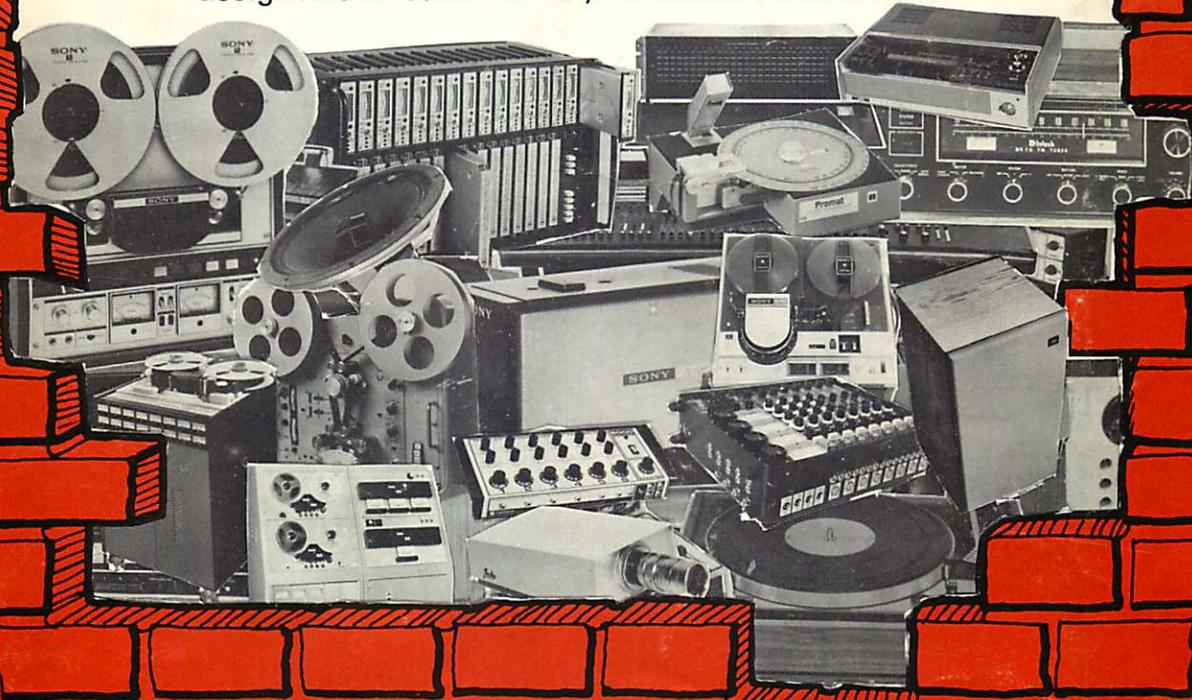


# MARTIN

**THE WORLD'S LARGEST  
ELECTRONIC EVERYTHING HOUSE  
FOR THE PROFESSIONAL**

**The biggest "in-stock" inventory of professional audio/video equipment, parts and accessories—anywhere.** The Everything House has everything for the professional... broadcast, audio, video, sound reinforcement and hi-fi stereo components. Quality products from over 200 leading manufacturers\*... what you want, when you want it! Consult Martin's specialists about installation... service... systems design... and sales for all your audio/video needs.



**SALES • SERVICE • PARTS • INSTALLATIONS • SYSTEM DESIGN • LEASING**

**TELEPHONE (212) 541-5900**

**320 W. 46th ST. NEW YORK, N.Y. 10036**

**1976 EDITION**

*Dave Jett*

# "CHANCES ARE YOU'LL FIND IT AT MARTIN" db magazine



## PRO-AUDIO

Another appropriate quote from a trade journal was "Martin's franchise list sounds like the "Who's Who in the pro-audio field", and we represent these lines (over 200) to work efficiently with your audio needs. From inventory our staff of pro-audio specialists can accommodate a specific model number request or recommend a top brand component or a complete turnkey studio for your design parameters. No need to give you more or less in quality or function, just the right unit. Isn't that the right way?



## SYSTEM DESIGN AND COMPONENT MANUFACTURES

A complete engineering staff is available for consultation and design of audio/video systems. Years of experience in broadcast, recording studios and sound reinforcement has established Martin as a leader in custom audio/video system design. The additional flexibility of designing and manufacturing the "Vari-speed", full spectrum program equalizer, miniature stereo control boards and low cost electronic reverbs for professional broadcast and studio applications, makes available the expertise to design & fabricate electronic components that do not commercially exist for your specific needs, and modifying existing consoles and components.



## PRO-VIDEO

Broadcast, educational and industrial needs in video are quite extensive. Black and white, color cameras and monitors, 1/2", 3/4" cassette, 1" helical scan recorders, video components, projectors, peripheral accessories and recording tape are stocked in depth. Our Video specialists are available to guide you on products selection or consultation on the design and supply of a closed-circuit studio or surveillance system for your corporate needs, and we feature the expertise of professional audio to compliment your video system.



## CUSTOM FABRICATION

In not all Audio/Video requirements is there a particular component or accessory commercially available. And when you service you never know what particular need will arise and so we've equipped ourselves to perform. A full compliment metal machine shop, complete with a bridgeport miller, to a custom cabinetry shop. Under the supervision of skilled craftsmen and electronic technicians your custom requirements are fabricated to design specifications.



## SOUND REINFORCEMENT

Every public announcer and entertainer from amateur on up needs some sort of amplification if he is to be heard beyond the nearest group of people. Whether its sound reinforcement for conference rooms, nite clubs, discoteques, auditoriums or outdoor concert facilities, at Martin you can be sure of getting optimum performance and value for your requirements. If your needs are a complete custom system or just expansion, Martin's experience and inventory can fulfill your demands . . . and for your convenience we stock emergency speaker replacement parts and diagrams.



## EQUIPMENT INSTALLATION

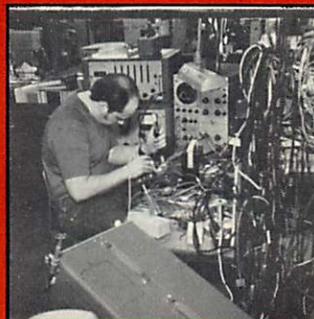
This is the time when all of Martins features are combined to perform singularly. Custom parts, components and equipment are expertly interfaced. Skilled technicians rapidly coordinate their specialties harness wiring console and component assemblies in both and audio video.

The combination of years of experience, craftsmanship and pride bring your design specification to reality. Ready to perform competently at your demand.



## INDUSTRIAL AND HI-FI

Wide ranging A/V requirements for industry are just our cup of tea. Tape recorders, sound lecturns, tape duplicators, telephone answering devices and consumer electronics for employee incentive programs are just some of the needs we satisfy. In addition for your office or home Martin can supply and install Hi-Fi stereo and Quad components and systems. We stock only the finest brand names available. Every line is carefully selected by our professionals for its quality, endurance and versatility.



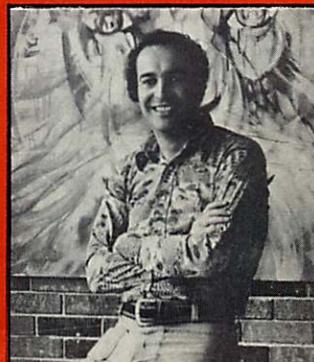
## AUDIO/VIDEO SERVICE

Not all companies can afford the luxury of a top maintenance engineer or serviceman. And sometimes even large facilities, require outside help. Our service facilities which cover an entire floor, has been devoted to backing up the products we sell. Eight technicians, factory trained, by the industries foremost manufacturers, expertly supervised and utilizing over 70 pieces of the best test equipment available, (Hewlett Packard, Tektronix, etc.) are available for authorized factory service.



## REPLACEMENT PARTS

When you take the responsibility to sell a professional, audio/video product, you become an integral part of his equipments performance. We understand what a "livelihood" means and we back up our reputation of "can do" with possibly the largest professional parts replacement center in the world. Thousands of parts for professional tape recorders, console and component accessories.



## MARTIN POLICY

Our roster of satisfied clientele range from the professional individual, small commercial companies to the "Forbes 500" and our corporate policy though quite simple requires a complex design of purchasing power, supervision and technical expertise for your behalf. In order to fulfill our commitment to the industry we must maintain adequate sales and service facilities. A large diversified inventory of proprietary items, components and parts, expert technicians, precision test equipment and a large staff of competent informed salesmen capable of expediting your requirements at a competitive price, our policy . . .

**"CUSTOMER SATISFACTION"**

**INQUIRE ABOUT MARTIN LEASING FOR YOUR AUDIO VIDEO NEEDS**

# BEST BUY PROFESSIONAL STUDIO AND SOUND REINFORCEMENT MICROPHONES

## NEUMANN U-47 CONDENSOR

\$624<sup>00</sup>



The U 47 fet continues the tradition of the world famous Model U 47, built from 1947-1960, which rightfully is credited with revolutionizing the world's recording and broadcasting industries. Its exterior strongly resembles its predecessor, but its technical properties represent the state-of-the-art today.

## E.V. RE-20 DYNAMIC

\$315<sup>00</sup>



RE20: Wide-Range Cardioid—Rugged, high quality unit. For exacting studio recording of voice and instruments as well as broadcast and p.a. use. Widest, most uniform response curve of any cardioid dynamic microphone, comparable to high quality condensers. Excellent transient response. Handles extremely high sound input. Stable characteristics. Built-in pop filter, bass tilt-down switch.

## NEUMANN U-87 CONDENSOR

\$695<sup>00</sup>



The solid state condenser microphone model U 87 is the best known and most widely used of the fet-80 series. The dual membrane capsule uses evaporated gold on polyester film which has proven to be the most heat and aging resistant material. Three switches are provided beneath the capsule itself: for selecting the three directional characteristics, frequency response and sensitivity. Its high frequency response is practically linear even in its cardioid and figure-8 positions. The U 87 is usually used in studio close miking applications where high sound pressure levels are commonly encountered.

## SENNHEISER MD-421-U DYNAMIC



\$193<sup>00</sup>

The MD 421-U is a dynamic microphone of the very highest calibre. Its response curve is exceptionally flat, assuring perfect frequency linearity and tonal balance throughout the audio spectrum. Because of its excellent directional characteristics, which are virtually independent of frequency, the MD 421-U is ideal for use in "spot" recording, where surroundings may be acoustically unfavorable or in high-fidelity studio public-address systems, where faithful reproduction must be combined with freedom from acoustic feedback.

## SENNHEISER MKE-2002 STEREO CONDENSOR



Sennheiser's ingenious solution is to use the recordist's head itself. Two electret condenser microphones are mounted on a stethoscope-like frame that can be worn by a recordist, positioning one of its dual microphones precisely over the hole in each ear. As a result, the units "hear" sound much in the way a listener will. Recordings can now be made that sound as good as the original live performance. Sound picked up in the manner described above is unusually lifelike, with an "open" spatial sensation which belies the fact that only two channels of information are required.

## SENNHEISER MD-441 DYNAMIC



\$275<sup>00</sup>

The frequency response can be set in ten different positions for varying the low frequencies. Because of its super cardioid directional characteristic the MD 441 can be used under difficult conditions. A double case, where the inner shell is spring-mounted to the outer case, protects the microphone against handling noises. A built-in pop filter serves to attenuate pop noises when the microphone is used close up. No distortion even at highest sound pressure levels. Frequency response: 30 ... 20,000 Hz

## AKG D-224E DYNAMIC DUAL ELEMENT



\$265<sup>00</sup>

Unique AKG design gives professional condenser mike performance from dynamic cardioid. Two mounted elements with crossover network like two-way speaker systems. Extended response, two-way cardioid dynamic for exacting applications. Response,  $\pm 2$  dB, 20-18,000 Hz Sensitivity, -55 dB, Impedance 200 ohms. Cardioid front-to-back ratio, 20 dB. Size, 7 1/4" x 15/16". Net Wt., 9.5 Oz. Includes stand adapter with shock mounting, cable, case.

## SONY ECM-33P CONDENSOR



Expressly designed for the serious recordist or performer, this exceptional condenser microphone is used regularly in professional recording studios from coast to coast. The ECM 33P with extended frequency response is fast gaining a reputation for recordings which are hard to tell from the original performance! Comes with carrying case, stand adaptor, and wind screen.

## AKG C-451E CONDENSOR

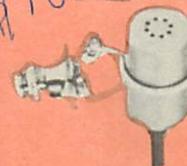
\$142<sup>00</sup>



AKG Model C451E—All FET condenser modular microphone features interchangeable omni, cardioid, & selectable 3-pattern shotgun capsules. Easily powered from your amplifier without separate power supply. Basic C-451E combination includes cardioid capsule, preamplifier, stand adapter, wind-screen. Accessory modular capsules, optional power supplies and wiring information for direct amplifier powering available on request.

## SONY ECM-50 TIE TACK CONDENSOR

\$160<sup>00</sup>



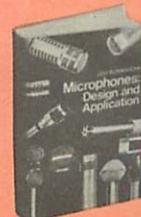
Designed specifically as a tie-tack or lapel button microphone, the omni-directional ECM-50 is particularly applicable for television interviewing and other uses where minimum obtrusiveness and maximum intelligibility are required. (Just watch any network news broadcast!) Battery power supply, transformer, and Cannon output connector are contained in a separate, miniature package, which is interconnected by an ultra-thin 10-foot cable.

## BEYER M-160 RIBBON



\$230<sup>00</sup>

Special features of the M 160 dynamic double ribbon microphone are its extremely small size, the supercardioid characteristics, a beautiful cylindrical matt chrome-plated metal body and a spherical chrome-plated mesh head with chrome-transducer. By using the double ribbon principle the highest possible fidelity in reproduction of music and speech is guaranteed. The supercardioid characteristics effectively suppress sound reflections from walls or other extraneous noise coming from behind the microphone. Furthermore, the danger of feedback is extremely low.



## MICROPHONES: DESIGN - APPLICATION

The whole field of microphone design and application has been prepared and explained in one concise, fact-filled volume by one of audio's outstanding experts. This book is complete, up-to-the-minute and so full of useful information, we think you'll use it every time you face a new or unusual microphone problem.

\$20.00 plus \$1.00 for Handling & Postage

# PROFESSIONAL MULTITRACK TAPE RECORDERS AND ACCESSORIES

## AMPEX MM1100 MULTI-CHANNEL RECORDER



- Outstanding advantages**
- Unexcelled multichannel performance 8, 16, and 24-channel models.
  - Constant tape tension with 10-1/2" and 14" reels.
  - Capstan servo affording stable tape motion in 0.5 sec at 15 in/s.
  - Identically excellent playback in both Sel-Sync® system and normal reproduce.
  - Compact, rugged design.
  - Rollaround mobility.
  - Detachable controls for remote operation.

Now that the MM-1100 is here, it costs less to go to the top. The whole idea of multichannel recording is performance at the summit of excellence. Here, from Ampex is a recorder that reaches that criterion at a price within reach of virtually any studio.

The MM-1100 is a compact, rugged, production machine of classic-simplicity. It is available in 8-track, 16-track and 24-track models, and it accepts 10-1/2 inch and 14 inch reels. In performance, it equals the specifications of the world's most sophisticated multichannel recorder, the Ampex MM-1000, and of the leading, low-cost, 8-track machine, the Ampex AG-440-8. Where very sophisticated mastering is the rule, the MM-1100 is unchallenged for flexibility and versatility. Capstan servo accessories for speed control; and offer tape lock for absolute pitch stability.

## NEW AG440-C SERVO CONTROLLED TAPE RECORDER



- High frequency response extended with improved flatness—typical  $\pm 1-2$  dB to 18 kHz,  $\pm 1$  dB to 25 kHz at 15 ips with Ampex 406 tape. ASA weighted signal to noise fullback 7-1/2 ips -73 dB frequency response at 15 ips + or -2 dB 30-25,000 CPS. • Improved sel-sync response at 15 ips - typically  $\pm 2$  dB 30 to 15,000. • Sel-sync signal to noise ratio, equal to reproduce signal to noise ratio. • Improved tape guidance improves phase shift stability on multi-track recorders. • Hiss level in standby reduced. • Servo capstan versions available in all mounting styles. • Motion sense added to transport. • Additional edit features incorporated so

that the brakes may be relaxed without the need of holding up the take-up tension arm to enter this mode. • On servo versions it is possible to select an operating condition where the capstan remains stationary except when the play or record mode is actuated. • Calibrate positions are incorporated on the reproduce and record level controls. • Pushbuttons are used to select the electronics operating functions. • Automatic switching is incorporated in the sel-sync mode of operation. • Bias may be metered on the VU meter while the +8 line is monitoring reproduce or input. • Meter sensitivity for +4 or +8 line is selectable by a switch. • Sapphire guides used on assembly. • Knurled coin slot screws on electronic cover panels. • Electronics stainless steel front panel is easily removed for cleaning. • VU meter is flush mounted. • Record and ready lamps are replaceable from the front.

## AMPEX VS-10

The VS-10 is the most compact, reliable and economical system of speed variation now available to users of AG-440 and MM-1100 series recorder/reproducers. The VS-10 adds varied broadcast running times, phasing and delay effects, off-speed compensation, controlled double tracking and more to your studio's special effects repertoire—at a bargain price.



## NEW SCULLY 280-B SERVO DRIVE



A new series of Scully professional tape recorders with DC capstan servo drive motors and reel capacity up to 14-in. The Scully 280B, 284B and models are designed to provide recording studios and broadcasters with operational conveniences and easy set-up and maintenance.

Printed DC capstan servo drive motors, offered as an optional feature, highlight the new Scully recorders which also have speeds to 30 in./sec., plus 14-in. reel capacity.

The recorders also have new motion-direction sensing control logic circuitry, including dynamic braking and functionally illuminated push-button controls. These permit the operator to observe the control logic functions either at the recorder, or at his accessory remote control. Easy access to set-up controls is possible by pullout electronics drawers. With the exception of the Model 284B-8 eight-channel, 1-in. recorder, these products can be either rack or console mounted. Besides DC servo drive, the recorders are available with AC Hysteresis motors. A variable speed system also is offered with L.E.D. crystal reference or to a control track by push-button selectors. Monophonic, two- or quarter-track stereo, 1/4-in. transports for up to 11.5-in. or 14-in. reels; plus quad, four-track stereo 1/2-in. and eight-track 1-in. systems.

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## 3M SERIES 79 MULTI-CHANNEL RECORDER



DC servo capstan with external control capability • Selectable 7-1/2, 15, 30 ips speeds • 5 to 45 ips variable speeds • Complete mode-to-mode logic • 50-60 Hz, 110V or 220V input overseas application • Power failsafe • Edit capability • Remote transport control • Selectable wind mode tensions.

**Standard Signal Electronics Features:** Separate equalization • or sync • Broad equalizer ranges • NAB or CCIR equalization • Equalized for three standard speeds • Remote control for individual mode selection of any and all tracks • Signal electronics card is designed for noise reduction interface • Individual channel record failsafe warning.

**Packaging Features:** Updatable: Recorder will not become obsolete. Space provided for state-of-

the-art noise reduction circuitry. Expandable: 8 and 16-track recorders can be quickly and easily expanded to 24 track. Maintenance: Quick accessibility from front is provided to all systems for easy maintenance. Styling: Design is sophisticated and elegant for harmonious studio color coordination. Flexibility: Packaging allows for remote to be used as an integral part of machine or at console.

## NEW AMPEX SEARCH TO ZERO



**Features:** • Tape-driven operation, reads up to  $\pm 1$  hour, 59 min. 59 sec. • Searches in either direction to a preset point • Remotable display/controller •  $\pm 0.5$  sec accuracy at 15 in/s • Proportional trajectory, no overshoot. The Search-to-Zero accessory is an efficient and reliable low-cost tool for mixdown and overdubbing operations on MM-1100 Series recorders. It permits the operator to set a Reset, or "Zero", point anywhere on the tape, then return to that exact point at shuttle speed (Fast Forward or Rewind) as many times as required by pressing the CUE button. The reset point can then be cleared and another "Zero" point set up for successive returns. An easy-to-read counter shows where the tape is in relation to the zero point, while a + or - display indicates that the current reading is ahead or behind, respectively, of the zero point. Remote display available.

## EECO VIDEO SYNCHRONIZER



Rack-mounted synchronizer is an optional accessory, it provides synchronizing capability to quadruplex of slant-track VTR, sprocketed machine such as mag track, or to audio tape recorders. SMPTE time code is utilized by the synchronizer to phase-lock the master and slave machines. Configuration of synchronizer is such that the audio tape recorder will always be the slave unit. SMPTE time code reader is included as part of the synchronizer system. CAN BE INTERFACED WITH MOST POPULAR MULTI-TRACK SERVO TAPE RECORDERS.

## OLIVER DIGITAL LOCATOR



The Model 400-RS is a high speed search unit, utilizing arithmetic logic to automatically guide the tape to a predetermined location. The exclusive OAE DIGITAL GLIDE SLOPE allows the tape transport to search at maximum velocity without overshooting its destination. The 400-RSM has the same features listed above plus a ten position MEMORY.

## MARTIN VARISPEED III C



- Blow-out proof circuit. • Correct tapes recorded off speed by increasing/decreasing speed. • Alters "live" sound to suit you. • Half-speed your recorder for double the recording time. • Perform variable-delay recording for Satellite/Land synchronization of international telecast. • Drive 50-cycle (European) recorder on 60-cycle AC; Drive 60-cycle (U.S.) recorder on 50-cycle AC. • Transfer film tracks from 50 to 60-cycle standards for exact resolution of your European tracks. • Creates electronic music.

## INOVNICS MODEL 360



A completely self-contained, highly reliable Tape Electronics for upgrading recorders in broadcasting and other demanding applications. The 360 interfaces directly with Ampex 300, 350/351, and 354 transports and accommodates a wide variety of original-equipment and replacement heads. The 360 is easily adapted to many other professional tape machines.

MARTIN AUDIO/VIDEO STOCKS THE LARGEST INVENTORY OF AMPEX 3M AND SCULLY FACTORY REPLACEMENT PARTS IN THE EAST..TRY US...

# EQUALIZERS, LIMITERS, STEREO SYNTHESIZER

## AUDITRONIC PEQ-82 Dual Equalizer



Known as the model PEQ-82, the two independent equalizers are packaged on a single 1-3/4" x 19" rack mount panel. The equalizers are transformer isolated and operate at levels from -20 dBm to +4 dBm. Designed for extremely low noise and distortion, circuits operate at unity gain with a maximum output level of +24 dBm. Each equalizer may be silently switched in and out. Controls are infinitely variable with continuous adjustment from -20 dB +20 dB at each of four frequencies simultaneously. Each control may be switched to operate at either one of two frequencies: 80 Hz or 150 Hz, 300 Hz or 600 Hz, 1.6 Hz or 4 kHz, and 7.5 Hz or 12 kHz. In addition, each channel provides a HI and LO filter with -3 dB points 80 Hz and 10 Hz.

## PULTEC EQPIA3 Equalizer



New Solid State Program Equalizer Used by radio stations, record companies and recording studios, to add that "final touch" to the balance of good program material.

The Wide range of equalization curves provided makes it possible to boost the very low or very high frequency notes of the orchestra without "muddying up" the middle register instruments. Continuously variable controls permit changing the amount of equalization on sustained tones without steps in level, or clicks. A key permits cutting the equalizer in and out on cue.

## PARASOUND 621B Dual Equalizer



The 621 Parametric Equalizer offers four sections of peak boost and dip in a non-interacting series configuration. All of the parameters of equalization—center frequency bandwidth, and amount of equalization—are continuously

adjustable so that the sound can be tuned until it's actually right. Each section tunes over a 20:1 frequency range, with wide overlaps in coverage. "Q" is adjustable from a wide, gentle 0.29 to a sharp 3.2, and the peak gain is held constant as the bandwidth is varied. Maximum boost is 16 dB; maximum dip is minus infinity, permitting the 621 to replace tunable notch filters to get rid of hum and such. The 621A is a single channel on a 3-1/2" x 19" panel; the more economical 621B offers two equalizers in the same space.

## MULTITRACK VARIBAND 5 Band Equalizer



This new unit has 5 equalizer sections. You can tune the pitch of cymbals, bring out hidden instruments, emphasize highlight frequencies and harmonics, envelope instruments or voices to eliminate

studio leakage and to keep them from clashing in the final mix. Apply up to 15 dB boost at the 30-40 Hz range to get that punch in those bass drums or bass guitars without muddiness, phasing effects can be synthesized, noise can be reduced by using it as a multiple tunable notch filter, and unlimited more uses proportional to the engineers mixing creativity.

## ROGER MAYER RM58 Stereo Limiter



The RM 58 Stereo Limiter is basically two separate limiters with very carefully matched characteristics mounting in a standard

rack panel. The limiting action of one limiter can be coupled to the other by a mono/stereo switch. This mode of operation is useful in TV and Radio "Jingles" as one can make the background music fade down automatically when an announcement is being made. The limiters operate on the limiting action which is the greatest and this feature has been used to provide many unique effects.

## GAIN BRAIN 700 Limiter



Gain Brain is a tidy little package containing a unique combination of peak and RMS limiters plus ultra-fast accurate and reliable light emitting diode readout.

In use, Gain Brain is distinguished by its predictability and by its freedom from restricted pumping effect normally associated with limiters. Gain Brain's employment is particularly effective on complex signal sources which are normally difficult to limit properly, such as drums, horns, reeds, piano, electronic music and certain vocal sounds.

## UREI LA-3A Limiter



The LA-3A Solid State Leveling Amplifier, maintains characteristics of the T4A electro-optical attenuator. Independent gain reduction control provide for setting of the limiting of compressing action, and the system gain. Adjustable limiting frequency response allows 10 dB increase in gain reduction at 15 kHz compared to frequencies below 1 kHz,

advantageous where pre-emphasis is used. A switch is provided to change the characteristics from those of a compressor (linear gain reduction) to those of a limiter (a compression ratio approaching 50:1).

## UREI 1176 LN Limiter/Compressor



The 1176LN retains all of the features of the 1176, but generates 6 dB less noise. Limiting is accomplished in the 1176LN by utilizing an F.E.T. as a voltage variable resistor, ahead of the

first stage of amplification. Unique circuitry permits severe limiting without added distortion, and no balancing is ever required. Attack time is adjustable from less than 20 microseconds to 800 microseconds. A feature of the 1176LN is the use of pushbutton switches to select compression ratios of 20:1, 12:1, 8:1 or 4:1. Another pushbutton switch assembly selects meter functions and applies power to the unit. Provision is made for remote metering.

## DBX 160/161 LIMITER Series Compressor Limiter



DBX 160 series compressor/limiters are single channel devices using RMS level detection circuitry for signal sensing and high sophisticated voltage controlled amplifiers as the control element. Features •

Compression ratio variable from 1:1 to infinity • Threshold variable from 10 mV to 3 V • LED above/below threshold indicators • Low distortion • 60 dB meter range • Wide dynamic range • Ground loop compensated. It is a professional studio product with balanced 25 ohm output. Model 161 is lower priced for the smaller studio with unbalanced input and output, terminated in RCA type phono jacks, and lacks turn-on and turn-off transient protection.

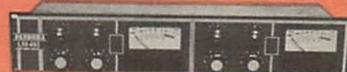
## SPECTRA SONIC 610 COMPLIMITER



PERFORMANCE: The SPECTRA SONIC Model 610 "COMPLIMITER"™ can accomplish, independently or simultaneously, limiting and compression functions

with performance that is unequalled by most linear amplifiers. The minimal noise inherent in this system assures a low threshold of -40 dBm and permits an input sensitivity substantially greater than other systems. Through the use of the most advanced circuitry the Model 610 "COMPLIMITER"™ has the fastest attack time (100 nanoseconds to 2 microseconds). The "COMPLIMITER"™ allows undistorted recording and transmission at levels that are measurably higher than those commonly in use. In tape recording, for example, this "limiting only" mode eliminates approximately 6 dB usually set for tape overload protection.

## PANDORA LM-402 Dual Limiter



The Pandora LM-402 is a dual professional quality FET type compressor/limiter designed specifically for use in the most demanding music and dialog applications. Two completely independent units are housed in a single 3-1/2" high unit designed to be mounted in a standard 19" rack.

Independent front panel control of attack time, release time, input level, and output level allows the LM-402 to be used in virtually any system with any type of program material. Individual gain reduction meters are provided for each channel to give real time indication of operation.

## PARASOUND 245E SYNTHESIZER



The Stereo Synthesizer creates pseudo-stereo from mono originals which preserves the spectral balance of the mono original and which adds not the slightest audible noise or distortion. Compatibility is assured by the fact

that the sum of the left and right output channels is equal to the mono original. This sum represents the lateral modulation of a stereo disc or the main channel in FM stereo. The 245E has only three controls affecting the stereo field—two dimension controls (frequency-band pan-pots), and a separation control. Any control can be adjusted without compromising compatibility.

# SPECIAL EFFECTS

## UREI 920-16 COOPER TIME CUBE



Created specifically for recording studio and motion picture sound applications, the Cooper Time Cube provides TWO electronically independent delays of 16 MS and 14 MS in one compact, rugged system. Its excellent audio bandwidth, low distortion and 70 dB signal-to-noise make the Model 920-16 the best audio delay device available for the short delays required in professional recording.

## EVENTIDE FL 201 INSTANT FLANGER



The instant flanger model FL201 device reproduces electronically the phasing effect obtained by simultaneously recording program material on two tape recorders and mixing the outputs while physically varying the speed on one of the tapes. New features include the ability to combine the effect of the oscillator, envelope follower, manual control and remote control in any combination. All circuit boards are of plug-in construction and are readily accessible. Effect modifier block allows "bounce" circuit to simulate true tape flanging by imitating motor or servo hunting exclusive "depth" control controls percentage of direct versus delayed signal, and relative phase. The instant flanger uses a true time delay circuit, producing many more nulls and thus a much deeper effect than previously available with an all-electronic unit.

## EVENTIDE 2830 OMNIPRESSOR



The Eventide Omnipressor\* is a professional quality dynamic modifier. It combines the characteristics of a compressor, and expander, a noise gate, and a limiter in one convenient package. Its wide range of controls allows it to be used where program controlled gain change is useful. It generates infinite compression and dynamic reversal. Musically, it reverses the attack-decay envelope of plucked string and similar instruments, and gives the effect of "talking backwards" when applied to a voice signal.

## EVENTIDE 1745A/DIGITAL DELAY



In the studio or concert hall, the Eventide 1745 A allows for a number of previously unobtainable effects. "Signal Doubling," achieved by inserting 12-40 milliseconds of delay makes one voice or instrument sound like two or more. The insertion of longer delays create realistic echo effects. Eventide's exclusive "Audio

Recirculation" feature allows for the trapping and continuous repetition of any amount of signal, up to 398 ms. In addition to increasing the intelligibility of any sound reinforcement system, the 1745 A allows advantage to be taken of the "Haas Effect," placing the apparent source of the sound up at the stage—where it belongs.

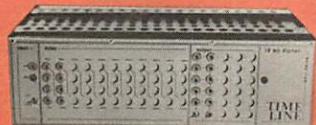
## EVENTIDE C-200 LOW COST DELAY



The Eventide Clock Works Model C200 digital delay line is an extremely versatile delay system whose characteristics have been optimized for low cost, reliability, and excellent based system, and the complete unit is configured by the selection of plug-in modules. These modules come

in five basic categories: INPUT, TIMING, DELAY, OUTPUT, and SPECIAL. At least one each of the input and timing modules are required for each delay line, and some combination of delay and output modules must be selected as required by the application. The special category is reserved for such functions as interfacing and specialized analog processing.

## PANDORA TIME LINE



The Time Line literally is a black box that generates time delays without any alteration to the signal. By using modular construction the unit can be expanded at any time. The main frame holds 449 ms. of delay and 5 outputs. Inter-connecting frames are available for longer delays. Delay times are variable in 1 ms. steps by simple front panel patching or internal strapping for permanent installations.

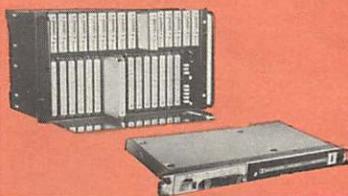
# NOISE SUPPRESSION

## ROGER MAYER RM68 NOISE GATE



The RM 68 Noise Gate establishes a new standard for noise gates. The Attack Time is 150 nano secs. This incredibly short time means that the unit under all types of signals will positively not produce any clicks or any form of degradation to the signal being gated. It is so fast that even on the most transient type of signal it is impossible to hear a difference in sound. This one feature has enabled the RM 68 to be used in situations where previously a noise gate could not be used as they acted too slowly. The Sensitivity, Attenuation and Release controls are optimised to give the utmost operational flexibility and ease of use. The sensitivity control having a maximum sensitivity of -56 dBm, essential for gating out tape hiss etc. The release time is variable over a wide range enabling envelope shaping, automatic fades etc to be produced. A keying input is also provided to enable an external audio input to control the unit with 2 LED's positively showing the operational state.

## DOLBY M-16 AND MODEL 361



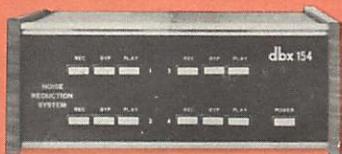
The new Dolby M Series units offer studios 8, 16 and 24 tracks of noise reduction in compact expandable modular assemblies. These units make the professional A-Type Dolby system available to multi-track users at the lowest cost, in the least space, while incorporating highly advanced and dependable design and components. Model 361 is available in single rack mount to serve individual recorder tracks, built in provision for automatic record/play, features including monitoring.

## DBX 116 /216 PROFESSIONAL NOISE REDUCTION



The DBX noise reduction system is now available in two 16 channel models. This system reduces tape recorder noise by more than 30 dB. Level matching and pilot tones are not required for accurate transient tracking and frequency response. The DBX 116 is a sixteen channel card rack noise reduction system. Record, bypass, and play functions are relay switched using a single noise reduction circuit for either record or play functions. The DBX 216 is a sixteen channel card rack noise reduction system with simultaneous encode and decode functions. This makes remote control from the tape recorder unnecessary.

## DBX 150 SERIES LOW COST NOISE REDUCTION



The dbx 150 series provides professional quality noise reduction for the small recording studio, semi-professional recordist, and serious audioophile. Three models are available in this series. Model 157—two channels of simultaneous code and decode; Model 152—two channels of switchable code for decode; Model 154—four channels of switchable code or decode.

Features include 10 dB additional headroom in excess of 30 dB noise reduction, over 100 dB dynamic range, low distortion for complete code-decode cycle, excellent transient tracking, no pilot tones or complex alignment procedure, and low cost.

## BURWEN MODEL DNF-1100 DYNAMIC NOISE FILTER



A reduction of 6 to 14 dB at every step of the recording process is now at your disposal. The new Burwen Model DNF 1100 Dynamic Noise Filter virtually eliminates hiss and high frequency noise on the outputs of your multi-track console, from your multi-track master tape, from your 2 channel mix and in your master cutting channel. The Model DNF 1100 is an automatically variable low pass filter which alters the bandwidth depending on the high frequency content of the material. Since it requires no pre-encoding it can be used at every step of the recording process.

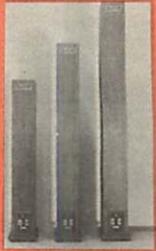
## KEPEX 500 NOISE GATE



In today's multi-track studio, noise means more than the tape hiss and hum, print-through, intertrack leakage (through insufficient instrument isolation, or a leaky board, or whatever), air conditioner rumble, outside traffic noise, or any other low level interference with pure virgin signal can be reduced or eliminated with Kepex. An exterior key input is provided which can control the gain with a second independent audio signal. This feature allows some far out control for creating steep effects and electronic music synthesis.

## PROFESSIONAL REVERBERATION

### MICMIX MASTER ROOM MR II, III, IV,



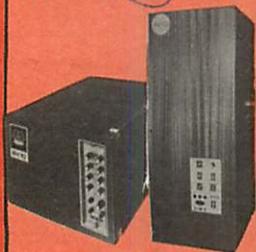
MICMIX Master-Rooms\* are a series of completely self-contained, compact units which synthesize the reverberant field characteristics of acoustically balanced rooms, concert halls and auditoriums. The models complement one another in performance and provide a previously unknown degree of freedom in choice of reverberation effects. The MR II is particularly suitable as a single unit for both voice and music.

### MICMIX MASTER ROOM STUDIO B



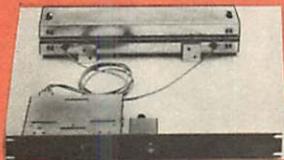
Studio B is a new concept in reverberation chambers, offering a number of unusual and very attractive features for broadcasting, studio recording and sound reinforcement applications. It features a built-in mixing amplifier, selective peak type equalization, adjustable decay, remote control capability, balanced lines, peak levels of +25 dBm and the superior 'natural chamber' sound characteristics of all Master-Room equipment. Studio B models incorporate the same 'natural chamber' sound characteristics inherent in all Master-Room reverberation chambers. The sound column is mounted separately from the electronics on the STUDIO B unit to permit rack mounting of the electronic package, and may be located at distances up to 25 feet.

### AKG BX 20E - BX 10 PORTABLE STEREO REVERB



The BX20E features Reverberation of two entirely unrelated and different signals are possible (channel separation greater than 60 dB valued according to DIN 45405). Decay time is from 2 to 4.5 seconds and includes a remote control. The AKG BX-10 is a portable two-channel reverberation unit based on the Torsion Transmission Line principle used in the AKG BX-20. Independent decay-time adjustment, high and low frequency equalization and reverberation/dry signal mixing are provided for each of the two electronically and acoustically separate channels.

### PARASOUND 106 CX REVERB



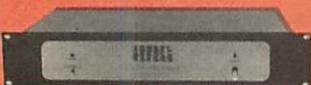
Orban/Parasound introduces the spring reverberation generator. Flutter is reduced by using multiple springs, (four springs gives satisfactory results in virtually all cases). A very low noise transistor is used, and it is operated at the correct parameters to assure minimum noise figure when used with the spring. Uneven Frequency Response is compensated by the use of elaborate equalization in the pickup preamp, as well as by the use of four springs. A dip flutter removes metallic sound in the lower midrange, while "warmth" is achieved with a bass boost. Objectionable Noises in the form of popping "springs" on transients are greatly reduced with the exclusive new floating threshold peak limiter. The spring unit can be mounted and connected to the electronics by means of a plug-in cable.

### MULTITRACK DUAL EQUALIZED REVERB



The Dual Equalized Reverb uses three separate sections of tailored equalization and four specially designed delay springs in each channel of this two channel rack mount unit. With this new unit the "S" sounds on your vocals will travel and decay with pin point crispness. Each channel has a high frequency shelving equalizer control on each channel to set the tone quality of your reverb. You can add fullness to your lower frequencies while making sure your high frequencies keep their sharpness.

### HORIZON SR-5000 LOW COST DUAL REVERB



- Two independent channels on one 5-1/4" rack panel.
- Interfaces with standard +4 dBm program lines as well as with the TASCAM Model 10 Mixing Console.
- Decay Time: 1.8 second. Other decay times available on request.
- Delay Time: Approx. 4 seconds.
- Response: 100 Hz to 6 kHz, equalized for natural reverberant response characteristic.
- Externally accessible locking device: ideal for portable applications.
- Price: About \$500.

## HEADPHONES

### SENNHEISER HD414 POPULAR OPEN-AIRE HEADPHONES



Sennheiser has developed a system that requires no tight seals, but has comfortable foam pads instead. Music reaches the listener's ears from the air surrounding the headphones as well as from the headphones directly. This means that at low listening levels, ambient sounds can be heard clearly, a distinct advantage in teaching, broadcasting and many other applications. Sound quality is not sacrificed to comfort; frequency response of the HD-414 is very smooth over the entire audible range. Earpads, earpieces and cables are detachable. Frequency Response: 30-20,000 Hz; Impedance: 20,000 ohms per channel.

### SENNHEISER HD424 DELUXE STEREOHEADPHONES



For professionals who demand the highest in acoustical quality and headphone comfort. The super quality and modern styling of the HD 424 together with the more perfect reproduction over the whole audible frequency range and natural reproduction of the low frequencies at low sound volume places this headphone in a class beyond the legendary HD 414. Frequency response 16-20,000 Hz Impedance 2000Ω

### STANTON 28 QUALITY OPEN-AIRE HEADPHONES



This brand-new Stanton headphone is a feather-light model that gives no sense to isolation from your surroundings yet the sound is pure and perfect. It comes with a special adapter for use with Portable Radios, TV Sets and Tape Recorders—which permits you to take it anywhere—the Beach, the Ball Game... everywhere! They have a comfort secret. It resides in a soft-foam filled stitched cushion. They are so light and work perfectly with a fully adjustable headband to sit perfectly on your head. These headphones have a molded heavy-duty plug that will take all the punishment you can give it.

### AKG K-140 PROFESSIONAL QUALITY HEADPHONES



The K-140 is a new AKG bioacoustically-engineered high fidelity headphone. Its unusual construction eliminates annoying user adjustments, reduces weight and improves wearing comfort. The extended bass response is not affected by natural variations in outer ear cavities, not by air leaks between ears and cushions. The final criteria for a high fidelity headphone system is its ability to recreate, without coloration and at low distortion, a playback loudness equal to the original live event. Model K-140 can reproduce over 100 dB levels at the ears with less low frequency distortion and better transient response than loudspeakers costing many times more.

### KOSS PRO4AA PROFESSIONAL STEREOHEADPHONES



Gives smooth, fatigue-free response, 2 octaves beyond conventional dynamic phones. Adjustable wide headband cushion for maximum comfort. Patented, liquid-filled removable cushions. Designed for use with all stereo hi-fi amplifiers, will operate on any unit from 1 to 500 watts. High quality drivers mounted in acoustically designed enclosures provide smooth frequency response from 10 to 20,000 Hz. With 10 ft. coiled cord and plug, 4 ohms impedance.

### KOSS K/6 TOPS FOR PERFORMANCE AND VALUE



The K/6 is fitted with a wide sponge cushioned headband for comfort even when worn for extended periods of time. The stainless steel headband and self-adjusting, pivoting yokes insure a comfortable fit over a wide range of head sizes. Your new Koss K/6 delivers wide-range, breathtaking stereo sound with dramatic realism. The extended 10-16,000 Hz frequency response capability promotes excellent transient response for favorable reproduction. The extra-large 89 mm (3-1/2") dynamic drivers have over 38 cm<sup>2</sup> (6 sq. in.) of radiating area.

# PROFESSIONAL POWER AMPLIFICATION

## PHASE LINEAR 400



The Phase Linear 400 is the untypical 400 watt amplifier that sounds exactly the same as a 500 watt amplifier. The secret? High voltage, one hundred and seventy five volts of output swing. An amplifier with a high power supply voltage can deliver more peak volts to your speaker system without clipping than an amplifier with a lower supply voltage. And that's what counts—unclipped voltage which means unclipped sound. That's what high fidelity is all about.

## PHASE LINEAR 700 B



The frequency response extends from D.C. to beyond one quarter of a million cycles per second. Distortion is so low that it cannot be accurately measured, even with the finest laboratory test equipment. We know only that it is typically less than one one-hundredth of one percent. At twenty cycles per second, damping exceeds one thousand. Continuous power levels of more than three hundred fifty watts per channel can be delivered into eight ohms all the way down to zero cycles per second.

## JBL MODEL 6233 DUAL CHANNEL POWER AMP



The primary design goal of the 6233 was to build a rugged, quality, high power amplifier having the smallest size and lightest weight possible. These goals have been achieved in a reliable, two-channel amplifier that mounts in three rack panel spaces and weighs less than 35 pounds. To achieve this, an inverter power supply was devised that is not only smaller and lighter than a conventional power supply, but of 2 kilowatts. Intended for use in recording studios, wide-range sound systems and similar applications, the 6233 delivers stable, virtually distortion-free amplification for sustained time periods. Each channel is capable of delivering 300 Watts RMS into a 4-ohm load, or 200 Watts RMS into an 8-ohm load with total harmonic distortion of less than 0.05%, 20 to 20,000 Hz.

## BGW 250



A truly professional amplifier for high efficiency systems with the exclusive BGW "fail-safe" SCR Crow Bar circuitry. The Model 250 is the only direct coupled amplifier designed for continuous operation into two ohm loads and priced under \$1000. This state of the art unit is hand-crafted from top quality components.

Each channel is constructed on individual plug-in heat sink modules. The Model 250 delivers over 300 watts of ultra clean power. **Electronic Features:** Each output stage uses 6, 15 amp single diffused power transistors providing an unusually large safe operating area (SOA). The Model 250 will drive a two ohm load making it ideal for systems with two sets of 4 ohm speakers in parallel. Highly reactive loads such as some electrostatics are driven with ease as no current limiting circuits are used. 100 watts into 8 ohms, 150 watts into 4 ohms, and 200 watts into 2 ohms.

## BGW 500



This is the amplifier you've always wanted and now it's here. Finally a high powered amplifier with all the "fail-safe" features of the BGW professional line at a price you can afford. A state of the art unit conservatively designed and hand crafted from top quality components. The Model 500 R delivers over 600 watts of ultra clean

power. **Electronic Features:** Crow bar circuitry is incorporated to guard against potentially dangerous surges of failure of output transistors. If such a condition were to occur (although extremely unlikely) within milliseconds, they thyristor crow bar discharges all stored energy in the power supply and turns the unit off. 400 watts into 8 ohms (200 watts/channel) 600 watts into 4 ohms (300 watts/channel).

## BGW 1000



1000 watts RMS continuous power is quite a lot to offer. Other large amplifiers are available today but none offer the advanced features incorporated in the new BGW Model 1000. Ours alone features an ultra fast acting crow bar, a high speed operational amplifier, adjustable power limiting with light emitting

circuit breaker, a plug in circuit modules are standard equipment. The Model 1000 now includes 2 ohm capabilities. 16, 250 watt power transistors are used for a total of 4000 watts of dissipation capability. Several sets of speakers connected in parallel can be driven with ease. 500 watts into 8 ohms (250 watts/channel); 1000 watts into 4 ohms (500 watts/channel) 2 . 750 watts into 2 ohms.

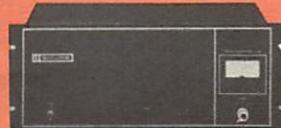
## BOSE 1801



No ordinary consumer product—an amplifier that delivers 500 watts RMS per channel, has calibrated light emitting diode (L.E.D.) level indicators as well as dual VU meters, weighs 82 pounds, and has a reliability that is backed by a FIVE-YEAR warranty on parts and labor. A precision instrument is a more accurate description of the 1801. Integral Design a BOSE first—enables a complete amplifier channel, from the low-level stages to the 14 silicon power output transistors, to be mounted on a single card with photo etched precision circuits. A complete channel can be replaced in less than ten minutes without a single adjustment!

Professional Model 1800 Rack Mount Available.

## SHURE 105B



The Shure SR105 is a high-quality, high-power, rack-mountable amplifier designed for use with the SR101 Audio Console and most other associated equipment used in professional sound reinforcement systems. It is available in two models: The Model SR105 A, which provides both direct- and transformer-coupled, constant-voltage 70-volt output, and the Model SR105 B, which permits direct speaker coupling only. Each SR105 amplifier is capable of delivering 200 watts RMS to a four-ohm load, and may be interconnected with additional units to provide the greater sound power required by especially large coverage requirements. Harmonic and inter-modulation distortion are low, and frequency response is flat, 20-20,000 Hz,  $\pm 1.5$  dB.

## CROWN D-60



The Crown D-60 stereo amplifier, small in size, big in value and adaptability. Its uses include headphone power supply for system monitoring; ideal power for high-efficiency speakers; can be easily used in bi-amping and tri-amping situations and can be

field modified to produce 25 volt monaural output power for industrial sound distribution systems. Output Power: 30 watts per channel minimum RMS (both channels operating) into an 8 ohm load over a bandwidth of 35 Hz—15 kHz at a rated RMS sum total harmonic distortion of 0.05%. Dimensions: 19" wide by 8-3/4" deep by 1-3/4" high. Weight: 10 lbs.

## CROWN D-150A



The D-150 medium power amplifier, is by design an ideal audio amplifier with the kind of rugged reliability needed in portable sound systems. Especially where one to one amp/speaker ratios are used. Well known Crown protection circuits are an integral part of the D-150. Output Power:

80 watts per channel minimum RMS (both channels operating) into an 8 ohm load over a bandwidth of 1 Hz—20 kHz at a rated RMS sum total harmonic distortion of 0.05%. Dimensions: 17" wide by 8-3/4" deep by 5-1/4" high. Weight: 24 lbs.

## CROWN DC 300A



The Crown DC-300A. High power is first thought of when referring to a "super" amplifier. However, this Crown amplifier is also super in its reliability; super in its capability to deliver sound without distortion, and super in its ability to power any type of load, from 2.5 to 16 ohms, resistive or reactive! Output Power:

155 watts per channel minimum RMS (both channels operating) into an 8 ohm load over a bandwidth of 1 Hz—20 kHz at a rated RMS sum total harmonic distortion of 0.05%. Dimensions: 19" wide by 9-3/4" deep by 7" high. Weight: 45 lbs.

## CROWN M-600



The Crown M-600 power amplifier was designed specifically for applications requiring relatively high power levels. The M-600 maintains all the exacting Crown Laboratory performance standards, plus featuring built-in cooling for continuous full power operation. Output Power: 600 watts minimum RMS into an 8 ohm load over a bandwidth of 1 Hz—20 kHz at a rated RMS sum total harmonic distortion of 0.05%. Dimensions: 19" wide by 16-1/2" deep by 8-3/4" high. Weight: 92 lbs.

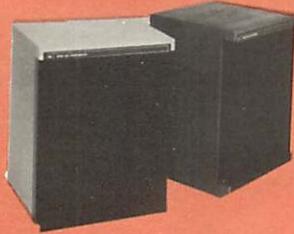
# J.B. LANSING PROFESSIONAL STUDIO MONITORS

## MODEL 4350



**4350 STUDIO MONITOR, 4-WAY**  
The ultimate in high output, broad bandwidth, definition and efficiency for such applications as modern recording studios and disc mastering rooms. Frequency response of 30 to 20,000 Hz,  $\pm 3$  dB is achieved with two 15-inch low frequency loudspeakers, a 12-inch midrange loudspeaker, a high frequency compression driver with an exponential horn and acoustic lens, and an ultra-high frequency transducer. The 4350 is designed for bi-amplification of the low frequency crossover and is provided with a passive network for the other transitions of the system. For optimum source localization, the enclosure allows mirror image mounting of the high frequency components. To facilitate inverted suspension, the bottom is finished to match the other surfaces of the enclosure; the base is removable; and eye bolts, anchored to an internal steel support brace, are provided. The enclosure is finished in textured gray with black grilles or oiled walnut with dark blue grilles.

## MODEL 4332/33



**4332 AND 4333 STUDIO MONITORS, 3-WAY**  
An expansion of the loudspeaker system installed in the 4330 and 4331, these monitors feature an additional ultra-high frequency transducer that extends bandwidth of the system to 20,000 Hz,  $\pm 3$  dB. The ultra-high frequency transducer is equipped with an integral diffraction horn that maintains a  $90^\circ$  horizontal  $\times$   $30^\circ$  vertical polar pattern to 16 kHz. The 4332 is fitted with input terminals for bi-amplification of the low frequency crossover and includes a tailored passive network for the high frequency section. The 4333 is provided with a tailored passive frequency dividing network for both transitions of the system. The enclosure is identical to that of the 4330 and 4331.

## MODEL 4330/31



The 4330 and 4331 Studio Monitors. The 4330 and 4331 are rugged, powerful studio monitors designed for mixdown and mastering control room applications. The result of an extensive research and development effort, they represent a refinement of the classic JBL two-way studio monitor loudspeaker system that has been relied on by a major segment of the recording industry for the past 10 years. The transducers installed in each system are identical: a newly developed 15-inch low frequency loudspeaker and a wide range high frequency compression driver equipped with a newly developed horn/lens assembly. The 4331 includes the latest design in high level, passive frequency dividing networks, providing total system integration with minimal audible distortion. For studios in which the flexibility afforded by bi-amplification can be utilized, the 4330 is offered with the appropriate input terminals for the required two amplifiers.

## MODEL 4311



The 4311 Control Monitor  
A product of JBL's long experience and intimate involvement with the recording industry, the 4311 is a powerful, yet compact, monitor loudspeaker system. Its wide-band reproduction at loudness levels required in professional work makes the 4311 ideally suited for control room installations, small studios, mixdown facilities, broadcast monitors and portable playback systems.  
**Components**  
Low Frequency—Bass material is reproduced by a powerful, long excursion, 12-inch loudspeaker having a 3-inch diameter edge-wound copper ribbon voice coil operating in a magnetic field of 10,400 gauss. The magnetic assembly, energized by an Alnico V magnet, weighs 6.75 pounds; free air resonance is 22 Hz. The surface of the cone is coated with an exclusive damping formulation that provides mass and density to optimize bass performance, prevent spurious resonance and provide smooth performance extending into the midrange region.

# ALTEC LANSING PROFESSIONAL STUDIO MONITORS

## MODEL 9846-8A



**9846-8A MONITOR SPEAKER**  
The 9846-8A monitor speaker is a two-way system employing a high compliance low distortion bass driver in a sealed box. The high frequencies are handled by a compression driver on a 500 Hz sectoral horn. This system is extremely neutral with greatly extended frequency response, both high and low. The sealed box gets away from the thumping bass which is characteristic of most ported systems and it enables record producers to assess more accurately musical balances at low frequencies. The high frequency horn and bass driver have been precisely located with respect to each other—to minimize phase cancellations in the crossover region. The result is an extremely smooth system in the crossover region. Eight ohms impedance. One hundred watts power capacity; sensitivity 91.5 dB at 4 feet with 1 watt input. Light grey textured resilient epoxy enamel finish with black demountable grill.  
**Dimensions:**  
31" H  $\times$  26-1/2" W  $\times$  23-3/4" D

## MODEL 9846-B



**9846-B BI AMPLIFIED STUDIO MONITOR SPEAKER**  
Many studios have recognized the great benefits to be derived from bi-amplification. With bi-amplification, there is complete electrical isolation of low and high frequency loudspeakers. Bi-amplification results in lower distortion and improved transient response over passive crossover systems. The 9846-B employs identical cabinetry and driver components as the 9846-8A. In place of the dividing network, we have installed the 771B Bi-amplifier. The 771B Bi-amplifier delivers 60 watts continuous sine wave power to the low frequency driver and 30 watts continuous sine wave power to the high frequency driver. This can be compared to a conventional amplifier of 175 watts under typical program conditions. The 9846-B is finished in light grey textured epoxy enamel and has a removable black grill assembly.  
**Dimensions:**  
26-1/2" W  $\times$  31" H  $\times$  23-1/2" D

## MODEL 9849



**9849A MONITOR SPEAKER**  
Only slightly larger than "bookshelf" systems, the Altec 9849A offers performance advantages normally associated with full-sized monitor loudspeakers. The 9849A delivers smooth, extended frequency response from 40 to 15,000 Hz, while maintaining maximum sensitivity. A unique feature of the 9849A is the use of the Altec 32A sectoral horn, which provides exceptionally broad distribution above 10,000 Hz. Twelve inch low frequency driver, 900 Hz dividing network, high frequency compression driver with sectoral horn. Sixty watt power capacity, sensitivity 93 dB/4 ft./1 w. Eight ohms impedance. Textured light grey resilient epoxy finish and black grill.  
**Dimensions:**  
24" H  $\times$  20-1/2" W  $\times$  15-1/2" D

## MODEL 604-8G/620



The ALTEC 604-8G Duplex Loudspeaker System is a two-way loudspeaker with high- and low-frequency speakers coaxially mounted in a single frame. The 604-8G features several improvements over the earlier models:  
• Voice-coil impedance has been changed from 16 to 8 ohms to better complement the solid-state amplifiers used today.  
• The dividing network, mounted on a cast aluminum frame, ensures a minimum of 8 ohms impedance throughout the operating range, provides crossover slope functions of 12 dB/octave (low pass) and 18 dB/octave (high pass), and includes continuously variable high-frequency attenuation of up to 20 dB to correctly match the acoustical characteristics to any listening area.  
• A new high-frequency diaphragm provides extended treble response and greater linearity than previous designs. The ALTEC 620A Speaker Cabinet is a smartly styled, furniture-type, bass reflex enclosure designed for front mounting a 15" low-frequency or two-way coaxial loudspeaker. The 620A provides correct baffling and mounting for quality monitor installations.

# COMPACT BOOK SHELF SEMI PROFESSIONAL + PROFESSIONAL STUDIO MONITORS

## J.B. LANSING L-26



The L26 achieves open, effortless performance that approaches the thunderous volume levels required of JBL monitors in the recording studio. Each component of the L26—low frequency loudspeaker, high frequency loudspeaker, high frequency direct radiator, frequency dividing network and enclosure—has been designed to function as part of the complete system, optimizing performance and efficiency.

## PHILIPS MOTIONAL FEEDBACK SYSTEM



This three way system is bi-amplified—featuring a total of 60 watts continuous sine wave power. A passive crossover is provided at 3,500 Hz, and an electronic crossover at 500 Hz. It measures 15  $\times$  11-1/2  $\times$  8-1/2 inches. Each enclosure complete with audio and AC connection cables.

## BOSE 901



The 901 SERIES II provides a type of equalization for program source variations not available on other speakers. It now adapts to a wider range of room environments. The new cone formulation in the 901 drivers provides an unprecedented uniformity of response. Five-Year warranty covering parts and labor.

# AUDIO RECORDING AND SOUND REINFORCEMENT MIXING CONSOLES

## TEAC #2 COMPACT QUAD MIXER



The Model 2, 6-in, 4-out multichannel mixer from TEAC Corporation of America, is specifically designed for true multichannel recording and has high- and low-cut filters plus panning on each input. In addition, there are cue out, buss in and accessory send/receive patch points. The Model 2 gives the recordist full control over what goes on before, during and after the recording process, thus allowing the recordist to achieve the greatest benefit and desired artistic effect during recording, overdubbing and mixdown.

## TAPCO 6000 RCF AND 6200 STEREO MIXER



The TAPCO model 6000 RCF is a rugged six channel mixer/pre-amp that features a volume, bass, treble, and effects control, plus a channel in-out switch. It can be used for monitoring, internal reverb, external echo, or a combination of internal reverb and echo, and an output stage that can drive any type of amplifier. The master section includes master volume, mic, equalization, reverb contour, master effects/reverb level, reverb/echo mix, and an adjustable level output. The TAPCO 6200 is a rugged six channel stereo mixer pre-amp that includes master volume left and right, mic EQ left and right, rumble filter left and right and an adjustable LED output indicator for each channel, and a stereo headphone output for monitoring purposes.

## SONY #20 PORTABLE STEREO MIXERS



Sony's newest mixers are both exceptional. The MX-20 is an 8 in 4 out board, each channel having straight line faders, mike attenuators (0-15-30-45 dB) output channel assign, EQ switch (5 positions for channels 1-6) with pan pots on channels 7 and 8 (no EQ). Other features include 4 lighted output VU meters, master level control, auxiliary inputs and outputs for cascading additional mixers or effect units and headphone monitor with separate volume control. The MX-20 has high or low impedance balanced line inputs and outputs; MX-16 almost identical except with unbalanced high impedance inputs and no EQ.

### SONY #16



#### ADDITIONAL FEATURES

- Mechanical presets on all input gain controls.
- Patch panel for connection of echo, SQ encoder, etc.
- 8 ohm binaural headphone jack with selector switch and independent volume control.
- Low impedance (250-600 ohm) mic inputs.
- Signal-to-Noise Ratio of greater than 65 dB.
- Crosstalk is 60 dB at 1 kHz.
- Distortion is a surprisingly low 0.1%.

## SHURE SR-101 SOUND REINFORCEMENT MIXER



The console component in the Shure "SR" group is the Model SR-101 Audio Console, a rack-mountable, eight-channel mixer/preamplifier that affords exceptional system versatility, complete, accurate controls, and flawless performance. Custom-installed in a desk or console, it measures 311 mm (12-1/4") high x 483 mm (19") wide x 162 mm (6-3/8") deep, and weighs 10 kg (22 lb). • Accepts up to eight low impedance microphones, each with individual controls for volume, reverberation, high - low frequency equalization, and input attenuation. • Provides simultaneous program and monitor outputs, each controlled by its own master volume control. • Four anti-feedback switches, operating notch filters. • One kHz tone oscillator enables the operator to calibrate equipment in the system.

## HEAD SOUND ESC-8 QUALITY MIXER



Model ESC-8, the Eight Pack, is a portable eight channel stereo mixing console that features low distortion (less than 0.1%) and low noise (-123 dBm equivalent input noise) as well as balanced low impedance inputs and variable input gain. The ESC-8 has extensive control features including separate monitor mix, pan, high and low equalization, and overload indicators on each channel. It also has a 9 Watt headphone amp, an internal reverb unit, and two accurate peak reading level meters.

## SHURE M-67 DELUXE SOLID STATE MIXER



A compact, lightweight and economical microphone mixer/remote amplifier specifically designed for studio and remote broadcasting, recording and sound reinforcement. Provides four low-impedance balanced microphone inputs, one input convertible to a line input. The excellent performance and versatility of the M 67 makes it ideal for use as a complete compact console for studio, remote, or original installation use—and as a "add-on" mixer for expanding existing facilities and providing additional microphone inputs with tape recorders and VTR's.

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## SHURE M-68 LOW COST MIXER



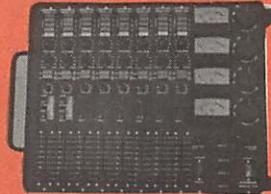
Shure Microphone Mixers are a practical, efficient and economical way to increase the efficiency, usefulness and flexibility of public-address and paging systems. **Microphone Inputs:** Accept either high impedance (unbalanced) or low impedance (balanced transformer input). Input impedance for each microphone is selected by a slide switch. You can use one type or model microphone, or mix several types and impedances. Four individual Microphone Volume Controls. **Auxiliary Input:** High level—Two outputs: one provides high or low impedance output. Impedance is selected by switch. The other provides a high impedance, high level output designed primarily to feed a power amplifier or tape recorder requiring 0.5 to 2 volts. All units can be operated from an external battery supply.

## SHURE M-688 STEREO MIXER



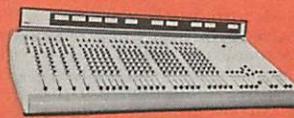
The Model M688 Stereo Microphone Mixer provides unusual versatility and excellent audio control for audio-visual high quality amateur recording, sound reinforcement, location stereo recording, and for mixing sound-on-sound tape recordings. The M688 accepts four high or low impedance microphones through four microphone inputs, each with its own individual volume control. Inputs #1, #2 and #3 have slide switches for "left channel" or "right channel" output; input #4 features a pan control which adjusts the apparent location of Mic. #4 to the left channel, the right channel, or anywhere in between.

## STEVENSON SERIES 100 EXPANDABLE MIXER



Model 8X4-100-2C portable eight-input four track mixer shown at left includes trackswitching, echo send, equalizing, two compressors, conductive plastic sliders, VU meters. Options include eight different types of interchangeable plug-in modules internal reverb. The Series 100 also comes in 16 and 24 input mainframes.

## CETEC MODEL 20 PROFESSIONAL MIXING CONSOLE



Used for television production, theatre and concert sound reinforcement, the Series 20-LM's secret is Total Modular Construction. It features: Up to 30 input channels, each for mic and line level signals; Phase reversal and solo button on each input. Also switchable mic/line attenuation of 0, 20, 40, or 60 dB; Group Master modules for each program bus; Two complete foldback buses with level and switching controls at each input, and with group master controls; 3-Knob equalization on every input channel—with boost or cut; and straight-line faders for input and group master levels. LED channel-on indicators. Illuminated VU meters for all outputs.

## OFFICIAL MARTIN "HI-OUTPUT" T-SHIRT



The original multi-color "Grammy with a Tongue" T-shirt, viewed by thousands on stage and TV at concerts around the world. This famous logo, designed by the "Great L.G.", has appeared on the chests of rock "Superstars", record V.I.P.'s, studio engineers, and top group roadies (connoisseurs of quality professional equipment and service), is destined to become a collector's item and it also covers your bod. For a nominal fee of \$3.00, you can own this classic put-on, or get it free by ordering a reasonable amount of gear. Sizes: S, M, L and XL.

# SOUND REINFORCEMENT ACCESSORIES

## UREI 521 ELECTRONIC CROSSOVER



- Bi-amplification of two-way speaker systems.
- Tri-amplification of three-way speaker systems.
- Employed ahead of power amplifier. Increases efficiency and performance of loudspeaker systems.

Crossover frequencies are continuously tunable: 200 Hz to 2kHz in the 521-L; 1kHz to 10kHz in the 521-H. All inputs and outputs are transformer isolated to avoid grounding, provision is made to bypass any transformer if desired.

## UREI 560 PROFESSIONAL FEEDBACK SUPPRESSOR



The new Universal Audio Model 560 Feedback Suppressor from UREI is a low cost sound reinforcement tool for use in lecture halls, meeting rooms, schools and churches. By centering the unit's four 1/6 octave notch filters on a sound system's most prominent resonant frequencies, gain can be increased typically 12 dB and intelligibility improved. Each filter is tunable, 60 Hz to 6000 Hz in two ranges. Notch depth is adjustable to -20 dB.

## SHURE 106C LOW COST CROSSOVER



The Shure SR106 Electronic Crossover is a rack-mountable, unity gain, selectable-frequency dividing network, designed for use with two- or three-way speaker systems such as the Shure SR108 Extended Range Speaker System in high-quality sound systems. It utilizes the principle of bi-amplification to separate an audio console or mixer-preamplifier output into two frequency bands for distribution to separate power amplifiers. In this manner, the advantages of lower distortion, increased high-frequency power, wider dynamic range, and maximum efficiency are obtained.

## ALTEC 9860 ACTIVE EQUALIZER



26 active band-rejection filters ISO 1/3-octave center frequencies from 40 Hz to 12.5 kHz provide up to 15 dB attenuation at center frequencies. Each filter section is skirted to cross over with adjacent sections at -7 dB combining to give ripple-free response over 85% of their range. Fewer filters would be insufficient for smooth equalization; more filters would not increase equalization flexibility enough to justify the added cost. A front panel detented slide attenuator restores equalization losses, eliminating the need for external booster.

## CROWN VFX ELECTRONIC CROSSOVER



Now you can dramatically enhance the sound of your present system with Crown's exclusive, variable-frequency electronic crossover. The new VFX-2 allows the listener to infinitely adjust the crossover frequencies from 20-20,000 Hz. Bi-amping and tri-amping can be accomplished with the VFX-2 for more efficient amplifier usage resulting in even lower distortion levels.

## SHURE M62V "LEVEL LOC"



"Level Loc" Audio Level Controller, now with a variable input level control. Automatically locks the volume level of a sound system, virtually eliminating annoying volume changes, blasting, fadeout, etc. Level is predetermined by setting a single switch. Frequency Response: 20-20,000 Hz +2 dB. Input Impedances: 100k and 500 ohms; output approximately 500 and 10 ohms. Cannon-type connectors. Gain: low imped. Input to low output is 0; to high output is +22; high imp. Input to low output is +22; to high output is 0. Battery operated. Complete with battery.

## UREI 530 DUAL GRAPHIC EQUALIZER



Two completely independent Graphic Equalizers with a common power supply are attractively housed in the 530's 3-1/2" x 19" chassis. Each channel begins with a differential input stage, includes nine variable active equalizers centered at each octave from 50 Hz to 12.5 kHz, and ends in an output amplifier capable of delivering +20 dBm into a 600 ohm load. The inputs may be fed from balanced or unbalanced sources. The output amplifiers are transformer isolated, and will accommodate balanced or unbalanced loads. Signal-to-noise ratio at maximum output is an outstanding 110 dB, harmonic distortion below 0.5%.

## SHURE 610 "FEEDBACK ELIMINATOR"



The M610 Feedback Controller uses eight resonant dip filters, each controlled by a linear-motion potentiometer. Each of these filters, unlike highly selective "notch" or single-frequency filters, acts on a band of frequencies around its center frequency, so that attenuation is smooth and complete. These filters function in the most critical position of the audio spectrum, with center frequencies of 63, 125, 250, 500, 1,000, 2,000, 4,000 and 8,000 Hz. Each is infinitely variable from "0 attenuation" (flat) to a maximum cut of 12 dB. The M610 also features "high end" (above 8 kHz) and "low end" (below 63 Hz) roll-off switches to control response outside the range of these filters.

## UREI 527 1/3 OCTAVE GRAPHIC EQUALIZER



Model 527-A combines into one compact, 3-1/2" x 19" package, 27 precise reciprocal equalizers covering the entire audio spectrum from 40 Hz to 16k Hz. Each equalizer is centered on a standard I.S.O. 1/3 octave frequency, providing compactability of the 527-A with all current measuring equipment for room equalization. Designed as a multi-purpose tool, the 527-A has many applications in addition to its obvious use in equalization of sound reinforcement or playback systems. The creative studio engineer now has command of the entire audio spectrum for contouring or correction.

## UREI 100A SOUND ANALYSER



SONIPULSE from U.R.E.I. is a revolutionary new concept in frequency response measurement of a loudspeaker system, including its electronics and environment. Entirely self-contained in an attractive metal attache case, the Model 100-A offers unmatched convenience of operation combined with precision, portability and economy. Using SONIPULSE and suitable 1/3 octave filters, such as the U.R.E.I. Model 527-A 1/3 octave Graphic Equalizer Set, a speaker system and its acoustical environment may be equalized in 30 minutes or less.

## UREI 529 1/3 OCTAVE ROOM EQUALIZER



The UREI Model 529 Room Equalization Filter Set is an "Attenuate-Only" version of their popular Model 527-A Graphic Equalizer. The 529 has 27-1/3 octave active filters that each provide up to 15 dB of attenuation to adjust for a desired house curve. They are centered on standard ISO frequencies making the 529 compatible with all current room equalization measuring equipment. Filters combine properly for minimum ripple and phase shift. "Band end" tunable high pass and low pass filters attenuate 18 dB per octave. Gain is adjustable to +20 dB to make up for average level lost in equalization.

## CLEAR-COM CCX200 PORTABLE 2 CHANNEL INTERCOM SYSTEM



The CCX-200 Two-Channel Intercommunication System by Clear-Com was designed for two-channel communications in the high decibel levels encountered in the entertainment field. It includes the Main Station also available in a rack mount. Up to 30 remote stations can be combined into the two-channel main station in any combination, enabling individual stations to be in instant contact, and allowing for internal communication while the director can monitor or talk with both. Master gain controls for each channel allow for independent level selection.

# J.B.L. ALTEC LANSING, CETEC SOUND REINFORCEMENT SPEAKERS

## JBL 2220/2205 LOW FREQUENCY DRIVERS



When housed in properly constructed enclosures, JBL 15" low frequency loudspeakers exhibit exceptional efficiency and transient response as well as the ability to handle sustained signals at high power levels without danger of mechanical damage or excessive distortion. To achieve these characteristics, JBL low frequency loudspeakers utilize 4-inch edgewound copper ribbon voice coils individually wound and assembled to heat resistant supports, and heavy, precisely constructed magnetic structures that concentrate all the potential of a large Alnico V magnet in the voice coil gap.

Model	Power Capacity	Freq. Range	Crossover Freq.
2220	150 watts	30-2 kHz	800 Hz
2220	100 watts	40-2 kHz	800 Hz

## JBL 2420/2440 WIDE RANGE DRIVE



JBL wide range compression drivers provide efficiency and wide, linear response for high quality sound reproduction and reinforcement systems. A pure silver ring on the circumference of the center pole piece of the 2420 maintains uniform impedance through the highest frequencies, thus extending bandwidth of the driver.

Model	Power Capacity	Freq. Range	Crossover Freq.
2420	30 watts	500-20 kHz	500 Hz
2440	60 watts	500-12 kHz	500 Hz

## JBL 2482 HIGH POWER DRIVER



Intended for use where high sound pressure levels must be generated, these compression drivers utilize phenolic impregnated linen diaphragms and edgewound ribbon voice coils to provide maximum power capacity and conversion efficiency. The 2482 is capable of generating extremely high sound pressure levels while maintaining crisp, natural reproduction of speech. Power Cap: 120 watts; Freq. Range: 300-6 kHz; Crossover Freq: 300 Hz.

## JBL 2345/2350/2355/2356 HI-FREQUENCY HORNS



The 2345, 2350, 2355 and 2356 are radial horns offering natural tone quality and exceptionally uniform frequency response in a tightly controlled pattern. They have no discontinuities; the waveform expands smoothly through a single, unobstructed path. The 2356, largest of the group, utilizes non-metallic composite construction to achieve freedom from resonance while minimizing weight. The other radial horns are cast aluminum with thick wall sections to prevent flexing. Exterior surfaces of the aluminum horns are coated with a heavy layer of an exclusive damping material, Lansaplas, to further guard against coloration or ringing. These radial horns are suitable for outdoor use.

Model	Dispersion Pattern	Crossover Freq.
2345	90° x 40°	800 Hz
2350	90° x 40°	500 Hz
2355	60° x 40°	500 Hz
2356	40° x 20°	300 Hz

## JBL 2405 ULTRA HIGH FREQUENCY DRIVER



Designed to complement JBL high frequency drivers, the 2405 consists of a compression driver and integral diffraction horn providing smooth response and exceptionally wide dispersion, even at extreme high frequencies. Power Cap: 20 watts; Freq. Range: 6500-21,500 Hz; Crossover Freq: 7000 Hz

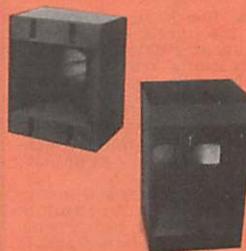
## JBL K-100 SERIES MUSICAL INSTRUMENT LOUDSPEAKER



The K100 Series delivers more sound per Watt than other musical instrument loudspeakers. The punch in bass notes is deep and solid; mid-range bite is crisp and clear; with brilliance in the highs for distinctive tone character. JBL sound at its best, with efficiency to match.

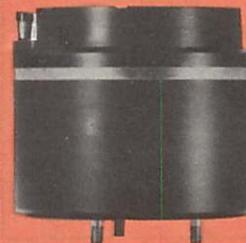
Model	Diameter	RMS Power Capacity	Freq. Range
120	12"	100 watts	50-6000 Hz
140	15"	150 watts	40-2500 Hz
145	15"	150 watts	40-2500 Hz
151	18"	150 watts	35-2000 Hz

## JBL LOW FREQUENCY HORN CABINETS



JBL low frequency horns are ideal for theater and high power sound reinforcement applications. 4560 FRONT LOADING SINGLE DRIVER: A long throw directional horn for use below 800 Hz, the 4560's horn adds 6 dB to the sensitivity of the driver above 200 Hz, with usable response down to 60 Hz. The dispersion pattern of the 4560 is 90° horizontal and 60° vertical at 800 Hz. 4550 FRONT LOADING DUAL DRIVER: The 4550 is a long throw directional horn for use below 800 Hz. The horn and sealed rear chamber increase sensitivity of the drivers by 6 dB above 100 Hz, and provide usable response to 50 Hz. The horn achieves a 75° horizontal and 30° vertical dispersion pattern at 800 Hz.

## ALTEC 288-16G/291-16B DRIVERS



For many years, Altec 288 drivers have been acknowledged as the finest compression drivers available for full-range sound reproduction in motion picture theatres. The 288-8G and 288-16G drivers may be used with Altec multicellular or sectoral horns and will provide a smooth response from 500-15,000 Hz. Power Rating: 15 watts. The Altec 291-16B will provide a smooth response from 500-13,000 Hz. This wide range, when used in conjunction with low-frequency loudspeakers, will provide full high-fidelity reproduction for the largest theatre or auditoriums. Power Rating: 40 watts.

## ALTEC 311-60/311-90 HORNS



The Altec 311-60 and 311-90 are designed for use in sound systems where a low cutoff and uniform control of the projection angle are required. These horns are treated with "Aquaplas", a patented sound deadening material, to assure freedom from resonance and ring. They are designed to operate with an Altec 288 or 291 Driver Loudspeaker through the proper receiver attachment. Both horns feature a 300-Hz cutoff frequency, and the sound pattern, controlled by the sectoral expansion, is 60 degrees horizontally for the 311-60, and 90 degrees for the 311-90. Vertical distribution for both horns is 40 degrees.

## ALTEC 421-8H II/418-8H II



The H Series Musical Instrument is a 15" loudspeaker that has a heavy permanent magnet, a structurally-reinforced die-cast aluminum frame, a 3" diameter edge-wound aluminum voice coil and exceptionally compliant cone suspension. It is sealed against dust and dirt. Strict adherence to precision design and manufacturing tolerances produce these 418-8H specifications: 15"; 150 watts; Frequency Response of 45-8,000 Hz; and an 8 ohm impedance. 421-8H specifications: 15"; 150 watts; Frequency Response of 35-3,500 Hz; and an 8 ohm impedance; also available in 16 ohm versions on special request.

## CETEC SERIES 40, 42



While the Gauss Series 40 Bass Instrument Loudspeakers deliver clear and forceful lows throughout the full dynamic range of the driving instruments, the Series 42 Musical Instrument Loudspeakers have been created to meet the specific demands of horn-loaded applications. Excellent sound quality throughout the full dynamic range makes these Gauss speakers ideal for a wide variety of instruments. Total freedom of artistic expression is possible by careful engineering and meticulous craftsmanship. Both, are available in 12", 15" and 18".

## DON'T PUT YOUR CONSOLE WHERE YOUR VOCAL SHOULD BE!



Martin Audio offers a newly developed service—Experienced and complete studio design consultation. If you are building a studio, or re-designing an existing one, Martin's new division can provide state-of-the-art results on every detail of design and construction, from acoustics to room layout, to where you put the sauna. For information contact Bruce Martin.

**BEYER M-500**



The Beyerdynamic model M-500 is a dynamic true hypercardioid ribbon microphone with wide range response and high output created especially for the most exacting professional use. Emphasizing a major technological breakthrough in ribbon technique, the M-500 is particularly suited for high sound level applications. A new and unique four stage blast filter, an integral part of the M-500 makes possible hand held use with lips almost touching the microphone without danger of "popping", hissing and breathing sound.

Primarily developed to cover the special needs of pop vocalists and instrumentalists, the M-500 records only the true sound of music in absolute fidelity. It combines the sharp attack of a condenser and the sturdy reliability of a moving coil with the unduplicatable warmth of a ribbon. Capable of withstanding a sound level of more than 130 dB.

**BEYER M-260**



The Beyerdynamic M-260 is the world's most popular ribbon microphone and represents a major technological breakthrough. Incorporating a unique high energy transducer which has a flat frequency response of 50-18,000 Hz, complete absence of non-linear distortion results in a startling clarity and transparency of the sound picture. The cardioid characteristic of this microphone is such that unwanted sound is heavily dampened reaching a maximum of 20 dB at 120° (normally cardioids provide greatest rejection at 180°). The microphone produces superior suppression of "off mike" musicians and vocalists in stereo and multi miked situations.

**BEYER SOUNDSTAR X-1**



The Soundstar X-1 is a moving coil dynamic microphone of special appeal to those perfectionists who are depending especially on performance and excellent value for money. The X-1 offers an extra wide response together with outstanding cardioid characteristics. No other microphone is known in its price range, and well beyond, to match its performance. Therefore its application field is extended to radio stations and recording studios, sound reinforcements and conference halls, schools, universities, nightclubs and to the most demanding tape recorder amateurs.

**SHURE SM 58**



Ideal for bright, articulate sound with minimum background noise, or wherever the performer may need to work close to the microphone. Built-in spherical windscreen minimizes or eliminates explosive breath "pop". Wide response with slight presence rise for clean, bright, and natural sound. Unusually effective cardioid pickup pattern provides excellent control of unwanted sound. Minimizes "boominess" that is usually accentuated by close-up microphone use. Windscreen assembly readily removable in the field for cleaning or replacement.

**SHURE SM-56/57**



Models SM-56 and SM-57 feature unusually effective cardioid pickup patterns that are uniform at all frequencies and in all planes! The effects of studio acoustics and background noise are minimized and the bright, clean sound is ideal for announcing, dialogue and vocal music. Unusually effective for rhythm pickups because they do not overemphasize low frequencies—resulting in clean, beautifully defined sound from percussion instruments, piano and string bases. In addition, "boominess" associated with close-up pickup is well controlled.

**AKG D1000E**



It offers a number of exclusive features essential to the professional, but heretofore unavailable. For example, a mode selector switch, for effective equalization of the response characteristic. For the performing artist it means adaptation of the microphone's total response to suit the individual's style and technique. In recording applications, the unit can be adapted to the desired response characteristics and in public address installation the pickup characteristics may be attenuated to suit the acoustical environment.

**FRAP MODEL 200 SYSTEM-HEAD**



The FRAP SYSTEM offers the utmost in simplicity, versatility, and fidelity. It consists of a transducer, a preamp, and an adhesive wax. The FRAP TRANSDUCER is a tiny (3/8 x 3/8 x 1 inch) SOLID STATE device. No moving parts to break, wear out, or need repair; carefully designed to pick up ALL the vibrations created by a resonating instrument. (FRAP is NOT a contact mike!) Place FRAP ANY-

WHERE on your instrument to obtain the desired sound. Even get new sounds! FRAP is limited only by your imagination! The FRAP PREAMP is a battery operated precision instrument that consists of some of the most sophisticated integrated circuits. There is NO NOISE, NO FEEDBACK, AND NO HUM! The PREAMP matches the TRANSDUCER to your amplifier, or tape recording system. The entire system is FLAT from 5 Hz to 100,000 Hz. A SENSITIVITY CONTROL is provided on the PREAMP. The CONTROL makes it possible for you to get the truest tone while eliminating extraneous string or finger noise.

**ALEMBIC F-2B STEREO PRE-AMP**



The Alembic F-2B Stereo Preamplifier, illustrated above, is a two channel high quality tube-type preamp suitable for use with electric guitars, basses or any low level musical instrument pickups. For those musicians interested in deliberately increasing distortion, it is suggested that the two channels be cascaded. The F-2B Stereo Preamp may be used with any power amplifier having a line level input.

**MXR NOISE GATE/LINE DRIVER**



The primary function of the Noise Gate/Line Driver is that of removing unwanted noise from any musical performance by gating off any signal below a variable threshold level. The threshold control allows the musician to adjust the level at which the Noise Gate cuts off, removing unwanted noise between notes, and at the end of performances.

**MXR AUTO PHASER**



The MXR Auto Phaser is designed to be the finest phasing unit available for professional applications. The Auto Phaser's low distortion, low noise, and wide range of effects enables it to fill every studio phasing need. The subjective audible effect of phasing is a product of a phase-shift created response characteristic resulting in a series of "notches" in the audio spectrum similar to reel flanging, but differing from flanging in the sense that these notches are not harmonically related.

**MXR AUTO FLANGER**



The MXR Auto Flanger is the first professional audio delay line capable of producing true flanging—repeatably and economically, without having to resort to using two tape decks and a lot of work, or bulky and expensive digital delay lines. Designed for both portable use and custom installations, the Auto Flanger reliably meets the most demanding of professional audio needs.

**MXR MINI LIMITER**



The MXR Mini Limiter is designed as a cost-effective answer to meeting the wide variety of audio limiter applications. Low noise, low distortion and quick response enable it to effectively control signal peaks. Attack time is fast (approx. 1 ms.), and release time is both variable via rear trim pot and dependent upon the amount of gain reduction. Four instantly responsive L.E.D.'s continuously indicate gain reduction.

# PROFESSIONAL BROADCAST COMPONENTS

## PARASOUND DSC DYNAMIC SIBILANCE CONTROLLER



The DSC features low noise and distortion. Overload/noise ratio is typically 100 dB with harmonic distortion typically below 0.1%. THRESHOLD control determines the level at which the sibilants start to be controlled . . . and a gain changes. An LED lights up to indicate when control is taking place. The DSC has unity gain at low frequencies and at high frequencies below the threshold.

## SPOTMASTER CARTRIDGE SYSTEMS



All Ten/70 stereo units now equipped with NEW SPOTMASTER precision Stereo Head Bracket to minimize phase problems. Stereo's an old word at SPOTMASTER . . . we've built more to these for broadcasters than all others combined. Ten/70 meets the most demanding needs of today's FM programming and does it all in half the space of a standard rack unit! The full range of Ten/70 options is available in this unit, too.

## CBS AUDIMAX AND VOLUMAX



Only the best is good enough. And that's exactly what you get with CBS Laboratories power twins, Audimax and Volumax. Audimax delivers a distortion free signal by eliminating thumping, background "swish-up" and audio "holes." And Volumax prevents overmodulation and permits maximum per-watt coverage power. The power twins! From CBS Laboratories, of course.

## FIDELIPAC TAPE CARTRIDGES



The Fidelipac 300, the original Automatic Tape Cartridge, may be operated at speeds from 1-7/8 to 30 ips plus fast forward. The Fidelipac 300 is supplied in lengths between 7 feet and 400 feet providing 10 seconds to 10-1/2 minutes at 7-1/2 ips. The companion models 600 and 1200 come in 16 minute and 32 minute lengths respectively. Designed to meet and exceed specifications for NAB Type "A" Continuous Loop Cartridges, the 300 can be used without modification to either cartridge or machine in any application including Automation.

## INOVONICS 220 AUDIO LEVEL OPTIMIZER



Now in one package, a definitive automatic level controller incorporating the functions previously necessitating a Compressor, a Peak Limiter and a "de-esser"—extraordinarily flexible, yet straightforward to use.

The Model 220 Audio Level Optimizer provides both a substantial increase in average program level, and protection from program peaks. Adjustable gating eliminates "breathing" or "pumping" effects by holding gain constant during short pauses in the program.

**FEATURES** Gated operation with choice of GAIN HOLD, HOLD AND RELEASE or HOLD AND FADE modes.

## METROTECH 400L LOGGER SYSTEMS



Maximum performance, flexibility and easy maintenance. You need all three in your logging recorder. And you get them in the 400L Series. Features: Up to 153 hours of unattended single-channel logging on 1 mil tape, and automatic track sequencing on single transport system. Dual system with time code doubles unattended recording time or provides Fail-Safe auto transfer to stand-by transport. Time code generator/reader for inserting time-of-day subaudible signal with input audio, and pinpointing correct hour, minute, second reference read-out with no need for dedicated track. Six models offering you a choice of one, two or four channel operations. Single or dual systems.

## UREI BL-40 MODULIMITER



The new UREI MODULIMITER Model BL-40 is an "automatic" limiter that, unlike "factory set automatic" limiters, provides adjustments for tailoring the modulation envelope to any program format or transmitter characteristics: consistent full modulation or a more conservative approach (hard rock to classical).

Modulimiter eliminates unwanted overmodulation without clipping. Independent adjustments are provided for RMS and peak limiting and for variable positive overmodulation up to 125%. The BL-40 patented Electro-optical attenuator offers unobtrusive, smooth, true RMS limiting. An ultra-fast FET peak limiting section assures absolute protection from unwanted overmodulation with no peak clipping. Attack time is essentially instantaneous. A Phase Optimizer maintains most favorable signal polarity, automatically and silently reversing polarity to maintain maximum upward modulation.

## AMPEX AG-600B PORTABLE RECORDER



The AG-600B features a switchable two-speed motor that replaces the mechanical speed-change linkages of earlier models. A single indexed switch changes speeds and automatically changes equalization as well. The AG-600B provides the versatility of a rugged field recorder with the reliability of a studio machine. It is available in single-channel (full or half-track mono), stereo (1/4 track or 2 track) and portable or rack-mounting versions. Ideal for broadcasts, industrial, educational, religious, medical and government applications.

## SHURE SE22 SOLID STATE STEREO PRE-AMP



A self-contained, high level, equalized stereo preamplifier specifically designed for highest quality disc reproduction in broadcasting and recording studios. Precise RIAA/NAB equalization. Noise and RF susceptibility are extremely low. Full line output capability to +20 dBm.

Under 0.5% distortion at +20 dBm! Individual high and low frequency equalization trimmers on each channel. Individual channel level controls. Excellent channel separation permits use as two separate monaural channels.

## NAKAMICHI 1000 PROFESSIONAL CASSETTE RECORDER



Nakamichi 1000—the world's most expensive cassette deck—designed for rack mounting, offers instantaneous off-the-tape monitoring; large peak-level meters; built-in user-adjustable phase-sensing azimuth alignment beacon for record head; dual-motor drive system including a DC servo-motor driving dual capstans and equipped with speed vernier; Tri-Tracer 3-head configuration featuring specially designed recording and playback heads; two complete noise reduction systems (Dolby B® and DNL); 3-point sound pickup; peak limiter; instant-acting jam proof device; solenoid action feather-touch controls with timing frequency response 35-20,000 Hz ±3 dB; wow & flutter less than 0.10% (WTD Peak); better than 60 dB signal to noise ratio (WTD at 3% distortion).

## DOLBY 324 B-TYPE BROADCAST PROCESSOR



A stereo encoder for use by FM stations for transmitting Dolbyized 25 usec signals. This technique permits an increase in average modulation level, improvement in audio quality, or a combination of the two. The processing involved in the standard Dolby B compression characteristic combined with

a high frequency roll-off so that when a signal is combined with the standard 75 usec FM transmitter pre-emphasis, the net result is a Dolby B encoded 25 usec pre-emphasized signal.

## VEGA 55/57 PRO WIRELESS MIKE SYSTEM



If you're in the educational or entertainment field, you probably already know about the remarkable Vega Hi-Band professional wireless. Good news travels fast.

The Vega Hi-Band is the first wireless mike system to offer Full-Fidelity voice amplification plus complete freedom of movement. Say goodbye forever to clumsy, restrictive cords. The Hi-Band exceeds broadcast and motion picture hi-fi standards, eliminating all noise, fading, distortion, and interference.

### APPLICATIONS

• Radio & TV Shows • Motion Picture Filming • On-the-Spot News • Sportscasting • Theater Stage • Nightclub Entertainment • Auditoriums • Management Conferences • Sales Promotion • Public Assemblies • Political Conventions • Lecturers

**ESTEC OPTASOUND SUPER 8 ELECTRONIC AND SOUND TRANSFER AND EDITING CONSOLE**



ESTEC completes the film revolution that Super-8 started. It gives the individual film maker, for the first time, direct control and full creative flexibility in the sound editing of films. Super-8mm made individual film-making inexpensive and accessible, it gave it mobility. Now the ESTEC gives Super-8 its voice. The film maker can now sit down at the console with his picture—original or work print—and with all the sound sources he may want to use—single system (i.e., sound on stripe), sync recording separate narration, music and

sound effects. And after a time he comes away with an edited film and a fully mixed, dubbed, balanced and edited sound track, ready to be transferred to the edited film. In house. In sync.

**UREI 924 DIGITAL COUNTER**



The Universal Audio 964 Digital Metronome is a precision instrument that provides 320 different tempo beats for use in producing live music scores for motion pictures. The 964 "International" uses an ingenious circuit concept to permit operation on either 50 or 60 Hz mains interchangeably. The tempo beats correspond to various multiples of motion picture film frames, based on the standard sound speed of 24 frames per second. The metronome design eliminated disadvantages associated with the various "click track" schemes of producing tempo beats. The beats may be synchronized with other equipment by using an externally generated start pulse or contract closure.

**SHURE SE 30 GATED COMPRESSOR/MIXER**



The SE30 provides a 40 dB compression range—adjustable to your input requirements, with a compression ratio of approximately 10 to 1. Once set, the SE30 rides gain automatically, increasing or decreasing the system gain to maintain a constant output level. The SE30 offers maximum compatibility with all types of associated professional equipment, especially field equipment widely used in news, sports and special events remote coverage (such as sound film cameras, and tape and cassette recorders). Loaded with useful features, such as:

feedback-type gain controls that automatically increase the input clipping level as the individual gain controls are turned down; a built-in low-distortion 1 kHz tone oscillator; three-function VU meter.

**PULTEC HLF-3C PROGRAM FILTER**



As a Program Filter, the wide range of the Pultec makes it possible to remove rumble and hum as well as hiss and harmonic distortion components with a minimum loss of program content.

As a Sound Effects Filter, the Pultec includes the frequencies that have proven most useful in the past, plus several intermediate frequencies; thus making it ideal for the creation of such effects as telephone conversations, midget radios, sounds from outer space, etc.

**UREI 565T "LITTLE DIPPER" FILTER**



The Little Dipper's versatility makes it an ideal tool for many signal processing tasks, its primary function is to remove undesirable "coherent" or "semi-coherent" noise components from audible range recorded tapes, film or records. For example, AC hum, oscillations, heterodyne "whistles", etc., can be rendered completely inaudible with no apparent effect on the sound quality of music or voice, because of the extreme sharpness of the band reject characteristic. Semi-coherent sounds, such as camera noise of fluorescent fixture "buzz" can be greatly reduced.

**API "MIMIMAG" + MINIMAG II SYNCHRONIZER**



MINIMAG is the lowest priced and the smallest professional-quality synchronizer in the industry. Works with every type of multi-track machine—video or multi-channel audio, sprocketed or unsprocketed. MINIMAG synchronizes any two mag-tapes. Connects two 16-track machines to function as a single 30-track machine. Provides variable or fixed delay effects. Keeps an audio recorder in perfect sync with a VTR for audio "sweetening",

including offsets . . . synchronizes TV and stereo FM simulcasts . . . permits remote overdub recording without releasing the master tape. Automated's MINIMAG II Synchronizer employs the SMPTE Standard Time and Control Code to automatically synchronize and interlock any two multi-track tape machines . . . video or audio.

**AKG D900E SHOTGUN MICROPHONE**



A dynamic shotgun microphone with high directivity, combining gradient and interference principles. Incorporates two-position (-7 and -20 dB at 50 Hz) bass roll-off switch to eliminate effects of poor acoustics, low frequency boom rumble or wind noise. Matte charcoal gray finish renders it inconspicuous for stage or TV use. Response,  $\pm 3$  dB, 40-13,000 Hz. Sensitivity, -50 dB (200 ohms). Size: 26 1/8" x 1 1/4". Weight, 17 oz. Comes with 3-pin XLR type connector, stand adaptor and zippered bag.

**AKG D140E DYNAMIC**



The AKG D-140E is a dynamic cardioid microphone optimally designed for professional applications such as contemporary music recording or on-stage use in which grueling conditions are commonplace. It is characterized by a neutral, coloration free response. The D-140E may be used on a stand or hand-held . . . there are no grilles or ports on the shaft to cause feedback or altered response when covered. Notably, the off-axis response is uniform, and the microphone retains excellent directionality over the entire frequency range. The D-140E will also handle high sound pressure levels: 128 dB SPL with less than 1% distortion.

**NEUMANN KMS83, 84 AND 85**



These miniature condenser microphones all have the same electronics, and are dimensionally identical but utilize three different interchangeable screw-on capsules. The KM 83 is an omni-directional unit, while the KM 84 and KM 85 are both cardioids; the KM 85 incorporates a low frequency roll-off which reaches about 12 dB at 50 Hz. The KM 85 is therefore much less sensitive to low frequency interference which may be encountered outdoors or in public address applications.

**TEAC ME120**



The ME-120 is a professional quality Electret Condenser Microphone. It has extended frequency response characteristics and is especially sensitive to important transient information. For maximum flexibility there are two elements supplied. The omnidirectional pick-up pattern provides a smooth response from all surrounding sound sources. The cardioid pick-up pattern resists sound sources from the sides, and especially from the back of the mic. So it's very well suited for multiple mic applications.

**AKG D 190E LOW COST DYNAMIC**



The D-190 series is exceptionally well suited for recording applications and public address purposes. Effective directional characteristics allows the use of these microphones in acoustically unfavorable environment, to suppress reverberation. An appealing and ruggedly designed housing features an integral sintered bronze cap which prevents the disturbing effects of breath noise and protect the microphone system from dust and moisture. D-190E low impedance only. Model D-190TS may be ordered for high impedance and on-off switch operation.

**SUPERSCOPE SONY REFLECTOR PBR-400**



Features: recording range up to 200 yards; microphone stand adapter; stand adapter for tripod; hand operable. Specs: angle of acceptance—26°; improves sound sensitivity of most omnidirectional mikes 10 to 20 dB. Model No. PBR-400.

# PROFESSIONAL STUDIO/DISCO TURNTABLES AND HI-FI STEREO TURNTABLES

## QRK 12C



The QRK-Model 12C Custom Turntables are designed to provide the broadcaster, recording studio or other professional discerning user with a rugged, reliable turntable which can come up to speed in a fraction of a second, but can still operate free from rumble, wow and flutter.

- Instant Start (Full Speed in Less than 1/16th Revolution)
- Available with Either Synchronous or 4-Pole Motors
- Three Standard Speeds with "Fine" Speed Adjustments.

## NORELCO GA212A



The GA-212A electronic turntable is a unitized single-play record player. Solid state transistor circuits control and automatically maintain precise turntable speeds. The electronic brain constantly senses and continually compensates for variations in line voltage, frequency, stylus/groove friction and cleaning brush drag. A photo-electronic circuit silently switches off the GA-212A at the end of a record.

## TECHNICS SL-1200



The SL-1200's 3.86 lb. case aluminum platter, 12" in diameter, is mounted directly on the shaft of the motor. No stepped shafts, idlers, or belts are used in the system. And this explains why the turntable rotates practically without a trace of vibration, wow, or flutter. Because only a single moving part is employed, wear is practically nil, and the turntable maintains its initial performance just about indefinitely.

The SL-1200 comes with a matching high performance tonearm and impressive cast aluminum base.

## RUSSCO CUE-MASTER



- The unit is powered by a heavy duty synchronous motor or a four pole induction motor at the option of the buyer. Also available for 50 cycle operation.
- Drive system is by a neoprene idler wheel transmitting power direct from the stepped capstan on the motor shaft to the inside platter rim. • Three speeds—33, 45, 78 RPM's. • Acceleration is extremely fast, average results are 1/16 revolution of platter at 33 RPM's . . . 1/10 revolution at 45 . . . 1/2 revolution at 78. • Oilite bronze bearings throughout for longer maintenance free service. • Chassis adaptable to any 12" tone arm. • Chassis dimensions: 15-1/2 by 15-1/2 inches. • Depth requirements below chassis: 6-1/2 inches.

## THORENS TD125



Thorens offers meticulous Swiss quality and precision combined with innovation in design. The TD-125 is the newest and most refined three-speed manual turntable to come from Thorens. No-compromise refinements and an exhaustive quality control have produced a transcription turntable with less rumble than any other turntable on the market. **FEATURES:** • Solid state circuitry • Wein Bridge speed • 16-Pole synchronous motor • Tonearm and Drive System are isolated for shock • Anti-magnetic die-case platter is dynamically balanced • Interchangeable Tonearm Mounting Board • Three years warranty.

## STANTON GYROPOISE 8004 II



It's the important exclusive features that make the difference. Only Stanton Turntables have GyroPoise®, the patented frictionless magnetic suspension bearing—the platter makes no vertical contact with the body of the structure. This isolation eliminates vertical rumble and Unipoise®, the patented single point tone arm suspension. The arm is supported by a single pivot for both lateral and vertical movement. Also features viscous damped cueing control for featherlight lowering of stylus.

# PROFESSIONAL BROADCAST/STUDIO TONEARMS AND SOLID STATE STEREO PREAMP

## REKOKUT S-320



Exceeds critical requirements of ultra-high compliance cartridges. Tracks at 1 gram or less. Tubular aluminum has friction-free vertical movement: Omni-Balance for perfect lateral action. Plug-in die-cast shell takes any cartridge; has open front and 4-wire lugs; twist-lock attachment. Vertical 1" height adjustment. Tracking error under 1" Trdonance. 9-12 Hz depending on cartridge. Lowest possible hum with 100% shielding. Color-coded cables with phone plugs for each channel; spade lug ground connection.

## SHURE M-232



High quality, rugged, simple arm for tracking at 1-1/2 grams or higher. Full range of adjustments for static and dynamic balance, cartridge overhang, arm height, etc. Direct reading tracking force scale. Twist-to-lock head accommodates any stereo or mono cartridge. A real "workhorse" that takes abuse. Simple mounting through a single hole from the top of the table; plug-in cable. Model M-232 is for 12" turntables; Model M-236 for 16" turntables.

## RAMKO SP-80



Sensitivity makes these two preamps the best available. Many preamps on the market are not sensitive enough for today's Hi-Z, low output pickups. Many pickups are specified at around 1-3 MV at 1 kHz while current preamps may require as much as 11-12 MV for normal output. Don't worry about it. Ours delivers a full +4 dBm into 600 ohms with as little as 0.5 MV. In addition, sensitivity is internally adjustable for any cartridge. MP-8D, Mono: SP-8D, Stereo or Dual Mono.

# METEOR DISCOTEQUE LIGHTING AND SPECIAL EFFECT COMPONENTS

## AUDIO CONTROLLER



A three channel, 2000 watts per channel, all solid state electronic controller which produces a variety of different effects with or, without, sound. (1000 watts per channel @ 115v). Channel Selector: enables you to select out individual channels for any mode; Dimmer: sets the static light level on all, or individual channels; Audio Sync: music is separated into it's three basic frequencies (Base, Middle and Treble) and converted into light reaction on each channel; Audio Chase: each channel switches to the next in a chase sequence in response to the music.

## FLIP-FLOP CONTROLLER



A two channel all solid state unit which will pulsate suitably modified twin fluorescents and pairs of strobes in the same installation. Selector: enables selection of the fittings to be pulsated: Fluorescents—Alternate strobes—All strobes. In the first two of these settings, as the name of the unit implies, each tube or strobe is flashed alternately;

## TENWAY CHASER



A ten channel, 1000 watts per channel, all solid state sequential switching device which is sound triggered or operator managed by an adjustable speed control. Ten channels are used so that an actual trace is achieved, not possible with fewer channels. Run: sequential chase at a constant speed; Sound: sequential chase in response to music; Skip: this facility automatically and continuously reverses the direction.

## METEOR 100 EFFECT PROJECTOR



The first truly professional effects projector will find wide approval with architects and designers for environmental decor lighting. 24 basic interchangeable cassette effects to choose from—can be changed in seconds; one piece effects slide in and out of side slot. As easy to change as slot stereo cassettes; clip-on-prism lenses; the Meteor 100 has these main features: 2000 hour lamp life—in standard model; easy lamp change; fits lighting track; choice of lens.

**MOST COMPLETE SOURCE FOR THE PROFESSIONAL TRADE!**

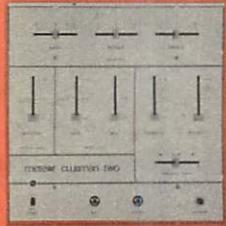
## PROFESSIONAL DISCOTEQUE EQUIPMENT

### BOZAK CMA-10-2DL DISCO MIXER



Model CMA-10-2D is a very versatile, simplified for professional reproduction of both live and recorded stereo programs, and a discoteque operation. The unit has 4 stereo inputs: Two are low-level phono equalized for magnetic cartridges; two are high-level high-impedance for tape deck, tuner, etc. Each has its own level (fader) and balance controls. Two mono inputs are provided, for use with either low- or high-impedance microphones and are switchable to left or right, or both output channels. Since the mixer is modular, the input characteristics can easily be adapted to special needs by use of three types of input cards.

### METEOR CLUBMAN 2 DISCO MIXER



This stereo mixer pre-amp has all the features needed for professional discoteque or broadcast applications with bass, middle, and treble sliders giving a full 12 dB's cut or lift plus a master gain control to set the overall system level. Twin phono inputs with individual slide faders enable mixing and cross-fading between records. Separate mike and tape inputs are standard. The headphone output is controlled through a cue fader enabling the cueing of one table while the other is being played. A talkover button is provided which reduces the music level approximately 24 dB's. The music level is reduced and reset smoothly via an auto fader unit.

### ALL-TEST ATD-25 PHONO-PRE-AMP



The ATD-25 ensures extremely low distortion and noise, combined with a very flat frequency response to provide neutral, uncolored sound with superb definition. Bass reproduction is clean and deep without any false muddiness. High frequency are smooth and open without harshness. Designed to amplify magnetic phono cartridge signals to a level which will drive the high level inputs of any stereo preamplifier, integrated amplifier or receiver, the ATD-25 employs conservatively operated high quality parts throughout. In discoteques as turntable pre-amp. The extremely high playback levels of disco systems necessitate the use of very low noise and low distortion sound reproduction equipment. The ATD-25 fits the bill.

### BOSE 800 PROFESSIONAL DISCO SPEAKER



A crisp, clear, natural sound and incredible power-handling capability have been packaged in a unique and unusually rugged enclosure: a combination cabinet-carrying-case-shipping-trunk. This system is protected by durable metal corners and hard fibre edges. Connection is made through a special airtight phone jack, protected by a weather-resisting cover.

### COMMUNITY LIGHT AND SOUND PBL DISCO SPEAKER



PBL: The PBL, with its 15" speaker, EQ500 HF horn, and large ducted port, is a compact full range cabinet with solid response down to 45 Hz and particularly good projection in the upper mid and high frequency ranges. Although its efficiency is a few dB below that of our large bass horns, the PBL is still several dB more efficient than conventional wooden cabinets, making it a perfect choice for discoteque applications.

### CERWIN VEGA V-30/V-34 DISCO SPEAKER



A popular speaker system for discoteque and public address applications. The rugged 30A speaker enclosures house an ultra efficient extended range, horn loaded, fifteen inch driver and a mid-range/high frequency horn driver assemble. Able to produce a sound level of 128 dB @ 4 ft. makes the V-30A and V-34 an ideal system. V-30A: 150W RMS; 60-16000 Hz; 153 EM woofer, HF-91 horn; 45-V x 70-H; 30 x 24 x 16; 4-8-16 ohms. V-34 300W RMS; 50-20000 Hz; 158EM woofer, cast mid horn w/MF-50 driver, (2) PZ-1 tweeters; 45-V x 70-H; 30 x 24 x 16; 8-16 ohms.

## SEMI-PROFESSIONAL AUDIO ACCESSORIES

### TEAC AN180 + AN300 DOLBY



The TEAC AN-180 is a simultaneous record playback control center incorporating the Dolby "B" type noise reduction system. Built-in mike and line pre-amplifiers maintain mixing capability or add this capability to recorders not already possessing it. Large professional type VU meters serve a dual purpose, as calibration meters for the Dolby level setting or playback.

The AN-300 is built around 4 separate Dolby-B Professional-type circuit cards which are used for either Playback or Record. Each of the 4 channels has its own large, easy-to-read, expanded-scale VU meter. The channels are controlled in pairs with the "Front" two channels operated simultaneously and apart from the paired "Rear" channels. Each channel has its own calibration control and VU meter.

### PANDORA LM401 COMPRESSOR/LIMITER



The PANDORA UNIVERSAL LIMITER is a state of the art F.E.T. type compressor designed and packaged to interface with any recording equipment. Specifically the High-Z, low level machines and consoles so prevalent today. Internal line operated power supply and rugged attractive housing allow the PANDORA UNIVERSAL LIMITER to be placed anywhere and used with virtually any system.

### DBX 120 SERIES NOISE REDUCTION SYSTEMS



The dbx 120 series of audiophile noise reduction systems is designed for use with any reel-to-reel, cassette or cartridge tape recorder of reasonably good quality. For tape dubbing and duplication and recording off the air, the dbx system is normally connected to the tape monitor inputs and outputs of the audio system preamp or receiver. The noise reduction system allows the input signal to be reproduced with full dynamic range while effecting a 30 dB reduction of noise contributed by the tape recording process. An additional feature of the 120 series is its ability to reproduce dbx encoded discs. 122 features two channel record or playback. 124 features four channel record or playback.

### SHURE M-64 LOW COST, STEREO PRE-AMP



The Model M64 is a low-cost, versatile, compact, low noise and low distortion stereo preamplifier that provides gain, equalization, and choice of impedances and levels to solve an unusually broad variety of preamplification and equalization problems. Silicon transistor circuitry, easy permanent-mount installation. Converts phonos to accept magnetic cartridges—Equalizes and amplifies tape decks—Boosts microphone output.

### CROWN OC-150 CONTROL CENTER



The Crown OC-150 supplies a number of useful system functions selected to provide increased system flexibility for the sophisticated audio user. These functions include output monitoring capabilities supplied by two 3-1/3" meters, speaker switching for 3 sets of speakers, and two variable-pad headphone jacks. The total combination of functions can be used in numerous applications. The meters can be used in either of two measuring modes, in any of five full-scale ranges. The more common meter action shows average signal levels, and roughly corresponds to the action of a tape recorder VU meter. The second type of meter action, the peak-catching mode, detects and stores signal peaks electronically, so that the meter action can respond to actual peaks and does not suffer from inaccuracy due to ballistic limitations.

### TG 2209-600 EQUALIZER



The new TG2209-600 utilizes four Light-Emitting-Diodes to provide a visual front panel display for balancing input to output signal ratios. Other features include two completely separate ten-octave equalization panels, with plus or minus 12 dB boost and cut provided individually for each octave. Separate equalized signal zero-gain controls are used for each channel, enabling exact balancing of input to output with a plus 6 dB and minus 12 dB range. For precise balancing, Light-Emitting-Diodes are used in conjunction with the zero gain level controls so that visual as well as audible balancing can be accomplished quickly and easily. Low cost 20-12 also available.

MARTIN DESIGNS, SUPPLIES AND INSTALLS THE FINEST AUDIO STUDIOS IN THE EAST.  
HIGHEST QUALITY WORKMANSHIP, TOP COMPONENTS, LOWEST COSTS.

# TELEX

## MODEL 300 TAPE DUPLICATING SYSTEM



Modular design allows mixing of components for cassette to cassette, reel to cassette, reel to reel or even cassette to reel tape duplication. Two speed hysteresis synchronous motor drive, open reel master 15 and 30 ips, other transports 7-1/2 and 15 ips. Solid state plug-in electronics. Available for various track, channel and power requirements.

## TELEX CASSETTE COPIER I



Desk top cassette copier for use by non-technical personnel. Simple two button operation (Rewind & Copy) with track selector for copying track 1 or track 2 or both. Add-on capabilities. Automatically turns on with insertion of original cassette, automatic rewind after copying is completed and automatically shuts off when original cassette is removed. Duplicating speed—30 ips, rewind speed—60 ips. Companion slave available.

## TELEX FOUR CHANNEL CASSETTE COPIER



Fast, convenient, easy to use. The Copier IV makes one copy with add-on capabilities for up to 5 copies simultaneously. Inserting or removing master cassette turns the unit on and off. Automatic rewind after copying is completed. Bias Select for normal or CrO<sub>2</sub> tapes. Individual track selectors allow any combination of channels to be copied. Lighted Copy and Rewind buttons. Duplicating speed—20 ips, rewind speed—60 ips.

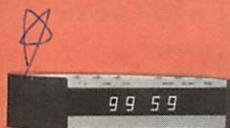
## TELEX CONTROL CENTER MODEL 828



The Control Center Model 828 is a two channel system for simultaneous and sequential operation of a variety of audio visual equipment by means of a wireless, hand-held remote transmitter. Function indicator lights display the selected operating mode. Self-contained in a portable case, the Control Center is conveniently set up in minutes.

## ELECTRONIC TIMERS

### ESE ES300 ELECTRONIC CLOCKS



A four digit, one hundred minute timer (99:59) with six controls: Count Up, Count Down, Stop, Minutes Advance, Seconds Advance, Reset. Controls are single pole, momentary, push-button switches. Minutes and seconds can be advanced simultaneously or independently in order to pre-set for a specified countdown. This preset time will be automatically held until the timer is started. Counting can be activated up or down from that point or set back to zero. When "Stop" control is pressed, the four digit display is held. Counting direction (up or down) can be changed or time can be reset to zero without stopping the count. It will continue to register elapsed time beyond the zero setting unless stopped.

### CRONUS ELECTRONIC TIMERS



**Accuracy.** A high precision, quartz crystal movement accurate to 0.001% (equivalent to losing or gaining one minute a year) guarantees the most accurate readings available today, time after time. **Readability.** No more chance of inaccurate readings or fooling with hairline sweep hands or flea-sized numbers. You get bright, digital readouts to the hundredth of a second. **Instantly Measuring Range.** Cronus gives you the broadest timing range available in stop-watches today, mechanical or electronic. Range to a full 24 hours with the Cronus 1. To 60 minutes with the Cronus 2. And to world-record specifications—to the hundredth of a second—with both.

## LEADER PROFESSIONAL TEST EQUIPMENT

### LBO-552 5" HORIZONTAL, DUAL CHANNEL, DUAL TRACE OSCILLOSCOPE with simultaneous left/right wave form display



A solid state Leader achievement that makes audio testing and general purpose measurements easier than ever. This fine quality, 20 mVp-p/cm sensitivity, dual channel instrument lets you view two independent signals, simultaneously and side by side on a bright CRT display. Features: • Left & right, side by side, simultaneous wave form display • Ideal for testing stereo separation, amplifier output characteristics, amplifier gain and frequency response • 2 separate vertical gain controls for independent and joint operation • 0.1 Vp-p vertical calibration on line frequency for amplitude correlation • Single channel display for conventional testing.

### LBO-302 3" SOLID STATE, DUAL TRACE SCOPE



**Features:** • Push button controls for triggered and automatic sweep • Push button control of free run momentary function to determine existence of trace in the triggered mode • AC or DC coupling on each channel • Bandwidth DC to 10 MHz • 10 mVp-p/div. to 5 Vp-p/div. vertical sensitivity in 9 calibrated steps • Separate or simultaneous sweep mode displays of ch. 1 and 2—alternating, chopped, algebraically added and (X-Y) vector • Polarity inversion on channel 2 for fast, easy trace identification • Sweep range from 1 μs/div. to 0.2 μs/div., 17 steps calibrated • X5 sweep mag—0.2 μs/div., max. speed = 1 M shunted by 40 pfd. input impedance • 600 V max input voltage.

### DUAL CHANNEL OSCILLOSCOPE LAV-190 WIDE BAND AUDIO ANALYZER with audio generator, attenuator — AC millivolt



Now Leader gives you an easy, accurate way to test audio equipment more efficiently! This versatile, multi-purpose audio tester delivers three-in-one convenience for performance checking. It's designed and constructed to state-of-the-art precision. Features: • Switchable, dual impedance matching network • 10 Hz to 1 MHz sinewave audio generator freq. range • Continuously variable attenuator • 150 μV to 500 V AC millivolt meter scale • Compact, lightweight, consumes only 7 VA.

### LAG-120 SINE/SQUARE WAVE AUDIO GENERATOR



An invaluable tool for testing sensitive high fidelity equipment/products. On the work bench, or at the experimenters table, this new arrival has lots of great applications and Leader's built-in durability to go with it. Features: • 10 Hz-1 MHz range; 5 steps • Push button operation for switching frequency ranges • Built-in 20 dB attenuator • 0.1% Distortion • External Triggering through use of terminals • Compact, portable, lightweight.

### LMV-87A SOLID STATE AC MILLIVOLT METER



The LMV-87A measures the output, hum and noise of phono cartridges and tape heads. It checks voltage output from 100 μV to 300 V. Use it to test amps or pre-amps. Or, it can serve as a wideband pre-amp for oscilloscopes. Other features include a minimal loading effect because of the 10 M Ω input impedance. A precision regulated DC power supply assures complete stability. Minimal sensitivity is 100 μV. Features: • Wide frequency range—10 Hz to 1 MHz • Decibel calibration for 0 dB=1 mW into 600 ohms. (1 volt reference level) • High reliability assured by silicon transistors.

### LCG-395A SOLID STATE VIDEO COLOR SIGNAL SOURCE



Here's an exciting first in a video color signal source from Leader that delivers a broad range of absolute capabilities for testing, servicing and maintaining CATV, MATV, CCTV, VTR and the most advanced NTSC color receivers. The design concept utilizes Leader's highly sophisticated binary clock, digital integrated circuitry to simultaneously generate: a complete rainbow spectrum; plus 10 precise gated rainbow patterns; plus 3 gated color bar patterns for 90°, 180° and 270° measurements. What is more, the LCG-395A segments this information with a 5-step, staircase, modulation level signal; and window, convergence and white purity raster adjustment facilities.

# PRO SHOP MAINTENANCE PRODUCTS AND SUPPLIES

## AUTHORIZED FACTORY REPLACEMENT PARTS



Full compliment of replacement parts for AMPEX, SCULLY/METROTEC, 3M MINCOM, ELECTRO SOUND Recorders, AUDITRONICS, TASCAM, UREI Consoles, AMPEX, JVC & SONY Video Equipment, TELEX Duplicators and SHURE Mixer Parts.

## ADC PATCH BAYS AND CORDS



Here's the most complete assortment of Jack panels available. Single, double and triple-row panels, all manufactured with the conventional number and layout of jacks for standard telephone and telecommunication applications.

ADC Jack Panels are molded of tough phenolic plastic and then reinforced with steel. The result is an exceptionally strong and rigid panel. Strong enough, in fact, to carry as many as 7/8 jacks in the triple-row configuration. Panels are designed to fit standard 19 and 23-inch relay racks. Complete

stock ADC & SWITCHCRAFT Standard and Miniature Bays, Jacks & Cords. Complete stock ADC & TRIMM Pine Tree Blocks. Many CURTIS, JONES & KUKLA Barrier Strips.

## SWITCHCRAFT AUDIO CONNECTORS



Switchcraft "Quick-Ground" \* 3, 4, 5 and 6 contact quality audio connectors with exclusive "Ground Terminal" and "Ground Contractors" are available in a wide range of plugs and receptacles—at competitive prices! These connectors have been field proven in a wide variety of critical applications, such as: microphones, test equipment, instrumentation, computers, cameras, tape recorders, stereo and hi-fi equipment and many others.

Complete SWITCHCRAFT & ADC lines, plus CANNON XLR's, ELCO Multi Pin Conns, AMPHENOL UHF's, BNC's 83's, 120's and 126, 143's Blue Ribbons, JERROLD "F" Connectors & Adapters. Many popular CINCH JONES & MOLEX types. POMONA, Banana Plugs, HUBBEL Power Connectors.

## STUDIO CABLE



Martin offers a complete line of Communications Cables to provide customers with the best all-around cable for every application requirement. Cables are available in a wide range of sizes, dimensions, shielding constructions and types of insulation. All Communications Cables are designed to protect the desired signal by eliminating or minimizing the interference of hum, noise and cross talk.

BELDEN Mic Cable, RG 59 U & Multi Conductor, BELDEN & MANHATTAN Foil Shielded Audio Cable and Multi Pair individually shielded cables up to 31 pairs. Two (2) conductor Rubber & Plastic Cable up to twelve (12) gauge. Hook up wire & bus bar SUPREME Zip conductors.

## NORTRONIC REPLACEMENT HEADS



WORLD'S LEADER IN MAGNETIC TAPE HEADS NORTRONICS magnetic heads are designed to offer the highest quality performance and long dependable service. Fine laminated, precision-lapped, low loss core structures—deposited quartz gaps, resulting in exceptionally clean sharp gap edges—hyperbolic face contours for intimate tape-to-gap contact without the need for pressure pads, but designed to allow use with pressure oxide build-up and the need for frequent head cleaning, PROFESSIONAL heads in the 9000 Series are designed

with wider poles for increased frequency response, and deeper gaps for extended wear life. Record/Play heads with Alfenol cores are available for high-speed duplicating performance. Erase heads with Ferrite cores are available for increased efficiency and longer wear life. Also introduced in the 9000 Series are 2, 4, 8, 12, and 16 Channel Studio heads for 1/2-inch to 2-inch tapes.

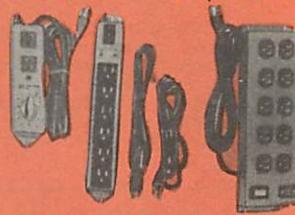
## REPLACEMENT SPEAKERS AND DIAPHRAGMS FOR SOUND REINFORCEMENT, STUDIOS AND MUSICAL INSTRUMENTS



A "IN DEPTH" LINE OF JBL and ALTEC speakers and DIAPHRAGMS and UTAH replacement speakers.

FOR YOUR IMMEDIATE REPLACEMENT NEEDS

## WABER POWER CORDS AND STRIPS



WABER outlet boxes, strips and panels. BELDEN power cords.

## PREMIER METAL CABINETS



Premier modular Enclosure Systems offer maximum flexibility, adaptability, and esthetic value requirements in electrical and electro-mechanical fields. The range of standard units of various width, depths, heights and shapes available offers a full variety of combinations and configurations necessary to meet the space and human engineering customized requirements for enclosure systems used in modern packaging. There are distinct advantages in using the Premier Modular Systems: "In house" costs for development and design

requirements are drastically reduced, standardized production economies are realized, and delivery schedules are considerably faster. Modifications available for Premier Modular units offer additional adaptability for "special" requirements. Full line of PREMIER DCR, R, RR, TR, TUN series in stock plus many Trim Line units.

## PROFESSIONAL LEADER TEST EQUIPMENT AND POWER SUPPLIES



RB ANNIS magnamometer. TENDEL Tension Gauges, SCOTT Sound Level Meters, DBX AC Millivolt Meters, BHK Flutter Meters, XEDIT Cable Testers, TELEX Duplicator Test Jigs. ACCOPIAN & POWERMATE Modular & Card supplies.

## DUNCAN LOW COST SLIDERS



With its new Series 300 Duncan Electronics replaces noisy, rough and "grainy" wire wound elements with silken smooth, noise-free RESOLON® conductive plastic which actually improves with use!

RESOLON has a 6-year history of failure-free performance. Typical field reports shown operational life exceeding 50 million revolutions with no degradation!

Controls are now available for broadcast, and recording. Offered in 6 different stroke lengths, its RESOLON element provides continuously variable, stepless attenuation over the full range.

## NORTRONICS QM-202 PROFESSIONAL HEAD DEMAGNETIZER



Another industry exclusive by Nortronics. For use on all reel-to-reel, cassette and 8-track cartridge recorders. Generates magnetic field from a flexible probe tip that reaches into tight spaces to remove residual magnetism from heads, guides and other metallic parts. Quality leaf switch activates with fingertip pressure and de-activates when unit is put down. Burnout proof. Features an attractive Cycloac case and convenient AC power cord. Probe tip is covered with a soft plastic that cannot scratch or damage sensitive head faces. Operates on 110-120 VAC, 50-60 Hz.

## WELLER BATTERY OPERATED SOLDER IRONS



AN IDEAL TOOL FOR ...

- Field Servicemen
- Plant Maintenance
- Engineering Laboratories

TO OPERATE:

Depress pushbutton to operate; Work Light and Pilot Light only operate when pushbutton is depressed. Soldering Temperature is reached in about 5 seconds.

When the "ISO-TIP" operating button is pressed, the tip heats to over 700°F. almost immediately.

# PROFESSIONAL STUDIO ACCESSORIES AND SPECIALTY ITEMS

## EDIT-ALL SPLICE BLOCKS



**Brushed Aluminum Splicing Blocks**  
Used in all EDITall Kits, the EDITall splicing blocks are manufactured so precisely that tape manufacturers often use them to check for proper tape width. The groove in the block has tiny protruding dovetails in its sides. This automatically centers and holds tape for correct splicing.

- S-1 For .150" audio tape.
- S-2 For 1/4" audio tape. Fits on compact machines.
- S-3 For 1/4" audio tape on console machines.
- S-3.5 For 1/2" audio tape.

## ROBINS TM-99 ECONOMICAL ERASER



**Heavy Duty Professional UL Listed Bulk Tape Eraser**

Erases entire reel of tape in seconds. Removes recorded and unwanted signals. Reduces background noise levels of tape from 3 to 6 dB below normal erase head level. Easy operation—tapes are erased by simply placing reel on spindle and rotating. For reels up to 10-1/2" dia., tapes to 1/2" wide. Size: 5-1/4" x 6-3/4" x 3-3/4". Operation: 110-120 volts, 5 amps, 50-60 Hz A.C. Erases audio, video, computer, and cartridge tape.

## XEDIT 2" SPLICE BLOCK



- Small holding ridges will not crimp
- Small holding ridges will not crimp the tape when it is removed
  - Razor blade fits snugly—makes a straight, neat cut
  - Tough, aluminum alloy with clear, anodized finish
  - Custom matched to extremely close tolerances
  - Cork-backing—no slippage
  - 7" x 3" x 3/4"

## SHURE IN-LINE ADAPTERS



Solve sound problems without time-consuming re-wiring! Shure "In-Line" microphone attenuators, equalizers and adapters are perfect for quick corrections and modifications in response and performance of microphones and sound systems. They plug in of Shure Plug-In Problem Solvers is so low that you can afford to keep them handy for all installations and applications.

**SPECIFICATIONS**  
Connectors: Designed to mate with Cannon XL series, Switchcraft A3 series or equivalent.

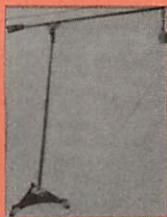
## ALIGNMENT TAPES AND ALIGNMENT TOOLS



MRL Test Tapes are made to new, higher specifications, and designed specifically for use in the set-up and calibration of professional tape recording equipment. This is achieved by securing absolute measurement and control of the basic mechanical, electromagnetic, and electronic parameters during production of the test tape, and by understanding and appreciating the professional user's exacting requirements. Each MRL test tape is an original recording, individually inspected and serialized. MRL test Tapes offer improved performance—and save you

time and money because—you will have confidence in the accuracy. Each tape is individually calibrated during manufacturer and accompanied by test results and certification. MRL, STL and AMPEX 1/4" to 2" tapes, STL, TELEX & NORTRONICS Cassettes & Broadcast Cartridges. General Cement Alignment Tools.

## ATLAS BS-36W BOOM STAND



Professional Boom Stand. Grip-action clutch with integral air suspension system to counterbalance boom weight. 5/8" - 27" threaded gromatic swivel joint at microphone end permits directional positioning of microphone. Boom length 62". Adjustable vertical height from 48" to 72". All tube sections chrome plated. 17" dia. triangular base with concave sides, charcoal wrinkle with chrome cover. Furnished with cable hangers for guiding mike cable and rubber casters for mobility. Shipping weight 40 lbs. Complete line of Atlas accessories, in stock.

## AUDIO LAB TD-2 + TD-1A PROFESSIONAL BULK ERASER



- **TD-2 Deluxe Bulk Eraser**
- Erases tape reels up to 14 inches in diameter and 2-1/2 inches wide.
- Built in timer has adjustable "ON" cycle and automatic shut-off.
- Efficient "ferro-tune" design assures strongest degaussing field.
- Built in blower makes normal continuous service cool and quiet.
- Tapes may be erased in original carton by sliding along guide rail.
- Standard 5/16 inch center post and 3 inch NAB hub supplied.
- Designed for radio, television, computer and audio-visual tapes.
- **TD-1A Low Cost Bulk Eraser**
- Erases audio, video, computer, data tape, magnetic films, cartridges and cassettes.
- With a simple two pass operation for broadcast NAB audio cartridges.
- Accommodates up to 10-1/2" NAB reels up to 1/2".

## TENTEL TAPE TENSION GAUGE



TENTEL'S hand-held mechanical Tape Tension Gage provides accurate tension readings never before available by mechanical means. The virtually frictionless mechanism\* provides excellent static and dynamic response on tape widths ranging from 1/8" to 1" (1" to 2" available as an option).

**PRECISION TOOL FOR AUDIO AND VIDEO TAPE RECORDERS.**

## ANNIS POCKET MAGNETOMETER



RESIDUAL MAGNETISM in steel parts may be readily determined in a few seconds time by checking with an Annis Pocket Magnetometer. Place the lower (test) edge of the Magnetometer Case near or against the object being tested. The Pointer Instantly Deflects to a reading on the scale proportional to the magnetism in the object at that point. The higher the reading the stronger the magnetic field. This reading can be compared directly with that produced by other similar objects which are known to be acceptable from a residual magnetism standpoint. Are your parts satisfactorily demagnetized?

## ELECTRO-SOUND REPLACEMENT IDLER



Electro-Sound's New Capstan Idler Assembly Replaces Most Capstan Idlers on Professional 1/4" and 1/2" Tape Machines. Once you've installed the new Electro-Sound Capstan Idler you only replace the Tire-assembly when it wears down; and at a low cost of only \$8.50.

## AUDITRONICS TELEPHONE ADAPTER



AUDITRONICS Tape to Telephone Record/Play adaptor Model TA-1 is designed to facilitate tape recording from a conventional telephone line. Also, recorded material may be played through the adaptor into the same telephone line. A simple two-wire connection is made between any ordinary telephone and the adaptor. One connection to recorder line-in and a second from recorder line-out, or speaker/headphone output, completes the hookup. (3-1/2 foot cables supplied)

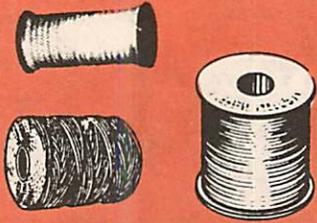
## ALERTLITE - WARNING LIGHTS



Uses standard incandescent bulbs available locally, 7-1/2 watts to 100 watts, any color. Color and brightness changes are as quick and simple as screwing in a light bulb. Lamp is white until bulb is turned on, then the lamp changes to the bulb color inside. Lettering appears when light is turned on. May be mounted in any direction. Surface mounting for easy installation. Requires no large wall cut-outs which could decrease studio wall sound isolation and wall insulation. Optional flashing operation may be included within housing.

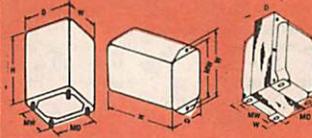
# FACTORY REPLACEMENT PARTS AND BASIC CONSTRUCTION MATERIALS

## WIRING MATERIALS



We stock PANDUIT lugs, cable ties and ducting, BRADY wire markers, ALPHA shrink tubing, BIRNBACH lacing cord.

## TRANSFORMERS



Many popular UTC, MICROTRAN, ADC, TRIAD, HAMMOND, SESCOM & BEYER, Audio types. Call us when you have an unusual requirement. SHURE, SESCO and TASCAM plug in input transformers. TODD Isolation & Auto transformers.

## FUSES AND LAMP ASSEMBLIES



Complete BUSSMAN line of fuses & holders. Complete line of CHICAGO MINIATURE & DRAKE lamps plus many other specials used in Studio Equipment.

## TOOLS AND CHASSIS PUNCHES CHEMICALS AND BATTERIES



XELITE, GENERAL CEMENT Tools and GREENLEE Chasis Punches. Complete line of GENERAL CEMENT Chemicals plus some MILLER STEPHENSON items. Complete line of popular MALLORY studio and professional batteries.

## POTENTIOMETERS



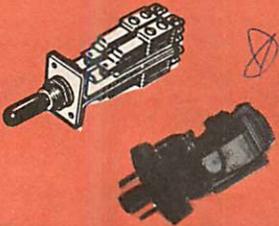
DUNCAN, AUDIO DESIGNS, API, AUDITRONICS and CETEC (LANGVIN) Sliders, ALTEC & ALLEN BRADLEY Rotary pots.

## KNOBS AND HARDWARE



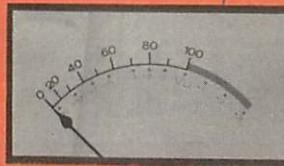
Many ROGAN, SMITH, DAVIES, NATIONAL & RATHEON Knobs. Complete line of GENERAL CEMENT hardware plus many hard to find items in USECO, KEYSTONE, SMITH, etc . . .

## RELAYS AND SWITCHES



Most popular POTTER & BRUMFIELD & ALLIED control types used in recorders & consoles. SWITCHCRAFT Push Buttons & Lever Switches. ALCO & JBT Miniature Toggle, CENTRALAB & MALLORY Rotaries, LICON Push Buttons. JBT & CUTLER HAMMER Toggle Switches.

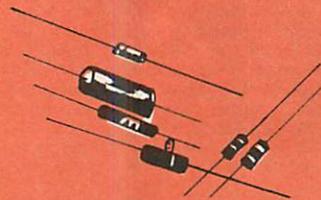
## V.U. METERS



Many popular types: DIXON, WESTON, MODUTEC, API.

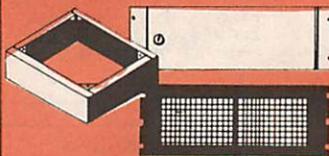


## CAPACITORS AND RESISTORS



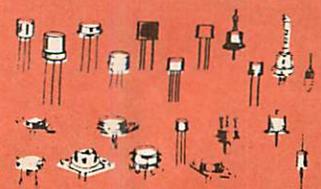
Low voltage papers, Mylars & Electrolyte capacitors. Full line 1/4 & 1/2 Watt 5%, 1 & 2 Watt 10% resistors. Many low value power resistors.

## CHASSIS AND PANELS



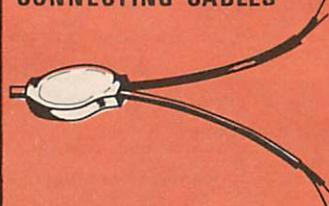
PREMIER AND LMB Aluminum Chassis & Mini Boxes PAC, AC, CB, TCB, ACH & PMC series in stock. Blank Rack Panels PREMIER ARP, MAP, FP and SHP.

## SEMI-CONDUCTORS



Many popular JETEC numbers. Plus all specials used in AMPEX, 3M, SCULLY, UREI, AUDITRONICS, and SONY & JVC Video Equipment.

## CONNECTING CABLES



Complete line of BARKER, GOTHAM AKG & SESCO prewired cables, all configurations and lengths. POMONA test and video cables.

# SEMI-PROFESSIONAL STEREO, QUAD AND 8 TRACK RECORDERS

## REVOX A-77 MK III



Operating elements systematically laid out and functionally grouped • Feather-touch push buttons (relay controlled) for all transport functions • All functions can be remote controlled (optional) • Accurately calibrated VU meters with special lights to indicate record mode • Dual inputs for front or rear microphone connection plus switchable choice of matching impedance either high or low • Professional three-head design for on/off tape monitoring as well as provision for mixing, multi-track and echo effects • Reel motor defeat switch for manual reel handling during editing • 10-1/2" reels for longer uninterrupted recording time • Exceptionally smooth fast forward and rewind speeds thanks to professional three motor design and servo braking system • Headphone monitoring available on front panel with stereo balance and volume control • Selectable tension for large or small spool operation • Available with 7-1/2 and 15 ips and with Dolby.

## A-700 STEREO RECORDERS



7-1/2-15 and can be externally controlled from 2-1/2 ips to 22-1/2 ips. • Plug-In Head Block. With position for fourth head. • Four Input Mixing. With master record control. • Two Custom LSI's. Allowing the design and use of sophisticated control logic. • Balanced Mic Inputs. Avoids induced noise on mic lines. • Solid State Switching to Motors and Solenoids. Avoids relay contact problems.

**FEATURES:** • Crystal Controlled Servo A/C Capstan Motor. Operating in both velocity and phase lock modes; maximum deviation .01%. • Electronic Tape Tension. Operating during wind/play/and stop sequence. Tape is under complete control regardless of relative spool sizes or weights. • Tape Timer. Reads out in minutes and seconds. • LSI Logic Control. For foolproof operation of transport functions. • Motion Sensing. No delay going from wind to play. • Peak and VU Indication. For exact control of tape modulation. • 3 Speeds. 3-3/4-7-1/2-15 and can be externally controlled from 2-1/2 ips to 22-1/2 ips. • Plug-In Head Block. With position for fourth head. • Four Input Mixing. With master record control. • Two Custom LSI's. Allowing the design and use of sophisticated control logic. • Balanced Mic Inputs. Avoids induced noise on mic lines. • Solid State Switching to Motors and Solenoids. Avoids relay contact problems.

## DOKORDER 8140 LOW COST QUAD RECORDER



Multi-track recording at a moderate price. That's the 8140. Four channel or two channel, recording or playback, overdub, quadraphonic, sound-on-sound, echo... everything you need.

**FEATURES:**

- 4-track, Multi-sync Recording
- Molybdenum Heads with Original Owner Lifetime Guarantee
- Three Motor Solenoid-Controlled Transport Adjustable Tape Equalization
- Switchable Tape/Source Monitoring
- Instantaneous Pause With Locking Feature
- Separate Input/Output Controls
- MIC/LINE Mixing
- Large, Illuminated Meters
- Electronic Echo and Sound-on-Sound

## TASCAM 8 TRACK LOW COST RECORDER



The common denominator in every model with the Series 70 is the tape transport. It is ruggedly made from precision tooling and designed for exacting performance and smooth, constant tape handling. All the essential features of a fine recording instrument have been incorporated:

- A spill-proof logic circuit (remote controllable). There is a fixed time delay that may be adjusted or defeat.
- Two heavy duty 6-pole constant torque motors.
- Plug in relays • Precision indirect capstan drive with a 2-speed hysteresis synchronous motor. The standard speed selections are 15-7-1/2 ips or 7-1/2 - 3-3/4 ips.
- A high inertia flutter filter.
- A low friction scrape flutter roller.
- Complete cue and edit system • Plug-in head nests for professional maintenance. (Conversions from 1/2" to 1/4" formats are not recommended.

ALSO AVAILABLE IN 2-4 TRACK VERSIONS

## TANDBERG 10XD STEREO



This is The Super Silencer: Combined Tandberg Crossfield recording technique and Dolby\* noise reduction system. • For up to 10-1/2" spools • 3 motors • 3 speeds: 15, 7-1/2 and 3-3/4 ips • Electronic speed control (servosystem with a tachometer wheel) • Electric speed selector—no mechanic parts • Electronic control of operating functions • Balanced microphone inputs • Mixing in stereo • Peak level meters • Photo-electric stop • Remote control facility • Can be used with separate HI-FI stereo amplifier • Front output for stereo headphones.

## TEAC A3300S STEREO RECORDER WITH REMOTE CONTROL



From the large 10-1/2" reel capacity, to the glittering array of controls, the A3300S looks as professional as it handles and sounds. Three motors—for improved tape stability, and three heads for tape monitoring, better response, sound on sound capability—are only some of the reasons why this instrument is ideal for the serious recordist. There's also the convenience of total remote control capability. Total push button transport control with logic circuitry facilitates changes in tape mode. Separate bias, eq switches, for using either standard or high energy tape. Dual, professional type VU meters. Pause control with indicator light. Separate mic/line level controls. Tape/source monitor switch. Four-digit resettable tape counter. Stereo headphone jacks. Walnut side panels. (included in price). Add the professional touch to your system—with the A3300S. The A3300S is a 4-track 2-channel instrument with 7-1/2-3-3/4 ips speeds. The A3300S-2T is a 2-track 2-channel instrument with 15 ips or 7-1/2 ips speeds.

## TEAC A3340S QUAD RECORDER WITH REMOTE CONTROL



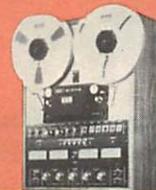
Here is the ultimate quadraphonic tape deck for the home recordist who wants to "go creative" with his home or professional recordings. First of all, there's the advantage of quadraphonic sound, with its unsurpassed depth and realism. Then "Simul-sync" recording technique permits recording of four discrete but fully synchronized channels on each track of a four-track tape. This makes possible synchronized overdubbing, professional mix-down, special effects tapes. Up to 8 inputs may be recorded simultaneously. Other features include: 4 output controls, 4 mic input controls, 4 line input controls. Four VU meters. Four tape/source monitor switches. Front and rear stereo headphone jacks. Two-channel, four-channel play switch. Separate bias, eq switches for using new high energy tape with optimum results. Selector switches for record mode for each channel. Unit accepts variety of mix-down panels, sound-on-sound and echo adapter. Separate Simul-Sync switches for each channel. 10-1/2" reel capacity—15, 7-1/2 ips speeds. Enjoy the most advanced 4-channel deck available today—the A3340S.

## TEAC A7300 DELUXE STEREO RECORDER



The TEAC A7300 (1/4-track) and A7300-2T (1/2-track) feature 10-1/2" inch reel capacity and 3-motor mechanics, including the direct capstan drive servo-controlled motor. Other operation features are: pitch control for exact speed adjustment; 3-position pinch roller for precise cueing and pause, operated by separate cue and pause controls; full logic micro-switch controls for instant response at the touch of a finger; "Elapsed Time" indicator that measures tape travel in true minutes and seconds; plus memory rewind, flip-up head covers and reel table height adjustments. The A7300 also features a "Slow Wind" switch for an even tape pack; while the A7300-2T has a "Edit" switch for exact splicing or removal of unwanted passages of music or voice. The electronic section of both units features four input level controls with memory ring.

## AKAI GX400DSS DELUXE QUAD RECORDER



NEW FOUR-CHANNEL DECK FROM AKAI... GX-400 DSS four channel tape deck features AKAI's exclusive quadra-sync, four glass and crystal heads, capstan with servo motor and two additional motors for reel drive, three tape speeds and 10-1/2" inch reels AKAI's automatic distortion reduction system, reverse in both record and playback using sensing tape, and feather-touch, split control panel also are included.

## SONY SERIES 700 MULTI-FEATURE STEREO RECORDER



The TC-756 and 756-2 incorporate not only 10-1/2" reel capacity and Ferrite & Ferrite heads, but also plays back in 1/4-track stereo, while the TC-756-2 records and plays back in 1/2-track stereo.

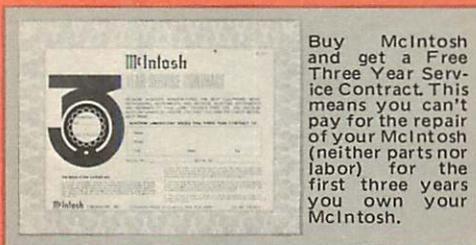
These two fine tape decks incorporate all of the many features you are already familiar with on the TC-755 plus the addition of the 15 ips tape speed. These outstanding features include:

- 3 motor deck
- Closed-loop dual capstan
- Servo-control drive motor
- Tape and source monitor
- Mic and line mixing

MOST COMPLETE SOURCE FOR THE PROFESSIONAL TRADE!

# McIntosh

IS THE ABSOLUTE BEST  
AND PROTECTS YOU FROM  
SERVICE COSTS



Buy McIntosh and get a Free Three Year Service Contract. This means you can't pay for the repair of your McIntosh (neither parts nor labor) for the first three years you own your McIntosh.

## Maximum Performance Indicator



MPI 4 Maximum Performance Indicator is a professional oscilloscope that continuously monitors the quality of performance of a stereo system.

\$599.00

## Amplifiers



MC 2505 Power Output 50 watts minimum sine wave continuous average power output, per channel, both channels operating into 4 ohms, 8 ohms, or 16 ohms load impedance Output Load Impedance 4 ohms, 8 ohms, or 16 ohms; separate terminals are provided for each output Rated Power Band 20 Hz to 20,000 Hz Total Harmonic Distortion 0.25% maximum harmonic distortion at any power level from 250 milliwatts to 50 watts per channel from 20 Hz to 20,000 Hz both channels operating.

\$549.00



MC 2100 Power Output Stereo 105 watts minimum sine wave continuous average power output, per channel, both channels operating into 4 ohms, 8 ohms, or 16 ohms load impedance Mono 210 watts minimum sine wave continuous average power output, operating into 2 ohms, 4 ohms, or 8 ohms load impedance Output Load Impedance Stereo 4 ohms, 8 ohms, or 16 ohms; separate terminals are provided for each output Mono 2 ohms, 4 ohms, 8 ohms; separate terminals are provided for each output Rated Power Band 20 Hz to 20,000 Hz Total Harmonic Distortion Stereo 0.25% maximum harmonic distortion at any power level from 250 milliwatts to 210 watts from 20 Hz to 20,000 Hz.

\$599.00

## Performance

McIntosh audio power ratings are in accordance with the Federal Trade Commission Regulation of November 4, 1974 concerning power claims output for amplifiers used in home entertainment products.



MC 2300 Power Output Stereo 300 watts minimum sine wave continuous average power output, per channel, both channels operating into 0.5 ohm 1 ohm, 2 ohms, 4 ohms, 8 ohms, or 16 ohms load impedance Mono 600 watts minimum sine wave continuous average power output into 0.25 ohm, 0.50 ohm, 1 ohm, 2 ohms, or 8 ohms load impedance Output Load Impedance Stereo 0.5 ohm, 1 ohm, 2 ohms, 4 ohms, 8 ohms, and 16 ohms; separate terminals are provided for each output Rated Power Band 20 Hz to 20,000 Hz Total Harmonic Distortion 0.25% maximum harmonic distortion at any power level from 250 milliwatts to 300 watts per channel from 20 Hz to 20,000 Hz, both channels operating Mono 0.25% maximum harmonic distortion at any power level from 250 milliwatts to 600 watts from 20 Hz to 20,000 Hz.

\$1499.00



MC 250 Power Output Stereo 50 watts minimum sine wave continuous average power output, per channel, both channels operating into 4 ohms, 8 ohms, or 16 ohms load impedance Mono 100 watts minimum sine wave continuous average power output, operating into 2 ohms, 4 ohms, or 8 ohms load impedance Output Load Impedance Stereo 4 ohms, 8 ohms, or 16 ohms; separate terminals are provided for each output Mono 2 ohms, 4 ohms, 8 ohms; separate terminals are provided for each output Rated Power Band 20 Hz to 20,000 Hz Total Harmonic Distortion 0.25% maximum harmonic distortion at any power level from 250 milliwatts to 50 watts per channel from 20 Hz to 20,000 Hz, both channels operating Mono 0.25% maximum harmonic distortion at any power level from 250 milliwatts to 100 watts from 20 Hz to 20,000 Hz.

\$429.00



MC 2105 Power Output 105 watts minimum sine wave continuous average power output, per channel, both channels operating into 4 ohms, 8 ohms, or 16 ohms load impedance Output Load Impedance 4 ohms, 8 ohms, or 16 ohms; separate terminals are provided for each output Rated Power Band 20 Hz to 20,000 Hz Total Harmonic Distortion 0.25% maximum harmonic distortion at any power level from 250 milliwatts to 105 watts per channel from 20 Hz to 20,000 Hz, both channels operating.

\$799.00

## Preamplifiers



C 26 Solid State Preamplifier. (Panloc Mounting).  
\$449.00



C 28 Professional Solid State Stereo Preamplifier with unlimited performance and super flexibility. Quietest preamplifier in the entire stereo industry. (Panloc Mounting).  
\$649.00

## Preamplifiers/Amplifiers Combination



MA 6100 Power Output 70 watts minimum sine wave continuous average power output, per channel, both channels operating into 8 ohms load impedance; 40 watts minimum sine wave continuous average power output, per channel, both channels operating into 16 ohms load impedance Output Load Impedance 8 ohms or 16 ohms Rated Power Band 20 Hz to 20,000 Hz Total Harmonic Distortion 0.2% maximum harmonic distortion at any power level from 250 milliwatts to rated power per channel from 20 Hz to 20,000 Hz, both channels operating.

\$699.00

## Tuners



MR 78 Professional Solid State FM/FM Stereo Tuner. It will give you years of the best available reception at incredibly low distortion. (Panloc Mounting).  
\$899.00



MR 74 FM/FM Stereo and AM Solid State Tuner. (Panloc Mounting)  
\$699.00

## Tuner/Control Center



MX 113 FM/FM Stereo and AM Tuner and Control Center, beautifully engineered for highest performance, maximum flexibility. (Panloc Mounting).  
\$799.00

"TRADE-INS ACCEPTED"

# KENWOOD QUALITY QUADRAPHONIC AND STEREO RECEIVERS

## NEW KENWOOD QUADRAPHONIC RECEIVERS

**A CHOICE OF SUPERLATIVES** The High-Powered, High-Performance KR-9940: With its full 50-watt RMS per channel power output capability (measured with all four channels driven, at any frequency from 20 to 20,000 Hz), the KR-9940 is equipped for every 4-channel sound format currently in use or likely to be introduced in the future. It has all the controls you will want and all the inputs and outputs you might require.

The Exceptional KR-8840. With slightly less power—40 RMS watts per channel (x4) at 8 ohms, 20-20 kHz the KR-8840 is scarcely less sophisticated than the masterful KR-9940. It, too, is equipped to reproduce every 4-channel program format with utmost fidelity, and it incorporates the same expansive provision to control an elaborate 4-channel sound system.

**SOME IMPORTANT CONSIDERATIONS IN CHOOSING YOUR 4-CHANNEL RECEIVER** KENWOOD takes the worry out of planning your 4-channel system by building receivers that are "obsolescent-proof". The new KENWOOD KR-9940 and KR-8840 both incorporate a state-of-the-art SQ decoder... a Regular Matrix (RMS decoder)... and an exceptional CD-4 demodulator-decoder to assure you of the fullest, finest 4-channel reproduction for years to come.)

**FULL PROVISION FOR AN ELABORATE FOUR-CHANNEL SOUND SYSTEM.** Both the KR-9940 and the KR-8840 provide a control center for the most sophisticated 4-channel system. Inputs for two PHONOS permit separate turntables for stereo/matrixed and CD-4 discs. Two full 4-channel tape systems with A-B Tape Monitor provide the capability for taping a program simultaneously on both recorders or for dubbing from one deck to the other. Unique "tape through" circuitry permits dubbing while system is in use for other program material. Two AUX inputs offer further potential for 4-channel cassette or 8-track cartridge play. And two full 4-channel speaker systems can be connected to provide 4-channel reproduction in more than one listening area of the house. There is even an FM DET output to which an FM multiplex decoder can be connected whenever 4-channel broadcasts begin. KENWOOD's farsighted, imaginative design concepts have made certain that the 4-channel receiver you buy today will not become obsolete tomorrow.

**Unsurpassed FM and AM Performance.** FET's in the front end deliver increased sensitivity and high signal input. Solid-state filters in the IF system insure high selectivity, ideal band-pass characteristics and linear phase response. IC amplifier-limiters insure noise-free reception even under weakest signal conditions, and advanced interstation muting circuitry assures complete silence between stations as you tune. Even the AM sections have been precision engineered.



KR-9940



KR-8840

## THE NEW MAXI RECEIVERS

**A MEANINGFUL POWER OUTPUT RATING.** Traditionally, KENWOOD products have been conservatively rated, and the new top three KENWOOD Receivers are no exception. KENWOOD gives specifications for all three in the most stringent manner possible—as RMS continuous power output per channel (both channels driven into 8 ohms), over the entire frequency spectrum from 20 to 20,000 Hz.

**DIRECT-COUPLED, PURE COMPLEMENTARY SYMMETRY OUTPUT CIRCUITRY.** Nothing comes between you and your music with KENWOOD's direct-coupled circuitry. Flat frequency response from ultra-lows to highest highs is assured at all power levels up to rated output.

**LARGE POWER TRANSFORMER—OVER-SIZE HEAT SINK.** A massive power transformer forms the heart of a dual positive-negative power supply to the high-output transistor stages. These are mounted on equally massive heat sinks for safe, cool operation even under conditions of continuous full power output.

**EXCLUSIVE ASO DUAL PROTECTION CIRCUIT.** A combination of electronic and relay circuitry protects both speakers and transistors from damage by power overload.

**THREE SPEAKER SYSTEM CAPABILITY.** The three top KENWOOD receivers all provide output terminals for as many as three stereo speaker systems for the luxury of stereo in multiple listening areas.

**PRECISION EQUALIZER/PHONO PRE-AMPLIFIER SECTION.** High-quality, low-noise, metal encapsulated transistors in the preamp section assure the highest signal-to-noise ratio with maximum circuit reliability for years of continued high-quality performance. With a phono input sensitivity of 2.5 mV, up to 330 mV (P-P) of input signal can be accommodated, assuring virtually no over-load distortion even through the most "fortissimo" passages.

**UNIQUE TAPE-THROUGH CIRCUITRY.** The convenience of a dual tape system for tape-to-tape dubbing is combined in the superb KR-7400 and KR-6400 with a special tape-through circuitry that permits you to listen to any other program source while the dubbing is in progress.

**LINEAR FM DIAL SCALE.** A linear-frequency variable capacitor permits the FM dial scale to be equally calibrated over its full span from 88 to 108 MHz. This feature, together with large, bright signal strength and FM-tuning meters, makes accurate tuning quick and easy.

**EXCEPTIONAL TUNER PERFORMANCE.** KENWOOD's justifiably high reputation for creating some of the finest tuners in the world is reflected in the performance of the KR-7400, KR-6400, and KR-5400. Specially designed front ends, equipped with MOS-FET's, linear frequency variable capacitors and low-noise transistors, insure maximum sensitivity. Solid state IF filters and a Phase-Lock-Loop stereo MPX circuit guarantee that the performance characteristics you buy now will be the performance you will enjoy years from now.

**FOUR-CHANNEL READY.** Special inputs and outputs to accommodate any four-channel decoder or adaptor are provided on the rear panel of each of the three top KENWOOD Maxi-Receivers.



KR-7400



KR-6400



KR-5400

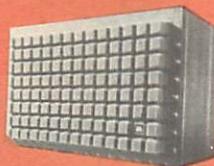
## J.B.L. PROFESSIONAL SPEAKER SYSTEM FOR THE HOME

L-200



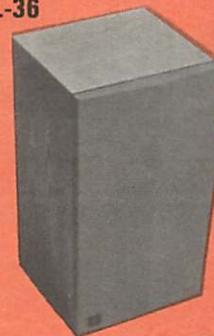
A large, dramatic system, the L200 features a 15" low frequency loudspeaker matched to a powerful high frequency compression driver. Its graceful, oiled walnut enclosure is a visual refinement of the JBL Studio Monitor. The Sculptured Air foam grille is available in four colors: Smoke, Raven, Aegean and Burgundy. Power Capacity: 100 Watts continuous program. Crossover Frequency: 1200 Hz. Dimensions: 32-3/4" x 23-7/8" x 21-1/4" deep.

L-100



The Century L100 comprises the same highly efficient three-component system as the professional JBL Control Monitor. A handsome oiled walnut enclosure furnished with a Sculptured Air foam grille in your choice of Ultra Blue, Burnt Orange or Chocolate Brown. System Components: 12" low frequency loudspeaker; 5" midrange transducer; 1.4" high frequency direct radiator.

L-36



The Decade L36 is a 3-way system that has a 1.4-inch high frequency direct radiator, 10-inch low frequency loudspeaker. The L36 also has a 5-inch transducer to separately reproduce midrange program material. The 5-inch midrange has the cast aluminum frame, the large diameter voice coil and the high magnetic energy at the voice coil gap. Natural oak cabinet. Stunning fabric grille in blue, brown and orange.

## SUPERSCOPE AM/FM CASSETTE RECORDERS AND STEREO COMPACT

CRS 2000 AM/FM stereo cassette



AC/DC Operation, Matrix/Discrete Stereo, 4-Way Power, Mechanical Pause Control, Automatic Shut-Off, Mono/Discrete Stereo/Matrix Stereo Switch, AFC, Sleep Timer Switch, Straight Line Balance Control, P.A./Play Mix, 2 Built-In Condenser Microphones, 4 Speakers, 3-Digit Tape Counter, Record Level/Tuning Battery Strength Indicator, Variable Sound Monitor, 3-Position Tape Select Switch (CrO<sub>2</sub>, Normal, FeCr), Spray Finish.

C-101 AC/DC portable cassette recorder



Built-In Condenser Microphone, Auto Shut-Off, Automatic Record Level (ARL), Auxiliary Input, includes 4 "C" cell batteries and Erase Jack.

SMS 3026/3826 compact music system



The SMS-3026 features deluxe BSR automatic three-speed record changer with jam-proof mechanism, anti-skate and cueing/pause control, plus a pair of Superscope two-way speaker systems. Quadraphase lets you play your stereo records with the 4-channel effect. Plus: A loudness push-switch, blackout dial and signal strength meter, stereo headphone jack and a tape monitor pushswitch.

Model 3826 Available with 8-Track Player

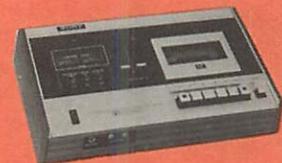
# SONY **SUPERSCOPE** DEPENDABLE TAPE RECORDERS

## TC-121A Economy Stereo Tape Deck



The TC-121A has many of the features of the higher priced decks at a price you can afford. Auto Shut-Off, Sonymatic recording control, Dual level meters, Pushbutton operation, Tape pilot lamp indicates operating mode at a glance. Tape select switch for standard and new chromium dioxide cassettes. Stereo headphone jack, Walnut base, Locking fast-forward and rewind buttons. Microphone and rewind buttons. Microphone and Auxiliary inputs.

## TC-131SD Economy Dolby Stereo Deck



Small on dollars, big on Dolby . . . that's the story of the TC-131SD. A budget-saver, there's nonetheless many features usually found only on higher-priced units . . . like Dolby Noise Reduction System, for virtually eliminating tape hiss during playback; ferrite and ferrite head; built-in peak limiter, for distortion-free recording; straight-line record level controls, illuminated VU meters, automatic total mechanism shut-off (TMS). **FEATURES:** • Tape Select Switch for optimum performance.

## TC-153SD



The many advanced features of the TC-153SD include: Dolby\* noise reduction system • Ferrite and Ferrite head • FeCr equalization with 3-position tape switch • Symphase recording • Peak limiter with peak level indicator • Automatic Total Mechanism Shut-Off (TMS) • Mic/line mixing • Memory tape counter and line/out volume control. Other standard Sony features include: Pause control with lock • Non-magnetizing record head • Straight-line record level controls • Ultra-high frequency bias • Stereo headphone jack • Push-button operation • Microphone and auxiliary inputs • 2 illuminated VU meters.

## TC-136SD



Among the incredible array of features included in the TC-136SD are: Dolby noise reduction system with built-in MPX filter • Ferrite and Ferrite head • Three-position tape selector for standard, CrO<sub>2</sub> and FeCr cassettes • Peak limiter • Mic/line mixing • Servo-control motor • Symphase recording capability. Other major features of the TC-136SD include: Automatic total mechanism shut-off • Two illuminated VU meters • Locking pause control • Three-digit tape counter • Stereo headphone jack • Walnut base • Straight-line record level controls.

## TC-177SD 3 HEAD STEREO DECK



Head configurations are half track erase, quarter track record, and quarter track playback. The tape deck has 3 head, ferrite & ferrite head (for Rec/PB), Dolby noise reduction, light touch function buttons, memory counter, peak limiter and indicating lamp, automatic shut-off (TMS), line/microphone mixing, large VU meters with lamp, headphone jack with 2 position level switch, tape counter (3 digit), 1/4 microphone jacks, pause (released with stop button), function indicating lamps.

## TC-228 8 Track Stereo Recorder/Player



The TC-228 offers the ultimate in eight-track versatility and performance with features such as: TMS (Automatic Total Mechanism Shut-Off), Manual Recording Volume Controls, Automatic and Manual Program Selection, Three-Way Eject System, Automatic AC System, Shut-Off Two Illuminated VU meters, Fast Forward, Pause Control With Lock, Front Panel Microphone Input Jacks, Line Output and Auxiliary Input Jacks, Stereo Headphone Monitor Jack and Walnut Case.

## TC-270 Economy Stereo Tape System



The TC-270 offers many features found only in much more expensive models. Straight line record and playback level controls and two VU meters add a professional touch to a great bargain. Automatic shut-off. Sound-on-sound. Built-in reel locks. 3-speeds: 7-1/2, 3-3/4, and 1-7/8 ips. Stereo control center. Pause control with lock. Scrape flutter filter. Non-magnetizing record head. Automatic tape lifters. Public address capability. Sound-with-sound.

## TC-280 Quality Budget Tape Deck



Our lowest priced reel-to-reel tape deck has Ferrite heads; 2-channel recording of SQ matrixed 4-channel sound from either tapes or records for playback through a decoder and 4-channel amplifier; a tape select switch for optimum recording equalization when using standard or low noise high output tape. There's also a 4-digit tape counter; and the versatility of vertical/horizontal operation. Walnut base is included. **FEATURES:** Ultra-High Frequency Bias, Vibration-Free Motor, Pause Control with Lock, Sound-on-Sound Capability, Two VU Meters, Three Speeds, Vertical or Horizontal operation, and Microphone/Line Mixing.

## TC-353-D 3 Head Stereo Tape Deck



The TC-353D's three-head design lets the user check the quality of a new recording while the recording is in progress. Record equalization selector switch allows optimum performance with either standard tape or Sony low-noise, high-output tape. Simplified controls. Ultra-high frequency bias. Vibration-free motor. Pause control with lock. Sound-on-sound capability. 2 VU meters. 3 speeds. Vertical or horizontal operation. Microphone/line mixing.

## TC-377 Deluxe 3 Head Stereo Deck



The TC-377 is a 4-track unit; 3 heads are precision molded Ferrite and Ferrite, and it records and plays back matrixed quadrilateral sound when used with an SQ decoder. Features: scrape flutter filter, tape tension regulator, microphone and line mixing, variable line output, and sound-on-sound and echo capabilities. Convenience features: total mechanism shut-off (TMS) and a microphone attenuator with defeat; 3-speed operation tape select switch; built-in reel locks; locking pause control; 4-digit tape counter; and monitor select switches.

## TC-277-4 Low Cost Quad Tape Deck



Here is the lowest-priced quality four-channel reel-to-reel recorder on the market today. Besides having complete four-channel record and playback capability, the TC-277-4 features: Complete four-channel record and playback; Three tape speeds: 7-1/2, 3-3/4 and 1-7/8 ips; Four-channel/two channel selector switch; Four illuminated VU meters; Independent four-channel level controls; Sound-with-sound; Record equalization selector switch for standard or Sony SLH low-noise, high output recording tape.

## TC-388-4 QUAD 3 HEAD TAPE DECK



The TC-388-4 features a Pan Pot facility to allow you to mix the rear two channels with the front two channels. You center the sound to where you are—not where the speakers are. Other sophisticated features assure professional recording techniques. **FEATURES:** • Sound-On-Sound and Echo Capability • Automatic Tape Lifters • Mic/Line Mixing • Tape/Source Monitoring • TMS • Illuminated VU Meters • Record Equalization Selector Switch • Stereo Headphone Monitor Jack with Select Switch • Ultra High Frequency Bias • Microphone and Auxiliary Inputs • Four-Digit Tape Counter • Pause Control w/Lock (Muting) • Built-In Reel Locks.

## PORTABLES • TAPE RECORDERS • CARTRIDGE PLAYERS • CASSETTES

### NAKAMICHI 700 DELUXE CASSETTE RECORDER



Nakamichi's 700 employs a dual-motor drive system and solenoid-action feather touch controls with IC logic system. The Tri-Tracer project was made possible by the development of a 3-head configuration and of specially constructed recording and playback heads. The 3-head cassette mechanism is designed to compete in performance and reliability with professional 15 ips reel-to-reel machines. Other features include an azimuth alignment system for the record head, professional dB peak-level meters, Dolby B noise reduction system.

### NAKAMICHI 550 PORTABLE CASSETTE



Technically the twin of the 500 Dual-Tracer, the Nakamichi 550 offers all of the performance of this plus the added versatility of in-the-field recording with special features such as tape end alarm with preset timer and analogue tape counter. Complete with its own battery power supply the Nakamichi 550 can also be run off a car battery

(with suitable adaptor) or from regular AC line. Speed control is absolute. A built-in Super Stabilizer prevents power supply voltage fluctuation. And a pulse controlled D.C. servomotor maintains absolute speed stability.

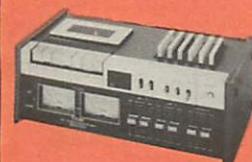
### NAKAMICHI 500 CASSETTE DECK



The new Nakamichi 500 Dual-Tracer was designed to be the most advanced two-head cassette deck ever made. From the standpoint of extended flat frequency response, noise, dynamic range, wow and flutter, and speed stability the Nakamichi 500 will outperform any other cassette recorder with the exception of our own Tri-Tracers. The tape transport, for example, uses

a servo-controlled DC motor for rock-steady speed and features automatic end-off with complete mechanical disengagement. A host of other features, such as Dolby NR circuitry, a three position tape selector and 45 dB peak level meters.

### TEAC 450 DELUXE DOLBY CASSETTE



TEAC's 450 will satisfy even the most demanding audio standards. And the 450 is loaded with high-performance features to back up those specs. Like the Dolby Noise Reduction System for reducing tape hiss by about 10 dB, and that includes a

calibration tone generator for flawless Dolby-process recording. Three-position separate bias and eq switches for optimum recording and playback when using CrO<sub>2</sub>, high energy, and standard tape. Plus 8 external Dolby calibration controls; total automatic shut-off in record or play mode; straight-line record and output level controls; dual VU meters; FM multiplex filter switch; memory digital counter with reset button; peak-level indicator for distortion-free recording, and much more.

### TELEX TMS-SERIES CARTRIDGE PLAYER



Automatic stereo tape cartridge changer (pre-amplified deck). Plugs into any standard stereo amplifier. Switches and selects twelve 8-track cartridges of any length in four automatic operation modes. Empty spaces are skipped automatically. Operates vertically and horizontally. Solid state circuitry with pre-amp output. Includes dust cover. Spare rotary magazines available. Manufactured in U.S.A.

### TDK QUALITY AUDIO CASSETTES



Choice of super dynamic cassette, deluxe cassette and premium cassette recording tapes. Super dynamic SD cassettes give clear, sparkling sound with no distortion. Frequency response from 30-20,000 Hz is enough to get maximum performance from any cassette recorder. New exclusive coating process packs the particles more densely up to 8 times as many per square inch as conventional cassettes. Offer low noise, higher output, greater dynamic range, finer and smoother tape surface.

## SUPERSCOPE

### C-104A Portable Cassette with Varispeed



For the musician, businessperson, or anyone who expects maximum performance we proudly introduce the Superscope C-104. It has features never before found on a portable recorder to provide more versatility for your recording needs. Features: • Automatic Record Level • Dual Flywheel Mechanism • Automatic Total Mechanism Shut-Off (TMS) • Built-in Recharging Circuitry • Optional Ni-Cad Battery Pack • Unique Lever Action Controls • Vari-Speed Pitch Control (for adjusting speed plus or minus 20%).

### C-105 3 Head Portable Cassette with Varispeed



Here is a true professional cassette recorder with respect to both features and performance. For those of you who want the finest . . . we offer this unique and outstanding recorder. Features: • 3 Heads for Tape Source Monitoring • Manual and Automatic Record Level Control • Peak Limiter • Ambient Noise Control (ANC) • Tape Source Monitor Switch • Dual Differential Flywheel Construction • Automatic Total Mechanism Shut-Off (TMS) • Built-in Recharging Circuitry • Optional Ni-Cad Battery Pack • Vari-Speed Pitch Control (for adjusting speed plus or minus 20%).

### C-106 Miniature Cassette Recorder



For economy and versatility in a pocket-sized recorder, the C-106 has no equal. For the ultimate in convenience when recording home movies, lectures, sound effects and other special applications, use the C-106 with the optional Pistol Grip start/stop accessory, the PG-6. Also operates on AC with optional adapter. Features: • External Microphone Jack • External Remote Stop/Start Jack • Momentary/Locking Pause Control • Play Back Volume Control • Built-in Condenser Microphone. Additional Features: • Automatic Record Level • Automatic Shut-Off.

### CD 302A AND CD 301A Cassette Deck



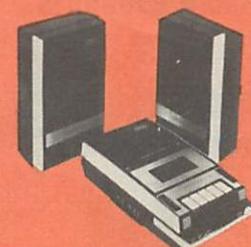
Here's the perfect stereo cassette deck for your music system. The Superscope CD-302A, with Dolby Noise Reduction System. The Dolby system is a record and play process that virtually eliminates tape hiss. At the flip of a switch, it can be used internally . . . for tape . . . or externally to deprocess Dolbyized material from an outside source . . . like an FM Tuner! For those on a really tight budget the CD-301 is the right choice. All the features of the CD-302A except Dolby and Locking Pause Control. Both units feature our two-year parts and labor warranty, your assurance of quality craftsmanship throughout.

### TD48/TD28 8 Track Playback



Here's the perfect way to step up your present stereo system to the convenience of 8 track tapes . . . the TD-28, an 8 Track Stereo Tape Player Deck. If Discrete 4-Channel Tape appeals to you . . . Superscope offers the TD-48. All of the same features are included as in the TD-28, plus Automatic 2/4 Channel Switching with corresponding illuminated 4-Channel Indicator. Both quality decks are backed up by our comprehensive two-year parts and labor warranty.

### CS/200/S Portable Cassette Recorder



Snap in a stereo cassette and let the CS-200S put on a show for you. Switch to AC power and recharge batteries automatically. The CS-200S even fits in nicely as a quality cassette deck with your stereo system. Mechanical auto-stop shuts off automatically when end-of-tape is reached. Two built-in condenser microphones. Tape select switch for new high performance chromium dioxide cassettes. Two external speakers included.

Also Available Without Speakers—Model CS200

GET OUR MONEY-SAVING PRICE ON A HI-FI SYSTEM WITH COMPONENTS OF YOUR CHOICE

## STEREO CARTRIDGES, GUITAR PICKUP AND CONSUMER PRODUCTS

### STANTON 681EEE PROFESSIONAL STEREO CARTRIDGE



Model 681EEE designed for low distortion tracking with minimum stylus force, regardless of the recorded velocity or the distance of the groove from the center. Audio quality is the highest obtainable at the present state of the art. High compliance, low mass and low pressure assure perfect safety even on irreplaceable records.

### STANTON 500 BROADCAST SERIES



There is a Stanton 500 for every broadcast application from critical auditioning in the record library to "Top 40" combo work where DJ/operators have no time for stylus failures. The stylus assembly of the 500 Series can withstand the back-cueing and rough handling that would ruin ordinary pickups. Yet frequency response is superb, as are tracking ability, output and stereo channel separation.

### SHURE V15 III NEW IMPROVED STEREO CARTRIDGE



Among its brilliant innovations is an all-new laminated magnetic core structure, and an exquisitely designed stylus assembly with 25% effective reduction of tip mass. Result: (1) Higher-than-ever trackability at the ultra-light tracking forces of the Seventies; (2) an astonishingly flat frequency response with no noticeable emphasis or de-emphasis at any frequency; (3) an extended dynamic range even beyond that of our V-15 Type II Improved; and (4) all this without a reduction in output level.

### AKG D401 GUITAR PICKUP



The AKG D-401 is a new tool for the performing artist . . . and will complement the acoustical properties of the classical guitar. When used with quality sound systems and recorders, the D-401 will recreate with the highest fidelity, the live sound of the instrument—at a modest cost when compared to a professional microphone and stand.

### SWITCH-IT



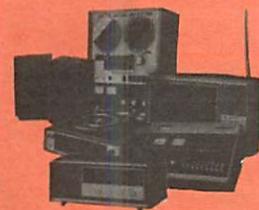
Now you can forget the bother of plugging and unplugging connector cables every time you changed functions. Connect a "Switch-It" to your system once, and for all - thereafter select functions at the touch of a switch. It's easy, it's convenient, it completes the full enjoyment of your stereo rig. Four pushbuttons make the change from any mode to any other, and anyone can do it. There's nothing like "Switch-It" - it's a must for years-ahead versatility and convenience!

### DUAL 1249Q



The 1249Q represents a significant achievement in the DUAL line of automatic turntables. Through technological improvement, DUAL achieves not only top performance but the finest precision available. Here are a few of the features on the 1249Q: • Tonearm pivots in both axes within a four-point gimbal • Vertical friction measures less than seven thousandths of a gram • Tracking pressure as low as one-quarter of a gram • Multi-scale anti-skating for conical, elliptical and CD-4 styli • Precision-ground belt drive • 8-pole synchronous motor • Dynamically balanced platter • Manual/automatic stop and start plus continuous repeat and multiply switch • Variable speed • Illuminated strobe control. The 1249Q is the ultimate in professional belt drive turntables.

### PANASONIC AM/FM, TAPE AND TELEVISION PRODUCTS



Martin stocks the complete line of Panasonic tape recorders, AM/FM radios, cassette systems, clock radios, color TV's, stereo compacts and quadraphonic components.

## INDUSTRIAL AUDIO/VISUAL PRODUCTS

### AMPLIVOX S-500 SOUND COLUMN LECTURN



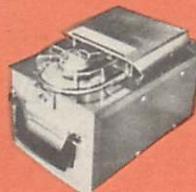
• Covers audiences up to 3000 • Natural sound, excellent penetration • Deluxe appearance • Battery operated. **Specifications—Amplifier:** 25 watt EIA rating (40 watt peak), push-pull all transistor design, 50-15,000 cps. **Microphone:** Professional dynamic cardioid. **Speakers:** 6 full fidelity 5" speakers. **Inputs:** For microphone, and for auxiliary equipment. **Outputs:** For auxiliary speaker and tape recorder. **Power Source:** Works on 10 flashlight batteries, that give 200 days of operation or more. AC adapter available. **Construction:** Walnut formica furniture finish with hidden wheels. **Height:** Adjustable 36 inches to 46 inches.

### AMPLIVOX S-122 ROVING ROSTRUM



• Completely portable—weighs 22 lbs. • For audiences up to 1000 • It becomes its own lectern • **Specifications—Amplifier:** 25 watt EIA rating (40 watt peak), push-pull all transistor design. **Microphone:** Professional dynamic cardioid with 10-ft. cable, frequency response 50-15,000 cps. **Speakers:** Two oz. ceramic magnets. Each can handle full amplifier power. **Inputs:** For microphone and auxiliary equipment. **Outputs:** For auxiliary speaker, tape recorder. **Dimensions:** 8-7/8" high, 16-3/4" wide, 17-1/4" deep. **Construction:** Molded scuff-proof black Royalite with retractable legs.

### COUSINO AUDIO ANNOUNCER



Most popular model for recording and playback where recordings are changed frequently. Completely transistorized, with built-in amplifier and speaker. Responds immediately "on demand" from optional pushbutton, foot mat switch or other activated source. Foil strips on tape provide automatic "end of cycle" shut-off. Slide switch providing option of repetitive replay or "stop-start" operation . . . Less microphone.

### SONY TC-182-AV SYNCHRO RECORDER



The handsomely styled TC-182AV can be set up in minutes for fully synchronized recording in conjunction with any slide projector incorporating the slide sync features. The TC-182AV packaging includes an adaptor cord for use in conjunction with the Kodak carousel (adaptor cords for other slide projectors are readily obtainable at camera stores or from the manufacturer. To operate the TC-182AV, all one need do is depress the slide-sync control which then introduces a sync pulse, programming the 182AV to change slides on the connected slide projector at a precise moment on the tape. **Features include:** • AC/DC operation • Fast-forward cue and back-space review.

### SONY 105 AV 1/4 TRACK/106 AV 1/2 TRACK Audio/Visual



The TC-105 AV 1/4-track, a favorite among educators and businessmen, features 7-1/2, 3-3/4, and 1-7/8 ips speeds with a 7-inch Reel Capacity for up to 16 hours of recording and playback. These recorders are noted for their: • Synchronizing Recording Control with Defeat Switch and VU meter • Retractomatic Pinch Roller • Pause Control with Lock • Three Digit Tape Counter • Speaker Monitor Switch and • Safety approved Three-Wire AC Power Cord. The TC-106 AV 1/2-track recorder features a powerful 5-watt RMS amplifier with a large Extended-Range Speaker, with 3-3/4 and 7-1/2 speed plus the additional features of the 105 AV.

### CUE COMMANDER C104 CHANNEL PROGRAMMER



Model C104 Cue Commander is a 4-channel programmer for use in multi-image presentations. It is capable of controlling slide or film-strip projectors, dissolve units, motion picture projectors, or auxiliary equipment. For example the Cue Commander can operate 3 slide projectors and 1 motion picture projector or 4 dissolve units running 8 slide projectors. Any number of varieties utilizing the 4 channels provide you with complete multi-media capabilities. The Cue Commander may be used in conjunction with any stereo reel-to-reel, cassette, or cartridge tape recorder. Music, narration, conversation, and sound effects are pre-recorded on tape in one channel (the left). The visual presentation is set up and run manually using the Cue Commander control switches.

# JVC VIDEO PRODUCTS

## PV-4800U/GC-4800U COLOR PORTABLE



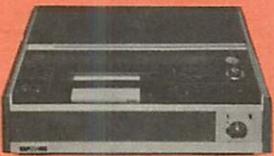
The JVC 4800 U is the first EIAJ completely portable color system; weighs less than 30 pounds and operates from an internal battery. Features: 30 minute record or playback in color or black and white from camera or off-the-air signals. (Using a receiver/monitor); Slow motion and still frame playback; Light selector switch contours color; Built-in light meter. Used with the GA-20 U Color Camera Adapter, the camera can be used with any NTSC video equipment.

## CR-6300U NEW "STILL FRAME" FEATURE



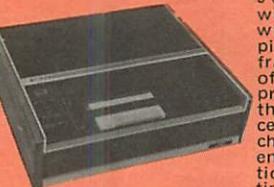
The CR-6300U uses the economical 15-, 30- and 60-minute video cassettes, records and plays back in both color and black and white, and even has a remote control facility. The unit plays back on a conventional household television set (with optional RF converter), and both records and plays back on the JVC color monitor TV. Features: A dual sound track for stereo or bi-lingual commentary; repeat lever; a memory counter; feather-touch controls; and superior color reproduction at all times.

## CR-6100U COLOR RECORDER/PLAYER



Now, with the built-in VHF-UHF tuner and recording timer that's a feature of the CR-6100U, you can record your favorite program when you're away from home—and watch it upon your return. You can even record a program on one TV channel while you watch a completely different program on another channel. Use the CR-6100U for educational functions; Record sports, theatre and music programs. Take the CR-6100U into your office and discover time-saving, money-saving uses.

## CP-5200U COLOR "STILL FRAME" PLAYBACK UNIT



JVC designed the CP-5200U in response to widespread demand for a 3/4" color VCR with still-frame capability. It provides a still picture for detailed analysis of any event; frame-by-frame advance is yours with the flick of a finger. The standard plug-in RF converter provides you with the option of playing back through either a monitor or a standard TV receiver. It can be switched to operate on either channel 5 or 6. The U-type VCR has created an entirely new dimension in corporate and educational communications. The additional operating flexibility offered by the CP-5200U is a substantial advance in the state-of-the-art.

## CP-5000U LOW COST COLOR PLAYER AND REMOTE CONTROLS FOR ALL J.V.C. VCR'S



This color videocassette player uses automatic phase control and automatic color control. Simplified loading mechanism eliminates tape jamming. Automatic fail-safe circuit turns power off. Plug-in RF converter permits playback. Features: Auto-repeat (viewing a program repeatedly with no operator present); Counter-repeat (a selected program segment to be automatically played). The optional remote control unit permits operation from as far away as 18 feet.

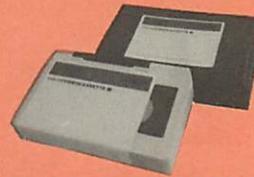
## VIDEO DISC, VIDEO OF THE FUTURE?



North American Philips Corporation and MCA Inc. plans to market their optical video disc, (player only) system in 1976. The player attaches to the antenna terminals of any standard home television set to produce full color or black and white programs. Pre-recorded albums will sell from \$2 to \$10 with playing times of 30 minutes on each side and the video disc player for "around \$500". The Philips-MCA unit works on an optical read-out principle. A focused light beam, a low power optical laser sensor picks up the images and sends them electronically to the TV screen. No contact is made between the laser read out and the video disc. Video discs resemble the familiar 12-inch LP, but the Philips-MCA is made from a plastic sheet (Mylar) .010-inch thick. Like the LP it resembles, it may be pressed cookie-cutter fashion from continuous rolls of plastic sheeting.

# VIDEO ACCESSORIES

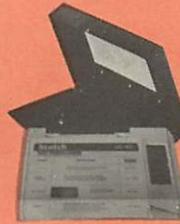
## 3M HIGH ENERGY VIDEO CASSETTE TAPE



An improved "Scotch" Brand Videocassette with better-than-ever performance! The improved binder system in the UCA has been designed to provide long term stop motion capability. The UCA is capable of exceeding one hour of stop motion; in addition, with 3M's High Energy oxide you get maximum output and superior signal-to-noise. At no additional cost, choose either a vinyl book style container or a shipper/storage container.

UCA 10-20-30-40-50-60 minutes

## 3M-UC-TG TENSION GAUGE



The "Scotch" Brand Tension Gauge is a mechanical wizard because it does most of the work for you. It's designed to help you diagnose a possible tension problem quickly and accurately. And easily! You simply place the UC-TG in your U-matic video recorder as you would a standard video cassette. Follow the simple instructions. Then read a gauge. That's it. Clear and concise operating instructions are printed on the cassette label and the container label. They tell you how to measure all four major machine tensions.

## 3M-UC-HC HEAD CLEANING CASSETTE



The "Scotch" Head Cleaning Videocassette features a chromium dioxide dispersion, specially modified to provide the desired abrasivity characteristic. A pre-recorded signal that runs the full length of the tape allows you to watch the color bar signal and stop the tape. You control the amount of time the UC-HC should run to clean your recorder heads satisfactorily, and this saves you from costly head replacement. The abrasive action resulting from running the UC-HC the full length of 5 minutes has been found to be about the same amount resulting from running one UCA-50. Under normal use, the UC-HC is a safe and effective cleaning tool that will not increase head wear. Its durability and long life properties provide the UC-HC with better than a two year life.

## 3M PROMAT LETTER COMPOSITOR



Promat is a non-photographic system. Positive and negative letter images are dry, ready-to-use, dispensed simultaneously on strips of polyester film. Film is factory-loaded in an easy-to-handle, snap-in cartridge. Easy-to-operate, no darkroom, safety lights or special skills are needed. Positive letters can be heat transferred from the polyester film with the 3M Brand Promat Transfer Iron. Letters transfer and hold to most clean, smooth paper surfaces. The entire film strip of letters can also be adhered by touching the iron to non-letter areas of the film. The film is repositionable.

## MEMOREX CHROMIUM DIOXIDE U-MATIC CASSETTES



Memorex Video Cassettes provide clear, sharp video recordings with excellent color resolution on all 3/4" video cassette recorders. To maintain compatibility of Memorex video cassettes on all recorders and in-cassette duplicators, Memorex not only manufactures the chromium dioxide tape but also all of the plastic components of the video cassette. From beginning to final product packaging, Memorex's rigid quality control standards govern product quality.

## MARTIN SPECIAL VIDEO and MARTIN VIDEOMOBILE CONSOLE II



- Specially designed to house the new Sony Model VO-2850 Editor Cassette and Concord Editor.
- Attractive walnut, white and blue.
- Modern formica housing.
- Over-bridge design to house scope, monitor and speaker, amplifier combination.
- Convenient input and output central panel on side with AC for 2 extra video player or recorder combinations.
- Large lower storage area.
- Roll around castors.

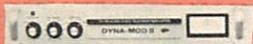
**MARTIN VIDEOMOBILE NEW VIDEOCASSETTE SALES & PRESENTATION SYSTEM:**

- \* Accepts Sony or JVC video cassette recorders or players and up to most 19" monitor/receivers.
- \* Modern-styled cabinet finished in Rosewood and white Formica.
- \* Finished all around for central display.
- \* Storage compartments for video tape and accessories.
- \* No unsightly wiring.
- \* Heavy duty roll around lock casters.
- \* Stereo Altec speaker system with amplifier \$99.00 additional.



# PROFESSIONAL VIDEO EQUIPMENT AND ACCESSORIES

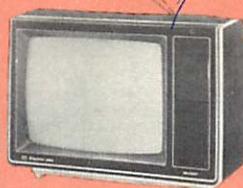
## DYNAIR DYNA-MOD II MODULATOR



The basic DYNA-MOD II accepts separate audio and video inputs with which it generates a broadcast quality television signal on any specified standard VHF channel; other frequencies are available on special order.

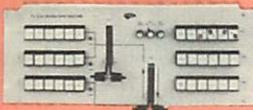
The DYNA-MOD II features: broadcast trans-chrome capability; operating simplicity; and maximum adaptability.

## SHARP XR-2194 COLOR/MONITOR RECEIVER



The Sharp XR-2194 receiver/monitor has been designed to meet the most demanding requirement of the video user. The Linytron/Plus picture tube produces an extremely bright vivid color picture under all room lighting conditions. The Linytron/Plus picture tube requires no color convergence. Because the convergence system is manufactured as an integral part of each picture tube, the XR-2194 maintains perfect color convergence under extreme handling conditions. The ACS-5 feature means no more fiddling for the right color picture. Press the ACS-5 button and automatically you have the correct setting of color, tint, brightness, contrast and fine tuning.

## DYNAIR VS-153A



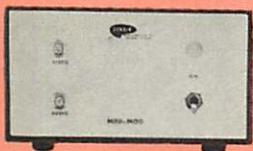
Remote-controlled three-buss Production Switcher with special effects. Solid-state. Six synchronous video inputs, all composite or all non-composite and five non-synchronous composite video inputs. Vertical-interval switching. Automatic preview on synchronous video inputs. Switched preview on non-synchronous video inputs. Has keyed insert and matting capabilities. Control panel is separate from video chassis, allowing depth of control panel to be reduced. 25 feet (7.62 meters) of control cable and module extenders included. Monochrome and color operation, 115/230 vac, 50/60 Hz.

## CONRAC PROFESSIONAL BROADCAST MONITORS



Conrac's New 5000 Series: High performance, small-screen color monitors that avoid the many compromises inherent in converted receivers, yet sell at a price compatible with the most modest budgets. The 5000 series is a compact color monitor of superior picture quality designed for a wide variety of applications in industry, broadcasting, tele-production, education, CATV, government, and medicine. It also makes an ideal companion for color VTR's, where that initial quality check of the recorded signal is so vital in judging overall system operation.

## DYNAIR TX-2B MINI-SERIES MODULATOR



The Model TX-2B "MINI-MOD II" Modulator accepts an audio and video input from which it produces an RF television signal. It is a single-channel, crystal-controlled unit and is available for operation on any VHF television channel plus sub and mid-band channels. The MINI-MOD is completely solid-state and has a self-contained regulated power supply. The low cost and small size of the MINI-MOD make it ideal for use with portable camera chains, video tape recorders, or low-budget RF distribution systems.

## SETCHELL CARLSON IC-100 25" COLOR MONITOR



The new Setchell Carlson IC-100 Series 25-inch Color Monitors and Monitor/Receivers are designed to give maximum performance at exceptional dollar value. Four basic configurations accommodate a wide variety of display needs. Due to their interchangeable UNITIZED® circuit modules, the IC-100 eliminates unnecessary down time and costly repairs. The Setchell Carlson IC-100 is perfect for any situation where ease of operation and large screen color display are of prime importance.

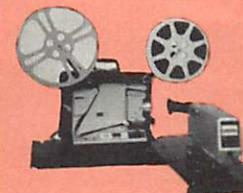
## VICON V-240 DATE/TIME DISPLAY GENERATOR



The Vicon V240 Series Date/Time Display Generator provides a new capability to video systems by superimposing the time of day, including seconds, date, and year upon any standard black and white or color picture. Internal standby battery prevents time error due to power loss or transients without resetting. Easy to read characters have automatic intensity

control for maximum character brilliance regardless of background. This Vicon unit features looping input; it may be inserted into the video circuit without disturbing picture quality and requires no special installation. The character display remains flicker free and stable on either random or positive interlace pictures.

## SINGER 3216 COLOR FILM CHAIN ADAPTER



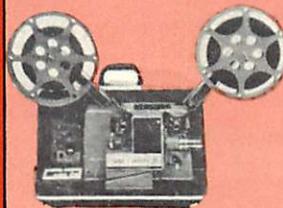
- An ideal way to transfer 16 mm color or black and white film to video tape and . . .
- Get a clear, precise reproduction of the picture.
- The only low cost method of UNIPLEXING with absolutely NO MODIFICATION NECESSARY to the TV CAMERA.
- Perfect set-up for one-inch and two-third inch MONOCHROME or COLOR cameras . . . to be used with ANY of the SINGER 16 mm TV projectors . . . 930, 930R or 1130A.
- Handsomely designed universal base is adjustable to fit any type camera and line up correctly and securely with the projector.

## BRETFORD MODEL VTR 30E MOBILE CART.



Here's a center for individual or small group use. Top is recessed to allow free access to VTR on middle shelf. Lower cabinet has double locking doors to secure video tape, cartridges or cassettes. Supplied with a set of 2 keys. This contemporary furniture is constructed of heavy gauge steel. Shelves are die-pressed and inlaid with wood-grained vinyl. Chrome legs are tubular. Provided with easy-rolling furniture carpet casters. Ships disassembled. Weight 64 pounds. Size 20 x 30 x 31 inches high. Top shelf 16 x 30 inches.

## SINGER 16 MM TV PROJECTOR



Whenever closed circuit TV systems exist . . . in industry, government, private institutions or in Commercial or Cable TV operations the projection of film material can be made easy, effortless, and efficient when SINGER enters the picture. The SINGER 16mm TV Projectors are highly sophisticated yet simple to operate, dependable in use and reliable in quality. Models 0930 and 0930R feature easy, drop-in loading, fingertip sound loop reset with hardened film transport components and a long wearing adjustable pressure shoe film gate. Push button controls make operation a snap.

## QUICK-SET TRIPODS



For Studio cameras to 8 x 10, for 16mm motion picture cameras, for closed-circuit TV cameras. Smooth-working controls, conveniently at hand, position camera quickly, easily, securely. Pan heads are detachable and interchangeable. Worm gear-driven Elevator column adjusts height precisely, locks securely. Crank folds away for compact carrying. Rigid structure holds camera motionless, without shift or vibration. Astonishingly light-weight—easy to move about the studio. Folds compactly—easy to carry to the outside job. Units are available with dolly attachment.

## COLORTRAN LOCATION LIGHTING KIT



The Portable Kit. A new integral accessory holder on the Multi-10 simplifies operation. Designed for more complex lighting setups and one case carries all equipment. New Pro-Stands for more flexibility with channel leg stands for reliable support. Draws 41.6 amps at 120 volts ACDC.

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