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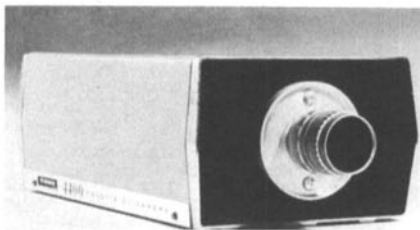


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New Products & Developments

Further information about these items can be obtained from the addresses given. As in the case of technical papers, the Society is not responsible for manufacturers' statements, and publication of these items does not constitute endorsement of the products or services.



A low-light-level television camera, Model 4410 SIT, has been announced by Cohu, Inc., Electronics Division, Box 623, San Diego, CA 92112. It is designed to satisfy requirements for microscopy, x-ray and other medical, scientific and industrial instrumentation applications requiring high sensitivity in low light, good resolution and unattended operation.

The 4410 SIT uses a silicon intensifier target image tube system that resolves the 10-shade gray scale with 3×10^{-4} lm/ft² highlight illumination on the image tube faceplate and can produce a usable picture with 6×10^{-6} lm/ft². Model 4410 SIT is self-contained, has no external camera control, and easily interfaces with scientific equipment. The size of the television camera is 17 × 6.5 × 4.3 in and weighs 12 lb. The price is \$5380.



Two three-tube Saticon color television cameras have been announced by Sharp Electronics Corp., 10 Keystone Place, Paramus, NJ 07652. Model XC-530, weighing 12 lb, is an ENG color television camera. The unit has a rugged, unified housing block which contains the relay optics, beam splitter, coil assemblies and Saticon tubes, resulting in elimination of registration problems. The three bonded Saticon tubes are attached directly to the camera's dichroic mirror. The XC-530 features internal/external drive and automatic iris capability. Operating at low-light levels (15 fc with a +6 dB gain switch on), it offers a minimum 400 lines horizontal resolution with SNR of 46 dB. The camera comes with a built-in master extended card, an ac power adapter and a 16.5-ft dc power

cord. It accepts "C" mount lenses and can be used with either the ac power adapter or a 12-V dc battery pack or car battery. The price is \$8900. A number of operational accessories are available.

The XC-500 (shown above) consists of four modular sections — "C" mount studio zoom lens, camera head, camera control unit and a 4-in electronic viewfinder. With all four sections in place, the XC-500 is a self-contained studio camera. When the camera control unit is removed and rack-mounted, the system provides remote control capability. When the 4-in viewfinder and studio zoom lens are replaced with an optional 1.5-in electronic viewfinder and portable zoom lens, handgrip and shoulder pad, the XC-500 can be used for EFP. The camera head can also be used on a film chain multiplexer or with a microscope. The XC-500 features a single-package optical system consisting of three bias-lighted 3/8-in Saticons bonded to the dichroic mirror assembly, thus eliminating mechanical registration and low-light-lag problems. Horizontal resolution is better than 400 lines with SNR of 46 dB; sensitivity is 150 lx minimum illumination with the +6 dB switch on. A color-bar generator is included. The price is \$9200 less lens and viewfinder. A number of optional accessories are available.



Two 1-in helical broadcast format "D" videotape recorders manufactured by NEC in Japan have been announced by Cinema Products Corp., 2037 Granville Ave., Los Angeles, CA 90025. The recorders (TTR-5 and TTR-7) utilize NEC's self-threading cartridge design said to eliminate most field handling problems. The machines are fully compatible. Designed for rugged use, their modular construction allows easy in-the-field replacement of videohead cartridges.

The TTR-5 was designed for light studio use, mobile van or fixed location remotes. It weighs 55 lb and operates from an internal 110/115-V ac power supply or from an optional external 12-V dc battery.

The TTR-7 (shown above with an optional ac/color adapter) was designed exclusively for portable operation. It is an over-the-shoulder unit weighing about 33 lb, including the tape and battery. It has an internal battery which can drive a minimum of two 22-min self-threading tape cartridges on a single charge (continuous run). Other features include a built-in video confidence head, edit system and full status indicating system. Through the use of the optional ac/color adapter, the TTR-7 can play back in color. The TTR-7 is priced at \$35,000. The optional ac/color adapter is priced at about \$6000.

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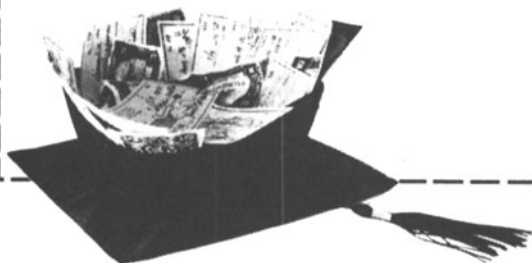
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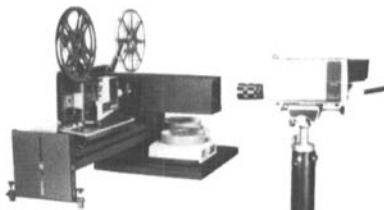
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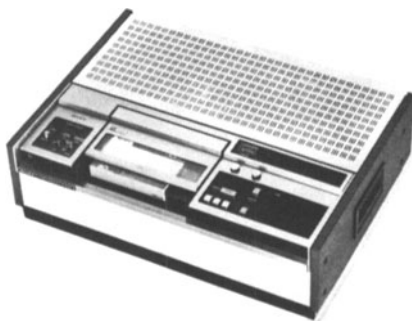
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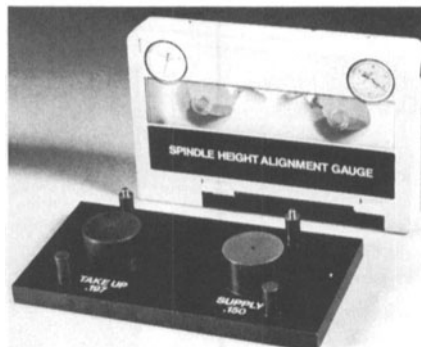
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A capstan servo U-Matic playback unit, the VP-2260, has been announced by Sony Video Products Co., 9 W. 57 St., New York, NY 10019. The unit can be operated as the player side of the Sony VO-2860/RM-430 editing system. Applications include broadcast and cable television. A specially designed dub out feature permits editing or duplicating video signals without serious loss of picture quality, while the capstan servo system assures a stable picture with minimum jitter. The VP-2260 operates on ac current at 120 V, 60 Hz and has a power consumption of 130 W. Features include pause operation when using KCA or KCS videocassettes. A program operations selector permits automatic rewind and repeat operation. Other features include BNC In and Out connectors, and internal dropout compensator. The price is about \$3900.

The Dynalock conversion kit, announced by Video Technology, Inc., 14422 N.W. 7th Ave., Miami, FL 33168, is intended to be installed in a Sony Betamax or Panasonic VHS recorder. The purpose of the Dynalock is to maintain the vertical lock reference to the VCR's capstan servo system. It is said to allow full capstan servo operation and also to improve upon the editing capability. The Dynalock is intended to permit interfacing of both formats to a time-base corrector for genlocking. The conversion kit is priced at \$299.95.



The Memorex Spindle Height Alignment Gauge (SHAG) for checking spindle height alignment in any 3/4-in videocassette has been announced by Memorex Corp., San Tomas at Central Expwy., Santa Clara, CA 95052. Improper spindle height alignment has been determined to be one of the major causes of edge damage in 3/4-in VCR tape because it causes the tape to load and track either too high or too low around the guides. Improper tape-guide contact often causes permanent damage to the tape edge.

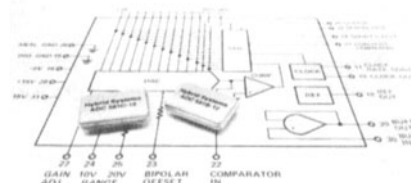
Memorex SHAG consists of two components — a gauge assembly the size of a mini U-Matic cassette and a precisely-formed steel base that serves as reference for the gauge assembly in establishing "zero," or ideal spindle alignment conditions. In operation, the user first sets

the gauge assembly in the VCR. Misalignment of either or both spindles is instantly registered on the dials. The device is priced at about \$695.

A new video tuner/timer (TT-300) combining a pushbutton tuning system with Sony U-Matic and Betamax videocassette recorders has been announced by Sony Video Products Co., 9 W. 57 St., New York, NY 10019. Capable of receiving both VHF and UHF transmissions, the TT-300 has a 12-position pushbutton touch-tuning system affording fast, reliable station selection. Features include a 4-digit LED display timer to provide preset, off-the-air recording. When preset, the timer allows for the selection of one- or two-hour recordings and then automatically turns off. The device also utilizes a two-way antenna splitter permitting one television program to be viewed while another is simultaneously recording for future playback. It operates on ac current at 120 V, 60 Hz and has a power consumption of 13 W. The price is about \$395.80.

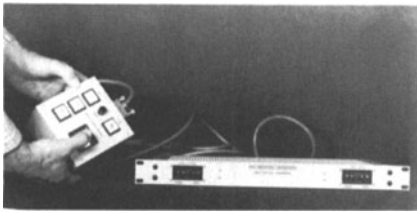


A video bridging switcher that has the capability of remotely operating multiple audio switchers has been announced by Lenco, Inc., Electronics Division, 300 N. Maryland St., Jackson, MO 63755. Designated Model PSW-467, the video switcher can control 10 or more Lenco Model PAF-467 audio switchers. Other capabilities include switching video, audio and SMPTE time code at the same time, or stereo audio and SMPTE time code. The PSW-467 switcher has 12 inputs and two outputs and is capable of remote control operation using the associated Lenco Model PSR-467 remote control panel. Price of the PSW-467 is \$795.



The ADC581-12, 12-bit Hi-Rel analog-to-digital converter (ADC) now operates 50% faster, according to an announcement from Hybrid Systems Corp., Crosby Drive, Bedford Research Park, Bedford, MA 01730. A full 12-bit conversion takes place in 17 μ s, typical, or 20 μ s, maximum. The converter can be short-cycled to obtain even shorter conversion periods where less resolution is required. Designed as plug-in replacements for Burr-Brown's ADC85/84 and Datal's ADC-HX12B/HZ12B devices, the ADC581 series provides a 70% reduction in power consumption and the ability to operate over the full -55° C to + 125° C MIL temperature range. Total power draw is 570 mW. ADC581 is offered with full MIL-STD 883B Class B or commercial/industrial processing. An internal clock, reference and input buffer are included. The design provides an external clock rate control and the option to use an external clock for synchronization. Five input ranges can be selected and three output codes are

available. Each unit is packaged in a 32-pin hermetically sealed, dual-in-line metal case. The ADC581C-12 version, processed for commercial/industrial use is priced at \$169. The ADC581B-12, screened to MIL-STD-883B, Class B, is priced at \$214.

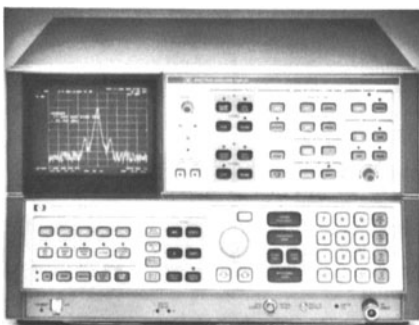


A Video Reticle Generator, Model VR-116, has been introduced by Gray Engineering Laboratories, Inc., 504 West Chapman Ave., Suite 0, Orange, CA 92668. It permits precise positioning of title anywhere within the safe title area and eliminates errors caused by non-linear monitors. Independent control of safe action and safe title limits are programmable by front-panel thumbwheel switches and can be set to meet all industry standards including SMPTE Recommended Practice RP-27.3-1972.

The operator has unrestricted selection of limits with line-by-line steps for vertical movements and 250 ns steps for horizontal movement. Remote functions permit generation of a safe action reticle, a safe title reticle, or center line cross hairs that can be selected for display. Brightness control provides 0 to 100% luminance value of display. A joystick control provides manual override of safe action reticle. The joystick control lines are vertically and horizontally independent for use in centering and leveling the title and can be adjusted from the exact center to the edge of the blanking area.

Other features include a "no drift" digital logic, to insure repeatable accuracy and a remote control box that allows control to be located up to 18 ft from the base unit for the convenience of the operator. Two video outputs are provided. The price of the video reticle generator is \$1895.

Two new projection systems, the KP-7200G and the KP-5000G, designed for industrial use, have been announced by Sony Video Products Co., 9 W. 57 St., New York, NY 10019. The units have 9-in monochromatic projection tubes and a special screen design, a combination said to provide exceptional brightness and contrast ratios. The single-unit design of the 7200 and 5000 helps to eliminate mechanical registration problems often associated with two-piece units. The projectors can be used in situations where a large screen is desirable. The KP-7200G is priced at \$4000. The KP-5000G is priced at \$3500.



A new spectrum analyzer, Model 8566A, which uses microprocessor control, has been announced by Hewlett Packard, 1501 Page Mill

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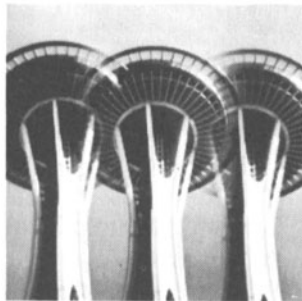
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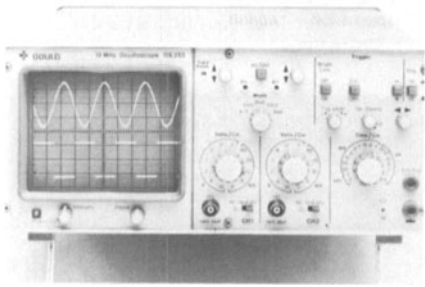
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Road, Palo Alto, CA 94304. Using the 10-Hz resolution bandwidth, the analyzer's sensitivity is -137 dBm to 1 GHz, -134 dBm to 5.8 GHz, 115 dBm at 22 Hz. This sensitivity includes the presence of built-in preselection from 2 to 22 GHz. Related attributes are 80-dB dynamic range and full-frequency range amplitude of ± 2.2 dB. This performance permits direct measurement on microwave signals of line-related sidebands that are 50 dB down.

The CRT display encompasses an electronically-generated graticule plus character generation for digital display of control settings and measurement data. Display titles can be added. As many as three different traces, each of 1001 horizontal points, may be taken, stored in memory, then shown separately or together as desired while comparisons among them may be calculated, labelled and displayed digitally on the CRT. Price of the 8566A is \$47,500.



A new 12-MHz portable oscilloscope for general purpose laboratory, industrial and servicing applications has been announced by Gould Inc., Instruments Division, 3631 Perkins

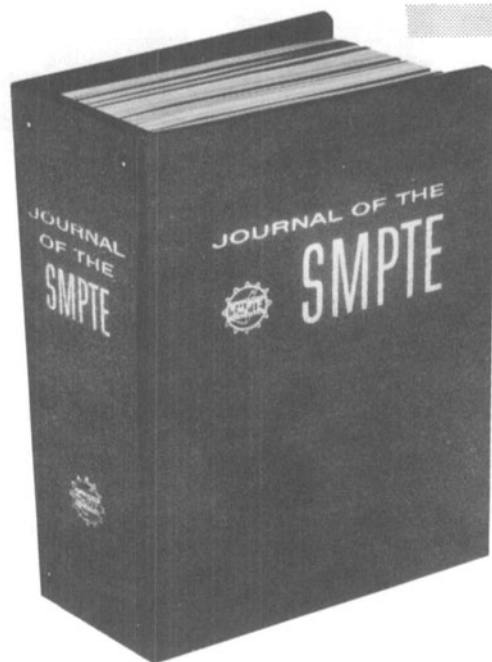
Ave., Cleveland, OH 44114. Designated the OS253, the oscilloscope has dual-trace and X-Y display capability; 2 mV/cm vertical sensitivity with ac, ground and dc coupling; channel sum and difference with channel 2 inversion; bright-line operation; dc coupled Z-modulation input; calibrator output; and a front-panel trace-rotate control. Horizontal sweep rates are continuously variable over 18 ranges from 500 ns/cm to 0.2 s/cm with a maximum effective sweep rate of 100 ns/cm at X5 Expand. Triggering is ac coupled from an internal or external source with positive or negative slope and level selected by a variable control. The instrument has an 8×10 -cm CRT. It is $5\frac{1}{2}$ in high, 12 in wide and 18 in deep. It weighs about 13 $\frac{1}{4}$ lb. The price is \$695.



A 250-MHz general purpose frequency counter, Model LDC-823, featuring a large 8-digit fluorescent display, has been announced by Leader Instruments Corp., 151 Dupont St., Plainview, NY 11803. The new frequency counter offers 20-mV sensitivity, pushbutton attenuation control and selectable 50 Ω or 1 M Ω input

impedance for reliable triggering over a broad signal range. Frequency measurements can be made with 0.1-, 1-, or 10-s gate times from 10 Hz to 250 MHz. Period measurements from 1 ms to 100 ms can be made with resolutions of 0.1, 1 or 10 ms. The new counter is available with any one of three time bases — the standard unit providing 5 ppm stability from 0 to 40°C, a temperature compensated crystal oscillator with 1 ppm stability from 0 to 50°C, and an ovenized oscillator offering 0.02 ppm stability from 0 to 40°C. Rear-panel connectors provide an output of the internal time base and also provides for utilizing an external source of 10 MHz as the time base. The LDC-823 is priced at \$450.

The Calcumeter, a combination multimeter and calculator, has been announced by Micro-metrics, Inc., 9450 S.W. Barnes Road, Portland, OR 97225. As a handheld digital multimeter, when turned on and initialized, the Calcumeter is in the following starting conditions ready to measure: normal measurement mode, engineering format display, autoranging, stack and memory registers cleared to zero, beeper tone enabled. The Calcumeter uses the same terminals for all measurement functions, thus eliminating the need to exchange leads for different applications. Operating features include autozeroing, autopolarity plus continuous or single cycle measurements, and fixed ranges or autoranging. If an overrange condition occurs when in fixed range mode, "Error" is displayed along with the range number of the range being exceeded. Other features include six special memory modes, including direct display of linear transducer outputs in engineering units (Mx+b); remote data logging and computer interface; long battery life; and others. The price is \$389.



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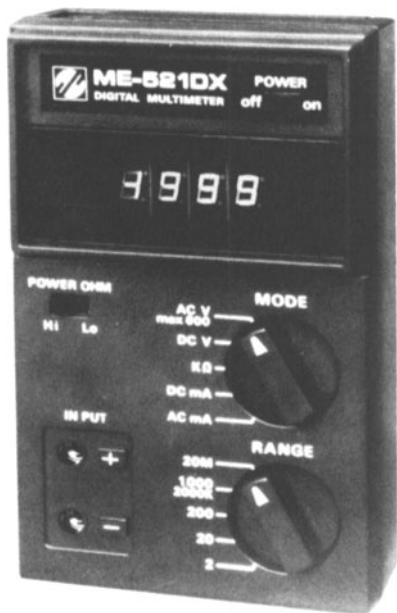
The Neumann ultra-directional line condenser "shot-gun" microphone, Model KMR 82i, has been announced by Gotham Audio Corp., 1710 N. LaBrea Ave., Hollywood, CA 90046. The microphone is said to display a smooth frequency response and an unusual directional pattern which differentiates pattern vs frequency less severely than traditional models. It is thus less susceptible to off-axis sound coloration. Features include a foam wind screen, elastic suspension, windproof blimp, and an "active" handle for handheld use containing a 9-V battery for the 48-V phantom powering converter. Price of Model KMR 82i is about \$795.



A professional 8-channel audiotape noise-reduction system, Model 208 (shown above), has been announced by dbx, Inc., 71 Chapel St., Newton, MA 02195. The system is designed to

eliminate audible tape hiss, thereby permitting multiple track bouncing and mixing without audible noise build-up, by providing in excess of 30 dB of noise reduction over the entire audio spectrum and an additional 10 dB of recording level headroom. The 208 accomplishes this through retrievable compression — halving the music's dynamic range at the input, then expanding it during playback by a mirror-image ratio of 1:2 at the output without audible side effects. Price of the 208 is about \$3300.

Also announced was the Model RM-155 audiotape noise-reduction system consisting of two dbx 155 4-channel units in a 3¼-in rack-mount package to provide 8 channels of switchable noise reduction or 4 channels of simultaneous encode and decode functions. Like the 208, the RM-155 eliminates audible tape hiss by providing 30 dB broadband noise reduction at all levels plus a 10 dB increase in recorder headroom. The RM-155 is priced at \$1100.



A 3½-digit battery-powered multimeter. Model ME-521DX, has been announced by SOAR Electronics (U.S.A.) Corp., 813 Second St., Ronkonkoma, NY 11779. Features include a high-low Ω switch for all ranges, five function modes, automatic zero adjustment, automatic polarity, and overload protection. Low current drain assures long battery life. The device weighs 27 oz. It has a voltage measurement capability to 1000 V dc and 600 V ac; a current measurement range to 1000 mA, ac or dc; and a resistance measurement range of 20 M Ω . Typical accuracy is 5%. The price is \$115.

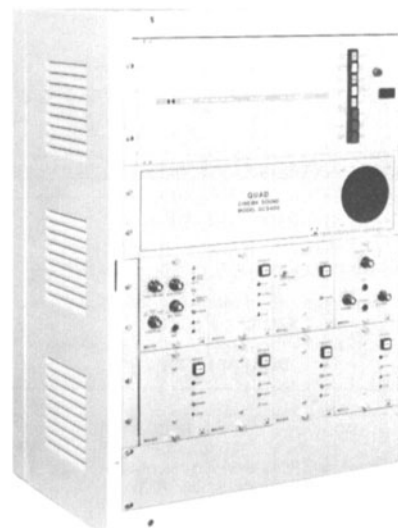


The Goko Multi-Recording Sound Editor RM-3 for editing and mixing sound and viewing the picture on 8mm and super-8 magnetic-stripped sound films has been announced by the Photo Products Division of Ehrenreich Photo-Optical Industries, Inc., 101 Crossways Park West, Woodbury, NY 11797. The RM-3 has a built-in viewing screen, mixing console, high-

fidelity playback system, 18 and 24 frames/s, capstan-drive projection/recording speeds plus manual film transport operation. The multi-recording system allows the user to add music, narration or sound effects to any magnetically striped 8mm or super-8 film. Depending on the recording mode selected, existing sound can be fully erased and new sound added. Sound may be added to an existing soundtrack. Illuminated by a 6-V, 10-W lamp, the unit operates on 110-V ac current. The RM-3 is priced at about \$360.

The 7-in Navitar slide projection lens for Kodak slide projectors has been redesigned with the aperture increased to $f/2.8$ from $f/3.5$, according to an announcement from D.O. Industries, 317 East Chestnut St., East Rochester, NY 14445. The redesigned lens provides higher contrast, edge-to-edge sharpness and better center-to-corner illumination. The lens fits all Kodak Ektagraphic, Carousel and S-AV slide projectors. No modification is needed. Price of the 7-in Navitar lens is \$129.50.

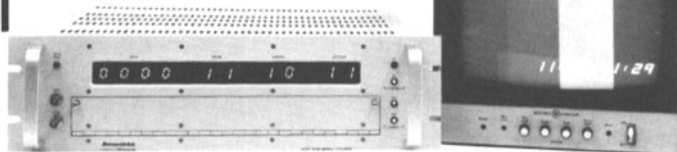
The new R340 axial lead-mount general purpose rectifier, a device offering simplified mounting and certain economic advantages over metal-case rectifiers, has been announced by Westinghouse Electric Corp., Semiconductor Div., Youngwood, PA 15697. Among applications for the new device are battery chargers and microprocessor power supplies. The rectifier is rated at 6 A with voltage capability from 50 to 800 V. Prices range from 45 cents for a 50-V unit to \$1.33 for an 800-V unit in quantities of 100-999.



Quad Cinema Sound, Model QCS-400, a 4-channel, 100-W per channel, power amplifier system compatible with the Dolby CP-50, has been announced by Optical Radiation Corp., 6352, N. Irwindale Ave., Azusa, CA 91702. Designed for quick and easy installation in the theater, the Dolby system is mounted in the top portion of the QCS-400 cabinet, and power and speakers are connected. Amplifiers are mounted on plug-in modules for quick replacement. Complementing the four 100-W modular power amplifiers are a master 4-channel volume control (fader), a channel-to-channel switchable monitor

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