unit and Pre-amp only \$469.95 Speaker Amplifier S159.95 WITH PORTABLE CASE Mechanical Unit and Pre-amp only \$449.95 Speaker Amplifier only \$129.95 WITHOUT CASE Mechanical Unit only \$255.00 Pre-amp only \$165.00 Mechanical Unit and Pre-amp only \$165.00	40-15,000 cycles at 7 ¼2″/sec. 50-7,500 cycles at 3 ¾″/sec.	New series of tape recorders for both stereo and mon- aural recording and playback. Two speeds: 71/2 and 33/4 ips. Separate channel balance controls. Master level con- trol. Individual VU meters for each channel. Four inputs: two microphone-high impedance unbalanced; two high level auxiliary for tuner, phono, tape. Outputs: two cath- ode follower, unbalanced. Binaural monitor phone jack. Recording indicator. Wow and flutter: less than 0.3%. Signal-to-noise ratio: more than 48 db. Distortion: 1% at 10-watt output. Formica cases available in walnut, blond and teak finishes. Add \$55 for synchronous motor available for all models except the mechanical unit and pre-amp in portable case.
	Model 728 (Price upon request)	30-18,000 cycles (\pm 2 db) at 15"/sec. 40-15,000 cycles (\pm 2 db) at 7 $\frac{1}{2}$ "/sec. 50-10,000 cycles (\pm 2 db) at 3 $\frac{3}{4}$ "/sec.	New professional design portable for either stereo or monaural recording. Speeds: either 15 and $7\frac{1}{2}$ ips or $7\frac{1}{2}$ and $3\frac{3}{4}$ ips. Hysteresis synchronous motor. Elec- trical pay-off and take-up torques. Push-button controls. Tape position indicator. Can be supplied with full track, half track or stereo heads. Two VU meters. Separate record and playback amplifiers. Individual controls for record gain and master gain. Timing accuracy: ± 3 sec- onds in 30 minutes. Signal-to-noise ratio: better than 50 db per channel. Wow and flutter: 0.1% at 15 ips, 0.15% at $7\frac{1}{2}$ ips. Output: cathode follower. Input: two high impedance and two unbalanced bridges, two low impedance with plug-in transformer. Panel size: $17\frac{1}{2}$ x 13 x 10". Weight: 40 lbs.
	Model N35-B Four Pole Motor \$299.95 Model NS35-B Hysteresis Synchronous Motor \$349.95	Extended range to 12,000 cycles	Recorder and 8-watt power amplifier in composite carry- ing case. Tape speeds $7!/_2$ and $3!/_4$ ips by capstan change. Phone jack on front panel for monitoring. High im- pedance microphone furnished. High and low impedance outputs for feeding external system. Printed circuit rec- ord amplifier. Interlock prevents accidental tape erasure. 6" x 9" speaker. Illuminated VU meter. Panel size $8!/_2"$ x 15". Weight: 40 lbs. Half-track heads standard.
	Magnecord \$36-B Recorder and Preamp. with Case \$415.00 Without Case \$385.00	50-15,000 cycles (±2 db) at 15"/sec. 50-10,000 cycles (±2 db) at 7½"/sec.	Single unit recorder and preamplifier for rack or port- able mounting. Two-speed, single-track, with capstan speed change and hysteresis synchronous motor drive. Signal-to-noise, 50 db unweighted. Flutter, 0.3%. Re- wind time, 40 sec. for 1200 ft. Erase and record/play- back heads. VU meter for record and playback level. Phone jack for monitoring. Microphone and unbalanced bridging inputs. 600 ohm balanced or unbalanced line output. Weight: 40 lbs. in case.

Manufacturer	Model and Price	Frequency Response	Data
	Magnecord PT6-6A Monaural Recorder Without Case Recorder \$375 Amplifier \$265 Add \$30 for case	50-15,000 cycles (±2 db) at 15"/sec. 50-7,500 cycles (±2 db) at 71/3"/sec.	Portable, two-speed, single-track recorder with speed- change switch and hysteresis synchronous drive motor. Signal-to-noise, 50 db. unweighted. Flutter: 0.3% at 15''/sec., $0.4%$ at $71/2''$ /sec. Rewind time, 40 sec. for 1200 ft. with automatic tape lift. Erase and record/play- back heads. VU meter for bias, record and playback level. Monitoring by 5'' speaker and phone jack from tape or input. 10 watt power amplifier. Microphone and unbalanced bridging inputs. 4 and 16 ohm power out- puts, 600 ohm line output.
	Magnecord PT6BA2HZ Stereo Recorder Without Case Recorder \$450 Amplifier \$495 Add \$45 for case	Response Date Angeneerd PT6-6A Angeneerd Recorder Wihout Case 30-15,000 cycles (±2 db) cycles (±2 db) e Portable, two-speed, single-track recorder change switch and hystersis synchronous Signal-to-noise, 50 db, unweighted. Flutter 120 ft. with automatic tape lift. Erase and back heads. VU meter for bias, record a level. Monitoring by 5" speaker and phor ist. Whout Case \$255 oryles (±2 db) cycles (±2 db) e Megnecord F75 Tepe Transport with case \$255 oryles (±2 db) cort case \$1,185 40-15,000 cycles (±2 db) cycles (±2 db) cycles (±2 db) cycles (±2 db) cycles (±2 db) cort case \$1,185 Rack-mounted or portable full-track recorder recept for three speed (15, 71/2, 31/4 ips) change, 48 db signal-to-noise ratio, and also unweighted. Flutter; 0.2% at 15"/sec. bine output. Megnecord F75 repe Transport with case \$255 or 10,000 cycles (±2 db) cort case \$1,185 Rack-mounted or portable full-track recorder rel capacity. Direct drive hysteresis synchro cycles (±2 db) cort case \$1,185 Megnecord With case \$255 or 10,000 cycles (±2 db) crit act \$1,185 50-15,000 cycles (±2 db) cycles ct 15'/sec. Recorder/Amp. theources \$1385 Tape transport mechanism similar to above, for use with P7J-1 amplifier instaod of P7V, cycles ct 317/str. Megnecord Whour case \$1385 50-10,000 cycles (±2 db) cycl	Binaural recording version of above. Same specifications except for three speeds (15, 7½, 3¾ ips) with capstan change, 48 db signal-to-noise ratio, and interchannel calibration circuit.
	P75 Tape Transport with case \$575 without case \$535 Amplifier	cycles (± 2 db) at 15″/sec. 40-12,000 cycles (± 2 db)	Rack-mounted or portable full-track recorder with $10!/2''$ reel capacity. Direct drive hysteresis synchronous motor. Push-button controls, instantaneous start and stop, fail- safe brakes and tape break control. Signal-to-noise, 55 db unweighted. Flutter; 0.2% at $15''/\text{sec.}$, 0.25% at 7!/2''/sec. Rewind time, 100 sec. for 2400 ft. Timing accuracy, ± 3 sec. in 30 min. Separate erase, record and playback heads. VU meter for bias, record and playback level. Adjustable bias and high-speed cueing control. Microphone and unbalanced bridging inputs. Phone jack for monitoring from tape or input. 600 ohm unbalanced line output. For recorders with 50-cycle operation, add \$75
MAGNECORD, INC. P. O. Box 7186 Tulsa, Okla. (Other models available)	without case \$655 without case \$1,185 Magnecord P73 Tape Transport with case \$575 without case \$535 Amplifier	cycles (±2 db) at 15″/sec. 50-10,000 cycles (±2 db)	Tape transport mechanism similar to above, but designed for use with P73-J amplifier instead of P75-C, permitting conversion of existing equipment to new, improved per- formance standards. Signal-to-noise, 50 db unweighted Microphone input, 50 to 250 ohms balanced or unbal- anced. Unbalanced bridge input. Monitoring by 5" speaker and phone jack from tape or input. Amplifier, 600 ohm balanced line output, 4 or 16 ohm, 10 watt speaker output. For recorders with 50-cycle operation,
	M90 Tape Transport with case \$995 without case \$935 Amplifier with case \$390 without case \$360 Recorder/Amp. with case \$1375 without case \$1285 Recorder/Amp. and Console Cabinet, \$1450 Magnecord Stereophonic M90 Record/Amplifiers Tape Transport	cycles (±2 db) at 15"/sec. 30-15,000 cycles (±4 db)	Portable, professional-type two speed recorder/amplifier units, also available in console cabinet mounting. Elec- trically interlocked push-button controls. Direct-drive hysteresis synchronous motor. Separate erase, record and playback heads — interchangeable assemblies for full track, half-track or instrumentation. Instantaneous start and stop, automatic tape lift. Separate record and play- back amplifiers for simultaneous monitoring from tape. High speed cueing control. Signal-to-noise, 58 db un- weighted. Flutter: 0.1% at $15''$ /sec., 0.15% at $71/2''$ /sec. Rewind time, 55 sec. for 2400 ft. VU meter for bias, record and playback level. 50 or 250 ohm balanced or unbalanced microphone input, balanced or unbalanced bridge input. Line output, 600 ohms balanced or unbalanced.
	Magnecord 817DLX Long Term Record Unit	cycles at 7 1/2" / sec. 50-5,000 cycles at	A long term storage recorder that is completely auto- matic in operation. This single channel, two-speed, rec- ord/playback machine is designed to operate continu- ously for at least 8 hours (14" reels — 4800 feet of tape). To avoid any loss of recording information, the erase head has been eliminated. Will record and playback one track in the left-to-right direction, automatically reverse, record and replay the second track in the other direction. It will start and stop on voice signals.
MAGNETIC RECORDING INDUSTRIES 126 Fifth Avenue New York 11, N. Y.	Model MDA Tape Player/ Amplifier \$295.00	to 8,500 cycles at 7 ½″/sec.	Master distribution amplifier complete with tape drive mechanism. Less than 1/2% total harmonic distortion at 8 watts. Total power output 10 watts. Complete with master meter system measuring proper output signal being fed into student positions. Sufficient capacity to handle up to 200 student positions. Separate bass and treble controls. Three position selector switch permitting instant flipover from tape to living voice (microphone) or to external source (phonograph, shortwave radio, etc). Complete with 14"x18" master panel.

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October, 1958
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Manufacturer	Model and Price	Freque Respoi	
MAGNETIC RECORDING INDUSTRIES 126 Fifth Avenue New York 11, N. Y.	Dual La Rec Mode \$37 Mode	arotone anguage order 1 68-DL to 8,5 75.00 cycles 7 1/2"/ del 68 87.00	s at microphone. Two outputs for headphones. Single volume
	Synchro-Magneticon Dual Tape Recorder-Reproducer Model ML-6 (in portable case, \$295)	1 10 8,000	
ROBERT C. MERCHANT 2701 Oxford St. Lafayette, Indiana	Custom Language Teaching Equil (Prices on request)	50-13, cycles (± at 7 1/2"	±2 db) 0.2%, Wow below 0.05%. Amplifier designed for language laboratory with present input and output lawle of
METZNER ENGINEERING CORP. 1041 N. Sycamore Avenue Hollywood 38, California	Stered	ght "120" 40-15, o Tape Deck 179.50 at 7½″	± 2 db) flutter under 0.18% at $71/_2$ ips. Stereo head inductance
MOHAWK BUSINESS MACHINES	"Midget All Tran 1 Battery Pock Rec	hawk tape" 300 sistorized 150-5, v Operated cycles et Tape 17/8″/ order 19.50	Signal-to-noise ratio, 42 db. Input, 2,000 ohms-one my
CORP. 944 Halsey Street Brooklyn 33, N. Y.	Moho Message Record-P Unit \$ Playback U	Repeater 200-5, layback cycles (± 159.50 at 3¾″	recording level indicator. Built in 5" speaker. Output,
NORTH AMERICAN PHILIPS CO., INC.	*"Cont Por Rec Model	reico inental'' table order EL 3516 59.50 40-16,000 at 71/2" 50-8,000 ot 33/4" 60-4,500 at 17/8"	 "/sec. controls. Head has air gap of only 0.0002". Contains 5" twin-cone speaker. Signal-to-noise ratio is 54 db. Wow and flutter is 0.2% at 71/2 ips, 0.3% at 33/4 ips, 0.35% at 13/8 ips. Fast forward and reverse: less than 2 minutes for 1200 feet. Automatic stop at end of reel with metal-ized tape. Inputs: one radio/phono, one microphone.
230 Duffy Ave. Hicksville, N. Y.	"Cont Por Stereo Amplifier/Speaker Model EL	reico 40-16,000 inental'' at 7 ½" table 50-10,000 Recorder at 3 ¾" 3516 G / 73 60-5,000 99.50 at 1%"	"/sec. b except for following. Wow and flutter is 0.15% at $71/_2$ b cycles "/sec. c cycles c cycl

Manufacturer	Model and P	rice	Frequency Response	Data
		Mercury Model NL-1 \$159.95 Model NL-1S Stereo \$199.95	40-11,000 cycles at 7 1/2"/sec. 40-7,000 cycles at 3 ¾"/sec.	Two-speed portable recorder. Features "Finger-Flite" single rotary control for Play, Record, Fast Forward, Fast Rewind. Removable head pole piece allows quick change from half to full track. Interlock record button prevents accidental recording or erasure. Has 6" speaker built in. Signal-to-noise ratio is 45 db. Fast Forward winds 7" reel in 75 seconds. Wow and flutter is under 0.4% at $71/_{2}$ ips. Four-pole motor. Inputs: 1 microphone, 1 radio. Out- puts: 1 amplifier, 1 speaker. Weight: 25 lbs.
		Champion Model NL-2 \$219.95 Model NL-2S Stereo \$259.95	40-13,000 cycles at 71/2"/sec. 40-7,000 cycles at 33/4"/sec.	Two speed portable recorder. Has "Finger-Flite" single rotary control for Play, Record, Fast Forward, Fast Re- wind. Features a dual extended range speaker system with crossover network: one 6" round PM woofer, 1 exponen- tial 4" tweeter with solid basket. Head has removable pole piece. Amplifier output is 5 watts. Digital index counter. Automatic braking; magic eye record level indi- cator. Signal-to-noise ratio is 48 db. Wow and flutter is under 0.4% at 71/2 ips. Inputs: 1 microphone, 1 radio. Outputs: 1 amplifier, 1 speaker. Weight: 29 lbs.
		Aristocrat Model NL-3 \$269.95 Model NL-3S Stereo \$309.95	40-15,000 cycles at 7½"/sec. 40-7,500 cycles at 3¾"/sec.	Dual speed portable tape recorder. "Finger-Flite" single rotary control for Play, Record, Fast Forward, Fast Re- wind. Contains two 6" round PM woofers; one 6" round mid-range; one exponential tweeter with solid basket. Double LC crossover networks with cutoffs at 600 cycles and 2000 cycles. Has 10 watt push-pull amplifier and illuminated VU meter. Signal-to-noise ratio is 50 db. Wow and flutter is under 0.4% at $71/2$ ips. Head has removable pole piece. Automatic shut-off switch at end of reel. Two high impedance inputs; one high and one low impedance output. Weight: 35 lbs.
THE PENTRON CORPORATION 777 South Tripp Avenue Chicago 24, III.		Emperor II Stereo System Model NL-4 Stereo Recorder \$450.00 Model ES-2 Speaker System \$75.00	40-15,000 cycles at 7½"/sec. 40-10,000 cycles at 3¾"/sec.	New home stereo system that can record and play back 2- and 4-channel stereo, and monaural. Speeds: $7\frac{1}{2}$ and $3\frac{3}{4}$ ips. "Finger Flite" single rotary control. Safety inter- lock record button. Dual pole erase head. Two 4" x 6" oval speakers. (ES-2 speaker system contains six more.) Power output: 20 watts push-pull. Two electron recording beam level indicators. Signal-to-noise ratio: 50 db. Wow and flutter: under 0.3% at $7\frac{1}{2}$ ips. Index counter. Auto- matic shutoff. Inputs: one for microphone, one for radio/ phono. (Each jack has two input positions.) Outputs: two for external amplifiers, two for external speakers. Dimensions: $17" \times 17" \times 11"$. Weight: 45 lbs.
		Tape Mechanisms TM-1 Monaural \$84.50 TM-4 Stereo/Monaural \$109.95	40-14,000 cycles at 7 ½″/sec.	New line of tape mechanisms. Single rotary control for Drive, Fast Forward, Fast Rewind. Two speeds: $71/_2$ and $33/_4$ ips. Signal-to-noise ratio is 55 db. Flutter is under 0.4% at $71/_2$ ips. Head pole pieces are removable. Four standard pin jack outputs. Two AC convenience outlets. TM-1 is for monaural recording and playback only. TM-4 is for stacked and staggered stereo recording and play- back plus monaural recording and playback.
		Dynacord Tape Recorder Mechanism only Full or half track \$645.00 Stereo \$845.00 Pre-amp Studio standard \$130.00 Broadcast standard \$200.00	40-15,000 cycles (±2 db) at 15"/sec. 40-10,000 cycles (±2 db) at 71/2"/sec.	New professional tape recorder available in full or half track monaural version or stereo version. Two speeds: 15 and $7\frac{1}{2}$ ips. Electrical push button operation. Record interlock. Dynamic braking, automatic shutoff. Auto- matic monitoring of output simultaneous with recording. Three motors. Hysteresis synchronous capstan motor. Separate constant torque wind and rewind motors. Wow under 0.15% at 15 ips, 0.25% at $7\frac{1}{2}$ ips. Signal-to- noise ratio: over 55 db. Maximum distortion not exceed- ing 3%. Add \$50 for mechanism case, \$40 for studio standard preamp, \$35 for broadcast standard preamp.
	Mo. Mo Mo	LP Magazine R Repeater del A-1 \$99.95 del A-2 \$87.95 del A-3 \$79.95 del A-4 \$119.95	40-7,000 cycles at 3¾″/sec.	New series of magazine repeaters playing a regular loop for 28 minutes, Moebius loop for 55 minutes. Stopping by voice operated relay activated by silence on tape between messages. When applicable, signal-to-noise ratio is 45 db, flutter is 0.5%. A-1 is complete with amplifier, speaker, triggering circuit, case, handle. A-2 is same without triggering circuit. A-3 includes pre-amp, case, handle. A-4 is recorder/playback, speaker, recorder in- dicator, microphone, case, handle, magazine.
PHILCO CORPORATION Philadelphia 34, Pennsylvania		Model ST 300 Stereo Recorder \$229.95	40-15,000 cycles at 71/2"/sec.	New dual track, dual speed recorder for monaural rec- ord/playback and stereo playback. Speeds: $7\frac{1}{2}$ and $3\frac{3}{4}$ ips. Push-button controls. Safety switch prevents acci- dental erase. Pause control. Automatic shutoff. Index timer. Two internal speakers. Tuning eye recording indi- cator. Wow and flutter less than 0.5%. Inputs: one for microphone, one for radio/phono. Outputs: one for external speaker, one for stereo speaker. Dimensions: $9\frac{1}{2}$ " x 15" x 14". Weight: 39 lbs.

Manufacturer	Model and Price	Frequency Response	Data
PREMIER ELECTRONIC LABORATORIES 382 Lafayette St. New York 3, N. Y.	"Tapesonic" Model 70-C \$398.75 Stereophonic Model 70-C B.L. \$446.75	30-18,000 cycles (\pm 3 db) at 15"/sec. 30-15,000 cycles (\pm 3 db) at 7 $\frac{1}{2}$ "/sec. 30-7,500 cycles (\pm 3 db) at 3 $\frac{3}{4}$ "/sec.	Portable professional type three-speed dual track re- corder. Three motors, including hysteresis synchronous drive motor. $41/2$ " VU meter. Push button operation using seven relays and one solenoid. Three separate heads, permitting instantaneous monitoring from tape while recording. A.B. switch permits comparison between original and recorded program. Flutter and wow 0.1%. Mixing channels for mike, radio or phono inputs. Full protection against accidental erase. Bass and treble con- trols with flat response setting. Fast forward and rewind, less than one minute for 2400 ft. Electro-dynamic brake action and tape tension, never requires adjustment. D.C. on preamp heaters. Push-pull 16 watts audio output. Also available with stereo in-line head playback includ- ing dual track record and playback.
	Model PB-17C Tape Reproducing Mechanism \$785.50 Model A-909 Pre-amplifier \$132.00	50-8,000 cycles at 3 ¾ ″ / sec.	Dual-track reproducing mechanism with $3\frac{3}{4}$ " tape speed and automatic reversal, giving up to 8 hours of continu- ous music on a 4800-ft. reel. At end of this time, mecha- nism may be made to recycle or stop. Heavy duty capstan drive unit with individual torque motors for each reel. Fast forward and fast rewind. Signal-to-noise, 55 db. Flutter 0.35% at $3\frac{3}{4}$ " speed. Silence sensing switch and timing accessories available.
PRESTO RECORDING	Continuous Tape Reproducing Console \$1,118.75	A-520 Pre-amplifier in console cabinet	Long-playing tape reproducing unit consisting of PB-17C tape transport mechanism. Dynamic range, 45 db.
CORPORATION P. O. 80x 500 Paramus, New Jersey	800 Series Tape Recorder with Amplifier Monaural Rack Mtg. \$1375.00 Portable \$1480.00 Console \$1649.00 Stereo Rack Mtg. \$1780.00 Portable \$1930.00 Console \$2094.00 Transport only \$993.00	30-20,000 cycles (±2 db) at 15"/sec. 40-12,000 cycles (±2 db) at 71/2"/sec.	New professional type tape recorder featuring sweep loading, automatic tape lift, new type editing function for run-off of unwanted tape, new cue button for hand cueing without motor or brakes, and new solenoid brakes and pressure pulley. Has a direct-drive hysteresis syn- chronous capstan motor and two torque motors. Three speed ranges of rewind and fast forward. Input can be switched to balanced or unbalanced 600-ohm line, bridg- ing input or microphone input. Illuminated VU meter. Two separate output circuits. Wow and flutter are no more than 0.10% at 15 ips or 0.15% at $71/_{2}$ ips. Signal- to-noise ratio is 60 db at 1.0% distortion. Distortion is 1.0% (harmonic) at ± 18 dbm output from 35 to 15,000 cps. Monaural version with either full- or half-track heads. Add \$50 to stereo prices for two channel version.
RADIO CORPORATION OF AMERICA	The Senator Model 8TR2 \$179.95	90-8,000 cycles at 7 1/ ₂ " / sec.	New push-button controlled portable. Two speeds: $7\frac{1}{2}$ and $3\frac{3}{4}$ ips. Input for radio-phonograph. Neon lights for recording level. Speaker is $5^{"} \times 7^{"}$. Ceramic microphone. Pilot light indicates when recorder is on. Power output is 2.5 watts undistorted. Dimensions: $9\frac{5}{16}$ " x $18\frac{1}{16}$ " x $14\frac{1}{16}$ ". Rewind time for 7" reel is 2 minutes. Available in charcoal and tan-and-brown cases.
RCA Victor Division Camden 2, N. J.	The Diplomat Model 87R3 \$219.95	70-12,000 cycles at 71/2" / sec.	New portable recorder. One $61/2"$ speaker for low and mid-range frequencies, two $31/2"$ speakers for high fre- quencies. Window counter indicates location of any par- ticular recording on a recorded tape. Auxiliary speaker jack can also be used as earphone jack. Available in gray and green cases. Dimensions: $911/16" \ge 1711/16" \ge 143/4"$. Otherwise same as above.
RANGERTONE INC.	"(Rangerette") Portable Model A-2 \$1500.00 complete	45-15,000 cycles (±2 db) at 15"/sec.	FOR SYNCHRONOUS SOUND RECORDING Professional-type, single-track. dual-speed recorders, with choice of $3\frac{3}{4}$ ", $7\frac{1}{2}$ ", 15" or 30" per second tape speeds. Up to 2 hours recording at $7\frac{1}{2}$ " per sec. on 14" reel. Distortion, less than $2\frac{6}{6}$ total harmonic. Maximum signal-to-tape noise, 55 db. Double-puck, tight-loop tape drive. Peak-to-peak flutter, less than $0.1\frac{6}{6}$ at $15^{"}$ /sec. Rewind speed controllable continuously from 0 to $250/$
73 Winthrop St. Newark 4, N. J.	Console Model R-5C with synchronizer \$4925.00	50-8,000 cycles (±2 db) at 7 ½″/sec.	sec. in both forward and rewind. Meets all N.A.B. adopted standards. Complete monitoring and mixing facilities. VU meter, signal indicator and footage counter calibrated in minutes and seconds. Complete tape editing facilities. Also available with positive "sprocketless" synchronization for motion picture and TV applications. Weight of Rangerette — 30 lb. Kits added to other professional recorders for Syn- chronous Sound Recording for \$320.00.

Manufacturer	Model and Price	Frequency Response	Data
REED RESEARCH INC.	Transcri Model I \$1,10	(-3 on tape	A new concept in magnetic tape transcribing equipment. Tape speed is continuously variable between two tenths and thirty ips. Can playback any $\frac{1}{4}$ magnetic tape re- corded on American or European tape recorders. Pas- sages may be rapidly scanned or slowed down by flicking a switch which doubles or halves the selected speed. Auto- matic back-spacing. Single channel, in-line or staggered binaural tapes can be played. Foot pedal control for stopping, starting and rewinding tape. Signal-to-noise ratio is better than 40 db. Wow and flutter is less than 0.5% . Weight, 46 lbs. Dimensions: $14^{"} \times 19^{"} \times 5\frac{1}{4}"$.
1048 Potomac St., N.W. Washington 7, D. C.	Educore Dual Model M \$335.0	-6A 70-5,000	Portable, two speed, two channel recorder with single knob-control tape mechanism. Two separate record/re- produce amplifiers and two separate record-play-erase heads. Records or plays back both channels simultane- ously or records on one while playing back the other. Monitoring by headphones while recording. Signal-to- noise, 40 db. Wow and flutter, 0.3% at $71/2$ "/sec. Fast forward and rewind, 70 sec. for 1200 ft. Nominal 75 watt peak power from each channel. Two input connec- tions. Three output connections: Channel 1, Channel 2 and Dual for binaural headphones. Includes headphones and microphone. Weight 30 lbs.
	Model T- Monaural P \$207.5 Model T- Stereo Por \$237.5	ortable cycles (±3 db) 50 at 71/2"/sec. 204 40-8,000 table cycles (±3 db)	New two speed portable recorder. Speeds: $7\frac{1}{2}$ and $3\frac{3}{4}$ ips. Two matched speakers with cross-over network. Key- board control. Automatic safety lock and warning light to prevent accidental erase. Two-level record indicators. Index counter. Automatic stop on tape runout. Appli- ance power outlet. Drop-in loading head slot. Wow and flutter less than 0.3%. Signal-to-noise ratio greater than 48 db. Model T-204 is the same as Model T-202 except for the addition of stereo playback.
	Model T-3 \$225.0 Model TR- \$275.0	$\begin{array}{c} \text{cycles } \{ \pm 3 \text{ db} \} \\ \text{at } 7\frac{1}{2}'' \text{ sec.} \\ \text{800D} \\ \text{cycles } \{ \pm 3 \text{ db} \} \end{array}$	Portable dual track recorder available with either single or dual speed. Convenient keyboard control, electrical solenoid operated. Signal-to-noise ratio over 48 db on dual speed machines and 50 db on single. Distortion less than
	Model T- \$235.0 Model TR \$287.5	80-8,000 cycles (±3 db) -800 at 3 3⁄4″/sec.	0.65% on normal levels. Rewind and fast forward speed, 170 ips. Flutter and wow less than 0.3%. Two neon lamps for accurate level setting. Precision revolution index counter, for instant location of recording. Can be op- erated as a PA system. Provisions for electrical remote controls.
REVERE CAMERA COMPANY 320 East 21st St.	Model T \$245.0 Model TF \$297.5	00 60-15,000 cycles (±3 db) 2-20 at 7½″/sec.	Models TR-800D, TR-800 and TR-20 have built-in AM tuner.
Chicago 16, III.	Model T-700 B&M \$245.00 Model TR-800 B&M (with radio) \$2 Model T-10 B&M \$255.00 Model TR-20 B&M (with radio) \$30	as above	Table models (as above) in solid blonde oak or solid Honduras mahogany. Special pressure relief port for ex- tended frequency range.
	Model T- \$169.5 Model TR- (with rat \$219.5 Model T- Stere \$199.5	i0 75-12,000 1200 cycles (± 3 db) dio) at 71/2"/sec. i0 85-7,000 cycles (± 3 db) at 33/4"/sec.	Portable dual track recorder available with either single (33/4 ips.) or dual (33/4.71/2 ips.) speed. Signal to-noise ratio over 48 db on either machine. Distortion less than 1% at normal levels. Rewind and fast forward, 170 ips. Flutter less than 0.3%. Single knob control automatically returns to stop when power is turned off. Dual level indi-
	Model T- \$199.5 Model TR- (with rac \$224.5	85-7,500 1000 cycles (±3 db) dio) at 334″/sec.	cator. Revolution index counter. Instant stop button. Two-speed knob can be changed while in any function. Rugged fiberglass case. Two speakers. Can be operated as a public address system. Weight, 28 lbs.

Manufacturer	Model and Price	Frequency Response	Data
	Model T-100 \$169.50 Model TR-200 (with radio) \$224.50	85-7,500 cycles (±3 db) at 3¾″/sec.	Portable, dual track recorder available in either 1½ o 3¾ ips. tape speed. Signal to noise ratio, over 45 db a either speed. Distortion, less than 1.5%. Rewind and
REVERE CAMERA COMPANY	Model T-500 \$179.50 Model TR-600 (with radio) \$234.50	100-5,000 cycles (±3 db) at 17⁄/8"/sec.	rapid forward: single knob control. Flutter less tha 0.3%. Two level recording indicator. 5" x 7" Alnico V speaker. Weight, 25 lbs.
320 East 21st St. Chicago 16, III.	Model T-11 \$284.50	40-16,000 cycles (±3 db) at 71⁄2″/sec.	High fidelity 10 ¹ / ₂ " reel tape recorder for professional use and custom installations. Guaranteed specifications signal-to-noise, over 50 db, wow and flutter less tha 0.2%. Features: One volt cathode follower pre-amplified output. Monitor amplifier with 2 ¹ / ₂ watt output. Adjust able 70 Kc bias-erase oscillator with indicator. Less tha 1 ¹ / ₂ -second start and stop. Automatic head demagnetizing Precision revolution tape counter. Electrical remote with automatic drive roller release.
ROBERTS ELECTRONICS, INC. 1028 N. LaBrea Avenue Hollywood 38, Calif.	Model 90 Monaural Recorder \$299.50 Model 90-S Stereo Recorder \$325.50 Model A-901 Stereo Amplifier \$149.50	40-15,000 cycles (±3 db) at 7½"/sec. 40-7,500 cycles (±3 db) at 3¾"/sec.	Portable two-speed recorder with hysteresis synchronou one-motor drive. Locking device prevents accidenta erasure. Digital index counter. Wow and flutter, 0.15% Signal-to-noise: 45 db. Wrap-around tape threading illuminated VU meter, low and high level inputs. Ex- ternal output jack. Five-watt amplifier; 5" x 7" extende range speaker. Dimensions: $16 \times 14\frac{1}{2} \times 9$. Weight, 28 lb. Model 90-S has same specifications as above except for following. Has stereo record/playback head. Frequenc response is ± 2 db within the same limits. Has jacks for low level, high impedance microphone input; high level line input; auxiliary speaker or line output; input/output jacks for each record/play head 2 channels.
THE STANCIL- HOFFMAN CORP. 921 North Highland Ave. Hollywood 38, Calif.	Minitape Recorder \$494.00	flat to 10,000 cycles at $71/2''$ /sec. flat to 5,000 cycles at $33/4''$ /sec. flat to 4,000 cycles at $17/8''$ /sec.	New version of the Minitape available at single tap speeds of 17_8 , 37_4 , or $71/2$ ips. Operates completely en closed. External pushbutton for start or stop. Warnin light for end of tape. Takes 5" reels, records up to tw hours continuously. Battery-operated. Automatic volum control over a 40 db range. Does not contain amplifier speaker. External amplifier/speaker and other accessori available. Dimensions of the Minitape: 9" x 12" x 5 Weight, including battery: 13 lbs.
SUPERSCOPE, INC. 8520 Tujunga Avenue Sun Valley, Calif.	Sterecorder Model 555-A Stereo Recorder \$595 Model DK 555-A Stereo Recorder \$525 Model CSS-555-A Stereo System \$775 Model PSC-212 Stereo Speaker System \$189	30-16,000 cycles at $71/2''/sec.$ at $71/2''/sec.$ 50-12,000 cycles cycles (\pm 2 db) at $71/2''/sec.$ 30-10,000 cycles at $33/4''/sec.$	Portable stereo recording and playback system. Tw built-in pre-amp channels, 8 watts power peak per chan- nel. Hysteresis synchronous drive motor utilizing ac- vanced rim drive principle on dynamically balance flywheel. Two VU meters. Two high-impedance input for microphones. Two high-impedance inputs for AM FM tuners or stereo dubbing. Two low-impedance cathode follower pre-amp outputs. Two speaker output Binaural/monaural headphone monitor output. In:tau taneous stop lever coupled to complete editing and cu ing facilities. Flutter and wow less than 0.2% at 71/ ips. Signal-to-noise ratio 50 db per channel. Dimension. 19x16x11". Model DK-555-A is the same as Mod 555-A without portable case, microphones or monitor speaker. Model CSS-555-A consists of Model 555-A ar Model PSC-212. All series of the Model 555-A ar available with 4-track stereo reproducing head at an addi- tional \$75.00.
SYLVANIA ELECTRIC PRODUCTS, INC. Radio & Television Division 700 Ellicott Street Batavia, N. Y.	Model 4901 Portable Recorder \$199.95	100-8,500 cycles at 71⁄2"/sec.	New dual speed monaural portable. Speeds: 71/2 an 33/4 ips. Four knob controls. Single wind and rewin knob. Edit button. Recording level meter. Two speaker Illuminated dial indicates when amplifier is on. Recor- ing time indicator. Undistorted 2 watts peak. Signal-tu noise ratio, 3.3 watts. Wow and flutter, 40 db. Outpu for external speaker. Input for microphone and phono- graph. Dimensions: 8" x 18" x 16". Weight: 30 lbs.
SYMPHONIC RADIO & ELECTRONIC CORP. 10 Columbus Circle New York 19, New York	Symphonic Model 210 \$149.95	80-12,000 cycles at 71/2"/sec.	Portable dual-track recorder, $33/4$ " and $71/2$ "/sec., with push-button control, "normal" and "distort" recordin level indicator and index timer. Wow and flutter, let than 0.4% RMS. Power output, 3 watts undistorted, watts peak. Two speakers — 5" x 7" woofer and 3.5 tweeter. Inputs for microphone and radio-phono. Ou puts for external speaker and external amplifier. P. system use. Includes crystal mike. Weight, 35 lbs.

Manufacturer	Model and	Price	Frequency Response	Data
SYMPHONIC RADIO & ELECTRONIC CORP. 10 Columbus Circle New York 19, New York	Model 300 Stereo corder and Speak		80-12,000 cycles at 7 ½″/sec.	New tape recorder and speaker combination for stereo playback, monaural record/playback. Speeds: $7\frac{1}{2}$ and $3\frac{3}{4}$ ips. Two speakers in recorder. Push button controls. Tape index timer. Recording level indicators. Automatic end-of-reel shutoff. Monitor switch. Pause button. Safety switch prevents accidental erase. Output: 3 watts undis- torted, 5 watts peak. Wow and flutter: less than 0.4% RMS. Input: microphone and radio/TV/phono. Out- puts: two for external speakers. Dimensions: $10'' \ge 15\frac{1}{2}''$ x 15''. Weight: 36 lbs.
		Model 2 \$249.50		Portable, dual-track recorder with speeds of $17/_8$ and $33/_4$ ips. Precision Laminar Heads, Microphone, radio/phono inputs; DAMPED Electronic eye recording indicator, clock-type counter, Goodman $51/2''$ x 8" speaker Wow and flutter below. $27/_{\circ}$ at $33/_{4}$ ips. $255/_{\circ}$ at $17/_{8}$ ips. Signal-to-noise ratio: 57 db at $33/_{4}$ ips. 3.5 watts output, distortion under 1% .
		Model 3B \$299.50	30-10,000 cycles at 3¾"/sec. 30-6,500 cycles at 1½"/sec.	Model 3B is the same as Model 2, except 3 speeds (17% ips, 33/4 ips and $71/2$ ips) and improved performance NARTB Equalization, Wow and flutter below 0.1% at 71/2 ips, Signal-to-noise ratio: 60 db at $71/2$ "/sec. Auto- matic tape stop and BASS switch feature. Frequency response: 30 to 17,000 cycles at $71/2$ ips.
TANDBERG OF AMERICA, INC. 10 E. 52nd St. New York, N. Y.	PQ	Model 3BF \$349.50 Model 2F \$299.50		Models 3BF and 2F are solenoid operated versions of Model 3 and Model 2, same specifications, functions, except operates remotely thru a supplied foot pedal.
		Model 3-STEREO \$369.50		Model 3-Stereo is the same as Model 3B, except it has a stereo head and two power playback amplifiers built-in for playback of stereo tapes.
		Model 3 STEREO-4T \$379.50	30-20,000 cycles at 7½"/sec. 30-12,000 cycles at 3¾"/sec. 30-6,500 cycles at 1½"/sec.	Model 3-Stereo-4T is the same as Model 3-Stereo except it has Four/Track Stereo head to playback four track monaural and new 33/4 ips. Stereo twin tracks.
		Model 4-STEREO \$349.50		Model 4-Stereo is the same as Model 3B, except it is 4- track monaural record-playback and stereo twin track playback, one stereo power amplifier and second channel stereo preamplifier built-in (requires one external power amplifier for stereo playback); dual track erase.
		Model 5-STEREO \$399.50		Model 5-Stereo has four-track record/playback, stereo twin track playback, two power amplifiers built-in, sep- arate gain controls for each channel. Same specifications as Model 3-Stereo-4T. Accommodates #241 Stereo Re- cording Amplifier to record stereo.
TELECTRO INDUSTRIES CORP.		Telectro Model 938 Price on Request	30-10,000 cycles (±2 db) at 7½"/sec.	Professional-type recorder for portable or rack mounting. Also available in console cabinet. Plug-in head assembly — single or dual track. Two speeds — $71/2"$ /sec. and 15"/sec. Wow and flutter, less than 0.2% at $71/2"$ /sec., less than 0.15% at 15"/sec. Distortion, less than 0.2% RMS at maximum recording level. Signal-to-noise, over 55 db at both speeds. VU meter. Adjustable bias. Micro- phone, bridge and line inputs. Outputs, 600 ohms bal- anced; monitor jacks for power amplifier and headset. Fast forward and rewind, less than 1 min. Playback tim- ing accuracy, better than 0.2%.
35-16 37th St. Long Island City 1, New York		Telectro 14" Tape Transport Price on Request		Professional tape transport for rack or portable-case mounting. Constant-speed hysteresis synchronous motor drive, with torque motors for supply and take-up reels. Speeds, $7\frac{1}{2}$ " and $15''$ /sec. Starting time, less than 0.1 sec. Stopping time, less than 2" at $15''$ /sec. Timing ac- curacy, better than $0.2\frac{1}{2}$. Fast forward and rewind, less than 1 min. for $14''$ reel. Wow and flutter, less than $0.15\frac{1}{2}$ at $15''$ /sec. Plug-in head assembly — 3 heads single or dual track. Push-button relay operation, editing knobs, automatic shut-off. Solenoid brakes.
TELECTRO- SONIC CORPORATION		Telectro Model 1970 \$99.95	Flat to about 8,500 cycles at 71/2″/sec.	Model 1960. Portable, dual track recorder with $3\frac{34}{4}$ " and $7\frac{1}{2}$ " tape speeds. Push-button speed control and single knob control for record and plavback. Neon record-level indicator. Built-in 6" speaker. Patch cord available for direct recording from radio-phono. Weight, 15 lbs.
35-18 37th St. Long Island City 1, New York	Telectro Model 1960 \$79.95		100-10,000 cycles at 7½″/sec.	Model 1970. New two speed tape recorder. Speeds: 71/2 and 33/4 ips. Single-knob function control for Record and Play. Fast Forward-Rewind switch. Interlock prevents accidental erase. Two speakers. Output: 5 watts peak. Input: microphone, radio, TV, phono. Output: external speaker. Dimensions: 15" x 8" x 111/2". Weight: 19 lbs.

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October, 1958
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Manufacturer	Model and Price	Frequency Response	Data
TELECTRO- SONIC CORPORATION	Telec Model Stereo Pi Uni \$99.	1980 50-15,000 ayback cycles at t 7½″/sec.	New playback unit for both dual-track and four-track stereo and dual-track monaural. Separate volume and tone controls for each amplifier. Fast Forward and Re- wind. Pilot light indicates when set is in operation. Four- pole motor. Inputs: two for connecting kit that converts any monaural phonograph into stereo disc system. Out- puts: two for external speakers/amplifiers. Signal-to- noise ratio: 45 db. Output is 6 watts peak from each amplifier. Distortion is less than 2.0%. Dimensions: $15'' \times 8\frac{1}{2}''' \times 11\frac{1}{2}''$. Weight: 20 lbs.
35-18 37th St. Long Island City 1, New York	Telec Model Stereo P \$189 Model Porta \$149	300 ortable 50-15,000 .95 cycles at 350 7 1/2 "/ sec. ble	New tape recorder for two- and four-track stereo play- back and monaural record/playback. Speeds: $7\frac{1}{2}$, $3\frac{3}{4}$ and $1\frac{7}{8}$ ips. Pushbutton controls. Digital counter. Auto- matic shut-off. Record and record level indicator. Three- way speaker system. Equalization switch. Inputs: micro- phone, radio/phono/TV. Outputs: two for external speaker/amplifiers. Signal-to-noise ratio: 45 db. Power output: 8 watts peak from each amplifier. Distortion less than 2.0%. Dimensions: $16^{\circ} \times 10^{\circ} \times 14^{\circ}$. Weight: 29 lbs. Model 350 is monaural. Same as above except for single pre-amp and power amp with push-pull output of 8 watts.
TRUVOX LTD. Truvox (U.S.A.) Ltd. 275 Seventh Ave. New York 1, New York	Mark Tape TR-21 \$199 TR-21 \$215 Type Record-Pl Amplifier	Deck 106 106 106 106 106 106 106 106	Dual track, dual speed. TR-2106 with timing scale. TR-2116 with precision index counter, both fitted with stacked stereo head. With suitable electronics for mon- aural record/playback plus stereo playback or monaural record/playback plus stereo record/playback (half-track erase head requires raw tape). 3 shaded pole B.T.H. motors. Wow and flutter: less than 0.2% at $71/_2$ ips. Push button operation, electrical braking, high speed re- wind (45 sec. for 7" reel). Automatic tape lifter. Dimen- sions: $141/_4$ " x $12\cdot13/16$ " x 5". Weight $141/_2$ lbs.
	Model FF75R-LP. Monaural Record/	/iking Series Tape Decks 78.50 87.00 113.00 e/ 113.00	Component tape deck offered with a wide variety of interchangeable head assemblies. Features flutter-filter belt drive. Wow and flutter 0.2% rms. Front panel speed change, $3\frac{3}{4}$ and $7\frac{1}{2}$ ips. Split-knob position shift for record/play, fast forward and rewind. For playback, re- quires preamplifier with low level tape input and NAE equalization. For recording, requires Viking RP61 on equivalent matched record/playback amplifier. (Two RP61 amplifiers and stereo deck serve for stereo record ing). All Viking decks may be modified through addition of heads and brackets to provide same functions as other models listed. Decks accommodate three heads and are also available with the quarter track head configuration $12\frac{1}{8}$ " x $8\frac{3}{4}$ " x 5" deep. 115V, 60 cycles A-C. (50 cycle models also available). Weight 11 lbs.
VIKING OF MINNEAPOLIS 9600 Aldrich Ave., So. Minneapolis 20, Minn.	85 	167.00 / 143.00	The finest home type tape deck in the Viking line. Flut ter-filter belt drive. Two motors providing fast forward and rewind. Front panel speed change, 3 ³ / ₄ and 7 ¹ / ₂ ips Dual rotary control. Inner ring selects "fast forward" and "fast rewind." Outer knob selects normal forward, stop and cue (edit). Footage counter. Space for five heads Pressure pads provided at three head positions. Tape lifters remove tape from heads except in play and "cue" positions. Short-gap record/playback heads. Ultra-shor gap quarter-track in-line head for the new 3 ³ / ₄ ips tape are available. See "Q" models. Signal-to-noise ratio 50 db. Wow and flutter 0.2 percent or less rms. Use with RP61 Record/Playback amplifiers for recording. Use PB60 preamplifier or amplifier having equivalent (NAB) tape equalization. Tapes recorded on Viking may b played back on any machine having standard NAI equalization. 110v, 60 cycles. (50 cycle models available. (All 85 Series Viking decks are flexible in that head may be added to provide special functions such as sound on-sound recording, stereo monitoring, language teach ing, etc.) Dimensions: 9 ¹ / ₂ " x 13" x 5". Weight 12 lbs
	RP61 Record/Playback Amplifier RP61VU Record/Playback Amplifier PB60 Playback Preamplifier	5 77.50 119.00 29.50	RP61 record/playback amplifier matches all Series 7 and 85 tape decks above. PP61VU is the same as th RP61 but has a VU meter instead of "Magic eye."
	Viki Endless Cartr Reco 35P \$ 35R \$ (other models available by req	s Play cycles at idge $7 \frac{1}{2}^{"}$ /sec. rder 40-7,000 60.00 40-7,000 67.00 cycles at $3\frac{3}{4}^{"}$ /sec.	Portable handler for use with Fidelipac continuous loop tape cartridges holding up to 1600 feet of tape. Single lever control. Speed change control for 33/4 or 71/8 ip tape speeds. 115v, 60 cycle A·C motor (50 cycle moto available). Accommodates one or two PB60 Pre-ampli fiers, or PA62 combination preamp-amplifier, or RP6 Record/Playback Amplifier. 101/2" x 91/4" x 51/4 mounted in case. Weight 5 lbs. Model 35P is monaural half-track playback only mounted in case. Model 35R is monaural half-track record/playback/erase, mounted in case.

Manufacturer	Model and Price	Frequency Response	Data
VIKING OF MINNEAPOLIS 9600 Aldrich Ave. So., Minneapolis 20, Minnesota	"95" SERIES Tape Deck (Prices available on request)	Dependent upon type of heads supplied	Broadcast type recorder designed for professional appli- cations. Available with any of three drive pulleys: $15 - 7\frac{1}{2}$; $7\frac{1}{2} - 3\frac{3}{4}$; or $3\frac{3}{4} - 1\frac{7}{8}$ ips. Three motors: hysteresis synchronous drive; 6-pole induction torque motors. Space for six interchangeable heads allows head configurations for any tape application. Rewind and fast forward time, 70 sec., for 2400 feet tape. Instantaneous dynamic braking, less than 2 sec., from fast forward or fast rewind. Signal-to-noise ratio: 55 db or better. Wow and flutter: less than 0.1% at 15 ips, less than 0.15% at $7\frac{1}{2}$ ips rms. Deck is available with matching VU Record/Playback Amplifiers, for rack mounting.
V-M	"Tape-O-Matic" Portable Model 710A \$189.95	40-15,000 cycles (±5 db) at 7½″/sec.	Portable, dual-track recorder with $3\frac{3}{4}$ " and $7\frac{1}{2}$ "/sec. tape speeds and push-button control of all operating functions. Convertible to stereo playback. Power output, 8 watts. Signal-to-noise ratio, better than 45 db. Less than 0.4% RMS flutter and wow. Cathoptic tuning eye, automatic shut-off, and monitor switch. Concealed 60- cycle hum control and noise balance control. Two built-in speakers. Jacks for external amplifier, two-way external and stereo output. Separate bass and treble control, microphone and phono adapter plug included. Shipping weight, approx. 32 lbs.
CORPORATION Benton Harbor, Michigan	"Tape-O-Matic" Stereo/Playback Portable Model 714 \$225.00 "Celeste" Stereo/Playback Table Model 750A \$275.00	40-15,000 cycles (±5 db) at 7½″/sec.	Portable, two-speed dual-track stereo recorder. "Stacked- staggered" stereo playback switch. Monaural record/play- back. Power output, 8 watts. Signal-to-noise, better than 45 db. Flutter and wow less than 0.5% RMS. Cathop- tic tuning eye and automatic shut-off. Two speakers, external amplifier jack, two-way external speaker jack, stereomatic output receptacles. A.C. receptacle. Inter- locked push-button controls. Instant pause switch, moni- tor switch and tape index counter. Separate bass and treble controls. Weight: 32 lbs. Model 750A is a two-speed dual track stereo recorder, similar to Model 714, except with two 8" woofers and a 3.5" tweeter. Blonde or mahogany cabinets. Optional legs convert it to consolette. Weight: 45 lbs.
	Webcor "Regent" Model 2910 \$159.95 Model 2820 \$199.95	50-12,000 cycles at 7½"/sec. 70-7,000 cycles at 3¾"/sec.	Model 2810 — Portable dual track recorder. Speeds: 71/2, $33/4$ and $17/8$ ips. Amplifier has five watts peak power. $5'' \ge 7''$ permanent magnet oval speaker. Signal- to-noise ratio: 45 db. Wow and flutter less than 0.4% . Four-pole motor, numerical tape counter, editing key, recording level indicator, monitor control. Jacks for input, external amplifier, external speaker. Weight: 34 lbs. Model 2820 — same, except with separate pre-amplifier for stereo playback. Additional stereo speaker system required.
WEBCOR, INC. 5610 West Bloomingdale Ave.,	Webcor "Royal" Model 2911 \$199.95 Model 2821 \$239.95 Model 4820 (Speaker) \$79.50 Model 2991 \$239.95	50-12,000 cycles at 7 1/2" / sec. 70-7,000 cycles at 3 3/4" / sec.	Model 2911 — Same as Model 2810 except for two speeds (71/2 and 33/4 ips); "No reel turnover" feature that plays 3, 5 or 7-inch reels in two directions, with head transfer for track change; two speakers: 5" x 7" woofer and 4" tweeter; two recording heads, two four- pole motors; four-way master control. Model 2821 — same, except with separate pre-amplifier for stereo playback. Model 4820 stereo speaker system required. Model 2991 — same as 2911, except with built-in AM radio tuner. Radio may be used independent of recorder.
Chicago 39, Elinois	Webcor "Imperial" Model 2827 \$319.95 Model 4728 (Speaker) \$119.95	(as above)	Model 2827 — similar to Model 2821, except with 8-watt peak power amplifier, built-in preamplifier for stereo- phonic playback using a separate two-section speaker system, Model 4728. Recorder includes built-in 5" moni- tor speaker. Two recording heads: one monaural rec- ord/playback head, the other a stacked monaural and stereo playback head.
	Webcor "Royal Coronet" Model 2822 \$289.95 Model 2955 \$249.95 Model 2923 \$289.95 Model 2923	40-15,000 cycles at 7½″/sec. 50-10,000 cycles at 3¾″/sec.	Model 2822 — Same as Model 2821, except with 8 watt peak power amplifier and three speakers — one 6" x 9" woofer and two 4" tweeters. Weight, 51 lbs. Model 2955 is same as Model 2822 except for additional speed: 1% ips. Has 5 watt amplifier output, in consol- ette cabinet. Add \$10.00 for limed oak, maple or wal- nut finish. Uses Model 4923 speaker system. Add \$10.00 to speaker price for limed oak or cherry finish. Model 2923 is same as Model 2955 except in console cabinet. Add \$10.00 for limed oak or cherry finish.

Manufacturer	Model and P	Price	Frequency Response	Data
WEBSTER ELECTRIC — ELECTRONICS		"Ekotape" Model 320 \$279.50	30-15,000 cycles at 71/2"/sec.	Portable, two-speed, dual-track recorder with monomatic single-knob control. Meter type recording level indicator. Power output, 8 watts max. Distortion, 1.6%. Total harmonic at 6 watts, 400 cycles. Signal-to-noise, 43 db. Wow and flutter, 0.2% max. at $71/2$ /sec. Odometer type selection finder. Fast forward and rewind ratio, 15 to 1. Two built-in speakers — 6" x 9" oval PM and 3" round. External speaker jack and output for hi-fi preamp. Inputs for microphone and radio-phono jack. Includes crystal mike and manual instant start-stop control. Dimensions: 11 x 131/2 x 15". Weight, 35 lbs.
		"Ekotape" Stereophonic Model 330 \$439.50	as above	Similar to Model 320 above, except designed for mon- aural record/playback and stereophonic playback with stacked heads. Includes two amplifiers for stereo play- back — one used for half-track monaural record and playback. Each amplifier has 12 watts maximum output. Weight, 44 lbs. Matching stereo speaker cabinet, includ- ing 6" x 9" oval and 3" round speaker, available at \$59.50.
DIVISION Racine, Wisconsin	/ISION "Ekotape" me, Model 310	New audio-visual control center for use with any auto- matic slide or strip film projector. Eliminates need for audible signal. Has two recording heads that record over full width of tape. One records from mike or radio. The other records 1000-cycle signal that operates an auto- matic projector. Two speeds: $71/2$ and $33/4$ ips. Other specifications same as Model 320 above except for fol- lowing: output, 12 watts; no preamp output jack; micro- phone is accessory.		
		"Ekotape" Model 340 Stereo Deck \$99.50 Model 342 Stereo Deck \$119.50	as above	New tape decks for stereo recording and playback. Speeds: $7\frac{1}{2}$ and $3\frac{3}{4}$ ips. Monomatic central control for tape direction. Second control for speed selection and on/off. Connections: two record/reproduce, two erase. Automatic stop. Odometer type selection finder. Wow and flutter: 0.2% at $7\frac{1}{2}$ ips, 0.3% at $3\frac{3}{4}$ ips. Dimen- sions: $12\frac{3}{4} \ge 9 \ge 7\frac{1}{2}^{"}$. Model 340 does not have auto- matic stop or selection finder. Stereo playback preamp for Models 340 and 342 is \$59.50. Stereo record-playback preamp is \$159.50.
WILCOX-GAY CORPORATION Charlotte, Michigan		STERecordio Model 800 Stereo Portable \$319.95 Speaker \$69.95 Stereo Record Amplifier \$89.95	40-15,000 cycles (±2 db) at 71/ ₂ "/sec.	New portable for monaural record-playback and stered playback plus stereo record with use of stereo recording amplifier. Speeds: $7\frac{1}{2}$ and $3\frac{3}{4}$ ips. Push button controls. Dual volume controls. Interlock prevents accidental erase. Two neon recording level indicators. Two 5 x 7 oval speakers. Fast forward and rewind: 1200 feet in $2\frac{3}{4}$ min. Integral pointer selection finder. Wow and flutter: 0.3% at $7\frac{1}{2}$ ips, 0.5% at $3\frac{3}{4}$ ips. Signal-to-noise ratio: 35 db. Outputs: two for external speakers. Inputs: microphone and radio/phono plus special jacks for amplifier and bias oscillator. Dimensions: $14\frac{1}{2} \times 15\frac{1}{2} \times 12^{"}$. Weight: 35 lbs.
WILCOX-GAY CORPORATION, MAJESTIC INTER- NATIONAL SALES CORP. DIVISION 743 N. LaSalle St. Chicago 10, Illinois		Grundig Majestic Model TK830W/3D \$399.95	40-16,000 cycles (±3 db) at 7½"/sec. 50-10,000 cycles (±3 db) at 3¾"/sec.	Portable, dual-track recorder with $3\frac{3}{4}$ " and $7\frac{1}{2}$ " tape speeds. Magic eye recording level indicator. Tape coun- ter, program index. Hysteresis synchronous motor. Flut- ter and wow, less than 0.1% at $7\frac{1}{2}$ "/sec., less than 0.2% at $3\frac{3}{4}$ "/sec. Signal-to-noise ratio, 55 db. Harmonic distortion, less than 1%. Fast forward and rewind ratio, 30:1. Power output, 6 watts undistorted. Three high- impedance inputs, one high-impedance and one low- impedance output. Includes three wide range PM loud- speakers. Dimensions, 16" x 17" x 8". Weight, 35 lbs.
WOLLENSACK OPTICAL COMPANY 20 E. 21st St. Chicago 16, Illinois		Model T-1500 \$199.50 Stereo Model T-1500 \$229.50	40-15,000 cycles (±3 db) at 7½"/sec. 40-7,500 cycles (±3 db) at 3¾"/sec.	Portable, two-speed, dual-track recorder with 10-watt power output and interlocked keyboard control that can be operated in any sequence. Flutter and wow, less than 0.3%. Signal-to-noise, 48 db. Overall distortion less than 0.8%. Fast forward and rewind, 150"/sec. Dual level record indicator, revolution index counter in start stop lever. Automatic drive roller release when power switch is off. Pre-amp output for Hi-Fi system. Extension speaker jack. Built-in automatic head demagnetization. Remote foot control available. Weight, 18 lbs. Stereo model is same as above with built-in lower channel pre-amp added and without built-in automatic head demagnetization.

All specifications and performance data on tape recorders listed in this directory are based on information supplied by the manufacturer. Performance data are generally based on average values and individual machines sometimes vary widely from published figures, depending on the amount of quality control exercised in manufacture.

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Prices subject to change without notice. Consult manufacturer or local dealer for exact price, as some prices are list and others net.

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The COMPLETE LINE of professional quality AUDIOTAPE

	Description	Type No.*	Length	Reel†	List Price
Contractions Co	PLASTIC-BASE AUDIOTAPE on 1 1/2-mil cellulose acetate (in the Red Box) Meets the most exacting requirements of the professional, educational and home recordist at minimum cost. Known the world over for its matchless performance and consistent uniform quality. Series 51.	151 351 651 1251 2551H 2551R ‡2551FS 5051H 5051R	150 ft. 300 ft. 600 ft. 1200 ft. 2500 ft. 2500 ft. 5000 ft. 5000 ft.	3" Plastic 4" Plastic 5" Plastic 7" Plastic NARTB Hub 10½" Aluminum Reel 10½" Fiberglass (RETMA) NARTB Hub 14" Aluminum Reel	\$ 0.70 1.35 2.25 3.50 8.50 10.90 10.90 17.00 22.10
Terretorial	AUDIOTAPE ON 1½-MIL MYLAR [°] (in the Green Box) A premium-quality professional tape that pro- vides the utmost in mechanical strength and immunity to temperature and humidity. Will not dry out or embrittle with age. Series 71. °DuPont Trade Mark	671 1271 2571H 2571R ‡2571FS 5071H 5071R	600 ft. 1 200 ft. 2500 ft. 2500 ft. 2500 ft. 5000 ft. 5000 ft.	5" Plastic 7" Plastic NARTB Hub 10½" Aluminum Reel 10½" Fiberglass (RETMA) NARTB Hub 14" Aluminum Reel	4.25 7.00 12.75 15.15 15.15 30.30 36.30
audiotape Stansard and a stansard attraction Stansard attraction Sta	"LR" LONGER-RECORDING AUDIOTAPE on 1-mil "Mylar" (in the Black-and-Red Box) 50% more recording time per reel. The strong, super-durable polyester film base assures trouble-free operation even under severe con- ditions of heat and humidity. Series 61.	261 961 1861 3661H 3661R ‡3661FS 7261H 7261R	225 ft. 900 ft. 1800 ft. 3600 ft. 3600 ft. 3600 ft. 7200 ft. 7200 ft.	3" Plastic in Self-Mailer Pkg. 5" Plastic 7" Plastic NARTB Hub 101/2" Aluminum Reel 101/2" Fiberglass (RETMA) NARTB Hub 14" Aluminum Reel	1.00 3.75 6.50 12.50 15.00 15.00 26.00 32.00
	PLASTIC-BASE "LR" AUDIOTAPE on 1-mil cellulose acetate (in the Blue Box) 50% more recording and playback time on low- cost 1-mil cellulose acetate base, affording maxi- mum economy for applications where high strength is not required. Series 41.	941 1841 3641H 3641R ‡3641FS 7241H 7241R	900 ft. 1800 ft. 3600 ft. 3600 ft. 3600 ft. 7200 ft. 7200 ft.	5" Plastic 7" Plastic NARTB Hub 10½" Aluminum Reel 10½" Fiberglass (RETMA) NARTB Hub 14" Aluminum Reet	3.50 5.50 10.00 12.85 12.85 20.00 26.00

Miscellaneous AUDIOTAPE Items

	Ite	em	Туре	No.		Description	List Price
	COLORED PLASTIC-BASE AUDIOTAPE on 11/2-mil cellulose acetate		GREEN	BLUE	LENGTH	REEL	
	,	(in same box as above with labei for color)	151G	151B	150 ft.	3" Plastic	\$.70
	Carron and I	•	351G 651G	351B 651B	300 ft. 600 ft.	4" Plastic 5" Plastic	1.35
		blue colored Audiotape, in conjunc- e standard red-brown tape, provide	1251G	1251B	1200 ft.	7" Plastic	2.25
	instant visu	al identification of recorded selec-	2551HG	2551HB			3.50
		d into a single reel (as shown) —	2551RG	2551RB	2500 ft. 2500 ft.	NARTB Hub 10½" Aluminum Reel	8.50
	permit fast	and easy color cueing and color	2551KG	2551KB	2500 ft.		10.90
		ninate need for identifying leaders	5051HG	5051HB	5000 ft.	10½" Fiberglass (RETMA) NARTB Hub	10.90 17.00
	between sel	ections.	5051RG	5051RB	5000 ft.	14" Aluminum Reel	22.10
			319	<u> </u>			
EMPTY AUDIOTA	PE REELS		3P 4P			tic in Box tic Reel in Box	.25
IN INDIVIDUAL	BOXES		5P			tic Reel in Box	.45 .60
			79	B		tic Reel in Box	.00
		Standard	10R	В	101/2"	Aluminum Reel in Box	4.00
A		Reels	10FS		10½″ Fiberglass (RETMA) in Box		4.00
	udiotar		14R	-		minum Reel in Box	7.40
	- 10		10H			Metal Hub	.70
		Colored Plastic	5P 5P 5P 5P	BY BG	Red Yellow Blue Green	5" Plastic Reel in Box	.60
		Plastic Reels	7P 7P 7P 7P	BY Bg	Red Yellow Blue Green	7" Plastic Reel in Box	.75

-The World's Finest Magnetic Recording Tape

	Type No.*	Length	Reel†	List Price	
SUPER-THIN Cucliotage	SUPER-THIN AUDIOTAPE on 1/2-mil "Mylar" (in the Yellow Box) Twice as much recording time per reel as stand- ard plastic-base tape. Suitable for extended- play applications where tape tension is not ex- cessive. Series 31.	1231 2431	1200 ft. 2400 ft.	5″ Plastic 7″ Plastic	\$ 5.00 9.25
SUPER THM CALLBOATCALE On TEMPERED MUTATION	SUPER-THIN AUDIOTAPE on "Tempered" "Mylar" (in the Yellow-and-Red Box) Twice as much recording time per reel as standard plastic-base tape, and is twice as strong as other double-length tapes. Will not stretch or break on any tape recorder — will not dry out or embrittle with age. Series 31T.	1231T 2431T 4831T-R ‡4831T-FS	1200 ft. 2400 ft. 4800 ft. 4800 ft.	5″ Plastic 7″ Plastic 10½″ Aluminum Reel 10½″ Fiberglass (RETMA)	6.50 11.95 26.90 26.90
Automatic Automa	MASTER LOW PRINT-THROUGH AUDIOTAPE on Plastic Base The finest, professional-quality recording tape. Base material, 1½-mil acetate. Maximum fidel- ity, uniformity, frequency response and freedom from noise and distortion Plus low print- through. Series 51M.	651-M 1251-M 2551H-M 2551R-M ‡2551FS-M 5051H-M 5051R-M	600 ft. 1200 ft. 2500 ft. 2500 ft. 5000 ft. 5000 ft.	5" Plastic 7" Plastic NARTB Hub 10½" Aluminum Reel 10½" Fiberglass (RETMA) NARTB Hub 14" Aluminum Reel	2.75 4.30 9.80 12.50 19.55 26.00
	MASTER LOW PRINT-THROUGH AUDIOTAPE on 1½-mil "Mylar" Super-durable tape that meets highest stand- ards of performance. Withstands extreme tem- peratures and is virtually immune to humidity. Gives maximum tape life under any conditions. Plus low print-through. Series 71M.	671-M 1271-M 2571H-M 2571R-M ‡2571FS-M	600 ft. 1200 ft. 2500 ft. 2500 ft. 2500 ft.	5" Plastic 7" Plastic NARTB Hub 10½" Aluminum Reel 10½" Fiberglass (RETMA)	4.85 8.05 14.65 17.40 17.40

Type Numbers listed cover red oxide wound on reel with OXIDE IN. For tape wound with Oxide Out, change last digit of Type No. from ''1'' to ''0.'' E.g. Audiotape 1250 covers 1200 ft. reel of plastic base tape wound with Oxide Out.

COLORED PLASTIC REELS. Audiotape on 5" and 7" plastic reels can be supplied on colored reels at no increase in price when ordered in lats of 30 reels or more of any

one calor. To designate color of reel (Red, Yellow, Green or Blue) add letters ''RR'' and ''YR,'' ''GR'' or ''BR'' to Type No. listed. E.g. — Type 1251YR covers 1200 feet of standard plastic-base tape on Yellow Reel. Type 1251GBR covers 1200 feet of Green plastic-base tape on Blue Reel. ‡ ''FS'' in Type No. indicates Fiberglass reel with solid hub and 5/16" center hole.

Audio Accessories

Item		List Price	ltem		List Price
CORRUGATED MAILING BOXES Strong, re-usable containers for 5", 7" and $10\frac{1}{2}$ " reels.	5M 7M 10M	\$.15 .20 .30	AUDIO HEAD DEMAGNETIZER Removes all permanent magnetism from recording and reproducing	400	10.00
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fastest-threading reel ever developed . . .

the audiotape C-Slot Reel,

NOW BETTER THAN EVER!

The popular C-Slot reel – the fastest, easiest-threading reel ever developed – has been structurally redesigned. It's now stronger than ever and even more convenient than before.

Since the revolutionary reel design was introduced about a year ago, engineers have carefully checked service experience on all types of machines under all operating conditions. This study pointed the way to still further improvements.

Now, a slimmer, smoother tape slot gives a virtually unbroken hub surface for smoother winding under even the highest tape tension. A reinforced beveled edge guides the tape more easily into the C-slot. Inside the hub, extra "ribs" have been added and the bonding area has been increased by 50%, making the entire structure practically indestructible.

No other reel can approach the C-slot for fast, easy threading. And the new, improved design is now standard for all 5" and 7" reels of Audiotape—an extra-value feature at no extra cost! Another important reason why it pays to specify Audiotape for every recording need.



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Cables "ARLAB"

HERE'S C-SLOT THREADING

1. Insert tape through flange opening at top of C-slot.

2. Drop tape into slot, leaving about 1 inch projecting beyond the hub with tape slack on both sides of recording head.



reel

THEN PRESS THE "START" BUTTON!

Tape will grip and hold firmly ... no need to turn reel by hand to anchor free end.