Dear friend and customer:

Allied's 1984-85 catalog brings you more products than ever before. Broadcasters all over the world are looking to Allied Broadcast and Allied International as the one source for just about everything in audio and RF.

The past year has brought many new products and new people to Allied, all with one purpose in mind . . . to maintain our Number 1 position in sales, service, inovation, and integrity. We're proud of our standing and plan to continue our leadership for many years.

The excitement of broadcasting has not and will never diminish . . . but, we are in a period of change. Deregulation combined with new technology will bring our industry excitement, expansion, stability, and profitability.

This catalog, and the many supplements to follow, will keep you informed of the latest equipment available. Please let us hear from you. Tell us what we do right and, just as important, what we do wrong and how we can improve. We listen to the broadcaster; it's part of our business.


## CROWN D-75 AMPLIFIER



The CROWN D-75 offers significant benefits to the professional user, benefits like IOC input/output comparator that reports all forms of signal overload, lockable level control shafts, activebalanced XLR connectors as well as unbalanced $1 / 4^{\prime \prime}$ phone plugs and signal presence indicators that notify the user whenever the D-75 output signal is greater than $1 / 8$ watt. 35 watts per channel.

## MANUFACTURER'S SUGGESTED LIST PRICE

. $\$ 499.00$
ALLIED PRICE \$


Retaining the D-150A tradition for sonic accuracy and reliability, the CROWN D-150A Series II is rated at 80 watts per channel into 8 ohms, 250 watts into 8 ohms mono. The frequency response is $\pm 0.1 \mathrm{~dB} \mathrm{DC}$ to 250 kHz at one watt into $8 \mathrm{ohms} \pm 1 \mathrm{~dB} \mathrm{DC}$ to 100 kHz ., less than $.001 \%$ harmonic distortion, less than . 01 I.M. distortion and 6 volts per microsecond slew rate.
MANUFACTURER'S SUGGESTED LIST PRICE. .$\$ 729.00$

ALLIED PRICE \$ $\qquad$

## CROWN DC-300A SERIES II



Since its introduction, the DC-300 and its modifications have been a standard of sonic accuracy, power and reliability. It is FTC rated at 250 watts per channel into 8 ohms; 500 watts into 8 ohms mono. The DC-300A Series II looks different from the front, with a scratch resistant, baked enamel front panel, new power switch, and relocated level controls.
MANUFACTURER'S SUGGESTED LIST PRICE. .$\$ 1149.00$

ALLIED PRICE \$

$\qquad$ -

## CROWN PS-400



The CROWN PS-400 power amp is designed and built for the professional sound system. Into 8 ohms it will provide 180 watts per channel, into 8 ohms mono it will provide 520 watts. Check the allpro features, terminal strips and phono jacks, ground separation strip, mono-stereo switch-with binding posts conveniently positioned for quick conversion, detented controls, 4 second turn-on delay, IOC and signal presence indicators.

MANUFACTURER'S SUGGESTED LIST PRICE . $\$ 1179.00$

ALLIED PRICE \$
CROWN PS-200


The CROWN PS-200 power amplifier is designed as a low power companion for the PS-400. Like the 400, the 200 is designed, and built for professional sound systems. It delivers 90 watts per channel into 8 ohms, 270 watts into 8 ohms mono. It is another powerful, all-day reliable CROWN amplifier that is unaffected by mismatches, shorted outputs, low impedance or physical abuse.
MANUFACTURER'S SUGGESTED LIST PRICE.
. $\$ 769.00$
ALLIED PRICE \$
CROWN M-600

(cont.)

The CROWN M-600 power amplifier was designed to operate safely and continuously into a variance of load requirements. The M-600 provides 600 watts minimum RMS into an 8 ohm load over a bandwidth of 1 Hz to 20 kHz at a rated sum total harmonic distortion that is $.05 \%$ of the fundamental output voltage. The additional power produced by the M-600 induces no additional stress to the unit's components.

MANUFACTURER'S SUGGESTED LIST PRICE
.\$2695.00
ALLIED PRICE $\$$ $\qquad$
CROWN SL-2


The CROWN Straight Line Two is a rack-mounted preamplifier for total control. Automatic muting eliminates thumps and pops and it features 5 switched and 1 unswitched 115AC outlets. It has tuner, phono, auxiliary and processor inputs and (2) main, (2) tape, processor and front outputs. The SL-2 features detented level controls for reset, a loudness control for accurate bass, $\pm 10 \mathrm{~dB}$ of bass boost and $\pm 10 \mathrm{~dB}$ of treble boost.

MANUFACTURER'S SUGGESTED LIST PRICE.
. $\$ 549.00$
ALLIED PRICE \$ $\qquad$ $-$

## CROWN PL-2



The CROWN Power Line Two is a rack-mounted power amplifier rated at 50 watts per channel with detented level controls for precision selection of level. The PL-2 features a dynamic analyzing display which includes IOC distortion indication.
MANUFACTURER'S SUGGESTED LIST PRICE
ALLIED PRICE \$ $\qquad$

## CROWN PL-3



The CROWN Power Line Three is a rack-mounted power amplifier rated at 90 watts per channel into 8 ohms, with a T.H.D. of less than $.05 \%$, and I.M.D. of less than $.05 \%$ and a slew rate of 12 volts per microsecond. The frequency analyzing display shows peak levels in all three frequency bands, provides information on spectral
balance to check system, music, amplifier, speakers or room.

MANUFACTURER'S SUGGESTED LIST PRICE................... $\$ 949.00$
ALLIED PRICE $\$$
CROWN PL-4


The CROWN Power Line Four is a rack-mounted power amplifier rated at 165 watts per channel into 8 ohms. It features a frequency analyzing display that includes IOC distortion indication.

MANUFACTURER'S SUGGESTED LIST PRICE. .$\$ 1349.00$

ALLIED PRICE $\$$
UREI 6150


UREI amplifiers ofer exceptionally large power supplies, exceedingly high speed and high current circuitry combine to produce low-end punch and high end sparkle which is unexcelled in professional power amplifiers. Moderate use of negative feedback results in fast recovery from transient overloads and avoids high-order harmonic distortion during clipping. The UREI 6150 is rated at 80 watts per channel.
MANUFACTURER'S SUGGESTED LIST PRICE.
.$\$ 746.00$
ALLIED PRICE \$
UREI 6500


As opposed to the "fix-it-up-with-feedback" approach in common use today, UREI carefully departed from conventional design techniques. Each amplifier stage in the 6500 was engineered for optimum performance with no overall feedback. The 6500 features two channels on an independent, modular plug-in chassis with front panel access. The 6500 is rated at 275 watts into 8 ohms per channel output with . 1 THD.
MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ $\$ 2396.00$

ALLIED PRICE \$ $\qquad$
SYMETRIX A-220


The SYMETRIX A-220 is a rack-mounted stereo amplifier rated at 20 watts per channel into 8 ohms, 40 watts mono into 8 ohms with $08 \%$ maximum distortion, an input impedance of 20 K ohms balanced and 30 K ohms unbalanced. The A-220 uses 3 -pin XLR type connectors for balanced input, $1 / 4^{\prime \prime}$ phone jacks for unbalanced inputs. The outputs are dual banana jacks (rear panel) and headphone jack on the front panel.
MANUFACTURER'S SUGGESTED LIST PRICE................. $\$ 289.00$
ALLIED PRICE $\$$ $\qquad$ -

## NAD 3020A



The NAD 3020A is a 20 watt state-of-the-art unit, offering totally uncompromised performance at a cost that buyers can afford. Among other things, the 3020A contains a unique "soft-clipping" circuit which allows it to play much louder than its rated power suggests. The 3020A has less than $.02 \%$ of all types of distortion and a LED peak power indicator. Rack mount optional.

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ . $\$ 218.00$

ALLIED PRICE \$ $\qquad$
RTS 410


The Model 410 is a 10 watt power amplifier designed to power loudspeakers, headphones or 70 -volt loudspeaker systems. Its input is balanced and designed to bridge 600 ohm +4 dBu program lines. The 410 features a direct amplifier output available on push terminals and/or a $1 / 4^{\prime \prime}$ phone jack, and an optional transformer isolated output on a barrier strip for 70 volt operation. The input connection may be made via an XLR type connector or a $1 / 4^{\prime \prime}$ phone jack.
mANUFACTURER'S SUGGESTED LIST PRICE.
. $\$ 303.00$
ALLIED PRICE \$ $\qquad$ -

BGW 75


The BGW 75 is a rack-mounted power amplifier rated at 25 watts per channel into 8 ohms, with .05\% T.H.D. 20 Hz to $20 \mathrm{kHz}, 50$ watts into 8 ohms mono, with $.08 \%$ T.H.D. The Model 75 features all new circuitry with low noise discrete matched differential amplifier input circuitry, and offers transient free turn-on and turnoff.

MANUFACTURER'S SUGGESTED LIST PRICE
ALLIED PRICE \$ $\qquad$
BGW 250D/250E


Identical but for their front panel power indicators, the 2500 and 250E offer magnetic circuit breaker mains switches, redundant output stage circuitry using six 150 watt complementary transistors per channel, high speed 15 mHz op amp front-end, professional input connectors including XLR and $1 / 4^{\prime \prime}$ phone jack, and 100 watts minimum sine wave continuous average power output per channel into 8 ohms.

```
250D....$839.00
ALLIED PRICE \$
250E..... \(\$ 959.00\)
ALLIED PRICE \$
BGW PRICES ABOVE ARE MGFR'S SUGGESTED LIST PRICES CALL FOR THE ALLIED PRICE
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## BGW 150

- 

The BGW 150 is a rack mounted power amplifier rated at 50 watts per channel into 8 ohms, 150 watts into 8 ohms mono, with intermodulation distortion of less than $.02 \%$, a frequency response of . .25 dB 20 Hz to 20 kHz and is designed for any load impedance equal to or greater than 4 ohms.

MANUFACTURER'S SUGGESTED LIST PRICE
.$\$ 679.00$
ALLIED PRICE \$ $\qquad$

> "PRICES ARE U.S., DOMESTIC ONLY',

ALLIED PRICE \$
L1000-2 balanced differential outputs.....\$315.00
ALLIED PRICE \$
L1000-3 unbalanced outputs..... $\$ 295.00$
ALLIED PRICE \$
M1000-1 dual transformer outputs..... $\$ 345.00$
ALLIED PRICE \$
M1000-2 balanced differential outputs..... $\$ 345.00$
ALLIED PRICE \$
M1000-3 unbalanced outputs..... $\$ 325.00$
ALLIED PRICE \$ $\qquad$
ATI PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES CALL FOR THE ALLIED PRICE

RTS 1400


The RTS 1400 is more than a microphone preamp. It is a unique and versatile tool. Its well planned features, rugged construction and excellent specifications make it a professional problem solver, an audio "adapter" with countless applications. The 1400's gain is continuously variable via a front panel control. At any level of operation the 1400 can sufficiently boost the mic level input to any load. It's perfect for location recording, remote broadcasting and production.

MANUFACTURER'S SUGGESTED LIST PRICE
.$\$ 312.00$
ALLIED PRICE \$

RTS 465


The Model 465 is a single channel, wideband microphone preamp designed for pro use in areas such as broadcast operations, television production, sound reinforcement and more. It features outstanding electrical specifications along with fully floating transformer balanced input and output circuits, switchable phantom power and an integral power supply. The 465 employs a switchable limiter to preclude the possibility of preamp overload from any mic source.
MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ .$\$ 454.00$

ALLIED PRICE \$ $\qquad$ -

The ATI M-1000 dual microphone and L-1000 dual line series of Micro Amps are rackable, handsome, microsized, stackable, versatile and RF protected. The series provide +22 dBm at clipping for transformer and single ended outputs, +26 dBm for balanced differential octputs. They're quiet, total amplifier noise is typically within 1 dB of the thermal noise of source impedance. A 13 microsecond slew rate minimizes the irritating harshness of TIM distortion. 100 dB open loop gain per stage and 50 mHz gain bandwidth product hold typical circuit harmonic distortion below . $005 \%$ even at 20 kHz .
L1000-1 dual transformer outputs..... $\$ 315.00$

ALLIED PRICE
ALLIED PRICE \$ $\qquad$
BGW PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES CAL FOR THE ALLIED PRICE

## ATII MICRO AMP SERIES



## ORBAN 8100A/1



The ORBAN 8100A FM OPTIMOD ${ }^{\text {© }}$ offers wideband or multiband operation, more versatile setup controls that permit precise "tuning" for different formats, improved voice/music balances, an improved stereo generator with cleaner baseband, new overshoot compensation that permits full modulation at all frequencies, yet doesn't increase low frequency IM distortion, plus a dual-chassis option, built-in crosstalk test generator, rigorous RFI shielding and true VC gain control. FM's favorite processor!

MANUFACTURER'S SUGGESTED LIST PRICE.
.$\$ 4395.00$
ALLIED PRICE S
ORBAN 9100A/1 \& 2


The 9100A/1 and A/2 ORBAN OPTIMOD ${ }^{*}$ was designed for the state-of-the-art AM broadcaster. If your station has an AM transmitter and audio chain which will come close to passing an FM proof, an STL good out to 15 kHz (for co-located facilities) and an antenna system capable of 11 kHz minimum bandwidth there is not a better AM processor made.

| 9100A/1 mono..... $\$ 4395.00$ | ALLIED PRICE $\$$ |
| :--- | :--- | :--- |
| 9100A/2 stereo..... $\$ 5295.00$ | ALLIED PRICE $\$$ |

ORBAN PRICES ABOVE ARE MFGR'S SUGGESTED LIST prices. CALL FOR THE ALLIED PRICE

MOSELEY SCD-9


The MOSELEY SCD-9 stereo demodulator transforms a composite stereo waveform into discrete left and right channels for AM stereo and FM broadcast. It includes de-emphasis circuitry, 15 kHz low pass filters and front panel and stereo indication, with a SPDT relay for external control. An easy way to take advantage of composite STLs for AM Stereo.
MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ $\$ 1195.00$

ALLIED PRICE \$ $\qquad$

## "'SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE',

ORBAN 8182A


Introducing the new, second-generation ORBAN OPTIMOD TV 8182A. Licensed from CBS TECHNOLOGY CENTER, and incorporating the latest research technology, the in-built loudness controller automatically recognizes program material whose perceived loudness exceeds a certain threshold, then quickly and indiscernably lowers the gain until the loudness is consistent with the rest of the program. The result is smoother more easily-listenable audio, operator errors are corrected and obnoxious commercials are tamed.

MANUFACTURER'S SUGGESTED LIST PRICE.
$\$ 4995.00$
ALLIED PRICE \$ $\qquad$ -

ORBAN 418A


The ORBAN 418A is a complete limiting system consisting of a pair of ganged broadband compressor/limiters with exceptionally smooth and subtle characteristics, followed by a high frequency limiter with four different time constants, user selectable by means of a frontpanel switch. This variable time constant feature is unique in the industry and permits the characteristics of the high-frequency limiter to be tailored to recording medium following the limiter. Not suitable for use by itself as an FM processor.
MANUFACTURER'S SUGGESTED LIST PRICE.
.$\$ 899.00$
ALLIED PRICE \$ $\qquad$ -
ORBAN 422A/424A


The ORBAN 424A has a real compression ratio control for those few times when you want to maintain some real dynamic range. However you will be astonished at the openness and apparent dynamic range available even at the infinite ratio. You may be even more astonished when you discover the apparent loudness increase achieved without the usual side effects.

422A single channel..... $\$ 629.00$
ALLIED PRICE \$
424A dual channel..... $\$ 989.00$ ALLIED PRICE $\$$ ORBAN PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR THE ALLIED PRICE

## DURROUGH DAP-610


(cont.)

The DORROUGH DAP-610 departs from conventional gain reduction techniques which utilize a servo loop to control attenuation of the audio signal. Instead, the DAP-610 utilizes a frequency discriminate digital control signal, operating in real time, to control the action of analog attenuators, which are located within the discriminate path of the input audio signal. Attack and release time are now a function of the program in the digital control circuit and are fixed as are the discriminate frequency bands of the device. Two required for stereo.

MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 3900.00$

ALLIED PRICE \$
INOVONICS MAP II


The INOVONICS MAP II is a user-oriented discriminate processor of advanced design to assure optimum modulation, specifically in AM broadcast applications. The MAP || features a selectable high pass filter, gated AGC, multi-band compression, and a built-in pink noise generator. Two MAP II's may be interconnected for stereo operation. Not only are the bandpass compressors slaved on a band-for-band basis, but one phase follower may be slaved to the other or both may be defeated.
MAP If AM PROCESSOR per channel..... $\$ 1850.00$
ALLIED PRICE $\qquad$
MAP II FM PROCESSOR per channel..... $\$ 1650.00$ (2 needed for stereo)

ALLIED PRICE \$ INOVONICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR THE ALLIED PRICE

## INOVONICS 250



The 250 Programmable audio processor offers five separate processing chains in one unit which allows the user to call up just the right processing system for each type of programming being presented. Another feature of the 250 is the use of pulse width modulation in the gain circuitry which dramatically decreases the amount of distortion present.

## 250-00 for FM Stereo..... $\$ 2645.00$ ALLIED PRICE $\$$ <br> 250-01 for AM Stereo..... $\$ 2645.00$ ALLIED PRICE $\$$ INOVONICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR THE ALLIED PRICE

## CRL AM-4



This four band system will outperform any other multi-band compressor. It provides maximum density to increase coverage and pre-emphasis for improved fidelity. The AM-4 stereo package contains the SPP800 PREPARATION PROCESSOR, a two band AGC unit that is gated to prevent noise pull-up, two SEP400A SPECTRAL ENERGY PROCESSORS, four band compressor/expanders with gating in each band, and an SMP900 AM STEREO MATRIX PROCESSOR, a state-of-the-art limiter which processes $L+R$ and L-R separately.
MANUFACTURER'S SUGGESTED LIST PRICE................ $\$ 6400.00$
ALLIED PRICE \$
CRL FM-4


This is the ultimate FM system. Maximum fidelity, maximum loudness and maximum control. The FM-4 connects to your stereo generator and includes SPP800, a PREPARATION PROCESSOR, a two band AGC that is gated to prevent noise pull up, SMP800, an FM STEREO MODULATOR PROCESSOR, that provides absolute peak control and maximum fidelity and two SEP400A SPECTRAL ENERGY PROCESSORS, four band compressor/expanders with gating in each band.
MANUFACTURER'S SUGGESTED LIST PRICE.
.$\$ 6200.00$
ALLIED PRICE $\$$
MODULAR AUDIO IMPAC SERIES


The MAP IMPAC series PC card system can provide simple solutions to your most complex audio processing and control requirements. IMPAC offers the unique choice of either self contained or remote controlled operation featuring solid state switching and voltage controlled amplifiers for silent remote control of all switching and level control functions.
4003
A low noise microphone preamp featuring a shielded mic input transformer, a built in network for powering condenser mics, a wide range high level centertapped output transtormer and an auxiliary unbalanced direct output.
4003..... $\$ 142.50$

ALLIED PRICE \$
4004
The 4004 bridging line amplifier card is designed to bridge medium to high level sources. It features a bridging input transformer, output transformer and auxiliary direct output.
4004..... $\$ 150.00$

ALLIED PRICE \$
4006
The 4006 line/mixer amplifier card features direct access to noninverting and inverting op-amp inputs, output transformer and an auxiliary direct output.
4006.....\$98.95

ALLIED PRICE \$

## 4007

The 4007 power amplifier delivers 15 watts RMS continuous power output, its designed to be a monitor or headphone driver or cue amplifier. Features an active balanced bridging transformerless input stage, and direct coupled power output stage.
4007.....\$120.00

ALLIED PRICE $\$$

## 4008

The 4008 tape preamplifier offers expanded HF and LF trim and gain controls and an output transformer.
4008..... $\$ 120.00$

ALLIED PRICE \$
4009
The 4009 phono preamplifier has standard RIAA phono reproduce equalization $\pm 1 \mathrm{~dB}$, gain and high trim controls and an output transformer.
4009..... $\$ 111.20$

ALLIED PRICE $\$$
4010
The 4010 peak indicator allows four channels of peak indication on a single card, detects instaneous peaks in program or mic channels, and is less costly than PPM's. It features active balanced bridging transformerless inputs which means this unit can be connected anywhere in the audio chain without loss of program audio quality.
4010..... $\$ 80.00$

ALLIED PRICE \$
4011
The 4011 FET switcher offers four independent remote controlled FET audio switch circuits on a single card. Use for channel assignment in a remote controlled audio console or mixer or to form a large switching matrix or routing switcher.
4011..... $\$ 78.00$

ALLIED PRICE \$
4012
The 4012 is a versatile AF oscillator for providing cueing, slating, alignment or test tones in an audio console or system. External connections determine fixed or remote variable frequency and gain. It features an output transformer and an auxiliary direct output.
4012..... $\$ 120.00$

ALLIED PRICE $\$$
4017
The 4017 noise generator provides selectable pink or white noise output with variable gain. Its used in room analysis, amplifier performance tests, speaker tests, reverberation tests, and sound delay tests. Pink noise slope is per EIA standards.
4017..... $\$ 108.40$

ALLIED PRICE \$
4020
The 4020 four-channel amplifier uses four 5004 op-amps in active balanced configuration. For balanced, differential, or single-ended applications. Features on-card user adjustable trimpots for up to 34 dB of gain. Outputs can be coupled into transformer for floating or balanced applications.
4020.....\$272.00

ALLIED PRICE \$

## 4046

The 4046 is a balanced input/output amplifier of high quality and excellent specifications. Two inputs are provided, one bridging input for line applications and one summing input which can be used to follow a switching matrix with an array of crosspoints. Two output choices are available. One 600 ohm output for standard applications or a low impedance 10 ohms output achieving even higher dynamic range.
4046..... $\$ 133.50$

ALLIED PRICE $\$$

## 4088

The 4088 MOSFET audio switcher is an eight channel SPDT MOSFET switch which provides low distortion switching with minimal loss. All switches are CMOS compatible. Four of the switches are routed through a jumper matrix for additional flexibility. A 5008 dual op-amp is factory set for 14 dB gain for additional boosting and/or buffering of distant signals.
4088..... $\$ 183.35$

ALLIED PRICE \$
4102
The 4102 voltage controlled amplifier is used for remote level con-
trol, fader grouping or automated mixing applications. The card provides a regulated +5 VDC reference voltage for simple connection as a 0 to 100 dB attenuator.
4102..... \$137.00

## ALLIED PRICE \$

4202
The 4202 voltage controlled amplifier is practically identical to the 4102 except that a transformer output is added.

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4202.....$155.00
ALLIED PRICE \$ 4405
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The 4405 and 4405-1 are 5 watt power amplifiers. The 4405 is used with a line level input. its gain is externally adjustable up to 50 dB . The 4405-1 is for use with a transformer coupled floating mic input. Its gain is externally adjustable up to 68 dB .
4405..... $\$ 45.00$

4405-1..... $\$ 95.00$

## 4820

The 4820 audio distribution amplifier provides eight active balanced 600 ohms outputs at +20 dBm maximum each. The 4820 features active balanced bridging transformerless input with level control.
4820..... $\$ 155.00$

ALLIED PRICE \$
4824
The 4824 is a high quality distribution amplifier meeting the needs of many broadcasters where more than eight output split capability is not required. The 4824 has a balanced bridging input and a low impedance input for summing applications. The output section can deliver +30 dBm into eight 600 ohm output splits, giving a +24 dBm output capability at the connector terminals.

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4824.....$195.00
    ALLIED PRICE $
MODULAR AUDIO PRICES ABOVE ARE MFGR'S SUGGESTED
LIST PRICES. CALL FOR THE ALLIED PRICE
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## UREI LA-4



The UREI LA-4 compressor/limiter is another great performer in the expanding product line from UREI, the company which has built and sold more limiters and compressors throughout the world than any other manufacturer. Making use of patented electro-optical attenuator technology, the LA-4 offers smooth, predictable performance coupled with ease of operation. Features a long-life LED optical attenuator, selectable compression ratios and simple stereo coupling.
MANUFACTURER'S SUGGESTED LIST PRICE.
$\$ 496.00$

## "‘DISCOUNTS ARE

AVAILABLE

## UREI 1176LN



The UREI 1176LN single channel limiter features FET gain reduction ahead of the first stage. No tricky balancing required ever, there's no distortion adding active element in the gain reduction circuit, pushbution selection of four different compression ratios and ultra fast attack time independent of peak duration or frequency and it's fully adjustable from the front panel.
MANUFACTURER'S SUGGESTED LIST PRICE .$\$ 596.00$

ALLIED PRICE \$ $\qquad$
UREI 1178


The UREI 1178 dual peak limiter is a two channel version of the 1176 LN . The 1178 was designed for those applications where two channels of program material are processed and the balance of these audio channels must be maintained. The two limiters in the 1178 are perfectly matched to assure the high degree of tracking necessary for critical stereo applications. Limiting is accomplished by utilizing FET's as voltage variable resistors.

## MANUFACTURER'S SUGGESTED LIST PRICE <br> $\$ 896.00$

ALLIED PRICE \$
VALLEY PEOPLE 610


The Model 610 dual compressor/expander offers the convenience of two high-quality compressors with flexibility of multi-function dynamics processing in an attractive rack package. Each of the two channels consists of a compressor section and an expander section both controlling the common channel VCA. A special release coupling circuit provides symmetrical release characteristics for both the compressor and expander making interactive processing possible, thus eliminating the problems associated with using separate dedicated-function units.

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ .$\$ 995.00$

ALLIED PRICE \$

## ADR TRANSDYNAMIC



The AUDIO + DESIGN TRANSDYNAMIC tri-band broadcast processing system is designed for master processing prior to transmission. It also has applications in disc-cutting, final mix-down mastering and tape duplication. Normally sold as a package using ADR's "COMPEX", "EXPRESS", "EASY-RIDER" or "SCAMP" modular compressor-limiters, it is also available separately for use with other units.

## ADR EASY RIDER



The AUDIO + DESIGN EASY RIDER package makes a very cost effective "Rock Box". The super clean EASY RIDER compressorlimiter features manual or dynamically controlled attack for progran controlled handling of fast transients, continuously variable compression radio with automatic threshold adjustment, dual monolstereo operation, LED bargraph display of gain reduction anc as with all ADR units, a platformed "auto" release option.

## MANUFACTURER'S SUGGESTED LIST PRICE.

.$\$ 690.00$
ALLIED PRICE \$

## ADR EXPRESS



The AUDIO + DESIGN EXPRESS lends itself to classical and "beautiful" music formats where soft and subtle slopes are required. All compressor, limiter, and expander functions are controlled with same digital logic push switches, as on the TRANSDYNAMIC. The expansion of source noise is available on a three bands. Other features include extremely accurate stereo coupling, a dual function meter reading either gain reduction in dB or VU at the output and differential inputs and outputs.
MANUFACTURER'S SUGGESTED LIST PRICE. .$\$ 1450.00$

ALLIED PRICE \$

## DBX160X



The DBX 160X compressor/limiter provides the studio operator, broadcaster or sound reinforcement specialist with outstanding performance and operational flexibility in a slim-line rack mount package. The 160X has all the features of the famous 160 and more. It is the only compressor/limiter that offers you the choice of OVER EASY or hard-knee operation, regardless of the compression ratio selected.

MANUFACTURER'S SUGGESTED LIST PRICE.
.$\$ 420.00$
ALLIED PRICE \$
DBX165A


The DBX 165A is a result of combining the 165 and PEAKSTOP. The PEAKSTOP circuit which follows the compressor/limiter circuitry is a special "solf clipper" that rounds the leading and
(cont.

# 4 <br> trailing edges off the peak being clipped. By avoiding the normally sharp edges of a clipped peak, far lewer high order harmonics are generated making PEAKSTOP less audible than other types of clippers. 

 PROCESSORS / NOISE REDUCTIONMANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ .$\$ 670.00$


The Modular Audio 7102 compressor/limiter contains two full VCA units, controlled by a single DC source derived from a novel circuit using a true RMS to DC converter. The 7102 features unbalanced bridging inputs, unbalanced output with transformer optional, an input/threshold control, a compression ratio control, a slow/fast release time switch, an output level control, LED indicators for normal and peak leveis, left and right VU meters for input/output levels and integral power supply.

MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ $\$ 815.00$

ALLIED PRICE \$ $\qquad$

## NOISE REDUCTION

## DBX 900 SERIES



Today's signal processing plays a greater role in sound production than ever before. With this in mind, DBX has created the Series 900 modular signal processing system. The Model 902 De-esser can be used as a conventional broadband de-esser or for attenuating only a user-determined portion of the high frequency range. The Model 903 Compressor with its OVER EASY compressor gives smoother, more listenable compression. The Model 904 Noise Gate is the ultimate noise gate, with a combination of features not found on any other noise gate. Features like adjustable attack and release rates, threshold adjustment from -30 to +30 dB , attenuation limit adjustment from 0 to 60 dB , with DBX OVER EASY downward expansion for a smooth sound.

DBX 902..... $\$ 350.00$
ALLIED PRICE \$ $\qquad$
DBX 903..... $\$ 350.00$
ALLIED PRICE \$
DBX 904..... $\$ 350.00$
ALLIED PRICE \$ $\qquad$
DBX PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES CALL FOR THE ALLIED PRICE

DBX 941/942 and 906


The DBX Models 941 and 942 provide broadcasters with Type II noise reduction in the convenient Series 900 modular format. The 941 is a two-channel encode only Type II noise reduction unit, the 942 is a two channel decode only Type II noise reduction module which features an additional switchable provision for decoding DBX encoded discs. The Model 906 Ftanger answers the need for an electronic system that achieves precise, predictable control of the flanging effect while providing the signal quality, 100:1 frequency sweep and low noise previously obtained by using matched tape machines.

DBX 941..... $\$ 260.00$
ALLIED PRICE S
DBX 942..... $\$ 270.00$
ALLIED PRICE \$
DBX 906..... $\$ 750.00$
ALLIED PRICE \$ $\qquad$
Housing including power supply.
. $\$ 525.00$
ALLIED PRICE \$
Blank panels (each).....\$17.50
ALLIED PRICE \$
DBX PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES
CALL FOR THE ALLIED PRICE

## VALLEY PEOPLE KEPEX II



The KEPEX II is a multi-use device which tends not to sit idle in the equipment rack. It's the "problem solver" in the broadcast studio. In the area of noise reduction, or noise gating, reduction or elimination of the following is possible, multi-track tape noise, instrument amplifier hum, buzz, noise, leakage noise from other instruments, room sound, air conditioner rumble, set noise, street noise, breath noises and lip smacks.
(cont.)

# n NOISE REDUCTION / EQUALIZATION 

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ S380.00

ALLIED PRICE S

## VALLEY PEOPLE GAIN BRAIN II

The GAIN BRAIN II combines the functions of limiter, compressor and ducker in a small but powerful package. A host of proprietary circuitry advances are employed, yielding a new level of performance. GAIN BRAIN II features widely adjustable limiter/compressor and ducker optimized for production work, "intelligent' detector increases dynamic integrity via waveform recognition, proprietary release strategy which discourages pumping, squashing and modulation distortion. It's an all purpose device which is optimized for any purpose with no compromises. It requires a separate mount housing and/or power supply

MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 400.00$

ALLIED PRICE $\$$

## DBX 140 TYPE II



The DBX 140 simultaneous encode/decode broadcast noise reduction system is a two channel compressor/expander providing a minimum of 30 dB broadband audio noise reduction with a 10 dB increase in system headroom. The two channels feature independent encode and decode circuitry. Not compatible with type I. The DBX system eliminates tape hiss in recording, and prevents the noise build-up normally encountered in transferring information from one recorded medium to another

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ . 5990.00

ALLIED PRICE S

## EQUALIZATION

ORBAN 622


The 622 parametric equalizer consists of a balanced input buffer amplifier, and input attenuator, and four peak/dip equalization sections connected in series, assuring no interaction between sections. The final section contains a current booster capable of driving 600 ohm loads. The output of the input buffer and each of the equalization sections is monitored at all times by the overload indicator. The EQ IN/OUT switch bypasses all circuitry but the input buffer and output amplifier. It is arranged so that the gain and signal polarity are maintained constant in the IN and OUT modes

622A single channel..... $\$ 569.00$
ALLIED PRICE \$ $\qquad$
622B dual channel..... $\$ 879.00$
ALLIED PRICE $\$$
RET. 5 optional output balancing transformer
(1 per channel).....\$16.00
ORBAN PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR THE ALLIED PRICE.

## ORBAN 672A/674A



The ORBAN mono Model 672A and stereo Model 674A are cost e fective, professional, quasi-parametric equalizers with the convenience of graphic type $E Q$ controls. Wide range high and low pass filters with $12 \mathrm{~dB} / 0 \mathrm{ctave}$ Butterworth slopes follow the graphic section for added versatility. Each feature has Deen thoughtfully chosen and cleverly implemented to make the equalizer a particularly powerful tool in nearly all areas of audio.
672A mono.....\$689.00
ALLIED PRICE $\$$
674A stereo.....\$1299.00
ALLIED PRICE \$

RET-6 optional output balancing transformer
(1 per channel)..... $\$ 16.00$
ORBAN PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR THE ALLIED PRICE.

## WHITE 4400



The Model 4400 is White Instruments new $1 / 3$ octave, L-C active graphic equalizer. It culminates over ten years experience in building L-C graphic equalizers. The 4400 features active inductor capacitor tuned filters. The resonant frequency of each filter is derived passively by a tuned L-C pair. This approach, though expensive, drastically reduces the number of active devices necessariv to build a 28 -band graphic equalizer.
MANUFACTURER'S SUGGESTED LIST PRICE. .$\$ 950.00$

ALLIED PRICE S
WHITE 4100A


The Model 4100A is White Instruments two channel, octave band L-C active graphic equalizer that has been updated to be as versatile as possible for the audio professional. The 4100A is reputed to be the only two channel, octave band graphic equalizer to feature active, inductor-capacitor tuned filters. The resonant frequency of each filter is derived passively by a tuned L-C pair. This approach, although expensive, drastically reduces the number of active devices necessary to build a ten band graphic equalizer.
manufacturer's suggested list price. $\qquad$ $\$ 890.00$

ALLIED PRICE \$

## KLARK/TEKNIK

Klark/Teknik's continuing commitment to provide products suitable for professional sound engineering industry has led to development of the Series 300 Graphic Equalizers. Utilizing the microelectronic proprietary filter design, the Klark/Teknik Series 300 will provide dependable system performance

## DN332



Primarily the DN332 dual 2/3 octave 16 band equalizer is used for stereo tonal control but the unit can be used in virtually any situation where equalization is required and particularly in outside broadcasting to equalize lines but where rack space availability is of obvious importance. The use of the DN332 can provide the engineer with two full frequency range $2 / 3$ octave channels of equalization within only $31 / 2^{* *}$ vertical rack space.
Model Description
DN332 Dual $2 / 3$ octave, 16 band..... $\$ 1000.00$ ALLIED PRICE \$
DN332B DN332 with balanced outputs.....\$1120.00 ALLIED PRICE \$
KLARK/TEKNIK PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.
DN300


Primarily the DN300 $1 / 3$ octave 30 band mono equalizer is used for tonal control but the unit can be used in virtually any situation where equalization is required and particularly studio listening rooms to improve the overall frequency response of the monitoring sound system and to obtain optimal matching between stereo channels for accurate imaging.
Model Description
DN300 $1 / 3$ octave mono, 30 band equlizer..... $\$ 960.00$
ALLIED PRICE \$
DN300B DN300 with balanced output..... $\$ 1020.00$
ALLIED PRICE \$
KLARK/TEKNIK PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## DN360



Primarily the DN360 dual $1 / 3$ octave 30 band equalizer is used for stereo tonal control but the unit can be used in virtually any situation where equalization is required but particularly in Audio and Video casette duplication, to correct for frequency response or tonal irregularities during mastering and to adjust for tape loading characteristics.

## Model Description

DN360 dual $1 / 3$ octave, 30 band equalizer..... $\$ 1500.00$
ALLIED PRICE $\$$
DN360B
DN360 with balanced output..... $\$ 1620.00$
ALLIED PRICE $\$$

KLARK/TEKNIK PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## MODULAR AUDIO 3550



The Modular Audio 3550 equalizer provides reciprocal equalization at 21 points in five steps of boost or attenuation to a maximum of 12 dB at each point. The 3550 features 3 ranges and 21 frequencies, high and low ranges shelving or peaking, a selectable audio bandpass filter, transformer coupling to +27 dBm , an IN-OUT LED indicator, low noise and distortion and utilizes Modular Audio op amps.
MANUFACTURER'S SUGGESTED LIST PRICE
.. $\$ 410.00$
ALLIED PRICE \$

## WHITE INSTRUMENTS 151



The White Instruments Model 151 is a compact, battery-powered, digitally generated pink noise generator with $268,000,000$ bit word length, a flat output from 20 Hz through 20 kHz , with microphone or line level output.

MANUFACTURER'S SUGGESTED LIST PRICE.
.$\$ 140.00$
ALLIED PRICE $\$$ $\qquad$ -

## CROWN EQ-2



The CROWN EQ-2 is a stereo equalizer featuring eleven bands per channel providing full equalization from 10 Hz to 20 kHz with each band featuring $\mathrm{a} \pm 15 \mathrm{~dB}$ boost or cut capability. 19-position step switches permit precision control of the individual band levels. The filters are of $1 / 2$ octave constant band width design, set nominally on octave centers. Each filter has an associated control allowing $\pm .5$ octave adjustment of the center frequency. The two channels can be cascaded to produce a full range $1 / 2$ octave equalizer. The EQ-2 may be rack-mounted or as shown, an optional cabinet is available.
(cont.)
$\qquad$
ALLIED PRICE \＄
UREI 535

The UREI 535 dual graphic equalizer offers 10 filter sections per channel with increased control range，and more output capability． The 535 provides 12 dB of boost or cut at each of its 10 frequen－ cies，which are centered at ISO one－octave increments from 31.5 Hz to 16 kHz ，with balanced bridging differential amplifier inputs， variable gain，floating transformer isolated outputs of 150 ohms or greater load and is rack－mountable
MANUFACTURER＇S SUGGESTED LIST PRICE． $\qquad$ .$\$ 896.00$

ALLIED PRICE \＄ $\qquad$
UREI 537


The Model 537 is a $1 / 3$ octave equalizer set for general purpose fre－ quency response adjustment of audio signals．It offers 27 ad－ justable equalizers on ISO $1 / 3$ octave center frequencies， 12 dB boost or attenuation at each center frequency，stepless－noiseless controls，precision calibrated，state－of－the－art L－C fitter circuitry，low distortion－low noise with minimum phase shift，zero insertion loss and is rack－mountable．

MANUFACTURER＇S SUGGESTED LIST PRICE． $\qquad$ .$\$ 896.00$

ALLIED PRICE S $\qquad$
UREI 539


The Model 539 is an active filter set specifically designed for room ＂equalization＂or tuning．The 539 utilizes advanced circuit technology and latest state－of－the－art components to achieve quan－ tum improvements in performance and at lower cost．Signal to noise ratio is better than 110 dB at maximum output．Filter parameters have been optimized to produce excellent combining and minimum phase shift．

## MANUFACTURER＇S SUGGESTED LIST PRICE

．$\$ 1046.00$
ALLIED PRICE \＄

## EVENTIDE H949



The EVENTIDE H949 Harmonizer is used by top bands and top recording organizations around the world．They are incredibly ver satile units combining digital delay，pitch change，and a variety of other features．Harmonizers can be used for doubling vocals，for delay equalization in sound reinforcement，and for many types of reverb／echo．When used with a variable speed tape recorder，a Harmonizer can be used to tailor program material to fit a particula time slot，while retaining the original pitch．
MANUFACTURER＇S SUGGESTED LIST PRICE $\qquad$ $\$ 3500.00$

ALLIED PRICE $\$$
EVENTIDE BD931／BD932


EVENTIDE，the world leader in digital broadcast audio delays， presents the＂no compromise＂economy obscenity delays，the mono BD931 and stereo BD932 each in 3.2 and 6.4 second con－ figurations．Priced to be cost effective even for stations that air only limited talk programming．Digital RAM based circuitry eliminates all the problems of tape loop delays． 16 kHz band width．

BD931 mono 3.2 seconds．．．．．$\$ 1795.00$
ALLIED PRICE $\$$
BD931 mono 6.4 seconds．．．．．$\$ 2295.00$
ALLIED PRICE \＄
BD932 stereo 3.2 seconds．．．．．$\$ 2595.00$
ALLIED PRICE \＄
BD932 stereo 6.4 seconds．．．．．$\$ 4495.00$
ALLIED PRICE \＄
EVENTIDE PRICES ABOVE ARE MFGR＇S SUGGESTED LIST PRICES．CALL FOR THE ALLIED PRICE．

## EVENTIDE BD955



The Model BD955 was designed specifically for policing of live talk shows．It is a RAM based digital delay line，available in two fre－ quency ranges， 7.5 kHz for reproduction of telephone audio and 15 kHz for quality reproduction of the full spectrum．There are two maximum delay times available， 3.2 or 6.4 seconds．The unit has a unique＂catch up＂feature which enables it，after the objectional material has been dumped，to regain its delay safety margin automatically．Two of the same model are required for stereo
（cont
$\qquad$
BD955 7.5 kHz 6.4 seconds..... $\$ 3350.00$
ALLIED PRICE \$ $\qquad$
BD955 15 kHz 3.2 seconds..... $\$ 3350.00$
ALLIED PRICE \$
BD955 15kHz 6.4 seconds..... $\$ 4300.00$
ALLIED PRICE \$
Stereo interconnect add $\$ 150$
EVENTIDE PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR THE ALLIED PRICE.

## INTERFACES

## VALLEY PEOPLE HH $2 \times 2$



The HH $2 \times 2$ level matching interface is a line amplifier/attenuator which interfaces +4 or +8 dBm professional recording or broadcasting equipment with -10 dBm high fidelity and semi-pro equipment. Because the unit is transformerless, it achieves improved transient response. Each HH $2 \times 2$ level matching interface is a complete stereo system. Indeed, it is a stereo amplifier which boosts -10 dBm signals to a nominal +4 or +8 line level output.
MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$
ALLIED PRICE \$ $\qquad$

## VALLEY PEOPLE HH $2 \times 2 B$

You've told us that the HH $2 \times 2$ level matching interface is the most cost effective and reliable product to solve the age old dilemma of interfacing -10 dB equipment to the studio and broadcast standards of +4 and +8 dB . But, what about those high RF fields, and the need to drive line levels for longer distances? In response to these situations, VALLEY PEOPLE has designed the $\mathrm{HH} 2 \times 2 \mathrm{~B}$. In addition to the original features the $2 \times 2 \mathrm{~B}$ offers electronic balancing for the $+4 /+8$ outputs and improved RFI rejection.

## MANUFACTURER'S SUGGESTED LIST PRICE.

$\qquad$ .$\$ 250.00$

ALLIED PRICE $\$$ $\qquad$
HENRY MATCHBOX


The MATCHBOX is the ideal, inexpensive way to correctly interconnect high fidelity or semi pro equipment with pro studio gear. The MATCHBOX is bi-directional, with four independent amplifiers providing full stereo input and output interface. Two amplifiers convert a stereo IHF HI-Z unbalanced source to LO-Z balanced outputs at studio level. A second pair of amplifiers converts the stereo balanced studio line source to unbalanced IHF outputs to feed the inputs of an IHF device. All circuitry is active and direct coupled for ab-
solute sonic transparency.
MANUFACTURER'S SUGGESTED LIST PRICE.
\$195.00
ALLIED PRICE \$

## ADR PROPAK



The AUDIO + DESIGN PROPAK utilizes the finest developed technology for interfacing high fidelity and semi pro equipment to broadcast levels. The PROPAK can add versatility and quality to your program either in the area of news or talk. By matching the output levels of the non-broadcast equipment such as cassette recorder/reproducers, digital disc and other types of non-broadcast equipment to your broadcast facilities you'll open up a whole new avenue of quality programming.


The Model 444 is a dual, two channel buffer amplifier designed to interface professional systems with semi-pro and high fidelity equipment. Although components designed for home use offer desirable features for studio applications, interconnections between the two kinds of equipment are complicated by differences in levels, impedances and balanced and unbalanced modes of operation. The 444 corrects these problems while maintaining signal integrity.
MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ .$\$ 342.00$

ALLIED PRICE $\$$
MEI 100 MP

(cont.)

An easy to use, self-contained controller that allows a station to operate manually, live-assist, or fully automatic at the push of a button. Simply connect any standard tape machine to the 100MP, dial in the sequence of machines you wish it to play, and walk away. The entire program is in plain view at all times. Changes can be made immediately and without confusion.

MEI 100MP Price on application

## MEI CONTROL 3



The CONTROL 3 is the only control unit that can randomly select cartridges from three machines, carousels, instacarts, or go-carts. Since it not only selects the proper machine and tray, but also switches audio to a common output, it can be used independently as a programmer to create a cart-oriented system. The CONTROL 3 can also be added to your present automation equipment to provide random-select capability and expand available sources.
MEI CONTROL 3 .
Price on application
MEI SAT CONTROLLER


The MEI SATMASTER is the best little satellite programmer on earth at a down to earth price. If you're considering a satellite programming format, you need the MEI SATMASTER. Why? Because SATMASTER gives you all the capacity you need to efficiently intermix a satellite signal with your own and it does it all at an astoundingly low start up cost. SATMASTER gives you all the functions you need, combining unparalleled versatility and optimum programming capability

MEI SAT CONTROLLER...................................Price on application

## MEI AUTONET



The MEI AUTONET controller performs every function needed to record network feeds and prepare them for playback without operator intervention. AUTONET starts your recorder, fades audio in and out, applies end-of-message cue tones and recues the tape for playback. An internal clock may be used to start the recorder at a preset time each hour. It may also be started by remote control or by a tone from the network. AUTONET may also be preset to stop your recorder at desired intervals.
MEI AUTONET
Price on application

CP-201


The CP-201 program control unit provides 100 event, random selection for carousel type multiple cartridge tape players. It offers easy manual programming by means of a front panel keyboard. The CP-201 is fully solid-state, has no relays, features two LED type displays which indicate the event number and tray selection. The CP-201 is rack-mountable and requires only $31 / 2^{\prime \prime}$ rack space. It has battery backup which maintains memory in the event of a power failure.

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ $\$ 695.00$

ALLIED PRICE $\$$

## CONEX CG-25



The CONEX 25 Hz tone generator has built-in high pass filters for both the left and right channels, front panel LED indication of tone duration, silence and maximum length of untimed tone. All timing intervals, tone lengths and audio levels are easily adjustable from the rear panel. Standard six-pin "Cinch Jones" type connectors are provided for simple connection between the console and the recorder. The tone is switch-selectable to allow recording tone on either channel. For ease of servicing all integrated circuits are socket mounted. The CG-25 offers low distortion circuitry, the oscillator and audio have less than $.5 \%$ total harmonic distortion.
MANUFACTURER'S SUGGESTED LIST PRICE................. $\$ 350.00$
ALLIED PRICE \$
CONEX CS-25A


The CS-25 dual 25 Hz tone sensor is a compact and reliable bridging-type 25 Hz tone sensor for use in broadcast automation and tape control systems. The unit features two independent sensors, allowing very economical expansion of existing systems. The CS-25 offers front panel stop-delay adjustment to accomodate any tape format, indicator lights on the front panel to indicate presence of tone, front panel disable switches which inhibit the relays allowing the tape to run without stopping at tones or signalling of the automation system

MANUFACTURER'S SUGGESTED LIST PRICE.
$\$ 395.00$
ALLIED PRICE S

## MPA PROGRAMMER 3 "LIVE ASSIST"



The PROGRAMMER 3 is the latest in a series of highly successful radio music programming aids. The $3 A$ allows the stations to take advantage of music formats which have been recorded on reel-toreel tape for automation systems. Up to four reel-to-reel tape decks can be controlled by PROGRAMMER 3. The outputs can be wired mono or stereo directly to program and cue buses of a studio console eliminating the need for additional console inputs. A memory circuit allows the operator to select the music deck he will play next.

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ $\$ 890.00$

ALLIED PRICE \$ $\qquad$
MPA 25 Hz PROCESSOR


Designed and built to fill a need in the broadcast field, the PERSONS 25 Hz tone processor performs all the tone handling functions required to interface a reel-to-reel recorder with an automation or "live assist" system. One 25 Hz tone processor will handle one stereo or two mono tape decks. Each 25 Hz tone processor consists of two 25 Hz tone decoders tied to two program amplifiers with 25 Hz notch filters. The 25 Hz tone detectors offer accurate, false-free recognition of tones. The stop/delay timers are precise and repeatable. All logic circuits are relay contacts for interfacing with any tape deck and system. Incoming and outgoing terminations are brought to a convenient, clearly marked terminal strip on the rear.

MANUFACTURER'S SUGGESTED LIST PRICE
.$\$ 349.00$
ALLIED PRICE $\$$ $\qquad$
CARTRIDGE MACHINES
BROADCAST ELECTRONICS 2100 SERIES


The 2100 family of tape cartridge machines combines versatile operation, quality components and top specifications, all at an economical price. There's more value in the 2100 series than ever found before in any professional cart machine. The combination of advanced engineering and cost saving production methods produces a cart machine with double value for the most quality minded users.

2100P Play, Mono...\$1125
2100RP Rec /Play, Mono... $\$ 1725.00$
2100PS Play, Stereo... $\$ 1225.00$

ALLIED PRICE \$
ALLIED PRICE $\$$
ALLIED PRICE \$
2100RPS Rec/Play, Stereo... $\$ 2025.00$ ALLIED PRICE $\$$ For 220VAC operation add $\$ 100.00$
Accessory prices upon request
BROADCAST ELECTRONICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.
BROADCAST ELECTRONICS 3000 SERIES


Series 3000 machines have all the standard features: a direct drive hysteresis synchronous motor, an air damped solenoid with excellent reserve capability, and a $1 / 2^{\prime \prime}$ thick machined aluminum deck. In addition, these machines are loaded with extras like the Phase Lok III head bracket, low voltage solenoid switching, advanced integrated circuit/solid state design with exceptionally wide dynamic operating ranges, long life NORTRONICS DURACORE heads, and an outstanding set of performance specifications.
(cont.)

3100P Play, Mono... $\$ 1200.00$
3100PS Play, Stereo...S1350.00
3200P Play, Mono...\$1225.00
3200RP Rec/Play, Mono... $\$ 2175.00$
3200PS Play, Stereo...S1375.00
3200RPS Rec/Play, Stereo... $\$ 2525.00$ ALLIED PRICE
3300P Play, Mono...\$1300.00
ALLIED PRICE \$
ALLIED PRICE \$
ALLIED PRICE $\$$
ALLIED PRICE S

ALLIED PRICE S
ALLIED PRICE \$
ALLIED PRICE \$
ALLIED PRICE \$

3300RP Rec/Play, Mono... $\$ 2225.00$
3300PS Play, Stereo... $\$ 1475.00$
$\qquad$
$\qquad$
$\qquad$

3300RPS Rec/Play, Stereo...\$2575.00 ALLIED PRICE S $\qquad$
3400P Play, Mono... $\$ 1350.00$
ALLIED PRICE \$ $\qquad$
3400PS Play, Stereo... $\$ 1500.00$
ALLIED PRICE \$
ALLIED PRICE \$ $\qquad$
3400RPS Rec/Play, Stereo...\$2575.00 ALLIED PRICE \$ $\qquad$ Accessory prices upon request
BROADCAST ELECTRONICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## BROADCAST ELECTRONICS DELAY MACHINES

The versatile delay cartridge machines handle a variety of functions, continuous delay, network delay, normal recording and normal playback yet with all the same top performance specifications of 3000 series. These delay machines take the worry out of live telephone talk shows and interviews. When in the delay mode, the tape crosses the erase/record head where it is erased and the live material recorded. The tape then moves through a full cycle of the cartridge before reaching the playback head. The time span of the delay is determined by the length of the cartridge.

3200RP/DL..... $\$ 2550.00$
ALLIED PRICE \$
ALLIED PRICE \$ $\qquad$
3400RP/DL..... $\$ 2600.00$
ALLIED PRICE S
Accessory prices upon request
BROADCAST ELECTRONICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## BROADCAST ELECTRONICS 5300 SERIES



The Model 5300 B is the most advanced multi-deck cartridge machine on the market. It is a top-of-the-line pro machine that features solid/state integrated circuit design, a direct drive hysteresis synchronous motor, air damped solenoid, $1 / 2^{\prime}$ thick machined aluminum deck and long life NORTRONICS DURACORE heads. Features unique to this multi-deck design are plug in decks, computer ribbon cabling, rear panel LED service aids, and run lights adjacent to each deck.


Record Module
5301B Play, Mono... $\$ 2950.00$
5302B Cue Tones/Play, Mono...S3150.00

ALLIED PRICE $\$$
ALLIED PRICE $S$
ALLIED PRICE $\$$
ALLIED PRICE $\$$

5303B Play, Stereo...\$3450.00 Stereo...\$3650.00
$\qquad$
$\qquad$

Accessory prices upon request
BROADCAST ELECTRONICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

RAMKO PHASESTABLE


The problems of stereo phase stability in cart machines is overcome with RAMKO PHASESTABLE cart machines. From the inception of the PHASESTABLE line RAMKO has always maintained there was an electronic solution. By employing leading-edge technology, RAMKO determined that the PHASESTABLE could out perform everything in the audio chain, right on through the transmitter. The signal-to-noise, distortion, and wow/flutter performance rivals reel-to-reel specs giving the ultimate in stability.

PS1 Play, Stereo... $\$ 2738.00$
ALLIED PRICE S
RPS 1 Rec/Play, Stereo... $\$ 4400.00$
ALLIED PRICE $\$$
Accessory prices upon request
RAMKO PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## RAMKO PRIMUS



The PRIMUS line of cart machines continues a standard of excellence that has made the RAMKO name one of the most respected in the industry. With all the standard features of the RAMKO line, the PRIMUS machines will deliver several years of dependable service.

P-1S Play, Stereo... $\$ 1930.00$

## ALLIED PRICE $\$$

ALLIED PRICE $\$$
ALLIED PRICE \$ $\qquad$
ALLIED PRICE \$ $\qquad$
RP-1M Rec/Play, Mono...\$2485.00 Accessory prices upon request RAMKO PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICE. CALL FOR TODAY'S ALLIED PRICE.

## TAPECASTER



For the broadcaster who doesn't need an expensive multi-deck cart machine configuration, the TAPECASTER line has become a standard. With either stereo or mono playback or playback/record machines available, the dependable, sturdy TAPECASTER line is more machine for the dollar.

X700RP mono record/play..... $\$ 850.00$ ALLIED PRICE $\$$ $\qquad$
X700P mono play..... $\$ 650.00$
ALLIED PRICE $\$$ $\qquad$
X700RPD mono record/play/delay..... $\$ 1000.00$
ALLIED PRICE \$ $\qquad$
X700RPS stereo record/play..... $\$ 1000.00$
ALLIED PRICE \$ $\qquad$
X700PS stereo play..... $\$ 750.00$
ALLIED PRICE \$ $\qquad$
Auxiliary tone option..... $\$ 75.00$
ALLIED PRICE $\$$ $\qquad$
Accessory prices upon request
TAPECASTER PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICE. CALL FOR TODAY'S ALLIED PRICE.

## AUDICORD

## A-SERIES PLAYBACK



The Models A-10 through A16 offer modular construction, interchangeable transports and other assemblies, 1 or 3 tones in mono or stereo, a replay reminder system, full remote control that's automation compatible with latching connectors and a slip/lift cover.

A-10 mono, 1 cue, desk..... $\$ 819.00$ ALLIED PRICE $\$$ $\qquad$
A-10R mono, 1 cue, rack mount..... $\$ 819.00$
ALLIED PRICE \$
A-11 mono, 3 cue, desk..... $\$ 849.00$ ALLIED PRICE $\$$ $\qquad$
A-11R mono, 3 cue, rack mount..... $\$ 849.00$
ALLIED PRICE $\$$
A-15 stereo, 1 cue, desk..... $\$ 889.00$ ALLIED PRICE $\$$ $\qquad$
A-15R stereo, 1 cue, rack mount..... $\$ 889.00$
ALLIED PRICE \$
A-16 stereo, 3 cue, desk..... $\$ 919.00$ ALLIED PRICE $\$$ $\qquad$
A-16R stereo, 3 cue, rack mount..... $\$ 919.00$
ALLIED PRICE \$
Accessory prices upon request
AUDICORD PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## A-SERIES RECORD/PLAYBACK

The Models A-20 through A-26 offer a unique slide out panel for control access, mono or stereo record/playback, 1 or 3 cue tones, and auto switching meters. If top quality recording and playback is what you're looking for try AUDICORD first.

A-20 mono, 1 cue, desk..... $\$ 1379.00$ ALLIED PRICE $\$$ $\qquad$
A-20R mono, 1 cue, rack mount..... $\$ 1379.00$
ALLIED PRICE \$ $\qquad$
A-21 mono, 3 cue, desk..... $\$ 1419.00$ ALLIED PRICE $\$$ $\qquad$
A-21R mono, 3 cue, rack mount..... $\$ 1419.00$
ALLIED PRICE \$
A-25 stereo, 1 cue, desk..... $\$ 1619.00$ ALLIED PRICE $\$$ $\qquad$
A-25R stereo, 1 cue, rack mount..... $\$ 1619.00$
ALLIED PRICE $\$$
A-26 stereo, 3 cue desk..... $\$ 1659.00$ ALLIED PRICE \$ $\qquad$
A-26R stereo, 3 cue, rack mount..... $\$ 1659.00$
ALLIED PRICE $\$$

Accessory prices upon request
AUDICORD PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## A-SERIES THREE TRANSPORT PLAYBACK



The Models A-30 through A-36 are three playback configurations that feature modular construction, interchangeable transports, 1 or 3 cue tones mono or stereo, replay reminder system, full remote control that's automation compatible, latching connectors and slip/lift cover. These models offer three independent outputs and three independent control systems.

A-30 mono, 1 cue, desk..... $\$ 2429.00$ ALLIED PRICE $\$$
A-30R mono, 1 cue, rack mounted..... $\$ 2429.00$
ALLIED PRICE \$
A-31 mono, 3 cue, desk..... $\$ 2519.00$ ALLIED PRICE $\$$
A-31R mono, 3 cue, rack mounted..... $\$ 2519.00$
ALLIED PRICE \$
A-35 stereo, 1 cue, desk..... $\$ 2629.00$ ALLIED PRICE $\$$
A-35R stereo, 1 cue, rack mounted..... $\$ 2629.00$
ALLIED PRICE $\$$ $\qquad$
A-36 stereo, 3 cue, desk..... $\$ 2719.00$ ALLIED PRICE $\$$ $\qquad$
A-36R stereo, 3 cue, rack mounted..... $\$ 2719.00$
ALLIED PRICE \$
Accessory prices upon request
AUDICORD PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## A-SERIES DUAL TRANSPORT RECORD/PLAYBACK



The Models A-50 through A-56 are dual transport record/playback machines which allow single deck or dual deck recording, sound on sound, composites and stereo to mono mix dubs. Features include a slide out front panel, interchangeable transports and other assemblies, 1 or 3 cue tones mono or stereo, a replay reminder system, full remote control that's automation compatible and latching connectors and slip/lift cover.

A-50 mono, 1 cue, desk..... $\$ 2219.00$ ALLIED PRICE $\$$
A-50R mono, 1 cue, rack mounted..... $\$ 2219.00$
ALLIED PRICE $\$ ~$
$\qquad$

A-51 mono, 3 cue, desk..... $\$ 2279.00$ ALLIED PRICE $\$$ $\qquad$
A-51R mono, 3 cue, rack mounted..... $\$ 2279.00$
ALLIED PRICE \$

A-55 stereo, 1 cue, desk..... $\$ 2539.00$ ALLIED PRICE $\$$
A-55R stereo, 1 cue, rack mounted..... $\$ 2539.00$
ALLIED PRICE \$
A-56 stereo, 3 cue, desk..... $\mathbf{\$ 2 5 9 9 . 0 0}$ ALLIED PRICE $\$$
A-56R stereo, 3 cue, rack mounted..... \$2599.00
ALLIED PRICE \$
Accessory prices upon request
AUDICORD PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## S-SERIES



These new cartridge machines are more than just attractive. They were designed new from the cabinet feet up, selecting the materials which offered the best manufactured cost consistent with functional integrity to insure the most machine for the dollar. Still the "S-Series" contains new operating features, maintenance access and rugged construction to keep pace with modern broadcast operations.

PLAYBACK
S-11 mono, 3 cue, desk..... $\$ 1029.00$ ALLIED PRICE $\$$
S-11R mono, 3 cue, rack mounted..... $\$ 1029.00$
ALLIED PRICE \$ $\qquad$
S-16 stereo, 3 cue, desk..... $\$ 1119.00$ ALLIED PRICE $\$$
$\$$

S-16R stereo, 3 cue, rack mounted..... $\$ 1119.00$
ALLIED PRICE $\$$
RECORD/PLAYBACK
S-21 mono, 3 cue, timer, desk..... $\$ 1799.00$
ALLIED PRICE \$
S-21R mono, 3 cue, timer, rack..... $\$ 1799.00$
ALLIED PRICE $\$$
S-26 stereo, 3 cue, timer, desk..... $\$ 1989.00$
ALLIED PRICE \$
S-26R stereo, 3 cue, timer, rack..... $\$ 1989.00$
ALLIED PRICE \$

## DELAY MACHINES

S-32 mono, network delay, 3 cues + timer, desk..... $\$ 1889.00$
ALLIED PRICE \$
S-32R mono, network delay, 3 cues + timer,
rack mounted.....\$1889.00 ALLIED PRICE $\$$
TDS MACHINES

(cont.)
TDS-1 twin transport, mono, 3 cues, desk..... $\$ 1499.00$ALLIED PRICE \$
TDS-1R twin transport, mono, 3 cues, rack mount..... \$1499.00ALLIED PRICE \$
TDS-6 twin transport, stereo, 3 cues, desk..... $\$ 1679.00$ALLIED PRICE \$TDS-6R twin transport, stereo, 3 cues, rack mount..... $\$ 1679.00$ALLIED PRICE \$
Accessory prices upon requestPRICES. CALL FOR TODAY'S ALLIED PRICE

## CAPITOL



## A2

The audio cartridge tape that has become a standard for broadcasters the world over is the CAPITOL A2. For stations who really care about how they sound, the $\mathbf{A} 2$ is the logical answer to better sound.
PRICE
Empty ..... \$2.24
10 seconds ..... $\$ 3.33$
20 seconds ..... $\$ 3.33$
35 seconds ..... $\$ 3.33$
40 seconds ..... $\$ 3.33$
50 seconds ..... $\$ 3.33$
65 seconds ..... $\$ 3.33$
70 seconds ..... $\$ 3.33$
90 seconds ..... $\$ 3.33$
100 seconds ..... $\$ 3.33$
140 seconds ..... $\$ 3.73$
2.5 minutes ..... $\$ 3.73$
3 minutes ..... $\$ 3.73$
3.5 minutes ..... $\$ 3.73$
4 minutes ..... $\$ 3.73$
4.5 minutes ..... $\$ 3.73$
5 minutes ..... $\$ 4.13$
5.5 minutes ..... $\$ 4.13$
6 minutes ..... $\$ 4.13$
6.5 minutes ..... $\$ 4.13$
7.5 minutes ..... $\$ 4.13$
8.5 minutes ..... $\$ 4.13$
10.5 minutes ..... $\$ 4.13$
Accessory and reload tape prices upon request
CAPITOL PRICES ABOVE ARE SUBJECT TO DISCOUNT. CALLFOR TODAY'S ALLIED PRICE.

## AA4

The key feature of the AA4 is the new SGS-4 broadcast mastering tape. When recorded on a high quality cartridge recorder, the SGS-4 tape can produce virtually identical copies of the best analog or digital mastering tapes.
LENGTH ..... PRICE
10 seconds ..... $\$ 4.73$
20 seconds ..... $\$ 4.73$
35 seconds ..... $\$ 4.73$
40 seconds ..... $\$ 4.73$
50 seconds ..... $\$ 4.73$
seconds. ..... $\$ 4.73$
70 seconds ..... $\$ 4.73$
90 seconds ..... $\$ 4.73$
100 seconds ..... $\$ 4.73$
140 seconds ..... $\$ 5.27$
2.5 minutes ..... $\$ 5.27$
3 minutes ..... $\$ 5.27$
3.5 minutes ..... 55.27
4 minutes ..... $\$ 5.27$
4.5 minutes ..... $\$ 5.27$
5 minutes ..... $\$ 6.33$
5.5 minutes ..... $\$ 6.33$
6 minutes ..... $\$ 6.33$
6.5 minutes ..... $\$ 6.33$
7.5 minutes ..... $\$ 6.33$
8.5 minutes ..... $\$ 6.33$
10.5 minutes ..... \$6.33
Accessory and reload tape prices upon request
CAPITOL PRICES ABOVE ARE SUBJECT TO DISCOUNT. CALLFOR TODAY'S ALLIED PRICE.

## FIDELIPAC



## MODEL 300

The Model 300 broadcast audio cartridge provides performance at a price that is within the budget of all radio and TV broadcasters. Its endurance under severe operating conditions in everyday studio operations is surprising, frequently lasting over five years with only replacement of worn tape and pressure pads.

| LENGTH |  | PRICE |
| :---: | :---: | :---: |
| Empty.. |  | \$2.77 |
| 20 | seconds | . \$3.17 |
| 40 | seconds | . $\$ 3.23$ |
| 70 | seconds | .. \$3.31 |
| 90 | second | . $\$ 3.37$ |
| 100 | seconds | . $\$ 3.45$ |
| 2 | minutes | \$3.57 |
| 2.5 | minutes | . $\$ 3.65$ |
| 3 | minutes | \$3.72 |
| 3.5 | minute | .. \$3.81 |
| 4 | minutes | . $\$ 3.89$ |
| 4.5 | minute | . $\$ 3.97$ |
| 5 | minutes | . \$4.05 |
|  |  | (cont.) |

5.5 minutes ..... $\$ 4.12$
7.5 minutes .....  $\$ 4.45$
8 minutes ..... $\$ 4.52$
10.5 minutes ..... 4.83
Accessories and reload tape prices upon request FIDELIPAC PRICES ABOVE ARE SUBJECT TO DISCOUNT. CALL FOR TODAY'S ALLIED PRICE.
MODEL 350The Model 350 broadcast audio cartridge is designed primarily foruse in stereo cartridge tape machines that have inadequate tapeguidance at the tape input side of the record head. The Model 350contains an adjustable corner post which is factory adjusted to theNAB Standard height of .562 inch. The corner post can be adjustedby the station's engineers to precisely match the cartridge machineto improve stereo performance.

| LENGTH <br> Empty... |  | PRICE |
| :---: | :---: | :---: |
|  |  | . $\$ 3.55$ |
| 40 | seconds | . $\$ 3.95$ |
| 70 | seconds | \$4.02 |
| 90 | seconds | \$4.08 |
| 100 | seconds | . $\$ 4.15$ |
| 2.5 | minutes | . $\$ 4.28$ |
| 3 | minutes | . $\$ 4.35$ |
| 3.5 | minutes | . $\$ 4.42$ |
| 4 | minutes | \$4.48 |
| 4.5 | minutes | \$4.55 |
| 5 | minutes | . \$4.68 |
| 7.5 | minutes | . $\$ 4.99$ |
| 8 | minutes | \$5.05 |
| 10 | minutes | . $\$ 5.36$ |
| 10.5 | minutes | . 5.94 |

Accessory and reload tape prices upon request
FIDELIPAC PRICES ABOVE ARE SUBJECT TO DISCOUNT. CALL
FOR TODAY'S ALLIED PRICE

## MASTER CART I

The Master Cart, unlike conventional cartridges, does not rely upon the cartridge for precision tape guidance. Master Cart's tape path is controlled primarily by the tape guides in the cartridge machine. This neutrality of tape flow is assured by a unique tape path plus precision molding of the cartridge base, reel and top cover. Performance is repeatable each time the cartridge is used and also from cartridge to cattridge.

| LENGTH |  | PRICE |
| :---: | :---: | :---: |
| Empty ... |  | . $\$ 3.48$ |
| 20 | seconds | . $\$ 3.86$ |
| 40 | seconds | \$3.93 |
| 70 | seconds | \$4.02 |
| 90 | seconds | . $\$ 4.10$ |
| 100 | seconds | . 4.18 |
| 2 | minutes | \$4.25 |
| 2.5 | minutes | \$4.34 |
| 3 | minutes | \$4.43 |
| 3.5 | minutes | \$4.52 |
| 4 | minutes | \$4.61 |
| 4.5 | minutes | \$4.71 |
| 5 | minutes | \$4.80 |
| 5.5 | minutes | \$4.90 |
| 7.5 | minutes | \$5.20 |
| 8 | minutes | . $\$ 5.29$ |
| 10 | minutes | \$5.60 |
| 10.5 | minutes | \$5.69 |

## Accessory and reload tape prices upon request <br> FIDELIPAC PRICES ABOVE ARE SUBJECT TO DISCOUNT. CALL <br> FOR TODAY'S ALLIED PRICE.

## MASTER CART II

Master Cart II is a cartridge that will work in any tape machine including multiple slot automation devices while providing the highes possible level of stereo performance. Master Cart II features a new and unique front corner post design. This precision molded upper and lower tape limiting device does not interfere with the neutral tape handling concept. It does provide an upper and lower limit to tape travel when the cart is used in less-than-perfectly aligned machines.

| LENGTH PRICI |  |  |
| :---: | :---: | :---: |
| Empty |  |  |
| 20 | seconds | \$3.8 |
| 40 | seconds | \$3.9 |
| 70 | seconds | \$4.0 |
| 90 | seconds | \$4.1 |
| 100 | seconds | \$4.1 |
| 2 | minutes | \$4.2 |
| 2.5 | minutes | \$4.3 |
| 3 | minutes | \$4.4 |
| 3.5 | minutes | \$4.5 |
| 4 | minutes | \$4.6 |
| 4.5 | minutes | \$4.7 |
| 5 | minutes | \$4.80 |
| 5.5 | minutes | \$4.9 |
| 7.5 | minutes | \$5.2 |
| 8 | minutes | \$5.2 |
| 10 | minutes | \$5.60 |
| 15.5 | minutes | . 5.65 |
| Accessory and reload tape prices upon request |  |  |
| FIDE FOR | IPAC PR TODAY'S | CALL |

## MODEL 600

The Model 600 audio cartridge is available for broadcast, industrial and medical applications where extended playing times are required. This cartridge offers all of the features of the Model 300 plus the capability of up to 750 feet of tape.

|  |  | PRICE |
| :---: | :---: | :---: |
| 10 | minutes | . 88 |
| 15 | minutes | \$9.46 |
| 16 | minutes | \$9.74 |
| 20 | minut | \$10.4 |

## Accessory and reload tape prices upon request

FIDELIPAC PRICES ABOVE ARE SUBJECT TO DISCOUNT. CALL FOR TODAY'S ALLIED PRICE.

## MODEL 1200

The Model 1200 provides the maximum amount of playback time available in an NAB continuous-loop audio cartridge. Available with up to 1500 feet of tape, the Model 1200 provides 40 minutes of playing time at a tape speed of 7.5 ips . Many of the features of the Model 300 are also provided in the Model 1200. Several differences can be seen in the corner post, pressure pad and cover areas.

## LENGTH

PRICE
28 minutes.................................................................... $\$ 15.25$
30 minutes................................................................... $\$ 15.87$
31 minutes................................................................. $\$ 16.39$
32 minutes...................................................................... $\$ 16.91$
36 minutes................................................................ $\$ 17.85$
38 minutes................................................................. $\$ 18.54$
40 minutes................................................................. $\$ 19.21$
Accessory and reload tape prices upon request
FIDELIPAC PRICES ABOVE ARE SUBJECT TO DISCOUNT. CALL FOR TODAY'S ALLIED PRICE.

## PROGRAM DELAY CARTRIDGES

Four long-life program delay cartridges are available for use with cartridge tape machines equipped with delay head configurations. These delay cartridges, available in 8 and 10 second versions at
(cont.)
7.5 ips have precision tape lengths, curved pressure pads and specially lubricated reel hub. The Model 600 delay cartridge contains three pressure pads while the Model 300 contains two.
Model 3008 second delay.............................................. $\mathbf{5 8 . 3 0}$
Model $300 \quad 10$ second delay............................................. $\$ 8.30$
Model 6008 second delay............................................ $\$ 10.35$
Model 60010 second delay.......................................... $\$ 10.35$
Accessory and reload tape prices upon request
FIDELIPAC PRICES ABOVE ARE SUBJECT TO DISCOUNT. CALL FOR TODAY'S ALLIED PRICE.

## ARISTOCART



## A or AA

In extensive testing the ARISTOCART A and AA carts exceeded NAB performance standards. ARISTOCART'S patented design has been tried by other manufacturers but, as tests prove, their products do not meet ARISTOCART standards. The reasons are simple, alone among commercial type cartridges, ARISTOCARTS are produced one at a time in a single cavity precision molding process using engineering grade polycarbonate. Exceptional stability, strength and uniformity are thus achieved.

| LENGTH |  | PRICE |
| :---: | :---: | :---: |
| Empty.. |  | . $\$ 3.90$ |
| 40 | seconds | . $\$ 4.60$ |
| 70 | seconds | . $\$ 4.70$ |
| 90 | seconds | . $\$ 4.80$ |
| 100 | seconds | . \$4.80 |
| 2.5 | minutes | \$5.05 |
| 3.5 | minutes | . \$5.15 |
| 4.5 | minutes | \$5.35 |
| 5.5 | minutes | . \$5.51 |
| 6 | minutes | \$5.95 |
| 7 | minutes | \$6.05 |
| 8 | minutes | . $\$ 6.25$ |
| 9 | minutes | \$6.45 |
| 10 | minutes | .. $\$ 6.65$ |

Accessory and reload tape prices upon request ARISTOCART PRICES ABOVE ARE SUBJECT TO DISCOUNT. CALL FOR TODAY'S ALLIED PRICE.

## SCOTCHCART



Impressive, that's exactly what the SCOTCHCART broadcast cartridge is. Together, the innovative design of this cart and the superior mastering tape formulation offer you performance capabilities far beyond what you have come to expect from broadcast cartridges. Not only will you hear unbelievable reel-to-reel sound quality, but SCOTCH has used the most advanced technologies to elminate many of the most unwanted cart problems
like excessive tension, phase jitter, wow and flutter, distortion, pressure pad problems, short life and generally poor sound.

LENGTH

PRICE

Empty . $\$ 4.51$
10 seconds.................................................................... $\$ 4.55$
20 seconds................................................................. $\$ 4.59$
40 seconds....................................................................... $\$ 4.65$
70 seconds..................................................................\$4.74
100 seconds.................................................................. $\$ 4.85$
140 seconds................................................................. $\$ 5.00$
2.5 minutes................................................................. $\$ 5.04$

3 minutes................................................................. \$5.12
3.5 minutes.................................................................. $\$ 5.25$

4 minutes.................................................................. \$5.38
4.5 minutes................................................................... $\$ 5.50$

5 minutes ................................................................. $\$ 5.63$
5.5 minutes .................................................................. $\$ 5.76$
6.5 minutes .................................................................. $\$ 6.04$
7.5 minutes ................................................................. $\$ 6.26$
9.5 minutes...................................................................... $\$ 6.80$

Accessory and reload tape prices upon request
SCOTCHCART PRICES ABOVE ARE SUBJECT TO DISCOUNT.
CALL FOR TODAY'S ALLIED PRICE.
CART ACCESSORIES


The AUDIOLAB TD-1B tape degausser with automatic overload thermal protection erases audio tape, carts and cassettes. It erases up to $3 / 4^{\prime \prime}$ tape widths, accomodates up to $101 / 2^{\prime \prime}$ reels, provides a wide focused magnetic field to assure complete erasure and provides results every time with a simple two pass operation for broadcast NAB audio cartridges.

## MANUFACTURER'S SUGGESTED LIST PRICE

. $\$ 105.00$
ALLIED PRICE

## GARNER



It takes just four seconds to erase all sizes and types of audio tape up to $16^{\prime \prime}$ with GARNER deqaussers. GARNER has designed their units to automate your tape erasing operations and eliminate residual noise problems, and their customers say they have a winner!
(cont.)

| MODEL | DESCRIPTION | PRICE |
| :--- | :--- | :--- |
| 70 | up to $7^{\prime \prime}$ reel | $\$ 990.00$...ALLIED PRICE $\$$ |
| 105 | up to $1011^{\prime \prime}$ reel | $\$ 1390.00 .$. ALLIED PRICE $\$$ |
| 114 | up to $19^{\prime \prime}$ reel | $\$ 2190.00 .$. ALLIED PRICE $\$$ |
| 116 | up to $21^{\prime \prime}$ reel | $\$ 2390.00$. ALLIED PRICE $\$$ |
| GARNER PRICES ABOVE ARE MFGR'S SUGGESTED LIST |  |  |
| PRICES. CALL FOR TODAY'S ALLIED PRICE. |  |  |

## FIDELIPAC 400



The Model 400 features a removable guide pin, a scuff resistant top, a power-on indicator and hand rubbed hardwood case. It can erase all audio, video and computer tapes up to $1^{\prime \prime}$ wide and it has a thermal protected core that will not burn out.
MANUFACTURER'S SUGGESTED LIST PRICE. .$\$ 99.50$

ALLIED PRICE \$
FIDELIPAC "BLANK-IT"


If you need blank tape fast and are worried about recorder erase head wear, then worry no more. With the easy to handle "BLANK. IT" eraser from FIDELIPAC, you'll save time, no need to run the tape through your recorder, you'll save money, it allows instant reuse of the erased tape with worry about program residue or those mind destroying "whomps". "BLANK-IT" is hand-held for rapid, accurate tape erasing in any setting.
MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ .$\$ 64.75$

ALLIED PRICE \$

## BROADCAST ELECTRONICS



The BROADCAST ELECTRONICS TW-120 cartridge winder is a rugged, dependable and field tested tape cart winder which fills a need in every station using cartridge equipment. It's no longer necessary to limit your cartridge operation by using only stock sizes or to tie up your conventional tape equipment to load tape cartridges. Worn tape in old tape cartridges is easily replaced to any length you desire.

MANUFACTURER'S SUGGESTED LIST PRICE .$\$ 350.0$

ALLIED PRICE \$
TAPECASTER


The TAPECASTER $\mathrm{X}-100$ features "state of the art" technology for the serious broadcaster who has an eye to saving. It has two direc drive motors, a floating aluminum tape supply disc holds a 7" reel or $101 / 2^{\prime \prime}$ pancake of lubricated tape. The solenoid brake stops the supply disc at the end of the wind. The $\mathrm{X}-100$ has adjustable tension control for the supply disc brake, ramp design tape guides and four gold-contact rotary switches to program the wind to 7.5 ips . The wind time is accurately metered by the light chopper and nylor counter wheel.

MANUFACTURER'S SUGGESTED LIST PRICE $\$ 495.00$

ALLIED PRICE $\$$
CAT SPLICER


A revolutionary new tape splicer is now available exclusively from Allied. It's called the "CAT" and is available in 45 or 60 degree cutt angle. The new design "guillotine" tape cutter and tab insertion device make tape splicing as simple as A-B-C!
CAT
$\$ 99.95$

## CAT "TABBIE"



For those who want to keep the old splicing block on-line, Allied offers a new version of the "CAT" splicer. It's called the "TABBIE" and allows the use of CAT splicing tab insertion with an XEDIT S-3 splicing block. ALLIED HAS A COMPLETE STOCK OF XEDIT SPLICING BLOCKS!

TABBIE $\$ 25.00$

## "SHIPPING AND HANDLING

 WILL BE ADDED’’
## $\boxed{\square}$ CART ACCESSORIES <br> CLOCKS AND TIMERS

## ALLIED CART LABELS



For labelling those all important commercial, music and program audio cartridge tapes, the Allied Cart Label will stick. If label peeling is a problem, then you need a label from ALLIED! They stay when they should. They come off completely when they should.

CART LABELS.
. $\$ 0.10$ per sheet

## CLOCKS AND TIMERS

## AUDIOMETRICS

ST-1


The AUDIOMETRICS studio timer is designed as a versatile, easy to operate broadcast accessory with the capability of timing events out to $9: 59: 59$. The timer will readily and simultaneously interface with all types of tape machines, turntables, and other studio equipment for automation operation. Has a large, easy to read $1 / 2^{\prime \prime}$ readout. Easy pull-to-ground or contact starts via barrier strip.
MANUFACTURER'S SUGGESTED LIST PRICE. $\$ 155.00$

ALLIED PRICE \$

## WESTCLOX



The standard in studios and control rooms around the world are the WESTCLOX quartzmatic line of clocks. Where accuracy and visibility are a must the WESTCLOX line is just what the announcer or engineer ordered. Available in $8^{\prime \prime}$ or $12^{\prime \prime}$ face sizes.


## FAVAG



FAVAG secondary impulse clocks are available in both the second
impulse type and the less expensive minute impulse type where a second hand is not required. The FAVAG Master Clock will produce either second impulses only or a combination of both second and minute impulses depending upon the model and accessories selected. With the OS precision oscillator module, the system has an accuracy better than one second per year. Internal battery power is maintained during a power failure insuring that you'll always "be on time"! Extra quiet oil bath models available.

## CALL FOR TODAY'S ALLIED PRICE.

## ESE

160


The ES-160 master clock is mounted in a $51 / 4^{\prime \prime}$ relay rack panel and chassis. It displays six digits of time information on large, easy-to-read . $3^{\prime \prime}$ LED displays in a 12 hour format unless otherwise specified. Options prices available upon request.
MANUFACTURER'S SUGGESTED LIST PRICE . $\$ 1103.00$

ALLIED PRICE \$ $\qquad$
790


The ES-790 is a 1 k event, 32 channel microprocessor based programmable clock. Events occur as the reed relay contact closures. These closures may be all momentary, all latching, or 16 of each, at the user's option. A simple modification allows the use of 16 double pole relays, instead of 32 single pole relays. Options prices available upon request.

MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 2190.00$

ALLIED PRICE \$ $\qquad$
302


The ES-302 is a four digit, 100 minute timer with six controls: count up, count down, stop, minutes advance, seconds advance and reset. Minutes and seconds can be advanced simultaneously or in: dependently in order to pre-set for a specified countdown. With the ES-302, the user can preset times much faster because lever wheel type switches are used for the preset feature. The ES-302 can drive 80 series and 90 series slaves. Options prices available upon request.

MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 317.00$

ALLIED PRICE \$ $\qquad$

ESE
112AL


The ES-112AL is a solid state 12 hour CMOS, six digit clock. It features three simple controls: fast advance, slow advance and hold which make setting to the precise second easy. The display is a bright orange, gas-discharge, seven segment, .55' high digital. An optional CMOS compatible BCD output can drive two .55" slaves or two 80 series slaves or one 90 series slave. Options prices are available upon request.

MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 173.00$

ALLIED PRICE \$
510LR


The ES-510LR is a four digit, 60 minute timer with start, stop and reset controls. Runs continuously unless stopped or reset. If stopped, display will hold time reading and when restarted will continue with next count from last displayed figure. Reset returns display to all zeros. Can reset while running or stopped. If reset while running, timer will continue to run. ES-510LR can drive two 80 series or one 90 series slave. Displays are $.55^{\prime \prime}$ bright orange gas discharge digital. Remote ready. Options prices are available upon request.

MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 183.00$

ALLIED PRICE \$
562A


The ES-562A is a combination six-digit clock and 12 hour timer with memory, allowing the user to set the clock to the correct time of day, switch to timer mode, then by pushing one button switch back to time of day. The time of day will be correctly displayed in hours, minutes and seconds. The controls on the ES-562A may be remoted. Options prices are available upon request.

MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ $\$ 329.00$

ALLIED PRICE \$
570


The ES-570 is a console mount clock/timer in compact enclosure, with .4 " red LED display and many features and options to make a fitting addition to your console array. You can choose 60 or 100 minute mode on the rear connector. It has start, stop and reset controls. The ES-570 runs continuously unless stopped. Reset returns display to all zeroes. Options prices are available upon request.

MANUFACTURER'S SUGGESTED LIST PRICE.
.$\$ 166.0$
ALLIED PRICE \$

## CONSOLES

## BROADCAST AUDIO

Introducing the Broadcast Audio family of fine audio consoles and related products. These consoles not only look great...they sound great! SYSTEM 8


System 8 is an expandable, completely modular broadcast mixer, with unprecedented features and performance. It was designed exclusively for broadcast and is not a scaled-down version of recording or sound reinforcement equipment, so it performs flawlessly even in high RF environments. An elegant low profile appearance is accented by solid walnut end panels and armrest. This mixer sets on top of the desk and doesn't require recessed mounting, so it's easy to install, with all connections made from the top. Two stereo and one mono outputs. Accessory and module prices on request.

MANUFACTURER'S SUGGESTED LIST PRICE.
. $\$ 6950.0$
ALLIED PRICE \$
SYSTEM 12


System 12 is a model of engineering simplicity, using motherboard construction with only two types of amplifier modules and a plug-in interconnecting harness. Two independent industrial grade power supplies are rack mounted in a common housing with front AC and DC status indicators. The power supply is short-circuit proof and an optional redundant supply is also available. Operator conveniences include 4 inch log taper slide faders for extremely accurate tracking between channels. In addition to a cue detent position on the fader there is a separate button for cueing when the fader is up. Three stereo and one mono outputs. Accessory and module prices upon request.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 9150.0$

ALLIED PRICE \$
$\qquad$


System 14 is the latest and most technically sophisticated console in the line. A digital slide fader and digitally controlled CMOS high resolution logarithmic audio attenuator significantly reduce signal paths. Three plug-in mixers are available. Noiseless DC audio switching is used for all program and monitor functions, which also enables each mixing channel to be turned off and one from a remote location, such as an announce studio, news booth, or video switcher. Three stereo and one mono outputs. Accessory and module prices upon request.
MANUFACTURER'S SUGGESTED LIST PRICE.
.\$13,930.00
ALLIED PRICE S


System 16 features DC audio switching, using LCR's for completely quiet audio control. This also enables each mixing channel to be turned off and on from a remote location. Ten plug-in relays, with switch selection of maintained or momentary contacts, can be used for muting or remote start from any combination of mixers. Operator conveniences include 4" long taper slider faders for extremely accurate tracking between channels. Three stereo and one mono outputs. Accssory and module prices upon request.
MANUFACTURER'S SUGGESTED LIST PRICE
.. $\$ 9950.00$
ALLIED PRICE \$


System 20 has options that enable you to virtually design your own audio console, for on-air use or production. Three plug in mixers are available. Each mixer has a transformer balanced mic input and a differential balanced line level input. Motherboards and mixers are all double-sided with extensive ground planes for optimum noise and crosstalk, plus RFI rejection. All integrated circuits have sockets and are brand name off-the-shelf devices. Three stereo and one mono outputs. Accessory and module prices upon request.
$\qquad$ . $18,630.00$

ALLIED PRICE $\$$ $\qquad$
BROADCAST ELECTRONICS
4S50, 4S50R, 4M50, 4M50R


The 4S50 and 4S50R consoles accomodate 12 stereo input sources. Features high/low input sensitivity selection, has cue switches on all mixers and individual monitor, cue and headphone amplifiers. R series for rack mounting.
4S50 stereo, 4 mixer..... $\$ 1995.00$.....ALLIED PRICE $\mathbf{S}$ 4S50R stereo, 4 mixer..... $\$ 2050.00$...ALLIED PRICE $\mathbf{\$}$ 4M50 mono, 4 mixer..... $\$ 1050.00$..... ALLIED PRICE $S$ $\qquad$
4M50R mono, 4 mixer.....Si095.00...ALLIED PRICE $\$$ BROADCAST ELECTRONICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.
5S150, 5M150, 8S150, 8M150


The 5S150, 5M150, 8S150 and 8M150 consoles feature sealed pots, 3600 series electronics and contact free FET bus selection. Each mixing channel accomodates iwo pushbutton selected inputs and may be preset for mic or line level input.
5 S150 stereo, 5 mixer..... $\mathbf{\$ 2 8 5 0 . 0 0}$...ALLIED PRICE $\$$
5M150 mono, 5 mixer..... $\$ 2295.00$....ALLIED PRICE $\$$
_
$8 S 150$ stereo, 8 mixer..... $\$ 3550.00$...ALLIED PRICE $\$$
8M150 mono, 8 mixer..... $\$ 2795.00$.... ALLIED PRICE \$ BROADCAST ELECTRONICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.
> "PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE',

## BROADCAST ELECTRONICS

5S250, 5M250, 8S250, 8M250, 10S250, 10 M 250


The 5S250, 5M250, 8S250, 8M250, 10 S 250 and 10 M 250 consoles feature ladder type step attenuators with cue bus switching, telephone type channel keys and contact-free FET bus selection. Field proven 3600 plug-in electronics make this a truly outstanding line of consoles for any broadcast application.
5S250 stereo, 5 mixer..... $\$ 3550.00$...ALLIED PRICE $\$$
5M250 mono, 5 mixer..... $\$ 2695.00$....ALLIED PRICE $\$$
85250 stereo, 8 mixer..... $\$ 4650.00$...ALLIED PRICE \$
8M250 mono, 8 mixer..... $\$ 3595.00$....ALLIED PRICE $\$$
$10 S 250$ stereo, 10 mixer..... $\$ 5795.00$ ALLIED PRICE \$
10 M 250 mono, 10 mixer..... $\$ 4650.00$ ALLIED PRICE $\$$ $\qquad$ BROADCAST ELECTRONICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## ARRAKIS

150SC


The 150SC is designed for use in small studio or portable applications. Utilizes Allen-Bradley mod pots, VCA audio control, ITT "Schadow" switches, 5 pin Molex gold plated input and output connectors, active balanced circuitry inputs and outputs. Rack mountable.

150SC mono, active in/out..... $\$ 1650.00$
ALLIED PRICE \$
150SC stereo, active in/out..... $\$ 1750.00$ ALLIED PRICE \$

ARRAKIS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE

## 500SC

The 500 SC is a rugged and versatile console designed for broadcast applications. Utilizes Allen-Bradley mod pots, VCA audio control, ITT "Schadow" switches, Electrovert screw terminal strip inpu and output connectors and active balanced circuitry inputs and outputs.
500SC mono, active in/out..... $\$ 3550.00$
ALLIED PRICE $\$$
500SC stereo, active in/out..... $\$ 3750.00$
ALLIED PRICE \$
arrakis prices above are mfgr's suggested list PRICES. CALL FOR TODAY'S ALLIED PRICE. 2000SC

The 2000SC is designed for ease of operation, uncompromising performance and maximum durability. Utilizes Penny and Giles 3000 series faders, VCA audio control, ITT "Schadow" switches and active balanced circuitry inputs and outputs.
2000SC stereo, active in/out..... $\$ 4650.00$
ALLIED PRICE \$
2000SC mono, active in/out..... $\$ 4495.00$
ALLIED PRICE \$
ARRAKIS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

3000


The 3000 series are mainframe modular consoles which come com plete with VU meters, monitor select module, output module and power supply. Only preamp or blank modules need be added.
3000-MF-1 8 pos. typical $\$ 5660$........ALLIED PRICE $\$$
3000-MF-2 16 pos. typical \$9820......ALLIED PRICE \$
3000-MF-3 24 pos. typical \$11,980...ALLIED PRICE \$ CALL FOR TODAY'S ALLIED PRICE.

## RAMKO



The RAMKO DC 38 series consoles are the latest version of what has become a standard of the broadcast industry in the area of DC (VCA) control of audio. RAMKO in 1975 became the first manufacturer to utilize full DC control which allows for simpler, more efficient audio control.


The HOWE 7000 and 7500 series consoles are packed with the most advanced features, yet are designed to be simple to operate and maintain. The VCA is a unique HOWE AUDIO design employing optically coupled transistors to separate the DC control signal from the audio section.

701212 mixer..... $\$ 6400.00 . . . . . . . . . . . .$. ALLIED PRICE $\$$
7012A 12 mix, 4 meter..... $\$ 6800.00$..ALLIED PRICE $\$$
7512A 12 mixer..... $\$ 9995.00$.............ALLIED PRICE $\$$
HOWE PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## AUTOGRAM



AUTOGRAM AC and IC consoles are built in only one series. A premium-grade series which features ladder-type attenuators, engraved numbers and letters, $1 / 4$ " front panel, and fully balanced and floating inputs and outputs. They're flexible, functional and "bullet proof'!
AC-6 typical stereo..... $\$ 4822.00 . . . .$. . ALLIED PRICE $\$$ $\qquad$
AC-6 typical mono..... $\$ 4230.00 . . . . .$. ALLIED PRICE $\$$

AC-8 typical stereo..... $\$ 6038.00 . . . .$. .ALLIED PRICE $\$$
AC-8 typical mono..... $\$ 5350.00 . . . . .$. .ALLIED PRICE $\$$ $\qquad$
IC-10 typical stereo..... $\$ 8121.00 . . . . .$. ALLIED PRICE $\$$
IC-10 typical mono..... $\$ 7357.00 \ldots . .$. . ALLIED PRICE $\$$ $\qquad$ AUTOGRAM PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.
MICROGRAM


AUTOGRAM'S "Microgram" microprocessor controlled audio console is a powerful addition for any broadcast control room. It's built to handle board functions with ease while signalling and mixing numerous prescheduled events simultaneously. The Microgram console can handle 3 stereo buses simultaneously, or run two completely separated automation systems on AM and FM, and still leave a bus open for production, or allow one bus to call another bus for simulcasting and other special situations. In fact, the Microgram console can perform just about any control function you want it to, from handling your daily schedules, to joining and leaving local or network programming, to turning on or off a coffee pot and station lights.
MICROGRAM 24 inputs, 3 stereo output buses, 1 mono bus, with LIVE ASSIST, logging capability, remote starts and remote controls, 2 mic channels and balance hi level, clock, timer and temperature readout.
TYPICAL PRICE..... $\$ 16,535.00$
ALLIED PRICE \$
(24-input console w/1-channel
automation ... $\$ 21,356.00$ )
40 inputs, 3 stereo output buses, 1 mono bus, with LIVE ASSIST, logging capability, remote starts and remote controls, 2 mic channels and balance hi level, clock, timer and temperature readout.
TYPICAL PRICE..... $\mathbf{\$ 2 3 , 1 5 5 . 0 0}$
ALLIED PRICE $\$$
AUTOGRAM PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

RUSSCO


The RUSSCO line of consoles packs a terrific value into a compact size at an unheard bargain price. Designed for broadcast studio use, this terrific five channel mixing console is as modern as tomorrow, with sophisticated features and fully integrated circuitry for dependablity. They're engineered for easy operation and simple servicing and it's as good looking as it is good working.
505 Mono, built in monitor amp..... $\$ 1,336.00$
ALLIED PRICE \$
(cont.)

505S Stereo, less monitor Amp..... $\$ 2046.00$
ALLIED PRICE \$
RUSSCO PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.


For over ten years QUANTUM has dedicated itself to the building of small to medium sized studio consoles for highest professional demands. No component used in QUANTUM consoles are of any lesser quality than in the products of other manufacturers. The Series 22 consoles feature transformer balanced and floating mic inputs, differentially balanced line level inputs and differentially balanced echo return inputs. The outputs are transformer balanced and floating and strappable for other nominal levels.
CALL FOR TODAY'S ALLIED PRICE.

## AUDITRONICS

110A


The Model 110A is an expandable, completely modular professional audio control console built by professionals experienced in sophisticated console design and manufacturing.

Typical pricing with standard configuration.
110-4/18-6 6 inputs in 18 input mainframe..... $\$ 14,910.00$
ALLIED PRICE \$
110A-4/18-12 12 inputs in 18 input mainframe..... $\$ 19,230.00$ ALLIED PRICE \$

110A-4/18-18 18 inputs in 18 input mainframe..... $\$ 23,550.00$ ALLIED PRICE $\$$

110A-4/26-12 12 inputs in 26 input mainframe..... \$20,185.00 ALLIED PRICE $\$$

110A-4/26-18 18 inputs in 26 input mainframe..... $\$ 24,505.00$ ALLIED PRICE \$

110A-4/26-24 24 inputs in 26 input mainframe.....\$28,825.00 ALLIED PRICE \$

110A-4/26-26 26 inputs in 26 input mainframe..... $\$ 30,265.00$ ALLIED PRICE \$

110A-2/18-6 6 inputs in 18 input mainframe..... $\$ 13,130.00$ ALLIED PRICE \$

110A-2/18-12 12 inputs in 18 input mainframe..... $\$ 17,120.00$ ALLIED PRICE \$

110A-2/18-18 18 inputs in 18 input mainframe.....\$21,110.00 ALLIED PRICE \$

Module pricing upon request
AUDITRONICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.
110-8


The Model $110-8$ is a fully professional complete 8 -track broadcast console which may be easily expanded to 16 track capability with plug in modules. The long ignored requirement for an economical professional 8 track console is finally met by this unit. A large degree of customization is made possible by selection from a variety of plug in modules.
Typical pricing with standard configuration.
1108/8-8 8 inputs/8 channel monitoring..... $\$ 20,110.00$
ALLIED PRICE $\$$
110-8/8-16 16 inputs/8 channel monitoring..... $\mathbf{\$ 2 5 , 9 9 0 . 0 0}$
ALLIED PRICE $\$$
110-8/8-24 24 inputs/8channel monitoring..... $\$ 31,870.00$
ALLIED PRICE $\$$
110-8/16-8 8 inputs, 16 channel monitoring.....\$20,750.00
ALLIED PRICE \$ $\qquad$
110-8/16-16 16 inputs, 16 channel monitoring..... $\$ 26,630.00$ ALLIED PRICE \$

110-8/16-24 24 inputs, 16 channel monitoring..... $\$ 32,510.00$ ALLIED PRICE \$

Module pricing upon request
AUDITRONICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.
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## AUDITRONICS

200


The 200 series on-air broadcast control console represents the culmination of latest technology applied for broadcast use. The design is based on information gathered during extensive research conducted throughout the broadcast industry and the expertise of Auditronics 15-year history in this business. The 200 series offers a high degree of reliability together with simplicity of use in a compact, operator oriented package.
Typical pricing with typical input modules.
206MF typical 6 input mainframe..... $\$ 9000.00$
ALLIED PRICE $\$$
212MF typical 12 input mainframe
\$14,000.00
ALLIED PRICE $\$$
218MF typical 18 input mainframe..... $\$ 19,000.00$
ALLIED PRICE $\$$
224MF typical 24 input mainframe..... $\$ 23,500.00$
ALLIED PRICE \$
Module pricing upon request.
AUDITRONICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.
300


The 300 series audio production console is a revolutionary new concept developed by Auditronics to complement the particular requirements of today's modern facilities. The 300 series has been developed as a building block system to satisfy the requirements of small or large and complex facilities. Adequate space is reserved for accessory mounting, both in the operational area where signal processing equipment, remote controls, and even modules from other manufacturers may be added on.
Standard configuration for 4 output operation includes mainframe with metering, designated number of input positions.

Typical pricing with standard configuration.
341-8 8 inputs in 16 input mainframe..... $\$ 18,945.00$
ALLIED PRICE \$
341-16 16 inputs in 16 input mainframe.... $\$ 25,425.00$
ALLIED PRICE \$
341-24 24 inputs in 24 input mainframe.... $\$ 32,430.00$
ALLIED PRICE \$
341-32 32 inputs in 32 input mainframe..... $\$ 40,475.00$
ALLIED PRICE \$
AUDITRONICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST

## PRICES. CALL FOR TODAY'S ALLIED PRICE.

Standard configuration for 8 output operation includes mainframe with metering, designated number of input positions.

## Typical pricing with standard configuration.

381-12 12 inputs in 16 input mainframe..... $\$ 25,185.00$ ALLIED PRICE \$

381-16 16 inputs in 16 input mainframe..... $\$ 28,505.00$
ALLIED PRICE $\$$
381-24 24 inputs in 24 input mainitrame..... $\$ 36,190.00$
ALLIED PRICE $\$$
381-32 32 inputs in 32 input mainframe..... $\$ 43,875.00$ ALLIED PRICE \$

Module pricing upon request.
AUDITRONICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## AUDIOMETRICS

ESA10


The latest in "developed technology" is what makes the AUDIOMETRICS ESA-10 what is fast becoming the highest demand console in the marketplace. Features that make the ESA-10 stand head and shoulders over the competition include absolutely no audio on the front panel with full DC attenuation. The high visibility LED VU indicators are spectacular and accurate. Switching has been taken to a new high in simplicity with the ESA-10. All 30 stereo inputs can be individually trimr.eed at the input ports for level matching and channel balance.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 8950.00$

ALLIED PRICE \$ $\qquad$
MONOGRAM II


The LPB MONOGRAM II consoles feature active balanced audio inputs. Monitor speaker muting and on-air light relays are provided. A cue position is provided in each mixer and all models include an internal cue system consisting of a cue amplifier, level control and $5^{\prime \prime}$ speaker. All connections are made to labeled barrier strip screw terminals located within the console.


Accessory and spares prices upon request.
LPB PRICE ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## SIGNATURE II



The LPB SIGNATURE II consoles feature transformer audio inputs. Monitor speaker muting and on-air light relays are provided. A cue position is provided in each mixer and all models include an internal cue system consisting of a cue amplifier, level control and 5" speaker. The internal monitor amplifier is switch selectable to monitor program or two external monitor inputs. The illuminated VU meter reads the program output at all times.

S-12 5 channel stereo..... $\$ 3195.00 \ldots$..ALLIED PRICE $\$$ $\qquad$ S-13C 8 channel mono/stereo..... $\$ 4295.00$

ALLIED PRICE $\$$
S-14A 5 channel mono..... $\$ 2495.00$. ALLIED PRICE $\$$ $\qquad$
S-15A 8 channel dual out/mono..... $\$ 3295.00$
ALLIED PRICE \$
S-20 10 channel dual out/stereo.....\$5195.00
ALLIED PRICE \$
$\square$
(NOTE: add 595 for mono mixdown)
S-21B 10 channel dual out/mono..... $\$ 4195.00$
ALLIED PRICE $\$$ $\qquad$
Accessory and spares prices upon request.
LPB PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## CITATION



The LPB CITATION consoles come in only stereo and in only two configurations, 8 channel and 10 channel. The series features transformer balanced inputs and outputs, with three inputs per mix er, program, audition, mono mixdown, monitor, cue, headphone and tape outputs. The CITATION console features a signal to noise ratio of better than 74 dB below +18 dBm output with -50 dBm input 20 Hz to 20 kHz .
C-8S 8 channel dual stereo..... $\$ 6995.00$ ALLIED PRICE \$
C-8SL 8 channel dual stereo..... $\$ 7995.00$
ALLIED PRICE $\$$
C-10S 10 channel dual stereo..... $\$ 7995.00$
ALLIED PRICE \$
C-10SL 10 channel dual stereo..... $\$ 8995.00$
ALLIED PRICE $\$$
Accessory and spares prices upon request.
LPB PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

UREI


The UREI 1650 and 1680 series broadcast consoles have the features most requested by engineers and consultants, priced within the budget of small market stations and built with UREI quality. The new consoles offer a choice of five or eight mixers and a choice of attenuator types, rotary conductive plastic, Shallco precision rotary or Penny and Giles straight line. Provisions are for customization to fit the individual station needs, but no accessories are required to put them on the air as they are shipped.

16515 mixer, conductive..... $\$ 2696.00$
ALLIED PRICE \$
16525 mixer, Shallco..... $\$ 3396.00$
ALLIED PRICE \$
16535 mixer, Penny \& Giles..... $\$ 3696.00$
ALLIED PRICE \$
16818 mixer, conductive..... $\$ 3296.00$
ALLIED PRICE $\$$
16828 mixer, Shallco..... $\$ 4496.00$
ALLIED PRICE S
16838 mixer, Penny \& Giles..... $\$ 4896.00$
ALLIED PRICE S
Accessory and spare prices upon request.
UREI PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## "DISCOUNTS ARE

## CONSOLES

## MICRO-TRAK

6510DB


The Model 6510 features ten mixing channels, fourteen inputs, stereo or mono, selectable muting switch, relays for "on-the-air" lights, high quality VU meters, VCA attenuators, plug-in printed circuits cards and switches for easy maintenance, pushbutton input selector switches, barrier terminal strip input and output terminations, monitor output at line level, sealed main pots and compact design.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ . $\mathbf{3 2 9 5 . 0 0}$

ALLIED PRICE \$ $\qquad$
6618


The Model 6618 audio console features six mixing channels, three inputs per mixer, stereo or mono outputs, built-in 10 watt monitor amplifier, selectable muting, on-air light relays, VCA audio attenuators, a choice of preamplifier types, LED line switch indicators, barrier strip input and output terminations, an extra monitor output at line level and plastic conductive main pots.
MANUFACTURER'S SUGGESTED LIST PRICE.
. $\$ 3295.00$
ALLIED PRICE \$


The Series 74 consoles all feature a $4 \times 2 \times 1$ output section that consists of 4 subgroups that mix down to stereo masters, which in turn sum into a mono master. The mechanical design of the console has been optimized to provide a complete list of professional features in an easily portable and cost effective package. Four different models give you a choice of input configurations of $8,16,24$ or 32 inputs. These mixers may be equipped with Adjust Decay Reverb system. Outstanding features include three-band equalization with mid-range selection, phantom power, solo switch, gain trim control and overload LED indication.
74088 channels..... $\$ 2570.00$............ALLIED PRICE $\$$

741616 channels..... $\$ 3497.00 . . . . . . . .$. ALLIED PRICE $\$$ with ADR..... $\$ 3806.00 . . . . . . . . . .$. ALLIED PRICE $\$$ $\qquad$
742424 channels..... $\$ 5145.00 . . . . . . .$. . ALLIED PRICE $\$$
743232 channels..... $\$ 6690.00 \ldots . . . . .$. ALLIED PRICE \$
Accessory and spare prices upon request.
TAPCO PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.


The M-16 comes in 16 or 24 input configurations. It features 8 main program mixing busses with submaster faders, 8 main board outputs, stereo solo inplace, input, monitor and effects returns, remix solo enable, input PFL/Solo select, 2 independent stereo mixing busses, 16 meters switchable to read buss or external source, 100 millimeter conductive plastic faders for smooth, positive control, 4 band, 8 knob parametric equalizers that may be switch bypassed, four auxiliary mixing busses and $16 \times 2$ channel or dual $8 \times 2$ channel monitor selection. A sophisticated production board for every need. Accessory prices upon request.
M-16 16 inputs..... $\$ 10,500.00 . . . . . . . . . . A L L I E D ~ P R I C E ~ \$ ~$
M-16 24 inputs..... $\$ 13,000.00 \ldots . . . . . .$. ALLIED PRICE $\$$
tascam prices above are mfgr's suggested list PRICES. CALL FOR TODAY'S ALLIED PRICE.
M-50


The M-50 is a sophisticated audio mixing console designed for professional production applications. All multitrack production has three totally that require what could be described as three totally different mixers (1) record the basic tracks, (2) overdub to add parts, and (3) remix (mixdown) to stereo or mono. The M-50 performs all three production functions, relying upon its multiple inputs per channel, plus is re-assignable sub-mixes and monitor sections. The M-50 is exceptionally reliable and easy to use in all three modes.

MANUFACTURER'S SUGGESTED LIST PRICE. \$3495.00

ALLIED PRICE \$

## "SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE'’



The M-67 is a transistorized microphone mixer/remote amplifier specifically designed for professional applications. The excellent performance and versatility of this complete, compact mixer make it an ideal choice for studio, remote, or original sound reinforcement use, and as an "add-on" mixer for expanding existing facilities. It is also ideally suited for use with tape recorders and VTR's to provide multiple microphone inputs.

MANUFACTURER'S SUGGESTED LIST PRICE
$\$ 365.00$


The SHURE Model M-267 is a microphone mixer/remote amplifier specifically designed for professional applications. The excellent performance, versatility and features of this complete, compact mixer make it an ideal choice for studio, remote, or sound reinforcement use, and as an add-on mixer for expanding existing facilities. It is also ideally suited for use with audio and video tape recorders to provide multiple microphone inputs.

## MANUFACTURER'S SUGGESTED LIST PRICE

$\qquad$ .$\$ 415.00$

ALLIED PRICE \$ $\qquad$
FP-31


The Model FP-31 is a compact, portable microphone mixer specially designed for electronic news gathering (ENG) and electronic field production (EFP) use including film, video and remote broadcast applications. The FP-31 provides a wide, flat frequency response, low distortion, and up to +18 dBm output. The unit features extremely low internal noise and switchable low-cut filters for each input that effectively reject low-frequency handling and wind noise. 400 Hz slate tone, 1 kHz cue tone.
MANUFACTURER'S SUGGESTED LIST PRICE. ..$\$ 830.00$

ALLIED PRICE \$ $\qquad$

## AMS



The SHURE Automatic Microphone System (AMS) turns microphones on and off with automatic gating, greatly reducing the reverbant sound quality and feedback problems often associated with the use of multiple microphones. The special AMS microphones are gated on only by sounds arriving from the front within their acceptance angle of 120 degrees. Other sounds outsid the 120 degree angle, including background noise, will not gate the microphones on, regardless of level. In addition, the AMS adjusts gain automatically to prevent feedback as the number of on microphones increases.
MANUFACTURER'S SUGGESTED LIST PRICE start at...\$2240.0
ALLIED PRICE \$
TELFAX
131A


From TELFAX, manufacturers of the most widely used miniature phone remote units comes a new unit for the professional broadcaster, the TFX-131A. More features like pushbutton dialing with memory redial, LCD clock/stopwatch timer, test oscillator, closed circuit spotter channel, instant compatibility with low frequency extenders and other eternal audio processors, custom engraved call letter plate, modular phone connectors and much more.
manufacturer's suggested list price. $\qquad$ .$\$ 795.00$

ALLIED PRICE \$
31C


This the new standard in remote broadcasting, the Telfax TFX-31C phone remote unit. It is the smallest, lightest and most featurepacked unit on the market. Just connect it to the phone line, plug in your headset and you're ready to broadcast with superior audio quality. Compare size, features and price carefully, the Telfax TFX-31C is the only wise choice.
MANUFACTURER'S SUGGESTED LIST PRICE. $\$ 595.00$

## RUSSCO



The Model T411 "TEL-A-MOTE" from RUSSCO features a built-in potary dial, three mic channels, phono equalization on two channels, switchable line equalization which improves audio response from the line, 115 AC or battery operation, a headset amp which drives up to 4 headsets, a built in test oscillator, and a "lost line" LED indicator.

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ .$\$ 729.00$

ALLIED PRICE $\$$ $\qquad$ _
MAXI-TEL


Utilizing the latest "developed technology" electronic design, the MAXI-TEL is your answer to all of your remote broadcast problems when using telephone lines. When you are broadcasting sports games, grand openings, conventions or whatever, the MAXI-TEL will serve you flawlessly with exceptional broadcast quality. 120 volt operation plus up to 40 hours of battery backup makes the MAXITEL one of your most reliable pieces of broadcast equipment that you own.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 825.00$

ALLIED PRICE \$ $\qquad$
MAXI-TWO


If a two channel mic/tape mixer will perform all the functions you need for remote broadcasting then the MAXI-TWO will fill the need. With two mic inputs or one plus a tape input for cassette, LED VU indication, battery or AC operation, and a telephone dial the MAXITWO is the maxi-mum two channel mixer for your remote broadcasting program.
MANUFACTURER'S SUGGESTED LIST PRICE.
$\$ 425.00$
ALLIED PRICE \$ $\qquad$ -

## MICRO-TRAK

SPORT III


This two channel console incorporates many features found desirable by sports broadcast personnel including talkback for setup, a built-in AC power supply, low cost battery requirements, a "Touchtone" telephone dial and three headphone outputs. The SPORT III is attractively packaged in a self-contained carrying case. Open the cover, connect the telephone line, plug in the AC if available, turn to battery operation if not, plug in a microphone or sportscaster headset and it's play-by-play time.
MANUFACTURER'S SUGGESTED LIST PRICE
$\$ 649.50$
ALLIED PRICE \$
SPORT IV


The SPORT IV has all the features of the SPORT III with five mic inputs, 4 mix to program + spotter to headset only. With telephone dial.

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ \$799.50

ALLIED PRICE S

## BONNEVILLE

DA- 6


The Bonneville DA-6 is a premium quality, general purpose audio distribution amplifier for the professional. It is suitable for multiple line-level feeds from a single source. Heat buildup is no problem. As many as 30 have been stacked and operated for years. The DA-6 is supplied with six outputs. Up to 10 outputs can be ordered or field-installed in the prepunched chassis. The unit meets design specifications with all ten outputs as well as six. Additional output and black anodized panel option prices upon request.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 545.00$

ALLIED PRICE \$ $\qquad$
DA-108


The DA-108 is particularly suited to provide multiple microphone or line-level outputs to reporters and sound cameramen at press conferences. It is also suited for multiple feeds in portable sound reinforcement systems. The DA-108 features XLR connectors in and out, transformer inputs and outputs, a 20 K bridging input, up to +24 dBm outputs, selectable line or mic outputs, adjustable gain to +30 dB and a self contained power supply.

MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ $\$ 595.00$

ALLIED PRICE \$
PC- 2


The "Press Corps 2 audio distribution package combines two DA-108 distribution amplifiers in a rugged carrying case. The two DA's may be bridged from a single input line using the cable supplied, or may be operated independently as separate $1 \times 8$ units. The carrying case has a detachable front and back cover to completely protect the distribution system during transportation. Transformer isolation on all inputs and outputs protects against AC ground loop current and RFI.
mANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ $\$ 1295.00$

ALLIED PRICE \$

## A-10



The A-10 audio accessory is a passive interface box designed to provide multiple isolated outputs from a single line-level input. Several cassette tape recorders may be driven from a single
distribution amplifier line-level input. All output jacks are insulated from the case. A ground switch is provided to maximize the flexibili ty of the unit.
manufacturer's suggested list price.
$\$ 49.00$
ALLIED PRICE $\$$
AUDIOMETRICS


- ain

The AUDIOMETRICS distribution amplifiers combine solid state electronics and functional flexibility into one small package. A single high quality audio op amp provides balanced output, and individual gain adjustments for each channel. Excellent isolation is provided between outputs. Each balanced channel, regardless of level set and load, is unaffected by the other channels. Audio sources can be routed to multiple locations with various level requirements and impedances while maintaining the integrity of the signal quality thoughout.

DA-8 $1 \times 8 . . . . \$ 299.00$
ALLIED PRICE \$
DA-16 $2 \times 16 \ldots . . \$ 409.00$
ALLIED PRICE \$ $\qquad$
AUDIOMETRICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## TELLABS MODULAR



Each Tellabs 4018 module provides a $1 \times 8$ distribution amplifier with high impedance bridging or 600 ohms input and 600 ohms each port output. The 1012 housing permits mounting of up to eleven 4018 modules plus a 9021 fuse protection module. Combine this package with a rack-mounted 8013 power supply, and you have up to $11 \times 88$ distribution amplifier. All Tellabs equipment is connected by .075 wirewrap terminals. Cabinets must be wired by user.

4018 DA module..... $\$ 143.00$
1012 Housing..... \$133.00
8003A Power supply..... $\$ 190.00$
TELLABS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

HEACO
5002A


The 5002A audio distribution amplifier from HEACO offers a 15 K ohm transformer balanced input. The frequency response of the amplifier is down less than .25 dB over a frequency range of 20 Hz to 20 kHz . Distortion is less than $.25 \%$ over the same range. Eighteen 600 ohm balanced outputs are provided that are isolated by greater than 80 dB . The output level, as well as input level, can be monitored by a high-quality VU meter allowing the operator to check the operation of the DA as well as accurately set the audio level to the outputs.

## manuFacturer's SUGGESTED LIST PRICE .\$387.50

## ALLIED PRICE $\$$

5004A


The dual 5004A distribution amplifier from HEACO is what can accurately be described as "developed technology" carried to its highest. With only $13 / 4^{\prime \prime}$ of rack space, it makes bulky distribution amplifiers a thing of the past. The 5004A consists of dual, extremely low distortion amplifiers. Each amplifier has a differential, balanced bridging input. The frequency response is less than .25 dB over a frequency range of 20 Hz to 20 kHz . Distortion is less than . $25 \%$ over the same range. The 5004A offers a choice of $1 \times 8$ or $2 \times 16$ operation, with integrated circuitry and popless input to the output meter switch.
manufacturer's Suggested list price $\qquad$ .\$593.50

ALLIED PRICE $\$$ $\qquad$

## MODULAR AUDIO

7833


The MAP 7833 is a self contained audio distribution with the ability to provide near constant output levels although driven by widely varying inputs. The 7833 features a 6 K ohm bridging
transformerless line level input, a 3320 compressor/limiter in the input circuit, up to 30 dB of dynamic range reduction, LED bar graph reduction indication, eight balanced transformerless outputs, low noise and distortion, a self contained power supply and screw type barrier strip field connectors.

## MANUFACTURER'S SUGGESTED LIST PRICE

$\qquad$ $\$ 705.00$

## ALLIED PRICE S

$\qquad$
7821/7822


The MAP models 7821/7822 are self contained audio distribution amplifiers intended for use in broadcast. The 7821 provides a 6 K ohm bridging balanced trnasformerless input, the 7822 two. The 7821 has 8 balanced transformerless outputs, the 7822 sixteen. Both feature low noise, continuously adjustable gain, low distortion, high output level and 80 dB of isolation between outputs and output to input.

7821 ..... $\$ 500.00$
7822 ..... $\$ 705.00$
MODULAR AUDIO PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

7823


The MAP 7823 is a self contained microphone/line level to line level distribution amplifier intended for use in broadcasting. It features a transformer coupled microphone input with adjustable gain, a bridging 6 K ohm balanced transformerless line level input, a source select switch, eight balanced transformerless 600 ohm outputs with additional adjustable gain to +15 dB , low noise and distortion, high output level +20 dBm per channel and 80 dB of isolation between outputs and output to input.

MANUFACTURER'S SUGGESTED LIST PRICE. $\$ 705.00$

ALLIED PRICE \$
RAMKO


Every DA made by RAMKO is engineered with the better performance you get when you eliminate the drawbacks associated with conventional transformer designs. In their place the latest integrated circuitry is used. The inputs can handle a bridging, balanced or unbalanced audio line (mic or line) and their unique output stages employ an advanced, solid-state balanced approach. With RAMKO DA's you get total isolation because they use individuals amplifiers for each stage.
$\begin{array}{ll}\text { DA-2080MF } & \begin{array}{l}\text { Main frame including meter, } \\ \text { power supply and extender card } \\ \text { for up to } 10 \text { DA-2080 modules..... } \$ 665.00 \\ \text { ALLIED PRICE } \$\end{array}\end{array}$
DA-2080MOD Distribution amp. plug-in module, $2 \times 8$,
individual controls..... $\mathbf{\$ 2 0 2 . 0 0}$
ALLIED PRICE \$
DA-2080PS
Power supply for
DA-2080MOD..... $\$ 259.00$
ALLIED PRICE \$
Ramko prices above are mfgr's suggested list PRICES. CALL FOR TODAY'S ALLIED PRICE.

## AUDITRONICS

1100 SERIES

(cont.)

## $\boldsymbol{A}$ DISTRIBUTION AMPS / FURNISHINGS

Designed to meet the requirements of the modern broadcast facility, the 1100 SERIES audio distribution amplifier systems from AUDITRONICS includes the mainframe, power supply and a $1 \times 6$ distribution amplifier module. The DA-6/LC module includes one balanced input with internally accessed master gain control and six balanced outputs each module with individual front panel accessible attenuation controls.
1100-MFP 8 input mainframe with integral
PS-1100 power supply..... $\$ 850.00$
ALLIED PRICE \$ $\qquad$
1100-MF

DA-6/LC

PS-60

PSI-60

PS-1100
10 input mainframe exclusive of power supply..... $\$ 500.00$

ALLIED PRICE \$ $\qquad$
1 input with gain control
+6 outputs with individual
attenuation controls..... $\$ 200.00$
ALLIED PRICE \$ $\qquad$
Rack mount external
power supply system.... $\$ 450.00$
power supply system.....\$450.00
Rack mount power supply isolator..... $\$ 150.00$

ALLIED PRICE $\$$ $\qquad$
Spare integral power supply
878.90 for 1100 MFP mainframe..... $\$ 350.00$

$$
\text { ALLIED PRICE } \$
$$

$\qquad$
AUDITRONICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## FURNISHINGS

## A-LINE CART RACKS



For audio cartridge storage Allied offers the high-quality, highly flexible A-LINE of cart racks. From the standard wall mount to the most exotic lazy susan models, everything is available from Allied. All cart racks are normally supplied with walnut, pecan, gold or black laminate. Special laminates and sizes are available, call or write for prices.
STANDARD WALL MOUNT

| Model | Cap. | Mfgr's List |  |
| :--- | :--- | :--- | :--- |
| A/L 20 | 20 | $\$ 22.00$ | ALLIED PRICE $\$$ |
| A/L 36 | 36 | $\$ 38.00$ | ALLIED PRICE $\$$ |
| A/L 40 | 40 | $\$ 40.00$ | ALLIED PRICE $\$ 4.34$ |
| A/L 50 | 50 | $\$ 48.00$ | ALLIED PRICE $\$$ |
| A/L 60 | 60 | $\$ 58.00$ | ALLIED PRICE $\$$ |
| A/L 100A | 100 | $\$ 84.00$ | ALLIED PRICE $\$$ |
| A/L 100B | 100 | $\$ 84.00$ | ALLIED PRICE $\$$ |

Lazy susan cart racks are normally supplied with standard 4" base However, any size base up to $30^{\prime \prime}$ is available. Special size racks are available. Walnut, pecan, gold or black laminate are standard. Call or write for prices on special bases, sizes or laminates.

| Model | Cap | Mfgr's list |  |
| :--- | :--- | :--- | :--- |
| A/L 100LS | 100 | $\$ 166.00$ | ALLIED PRICE $\$$ |
| A/L 160LS | 160 | $\$ 249.00$ | ALLIED PRICE $\$$ |
| A/L 240LS | 240 | $\$ 290.00$ | ALLIED PRICE $\$$ |
| A/L 400LS | 400 | $\$ 496.00$ | ALLIED PRICE $\$$ |
| A/L 800LS 800 | $\$ 836.00$ | ALLIED PRICE $\$$ |  |
| A/L 1000LS 1000 | $\$ 1302.00$ | ALLIED PRICE $\$$ |  |
| A/L 1200LS 1200 | $\$ 1508.00$ | ALLIED PRICE $\$$ |  |

[^0]
## ALLIED WIRE LAZY SUSAN CART RACKS



Where strength and capacity are required at a minimal cost, the Allied line of welded, durable wire lazy susan cart racks can fill the need. Available in a choice of 50,300 or 500 capacity, these industrial quality cart racks will give many years of dependable service.

| Model | Cap | Mfgr's List |  |
| :--- | :--- | :--- | :--- |
| 50 | 50 | $\$ 42.95$ | ALLIED PRICE $\$-$ |
| 300 | 300 | $\$ 349.00$ | ALLIED PRICE $\$$ |
| 500 | 500 | $\$ 495.00$ | ALLIED PRICE $\$ 4750 \%$ |

## ARISTOCART SPACE SAVERS



The low cost slim line Space Saver units hold 20 cartridges in slanted slots. Mount them on any convenient space. Can be stacked in series. Made of rugged high impact styrene composition in Sky Blue or Saddle Tan finish. Predrilled mounting screws supplied.
MANUFACTURER'S SUGGESTED LIST PRICE..... $\$ 13.00$
ALLIED PRICE $\$$ $\qquad$

FIDELIPAC CART RACKS


The Fidelipac line gives you a choice of styles and sizes
Model Description
WR25 Wall mount-25 carts..... $\$ 27.75$
ALLIED PRICE \$
MRB-1 rack base (8-WR25)..... $\mathbf{\$ 6 3 . 0 0}$
ALLIED PRICE \$
MR-200 mobile rack holds 200..... $\$ 285.00$
ALLIED PRICE \$ $\qquad$
TR-48 table top rack holds 48..... $\$ 79.00$
ALLIED PRICE \$ $\qquad$
TR-96 tabletop rack holds 96.....\$:42.00
ALLIED PRICE \$ $\qquad$
FIDELIPAC PRICES ABOVE ARE MFGR'S LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

MICRO TRAK CART RACKS


The Model 72 lazy susan cart rack is designed to complement the L series studio furniture line as is the L-90 wall mount unit. The Micro Trak line of cart racks offers clean efficient lines and a maximum of storage with a minimum of utilized space.
Model Description
72 Lazy susan cart rack..... $\$ 79.50$
ALLIED PRICE \$
90 Wall mount cart rack..... $\$ 79.50$
ALLIED PRICE \$
MICROTRAK PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## FURNISHINGS



For a cart rack that will mount anywhere and will hold up to 10 carts, the SIMPAC line from Allied is just what the engineer ordered.

MANUFACTURER'S SUGGESTED LIST PRICE.. $\$ 6.00$ per module ALLIED PRICE $\$$

## A-LINE 19' EIA EQUIPMENT RACKS



All rack cabinets are made of $3 / 4^{\prime \prime}$ high-density particle board and covered with walnut, honey gold, pecan or black laminate. However, any color or wood grain laminate is available. Backs of all equipment racks feature an exclusive snap-out panel for easy access to equipment. Custom heights are available. Optional casters are $\$ 37.00$ per set. For overall dimensions add 4 " to the panel height, all units are $231 / 4^{\prime \prime}$ wide overall, $17^{\prime \prime}$ depth racks are 18" deep overall, 23" depth racks are 24" deep overall.

| Model | Panel Ht | Depth | Mfgr's List |  |
| :---: | :---: | :---: | :---: | :---: |
| A/L R100 | 7' | 17" | \$78.00 | ALLIED PRICE \$ |
| A/L R100 | 7' | 23" | \$82.00 | ALLIED PRICE \$ |
| A/L R101 | 83/4' | 17'' | \$85.00 | ALLIED PRICE \$ |
| A/L R101 | 83/4" | 23" | \$89.00 | ALLIED PRICE \$ |
| A/L R102 | 101/2'' | 17' | \$91.00 | ALLIED PRICE \$ |
| A/L R102 | 101/2'' | 23" | \$97.00 | ALLIED PRICE \$ |
| A/L R103 | 121/4" | 17" | \$105.00 | ALLIED PRICE \$ |
| A/L R103 | 121/4" | 23" | \$111.00 | ALLIED PRICE \$ |
| A/L R104 | 14" | 17" | \$118.00 | ALLIED PRICE \$ |
| A/L R104 | 14" | 23" | \$125.00 | ALLIED PRICE \$ |
| A/L R105 | 153/4" | 17" | \$130.00 | ALLIED PRICE \$ |
| A/L R105 | 153/4"' | 23' | \$136.00 | ALLIED PRICE \$ |
| A/L R106 | 171/2' | 17'' | \$144.00 | ALLIED PRICE \$ |
| A/L R106 | 171/2'' | 23'' | \$160.00 | ALLIED PRICE \$ |


| A/L R107 | 191/4' | 17'' | \$161.00 | ALLIED PRICE \$ |
| :---: | :---: | :---: | :---: | :---: |
| A/L R107 | 191/4" | 23'' | \$167.00 | ALLIED PRICE \$ |
| A/L R108 | 21'" | 17'' | \$171.00 | ALLIED PRICE \$ |
| A/L R108 | 21' | 23' | \$175.00 | ALLIED PRICE \$ |
| A/L R109 | 241/2" | 17'' | \$174.00 | ALLIED PRICE \$ |
| A/L R109 | 241/2' | 23' | \$182.00 | ALLIED PRICE \$ |
| A/L R110 | 311/2' | 17'' | \$184.00 | ALLIED PRICE \$ |
| A/L R110 | 311/2' | 23'' | \$191.00 | ALLIED PRICE \$ |
| A/L R111 | 35' | 17'' | \$190.00 | ALLIED PRICE \$ |
| A/L R111 | 35' | 23" | \$197.00 | ALLIED PRICE \$ |
| A/L R112 | 42'' | 17'' | \$202.00 | ALLIED PRICE \$ |
| A/L R112 | 42" | 23" | \$213.00 | ALLIED PRICE \$ |

## SOUNDOLIER CABINET RACKS



Soundolier cabinet relay racks are designed for standard 19' rack panels. Sturdy 16 gauge CRS is used throughout. A rear door is provided as standard equipment and is hung on slip jointed hinges. Knockouts and internal louvers are among the exclusive features offered by Soundolier. Six $3 / 4^{\prime \prime}$ to $1^{\prime \prime}$ conduit Knockouts (three on top and three on back flange) are provided at top of the rack with six knockouts at the bottom. To facilitate cable entry, three 2 13/16" diameter holes are located toward the rear of the base of the rack. Ventilation is improved while providing a neat and clean apparance.
PRICE ON APPLICATION

## ‘'SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE'’

## SOUNDOLIER MULTI-RACKS



Soundolier Multi-Racks are designed for standard 19" rack panels and maximum flexibility. Mutti-Racks can be readily joined together and because of its open side construction, electrical wiring is simple and convenient. Multi-Racks are supplied with a rear door, hung on slip-jointed hinges. Panel mounting rails are adjustable, manufactured of 11 gauge CRS and are tapped for $10-32$ screws. All metal surfaces receive an iron phosphate coating prior to finishing for rust prevention and maximum paint adhesion. Standard finish is grey hammertone with additional standard and nonstandard colors available.

## PRICE ON APPLICATION

## H.O.M.E.



The DR series of H.O.M.E. 19" modular racks includes several features including sturdy welded construction of 16 gauge CRS, optional side panels that are removable for multiple bolt-together assemblies, adjustable 11 gauge angles tapped for $10-32$ screw on standard EIA spacing that makes panel mounting easy. A cable opening is provided in the bottom panel. A rear door with lock and handle is provided. You can choose from 20 standard baked enamel colors. Depths to $24^{4 \prime}$ available.

CALL FOR TODAY'S ALLIED PRICE

## 201 SERIES TURNTABLE BASES



A-LINE turntable bases are constructed of $3 / 4^{\prime \prime}$ high-density particle board covered with standard laminates. Tops are $11 / 4^{\prime \prime}$ thick. Turntable bases are normally supplied with rack rails constructed of 11 gauge steel, tapped to accept 10-32 standard EIA rack panels. Cover panels are available at $\$ 6$ per bay. Custom cabinets with record and/or tape storage inserts are available.

## Model

Description
A/L 201A Single turntable base..... $\$ 222.00$
ALLIED PRICE \$
A/L 201B Double turntable base..... $\$ 347.00$
ALLIED PRICE \$
A/L 201C Triple turntable base..... $\$ 447.00$
ALLIED PRICE \$
TURNTABLE ISOLATOR


The AK-10 Mark II Series 2 is a sandwich consisting to an upper and a lower plate which reduces physical contact to live rubber only, can be accomodated to all popular direct drive turntable-tone arm combinations. Offers 8 to 10 dB of feedback headroom and up to 20 dB of isolation. Available in walnut, pecan, black or gold laminate finish standard.

## Model

AK10 Mark II

AK10 Mark II
*(for SP-10 Mark III)
SHOCK ABSORBER

Description
Standard..... $\$ 266.00$ allied price $\$$

Special*..... \$310.00
ALLIED PRICE \$ $\qquad$


Allied's turntable isolator has been integrated into a package known as the 8100 shock absorber. This approach attacks head-on the many problems associated with protecting otherwise noise free turntable-tone arm combinations from all types of interference. Gives 8 to 10 dB of feedback headroom improvement and up to 20 dB of isolation.

| Model Description <br> A/L8100 Standard..... $\$ 516.00$ | ALLIED PRICE $\$$ |
| :--- | :--- | :--- |
| A/L8100 Special*.... $\$ 580.00$ ALLIED PRICE $\$$ <br> (for SP-10 Mark III)   |  |

## A-LINE "STUDIO ATMOSPHERE"



The most "dramatic" of any studio design available today is the new Allied A-LINE "STUDIO ATMOSPHERE" console. With all the features so desired by the broadcast manager, operator and engineer, this exciting concept of studio furnishings incorporates everything you ever thought you wanted. All wood construction makes this innovative new design highly flexible. No application is impossible with what was described at the 1983 NAB and OSU shows as the most impressive sludio furnishings seen in quite awhile. You can have a showpiece studio with the creative new ALINE "STUDIO ATMOSPHERE" console from Allied. Stock or custom.

## ALLIED STUDIO PACKAGE



The answer for remote broadcasts, news and production studio establishment, or disco operations is the Allied Studio Package. This convenient package includes a mono or stereo console, two turntables, phono preamps, tone arms, phono cartridges and the
cabinetry. Works equally as well for remotes, discos, news production and commercial production studio installation.

| Model | Description |
| :---: | :---: |
| 4M50 | B/E mono package..... $\$ 2738.00$ <br> ALLIED PRICE |
| 4S50 | B/E stereo package..... $\$ 3936.00$ ALLIED PRICE |
| 505 | Russco mono package..... $\$ 2849.00$ <br> ALLIED PRICE |
| 505S | Russco stereo package.....\$3473.00 ALLIED PRICE \$ |
| DM1800W | Numark stereo package.....\$1795.00 <br> ALLIED PRICE $\$$ |
|  | Cabinetry alone no shelf..... $\$ 190.00$ ALLIED PRICE |
|  | Cabinetry with OB shelf..... $\$ 273.00$ <br> ALLIED PRICE $\$$ |

NOTE: (if not picked up at Richmond Warehouse--add $\mathbf{\$ 1 2 5}$ packing charge)

## CONSOLE TABLE

The A-LINE console table comes in a standard size $30^{\prime \prime} \times 96^{\prime \prime}$ table top with legs and modesty panel available.

## Model

A/L 202

A/L 1111

## A/L 2222

Description
Console tabletop $30^{\prime \prime} \times 96^{\prime \prime}$..... $\$ 149.00$

$$
\$
$$

Legs for console tabletop.....\$186.00 ALLIED PRICE \$ $\qquad$
$\qquad$
STANDARD BROADCAST DESK


A heavily-built "real" piece of control room furniture. Standard in $29^{\prime \prime}$ height with tabletop of $30^{\prime \prime} \times 96^{\prime \prime}$, this unit can be varied in size to meet your precise needs. Shipped modular for rapid assembly. A pullout kneewell back affords easy access to hidden wiring compartments.

| Model | Description |
| :--- | :--- |
| A/L 230 | Console desk, no drawers.....\$593.00 |
| ALLIED PRICE \$ |  |
| A/L 2300 | Console desk, two drawers.....\$644.00 |

ALLIED PRICE $\$$

## ‘'DISCOUNTS ARE AVAILABLE

ON MOST EQUIPMENT' ${ }^{\prime}$

## RECORD STORAGE CABINETS



Now your music or transcription library can be put in alphabet or numerical order with standard or custom size record storage cabinets from Allied.

| Model | Reco Size | Cap | Mfgr's L |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A/L 1000A | 7' | 1000 | \$226.00 | ALLIED | PRICE | \$ |
| A/L 1500A | 7' | 1500 | \$268.00 | ALLIED | PRICE | \$ |
| A/L 3000A | 7' | 3000 | \$321.00 | ALLIED | PRICE | \$ |
| A/L 750B | 12'' | 750 | \$231.00 | ALLIED | PRICE | \$ |
| A/L 1000B | 12" | 1000 | \$269.00 | ALLIED | PRICE | \$ |
| A/L 1500 B | 12'' | 1500 | \$330.00 | ALLIED | PRICE | \$ |

REEL TAPE STORAGE CABINETS
Every station has a room running over with reel-to-reel tapes, commercials, programs, and a widely assorted variety of other types of taped material. The A-LINE reel tape storage cabinets are available in standard or custom sizes for every application.

| Model | Tape <br> Size | Cap | Migr's List |  |
| :--- | :---: | :---: | :---: | :--- |
| A/L 350TB | $7^{\prime \prime}$ | 350 | $\$ 194.00$ | ALLIED PRICE $\$$ |
| A/L 500TB | $7^{\prime \prime}$ | 500 | $\$ 309.00$ | ALLIED PRICE $\$$ |
| A/L 200TC | $101 / 2^{\prime \prime}$ | 200 | $\$ 267.00$ | ALLIED PRICE $\$$ |
| A/L 400TC | $101 / 2^{\prime \prime}$ | 400 | $\$ 320.00$ | ALLIED PRICE $\$$ |

[^1]
## RUSLANG RL-500



For mounting any standard $19^{\prime \prime} \times 153 / 4$ ' tape transport, the Ruslang RL-500 is constructed with the same care as other top name consoles constructed over the past few years. Accepts Ampex, MCl , Otari and Tascam transports and includes the tilt feature.
CALL FOR TODAY'S ALLIED PRICE
RUSLANG RL-600


Accepts tape transports which are $19^{\prime \prime}$ by up to $21^{\prime \prime}$. This console was designed specifically for the newer generation of decks which have their electronics integrated with the transport including the Otari 5050 B and others. The RL-600 is built with the same quality concern that has identified the Ruslang name for years.

CALL FOR TODAY'S ALLIED PRICE

## "‘DISCOUNTS ARE

 AVAILABLEON MOST EQUIPMENT''

## OMNIMOUNT



The Omnimount mounting system puts added flexibility into a wide variety of equipment mounting functions including speakers, clocks, and some types of equipment including monitors. Omnimount is of industrial quality, built to last a long time. A key to its remarkable performance is the ball joint design. The ball is moulded of an ebonite polymer compound, with excellent memory-return and is just about indestructible. The ball is bonded to the thick-walled carbon steel tube the same way that heavy duty motor mounts are bonded. You can mount Omnimount on the wall or ceiling and it does its job with extraordinary flexibility, not limited to the usual "pan and tilt" functions. A wide variety of models is available to choose from.

## CALL FOR TODAY'S ALLIED PRICE

## COPPER PRODUCTS



When you start wiring, shielding or screening your studio, Allied has all the copper products you'll need including copper strap up to $8^{\prime \prime}$ widths in .020 or .032 thickness, \#10 soft drawn copper wire, copper flyscreen and copper groundscreen. Whatever your copper need, Allied can meet the situation with a complete selection.
CALL FOR TODAY'S ALLIED PRICE

## BELDEN WIRE



Belden manufactures thousands of different electronic cable and cord constructions for use in a vast assortment of OEM products and applications. Many cables are custom designed for specific a plications before becoming standard products for use in communications systems, data processing, computers, manufacturing security systems, medical applications and a whole lot more. ALLIED OFFERS THE COMPLETE BELDEN LINE AT VERY COMPETITIVE PRICES.

CALL FOR TODAY'S ALLJED PRICE
WEST PENN WIRE


West Penn manufactures many different electronic cable and cord constructions for use in a wide assortment of electronic applications. A particular favorite of broadcasters is \#291 two conductor twisted pair shielded cable. \#291 comes in 22 AWG stranded with a 24 AWG drain wire with insulation colors of white, red, brown, black, yellow, green, gray, blue, violet and orange. ALLIED OFFERS THE COMPLETE WEST PENN LINE AT VERY COMPETITIVE PRICES.

## CALL FOR TODAY'S ALLIED PRICE

## ALLIED TERMINATION SYSTEM

Allied can offer everything you need to establish a type " 66 " punch block wiring system in your studio or station.
"O" PADS


Where specific attenuation is needed the Allied "O" pad can provide a choice of $3,6,10,17$, or 23 dB attenuation.

## TERMINATION



Your choice of vertical or horizontal termination 300,600 or 10 K ohms. Terminating, bridging, or build-out.

## "ST" CONNECTOR



Easy punch block hookup is available with the standard of the industry, the 3M "ST" connector.
"SA-1" BRIDGE CLIPS


For jumper applications in use of " 66 " punch block wiring.
"E9E" CRIMP TOOLS


The perfect tool for use with "ST" connectors and for other crimp applications.

## PUNCH TOOLS



For punch board wiring applications, this is the most efficient method utilized.

| Model | Description |
| :--- | :--- |
| S66MT | spring loaded |
| S66BT | manual |
| S714 | automatic |
| "66" | PUNCH |



Absolutely the easiest way to accomplish complex wiring projects. A must for efficient console, rack mounted equipment or other types of wiring installations.

## Model

Description
S66B3-75
Group of 2 clips
S66BE-50 Group of 3 clips
S66B4-25 Group of 6 clips

## SNAP-IN WALL MOUNT



Perfect for mounting a type " 66 " punch block on the wall or any available space. The model S66B6 will fit most standard punch blocks.

WIRE AND CABLE HANGERS


Allied has a wide selection of wire and cable hangers for every application.
Model Description

S66147 Cable hanger
S66145 Cable hanger

## CONTROL ROOM CHAIR



Just as important to your air sound as a turntable, the Allied chair built for any environment including black naugahyde back and seat covers, and easy roll wheels. High or low versions are available for standup or sitdown operation.

| Model | Description | Mfgr's List |  |
| :--- | :--- | :---: | ---: | :--- |
| HI | standup model | $\mathbf{\$ 1 0 8 . 5 0}$ | ALLIED PRICE $\$$ |
| LO | sitdown model | $\mathbf{\$ 1 0 0 . 0 0}$ | ALLIED PRICE $\$$ |

## ALLIED WARNING LIGHTS

"STROBE SERIES"


An adaptation of technology to a unique application is the 70,000 candlepower "STROBE SERIES" of telephone and "ON AIR" warning lights from Allied. These bright attention drawing lights come in variety of lens colors including white, blue, red, amber and green, lettered with "PHONE" or "ON THE AIR". 12 and 24 volt DC models are available as well as 115 volt AC models.

| Model | Voltage | Message | Price |
| :--- | :--- | :--- | ---: |
| WHI-12 | 12VDC | ON AIR | $\$ 68.00$ |
| WHI-24 | 24VDC | ON AIR | $\$ 68.00$ |
| WHI-115 | 115VAC | ON AIR | $\$ 68.00$ |
| PS11AWA | 115VAC only | PHONE (w/Modular Jack) | $\$ 84.00$ |

MICRO SERIES


The Allied "MICRO SERIES" warning light is supplied with one $1820 / 28$ volt lamp. The unit is designed for use with 24 volts for extended life. All models mount on standard single gang wall boxes or plaster rings. The wedge shaped translucent cover is available in red or white.

| Model | Voltage | Message | Price |
| :--- | :--- | :--- | ---: |
| L-101 | 24 VDC | ON AIR | $\$ 28.80$ |
| L-101 | 24 VDC | BLANK | $\$ 22.50$ |

## ARCHITECTURAL SERIES



Enhance the environment of any broadcast application with the Allied "ARCHITECTURAL SERIES" OF WARNING LIGHTS. The series includes pendant, flat wall and wall or ceiling mounted models. These are well constructed warning lights made in a one piece die cast aluminum housing of $1 / 8^{\prime \prime}$ minimum wall thickness. There's no external hardware. The spring clip mechanisms firmly secure the directional panel to the housing eliminating light leaks. The extending bracket and ceiling units have a cast aluminum canopy.

| Type | Message | Price |
| :--- | :--- | ---: |
| Pendant | Blank | $\$ 93.75$ |
| Pendant | On Air | $\$ 126.25$ |
| Flat Wall | Blank | $\$ 58.25$ |
| Flat Wall | On Air | $\$ 74.50$ |
| Ceiling | Blank | $\$ 63.59$ |
| Ceiling | On Air | $\$ 110.00$ |

STANDARD


The model of warning light that has served the broadcast industry for many years is the Allied "STANDARD" model. This durable, highly visible and efficient on air warning light is available now.
$\$ 40.0$
FIDELIPAC


Your broadcast or recording studio will really be "off limits" when Fidelipac Studio Warning Lights are lit. Their brilliant red lettering on jet black background can be seen even in the brightest ambient light conditions. With a faceplate of unbreakable plexiglas, the light includes lamps and mounting hardware.

| Model | Message | Mfgr's <br> List |  |
| :--- | :--- | :--- | :--- |
| 340 | ON AIR-English | $\$ 46.60$ | ALLIED PRICE $\$$ |
| $340-S$ | ON AIR-French, <br> German, Greek, <br> Japanese, Polish, <br> Russian, Spanish <br> or Swedish. | $\$ 46.60$ | ALLIED PRICE $\$$ |
| $340-R E C$ | RECORDING- <br> English | $\$ 46.60$ | ALLIED PRICE $\$$ |
| $340-R E C-S ~ R E C O R D I N G-~$ | $\$ 46.60$ | ALLIED PRICE $\$$ |  |
| Spanish |  |  |  |

MICROPHONE ARMS
LUXO


The model LM-1 from Allied is a high quality piece of studio furniture. The LM-1 will hold any microphone up to 3 pounds maximum. You have a choice of three mounting bases. Please specify base A, B or C.

MANUFACTURER'S SUGGESTED LIST PRICE..... $\$ 48.00$
ALLIED PRICE $\$$ $\qquad$
ALLIED


The heavy-duty Allied model M2MD-U mic arm will hold any microphone up to the RCA 44BX in place.

MANUFACTURER'S SUGGESTED LIST PRICE..... $\$ 99.00$
ALLIED PRICE \$ $\qquad$
ATLAS


A wide variety of mic stands, goosenecks and booms are available from Atlas Sound and Allied for every application. Whether it's for the studio, portable or mobile application, there's an Atlas for the job.

## SONEX

Sonex acoustic tile from Alpha Audio offers the isolation qualities you require for any application. Comes in natural colors of charcoal, brown and tan or painted colors of silver, blue, brown or orange.

| $4^{\prime} \times 4^{\prime}$ | sheets-Natural colors |  |  |
| :--- | :---: | :---: | ---: |
| Depth | per carton | sq. ft./carton | Price |
| $2^{\prime \prime}$ | 8 | 128 | $\$ 261.00$ |
| $3^{\prime \prime}$ | 6 | 96 | $\$ 254.00$ |
| $4^{\prime \prime}$ | 4 | 64 | $\$ 249.00$ |
| $4^{\prime \prime} \times 4^{\prime}$ | sheets-Painted colors |  |  |
| Depth | per carton | sq. ft./carton | Price |
| 2"' | 8 | 128 | $\$ 337.00$ |
| $3^{\prime \prime}$ | 6 | 96 | $\$ 332.00$ |
| $4^{\prime \prime}$ | 4 | 64 | $\$ 321.00$ |

$15^{\prime \prime} \times 15^{\prime \prime}$ audio tiles-Natural or Painted colors

| Depth | per carton | sq. ft./carton | Price |
| :--- | :---: | :---: | ---: |
| $2 "$ | 28 | 50 | $\$ 198.00$ |

$2^{\prime \prime}, 3^{\prime \prime}$ and $4^{\prime \prime}$ sample kits are available at special prices. Quantity discounts apply.

## HEADSETS

AKG


K-40
The K-40 is a supra-aural stereo headphone that features an ultraleightweight, high efficiency, wide headband. The K-40 matches 4 to 200 ohm outputs and comes with a $93 / 4 \mathrm{ft}$. 4 -conductor cable and standard 3 -conductor stereo phone plug. ALLIED CARRIES THE ENTIRE AKG HEADPHONE LINE.

MANUFACTURER'S SUGGESTED LIST PRICE $\$ \mathbf{\$ 3 5 . 0 0}$
ALLIED PRICE \$
K-18
The K-18 is an ultra-lightweight boom set. It consists of two monophonically connected dynamic earphones and boom arm with noise-cancelling dynamic microphone. The headphone matches with 4 to 300 ohm outputs and comes with a $31 / 4 \mathrm{ft}$. cable with stripped and tinned leads. ALLIED CARRIES THE ENTIRE AKG HEADPHONE LINE.

MANUFACTURER'S SUGGESTED LIST PRICE $\$ 59.00$

ALLIED PRICE \$ -

## ASTROLITE

## 8649



The 8649 has a noise cancelling electret mic with performance equalling fine studio microphones. Its noise cancellation properties make it suitable for use in noisy environments. The 8649 features phantom or battery power.
MANUFACTURER'S SUGGESTED LIST PRICE $\mathbf{\$ 2 4 0 . 0 0}$
ALLIED PRICE $\$$
436B


The 436B features ear-enveloping cushions which provide attenuation for use in noisy environments. The close-talking dynamic mic equals the performance of studio microphones-even in high ambient noise levels. Comes with standard earphone cushions. Ventilated cushions optional.
MANUFACTURER'S SUGGESTED LIST PRICE $\$ 193.00$
ALLIED PRICE \$ $\qquad$ -

## EDCOR



The HA-400 can be applied to almost any situation where high fidelity reproduction and high power output is requied to block distracting ambient noise. Four independent stereophonic power amplifiers, each with its own volume control, provide the listener with high fidelity reproduction far surpassing all but the most expensive systems using very high quality speakers.

## MANUFACTURER'S SUGGESTED LIST PRICE $\$ 239.00$

ALLIED PRICE $\$$

## KOSS

PRO 4AAA


It's hard to believe that Koss could improve on the previous models, but just slip on the triple $A$ and you'll hear a clarity, brilliance and liveliness you've never heard before. Deep rich lows and crisp, clean highs. The triple A features an extra large $1^{\prime \prime}$ voice coil and oversize diaphragm, special earcushions and a dual suspension headband for extra comfort.

## MANUFACTURER'S SUGGESTED LIST PRICE $\$ 80.00$

ALLIED PRICE \$

## SENNHEISER



HD414


HD424

The HD-414 is an improved version of original Sennheiser "OpenAire" headphones offering natural sound with smooth frequency response and realistic dynamic range over the entire sound spectrum. The swivel-action headband adjusts for comfortable fit. The soft lightweight cushions caress the ears for fatique-free listening. ALLIED CARRIES THE ENTIRE SENNHEISER HEADPHONE LINE.

## MANUFACTURER'S SUGGESTED LIST PRICE $\$ 84.00$

## ALLIED PRICE \$

The HD-424 is characterized by extended transparent highs, effortless mid range and rich, fundamental bass that is felt as much as heard. Ingenious earpiece geometry and oversized foam cushions exert an absolute minimum of pressure on the ear. The adjustable cushioned headband adds further listening enjoyment. ALLIED CARRIES THE ENTIRE SENNHEISER HEADPHONE LINE.
MANUFACTURER'S SUGGESTED LIST PRICE $\mathbf{\$ 1 2 2 . 0 0}$
ALLIED PRICE \$

TELEX
CS-91


The CS-91 "Sportcaster II" is a professional sports announcers headset designed specifically for live, remote broadcasting. Omnidirectional dynamic boom microphone allows full freedom of head movement while the circumaural ear cushions screen out ambient noise.

MANUFACTURER'S SUGGESTED LIST PRICE $\$ 165.00$
ALLIED PRICE \$
LW-1


The LW-1 "Lightweight Sportscaster" is the ultimate in comfort and professional appearance. An electret microphone and magnetic earphone provide high quality reproduction in the smallest possible package.

MANUFACTURER'S SUGGESTED LIST PRICE $\$ 170.00$
ALLIED PRICE \$
HD-4


The HD-4 "Hearing Protector Sportscaster" is a new concept. The noise attenuating earcups provide up to 45 dB attenuation in a
motor racing pit or the midst of a screaming basketball crowd. A close-talking electret microphone is noise cancelling to assure intelligible sports broadcasting.
MANUFACTURER'S SUGGESTED LIST PRICE $\$ 165.00$
ALLIED PRICE $\$$
RANE


The rack-mount HC-6 offers more performance and flexibility than you ever hoped for. Designed into the HC-6 are separate inputs for each of the six stages, which individually bypass the master stereo inputs. The HC-6 can handle up to six totally separate programs for many additional applications including custom headphone monitor mix.

MANUFACTURER'S SUGGESTED LIST PRICE $\$ 349.00$
ALLIED PRICE \$

## INTERCOMS

RTS TW


The TW Intercom System is a high performance conference line intercommunications system that features over 30 different components to allow a broad variety of system configurations. The system is desgined for teleproduction and broadcast operations as well as industrial and commercial applications. Proven performance by demanding professionals has established the TW Intercom System as a standard in the field of intercommunications.

## PRICES UPON APPLICATION

CALL FOR TODAY'S ALLIED PRICE

## TELEX AUDICOM



The Audiocom is a closed circuit headset intercom system of exceptional versatility. Components may be selected for a single or
(cont.)
multiple line intercom, suitable for small or large, indoor or outdoor, portable or permanent instaliations. The system provides clear twoway communications "behind the scenes" at concerts and stage productions, film or TV studios, sports stadium or race tracks, industrial, military, public safety and security applications.
PRICE UPON APPLICATION
CALL FOR TODAY'S ALLIED PRICE
MICROPHONES

## AKG



The D-80 is a cardioid dynamic microphone which was designed for both vocal and music applications. It is particularly suited for use with high quality sound reinforcement systems and cassette decks. A foam wind and pop filter eliminates pop and breath noise, as well as wind noise when the microphone is used in the open. ALLIED CARRIES THE ENTIRE AKG MICROPHONE LINE.

## MANUFACTURER'S SUGGESTED LIST PRICE $\$ 90.00$

ALLIED PRICE \$
CROWN


The pressure recording process, invented by Long and Wickersham, introduced a bright new concept to audio engineering. They discovered that sound approaching a boundary such as a floor, wall, table, podium, etc. creates a thin zone in which the direct and reflected signals are coherently in phase and reinforce each other. The Crown PZM microphone creatively realizes the potentials of that invention offering significant improvements in signal clarity and range. Comb filtering is eliminated.
PRICES UPON APPLICATION
CALL FOR TODAY'S ALLIED PRICE

## ELECTROVOICE

## 635A



The 635A dynamic omnidirectional is a rugged, durable microphone manufactured by Electrovoice. The sound of the 635A is the standard against which other up-close omnidirectional vocal microphones are compared.

## MANUFACTURER'S SUGGESTED LIST PRICE $\$ 99.00$

ALLIED PRICE \$
DO-56


The DO-56 is a chock mounted omnidirectional dynamic microphone for hand-held broadcast applications. All handling noises and cord vibration are isolated from the microphone element. Shock isolation is enhanced by having the main acoustic cavity and the diaphragm/voice-coil assembly is isolated as a unit from the case making capsule/case collision impossible.
MANUFACTURER'S SUGGESTED LIST PRICE $\$ 125.00$
ALLIED PRICE \$
RE-10


A fine, moderate cost microphone for sound reinforcement, broadcast and stage work. The RE-10 is similar in design to the RE-15, but meets requirements where somewhat more unit-to-unit variability is acceptable. It has effective directional control, little off-axis coloration, greatest rejection of unwanted sounds at 150 degrees off axis and a bass roll-off switch.

MANUFACTURER'S SUGGESTED LIST PRICE $\$ 171.00$
ALLIED PRICE \$
RE-11


An excellent microphone for broadcast and quality sound reinforcement, the RE-11 is a modestly priced unit with many features of the R-16 but where the most precise unit-to-unit matching is not necessary. It has a built-in blast filter, Memraflex grille screen, a high degree of directional control, little off axis coloration and a bass roll-off switch.
MANUFACTURER'S SUGGESTED LIST PRICE $\mathbf{\$ 1 8 3 . 0 0}$
ALLIED PRICE \$

## RE-15



Literally born in a TV studio, the performance and reliability of the RE-15 have made it a workhorse directional microphone for broadcast. Two nulls at 150 degrees off axis provide greater average rejection over the microphones rear hemisphere than a traditional single-null cardioid pattern, particularly useful on the boom and onstage.
MANUFACTURER'S SUGGESTED LIST PRICE \$256.75
ALLIED PRICE \$
RE-16


Another professional favorite, the RE-16 is like the RE-15 except it has a different blast filter. This filter makes the RE-16 the closest hand-held microphone without any pops. Its rugged, mechanically "nested" design is highly resistant to damage.

MANUFACTURER'S SUGGESTED LIST PRICE \$269.50
ALLIED PRICE \$
RE-18


The RE-18 is a direct descendant of the RE-15 and RE-16 microphones. While maintaining the accurate frequency response characteristics and super-cardioid polar pattern of the RE-15, the RE-18 has added an integral shock mount for even better performance.
MANUFACTURER'S SUGGESTED LIST PRICE $\$ 279.25$
ALLIED PRICE $\$$

RE-50


The RE-50 was designed expressly for hand-held ENG. It has the same tailored frequency response and high output level as the famous 635A. The RE- 50 rubber shock mount "mike-within-a-mike" design achieves a degree of shock isolation never before known in the industry. The construction is also highly resistant to damage from mechanical shock.

MANUFACTURER'S SUGGESTED LIST PRICE $\$ 156.00$
ALLIED PRICE \$
"ALLIED CARRIES THE ENTIRE LINE OF E-V MICROPHONES"
SENNHEISER
MD-421-U-5


This is the microphone which has bcome a broadcast standard. Ruggedly constructed to precision standards, the MD-421-U-5 withstands hard use with Sennheiser's legendary reliability. Its pressure gradient dynamic transducer provides faultless performance both in the protected confines of the studio and the often hostile environment outdoors. Less cable.

## MANUFACTURER'S SUGGESTED LIST PRICE $\$ 332.00$

ALLIED PRICE \$ $\qquad$
MKE-2R


Measuring a mere 5.9 millimeters in diameter and 11 millimeters in length, the MKE-2R represents Sennheiser's thoughtfully conceived answer to the increasing demand for small and less conspicuous lavalier microphones. Its excedingly small size, finish and the multitude of mounting options provide the video, movie and television professions with a broad choice of inconspicuous or concealed microphone placement possibilities.
MANUFACTURER'S SUGGESTED LIST PRICE \$202.00
ALLIED PRICE $\$$ $\qquad$
"ALLIED CARRIES THE ENTIRE LINE OF SENNHEISER MICROPHONES"

## SHURE

## SM-5B



Specifically designed to minimize boom microphone problems in television studio and location applications, the SM-5B is also excellent for radio deejay use. A smooth, wide-range frequency response with moderate presence rise makes it especially suitable for vocal pickup as well as scoring assignments. The SM-5B has a cardioid pickup pattern with exemplary off-axis uniformity, even at the extreme low end, giving minimal coloration and maximum rejection of unwanted sounds. Popular for its "warmth." Less cable.

## MANUFACTURER'S SUGGESTED LIST PRICE \$551.75

ALLIED PRICE \$
SM-7


The SM-7 designed in conjunction with professional users, is among the finest studio professional dynamic microphones in use today. Its "smooth and silky" sound has made it extremely popular for voice-over recording in radio and television. Announcers love its "mellow" sound. Less cable.

## MANUFACTURER'S SUGGESTED LIST PRICE $\$ 510.00$

ALLIED PRICE \$
SM-11-CN


Tiny, rugged, with wide-range frequency response, the SM-11 is one of the world's smallest dynamic element lavalier microphones.

Less than half the size of a standard microphone connector, it is ideal for on-camera TV and movie applications.

## MANUFACTURER'S SUGGESTED LIST PRICE $\$ 98.00$

ALLIED PRICE \$ $\qquad$
SM-58-CN


The world-standard professional stage microphone, with the distinctive Shure upper mid-range presence peak for an intelligible, lively sound. A tough, handsome microphone that weighs less than 11 ounces, the SM-58 is often imitated in appearance, but never duplicated in performance, ruggedness or reliability Cable included.

MANUFACTURER'S SUGGESTED LIST PRICE $\$ 186.50$
ALLIED PRICE \$
SM-59-CN


The revolutionary design of the SM-59 makes this microphone virtually immune to extraneous noise. An extraordinarily efficient mechano-pneumatic shock mount shields the cartridge from rumble and other mechanically transmitted noise, whether on a stand or hand held. Cable included.

MANUFACTURER'S SUGGESTED LIST PRICE \$211.25
ALLIED PRICE \$ $\qquad$
"DISCOUNTS ARE
AVAILABLE
ON MOST EQUIPMENT'

## SM-63L-CL



The SM-63 is a small, elegant, rugged microphone with very high output, up to 6 dB higher than comparable omnidirectional microphones. Its low profile makes it the perfect choice for oncamera applications. Cable included.

MANUFACTURER'S SUGGESTED LIST PRICE . $\$ 128.00$

ALLIED PRICE \$
SM-81-CN


A matchless standard in high-quality professional condenser microphones, the SM-81 is a superb studio instrument that also meets the most demanding needs of location recording and sound reinforcement. Cable included.
mANUFACTURER'S SUGGESTED LIST PRICE.
. $\$ 358.00$
ALLIED PRICE \$
SM-82-LC
ALLIED PRICE


A hand-held, self-contained, unidirectional condenser microphone with a built-in line level amplifier, peak limiter and battery. The exceptional performance and unique features of the SM-82 make it an outstanding choice for on-the-spot broadcasting applications. It's also excellent for long line (up to 1 mile) runs for sporting events, parades and political conventions.
MANUFACTURER'S SUGGESTED LIST PRICE. . $\$ 355.50$

## ALLIED PRICE \$

"ALLIED CARRIES THE ENTIRE SHURE MICROPHONE LINE"

## SONY

ECM-50PSW/ECM-50PBW


A new edition of Sony's highly acclaimed and widely used professional miniature lavalier microphone offers a choice of either the familiar silver finish or a new, non-reflective matte black finish. Other improvements include both a double and single tie clip in the provided accessories. The ECM-50 provides omnidirection high performance vocal pickup and operates from battery or phantom power.
MANUFACTURER'S SUGGESTED LIST PRICE . $\$ 215.00$

ALLIED PRICE \$ $\qquad$
"ALLIED CARRIES THE ENTIRE SONY PROFESSIONAL MICROPHONE LINE"


The Sony wireless microphone system was designed to be able to withstand the most strenuous of professional applications. The system in no way compromises sound quality. Every possible obstacle arising from wireless design was thoroughly examined and solved, using Sony's advanced transducer and FM tuner technologies. With this reliable, high quality Sony system, wireless operation will never again be a risky proposition.

## PRICES UPON APPLICATION

CALL FOR TODAY'S ALLIED PRICE
"ALLIED CARRIES THE ENTIRE SONY WIRELESS LINE"

## "SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE"

## VEGA <br> WIRELESS SYSTEM



The Cetec-Vega wireless system has led the way in this field for years. Recent developments in the Vega wireless line have made this reputation grow even more. The Vega system uses Electrovoice and Shure mic elements to insure the high quality sound reproduction. New designs have gotten rid of the now infamous "rubber ducky" antenna, added new dimensions to "wireless" applications and made the use of this type equipment more widespread than ever before in the broadcast field.
PRICE UPON APPLICATION
CALL FOR TODAY'S ALLIED PRICE
"ALLIED CARRIES THE ENTIRE VEGA WIRELESS LINE"

## MONITORS

## QEI



The 691 FM Monitor/Test Set is a high technology, precision instrument employing a combination of new techniques in a single, highly versatile, but very compact package. It was designed to be a complete FM test package with facilities for all proof-of-performance measurements and a wide range of trouble-shooting tests. Operator convenience and simplicity of use were primary considerations in the design of the system. Component selection and device ratings are such as to enhance the instrument's reliability even with adverse handling. It occupies only $101 / 2^{\prime \prime}$ of vertical rack space in a standard 19" rack.

## Model Description

691 Modulation monitor/test set..... $\$ 5295.00$ ALLIED PRICE \$ $\qquad$
691/01 Modulation monitor/test set with 1 SCA..... $\$ 6295.00$ ALLIED PRICE $\$$

691/02 Modulation monitor/test set with 2 SCA..... $\$ 6695.00$ ALLIED PRICE $\$$

QEI PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

BELAR
FMM-1


Belar FM monitors are designed as a totally integrated, solid state system to enable the broadcaster to fulfill his monitoring equipments as the need arises. The FMM-1 Frequency and Modulation Monitor is a wideband, all solid-state FM monitor expressly designed to fulfill all the requirements for monaural monitoring as well as to provide a virtually pure, distortionless signal to drive the companion FMS-1 and SCM-1 for multiplex monitoring.
MANUFACTURER'S SUGGESTED LIST PRICE................ $\$ 1750.00$
ALLIED PRICE \$
-
FMS-1


The FMS-1 when added to the FMM-1 provides complete monitoring and test functions to meet the daily requirements for stereo monitoring, and provides additional facilities for making the proper tests for weekly and monthly maintenance checks to insure maximum performance from stereo transmitters.

MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ . $\$ 1650.00$
ALLIED PRICE $\$$ $\qquad$
FMM-2


The FMM-2 sets new standards in accurate FM monitoring. It's the first to incorporate a sample hold peak modulation meter circuit independent of modulation polarity to allow the meter to respond to program peaks of the shortest duration. The heart of the FMM-2 is an ultra-linear digital discriminator which provides a distortionless baseband signal for accurate monitoring as well as precise stereophonic and SCA decoding
MANUFACTURER'S SUGGESTED LIST PRICE.
.$\$ 1350.00$
ALLIED PRICE $\$$ $\qquad$
> "'PRICES ARE U.S., DOMESTIC ONLY'’

BELAR
FMS-2


Working in conjunction with the FMM-2, the FMS-2 offers two independent peak modulation meters for simultaneous monitoring of left and right channels or L+R and L-R. It also has two independent auto-ranging voltmeters with LED displays for simplified automatic measurements of channel separation, crosstalk, subcarrier suppression and noise.

MANUFACTURER'S SUGGESTED LIST PRICE.
. $\$ 1550.00$
ALLIED PRICE \$
AMM-2A


The AMM-2A Modulation Monitor sets standards in accurate AM monitoring. It's the first AM monitor to incorporate true ratio-type peak indicators. The AMM-2 contains a unique modulation cancellation scheme to recover unmodulated carrier to reference the modulation peaks. Thus the instaneous carrier without the need of time constants, as with AGC devices. True carrier is indicated with asymmetrical modulation encountered in today's high positive peak modulation, and peaks are automatically referenced to this true carrier to give the most accurate indication of program peaks.

MANUFACTURER'S SUGGESTED LIST PRICE.
.$\$ 990.00$
ALLIED PRICE $\$$
AMM-3


The AMM-3 Modulation Monitor is basically the same as the AMM-2A except for an ability to read both positive and negative modulation peaks.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ $\$ 1400.00$

ALLIED PRICE \$ $\qquad$
AMM-4


The AMM-4 Frequency Monitor is designed especially for ATS. Any frequency from 10 kHz to 50 mHz may be monitored for deviation.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 990.00$

ALLIED PRICE $\$$

SCM-1


The SCM-1 SCA Frequency and Modulation Monitor, when added to the FMM-1 provides complete monitoring and test functions for SCA storecasting and remote telemetering applications. Up to four crystal switch positions allow four channels to be operated and tested.

MANUFACTURER'S SUGGESTED LIST PRICE
.$\$ 1650.00$
ALLIED PRICE $\$$
RFA- 1


The RFA-1 FM RF Amplifier allows for remote monitoring of the transmitter in conjunction with Main and SCA FM modulation monitoring equipment. It offers a RF input sensitivity of 100 microvolt for full output, 50 to 75 ohms of input impedance and operates from 88 to 108 mHz .
MANUFACTURER'S SUGGESTED LIST PRICE.
. . 575.00
ALLIED PRICE S
RFA-2


The RFA-2 AM RF Amplifier offers a selective, high gain, all silicon solid-state unit with AGC and makes it possible to monitor off-theair AM signals accurately and conveniently without the problems associated with changes in transmitter power level, antenna patterns and signal fading. The RFA-2 when used in conjunction with AMM-2A, AMM-3 or AMM-4 allows monitoring of modulation characteristics at remote point.
MANUFACTURER'S SUGGESTED LIST PRICE .$\$ 595.00$

ALLIED PRICE \$

## MCMARTIN

TG-1/EBS


The McMartin TG-2/EBS Precision Two Tone EBS Generator is FCC type-accepted to produce the two-tone attenuation signal for the Emergency Broadcast System. Effective for all AM-FM and TV stations.

MANUFACTURER'S SUGGESTED LIST PRICE . $\$ 375.00$

ALLIED PRICE \$ $\qquad$

## MCMARTIN

EBS-2


The McMartin EBS-2, EBS Monitor is FCC certified and satisfies the need for a reliable, trouble free method of monitoring the twotone Emergency Broadcast Service.
MANUFACTURER'S SUGGESTED LIST PRICE................. $\$ 275.00$
ALLIED PRICE \$
AMR-1


The McMartin AMR-1 is a low cost, high performance AM broadcast tuner. This professional tuner insures high reliability, fixed frequency signal sources for use with sound distribution systems and is ideally suited for use as an EBS receiver.

## MANUFACTURER'S SUGGESTED LIST PRICE

$\qquad$ \$210.00

ALLIED PRICE \$
FMR-1D


The McMartin FMR-1D is a low cost, high performance FM broadcast tuner. This professional tuner insures high reliability, fixed frequency signal sources for use with sound distribution systems and is ideally suited for use as an EBS receiver.

MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ . $\mathbf{\$ 2 7 5 . 0 0}$

ALLIED PRICE \$ $\qquad$ $-$
GORMAN REDLICH CEB


The CEB offers in a single rack mounting chassis, everything necessary for the two-frequency EBS system required by the commission except a receiver that can be tuned to the station monitored.

## Model Description

CEB Encoder-decoder..... $\$ 425.00$ ALLIED PRICE $\$$ $\qquad$
CE Encoder only..... $\$ 295.00$ ALLIED PRICE $\$$
CE Encoder with stereo option..... $\$ 320.00$
ALLIED PRICE \$
CD Decoder only..... $\$ 250.00$ ALLIED PRICE $\$$
GORMAN REDLICH PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICES.
CRW


The CRW weather receiver is rack mounted, remotable with a black
anodized rack panel. Demuting and remote alarm are initiated by a 1050 Hz "alert" tone. A relay closure is initiated by either the 1050 Hz tone or a 1650 Hz forecast update signal tone. The CRW features crystal and ceramic IF filters, plus a double tuned dual gate MOSFET RF stage.

MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ . $\$ 425.00$
ALLIED PRICE $\$$
CM


The Model CM is a stable, accurate monitor for DA installations not requiring telemetering of antenna readings. It offers true ratio readout. Non-reference and reference amplitudes are separately measured and divided electronically to give a digital readout that will not change with transmitter power and is exceptionally stable under conditions of assymmetric modulation. Stability of the readout makes readings accurate and easy to read.

## PRICES ON APPLICATION

CMR


The Model CMR is the latest in "developed technology" from G-R at a price comparable to analog monitors. With typical modulation, the CMR's true ratio readout is a factor of 10 more stable than instruments that measure normalized amplitude, and its phase readout is rock solid. Phase sign is automatic with no extra operations. Practically speaking, these features mean quick, accurate log or remote calibration readings. The CMR is fully remotable via land line or telemetry, using standard remote control equipment.

## PRICES ON APPLICATION

## POTOMAC

FIELD STRENGTH METERS


The Potomac line of field strength meters represent a new generation of precision instruments for direct measurement of electromagnetic fields in the 100 kHz to 960 mHz frequency spectrum. These units are intended for portable field use and include a laboratory quality receiver, integral shielded loop antenna, precision attenuator, internal calibration source, and voltage regulated battery
(cont.)
power supply. An interlock switch prevents inadvertent battery discharge when the cover is closed. Batteries are not included.

## Model Description

FIM-21 $535-1605 \mathrm{kHz} . . . . \$ 1850.00$ ALLIED PRICE $\$$
FIM-22 200-550 kHz..... $\$ 2475.00$ ALLIED PRICE $\$$
FIM-41 540-5000 kHz.....\$2475.00
FIM-71 $\mathbf{4 5 - 2 2 5} \mathbf{m H z} . . . . \$ 3625.00$
ALLIED PRICE \$
ALLIED PRICE \$
ALLIED PRICE $\$$ $\qquad$
POTOMAC PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

ANTENNA MONITORS


Model \#Towers
AM-19 2.....\$2300.00
AM-19D 2..... $\$ 3000.00$
ALLIED PRICE \$ $\qquad$

PM-19 2.....\$5900.00
ALLIED PRICE \$ $\qquad$

Additional prices upon application.
POTOMAC PRICES ABOVE ARE MFGR'S SUGGESTED LIST
PRICES. CALL FOR TODAY'S ALLIED PRICE.
AM MONITOR RECEIVERS


The SMR-11 is an AM broadcast band receiver of superior performance with many capabilities useful to the broadcaster. Receiver
tuning is continuous from 530 to 1700 kHz , and can be locked with crystal accuracy at any desired frequency. The antenna can be a remotely located tunable ferrite rod unit (ANT-11), broadband wire or a whip. Bandwidth is determined by two switch-selected 455 kHz ceramic filters with bandwidths of 28 kHz and 12 kHz . Other special filters are available and can be installed.

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## POTOMAC PRICES ABOVE ARE MFGR'S SUGGESTED LIST

 PRICES. CALL FOR TODAY'S ALLIED PRICE.
## PROTON



Inside the tuning circuitry of the Model 300 is a device called the Schotz Variable Bandwidth PLL Detector. It's so revolutionary, no other audio designer has dreamed of it. The effect on reception is so dramatic, they wish they had. Buildings and environmental obstructions reflect and distort an FM signal so many ways its hard for a conventional receiver to separate the primary signal from the ghosts. To alleviate this the Model 300 achieves a capture ratio of better than 1 dB , locking tightly to the desired signal and rejecting its interfering echoes at the same frequency. On AM or FM, the Model 300 is the highest performance result of "developed technology" available.

MANUFACTURER'S SUGGESTED LIST PRICE
.$\$ 260.00$
ALLIED PRICE \$
DELTA
DAM-1


The DAM-1 is a true digital antenna monitor designed specifically for measuring the parameters of broadcast frequency directional antenna systems. Digital data is not obtained by adding an A/D converter to the output of conventional analog circuitry, instead, the latest digital techniques and TTL components are applied to achieve a truly digital approach to phase and current ratio measurements. Data is displayed on front panel seven-segment digital readouts to minimize reading error. A simplified selection system reduces operation of the DAM-1 to a straight-forward procedure.

PRICES ON APPLICATION

DELTA
AAM-1


The AAM-1 Analog Antenna Monitor is designed specifically for measuring the parameters of AM broadcast frequency directional antenna systems. The monitor measures the relative current in each tower, the ratio of the current in each tower to that of a reference tower and the phase of the current in each tower relative to that of the reference tower. The AAM-1 can be equipped for up to eight input samples without external switching. Two reference towers can also be selected for DA-2 applications.

## PRICES ON APPLICATION

AMC-1


By continuously sampling the modulation levels at the AM transmitter output and comparing these levels with internal preset minimum and maximum modulation thresholds, the AMC-1 Amplitude Modulation Controller detects conditions of under or over modulation. The AMC-1 then uses a digital logic process to adjust the audio level of the transmitter. The audio control circuit is strictly linear so that no compression or asymmetry is added to the program.

## PRICES ON APPLICATION

FMC-1


The FMC-1 Frequency Modulation Controller provides automatic control of the modulation levels of an FM broadcast transmitter or audio channel of a TV transmitter. The FMC-1 provides a closed loop system around the transmitter which allows the broadcast engineer to maintain modulation at the desired level despite variations in the audio level from different program sources and other system variances. Through gain is controlled by a digital attenuator maintaining true transparency at all gain settings. No clipping or compression is used.
PRICES ON APPLICATION

## APC- 1



The APC-1 Automatic Power Controller measures the operating power of an AM or FM station, and by interconnection to the transmitter's RAISE/LOWER controls causes the power to remain well within limits. The unit monitors a DC voltage from an external linear recitifer driven by an RF sample of the common point or base antenna current in AM applications, or a similar linear DC sample from the FM power meter or directional coupler. A special long time constant circuit removes modulation components and averages carrier shift variations in AM applications.

## PRICES ON APPLICATION

RG-4


The RG-4 Receiver/Generator couples precision with reliable performance, providing an indispensable piece of test gear for broadcast engineers. An RF signal generator to excite the impedance bridge and a sensitive receiver for external null detection are housed in a single rugged case. With an OIB-1 or OIB-3, the RG-4 forms a portable impedance measuring system. Operates from 100 kHz to 29.999 mHz in 1 kHz increments. Runs off batteries, $115 / 230 \mathrm{VAC}$ $50 / 60 \mathrm{~Hz}$ with 35 watts input power.

## PRICES ON APPLICATION

OIB IMPEDANCE BRIDGES


Delta OIB operating impedance bridges measure the operating impedance of the individual radiators, networks, transmission line sections, and common point of directional antenna systems while they ar functioning under normal power. This "operating impedance" cannot be measured by usual impedance bridge methods because the system characteristics are disrupted when the bridge is inserted into the circuit. The OIB-1 or OIB-3 is inserted directly in series with the transmission line, network or antenna. The transmitter power is applied and a bridge balance is obtained by manipulating two dials on the face of the bridge. Balance is indicated by a null reading on the meter on the front panel. Operating resistance and reactance are then read directly from the bridge dials.

## PRICES ON APPLICATION

## OTARI

MX5050B-II

$1 / 4$ " two channel half track recorder/reproducer with extra quarter track reproduce head. DC-servo capstan, with $\pm 7 \%$ vari-speed. Three speeds in $15-7^{1 / 2}$ or $71 / 2-3^{3 / 4}$ ips field selectable. Transformerless balanced inputs and outputs. +4 or -10 dB output level select. Real time tape counter with L.ED display. Headphone output. Test oscillator ( 1 kHz or 10 kHz ). NAB/IEC equalization select. 185/250/320 nWb/m calibration select. Integral splicing block. The world's most popular recorder. Available in $1 / 4$ track stereo or full track versions.
mANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ . $\$ 2295.00$

ALLIED PRICE $\$$
MX5050BQ-II

$1 / 4$ " four channel, quarter track recorder/reproducer. DC-servo capstan with $\pm 7 \%$ vari-speed. $15-7 \frac{1 / 2}{2}$ ips speed. +4 or -10 dB input/output level select. Real time tape counter with LED display. Zero return. Headphone output with channel select. Test oscillator ( kHz or 10 kHz ). Microprocessor controlled transport logic. Dynamic braking. Integral splicing block. External machine control interface connector for synchronizers.
MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ . $\$ 2995.00$

ALLiED PRICE $\$$ $\qquad$

## MX5050-Mark III-2


$1 / 4$ " two channel, half track recorder/reproducer with extra quarter track playback head. Includes a microprocessor transport logic and dynamic braking. Zero return. External machine control interface connector for synchronizers or the optional CB-116 auto-locator.

MANUFACTURER'S SUGGESTED LIST PRICE .. $\$ 2795.00$

ALLIED PRICE \$
MX5050-Mark III-4

$1 / 2^{\prime \prime}$ four channel recorder/reproducer. Tabletop console. $1 / 2^{\prime \prime}$ configuration of the BQ-II. External machine control interface connector for synchronizers or the optional CB-116 auto-locator. Otherwise identical to BQ-II.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ . $\$ 3895.00$

ALLIED PRICE \$
MX5050-Mark III-8

$1 / 2^{\prime \prime}$ eight channel recorder/reproducer. DC-servo capstan with $\pm 7 \%$ vari-speed. $15-7 \frac{1}{2} \mathrm{ips}$ speed. +4 or -10 dB input/output level select. Real time tape counter with LED display. Zero return. Test oscillator ( 1 kHz or 10 kHz ). Microprocessor controlled transport logic and dynamic braking. Full function channel status select panel with individual or master control. Automatic monitor switching. Headphone output with channel select. External test input.
(cont.)

Integral splicing block. External machine control interface connector for synchronizers or the optional CB-116 auto locator.
MANUFACTURER'S SUGGESTED LIST PRICE................ $\$ 5295.00$
ALLIED PRICE \$ $\qquad$
MX7800


1" eight channel, recorder/reproducer. Includes remote session controller (DB-150) and real time tape counter with LED display. Zero stop. $30 / 15 \mathrm{ips}$ speeds. 600 ohm balanced output. DC-servo capstan with $\pm 12 \%$ vari-speed. Console mount. $15-71 / 2$ ips speeds available upon special order.

MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ $\$ 12,000.00$

ALLIED PRICE \$

## ARS 1000DC/ARS1000DS



1/4' two channel, half track reproducer with 25 Hz tone sensor, end of message and cuetone relays with adjustable delay (100 milliseconds to 15 seconds). $71 / 2-33 / 4$ ips speeds. 19 " rack mount. Designed for automated broadcast systems and other high reliability reproduce only applications. 15-71/2 ips speeds available on special order.

## Model

ARS1000DC
Description
with 25 Hz tone sensor..... $\$ 1595.00$
ALLIED PRICE \$

ARS1000DS without 25 Hz tone sensor.....\$1535.00
ALLIED PRICE \$
OTARI PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

DP4050C-2


8:1 cassette duplicator with cassette master and two slaves. Expandable to 11 slaves with the addition of (3) DP-4050Z-3 slave units.

## Model

 DescriptionDP4050C-2 Master \& two slaves..... $\$ 3295.00$
ALLIED PRICE \$
DP4050Z-3 Three slaves for C-2..... $\$ 3095.00$
ALLIED PRICE \$
OTARI PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.
MTR-10


MTR-10-2
MTR-10-4
The Otari MTR-10 Series are microprocessor controlled $1 / 4^{\prime \prime}$ and $1 / 2^{\prime \prime}$ professional tape recorders offered in full, two and four track formats. The four channel model (10-4) is also easily convertible to $1 / 4^{\prime \prime}$ operation with a simple change of the plug-in head assembly and a transport conversion kit. All three machine versions are available unmounted for custom installation or may be ordered in a choice of two roll-around desk type consoles, a compact low profile version or an overbridge version. Consoles feature a transport assembly that is hinged to allow easy access for maintenance. Audio and transport control circuit boards are located in a separate card frame. The power supply is also contained in a fully modular unit enabling fast diagnosis and repair. Transport control and extensive editing functions are located on the top transport operating surface while audio control switching is contained on a separate master audio control card. There are three optional choices of remote control available. The CB-109 is a full function auto locator with ten assignable memories/one stroke and keyboard access, vari-speed control and dual LED displays for tape and locate timing. The CB-111 is a remote transport controller with dual-lit controls, cue, variable speed control and return to zero. The CB-102 is remote transport control only. ACCESSORY, SPARE PARTS, CON. VERSION KIT AND HEAD ASSEMBLY PRICING ON APPLICATION.
(cont.)

## Model

 MTR10-1MTR10-10B

MTR10-2

MTR10-C

MTR10-4

MTR10-1(4)

Description
$1 / 4^{\prime \prime}$ full track prewired for two channels in a low profile cabinet. 71/2-15-30 ips..... $\$ 6150.00$ ALLIED PRICE \$ $\qquad$
same as above in overbridge cabinet..... $\$ 6250.00$

ALLIED PRICE \$ $\qquad$
$1 / 4$ '" two channel in low profile cabinet 71/2-15-30 ips.....\$6450.00

ALLIED PRICE \$
$\$$
same as above in overbridge cabinet..... $\$ 6550.00$

ALLIED PRICE \$
$1 / 2^{\prime \prime}$ four channel in low profile cabinet. 71⁄2-15-30 ips..... $\$ 8450.00$

ALLIED PRICE \$
same as above in overbridge cabinet..... $\$ 8550.00$

ALLIED PRICE \$
OTARI PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## PENTAGON

CM-270


This duplicator system contains solid state digital logic using advanced integrated circuits to command two precision DC servo control motors for foolproof protection against destruction of your master tape. It provides for automatic stop at the end of the duplicating cycle. Automatic level controls, track selector switch, built-in erase and automatic rewind of the master and slaves are also standard features.

MANUFACTURER'S SUGGESTED LIST PRICE
$\$ 899.95$
ALLIED PRICE \$

## REVOX

B77


- Integrated Drive Logic
- Operation by computer-type push keys
- Cutter device to facilitate tape editing

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ $\$ 1799.00$

ALLIED PRICE \$


As a broadcaster you know the value of Studer reliability- and importance of Revox economy. Now both are built into the Revox PR99. And what's more, it's designed specifically for your needs. The PR99 offers balanced inputs and outputs; XLR-type connections, with calibrated and uncalibrated levels; and ASA-VU metering with LED peak indicators. The rugged die-cast chassis is designed for rack or console mounting. Reel capacity is 10.5 inches and tape speeds are selecable at $3.75,7.5$ or 15 ips with a vari-speed remote control option. Complete editing facilities include dump editing, full head access and 2-way self-sync which make the PR99 one of the best in its class. The Studer designed transport and diecast head assembly block and tension arms provide instant smooth start-up and outstanding tape handling. Here's traditional Studer quality built into the Revox PR99. Perfect for broadcasters or any professional.

MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 2095.00$

ALLIED PRICE \$ $\qquad$

## TASCAM

22-2


The basic half-track recorder/reproducer with independent record mode selector and 1 tape/source monitor for each channel. Independent mic/line mixing and output level control for each channel. Remote pause function for record and play. 71/2-15 ips speeds.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 775.00$

ALLIED PRICE \$

## $\boldsymbol{A}$

TASCAM
122/122B


The 122 B is a world standard cassette deck in broadcast studios. It has the same superb audio quality, reliability and features of the 122 except the 122B offers balanced XLR input and output connectors that operate +4 dBm nominal level $/+18 \mathrm{dBm}$ maximum. The 122 has unbalanced - 14 dBV nominal level RCA input and -10 dBV output jacks.
122 unbalanced input/output..... $\$ 725.00$
ALLIED PRICE \$
$122 B$ balanced in/out broadcast levels \& impedances..... $\$ 825.00$

ALLIED PRICE \$
TASCAM PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

32


A half-track $1 / 4^{\prime \prime}$ master recorder/reproducer with $101 / 2^{\prime \prime}$ reel capacity, $15-71 / 2 \mathrm{ips}$ speeds, independent $L \& R$ record mode, simul-sync, full frequency response in sync mode, function and output select and punch in/out recording. The 32 also features $\pm 12 \%$ pitch control, dump edit, mic inputs, independent input/output level controls, headphone jack with volume control, cue control, FL tape counter and zero return.

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ . $\$ 1300.00$
$\qquad$


A 4-track $1 / 4$ '" recorder/reproducer with $15-7 \frac{1}{2}$ ips speeds, $101 / 2{ }^{\prime \prime}$ reel capacity, full frequency response in sync mode, function and output select and punch in/out recording. The 34 also features $\pm 12 \%$ pitch control, dump edit, cue control, FL tape counter and zero return.

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ .$\$ 1700.00$

ALLIED PRICE \$
38


An 8-track $1 / 2^{\prime \prime}$ recorder/reproducer with 8 tracks on $1 / 2^{\prime \prime}$ tape, $101 / 2^{\prime \prime}$ reel capacity, 15 ips speed, $\pm 12 \%$ pitch control and function and output select. The 38 also features Punch in/out recording, dump edit, cue control, FL tape counter and zero return.
MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ .$\$ 2750.00$

ALLIED PRICE \$ $\qquad$

42


A 2 -track $1 / 4$ " 2 channel half track mastering and broadcasting recorder/reproducer with $101 / 2^{\prime \prime}$ reel capacity, sync capability, full servo, SMPTE interlock capability through accessory connector and punch in/out recording. The 42 also features NAB or IEC equalization, dump edit, search to zero and search to cue, $71 / 2-15 \mathrm{ips}$ speeds and $+4 /$-10 input/output.
MANUFACTURER'S SUGGESTED LIST PRICE.
.$\$ 2295.00$
ALLIED PRICE \$
52


A 2 -track $1 / 4$ " 2 channel half track mastering and broadcasting, recorder/reproducer with +4 XLR/-10 RCA inpul/output, $1012^{2 \prime}$ reel capacity, sync capability, full servo and SMPTE interlock capability through an accessory connector. The 52 also features Punch in/out recording, pitch control ( $15 \%$ coarse/ $0.7 \%$ fine), manual tach wheel edit, dump edit, search to zero and search to cue and $71 / 2 \cdot 15$ ips speeds.
MANUFACTURER'S SUGGESTED LIST PRICE
.$\$ 3495.00$
ALLIED PRICE \$
3

58


An 8 -track $1 / 2^{\prime \prime} 8$ channel production recordes/reproducer with - 10 RCA input/output, $101 / 2^{\prime \prime}$ reel capacity, full frequency response in sync mode, full servo, SMPTE interlock capability through an accessory connector and punch in/out recording. The 58 also features pitch control ( $15 \%$ coarse/ $0 . .7 \%$ fine), manual tach wheel edit, dump edit, search to zero and search to cue and 15 ips speed.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ $\$ 5795.00$

ALLIED PRICE $\$$ $\qquad$

## REMOTE CONTROL

## MOSELEY

MRC 1600


Microprocessor Remote Control System, consisting of one Control Terminal, one Remote Terminal. System is equipped with 32 com mand relays, 16 status channels (TTL/contact closure), and 16 digital telemetry channels. FCC acceptable for AM and FM broadcast transmitter remote control. Includes audible telco/telco data interface on each terminal.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 4045.00$

ALLIED PRICE \$ $\qquad$

## MOSELEY <br> CRT OPTION-MRC 1600



Option for cathode-ray tube (CRT) Terminal. Duplicates all panel functions of the MRC-1600 Control Terminal. Allows simultaneous display for 16 channels, including telemetry readings, status conditions, time of day, operation and error-oriented messages.

MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 1175.00$

## ALLIED PRICE \$

$\qquad$

## AUTOMATIC LOGGING OPTION-MRC 1600



Option for automatic logging. Includes I/O modules, software and Texas instruments Model 850 Desktop Printer. Log headings and command are entered through CRT keyboard. Requires option for CRT terminal.

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ .$\$ 775.00$

ALLIED PRICE \$
MRC-1


Microprocessor Remote Control System. Includes one Control Terminal and one Remote Terminal. Up to nine Remote Terminals function with a single Control Terminal. For 2 -wire or 4 -wire dedicated wireline or equivalent interconnecting circuits. Basic system equipped for 16 command lines (open collector electronic switching), 16 status channels (TTL/contact closure), and 16 telemetry channels indicated as $16 / 16 / 16$. OPTIONS PRICES UPON APPLICATION.

MANUFACTURER'S SUGGESTED LIST PRICE. .$\$ 7795.00$

RCS-1


Delta Electronics has developed a Remote Control/ATS System intended primarily for unattended monitoring and control of standard broadcast. FM and TV stations. Emphasis has been placed on simplicity of operation, reliability, and cost effectiveness in the design of this equipment. The latest proven microprocessor technology has been employed to accomplish the many attractive features of this system with a minimum of hardware. Three basic components are required in this system: a control unit at the control point, a control unit at the transmitter site, and an I/O unit at the transmitter location.

## PRICES UPON APPLICATION

## HALLIKAINEN

TEL-171


The TEL-171 converts your Moseley TRC-15AW, TRC-15AR or PBR30 to digital metering transmission, a method that eliminates the offset and gain drift in the analog metering. A local display in the transmitter control unit duplicates the readings displayed by the studio control unit. This permits one-man weekly meter calibration. The system consists of printed circuit boards which substitute directly for the audible metering generator, the audible metering demodulator, and the meter. The local display for the transmitter contral unit includes a replacement front panel and a liquid crystal display printed circuit board. Installation is quick and simple since the PC mounting hardware is used, and the same wiring harness connects to the new boards. $31 / 2$ digit ( -1999 to +1999 ) display is used. These easily read displays are updated twice a second. Should the metering carrier be lost, or a framing or parity error occur, the display at the studio will blank and front panel LED will indicate the problem. Through the use of digital transmission and display, the TEL-171 eliminates the error inherent in analog transmission, and simplifies the task of remote calibration and meter reading.

## Model Description

TEL-171 for TRC-15A..... $\$ 800.00$ ALLIED PRICE $\$$
TEL-171 for PBR-30..... $\$ 920.00$ ALLIED PRICE $\$$ $\qquad$
HALLIKANEN PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## MARTI

RMC-15


The Marti RMC-15 Remote Control System incorporates advanced technical design with operator oriented simplicity to meet the needs of the broadcast industry for an accurate and reliable remote control. The operator may select any metering/control channel by pressing a single button. The data for the selected channel is then read from a large digital panel display. Decimal point position on the RMC-15 readout can be selected by the user for each data channel. Raise and lower commands can be given for the selected channel by pressing the raise or lower button. In addition to these functions, the RMC-15 system has two status monitor channels available. The channel capacity of the RMC-15 system can be increased to 30 channels by the addition of the RMC-30S and RY-30 units. Send/receive communication levels at the studio and remote units are adjustable from the front panel. The correct level is set by observing LED indicators which are labeled low-set-high. ACCESSORIES PRICES UPON APPLICATION.

MANUFACTURER'S SUGGESTED LIST PRICE.
. $\$ 3895.00$
ALLIED PRICE \$
TSL-2


The Marti TSL-2 Telemetry link provides reliable telemetry circuits for AM, FM and TV stations. Expensive and unreliable FM Subcarrier and Telco lines can now be replaced with a cost effective Marti TSL System. This link is simple to install, easy to operate and maintain. The 2.5 watt transmitter is for solar power or other limited power source applications.
TSL-2 RPT2/450P/RMH-3/RR10-450
PRICES UPON APPLICATION
TSL-15


The Marti TSL-15 Telemetry Link provides reliable telemetry circuits for AM, FM and TV stations. Expensive and unreliable FM Subcarrier and Telco lines can now be replaced with a cost effective Marti TSL System. This link is simple to install, easy to operate and maintain. The 15 watt transmitter is recommended for use on medium to long paths having high signal attenuation.

TSL-15 RPT15-450/RMH-3B/RR30-450
PRICES UPON APPLICATION

MARTI

## RPT-2



The RPT-2 is a hand-carried broadcast quality continuous duty transmitter. It will operate from its internal ni-cad battery, from 115 VAC power or from external 12 VDC power. A special subaudible encoder enables the RPT-2 to access Marti mobile repeaters for coverage of indoor events.

| Model <br> RPT2-150 | Freq. Band <br> $152-172 \mathrm{mHz}(25 F 3) \ldots . . \$ 855.00$ |
| :--- | :--- |
| RPT2-450R | $450-456 \mathrm{mHz}(50 F 3) \ldots . . \$ 855.00$ |
| RPT2-450N | $450-456 \mathrm{mHz}(25 F 3) \ldots . . \$ 855.00$ |
| RPT2-450P | $450-456 \mathrm{mHz}(10 \mathrm{~F} 3) \ldots . . \$ 855.00$ |
| RPT2-450S | $450-456 \mathrm{mHz}(100 \mathrm{~F} 3) \ldots . . \$ 855.00$ |

RR


The Model RR series receiver is a portable broadcast quality communications receiver. This receiver has a built in AC power supply and will also operate from an external source of 12-15 VDC. A builtin sub-audible tone decoder meets the Commission's rules allowing this receiver to automatically turn on a mobile transmitter upon receiving an encoded signal from a hand-carried portable, thus automatically relaying a broadcast to the base station receiver over a great distance. AVAILABLE IN DUAL FREQUENCY MODEL.

| Model <br> RR-30/150 | Freq. Band <br> $152-172 \mathrm{mHz}(25 F 3) \ldots . . \$ 895.00$ |
| :--- | :--- |
| RR-30/150-2 | $152-172 \mathrm{mHz}(25 F 3)($ Dual $) \ldots . . \$ 945.00$ |
|  |  |
| RR-50/450 | $450-456 \mathrm{mHz}(50 F 3) \ldots . . \$ 1015.00$ |

RR-50/450-2 $\quad 450-456 \mathrm{mHz}$ (50F3)(Dual)..... $\$ 1065.00$

RR100/450
$450-456 \mathrm{mHz}$ (100F3) $\ldots . . \$ 1015.00$
RPT-15


The Model RPT-15 is a compact 15 watt transmitter designed for portable or mobile remote broadcast service. It delivers the maximum power allowed by the Commission for airborne remotes such as traffic reports. The RPT-15 has a built in power supply for operation on 115 VAC . It will also operate on an external $12-14$ VDC supply. Standard features include dual frequency and subaudible encoder for use with Marti mobile repeaters and automatic repeaters. All this plus famous Marti broadcast quality and con. tinuous duty operation.

| Model | Freq. Band |
| :--- | :--- |
| RPT15-150L | $152-172 \mathrm{mHz}(25 \mathrm{~F} 3) \ldots . . \$ 895.00$ |
| RPT15-450R | $450-456 \mathrm{mHz}(50 \mathrm{~F} 3) \ldots . . \$ 895.00$ |
| RPT15-450N | $450-456 \mathrm{mHz}(25 \mathrm{~F} 3) \ldots . . \$ 895.00$ |
| RPT15-450P | $450-456 \mathrm{mHz}(10 \mathrm{~F} 3) \ldots . . \$ 895.00$ |
| RPT-15-450S | $450-456 \mathrm{mHz}(100 \mathrm{~F} 3) \ldots . . \$ 895.00$ |

RPT-25/40


The Model RPT-25 transmitter provides uncompromised performance in portable and mobile remote broadcast service. This transmitter delivers 25 watts output under continuous duty conditions. Plug in modular construction simplifies field repairs. Available in dual frequency model.

| Model | Freq. Band |
| :---: | :---: |
| RPT-25P | 450-456 mHz (10F3).....\$1745.00 |
| RPT-25P-2 | 450-456 mHz (10F3)(Dual).....\$1895.00 |
| RPT-25R | 450-456 mHz (50F3).....\$1745.00 |
| RPT-25R-2 | 450-456 mHz (50F3)(Dual).....\$1895.00 |
| RPT-25N2 | 450-456 mHz (25F3).....\$1745.00 |
| RPT-25N2-2 | 450-456 mHz (25F3)(Dual).....\$1895.00 |
| RPT-25S | 450-456 mHz (100F3).....\$1745.00 |
| RPT-25S-2 | $450-456 \mathrm{mHz}$ (100F3)(Dual).... $\$ 1895.00$ |

The Model RPT-40 RPU transmitter provides uncompromising performance in portable and mobile remote broadcast service. This transmitter delivers 40 watts output under continuous duty conditions. Plug-in modular construction simplifies field repairs. AVAILABLE IN DUAL FREQUENCY MODEL.

| Model | Freq. Band |
| :--- | :--- |
| RPT-40K | $152-162 \mathrm{mHz}$ (30F3)..... $\$ 1495.00$ |

RPT-40K-2 $\quad 152-162 \mathrm{mHz}$ (30F3)(Dual)..... $\$ 1645.00$
RPT-40L $\quad \mathbf{1 6 6 - 1 7 0 ~ m H z}$ (25F3)..... $\$ 1495.00$

RPT-40L-2 $\quad 166-170 \mathrm{mHz}$ (25F3)(Dual)..... $\$ 1645.00$

BR-10


The Model BR-10 is a rack mounted VHF or UHF base station receiver designed for broadcast remote pickup service. This receiver has dual frequency capability built in. Marti Technology has provided the highest frequency response with the lowest noise and distortion possible for the assigned channel band width Special attention has been given to solving today's high interference problems. The BR-10 features a built-in test meter, squelch relay, optional DC operation, built-in sub-audible tone decoder, a special noise reduction circuit and 90 dB of spurious rejection.

| Model | Description |
| :---: | :---: |
| BR-10/150 | 152-172 mHz (25F3).... \$1015.00 |
| BR-10/150-2 | 152-172 mHz (25F3)(Dual).....\$1045.00 |
| BR-10/450 | 450-456 mHz (50F3).... \$1015.00 |
| BR-10/450-2 | $450-456 \mathrm{mHz}$ (50F3)(Dual).....\$1045.00 |

## SCA

## MODULATION SCIENCES



The Sidekick SCA Generator has the first crystal controlled SCA generator in the industry. Because it is crystal controlled, Sidekick has a frequency stability of $\pm 0.01 \%$ over 0 to 50 degrees $C$. The SCA carrier is derived from a frequency synthesizer. Any frequency in the the SCA region can be selected by user programmable straps. New crystals will never be needed. A built-in modulation meter eliminates the need to purchase an additional modulation monitor for the sub-band. Audio processing has always been a weak link in SCA. Sidekick is designed for 150 microsecond preemphasis, with 75 and zero strap-selectable options. The lowpass audio filter, engineered as an integral part of the system, is overshoot corrected for maximum modulation and minimum crosstalk. Designed into the Sidekick is a random noise generator and incidental AM noise meter. The entire baseband is noise loaded and incidental AM measured from an RF sample. All the devices need
to do minimum AM tuning are bult into Sidekick, no additional equipment is needed.

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ .$\$ 2450.00$

ALLIED PRICE \$


The SCA 300 will improve the received fidelity and absolutely prevent main channel interference. It provides both the final audio peak control for maximum coverage and loudness plus a very low distortion generator. The SCA 300 features a quartz crystal controll ed, low distortion oscillator, user programmable deviation from 2 to 8 kHz , special frequency shaping filters that permit low frequency rolloff below 100 Hz , programmed controlled muting, audio bypass, a data input port, unique multiband pre-emphasis control and a distortion anticipating AGC. In addition, the SCA 300 offers optional remote control operation, active balanced input and front panel injection level control.

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ $\$ 1400.00$

ALLIED PRICE $\$$
MOSELEY
SCG-8


A Multiplex FM Subcarrier Generator with automatic muting and front panel peak-deviation meter, including self contained power supply. Available for operation at a specific frequency in the 26 kHz to 186 kHz spectrum.
MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ $\$ 1195.00$ CALL FOR TODAY'S ALLIED PRICE
SCD-8


A Subcarrier Demodulator with automatic muting and front pane peak deviation meter, including a self contained power supply. Available for operation at a specific frequency in the 26 kHz to 186 kHz spectrum.

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ .$\$ 1195.00$ CALL FOR TODAY'S ALLIED PRICE

## TOA



The TOA SAT-91 SCA Multiplex Tuner is the optimum receiver for the reception of FM broadcast subcarrier audio program material. Phase compensation of the dual resonator ceramic IF filter and the use of an active, five-pole Chebyshev SCA audio output filter maintain the crisp characteristics of new program material now available. A four resonator 67 kHz bandpass filter makes certain that residual broadcast signal components are effectively suppressed before reaching the subcarrier detector. The local oscillator frequency is crystal controlled to assure "on frequency" operation. Special muting circuits provide "thumpless" switching from "program"' to "quiet". The muting level can be easily adjusted without affecting volume levels on both the main and subcarrier channels.
MANUFACTURER'S SUGGESTED LIST PRICE ...\$149.95

ALLIED PRICE \$

## SATELLITE

## COMTECH

## DIGITAL DOWNLINK EQUIPMENT



The DART-384 digital audio receiver terminal allows the reception of program material broadcast via satellite using digital techniques. It is compatible with high quality digital systems being implemented by the NBC, ABC, CBS, RKO and other networks. A standard terminal consists of a 100 degree K low-noise-amplifier (LNA), 3.8 meter antenna, antenna mounted downconverter and demodulator shelf.

## ANTENNA WITH LNA



A 3.8 meter prime focus antenna provides a 42.9 dB gain and features 3-piece fiberglass construction. The EL/AZ mount uses a single 5" IPS steel pipe and requires a simple drilled-pier foundation. It is easy 10 install, easy to align, and will provide years of trouble free operation.

## DOWN CONVERTER



The down-converter is an environmentally sealed unit which mounts at the antenna. It converts the 3.7 to 4.2 gHz output of the LNA to a 70 mHz IF signal for use by the demodulator shelf electronics. This IF signal is transmitted over low cost RG-59 type coaxial cable. The same cable transmits DC power to the downconverter and LNA plus a local oscillator signal from the demodulator shelf This technique keeps all frequency determining components indoors and allows the antenna cemponents to be separated from the demodulator shelf by cable runs of over 400 ft .
DART 384


Only one $101 / 2^{\prime \prime}$ high rack mount shelf is required to provide a basic eight channel program capacity. These eight channels may consist of a mixture of audio program channels (two per module), data program channels (up to three per module), and one voice cue amplifier (one per module). Each module provides a fault monitor indicator for easy user maintenance. Other features include local and remote selection of up to four transponders, local and remote assignment of program channels, and easy user channel expansion by use of plug-in modules and expander shelves.
Complete system packages are available and include the antenna, mount, feed, RF cables, and all electronics. Full turn-key installations including site surveys are also available.
PRICES UPON APPLICATION

ALC
10302


The ANNOUNCER full range loudspeaker is the ultimate in performance in a compact size. The wood cabinet is covered in walnutgrained vinyl and is perfectly square. As with all ALC loudspeakers, the grill snaps away and the system has an overall fuse. The highcompliant full range transducer produces quality sound from below 60 Hz to beyond 15 kHz .
MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ . $\$ 53.00$

ALLIED PRICE \$
20106


The MONITOR II two-way loudspeaker system provides a flat response from below 50 Hz to 20 kHz . It's high compliance surround combine to enhance any type music. A snap-away grill is designed to assure delivery of all the highs to the listening area. The MONITOR II is a totally enclosed system covered in walnutgrained vinyl. 8 ohms.
manufacturer's suggested list price. $\qquad$ $\$ 99.00$

ALLIED PRICE \$ $\qquad$
> "'PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE',


The MONITOR loudspeaker system provides a flat response from below 50 Hz to beyond 20 kHz . Its high compliance surround on the $8^{\prime \prime}$ woofer and phenolic tweeter combine to enhance any type of music. The tweeter control and the system fuse are behind the snap-away grille. It will handle 25 watts RMS continuous, 45 watts integrated program material at 8 ohms.
MANUFACTURER'S SUGGESTED LIST PRICE. .$\$ 116.00$

ALLIED PRICE $\$$
allied carries the full alc line
TOA
RS21M


The RS21M is a compact speaker system incorporating a full range 5 inch cone speaker in a sealed enclosure of compact size. Featuring a high power capacity and smooth extended frequency response, the RS21M is ideally suited for recording studio monitoring.
MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ .$\$ 45.00$
ALLIED PRICE $\$$
‘'DISCOUNTS ARE AVAILABLE

ON MOST EQUIPMENT'

## ELECTROVOICE

SENTRY 100A


The SENTRY 100A monitor speaker system is a no-nonsense system that speaks to the needs of professionals with specific requirements. It offers high efficiency with extended low frequency response, high power capacity across the entire frequency range, uniform frequency response and dispersion, all in a compact no frills package. The SENTRY 100A features the SUPER-DOME ${ }^{\text {TM }}$ tweeter capable of handling 25 watts of input power and an $8^{\prime \prime}$ direct radiator woofer.

MANUFACTURER'S SUGGESTED LIST PRICE $\$ 230.00$

ALLIED PRICE \$
SENTRY 500


The SENTRY 500 no-nonsense design meets the needs of professionals by combining high efficiency with extended low frequency response, high power capacity across the entire frequency range, uniform frequency response and constant directivity, all in a well thought-out attractive package. The SENTRY 500 employs the SUPER-DOME ${ }^{\text {TM }}$ tweeter capable of handling 25 watts of input power and an $8^{\prime \prime}$ direct radiator woofer.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ $\$ 475.00$

ALLIED PRICE \$ $\qquad$
allied carries all the full electrovoice line

JBL
4401


The most compact of the JBL studio monitors, the 4401 is ideal for use as a main monitor in applications where space is at a premium. The tight driver cluster gives the 4401 outstanding coherency in the near field, making it also an excellent choice for a console-mount secondary monitor. The 4401 offers smooth response over a wide coverage angle, with wide dynamic range and clear, open sound.
MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ $\$ 189.00$

ALLIED PRICE $\$$
4411


The 4411 is JBL's most sophisticated 3-way direct radiator monitor loudspeaker system. Applying the knowledge gained in the design of other models, JBL has created a compact monitor especially well suited to the demands of the digital age. The three transducers of the 4411 are arranged in a tight cluster to provide coherency of sound for close-in monitoring, while assuring minimal off-axis variation in the far field.

MANUFACTURER'S SUGGESTED LIST PRICE
$\$ 570.00$

ALLIED PRICE \$

JBL
4301


A compact monitor loudspeaker system designed specifically for broadcast applications, the 4301B delivers the wide band sound reproduction, accuracy and efficiency required by improved broad. cast technology. Use of the 4301B is particularly relevant in light of the most recent developments including digital disc playback and TV and AM stereo.

MANUFACTURER'S SUGGESTED LIST PRICE. . $\$ 243.00$

ALLIED PRICE \$
ALLIED CARRIES THE ENTIRE JBL LINE

## STANDBY POWER

## TOPAZ

## POWERMAKER MICRO UPS ${ }^{\text {TM }}$



The TOPAZ POWERMAKER Micro UPS provides standby power for microcomputers and microprocessor based volatile memory. The POWERMAKER is totally effective against blackouts, brownouts and sudden voltage dips than can shut you down. The POWERMAKER also protects against noise transients and spikes that can damage your valuable equipment. It responds in less than a half cycle so that your equipment never notices a lapse in power. The POWERMAKER provides a sine wave output for meeting the power requirements of even the most sensitive equipment.

## PRICES UPON APPLICATION

## AC LINE REGULATOR



The TOPAZ AC Line Regulators can permanently correct transmitter power output fluctuations caused by poor utility regulation. These are the smallest, lightest, most efficient, and most distortion free voltage regulators commercially available. These AC Line Regulators completely eliminate the inherent problems of other types of regulation devices such as low efficiency, wasted power and frequency sensitivity.
PRICES UPON APPLICATION

## KAY

PHASEMASTER


The Phasemaster T-Series Rotary Phase Converter is specially designed and engineered for use with all types of radio transmitters for the conversion of single phase power to 3 -phase in locations which are not serviced by 3 -phase lines. Phasemaster is particularly suitable for application in situations where the high cost of installing utility supplied 3 -phase power is prohibitive. A Phasemaster TSeries Rotary Phase Converter can be installed for a small fraction of the cost of installing utility supplied 3 -phase power.

## PRICES UPON APPLICATION

ONAN


Standby electric power systems are increasingly essential to all broadcasting facilities. Allied provides a complete line of standby electric generating sets ranging in capacity from 1 to 75 KW with over forty different series and hundreds of models from which to select. Choose from gas, gasoline or diesel models. ONAN generators from Allied provide automatic switchover to insure power source reliability to your operation. An ONAN standby electric system from Allied provides air or liquid cooled engines from such large manufacturers as FORD, ONAN, ALLIS CHALMERS, CUMMINS or JOHN DEERE.
PRICES UPON APPLICATION

## MOSELEY

PCL-606


The PCL-606 is an all solid-state STL consisting of a transmitter and receiver with self contained power supplies, crystals and tested on the operating frequency. Versions are available for all commonly used bands from 148 to 960 mHz . Discrete.

## MANUFACTURER'S SUGGESTED LIST PRICE.

$\qquad$ . $\$ 8695.00$

## ALLIED PRICE \$

## PCL-606C

The PCL-606/C is an all solid-state Composite STL consisting of a transmitter and receiver with self-contained power supplies, crystals and tested on the operating frequency. Transmits a composite stereo waveform on a single STL. Versions available for all commonly used bands from 148 to 960 mHz .

MANUFACTURER'S SUGGESTED LIST PRICE.
$\$ 8995.00$

## ALLIED PRICE \$

PCL-505


The PCL-505 is an all solid-state STL consisting of a transmitter and receiver with self-contained power supplies, crystals and tested on the operating frequency. Versions available for all commonly used bands from 148 to 960 mHz . Discrete.

## MANUFACTURER'S SUGGESTED LIST PRICE

$\qquad$ . 6395.00

## ALLIED PRICE $\$$

$\qquad$
PCL-505/C
The PCL-505/C is a Composite STL consisting of a transmitter and receiver with self-contained power supplies, crystals and tested on the operating frequency. Transmits a composite stereo waveform over a single STL. Versions available for all commonly used bands from 148 to 960 mHz .

MANUFACTURER'S SUGGESTED LIST PRICE.
$\$ 6795.00$
ALLIED PRICE \$
TRL-1


The TRL-1 is a Telemetry Return Link consisting of an all solidstate transmitter and receiver. Tuned and tested on the operating frequency. Nominal one watt transmitter output. Receiver designed specifically for narrowband service. For 10F2/10F3 channels FCC group $P$.

MANUFACTURER'S SUGGESTED LIST PRICE. .$\$ 3195.00$

## ALLIED PRICE

$\qquad$

## MARTI

STL-10


The Marti Studio-Transmitter Link/Intercity relay is a line of sight FM communications system providing a high quality broadcast audio channel with two optional sub-channels. A dual link for stereo provides two identical broadcast quality channels with better than 60 dB stereo cross talk and four optional sub-channels. This system offers greater rejection of interference, superior noise performance, low channel cross talk, greater redundancy, and lower cost.

## Model Description

STL-10 10 watt transmitter, complete with crystal and tuned to frequency. 120/220VAC. for AM or FM broadcast application.
R-10/950 Receiver, complete with crystal and tuned to frequency, 120/220 VAC. for AM or FM broadcast application. Includes down converter.
STL-10
MONO SYSTEM, TYPICAL
$\$ 2795.00$
STL-10
STEREO SYSTEM, TYPICAL
$\$ 5795.00$
TSL-15


The Marti TSL-15 Telemetry Link provides reliable telemetry circuits for AM-FM and TV stations. Expensive and unreliable FM Subcarrier and Telco lines can now be replaced with cost effective Marti TSL systems. This link is simple to install, easy to operate and maintain. Marti has assembled complete equipment packages.
TSL-15 Telemetry Link, Typical
$\$ 2490.00$

## ANIXTER-MARK



Anixter Communications (Mark Antennas) offers a variety of sizes of Heli-Arc welded aluminum Multi-element Grid Parabolas for point to point relay operation in the 400 to 2700 mHz frequency range. The patented grid of construction is lightweight, yet extremely strong One of the outstanding advantages of the grid antenna is that it has wind loading characteristics of only 25 to $40 \%$ of comparable size solid parabolas.

PRICES UPON APPLICATION

## SCALA



The Scala PR-450-U $\mathrm{U}^{\text {TM }}$ is widely used in point to point communications and telemetry systems in the 350 to 1000 mHz spectrum. Paraflector ${ }^{\text {TM }}$ performance approximates that of a parabolic dish of the same aperture, and is easier to assemble and install. The PR-450U offers rugged construction for reliable long-term service, even in severe environmental conditions.

## MANUFACTURER'S SUGGESTED LIST PRICE

$\qquad$ .$\$ 500.00$

ALLIED PRICE $\$$

## SWITCHERS



The RS Audio Routing Switchers are the professional alternative to patch panels, mechanical switches and distribution amplifiers. Ultra reliable, the power supply is regulated, protected and has a 10 year meantime before failure. LSI integrated circuits reduce parts count to a minimum. All IC's are socketed for ease of replacement. The thumbwheel control switches are $1,000,000$ operation. Due to the ultra reliable design redundant power supplies are unnecessary. These switchers may be used in the most critical sections of the audio chain with total confidence.

| Model | Description |
| :---: | :---: |
| 100RS | 16 in by 12 out mono, <br> 8 in by 12 out stereo..... $\$ 1500.00$ ALLIED PRICE \$ |
| 1100A-RS | 16 in by 4 out stereo..... $\$ 995.00$ ALLIED PRICE \$ |
| 1100B-RS | 16 in by 8 out stereo..... $\$ 1695.00$ ALLIED PRICE \$ |
| 2100A-RS | 32 in by 4 out mono...... $\$ 1695.00$ ALLIED PRICE S |
| 2100B-RS | 32 in by 8 out stereo..... $\$ 3495.00$ ALLIED PRICE \$ |
| ALL ARRA PRICES. C | S PRICES ABOVE ARE MFGR'S SUGGESTED LIST L FOR TOD'AY'S ALLIED PRICE. |

## BSM



BSM's $10 \times 1$ Routing Switcher is a very straightforward machine. It gives the programmer instant access between any of ten incoming lines. You can instantly change from one channel to another without fooling around with a lot of wires. The unit is completely active with a fully self-contained power supply. It features an output amp for extra power boost and solid-state FET switching. The inputs are controlled with momentary pushbutton switches with builtin LED indicators.

| Model | Description |
| :--- | :--- |
| Mono $10 \times 1$ | $10 \mathrm{in} / 1$ out mono.... $\$ 695.00$ |

ALLIED PRICE S
Stereo $10 \times 120 \mathrm{in} / 2$ out stereo..... $\$ 995.00$
ALLIED PRICE \$
BSM PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.
$10 \times 10$


Ten channels in, ten channels out. Hard wired in place. Complete flexibility to route any combination of programs. Finger tip switching control. Any one input can drive one or more outputs without signal loss or loading of the input signal. LED Matrix readout displaying the location of the signals. None of the awkward problems of mechanical patch panels, the BSM $10 \times 10$ is a programmer's dream machine.
Model Description
Mono $10 \times 1010$ in/10 out mono..... $\$ 2995.00$
ALLIED PRICE \$
Stereo $10 \times 1010 \mathrm{in} / 10$ out stereo..... $\$ 3995.00$
ALLIED PRICE \$
BSM PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## RAMKO



The new PRIMUS RS-1616 is an audio thru data routing/amplifying system with performance and versatility unmatched by any similar units on the market. In addition to performance that will surpass the requirements of even the most critical studio professional, the user friendly controls (local front panel, remote 4 bit binary, common 3 wire serial, or standard RS-232 personal computer control) provide you with the power to program or control these units, limited only by your imagination.
(cont.)

The system can be configured from as little as 8 mono/4 stereo in by 2 out, to as large as 128 mono/64 stereo in by 64 out, with each main frame capable of handling up to 16 mono/8 stereo or combinations thereof) and 16 out. Up to 32 main frames may be looped together and controlled with a single control system.
Nothing could be easier to operate. If it is local control front panel), simply select the input you want and then the output. Remote controls, due to the wide variety of methods available, can be configured practically any way desired.

## PRICES UPON APPLICATION

## UTAH SCIENTIFIC



The AVS-1 Switching System has been developed to meet the needs of broadcasters and others whose requirements call for reliable, distortion-free routing of audio, video, tally, time code or machine control signals. Standard configurations are offered in matrix sizes from $10 \times 10$ to $150 \times 160$ providing video only, audio only, or audio follow video switching. Multi-level audio, regenerative time code, tally and metallic contact matrices are also available. Performance parameters are controlled by $1 \%$ components having extremely good temperature and aging characteristics. Redundant cooling fans are employed. Four redundant party lines are provided. A standby control and memory card is available to permit instant replacement of $100 \%$ of the shared components and redundant diode-isolated power supplies are also available.
PRICE UPON APPLICATION.

## MODULAR AUDIO



The 7301 newsroom switcher is primarily designed to serve as a record/edit facility for newsroom recording and monitoring of news services. The 7301 features a ten position rotary input selector, a -10 dBm to +8 dBm sensitivity contol and transformer bridging inputs for balanced or unbalanced sources. The 7301 will accomodate $-60 \mathrm{dBm}, 150 \mathrm{ohm}$ inputs for microphone, pushbutton selectable and features equalization insert terminals. The giant VU meter will give a visual indication of the operating level. The 7301 power supply is integral to the unit.

MANUFACTURER'S SUGGESTED LIST PRICE. .$\$ 665.00$

ALLIED PRICE \$ -

# '‘SHIPPING AND HANDLING WILL BE ADDED'" 

## TELEPHONE

TELEMIX IX


Telephone talk shows just became technically simple. Allied can now supply the newest generation of multi-line telephone systems. TELEMIX $1 X$ is a 15 -line microprocessor based telephone system that provides high quality telephone audio for use in all types of broadcast talk shows. This desktop unit can be operated by the talk show talent, engineer or both.
The front panel switches look and respond exactly as a standard 10 -button telephone set. But their effect on the telephone line is dramatically different!
TELEMIX $I X$ is a totally software driven system. When any button is depressed or an external pin is grounded, a command is sent to the central processing unit (CPU). The CPU interprets this command, and depending on the internal software (1 chip EPROM) executes an appropriate response. This allows TELEMIX IX to do virtually anything. It can be re-programmed by anyone with an EPROM burner and the ability to write assembly language pro. grams to accomodate any custom function.
Since TELEMIX IX is software driven, any combination of responses is possible. Let's explore several of its mechanical and electrical possibilities.
TELEMIX IX connects directly to MA Bell's 500 series KSU using two 25-pair cables and will interface 15 lines. Solid state switching of phone, A-leads, and lamp flashing permits total non-mechanical connection to the outside world.
A total of twelve input and output access ports are provided for software driven external interaciton. This interaction can be, but is not limited to, timer starts and stops, producer cueing, and/or turning off the local coffee pot. The external ports are accessed through a rear panel DB-25.
The CPU can be accessed via an on-board RS-232 serial port. This port allows single pair control of the entire device from almost anywhere. It also permits programming the device via any minicomputer. This allows the user to operate all functions of TELEMIX IX externally.
The use of a video display is beneficial to the producer, talent and ultimately the listener. Cueing information such as length of calls, length of callers on hold, etc. can be easily programmed and displayed on the microcomputer.


Thus far we have concerned ourselves with the manipulation of telephone lines. Let's explore the processing of the telephone line once it's been directed to the audio board.
(cont.)

There are two groups of telephone lines that the CPU can direct to the input of the audio board. Each input incorporates an active hybrid that separates send and receive audio. Both the send and receive circuits use critically designed filter circuits providing the very best audio from the telephone line. All callers are cross-fed opposite caller audio for true least-loss conferencing.
Depression of any line button results in the following:
(1) The CPU tells the audio board to mute the receive amplifier during line termination sequence.
(2) The CPU pulls in the appropriate solid-state line switch and A-lead.
(3) The CPU tells the audio board to beep the caller, telling them they're on the air. This occurs for 400 milliseconds.
(4) The CPU then unmutes the receive amplifier and the caller is "on the air".
The entire sequence takes less than 500 milliseconds providing clean, clear, transient free telephone audio.
As the talent speaks, the caller may be reduced in level. The amount of caller reduction is controlled by the front panel caller control knob and is continuously adjustable from 0 to 30 dB of reduction.
The audio output appears on two rear panel XLR's and provides mixed audio from both line groups. The balance of audio between groups is front panel adjustable by rotating the front panel balance control.


In summary, TELEMIX IX is a software driven, microprocessor based, multi-line telephone system that provides high quality telephone audio. The sytem is software driven, allowing maximum flexibility in processing telephone lines. The RS-232 port permits long distance remotability and in-house programming via a minicomputer. The system uses an advanced design telephone hybrid that produces clean, clear and audio.
$\$ 2995.00$

## ELGIN



The EC30A is a totally passive voice coupler that's also known as the "QKT". Total protection is afforded to the phone company's circuits by installation of the EC30A. ELGIN was the original manufacturer for the Bell "QKT"

ALLIED PRICE \$

## 19522 SERIES



The 19522 series is made expressly for use with your concert line, weather line, sports score line and more.

It acts as the interface between your message machine and the telephone equipment by providing relay contacts to start and/or stop the associated message machine. It satisfies the requirements of the local telephone company as well!
The 19522-21 is designed for use in telephone company systems which provide a central office initiated battery reversal or momentary open when the caller hangs up.
The 19522-22 includes a VOX card for use in systms which do not provide these functions. After 12 seconds of silence or dial tone, the 22 will provide a line clearance function or the customer provided message machine may supply the clearance function.
If it is desired to provide message and record information from the caller, the 21 or 22 may be ordered with the suffix 2 W . The 2 W provides a supervisory tone to alert the caller that the message is over, recording has begun, and you are ready to receive the caller's information.
Both units are AC-powered. Multi-pin connector DB 19604432-51226 plug and hood assembly are required for installation. Telephone company jacks RJ11W or RJ32X (for use with associated telephone sets) are required. ELGIN originally manufactured the 19522 for bell.

| Model | Description |
| :---: | :---: |
| 19522-21 | Recorder coupler.................................. $\$ 310.00$ |
| 19522-22 | Recorder coupler................................. $\mathbf{\$ 3 8 2 . 0 0}$ |
| 19522-21-2W | Recorder coupler.................................. $\mathbf{\$ 3 0 . 0 0}$ |
| 19522-22-2W | Recorder coupler.................................. $\mathbf{\$ 3 7 4 . 0 0}$ |
| DB19604432-5 | 1226 Multi-pin connector......................\$16.00 |
| 19645 SERIE |  |



The news department in particular can benefit from the advantages of the ELGIN 19645 series. It's especially good for actualities, interviews, remotes and many other functions.
The 19645 RCZ recorder connector provides interface between the telephone and/or multi-line key pad and the input to your audio equipment. A defeatable "beep" occurs every 15 seconds and AGC keeps both sides of the conversation just about equal in level.
The 19645 RCZ amplifies both sides of conversation just about equal in level but isn't designed for sending audio back down a telephone line.
The 19645 requires the optional 2012B transformer for power, and connections are made via a barrier strip. A RJ-32X jack must be ordered from the phone company for single line installation. A RJ-35X jack is required for multi-line access.

Model
19645-4 Description
2012B Transformer................................................... $\$ 9.75$
20721 SERIES


Also known as the "listen line", the 20721 is expressly for use as an automatic answer device. The 20721 can be used at your station for an out-of-town audition of your program by a major time buyer by simply feeding the unit with on-air audio.
The 20721 will automatically connect your mass feed to a network station simply by having the station call the number assigned to the 20721.

This permits the caller to take advantage of much less expensive direct-dialing and allows him access to your feed without an engineer or technician at the feed end.
Audio from news networks, sporting events and more is fed to a bank of 20721 units. One unit is required per subscriber network station. The subscribing station orders a telephone hook-up from the local telephone company in the originating station's city and simply calls the assigned number when they need a feed. The 20721 takes care of everything else. A lot of major league sports networks are handled this way, including the Cincinnati Reds broadcasts all the way to Florida.
The 20721 must see a battery reversal or momentary open from the originating city's local central office. The absence of both of these functions will not permit the use of the 20721.
When the caller hangs up the line will not be released. Use of the Allied DTD- 5 will alleviate this problem. The DTD-5 can be retrofitted into the 20721 case and needs no external power source.
Multi-connector DA 19603403-51225-1 plug and hood assembly (12) and telco jack RJ-11W or jack number RJ-32X (for use with associated telephone sets) are required.

| Model | Description |  |
| :---: | :---: | :---: |
| 20721-1 | Coupler | \$215.00 |
| DTD-5 | Line release | \$64.00 |
| DA19603 | -51225 Mu | . $\$ 12.00$ |

## TELLABS




1913


The TELLABS line of equalization equipment was designed expressly for use with telephone circuits. No other form of equalization can offer the flexibility or specs necessary to achieve the quality for AM and/or FM (stereo) feeds via leased telephone circuits. Bell standard for this application.
If a circuit is unloaded and if the length vs. gauge criterion is not exceeded, you can install your own equalization and pay for it in a very short time. The only alternative is to pay the telephone company a monthly fee for the same equipment. If telephone circuit lines are a necessity in your operation, there's no reason for you to also pay for the equalization on a monthly basis.
All TELLABS equipment is connected via the wire wrap method and all cabinets must be wired for application by the user. Wrap terminals $.075^{\prime \prime}$.
A typical mono application would consist of:
(1) \#4424 single repeat coil card
(1) \#1911 single card repeat coil housing
(1) \#1912 housing for equalizer module*
(1) \#4008 equalizer module
(1) \#1913-L4 power transformer

A typical stereo application would consist of:
(1) \#4425 dual repeat coil card
(1) \#1911 single card repeat coil housing
(1) \#1913 dual housing for 2 equalizer modules*
(2) \#4008 equalizer modules
(1) \#1913-L4 power transformer

- (RF at the receive end may necessitate a 248RF cabinet which is designed with suppression and bypassing especially for use in RF-intense applications.)

TELEPHONE LINE EQUALIZATION
TYPICAL ARAANGEMENT TO UPGRAOE ANY LOOP WHICH MEETS INOICATEO CRITEAIA


If you wish to equalize a number of circuits you may wish to use
(cont.)

248C rack mount housing which will accomodate up to eight (8) \#4008 modules. (9 with user wiring.)
If several repeat coils are to be used, the \#1012 housing will hold up to 12 cards.

Repeat coils and \#4008 modules may be mixed in the 248C housing when wired accordingly. All terminals are $.075^{\prime \prime}$ wire wrap and user wired.

| Model | Description |
| :---: | :---: |
| \#4008 | EQ. module.......................................... \$214.63 |
| \#4424 | Repeat coil/single.................................... $\$ 54.91$ |
| \#4425 | Repeat coil/dual...................................... 573.31 |
| \#1913 | Dual card housing...................................\$97.75 |
| \#1911 | Single card housing................................. $\mathbf{\$ 2 0 . 1 9}$ |
| 1913-L4 | Transformer........................................... $\$ 15.94$ |
| 248RF | Dual amp mounting, <br> RF shielded. $\qquad$ |
| 248C | housing............................................... $\$ 385.69$ |
| 8003A | power supply....................................... $\$ 183.81$ |
| 1012 | housing .............................................. $\$ 129.63$ |

## ALLIED FONE BOX



The FONE BOX is a single channel device that will adapt easily between telephone circuits and broadcast consoles, allows you to control the levels of both the incoming call and the interviewer's microphone, and permits you to hear the incoming call without fighting feedback.
The use of an integrated band pass filter helps to eliminate hiss, hum and extraneous noises. The FONE BOX gets the best sound possible from available telephone circuits, recorded at a level which doesn't suck you into the speaker, or drive you out the door.
There's nothing complicated about its installation, no special amps or circuits.
You get it all, isolation, ease of installation, and low cost. (FCC registered)

MANUFACTURER'S SUGGESTED LIST PRICE.
. $\$ 695.00$
ALLIED PRICE \$

## GENTNER

SPH-3


The GENTNER SPH-3 from Allied provides an easy inexpensive method of interfacing broadcast equipment with an existing telephone system. The SPH-3 is unique in that it doesn't use a vOX like a speakerphone. The SPH-3 offers mix minus and great sidetone suppression.
MANUFACTURER'S SUGGESTED LIST PRICE
\$399.00
ALLIED PRICE \$

## POTOMAC



Designed primarily for commercial broadcast proof-of-performance measurements and equipment maintenance. The AG-51 Audio Generator and AA-51 Audio Analyzer are packaged separately for remote measurements requiring physical separation of signal source and signal analyzer. Both units are RFI shielded to enable accurate measurements in high level radio frequency environments typical of broadcast transmitter facilities. Signal input and output connectors are also RFI shielded.

The AT-51 measures harmonic distortion, intermodulation distortion, volts, dB, signal to noise ratio, wow and flutter, stereo phasing, and differential gain in stereo channels.

## FEATURES:

* Separate generator and analyzer
* Transformerless stereo outputs balanced or unbalanced
- Source resistance of 150 or 600 ohms
* Automatic signal leveling
* Precision $10 \mathrm{~dB}, 1 \mathrm{~dB}$ and .1 dB step attenuators
* RFI shielding
* Automatic "set level" and "balance" circuits
* Scope display of distortion products output
- Output level monitor
Model Description

AT-51 Complete system including
AA-51 and AG-51.....\$3325.00
ALLIED PRICE \$
IX-51
Optional balancing
transformer (ea.)..... $\$ 145.00$
ALLIED PRICE $\$$
AA-51
Analyzer only..... $\$ 1965.00$
ALLIED PRICE \$ $\qquad$
AG-51 Generator only..... $\$ 1745.00$
ALLIED PRICE \$
POTOMAC PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## DIGIMAX



The Digimax Digital Frequency Counter meets or exceeds all FCC requirements.

## SPECIFICATIONS

FREQUENCY RANGE: $\quad 20 \mathrm{~Hz}-1.0 \mathrm{gHz}$
ACCURACY OVER TEMPERATURE: 0.1 PPM (+55 to 85 degrees F) proportional 10 mHz oven
READOUTS: Full 9 digits
SENSITIVITY: 5 to 50 mV from 50 Hz to 25 mHz
15 to 50 mV from 25 mHz to 450 mHz
50 to 75 mV at 1 gHz
ACCURACY: $\pm .1 \mathrm{~Hz}$ at 1 mHz $\pm 1 \mathrm{~Hz}$ at 10 mHz
$\pm 100 \mathrm{~Hz}$ at 1 gHz
POWER REQUIREMENTS: AC-12 required for 110 VAC , 8-15VDC at 500 ma .
Order the package including D-1200-AC-12, BAC12 and TI200. Package includes AC adapter, rechargeable battery pack and antenna.

MANUFACTURER'S SUGGESTED LIST PRICE.
. $\$ 352.00$
ALLIED PRICE \$

## CROWN

RTA-2


The Crown RTA-2 is designed for audio-range real-time spectrum analysis in $1 / 3$ and full octave bands. All the sub-systems needed to perform quick, accurate on-site equalization of sound-reinforcement systems are included in the RTA-2.
Pink noise output is balanced (XLR connector) or unbalanced at either line or mic levels. The RTA-2 can be used on stage, in the hall, or in control or projection booths.
The Crown RTA-2 has a 16 Hz to 20 kHz bandwidth. The full audio bandwidth (compatible with full bandwidth equalizers) is displayed for accurate acoustic equalization.
MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ $\$ 2450.00$

ALLIED PRICE \$ $\qquad$
BDP-2


The BDP-2 audio micro-computer brings the sophistication, convenience and flexibility of micro-processor management to the full range of audio testing.
In one $5.25^{\prime \prime}$ EIA rack-mount package is all the computing and full NTSC-compatible color display power you will need for RTA and RT60 measurement of audio equipment or environments.
(cont.)

The BDP- 2 inherits all the versatility of the BADAP-1 with improved packaging and reliability. BDP-2 is software based. All programs are written on plug-in boards so that the basic frame and display cannot become obsolete. New programs can be added to the BDP-2 at any time making it the equal of any and all of the dedicated audio instruments now on your bench. One BDP-2 can almost be your entire test instrument inventory.
MANUFACTURER'S SUGGESTED LIST PRICE ..$\$ 5495.00$

ALLIED PRICE \$

## WHITE INSTRUMENTS

## 151



The 151 is a compact battery powered digitally operated pink noise generator.

## FEATURES:

* 268,000 bit word length
* Flat 20 Hz through 20 kHz
* Mic or line level output
* Rugged
* Inexpensive

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ $\$ 140.00$

## ALLIED PRICE \$

200


The White Instruments 200 signal analyzer offers 30 triple tuned filters on $1 / 3$ octave I.S.O. centers from 25 Hz through 20 kHz . Octave band and $1 / 6$ octave plug filers are available. 30 by 15 LED display plus separate dB/SPL, overrange, and 2 seven segment readouts. 8 memories. 1, 2 and 3 dB scales. Processes peak and average simultaneously. 3 time constants. All functions are microprocessor controlled. Offers a long list of plug-in options.

## PRICES UPON APPLICATION

140


The White Instruments 140 offers 27 double tuned $1 / 3$ octave filters
on I.S.O. centers from 40 Hz through 16 kHz .27 by 10 LED display plus separate dB-SPL and overrange readout. 1 and 2 dB scales. Display vernier. Built in pink noise generator. Mic and line level inputs. Sync and log amplifier outputs for remote oscilloscope display. Rugged road case. Meets ANSI S1.11-1974 Class II specifications.
manufacturer's suggested list price $\qquad$ .$\$ 2800.00$

ALLIED PRICE \$ $\qquad$
INOVONICS
500


A fully portable unit for real time, $1 / 3$ octave audio spectrum display and reverberation analysis. Peak and averaged measurements, two memories, RT60 and Decay Plot capabilities, built in Pink Noise Generator. I/O logic interfaces with digital peripherals.
MANUFACTURER'S SUGGESTED LIST PRICE.
.. $\$ 3300.00$
ALLIED PRICE \$
LOFTECH


The Loftech TS-1 provides a combination of three precision test instruments. This provides the user with a powerful tool that is capable of making audio frequency tests and measurements with a high degree of accuracy and in less time than conventional test instruments.
The TS-1 features a current controlled, state-variable oscillator. This is a true sine wave oscillator and not a function generator. Distortion components are typically $0.1 \%$. Full frequency sweeps can be made from 20 Hz to 20 kHz in a single range. The output impedance is 50 ohms, unbalanced.
The frequency counter is internally connected to the oscillator until a signal is plugged into the meter input. It then displays the frequency of the input signal. The input impedance is greater than 100,000 ohms electronically balanced.
The TS-1 dB meter is a wideband, average responding AC voltmeter. The output of this meter circuit is electronically converted to decibels for display. The logarithmic nature of decibels eliminate the need for range switches. A reference level for " 0 dB " is factory set for 0.775 v which can be user adjusted $\pm 10 \mathrm{~dB}$ with a rear panel control. The input impedance is greater than 100,000 ohms unbalanced.
$\qquad$

## MA-1H



- Analog handheld multimeter
- Lowest priced multimter
* $0-1000$ volt, $0-5$ ampere, 1 ohm to 1 megohm
* Large mirror scale-83 mm
* Rugged moving-coil movement with core magnet
* 36 measuring ranges for V DC/AC, $\mathrm{dB}, \mathrm{A} D C / A C$, ohms and microfarads
* Input impedance of 20 K ohms/V DC, 4 k ohms/V AC

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ . $\$ 54.00$

ALLIED PRICE \$ $\qquad$
M2011


- Digital handheld multimter
* $31 / 2$ digit LCD display, 13 mm high numbers
* 23 measuring ranges for $B$ DC/AC, $A D C / A C$, and ohms
* Accuracy on DC voltage $\pm$ ( $0.5 \%$ of reading +1 digit)
- Input impedance 10 megohms
* Overload protected on all measuring ranges (fused)
* Battery operation with 9 V battery
- Operating time with alkaline cell approximately 2000 hours

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ $\$ 128.00$

ALLIED PRICE $\qquad$
M2012


- Digital handheld multimeter
- Features same as M2011 plus
- Current ranges up to 10 A DC/AC
* Accuracy on DC voltage $\pm$ ( $0.25 \%$ of reading +1 digit)

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$


2030

- Digital folding multimeter
* $31 / 2$-digit LCD display. 18 mm high numbers
- 25 measuring ranges for V DC/AC, A DC/AC, and ohms
* Accuracy on DC voltage $\pm(0.1 \%$ of reading +1 digit
- Input impedance of 10 megohms
* Battery operation with 9 V battery

Operating time with one alkaline cell approximately 2000 hours

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ \$212.00

ALLIED PRICE \$ $\qquad$

## M2031

- Digital folding multimeter
* Features same as M3020 plus
- Diode test/Audio continuity
- 31 measuring ranges for V DC/AC, A DC/AC and ohms

Resistance measurement with $500 \mathrm{mV}(\mathrm{LO})$ or $2.0 \mathrm{~V}(\mathrm{HI})$ open circuit voltage

MANUFACTURER'S SUGGESTED LIST PRICE
$\$ 235.00$
ALLIED PRICE \$ $\qquad$
M2032

- Digital folding multimeter
* Features same as M2030 plus
- Trus RMS measurement for voltages and currents with valuation of DC and AC composites
* 31 measuring ranges for V DC/AC, A DC/AC and ohms
* Resistance measurement with 500 mV (LO) or with 2.0 V (HI) open circuit voltage.
* Diode test/audio continuity

MANUFACTURER'S SUGGESTED LIST PRICE
$\$ 259.00$

ALLIED PRICE \$
MA-5D


[^2]* 37 measuring ranges for $V$ DC/AC, dB, A DC/AC, ohms and microfarads
- True RMS measurement from $15 \mathrm{~Hz}-20 \mathrm{kHz}$ (frequency of measured signal)
* Capacitance measurements over the range from 300 picofarads to 3000 microfarads
* dB measurements on the range from -60 to +80 dB
* Function and ranges selectable with two rotary switches
* Accuracy when measuring DC voltage $\pm(0.05 \%$ of reading +1 digit)
* Input impedance 10 megohms
* Overload protection on all measuring ranges (fused)
* Input sockets and test leads protect against accident shock
* Input sockets accept all standard banana plugs
- Quick-clamping terminals for wire ends, components or cable lugs
* AC line powered $110 / 220$ VAC selectable. Rechargeable NiCad batteries with battery charger built in
* Rugged high impact plastic case
* Handle provides a flexible tilt-stand and at the same time serves as carrying handle for transport

MANUFACTURER'S SUGGESTED LIST PRICE. . $\$ 595.00$

ALLIED PRICE \$

## STL



STL Test Tapes are recorded directly from precision generating equipment to provide the most accurate reference possible. An independent standards laboratory, STL provides a completely objective service, with test tapes available to major manufacturers, governments, and all who need a precision reference tool.

## STL provides the following tapes:

## REPRODUCE ALIGNMENT

Contains Azimuth tone, voice announced frequency run and level set tone.
PINK NOISE
$20-20,000 \mathrm{~Hz}$ for phase alignment of multi-trak systems, and response check with $1 / 3$ octave filters.
SWEEP
Log $100 \mathrm{~ms}, 700-15,000 \mathrm{~Hz}$ with adequate dead section beteen sweeps to facilitate scope synchronization.
FREQUENCY CHECK
Contains 2 -second spot check tones. No voice.
AZIMUTH
Single tone
LEVEL SET
single tone
FLUTTER AND SPEED
A crystal controlled frequency source recorded at low flutter and accurate speed.
PRICES UPON APPLICATION

## VALLEY PEOPLE



The Advantage 310 Audio Noise and Level Meter from Valley People incorporates the Trans-Amp ${ }^{T M}$ active, balanced differential. Iownoise preamplifier as the input stage which allows the device to accurately measure extremely low noise levels without errors caused by the use of op-amp "instrument" preamps commonly found in even the most expensive general purpose equipment.
Trans-amp’s astonishingly low noise figure, typically 0.5 dB at 200 oms. and freedom from distortion (.007\% IMD) deliver an acurate signal, free from additional "pre-amp" noise to the converter circuitry, thus allowing accurate noise measurement of low impedance sources such as equipment outputs, transformer balanced networks and signal lines.
Two ranges allow measurements from -100 dB to +30 dB , thereby encompassing the entire spectrum of anticipated noise and signal levels common in audio equipment.
MANUFACTURER'S SUGGESTED LIST PRICE.
\$399.00
ALLIED PRICE \$

## MCCURDY

SA14023


The SA14023 extended range audio level meter is a self contained instrument designed for the measurement of peak and average audio system transmission levels in dBm. A two position range switch and precision attenuator allow the accomodation of audio input levels from -50 dBm to +30 dBm , in 2 dB steps, for a zero meter reading (sine wave).

## PRICES UPON APPLICATION

PPMO2


The PPMO2 peak program meter is designed for peak audio level measurement in a wide range of broadcast and professional applications, in place of the conventional average-reading VU meter. Because of its peak reading characteristic, the PPM provides a much more accurate representation of the maximum audio level
(cont.)
present than would a VU meter. Thus, allowing optimum performance of audio facilities to be realized by more precise control of levels and prevention of clipping and distortion due to line or equipment overload conditions.
As standard, the PPM02 is supplied with the McCurdy standard " C " scale, with an input level of +8 dBm giving a center scale reading. The British standard " B " scale and European standard " E " scales as well as input levels of $-10 \mathrm{dBm},-6 \mathrm{dBm},-4 \mathrm{dBm}, 0$ dBm and +4 dBm for center scale reading are optionally available and must be specified when ordering.

PRICES UPON APPLICATION

## TOWERS

## DURO-TEST TOWER LIGHTING



You need rugged, dependable, long-lasting, quick-to-see bulbs where there are tall traffic hazards. The best bulbs that money can buy are built by Duro-Test.
Model
Description
DT/682
BEACON PS-40
620 watt, mogule base, clear, $125 / 130$ VAC, 10,500 lumens, 4500-5500 hours.....\$27.65

ALLIED PRICE \$
DT/683
BEACON-40
620 watt, mogul base, durex, 125/130 VAC, 10,500 lumens, 4500-5500 hours..... $\$ 38.00$

ALLIED PRICE \$
DT/424
OBSTRUCTION A-21
116 watt, medium base, clear, 125/130 VAC, 1260 luments, 7500-8500 hours. . $\$ 4.15$

ALLIED PRICE \$
DURO-TEST PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## PI-ROD



* Solid rod, all-welded construction provides greatest strength with minimum surface exposure to wind and icing conditions. Slim Line design offers minimized air resistance.
* A complete line of standard (proven performance) models
- Computerized analysis of loading factors for structure conformity to meet and exceed customer specifications. Working with this data, licensed professional engineers review your specific requirements and determine the ultimate solution.
* Engineered concepts utilizing minimum space requirements. We design systems to meet critical space limitations, with $50 \%$ and small guy radii available.
* Minimized interference with rduced face width design improves transmission...another PI-ROD engineering innovation.


## PRICES ON APPLICATION

## UNION METAL



Pole and accessories assembled on ground prior to erection.


Pole in position to be lowered on plumbing nuts.

- No guy wires required
* 25'-300'
* Also suitable for top-mounting FM antennas on towers


## CONTACT ALLIED FOR PRICING

## TRANSMISSION LINES

CABLEWAVE


Cablewave Systems semi-flexible coaxial cables are used in electronics and communications systems operating from VLF through the microwave frequency bands. Since each basic cable construction offers specific advantages, the company manufactures both smooth wall aluminum and corrugated copper coaxial cables in foam and air dielectric. This allows the user engineer to consider (cont.)

## TRANSMISSION LINES

technical and economic factors for each type, and select the best construction for his requirements. Cables are cut to length and connectors factory attached upon request. ALLIED CARRIES THE COMPLETE CABLEWAVE LINE.

## PRICES UPON APPLICATION



For more than 40 years, Andrew has offered a comprehensive line of broadcast products. These include both foam and air dielectric HELIAXX ${ }^{\text {TM }}$ flexible coaxial cables. rigid line components. pressurization equipment and installation accessories. Detailed information on the Andrew line of producis is available upon request. ALLIED CARRIES THE COMPLETE ANDREW LINE.
PRICES UPON APPLICATION

## ALLIED JUMPER CABLES



Prefabricated N to N cables cost less than your labor and materials. Allied jumper cables feature RG-213U coaxial cable, NMale connectors with shrink-tube weatherproofing. Special lengths available on request. 7.8 dB loss per 100 feet at 900 mHz .

| Model | Length |  |
| :--- | :--- | :--- |
| $213 \mathrm{NN}-2$ | 2 ft. | $\$ 12.70$ |
| $213 \mathrm{NN}-10$ | 10 ft. | $\$ 14.62$ |
| $213 \mathrm{NN}-15$ | 15 ft. | $\$ 16.16$ |

## OTHER LENGTHS UPON APPLICATION

## TRANSMITTING EQUIPMENT

## MOTOROLA



In the MOTOROLA C-QUAM AM STEREO SYSTEM, as in present AM broadcast standards, the angle modulated carrier is amplitude modulated with the sum of the audio information present in the pro-
gram source. Thus to a monophonic receiver, the signal is no different from the signals being received under the present standards. This sum signal is comprised of two signals, left (L) and right (R).
To provide stereophonic information, angle modulation results from straight forward quadrature modulation followed by limiting. That is the monophonic ( $L+R$ ) provides in-phase modulation while ( $L-R$ ) provides quadrature phase modulation. The limiter assures constant level exciter drive to the transmitter.

A separate signal, a 25 Hz pilot tone, is added to the quadrature difference (L-R) signal for indicating the presence of a received sterephonic broadcast.
Existing AM broadcast transmitters may be used with relatively simple and inexpensive modifications.

## Model Description

1300 C-Quam AM Stereo Exciter \&
1310 C-Quam AM Stereo Modulation Monitor... $\$ 11,700.00$
Day/night 2 transmitter option board..... $\$ 1000.00$
BROADCAST ELECTRONICS


These single-tube FM transmitters incorporate a unique folded halfwave dipole cavity power amplifier design, a digitally programmed FX-30 ultra-linear exciter and a microprocessor based control system.
The high power cavity employs a half-wavelength folded tank circuit. This cavity design eliminates the need for a plate blocking capacitor and all sliding contacts. The result is much higher reliability, higher efficiency, and lower maintenance costs.
The grid input circuit optimizes the impedance transformation between the solid state driver and the power tube grid.
All transmitter control and status functions are performed by the built-in microprocessor based controller. This controller is the
"brain" that monitors the operating parameters and then determines what control actions are required. By its continuous scanning action, it provides 127 different status indications, including 123 codes on two large seven segment LED displays.
Broadcast Electronics FM transmitters also feature automatic restart, separate* high voltage power supplies, extensive metering and remote control capability. (*certain models)
Model One tube 1500 watt transmitter complete with FX-30 exciter..... $\$ 21,950.00$ ALLIED PRICE \$
FM 3.5A One tube 3500 watt transmitter complete with FX-30 exciter..... $\$ 25,950.00$ ALLIED PRICE \$
FM 5A One tube 5000 watt transmitter
complete with FX-30 exciter..... $\$ 28,950.00$ ALLIED PRICE \$

## 4 <br> TRANSMITTING EQUIPMENT

## BROADCAST ELECTRONICS

FM 30

One tube 30,000 watt transmitter
complete with FX-30 exciter..... $\$ 58,950.00$
ALLIED PRICE \$
BROADCAST ELECTRONICS PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## FX-30



The heart of any Broadcast Electronics FM Transmitter is the FX-30 synthesized exciter.
This solid state exciter is completely broadband and requires no tuning adjustments for a conservative 30 watt output. With 30 watts output, this is all the drive power required.
The FX-30 is mounted on a slide-out assembly making all components accessible for easy servicing.
The FX-30 accepts multiple wideband composite inputs as well as a 600 ohm balanced input. When used for wideband, stereo or monaural operation, the FX-30 exciter produces a distinctively clean and superb FM sound.

MANUFACTURER'S SUGGESTED LIST PRICE. $\$ 5995.00$

ALLIED PRICE \$

## ELCOM BAUER

## AM TRANSMITTERS



* 125\% positive peak capability
*Stable high level plate modulation
- Three tube types
* Plug in solid state low level audio and RF driver stages
* Adaptable for AM stereo
* Oil-filled modulation transformer
* Two ovenless crystals (switchable)
* Unexcelled accessibility
* Remote ready-wire or STL
* Interface for standard telemetry control equipment
* Step start
*Three step overload
* FCC primary circuits metered and continuously monitored
* Secondary operating parameters with multimeter readout
* Front panel circuit breakers
* Fuses with fault indicators
* Tally light fault indicator with memory system
* Remote resettable fault indicator
* Automatic return to air after power failure

PRICES UPON APPLICATION
FM TRANSMITTERS


* Solid State direct FM phase lock loop exciter
* AFC status indication
* Grounded grid power amplifer
* No neutralization required
* VSWR protection
* Automatic power output control
* Remote ready-wire or STL
* Interface for standard telemetry control equipment
* ATS interface
* Built-in standby, many models
* Front panel circuit breaker
* Fuses with fault indicator
* Three tube types
* FCC primary circuits metered and continually monitored
* Secondary operating parameters with multimeter readout
* Solid state timing-diode logic and relays
* Tally light fault indicator with memory system
* Tuning controls with counter indicators
* Unexcelled accessibility


## PRICES UPON APPLICATION

690PLL


The 690PLL Exciter from Elcom Bauer combines all of the highperformance, high reliability features most wanted by FM broadcasters.

Frequency stability is excellent: $\pm 300 \mathrm{~Hz}$, with $\pm 100 \mathrm{~Hz}$ typical. Noise and distortion levels are very low. 690PLL accepts signals from monaural programming, composite signal sources, and SCA
(cont.)

## ELCOM BAUER

generators. It is compatible with, and will enhance, any audio processing system.
Frequency modulation is direct, and incorporates phase-locked loop technology. Power supplies are controlled by integrated circuit voltage regulators for stability and reliability.
Output frequency range is 88 mHz to 108 mHz , programmable in 100 kHz steps. RF power output is 1 to 15 watts, continuously variable.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 2750.00$

ALLIED PRICE \$ $\qquad$

## POWER PAK

SMX-40


The SMX-40 is a full frequency synthesized world class FM exciter with up to 30 watts of absolute RF drive power, extensive status indications and protection. The SMX-40 rivals all competitive exciters available at any price.
MANUFACTURER'S SUGGESTED LIST PRICE. . $\$ 3995.00$

## ALLIED PRICE \$

SMG-40 STEREO GENERATOR


The perfect complement to the SMX-40, this high-tech generator assures transparency and transmission quality with the performance characteristics to meet the strigent demands of today's high quality FM transmission equipment.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ $\$ 1895.00$

ALLIED PRICE \$

## KAHN



The Kahn/Hazeltine patented AM Stereo System brings the advantages of Stereo transmission to the AM broadcasting industry.
Now, after 20 years of research, the AM Broadcaster may transmit Stereo programs with any conventional AM transmitter. Further-
more, true STEREO reception can be achieved by the use of two standard AM receivers, even inexpensive portables. This type of signal is completely compatible with all types of monophonic receivers and full mono coverage is guaranteed. Broadcasters have reported to the FCC that their stereo coverage equals $100 \%$ of their normal mono range.
The Kahn/Hazeltine Stereo has the unique advantage that the public has nothing to buy to be introduced to stereo reception on the widest possible scale prior to listeners purchasing new Stereo receivers.
The Kahn/Hazeltine system causes your two sidebands to be independently modulated by the left and right stereo channels. The resulting wave has essentially the same spectrum occupancy as conventional AM and is theoretically free of envelope distortion.

## PRICES UPON APPLICATION

## BIRD



The first of a new series of dry, forced air cooled high power Load Resistors, model 8572 is a well-matched termination for 50 ohm rigid line systems to 25,000 watts for testing and alignment of transmitters. The RF power is dissipated in a large number of rugged parallel/series connected resistor elements, which not anly provide an extensive total surface for heat transfer, but assure that the Load is not rendered inoperative due to the unlikely failure of one or two of the elements.
The outer conductor is designed not only for lower VSWR over a much wider band of frequencies than is typical for this type of termination, but also with advance fluid dynamics for lower operating noise.
Adjustments and tests to transmitting equipment require the measurement of power dissipated in the Load. Because the design of the new model 8572 makes its input connector the coolest part in operation, a Thruline ${ }^{\text {® }}$ Wattmeter can be safely and conveniently bolted right to the termination.
As a dry Load, model 8572 is very nearly maintenance-free, and presents fewer problems, should servicing ever become necessary. The units are repairable in the field. A special option permits ducting hot air away from the Load, and out of your work environment. PRICES UPON APPLICATION - 15 KW model now available


* Power rating 25 kW continuous duty up to 900 mHz
* Weight 155 lbs
* Distilled water or Ethylene Glycol
* 10 kW and 80 kW in this series plus $21 / 2$ to 7 kW dry loads and Econo wet loads up to 80 kW .
PRICES UPON APPLICATION
BIRD ELECTRONICS


Bird Electronics known for accuracy for more than a quarter of a century. offers Thru-line ${ }^{\text {® }}$ RF directional watt meters, RF load resistors, up to 80 kW and Wattcher protection systems.
ALLIED CARRIES THE ENTIRE BIRD LINE
ELECTRONIC RESEARCH


ERI isolation transformers are designed to couple the FM power across the base insulator of a transmitting tower used jointly for AM or FM antennae without introducing objectionable mismatch into the FM feed line.

An isolation transformer is highly desirable for feeding high im-
pedance $A M$ radiators or $A M$ radiators which are part of an $A M$ directional array which might be adversely affected by a "bazooka' isolation system.

| Model | Description |
| :---: | :---: |
| 403 | $10 \mathrm{~kW}, 15 / 8 \times \mathrm{C} . .$. \$2200.00 |
|  | ALLIED PRICE \$ |
| 403A | $10 \mathrm{~kW}, 3 \mathrm{l} / \mathbf{8}^{\prime \prime} \ldots . .$. \$2400.00 |
|  | ALLIED PRICE \$ |
| 425 | $25 \mathrm{~kW}, 31 / 8^{\prime \prime} \ldots .$. \$6133.00 |
|  | ALLIED PRICE \$ |
| 426 | $40 \mathrm{~kW}, 31 / 8^{\prime \prime} . . .$. \$6533.00 |
|  | ALLIED PRICE \$ |
| 427 | $50 \mathrm{~kW}, 4$ 1/8' ${ }^{\prime}$.... $\$ 8000.00$ |
|  | ALLIED PRICE \$ |

ERI PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## KINTRONICS

FMC SERIES ISOCOUPLERS


The use of these units at the base of an AM tower permit the installation of an FM antenna and connecting transmission line on the tower without requiring insulation and tuning of the transmission line. Since the shunting capacity of these units across the base insulator of the AM tower is less than 150 pf , the effect on the base input impedance of the tower will be negligible for most single radiators or directional elements. The transmission line may be fastened to the tower for its full length permitting the tower to operate with normal radiation characteristics. Many of these isocouplers are now in service at permanent installations having stereo operation and judged by the user to be of superior quality. 4 units available from 10 watts through 30 kilowatts.
Kintronics also offers sampling and transmission coaxial cables, control circuit cables, copper wire and strap, common point bridge, antenna phase monitor and remote control and phasing systems.

## PRICES UPON APPLICATION

## DELTA



C-QUAM AM STEREO Generator/monitor. Price includes installation and day/night switch.

## ELECTRO IMPULSE



DPTC 50KFM


DPTC 10KFM

The Electro Impulse product line of loads includes many state-of-the-art designs. They pioneered the development of dry, forced air cooled loads for use up through FM frequencies, which are now extremely popular in the broadcast industry.
Their DACT series of loads was the first dry, convection cooled series with power ratings up to 25 kW average power. Both of these types of loads are very popular as the availability of water for load cooling decreases.
Electro Impulse water cooled coaxial load resistors offer exceptionally iow VSWR and have the distinct advantage of a field replaceable resistor element. The CLW series loads are provided with a spare resistor which can be easily replaced in the field.
DC toads for high voltage use can be custom made to your specifications. These loads include built in test circuit, low level sampling outputs and other logic circuits. They contain the equivalent of numerous loads and are liquid cooled.

ELI offers RF coaxial loads with oil dielectric, twin line loads in a balanced input configuration, coxial water loads, waveguide coaxial water loads, dry baluns, calorimeters, automatic test equipment, high power RF attenuators, RF power meters, in-line directional wattmeters and special cooling systems.

## PRICES UPON APPLICATION

## MCl



Micro Communications Incorporated offers a wide range of products and services for the broadcast industry. The MCl product line includes complete RF systems, rectangular and circular waveguide transmission line systems, VHF, UHF, LPTV, MDS and ITFS com-
biners, multi-channel TV and FM combiners, VHF, UHF, LPTV, FM, MDS and ITFS diplexers, filters, directional couplers, loads, hybrids and switching systems.

## PRICES UPON APPLICATION

DELTA


The 6700 series of Coaxial Transfer Switches provides the engineer with the capability 10 switch between transmitters, antennas, or dummy loads with a minimum of off-the-air time. Both models can be operated by remote control or manually. Remote operation can be achieved using either 120 V or $220 / 240 \mathrm{~V}, 50 / 60 \mathrm{~Hz}$. The transfer switch is fully interlocked with two isolated interlock circuits that duplicate the RF path exactly. The 6730/6732E is a $1-5 / 8$ inch switch. The $6740 \mathrm{~B} / 6742 \mathrm{~B}$ is a $3-1 / 8$ inch switch and may be pressurized up to $16 \mathrm{lb} . / \mathrm{sq}$. in. A gas barrier is built into each terminal, and an air inlet port is also provided in the 6740B/6742B model.

## PRICES UPON APPLICATION

COMARK
antennas


The Comark series of FM cırcularıy polarızed antennas utilize identical radiating elements for both the lower power and high power series. The low power series utilizes $15 / 8^{\prime \prime}$ feedlines while the high power series uses $31 / 8^{\prime \prime}$ feedline. Both series of antennas are available in systems that incorporate 1 to 14 elements. Normally, systems with 8 or less elements are fed at the bottom, while above 8 the system is center fed. This series is basically a $11 / 2$ turns helix separated one wavelength apart. The radiation centers of both the vertical and horizontal components are identical, thus the FM antennas are one of the few antennas with the phase coincidence so essential for true circular polarization. De-icers are available.
Comark educational antennas utilize the same basic design as the high and low power models. However, due to their low power requirements, the radiating elements are constructed from a single piece of $7 / 8^{\prime \prime}$ stainless steel tubing. Educational antennas come complete with flexible coaxial interconnect cables and mounting hardward.
PRICES UPON APPLICATION

## COMARK

ACCESSORIES


Comark rigid coaxial transmission line provides outstanding features such as constant impedance, high power capacity, and low insertion loss. Sizes to $83 / 16^{\prime \prime}$ Heliarc-welded flanges and wrist band bullet construction $31 / 8^{\prime \prime}$ and above.
PRICES UPON APPLICATION

## PATCH PANELS



Coaxial patch panels are available in all standard transmission line sizes in three, four, five and seven port standard configurations. The patch link construction allows the patch link to self align with the panel ports for ease of operation.
PRICES UPON APPLICATION
COAXIAL TRANSFER SWITCH


Low VSWR and low insertion loss combined with maximum isolation make Comark coaxial switches the ideal instrument for routing RF, especially in remote control applications. The positive action switching solenoid may be remotely controlled or overridden manually.
PRICES UPON APPLICATION

JAMPRO


Jampro offers the CETEC line of broadcast antennas.
The Cetec JSCP Series B FM broadcast antennas offer rugged construction, low wind loading, excellent performance for stereo, SCA broadcasting, excellent VSWR bandwidth, true circular polarization, and are available with from 1 to 16 bays with de-icers and radomes
The JBCP series is a circularly polarized FM antenna designed for applications requiring relative insensitivity to icing along with high antenna input power. The JBCP antenna will handle up to 40 kW per bay and up to 120 kW per system depending upon the number of bays, shunt line size and input connector. The JBCP is available with from 1 to 8 bays.
The JLCP series 2 gives the Class A station several good choices. Power rating is 3 kW per bay or maximum 7.5 kW above two bays Standard or radome cover is provided if needed, at extra cost
The JLLP series elements are cable fed from a central power divider. They're rated a 1 kW per bay and provided as a standard antenna or with de-icers at extra cost.

## PRICES UPON APPLICATION

CELWAVE


Celwave circularly and horizontally polarized antennas are available with any combination of null fill and beam tilt. The high power and low power antennas utilize identical radiating elements.
The low power series utilizes $15 / 8^{\prime \prime}$ feedline, the high power series 3 1/8' feedline.
Both series of antennas are available in systems which incorporate 1 to 16 elements. Normally systems with 8 or less elements are bottom-fed, with 8 or more elements, center-fed. De-icers are available.


Educational FM antennas differ from the commercial versions in that they are fabricated of $7 / 8^{\prime \prime}$ stainless steel tube and due to lower power requirements are fed with flexible solid dielectric cables.
PRICES UPON APPLICATION

## TUNERS / TURNTABLES



A sensitive, low distortion, high performance AM-FM tuner with a minimum of frills. In real use conditions the 4020A equals the performance of many tuners costing two or three times more.

* 1.8 microvolt ( 10.3 dBf ) IHF sensitivity
* 50 dB quieting sensitivity: 16 dBf mono, 38.3 dBf stereo
* 70 dB S/N ratio in stereo, 75 dB in mono
* Selectivity 62 dB , alternate channel
* Dual-gate MOSFET front end, phase-locked loop multiplex decoder
RACK MOUNTS EXTRA AND ARE LESS HANDLES
MANUFACTURER'S SUGGESTED LIST PRICE.
. $\mathbf{\$ 2 1 8 . 0 0}$
ALLIED PRICE \$
CROWN
FM TWO

* FM tuner
* Cascaded JFET front end eliminates RF intermodulation, aligns automatically, rejects suprious signals, no AGC, equivalent or superior performance with minimum distortion.
* Linear ceramic filters
* Heavily-modulated stations sound better
- AM suppression -80 dB
* Pulse count digital circuit cannot drift
* All touch button tuning
- Crystal controlled-PLL
*Station frequency displayed via vacuum fluorescent
* Signal strength indicator
* Six station memory

MANUFACTURER'S SUGGESTED LIST PRICE. . $\mathbf{\$ 9 9 . 0 0}$

ALLIED PRICE \$

## PROTON



The RADIO from Proton is unlike any other radio in history! What
other radio has two amplifiers, one for treble, one for bass? To achieve uncompromising fidelity with plenty of power the RADIO employs two separate amplifiers with a total of 25 watts. Such biamplification is an unusual feature even in large audio systems, let alone a monitor.
The FM tuner section offers 1 uv sensitivity, greater than 40 dB separation, 1 dB capture ratio, greater than 60 dB selectivity, 80 dB mono, 77 dB stereo signal to noise ratio, THD less than $.1 \%$ monol. $15 \%$ stereo, greater than 60 dB of AM suppression, JFET RF amplification, digital tuning display and PLL tuning.
The AM tuner section features 250 uv sensitivity, 30 dB of selectivity, PLL tuning, and digital tuning display.
The RADIO from Proton, a cut above the rest at a down to earth price. RACK MOUNTS ARE EXTRA.
MANUFACTURER'S SUGGESTED LIST PRICE. .$\$ 260.00$

ALLIED PRICE \$

## TURNTABLES

TECHNICS
SP-15


* Setting high standards for professional performance and flexibility.
* Quartz Synthesizer Pitch Control in $0.1 \%$ steps up to $\pm 9.9 \%$ at all three standard speeds-with digital display
* Instant starts ( 0.4 sec .) (About $1 / 3$ revolution)
* Heavy duty construction stands up to long term professional use
*Three precision speeds, $331 / 3,45$ and 78.26 rpm make this unit perfect for all phono reproduction applications.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ $\$ 700.00$
ALLIED PRICE \$
SP-25


The SP-25 offers you a high professional standard of excellence, plus the kind of flexibility and convenience that is important for any use. Features include total quartz-locked pitch control within $\pm 6 \%$ range from rated speeds, full cycle detection FG, extremely high torque for fast starts and load stability, large turntable platter
(cont.)

## TECHNICS

with extra-high moment of inertia, electronic braking system, integral rotor/platter motor construction, and high effective damping.

* 45 and 33 rpm
* about $1 / 2$ revolution to full speed

MANUFACTURER'S SUGGESTED LIST PRICE.
.$\$ 400.00$
ALLIED PRICE $\$$

## SP10-MK II



The first with instant torque and no rumble. The worlds best and most desired professional turntable. Used by 80 of the 100 top U.S. Radio Stations.
MANUFACTURER'S SUGGESTED LIST PRICE.
.$\$ 1100.00$
ALLIED PRICE $\$$
SP10-MK III


The SP-10 MK III is the most advanced quartz synthesizer DD turntable from Technics, the acknowledged hi-fi turntable leader. Both specifications and sound quality reveal that the SP-10 MK III extends the frontiers of excellence. For example, starting torque is 16 $\mathrm{kg} / \mathrm{cm}$ and only one quater of a second is required to reach rated speє Monment of inertia is 1.1 ton/cm, wow and flutter is $0.15 \%$ WRMS, rumble is -92 dB (DIN-B), and quartz locked pitch is adjustable in $0.1 \%$ step increments or decrements up to $\pm 9.9 \%$. For serious professionals, this is the turntable by which all the others must be judged.

A separate control unit houses the power supply and all circuitry except the motor itself, thereby assuring more reliable operation with freedom from noise. On the smoked acrylic front panel are high visibility LED displays (speed an pitch setting) as well as the on/off switch and soft touch switches for speed selection and pitch control (with tactile switch feel). Start/stop and speed selector switches are provided on the turntable itself as well.
MANUFACTURER'S SUGGESTED LIST PRICE. .$\$ 1700.00$

ALLIED PRICE $\$$
SL-P10


The SL-P10 features true state of the art semiconductor circuitry with 12 new original LSI's and IC's designed specifically for compact disc reproduction. The digital signal processing circuitry uses 3 LSI's for demodulation, error correction and CIRC control. Error detection and correction are based on the exclusive "Technics Super Decoding Algorithm" system.
The D/A converter is perhaps the single most important device in digital audio. It must convert the 65536-step digital signal into an accurate replica of the original analog signal. Here the SL-P10's newly developed 16 -bit high speed D/A converter delivers extremely high performance with no more than $\pm .002 \%$ nonlinear distortion. Other IC's are used for spindle motor servo control, head amp, actuator drive, auto focus, signal processing, programmed play, laser power control and traverse motor drive.
The SL-P10 utilizes four microcomputers for centralized random access system control, an ultra-compact brushless DD motor newly developed and precision integrated construction of an "optical deck' in an aluminum diecast chassis.
The net result is no wow, flutter or background noise, just quiet background and the sharpest audio ever heard from a player unit.
MANUFACTURER'S SUGGESTED LIST PRICE
. $\$ 1000.00$
ALLIED PRICE \$
NAD


The NAD 5200 is the newest of the line, a compact laser disc player (CD). It has no audible background hiss, surface noise, or low-frequency rumble to veil or color the sound. Even the smallest details in the musical texture are transparently reproduced against a background of velvety silence. The 5200 has no wow, flutter, tonearm resistance, or cantilever flexure. Musical tones and harmonic structures are reproduced with absolute clarity and stability, un-muddled by any of the frequency-modulation distortion that often makes analog reproduction sound "canned'.
It has no inner-groove distortion, so the final climax of a symphony is as clean and distortion-free as the first note. The sound never gets fuzzy because of a dirty stylus, the low bass is never muddied by acoustic feedback, and quiet music is never disturbed by ticks and pops.
MANUFACTURER'S SUGGESTED LIST PRICE.
$\$ 662.0^{\circ}$
ALLIED PRICE \$
RUSSCO
STUDIO PRO


* Unit is powered by a heavy duty Bodine synchronous motor
- 2 speeds 45 and 33 rpm

MANUFACTURER'S SUGGESTED LIST PRICE
.$\$ 479.00$
ALLIED PRICE $\$$

RUSSCO

## CUE MASTER



* The unit is powered by a heavy duty Bodine synchronous motor.

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ . $\$ 425.00$

ALLIED PRICE \$
Mark V


The Russco Mark $V$ offers precision variable $\pm 10 \%$ at 33 or 45 rpm. The Mark $V$ is instant starting, less than one inch back cue required at 45 rpm . There's more good news...remote start and stop and digital speed readout.
This dandy RUSSCO RUGGED low profile turntable also features an attractive antique silver no mar finish that makes the studio deluxe.

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ .$\$ 756.00$

ALLIED PRICE $\$$
RTA-12 TONE ARM

*Rugged aluminum and chromed brass construction

* Length: 13"
* 5 grams maximum tracking force
* 1 gram minimum tracking force
* less than 2 degrees tracking error
* Range of height adjustment is $1.8^{\prime \prime}$
*Mounting flange diameter: 2.74"
* Mounting hole diameter: 7/8"
* Distance from arm pivot point to turntable spindle: 8.31"
* 4" overhang from pivot to rear
* Cable capacity: 135 pf
* Shipping weight 3 lb .

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ .$\$ 174.00$

ALLIED PRICE \$ $\qquad$

## BROADCAST ELECTRONICS

$12 \mathrm{C}-\mathrm{U}$


The QRK 12 C is a three speed, 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.
Outer rim drive has been demonstrated by QRK in over 34 years of usage as the best method for achieving "instant start" with a minimum of vibration effects. Center hub drive does not have the mechanical advantage of outer rim drive, it requires substantial motor with attendant isolation problems. ALLIED CARRIES THE ENTIRE BROADCAST ELECTRONICS LINE.

## MANUFACTURER'S SUGGESTED LIST PRICE

$\qquad$ .$\$ 425.00$

ALLIED PRICE \$ $\qquad$

## S-320 TONE ARM



This attractive tone arm is constructed of tubular aluminum with a die-cast cartridge shell, that accepts all standard stereo or mono cartridges. It has a vertical height adjustment and friction-free chrome steel ball vertical movement. It tracks at 1 gram or less and includes a counterweight. Connects with standard plugs.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ .$\$ 150.00$

ALLIED PRICE $\$$

## MICROTRAK

303 TONE ARM


This tone arm features modern styling, plug-in memory balance head, laminated wood and epoxy body makes for rugged, lightweight construction. Stylus force once set is tamper proof, and adjusted by counter-weight. A standard of the industry.

MANUFACTURER'S SUGGESTED LIST PRICE. . $\$ 129.50$

ALLIED PRICE $\$$

6410/6411


| Model | Description |
| :--- | :--- |
| 6410 | stereo in/mono out..... $\$ 179.50$ |
|  | ALLIED PRICE $\$$ |
| 6411 | stereo in/stereo out..... $\$ 219.50$ |
|  | ALLIED PRICE $\$$ |

MICROTRAK PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## AUDIO TECHNICA <br> ATP-12T



- Fits wide range of turntable heights and base thicknesses
- Sealed horizontal and vertical ball bearing pivots
- Accurate, built-in VTF gauge, no accessory gauge needed
* Low resistance, anti-corrosion, gold plated connector throughout

MANUFACTURER'S SUGGESTED LIST PRICE .$\$ 175.00$

ALLIED PRICE \$
AT-1010


The AT-1010 tone arm is a radically different approach to inherent problems of conventional tone arms. Emphasis was placed on tracking performance as opposed to bearing sensitivity and total tonearm mass. As a result, the arm is ideal for broadcast application, where it's important to keep the stylus in contact with the record without adding stylus pressure above manufacturer's recommended tracking force.
The design of the AT-1010 arm enables the stylus to maintain stable tracking no matter how great the amplitude of the modulated groove of a record.
A plus with this arm is the ease of adjustment after the arm has been set up.

MANUFACTURER'S SUGGESTED LIST PRICE. .. $\$ 375.00$

ALLIED PRICE \$

## STANTON

500AL


Known world-wide as the "workhorse of the broadcast industry", and particularly for its wide use by disc jockeys, the 500AL ideally meets the extremely rugged requirements of on-the-air application. Even under the most adverse handling, 500AL operates trouble-free without sacrificing broadcast quality. Small wonder then, that it has become "the broadcaster's mainstay". Small wonder too, that it is probably the first choice of more broadcasters than any other cartridge. ALLIED CARRIES THE ENTIRE STANTON LINE.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ $\$ 15.75$

ALLIED PRICE \$
600A


In all broadcast usages, the 600A is applicable to those situations that demand a spherical stylus tip, and a cartridge that tracks at 2 104 grams. It has been successfully employed by many hundreds of radio stations for on-the-air usage, and it performs with great excellence and dependability. It possesses outstanding frequency response, and channel separation easily surpasses the requirements of most broadcast standards. ALLIED CARRIES THE ENTIRE STANTON LINE.

## manufacturer's Suggested list price.

\$24.20
ALLIED PRICE \$
681A


This cartridge is indispensable for the recording engineer as a calibration standard for recording system checkout. Features extreme linearity plus widest and flattest possible response essential for precise alignment of cutting heads. Its factory calibrated frequency response meets the most rigid tolerances. Built-in longhair brush keeps dust away from stylus, protects record grooves and reduces noise, all without affecting stylus force. ALLIED CARRIES THE ENTIRE STANTON LINE.

MANUFACTURER'S SUGGESTED LIST PRICE.
$\$ 55.00$
ALLIED PRICE \$ $\qquad$

## 310



The Stanton Model 310 professional phono preamplifier-equalizer was designed to correctly interface all Stanton and selected magnetic phonograph cartridges for optimum playback of disc records and calibration of audio systems.
The Stanton 310 preamp features universal mounting by special brackets, instant selection of flat or NAB postemphasis curves, switchable effective rumble filter, individual adjustment of gains and high frequency responses, trimming of the capacitive cartridge loading at the input, provision for setting the power transformer for either 117 or 230 VAC $50 / 60 \mathrm{~Hz}$ operation and immunity to external magnetic AC fields. ALLIED CARRIES THE ENTIRE STANTON LINE.

## MANUFACTURER'S SUGGESTED LIST PRICE.

$\$ 190.00$
ALLIED PRICE \$
SHURE SC35C


The SC35C is designed for use on the heaviest and most rugged tone arms which require a tracking force of 4 to 5 grams. The stylus assembly of the SC35C is rigid enough to withstand the punishment of continuous backcueing, yet compliant enough to offer excellent mid and high frequency reproduction. The SS35C is the spherical replacement stylus for this cartridge. ALLIED CARRIES THE ENTIRE SHURE LINE.
MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ .$\$ 45.00$

ALLIED PRICE \$

## SC39

Up to now, it was necessary to compromise true hi-fi performance to get the ruggedness required for professional use. To identify precisely the use and abuse to which professional phono cartridges were subjected in actual work situations, Shure engineers went into the field where they virtually "lived with" the professionals. They sat up with the all-night man in broadcast stations, worked in recording labs and shared the booth in "Discos". ALLIED CARRIES THE ENTIRE SHURE LINE.

* Built to stand up to professional use
* Designed to stand up to a professional's critical listening

Model Description
S39B $\quad 1.5$ to 3 grams, spherical..... $\$ 62.50$
ALLIED PRICE \$
S39ED
.75 to 1.5 grams, biradial.
I.... $\$ 80.00$

ALLIED PRICE \$
S39EJ
1.5 to 3 grams, biradial.
. $\$ 70.00$
ALLIED PRICE \$
ALLIED PRICES ABOVE ARE MFGR'S SUGGESTED LIST
PRICES. CALL FOR TODAY'S ALLIED PRICE.

## SHURE

V-15 TYPE V


The Shure V-15 Type V cartridge comes in three styles, the MR (micro ridge) model, the 15 B and 15P. The micro ridge version is radically different from the hyprelliptical tips (which generally reduce harmonic distortion dramatically), and geometrically is longer and more pointed, therefore running deeper in the LP groove. It's said to reduce harmonic distortion by another 50\% over equivalent hyperelliptical stylii in the line. There's a de-staticizer and damping mechanism which reduces low frequency resonance and susceptibility to warp in LP's.
The " $B$ " version is the same $V$ - 15 without the "MR" refinement. You might think of it as the original with the destaticizer brush. The " $P$ " version is a P-mount V-15, for mounting on P-mount arms and does not include the destaticizer and damping mechanism.
$\begin{array}{ll}\text { Model } & \text { Description } \\ \text { V15 V-B } & \text { Hyperelliptical..... } \mathbf{\$ 2 2 0 . 0 0}\end{array}$
ALLIED PRICE \$
V15 V-MR Micro ridge..... $\$ 275.00$
ALLIED PRICE \$
V15 V-P Hyperelliptical..... $\mathbf{\$ 2 0 5 . 0 0}$
ALLIED PRICE \$
SHURE PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## AUDIOMETRICS

## PA-1



Proving that radio frequency interference and quality audio are not mutually exclusive, the recognized PREAMP leader. It's been tested and proven in the most RF intense environment in the U.S.

## SPECIFICATIONS

Maximum output:

Frequency response:
THD \& IMD:
Connectors:
+22 dBm single ended into 600 ohms, +27 dBm balanced into 600 ohms.

MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ . $\mathbf{\$ 2 7 5 . 0 0}$

## ALLIED PRICE \$

> "SHIPPING AND HANDLING WILL BE ADDED''

RTS


The Model 405 is a high-quality two-channel phono preamplifier designed for professional applications, including disc mastering rooms, broadcast stations and high quality commercial installations. It features adjustable cartridge termination, switchable rumble filter, two selectable sets of level controls and two output formats.
FREQUENCY REPONSE:
Re RIAA $\pm 0.5 \mathrm{~dB}$
SIGNAL/NOISE RATIO:
.72 dB
TOTAL HARMONIC DISTORTION:
MAXIMUM OUTPUT LEVEL, BALANCED:
$.90 \mathrm{~dB} / .003 \%$
$+24 \mathrm{dBm}$
MANUFACTURER'S SUGGESTED LIST PRICE .. $\$ 416.00$

ALLIED PRICE \$

## STRAIGHT WIRE AUDIO

PH-2


The design of a phono preamp can have an effect on the quality of the turntable's sound and the station's. The difference between the average and the best is not night and day, but is quite audible in comparison to some preamps. The difference could be worthwhile to some stations which use records for large blocks of their program day. The phono preamp we are discussing is the Straight Wire Audio PH2. It was based on papers by Walt Jung and others PRICE UPON APPLICATION

## ATI

P-1000 SERIES PHONO AMPLIFIERS


P-1000-1 Dual/Stereo Transformer Outputs
P-1000-2 Dual/Stereo Balanced Differential Outputs
P-1000-3 Dual/Stereo Single Ended (Unbalanced) Outputs
OUTPUT CLIPPING LEVEL: $+22 \mathrm{dBm} / 600$ ohms (P-1000-1,3)
$+26 \mathrm{dBm} / 600$ ohms ( P -1000-2)
DISTORTION at +20 dBm output: $.2 \%$
SIGNAL TO NOISE RATIO Unweighted, ref. 10 mVrms 1 kHz input: $80 \mathrm{~dB}, 20 \mathrm{kHz}$ bandwidth
FREQUENCY RESPONSE: RIAA Curve $\pm 25 \mathrm{~dB}, 30$ to $20,000 \mathrm{~Hz}$
(cont.

## ATI

SIZE: $81 / 2^{\prime \prime} W \times 1^{3 / 4}{ }^{\prime \prime} H \times 7^{\prime \prime} D, 21 / 2 \mathrm{lbs}$.
MOUNTING: Brackets supplied for internal turntable cabinet or desk top mounting. Single and dual rack mount kits available.

Model
Description
P1000-1
transformer outputs..... $\$ 345.00$
ALLIED PRICE \$
P1000-2 balanced differential outputs..... $\$ 345.00$
ALLIED PRICE \$
P1000-3

## unbalanced outputs..... $\$ 325.00$ <br> ALLIED PRICE \$

ATI PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.
ENCORE PREAMP


* Input impedance: programmable 50 k to 100 k ohms, 50 to 400 pf in 50 pf steps
*Input level: 5 mV nominal for +4 dBm output, 250 mVRMS maximum at 1 kHz
"Noise: $S / N 80 d B$ minimum unweighted, $90 \mathrm{~dB} A$ " weighted, ref. 10 mvRMS at $1 \mathrm{kHz}, 600$ ohm input termination and 20 kHz measurement band
* Output level: +18 dBm into 600 ohm balanced or unbalanced loads. 10VRMS into high impedance loads
* Output impedance: 400 ohms balanced, 200 ohms single ended, split and RF bypassed.
Model Description
P100M + 18 dBm active balanced mono..... $\$ 175.00$
ALLIED PRICE \$
P100S +18 dBm active balanced stereo..... $\$ 199.00$
ALLIED PRICE \$


## ALLIED C/B RADIO BASE



A table top version of the famous Allied isolator that will accomodate all the popular turntable/tone arm combinations. Comes in standard Walnut or black laminate. Special laminates are available at extra cost.

## ‘'DISCOUNTS ARE

AVAILABLE ON MOST EQUIPMENT''

## GOTHAM



The EMT 938 is a complete turntable system intended for professional applications, consisting of a direct drive turntable, and especially developed shock/insulation mount, the EMT 929 high performance tone arm and built-in equalizer amplifiers for live level audio output.
The direct driven turntable platter accelerates to operating speed in under $1 / 2$ second, thus enabling the rapid starts so necessary for broadcast programming. Like all EMT turntables, the 938 audio output is muted during this quick startup to allow accurate cueing in the middle of program material.
Fixed speeds of $331 / 3,45$ and 78 rpm are referenced to an internal quartz oscillator. Variable speed is available through an optional potentiometer, via rear panel connections. These connections also allow start/stop and remote stereo/mono output switching.
Wow and flutter at $331 / 3$, weighted per DIN 45507 is a maximum of $\pm 0.075 \%$. Rumble, weighted per DIN 45539 is a minimum of 70 dB. The EMT 938 motor drive circuitry and audio amplifiers are built into the turntable base and swivel out for easy servicing.
Audio out is +4 dBm nominal into 200 ohms with a maximum output capability of +21 dBm . Model 948 is also available. Both models are available with 47 K ohm input for magnetic cartridges or low impedance version with active input transformer for moving coil cartridges.
$\begin{array}{ll}\text { Model } & \text { Description } \\ 938 & 47 \mathrm{~K} \text { ohm input..... } \$ 2600.00\end{array}$
ALLIED PRICE $\$$
938 moving coil input..... $\$ 2590.00$
ALLIED PRICE \$
948

948
GOTHAM PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE.

## RUSSCO

RTQ-7


The new RUSSCO direct drive turntable is equipped with a unique magnetic induction braking system which disengages automatically after bringing the platter to a stop. Speed controls use quartz synthesized PLL techniques. All controls are on a slanting front panel within view of the operator.
FEATURES:

- Direct drive turntable
- Outer rotor AC motor, amplitude modulated with PLL servo circuit
- Turntable platter moment of inertia is 79.6 pounds
- 3 pounds starting torque
: 1909 seconds start up time at $331 / 3 \mathrm{rpm}, .2581$ seconds at 45 rpm
:. $025 \%$ WRMS wow and flutter
- .70 dB (DIN 455398) rumble

SPECIFICATIONS AND DESIGN SUBJECT TO CHANGE. PRICE UPON APPLICATION

## RAINWISE



Engineered for precision and trouble free operation, this computerage weather station monitors nine different weather phenomena.
The station provides digital readout of:

- Temperature
- Barometric Pressure
- Wind Direction
- Wind Speed
- Wind Chill
- Rainfall
- Indoor and Outdoor Relative Humidity

The internal microprocessor computes and accumulates degree days, heating and cooling degree days throughout the year and for any desired period to the nearst hour, day and month.
The unit is easy to read and operate. A red light indicates the function chosen by a selector knob, and value is displayed in 8/10' LED numerals. An Auto Select position displays each function in sequence for four second intervals.
MANUFACTURER'S SUGGESTED LIST PRICE. $\qquad$ $\$ 990.00$

ALLIED PRICE \$

## WEATHER CHECK



From the highways and byways to the computer, from the computer to the uplink, to the satellite in space, and back to you is the story of how the fastest, most complete weather information system gets to you with "WEATHERCHECK"
"WEATHERCHECK " " is available in direct satellite or SCA (depending on your location) systems and covers the entire 48 continguous United States.
The "WEATHERCHECK" " system gives you satellite weather updates, nationwide radar updates, forecasting both long and short term, a history of past weather phenomena، Interstate highway weather conditions, and a whole lot more.
PRICES UPON APPLICATION

## STORMSCOPE



No longer will you be in the dark, depending on a sometimes faulty teletype to give you incomplete information on the path of severe weather in your area. No longer will you have to try to pick out information from a noisy weather radio.
With the revolutionary STORMSCOPE from 3 M , you can plot the location, path and severity of hairy weather within 200 miles of your location. The STORMSCOPE utilizes the results of years of research in this area.
In effect, the STORMSCOPE detects the electromagnetic disturbances caused by lightning strikes to present a plot of the location of the strikes, with memory storage which shows strikes a few minutes ago and the latest. In effect, it is a direction finder for lightning strikes which will give you an accurate plot of electrical storm activity in your area.

## PRICES UPON APPLICATION.

## GORMAN REDLICH



Take advantage of the expanding network of National Weather Service VHF weather stations. This sensitive, selective (and reasonably priced) receiver can bring you accurate local weather, national weather, weather radar data, emergency alert messages, plus farming and marine information where applicable. Its capability for unattended recording of emergency alert messages and update forecasts can save time and money. Rebroadcast is FCC authorized.

Receiver is rack mountable, remotable, with an attractive black anodized panel. Demuting and remote alarm are initiated by 1050 Hz "Alert" tone. A relay closure is initiated by either the 1050 Hz tone or a 1650 Hz forecast update signal tone. These are the only tone signals NWS uses. 600 OHM output available.
Crystal and ceramic IF filters, plus double tuned dual gate MOSFET RF stage, give excellent interference rejection and high sensitivity ( 28 microbolts for 12 dB . ( $\mathrm{S}+\mathrm{N}$ ). Whip antenna, jack and terminals for external antennas. Guaranteed to work where others won't. Selective enough to perform in downtown Chicago.
MANUFACTURER'S SUGGESTED LIST PRICE.
. $\$ 425.00$
ALLIED PRICE $\$$
> ‘'ENTIRE CONTENTS COPYRIGHT ALLIED BROADCAST EQUIPMENT, INC.'’

## TEPCO



Tepco manufactures efficient, small one and ten watt rebroadcasting systems for reliable year-in and year-out service in the 88 to 108 mHz FM band. Their modern $100 \%$ solid-state design provides freedom of signal selectivity and overload problems.
These FM translators use MOSFET front ends, dual gate mixing, superb IF filter networks, two independent AGC loops, five stages of limiting and positive muting action.
RF output is regulated for signal variation and line voltage changes, monitored with built-in reflectometers, and protected in the event of serious load changes.
The construction is compartmentalized and thoroughly shielded, using plug-in type circuit boards. Complete metering in all important stages. Each translator is factory tested for environmental performance, and warranted to be free of component and workmanship failure for a period of one year.
The only FM translators which may be ordered with a provision for locally-originated program input for permitted announcements.

| J-316 | Description |
| :---: | :---: |
|  | 1 watt..... $\mathbf{\$ 2 4 8 7 . 0 0}$ |
|  | ALLIED PRICE \$ |
| J-316M | 1 watt/w local mod. ..... $\$ 3025.00$ ALLIED PRICE |
| J-317 | 10 watt..... $\$ 2622.00$ |
|  | ALLIED PRICE \$ |
| J-317M | 10 Watt/w local mod. ..... $\$ 3159.00$ |

## TEPCO PRICES ABOVE ARE MFGR'S SUGGESTED LIST PRICES. CALL FOR TODAY'S ALLIED PRICE

## CATEL

FMX-2100S


The FMX-2100S FM Modulator is a modular packaged frequency modulation cable transmitter designed specifically for CATV and CCTV applications. When used with the SM-2200 Stereo Generator it makes possible the origination of stereo programming. With direct audio sources it can add varied FM signals to the cable system.
In addition to the retransmission of audio signals the wide band deviation makes the unit ideal for multiplexed voice or data transmission.

## MANUFACTURER'S SUGGESTED LIST PRICE

$\qquad$ .$\$ 975.00$

ALLIED PRICE \$ $\qquad$

## FMX/SM2200S



The SM2200 Stereo Generator consists of a sub-carrier oscillator, balanced modulator and channel amplifier, packaged in a modular unit for use with the FMX-2200S.
The stereo generator produces a L-R double sideband suppressed carrier signal along with the $L+R$ signal and the 19 kHz pilot signal. The resultant output is a multiplexed audio signal which is fully compatible with "off-air" monaural and stereo signals when used with the FM modulator. A complete stereo modulator.

MANUFACTURER'S SUGGESTED LIST PRICE. .$\$ 1620.00$

ALLIED PRICE \$
SIMULSAT


The result of extensive research, the revolutionary SIMULSAT satellite receiving antenna allows the user to "hear" all presently available satellites simultaneously without additional antennas or construction.
The unique multi-LNA design of this antenna makes the concept of antenna farms obsolete.
The resultant savings in time, money and legal hassles make the SIMULSAT antenna a highly desirable option.
MANUFACTURER'S SUGGESTED LIST PRICE
.$\$ 8500.00$
ALLIED PRICE $\$$

## RAZOR BLADES



If you have ever had to hunt for a single edge razor blade for stripping coax, cutting and editing tape or any of the many uses this product enjoys in a broadcast facility, then here's the answer.
$\$ 7.00$ per 100

## Q-TIPS



The most popular item in any engineering section, production studio or control room is the famous "Q-tip" type swab. Get your supply now at the right price. Wood Sticks.
$\$ 15.00$ per 1000

## DISCWASHER



Some of the standard products for record care in broadcast facilities is the DISCWASHER line.


## KEITH MONKS



See page 100

PRICES UPON APPLICATION

## MODULATION SCIENCES



The CP-803 Composite Processor corrects the distortion that conventional procesors sometimes create. Conventional audio processors work with the left and right audio. But the CP-803 deals with the stereo composite signal that comes out of the stereo generator.
This baseband signal is made up of the $L+R$ main channel, the 19 kHz pilot and the L-R subcarrier. By working on this signal instead of left and right audio, many audio problems are avoided.
The CP-803 gives you the few dB of loudness with no audible increase in distortion. The amount of free dB's you obtain depends on the pre-processing of the audio before it reaches the unit. The less pre-processing beforehand, the more you get from the CP-803. RACK MOUNT IS EXTRA.
MANUFACTURER'S SUGGESTED LIST PRICE
.$\$ 889.00$
ALLIED PRICE \$
PROOF KIT


Everything you need to do a proof of performance report. Forms, graphs and information.
$\$ 2.00$ each
SCOTCH AVX


Superior design and performance make Scotch AVX truly dependable. Scotch AVX Studio Master Cassettes bring you one step closer to perfection in your search for exceptional performance and sound reproduction. The cassette shell and internal components have been engineered to deliver outstanding mechanical reliability. The superior electromagnetic capabilities of the tape formulation guarantees superb sound under the most severe conditions.
Available in bulk or individual boxes.
PRICES UPON APPLICATION

## GENTNER



The DTD-5 is a diadtone/busy detector for use in those telephone systems which do not provide momentary open/battery reversal, the actions necessary to implement the ELGIN 20721 "Listen Line".
As the caller finishes listening to the message on the "Listen Line" and hangs up, the DTD-5 detects the dialtone, pulse, or "off the hook" sounds and sends a command to the "Listen Line" to release the line, ready for next call.
DTD- 5 requires no external power supply, but retrofits into the 20721 and takes its power from the host unit.
MANUFACTURER'S SUGGESTED LIST PRICE................... $\$ 64.00$
ALLIED PRICE \$

## SSAC



The answer to tower flasher problems is the SSAC line of beacon flashers. There's a wide variety of models to choose from including single, double and multi-sequence flashers.

## PRICES UPON APPLICATION

## MICROTEL MT-1



The Microtel MT-1 is an ultra light, battery-operated mixing console for use in a variety of applications.
It consists of a small box with an input for a microphone, a minijack input for another source such as a cassette deck, a jack for a headset, a mini-jack for direct output to a tape recorder or similar device and a modular jack for direction connection to the telephone line.
Totally modular in design, uses two 9 volt batteries (not inciuded), measures $2^{1 / 22^{\prime \prime}}$ wide by $5^{\prime \prime}$ long by $21 / 2^{\prime \prime}$ high and weighs less than 1 lb .
MANUFACTURER'S SUGGESTED LIST PRICE $\qquad$ . $\$ 179.00$

ALLIED PRICE \$ $\qquad$

## TEKTRONIX



Used together, the AA 501 Distortion Analyzer and SG 505 Oscillator provide the automatic solution to your distortion measurement needs. The AA 501 is so automatic, that no level setting, tuning or nulling is necessary. In fact, the engineer at the transmitter end of a proof can literally sit back, put up his feet and read the numbers off the digital readout as it comes across.
An optional package would be the SG 505 option 2 audio oscillator (balanced, +28 dBm , multi-impedance) and AA 501 option 1 distortion analyzer (level, THD, plus multi impedance) in the TM503 mainframe. Since the instruments are plug-in modules, a split-site station could mount the RTM 506 rackmount at the transmitter and either carry both instruments in the more portable TM 503 when testing individual items of equipment, or plug the analyzer into the rackmount and take the oscillator in the TM 503 to the studio for full system proofs.
The AA 501 and SG 505 combination permits harmonic distortion, intermodulation distortion, frequency response, gain/loss, and signal-to-noise measurements to be accomplished with minimal operator skill. At the same time, both instruments feature state-of-the-art performance in residual noise and distortion.
The AA 501 and SG 505 are members of the TEXTRONIX TM-500 family, which covers a full range of test instrumentation and provides exceptional flexibility in both instrument configuration and mainframe packaging. TM 500 currently offers over 35 plug-ins and six different mainframes ranging from rackmount to portable.
Many of the TM 500 plug-ins, such as oscilloscopes, digital multimeters and frequency counters, are often used in audio and communications applications with the AA 501 and SG 505, and can be conveniently included in the same mainframe.
Total system harmonic distortion plus noise is $.0025 \%$. Oscillator distortion is $.0008 \%$ (THD). Analyzer residual noise level is less than 3 microvolts. The AA 501 offers a novel analog-like "bar graph" plus complete digital readout, it reads true RMS or average response in all modes.

## PRICES UPON APPLICATION

AUDISAR REPEAT COIL


## AUDISAR REPEAT COIL



Typical Application
The Answer to:

- Mass Feeds
- Telephone Conferencing
- Distribution

FREQUENCY RESPONSE: 50 Hz to 20 kHz
INSERTION LOSS: 0.75 dB
HEAD ROOM: +30 dB at 1 kHz
WEIGHT: 11.5 oz
IMPEDANCE: $600 \mathrm{ohm} \times 6$ ( $1 \mathrm{in}, 5$ out)
Audisar Repeat Coil .$\$ 75.00$

## AM RF AMPLIFIER



The RFA-5 AM RF Amplifier is designed to operate frequency and modulation monitors at a location remote from the transmitter, typically at the studio. When driven by a local antenna with an RF signal as low as 0.6 mv , the RFA- 5 will drive most contemporary AM monitoring equipment, as well as providing a low-level output for an oscilloscope, and a clipped/limited output for a standard frequency counter.
R.F. Design:

Frequency Range:
R.F. Input

Sensitivity:

Impedance:
R.F. Outputs

1. HIGH:
2. LOW:
3. CLIPPED:

RF Connectors:
Gain:
Automatic Gain Control:

Selectivity:

TRF type; no frequency conversion $530-1620 \mathrm{kHz}$; fixed-tuned at factory to station frequency - specify at time of order.

Less than 0.6 mv required from antenna for maximum rated output, ajustable from front panel.
$50-75 \Omega$ nominal

For modulation monitor; provides 10 v RMS carrier plus $100 \%$ modulation; or 9 v RMS plus $125 \%$ positive modulation peaks ( 3 watts RMS into 50/75 (load); Adjustable from front panel; Rated for continuous operation; Short circuit proof; Output impedance about $15 \Omega$
For frequency monitor or oscilloscope; provides $1 v$ RMS nominal modulated carrier;
For frequency counter or monitor; provides about 1.6 V p-p squarewave into high impedance load or 0.6 V into a $50 \Omega$ load, at up to $99 \%$ negative modulation.
All are standard BNC type
Adjustable to over 80 dB
RF outputs vary less than $\pm 2 \%$ for 30 dB change in RF input signal level; AGC is switchable from front-panel
$\pm 1 \mathrm{~dB} @ \pm 10 \mathrm{kHz}$
$-40 \mathrm{~dB} @ \pm 45 \mathrm{kHz}$

Typical; actual values depend upon station frequency and special tuning requested

## PRICES UPON APPLICATION

## COMPELLOR ${ }^{\text {TM }}$ COMPRESSOR/LEVELER/PEAK LIMITER



Presenting the COMPELLOR ${ }^{\text {TM }}$, a revolutionary audio processor. It delivers intelligent compression, leveling, peak limiting simultaneously! The COMPELLOR ${ }^{\text {TM }}$ control circuits are actually analog computers that constantly monitor the input, adapt and control a single VCA per channel for minimal signa\$ path. Operating controls are kept to a minimum, for the COMPELLOR ${ }^{\text {TM }}$ intelligently varies all the parameters for you. All you need do is set input level to control the amount of processing, adjust output level, and set the balance between compression and leveling. That's it.
This smart, versatile, cost effective processor is equally at home in broadcast pre-processing, microphone control, audio production, tape duplicating, live sound and film dubbing; producing the "sound" audio engineers have always sought but seldom found.
$\$ 1195.00$

## THE APHEX AURAL EXCITER ${ }^{\text {TM }}$ II B



The remarkable Aphex Aural Exciter is a unique proprietary audio processing device that makes use of highly advanced psychoacoustic principals to effectively restore and enhance audio presence, brightness and intelligibility. The patented psychoacoustic process creates the perception of an increase in mid and high frequency energy, with no actual increase in power or level.
The Broadcast Aural Exciter has complete R.F. shielding and safety bypass relays in the event of power failure. Designed specifically for on-air use, this unit provides AM stations with the clarity and brightness of FM, while restoring to FM the naturalness and openess normally lost due to processing.
The most impressive aspect of the Aphex Broadcast Aural Exciter is the fact that the lower the quality of the playback system, the better the comparative benefit derived. The sound of your broadcast will satisfy the most demanding audiophile, and at the same time grab the attention of the rush-hour commuter.
$\$ 2950.00$

## APHEX AURAL EXCITER TYPE B



The Aural Exciter Type B is engineered for less demanding situations. It utilizes the same psychoacoustic principles to make Aural Excitement available to small clubs, studios, halls, restaurants, musicians, tape duplicators and sound contractors operating on a more modest budget. Retaining the most important features of its bigger brothers, the Aural Exciter Type B is a small, lightweight package with extensive capabilities limited only by the user's imagination.

## POWERPAK



The POWERPAK SCD-40 is a Stereo Composite De-modulator used for demodulating wideband, composite stereo program, back into discreet left and right monaural channels.
Functional as a piece of test equipment, the SCD-40 finds many applications for performing various testing proceedures around the station.
With the advent of AM Stereo some remote controlled stations are finding it desirable to transmit program over a single, wideband composite STL, de-modulating the composite audio at the AM transmitter. The SCD-40 performs this task with a minimum loss of fidelity, faithfully restoring the original left and right channels.
Using Phase Lock Loop technology, the de-modulator is furnished with 15 kHz . Low Pass Filters and Dual LED/Bar peak modulation indication.
For more information, contact your Allied Sales Professional.
$\$ 895.00$

## DALE ${ }^{\ominus}$ SPA SURGE PROTECTORS



* Three basic models provide optimum protection for most secondary power installations: SPA-100 for 120 volt AC circuits, SPA- 200 for $208-277$ volt AC circuits and SPA- 400 for 480 volt AC circuits.
* Automatically resets - has multi-stroke protection capability.
* Weatherproof housing for indoor or outdoor use.
* Easy installations.
* Maintenance free.
* No power consumption.


## SPECIFICATIONS:

* Shunt capacitance (line to ground).
* 25 pf max, SPA-100 and 200.
* 50 pf max. SPA-400.
* Insulation resistance: 10 megohms minimum.
* Operating temperature range: -40 to +70 degrees $C$.
* Construction: Weatherproof, hermetically sealed in steel case.
* Leads: \#12 AWG stranded leads, PVC insulation, 18" long. Black line for line (phase) connection, green lead for ground.
- Mounting: 1. 1/2-14 NPSL nipple for fuse or junction box mounting.

2. L bracket for wall or pole mounting. Mount with two \#8 screws spaced 1" apart.
PRICES UPON APPLICATION

## 'SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE',

## GRAPHIC EXPRESS



Our audio cabinet, developed through years of experience, offers extreme flexibility, competitive price and is available for immediate delivery.
The ability to choose precisely the modular components needed means added flexibility for studio layouts. You can have exactly the design you want-and you can expand or modify the system later should your needs change. The modular design insures compatibility with new or existing studios. Premium quality materials are used throughout: hardwood plywood, Formica taminate, solid walnut edges with hand rubbed Watco oil finish and Kydex plastic bases. The light gray, black and walnut coordinates with most studios or custom woods and colors can be specified at additional cost.
The large number of access panels, held in place with quarter turn fasteners, allow easy cable handling and quick access to cable runs. All units provide access through cabinet bottoms for sub-floor cable ducting. Rack rails are included where specified.
Revitalize your studio and increase your efficiency through proven design and modular flexibility-all available for immediate delivery.
We also offer design and fabrication of custom studio cabinetry built to your specifications. Contact us for details.

## PRICES UPON APPLICATION



## MAX • TENNA



Leading FM stations transmit with circular polarization. The patented MAX - TENNA captures and combines both of these individual components, thereby doubling the signal strength to your FM tuner. This maximized reception will improve the signal-to-noise ratio and stereo channel separation to give you added audio performance. The MAX - TENNA also delivers a cleaner signal to your receiver by rejecting unwanted multipath interference. Circularly polarized signals rotate in a clockwise motion until they bounce off of a building or mountain. The rotation is then reversed to counterclockwise. The MAX - TENNA accepts only the direct clockwise signal and completely ignores these other distorted signals to give you optimum reception for your listening pleasure.
MAX - TENNA must be oriented for best reception for each station.

| ANTENNA TYPE: | Crossed half-wave dipoles with $90^{\circ}$ |
| :--- | :--- |
|  | phasing |
| POLARIZATION: | Circular (Clockwise) |
| FREQUENCY RANGE: | $88-108 \mathrm{mHz}$ |
| GAIN: | $2 \times(3 \mathrm{~dB})$ |
| MULTIPATH REJECTION: | $5 \times(14 \mathrm{~dB}), 80 \%$ reduction |
| VSWR: | Less than $1.5: 1$ |
| OUTPUT IMPEDANCE: | 75 ohm with 25 ft. RG 59 with F con- |
|  | nectors \& $75-300$ ohm adaptor |
| CONSTRUCTION: | Hand finished solid walnut hub with <br> chromed telescoping dipole elements |
|  |  |

$\$ 59.95$

## RANE MIC SPLITTER <br> SM 26 SPLITTER MIXER


... a single rack space unit which contains:

- Master L \& R inputs with stereo level control
- Six mono inputs and six mono outputs with level controls
- Six dual function mix/pan pots
- Master L \& R outputs with stereo level control
- Built-in variable gain for $-10 \mathrm{dBV} /+4 \mathrm{dBm}$ interface
- Left and Right expand outputs

This 5 lb . grab-bag of ins-outs-and-pots will split, mix, pan, boost, or any combination of the above to solve an unbelievable variety of signal routing problems: keyboard mixing and monitoring, live recording splitting, additional studio or stage monitor bussing, zone level controlling, intercom splitting, line boosting, etc., etc., etc..
If you've got the signal, the SM 26 has the path...

## MANUFACIURER'S SUGGESTED LIST PRICE

ALLIED PRICE S $\qquad$

## KEITH MONKS <br> MKII PROFESSIONAL



The Record Cleaning Machine is a tried and tested product which is used by broadcasting authorities and record libraries all over the world. The high cost of replacing records and more important, enabling new records to be the quality that the general public expects, completely justifies the purchase of this unique machine.
It is only advisable to clean a record with the Keith Monks record cleaning machine every $15-20$ playings.
Ro.ic: ${ }^{\sim} \mathrm{r}$. are cleaned using a mixture of $50 \%$ distilled water and $50 \%$ inaustrial methylated spirits which will remove grease, hardened sludge and loosen embedded grit. The drying process removes all traces of the cleaning liquid along with the foreign material leaving the record clean and dry. The machine consists of four sections namely turntable, liquid applicator, cleaning mechanism, and high pressure suction pump.
During the process, the turntable revolves at speed and the liquid solvent is applied by swinging the brush over the record and u-prassing the applicator plunger. Being well lubricated with the liquid, prtisure and "scrubbing action" may be applied to the cleaning brush without fear of darnage to the subtle high frequency irodulations. Having thus welted the record, dissolved the grease and loosened any embedded material, the suction arm is simply moved to the centre of the record. As the liquid on the record is moving to the edge due to the centrifugal force, it is advisable to vaccum from the centre outwards rather than inwards. Its own suction holds it to the surface and the tracking motor moves it outwards across the groove. As is passes over the surface the suction removes all liquid along with the suspended foreign matter. On all tests shown it leaves the record dry, clean, and free of all chemicals. The whole process can be completed in about $1 \frac{1}{2}$ minutes per side of record.

## SPECIFICATIONS:

SIZE:
$161^{\prime \prime} 2^{\prime \prime} \times 19^{\prime \prime} \times 18^{\prime \prime}$
NET WEIGHT:
65 lbs
$\$ 1480.00$

## MARK 3 PROFESSIONAL



Double Deck Version
The Studio Mark 3 double record cleaning machine is designed for the user with regular cleaning of quantities of records. The twin decks enable one record to be cleaned while the other is being dried thus keeping an operator employed without waiting periods. Records can be cleaned twice as quickly with the double machine. (cont.)

There are 2 applicators and cleaning brushes and the suction arm is switched to operate on either turntable.

The arm reverse switch has 3 positions, the center is in the off position, the left side operates the left turntable while the right side operates the right turntable. The arm in both turntables comes towards the center of the machine. Larger versions are made to special order.
SIZE: Height $141^{\prime \prime}{ }^{\prime \prime}$; Width $291 / 4^{\prime}$ '; Depth $183 / 4^{\prime \prime}$
NET WEIGHT: 96 lbs
VOLTAGE: 115 volts A.C. 60 cycles
$\$ 2100.00$
HAFLER


The Hafler DH-500 amplifier has been well accepted in critical audio circles. It has the quality and reliability which is required for commercial and professional sound installations.
Reliability is what most Pro's put at the top of their "want list" Thousands of DH-500s in regular use attest to the nearindestructibility of this fully complementary MOSFET circuit.
The P500 is very convservatively rated to deliver 255 watts per channel on a continuous basis into an 8 ohm load. In practice, over 300 watts is available across the audio band before the onset of clipping. To achieve this with a wide safety margin, six high power MOSFETs are employed on each channel. Their high current capability enables them to drive difficult reactive loads with ease. Paralleled loudspeakers, and other low impedance loads, are easily accommodated by the P500's enormous reserve, and safe operation (restricted only by thermal limits) into loads even below 2 ohms (typically 500 w/ch into 200). So rugged is the design, that it can deliver over 20 amperes into a short circuit (before the supply fuses open)! When switched to mono operation, the amplifier's rated output is 800 watts into 8 ohms , which is capable of driving a 70 volt line distribution system directly. In practice, well over 900 watts of mono power is available.

POWER RATING:

IM DISTORTION
(SMPTE):
TYPICAL THD AT 255
WATTS INTO 8
OHMS:
FREQUENCY
RESPONSE INTO 8 OHMS:

TYPICAL CHANNEL
SEPARATION AT 1
kHz :
SIGNAL TO NOISE
RATIO:

255 watts per channel into 8 ohms at less than $0.025 \%$ THD from 20 Hz to 20 kHz with both channels driven
400 watts per channel into 4 ohms at less than $0.04 \%$ THD from 20 Hz to 20 kHz with both channels driven
800 watts into 8 ohms at less than 0.04\% THD from 20 Hz to 20 kHz in monophonic bridged operation.

Less than $0.007 \%$ from 1 watt to 255 watts, each channel, into 8 chms.
$1 \mathrm{kHz}-0.002 \% \quad 10 \mathrm{kHz}-0.007 \%$

Through balanced-to-unbalanced input circuit, $-3 \mathrm{~dB}, 8 \mathrm{~Hz}$ to 85 kHz at 1 watt; $\pm 0.5 \mathrm{~dB}, 25 \mathrm{~Hz}$ to 24 kHz at 255 watts With balanced-to-unbalanced input circuit. $-3 \mathrm{~dB}, 4 \mathrm{~Hz}$ to 160 kHz @ 1 watt ; -0.5 $\mathrm{dB}, 10 \mathrm{~Hz}$ to $60 \mathrm{kHz} @ 255$ watts

65 dB
Exceeds 95 dB referred to 255 watts into

8 ohms, unweighted. Exceeds 85 dB referred to 1 watt into 8 ohms, A weighting
25,000 ohms
Balanced or unbalanced input-0.775
Vrms for 255 watts into 8 ohms; 2.35
Vrms for a direct input; 0.145 Vrms for 1 watt for a direct input
200 to 1 kHz into 8 ohms; 60 to 10 kHz into 8 ohms
$10 \mathrm{kHz}, 120$ volts p/p square wave, $10 \%$ to $90 \%$. Through balanced-to-unbalanced input circuit: 5 us. With balanced-tounbalanced input circuit bypassed: 2.5 $\mu \mathrm{s}$.
$1 \mathrm{kHz}, 120$ volts $p / p$ square wave:
Through balanced-to-unbalanced input circuit: $35 \mathrm{~V} / \mathrm{us}$. With balanced-tounbalanced input circuit bypassed: 45 V/us.

240 VA quiescent; 1200 VA @ rated power into 8 ohms, both channels driven.
$7^{\prime \prime}$ high plus $1 / 4^{\prime \prime}$ feet, $19^{\prime \prime}$ wide, $13^{\prime \prime}$ deep plus $1^{\prime \prime}$ for handles.
53 lbs.
55 lbs.

NEW WEIGHT: SHIPPING WEIGHT:
Allied carries the complete Hafler line.
PRICES UPON APPLICATION

## CONEX

UM-33 OMNI-Q


The CONEX Omni-Q is a stereo, eight channel in, one channel out general purpose cue, monitor, and line amplifier.
The Omni-Q provides the easiest, least expensive, and most compact way of handling a variety of common monitoring, cueing, amplifying, and switching situations in any audio installation.

Typical Omni-Q applications include:

* Network or remote line monitor and buffer amplifier
* Transmitter input selector and monitor
* Automation cue amplifier
* Tape recorder input selector
* Telephone line source selector
* Headphone amplifier
* Intercom, communication system, or multi-media testing
* Console input expander

Special Features:

* 8 balanced bridging stereo inputs
* 600 Ohm and direct switched outputs
* Stereo LED VU meters with front panel calibration ( -20 to +8 )
- Stereo monitor amplifier drives external speakers at 2 watts per channel
* Also contains two built-in speakers
* Front panel headphone jack and speaker switch
* Built-in low-distortion 3 frequency test oscillator with level control
* Front panel jacks for easy connection of test equipment to the switched audio bus
* Self-contained in a compact $13 / 4^{\prime \prime}$ rack mounting package


## CONEX Omni-Q

## SPECIFICATIONS:

| AUDIO INPUT LEVEL | + 20 nominal maximum, 10 k ohm transformerless bridging |
| :---: | :---: |
| LINE BUFFER AMPLIFIER |  |
|  |  |
| Noise | . 70 dB with respect to 0 dB in |
| Distortion | 0.2\% THD max a 0 dB in |
| SPEAKER AMPLIFIER |  |
| Output Power | 2 watts per channel into 8 ohm load |
| Noise | -60 dB with respect to 100 mw out |
| Distortion | $0.5 \%$ THD nominal at 1 kHz |
| OSCILLATOR |  |
| Level | Adjustable from off to +10 dBm |
| Frequency | Selectable $40 \mathrm{~Hz}, 400 \mathrm{~Hz}$ and 7500 Hz $\pm 10 \%$ |
| Distortion | 0.1\% THD max |
| LEVEL METERS |  |
| Type | 12 LED stereo bar-graph |
| Calibration | Front panel adjustable to -10 to +24 full scale with -20 dB point adjustment |
| INTERNAL |  |
| SPEAKERS | 3 " Diameter on sloping baffles |
| SIZE | $19^{\prime \prime} \times 13 / 4^{\prime \prime} \times 6^{\prime \prime}$ |
| WEIGHT | 5 lb |
| POWER | $110 \mathrm{VAC}, 60 \mathrm{~Hz}, 10$ watts max. |

## TELEX



The TELEX wireless microphone system from ALLIED adds significant innovations to the state of the art. Innovations which not only make TELEX from ALLIED an outstanding value among wireless systems, but which provide performance capability that equals or exceeds that of wire microphone systems for professional applications. Applicable equipment is FCC type accepted.
The professional TELEX wireless system transmits the microphone signal via $F M$ radio transmission to a receiving station. The user of the microphone is thus able to move without the encumbrance or limitations of a microphone cable. The advantages of performer mobility on the stage, or TV production, in broadcasting, sports, and other amplified voice applications is self evident.
In addition to mobility, the TELEX wireless system offers other advantages such as the elimination of hum and noise pickup through the microphone cable and connectors, avoidance of microphone boom shadows, elimination of shock hazard from poor grounding, and most important, elimination of sound mixing problems as the performer moves about the stage.

## PRICE UPON APPLICATION

## COMPUSONICS



The CompuSonics DSP-1000 is a digital recording and playback deck for the end user. The DSP-1000 utilizes ultra high density floppy disks as its magnetic digital storage medium and 32 bit microprocessors to convert analog signals to the CompuSonics format for storage.

The major features of the unit are:

* In-house digital quality stereo recording from any source.
* Digital recording from remote data bases; "telerecording."
* Popular home computer interfaces as add-on modules for:

> — data storage

- music synthesis
- music editing
- restoration of noisy source material

Single chassis containing:

* Multi-processor computer
* Superfloppy disk drive
* Power supply
* Front panel LED display and VU meters
* Stereo inputs for lines and microphones
* Stereo line outputs and headphones

Performance:

SYSTEM:
DISK:
SPINDLE SPEED:
SCAN VELOCITY:
ERROR
CORRECTION:
NUMBER OF
CHANNELS:
FREQUENCY
RESPONSE:
HEAD:
A/D, D/A
CONVERSIONS:
HARMONIC
DISTORTION:
DYNAMIC RANGE:
SIGNAL TO NOISE
RATIO:
CHANNEL
SEPARATION:
WOW \& FLUTTER:
OUTPUTS:

INPUTS:

PRICE:

## AUDIOMETRICS MIC ARM



Hold Everything
Audiometrics Mic Arm w/1 ft. riser. ..... $\$ 84.00^{*}$
14005 clamp mount ..... $\$ 12.00$
11426 wall mount. ..... $\$ 12.00$
11427 bench mount ..... \$12.00
*For microphones over 5 lbs., add. .....  $\$ 8.00$

## STUDER REVOX B225



In designing the B225 CD-Player, REVOX has clearly demonstrated the development and production experience which has made the company world famous as audio specialists.
Almost every conceivable feature has been realised by REVOX: professional programming capacity with 19 program steps, extremely short cueing times, calibration tone for adjustment headphones output and iwo audio outputs. The "oversampling" technique developed in Europe, eliminates distortion of frequencies above half of the sampling rate without affecting phase relationship and guaranteeing highest sound resolution.

List Price..... $\$ 1150.00$

## TEXAR AUDIO PRISM



The TEXAR AUDIO PRISM is a very high-performance multi-band audio processor designed for major market broadcast use and other applications where sophisticated program handling is required. It utilizes four intelligent digitally-controlled processor cards to achieve high apparent loudness while producing few processing artifacts. This absence of undesirable subliminal listener aggravation reduces listener tune-out, producing higher quarter-hour ratings.
For AM broadcast, the AUDIO PRISM is designed to be used with the TEXAR EAGLE AM Modulation Controller. For FM, the AUDIO PRISM is designed to be used in conjunction with a high-quality limiter/stereo generator combination. If transmitter and studio are at separate locations, the preferred placement for the AUDIO PRISM is at the studio. This prevents accidental overdriving of the telephone lines or STL and provides the maximum signal-to-noise ratio over the program circuit.


## VANNER



- Pulse width modified output with less than $14 \%$ distortion.
* Frequency controlled to $60 \mathrm{~Hz} \pm .1 \mathrm{~Hz} .110 \mathrm{VAC}$
- 87\% efficient for more usable power.
* High surge capability.
* Light weight
- Compact size
* Lighted remote control on/off switch, cable \& plug included.
* Excellent stability for turntables, tape recorders, etc.
- 220VAC available.

Model 20-200, 200W............................................................................................................................................................................................................................

## DYNAFEX ${ }^{\text {im }}$



The Dynafex ${ }^{I M}$, model $D-2 B$ is a non-encode/decode noise reduction system designed to be used on virtually any audio signal. This device incorporates proprietary circuit design to achieve up to 30 $d B$ of noise reduction without unwanted side-effects.

Noise reduction equipment has been available to protessional users for some time now in the form of encode/decode systems. These systems have limited versatility in that they can only be used on a tape source and cannot remove noise present in the original program material. These devices essentially prevent further noise buildup from the tape recording process.
By being a single-ended, non-complimentary system, the Dynafex provides the user with the capability of removing noise on any noisy source, and can be used anywhere in the signal path. It may also be used in addition 10 an encode/decode system to further reduce noise present in the original signal that the encode/decode system cannot remove.
INPUT (Ref. $0 \mathrm{dBv}=0.775 \mathrm{vrms}$ )
Type Balanced (Differential)
Input Impedence
Nominal Level (Internal Jumper)
Maximum Level
Transformerless
20K Ohms Balanced 10K Ohms Unbalanced $-10.0+4,+8 \mathrm{dBv}$

OUTPUT
Source Impedence
15 Ohms Unbalanced
Maximum Level (Into 600 Ohms)
Noise (Unweighted, 20 kHz Bandwidth)
$+20 \mathrm{dBm}$
$<-90 \mathrm{dBm}$
FREQUENCY RESPONSE
$20-20 \mathrm{kHz}, \pm .5 \mathrm{~dB}$
DYNAMIC RANGE
Peak Signal-to-Background Noise
DISTORTION (20-20kHz Bandwidth)
NOISE REDUCTION
$>110 \mathrm{~dB}$
$<0.1 \%$ THD
Up to 30 dB or more
POWER REQUIREMENTS
Voltage, $50 / 60 \mathrm{~Hz}$
eros
$13 / 4 \mathrm{H} \times 19 \mathrm{~W} \times 8 \mathrm{D}$ Inches

Power Consumption
$115 / 230,+15 /-10 \%$ VAC
SHIPPING WEIGHT
List Price..... $\$ 550.00$

## ORBAN 111B



The versatility of the quasi-parametric midrange equalizer complements the simple, inflexible equalization found on many low-cost mixers, and permits the owners of such systems to get the exact reverb sound they want. In addition, the 111B has very high basic input sensitivity ( -30 dBm ), and a front-panel input gain control makes it usable with all mixers-even those with unusually low level sends.
This versatitlity is complemented by a fully-professional 0 dBm balanced, floating output. This arrangement vastly improves immunity to RF interference, and assures easy integration into any system without introducing ground loops and hum.
NUMBER OF CHANNELS:
two, entirely independent except for power supply.
REVERBERATION ELEMENT: DELAY TIME: six-spring array (per channel). Approximately 30 milliseconds between direct sound and first reflection.

## ORBAN 111B

INPUT LEVEL:

INPUT IMPEDANCE:
OUTPUT LEVEL:

OUTPUT IMPEDANCE

DIMENSIONS:
SHIPPING WEIGHT:
will accept input levels between -30 and +4 dBm . Audio-taper input level attenuator available on the front panel. Limiter will control overloads up to 25 dB above limiting threshold before clipping and distortion occur.
10,000 ohms, unbalanced. Source impedance nan-critical. nominally 0 dBm , adjustable by front panel control, $\pm 20 \mathrm{dBm}$ clipping level allows adequate headroom for equalization and spring resonances.
600 ohms; transformer-coupled; balanced and floating.
$19^{\prime \prime} \mathrm{W} \times 31 / 2^{\prime \prime} \mathrm{H} \times 12^{\prime \prime} \mathrm{D}$.
10 pounds

PRICE UPON APPLICATION

## WEGENER



Model 1601 Mainframe: Central Building Block for Network Radio Receivers

The WEGENER Series 1600 Audio Transmission System provides high quality 15 kHz bandwidth program channels for the transmission of stereophonic or monaural audio channels above video in satellite distribution networks. Stereo channels are transmitted as separate left and right channels using individual narrow bandwidth, low deviation subcarriers for transmission of each discrete channel. Each 15 kHz channel can be further divided into two 7.5 kHz channels.
The WEGENER system has been chosen and is presently used by: Transtar, CNN Radio, Moody Broadcasting, SMN, Broadcast News, Muzak, and other leading networks. Call on Allied to build you a satellite system!

## FEATURES:

* Mainframe concept allows custom tailoring of system to individual needs
- Precision subcarrier demodulators provide performance matched to the Wegener Transmission System in use by the Network
* Complete RF receiver optimized for subcarriers available
* Complete family of accessories to meet unique installation requirements
DESCRIPTION:
Series 1600 Network Radio Subcarrier Receivers consist of the following equipment elements:
* Series 1600 Mainframes - The mainframes are universal shelves with power supplies which accept all Series 1600 plug-in units. The mainframes contain a flexible module interconnect system that permits the plug-ins to be arranged in a variety of configurations for different applications while providing the required interconnections. Space is provided in the Model 1600 Mainframe for up to nine plug-ins, exclusive of the power supply. Modules may be added or replaced from the front panel without affecting the other on-line channels. The mainframes are available in two models: Model 1601 Nine Module Mainframe, and Model 1602 Two Module Mainframe.
- Model 1606 Subcarrier Receiver - The Model 1606 Subcarrier Receiver accepts 4 gHz RF from the LNA and provides downconversion to composite baseband. The 1606 consists of a sealed downcoverter unit and a plug-in IF demodulator.
- Series 1600 Demodulator - The Series 1600 Subcarrier Demodulator is tuned to the subcarrier frequency of interest and
contains the Wegener Noise Reduction System for matched detection of signals transmitted by the Wegener Uplink
- Model 1610 PANDA ${ }^{\text {rM }}$ II Demodulators - The Model 1610 provides extremely high quality program audio demodulation of satellite subcarrier audio transmission utilizing Wegener PANDA ${ }^{\text {IM }}$ II audio processing. Each unit contains a precision narrow bandwidth subcarrier demodulator. Subcarrier frequency selection is crystal-controlled. The demodulated signal is passed to the PANDA Im II audio processor to provide a full 90 dB dynamic range. PANDA IM II audio processing provides transparent transmission of the full dynamic range and transient properties of digital audio source material.
* Model 2046-03 Network Communications and Control System The Model 2046-03 is an addressable interface which provides data and control functions to the affiliate. Outputs controlled by the Model 2046-03 include two RS-232C printer ports, a 20 mA current loop, an addressable relay for control functions, and two parallel data outputs for control functions.
* Model 1644 Three Function Relay Interface - The Model 1644 interfaces with the parallel data outputs provided by the Model $1046-03$. The outputs of the Model 1644 are relay contact closures used for automation control functions. One Model 1644 provides three control outputs.
* Series 1640 Tone Decoders - The Series 1640 Tone Decoders detect network control tones and provide contact closure outputs.
* Series 1690 DTMF Tone Encoders - The Series 1690 Tone Encoders provide signalling or control tones over voice grade phone lines.
* Series 1680 Subcarrier Frequency Translation Equipment - The Series 1680 Frequency Translation System allows subcarriers to be transported over CATV networks on unused spectrum and be detected at the radio studio.


One Site Systems:
All Components Co-located for Simplicity.

## PRICES UPON APPLICATION

## MASTER-ROOM ${ }^{\text {M }}$



A recent technological breakthrough pioneered and developed by Master-Room now provides high quality reverberation at an affordable price. This new technology was first applied in the MasterRoom XL-305 which has gained wide acceptance by professional users throughout the world in recording, broadcast, and sound reinforcement applications. The XL-210 is based on the same
(cont.)

## MASTER-ROOM

technology and offers the most natural sounding reverberation in its class.

Percussive signals have always been the most difficult sounds for a reverberation unit to reproduce naturally. Internal limiting and other signal manipulation tricks are often employed in many compact systems in an attempt to overcome or conceal chamber deficiencies. The usual result is a severe loss of the natural reverberation quality without eliminating the typical boing, twang, and flutter generally associated with such systems. The unique chamber design of the XL-210, however, provides smooth, natural sounding reverberation without employing internal limiting or any other signal processing to compensate for chamber deficiencies.
The XL-210 is a self-contained, $31 / 2$ inch rack-mount unit featuring two completely independent channels for true stereo operation. A front panel switch permits monaural operation, further increasing its already high echo density. Input and output connectors are typically used for permanent installation, while the front panel jacks allow convenient patching and automatically defeat the rear panel connectors. The Active balanced input circuits automatically adapt to either balanced or unbalanced operation, and the unbalanced outputs will readily drive a 600 ohm load.

| SPECIFICATIONS: |  |
| :---: | :---: |
| INPUT (Ref. $0 \mathrm{dBv}=0.775$ volts) |  |
| Minimum Level | $-15 \mathrm{dBv}$ |
| Maximum Level | $+18 \mathrm{dBv}$ |
| Impedance (Active balanced) | 20k Ohms |
| (Unbalanced) | 10k Ohms |
| OUTPUT |  |
| Source Impedance (Unbalanced) | 15 Ohms |
| Nominal Level (Internally adjustable) | ) 0 dBm |
| Range (Ref. 0 dBv input level) | -14 to +6 dBm |
| Maximum Level (Into 600 Ohm load) | ) +18 dBm |
| DIMENSIONS | $3.5 \mathrm{H} \times 19 \mathrm{~W} \times 12.5 \mathrm{D}$ inches |
| SHIPPING WEIGHT | 13 lbs |
| PRICES UPON APPLICATION |  |

## TEKTRONIX



With the 2213A and 2215A oscilloscopes, Tektronix continues a winning tradition: low cost value for performance that's best in its class. All backed by the industry's first 3 -year warranty.
That's the formula that made the 2200 Series the most successful scope series in Tektronix history. Tektronix started with an innovative design that set a new performance/price standard in the industry. Optimized circuit design, along with a dramatic reduction in mechanical parts and cabling, allowed them to offer scopes with unparalleled high performance and reliability at a remarkably low cost.
The new 60 mHz 2213A/2215A offer significant enhancements over the older 2213/2215. You'll see brighter, crisper displays, thanks to reduced trace noise and to an increased accelerating potential of

14 kV . A 10 mHz bandwidth limit switch has been added to the 22113A/2215A, allowing crisper traces and cleaner triggering in noisy environments.
Both scopes feature full-size, $8 \times 10 \mathrm{~cm}$ CRT's with camera bezel for easy viewing and photography.
The 2213A/2215A now offer improved trigger sensitivity to .3 div at 5 mHz ( 10 mHz for the 2235), for easy triggering and increased measurement confidence in everything from measuring power supplies to transistor noise. Using their single sweep trigger function, now standard on 2200 Series scopes, you can set-up your scope to babysit signals, triggering only when a specified transient occurs.
Single sweep trigger also provides an excellent way to set up your scope for photographing infrequent signals.
An improved delayed sweep allows you to make measurements with less jitter and more confidence: with a single time base in the 2213A; and with two time bases and alternate sweep switching in the 2215A. Using delayed sweep, you can examine any part of a waveform in the exacting detail you need.
Other 2213A/2215A enhancements include improved accuracy for both channels 1 and 2, opening a full range of sensitivities for making accurate $\mathrm{X}-\mathrm{Y}$ measurements. And improved Z -axis input, allowing a useable 10 mHz bandwidth for applications requiring frequency markers.
Also added is a power-on light. Improved vertical and horizontal accuracy. Increased chop rate to 500 kHz . Reduced input capacitance to 20 pF . And much more.

## Ordering information

2213A dc to 60 mHz dual trace, single time base oscilloscope with delayed sweep.
2215A dc to 60 mHz dual trace, delayed alternate time base
oscilloscope.
Optional Accessories \& Equipment
Front panel cover and
accessory pouch
(020-0672-00)
Front panel cover
(200-2520-00)
Accessory pouch
(016-0677-00)
Viewing hood
(016-0566-00)
Carrying strap
(346-0199-00)
Carrying case
(016-0694-00)
2213A, 2215A, rack
adaptor kit
(016-0466-00)
CRT light filter (clear)
(337-2775-00)
C-5C Option 04 scope camera
Model 200C SCOPE-MOBILE cart

## PRICES UPON APPLICATION

WRITE OR CALL FOR COMPLETE INFORMATION

## BONNEVILLE

## LA-404 Line/Isolation Amplifier



The Bonneville model LA-404 is a self-contained general purpose line amplifier suitable for program feeds, headphone drivers, signallevel boosting and audio distribution or isolation.
This premium-quality unit features four separate line amplifiers with transformer-isolated inputs and outputs. All inputs are bridging and outputs are short-circuit protected. The output (source) impedance is available in 150, 600 ohms or a selected alternate. A bi-polar regulated power supply is self-contained, and an electronicallyisolated VU-meter may be selected to any of the four channels. VUmeter may be selected to any of the four channels. VU-meter range is selectable to $+4,+8$ or +20 dBm equal to the $0-\mathrm{VU}$ indication. A headphone jack is provided on the front panel for monitoring the
system audio. The headphone output follows the meter selector switch and the headphone level is adjustable by a front-panel control.
Available gain from each amplifier channel is 30 dB , and is continuously adjustable from zero output to 30 dB of gain by means of four individual front-panel controls.
Input and output connections are by means of an unbreakable screw-type barrier strip. The general design of the amplifier incorporates performance, reliability, ruggedness and quality parts.
The amplifier is designed for standard 19 " rack mounting and requires $31 / 2$ inches of vertical rack space.
The LA-404 is designed by professional broadcasters for professional audio use.

## Specifications:

* Transformer $\operatorname{In} /$ Transformer Out
* Bridging (20K ohm) Input
* Up to +24 dBm outputs
* Outputs protected against continuous short-circuits
- Gain adjustable to +30 dB
- Output noise less than 80 dBm
$\$ 795.00$


## VALLEY PEOPLE



## QLZ (813)

Transparent, low-noise, distortion-free operation is what the QLZ transformerless quad mic. preamp delivers. Each of the four independent, low impedance inputs is adjustable from 20 dB to 60 dB of gain. An LED clip indicator and phase reverse switch are provided for each input. The QLZ is also equipped with 48 volt 'phantom' powering.

MAXI Q (812)
The wide 7 -octave range on each of the 812's 3 frequency bands results in a 6 -octave overlap insuring effective spectrum coverage. Series filters are used to eliminate filter interaction and reduce noise and distortion ususally developed in the summing stage. The exclusive 'tune' mode allows the operator to 'solo' filter settings prior to affecting equalization.

## KEPEX II (810)

Beyond its unsurpassed noise gating capability, the KEPEX II handily eliminates tape hiss, equipment hum and buzz and undesirable ambient noise. Increased dynamic range is recognized via the 810's active expansion mode.
$\$ 400.00$

## GAIN BRAIN II (811)

This limiter/compressor preserves program dynamic integrity because it understands music and speech. The 811 does not respond to arbitrary voltage or power levels; its response is variable depending upon the degree of waveform complexity.

## TR806 RACK

The TR806 processing package is designed to house and power up to 10 single-card " 800 " series modules. This rack mounting scheme is the most cost effective means of implementing the full complement of Valley People " 800 " series equipment. A TR806 unit fits into a $51 / 4^{\prime \prime} \times 19^{\prime \prime}$ rack space.
$\$ 800.00$

## 400 SERIES



Design criteria dictated that the " 400 " series do all things exceedingly well to outperform the very best "dedicated-purpose equipment." Proprietary circuitry evolved through exhaustive studies of the physics and psycho-acoustics of dynamic manipulation is employed in the " 400 " series to increase dynamic integrity or "listenability." Yet, the "400" series remains the most versatile and cost-efficient approach to multi-function signal processing on the market today!
The Dyna-Mite (430), available in mono or stereo, performs several variations of 18 specific operating modes, including: limiting; expanding; noise gating; keying; FM limiting; de-essing; and "voiceover'.
$\$ 560.00$
The Dyna-Mic/Mite (431) combination adds transformerless brilliance to a variety of input impedances and optimizes them for routing through the 3 -band EQ section and/or the Dyna-Mite. The signal then appears at the output enhanced by processing which only a device of this caliber can deliver.
$\$ 560.00$
The Dyna-Mic(432), available in mono or stereo, offers 2 independent, transformerless preamps, with on-board 3-band tone control. Each of the 2 inputs on a Dyna-Mic card may be optimized for microphone, line or musical instrument impedances and levels. The single output of each card is switchable to $+4 \mathrm{dBm},-10 \mathrm{dBv}$ or -20 dBv nominal line levels.

## CompuSonics

DSP-2002 Computer Audio Console


The CompuSonics DSP-2002 is a computer audio console for professional radio and television broadcasting service. Functionally, the DSP-2002 either equals or exceeds the conventional cartridge machines utilized for pre-recorded broadcast source materials storage and re-call with the additional benefits of digital sound quality, random access, and interactive editing. Recording time capacity ranges from 30 to 960 minutes in stereo, depending on the number of Music Workspace (storage) Modules installed. The key features of the DSP-2002 are:

- Plain english menu driven software environment; no computer training required to operate
* Stereo or mono audio input and output under software control
* Random access and playback in programmable sequence; no tape re-wind or cueing
" 12 " video monitor with detached keyboard
* Rack-mountable modules $51 / 4$ " tall
- Ease of editing
- No signal loss on dubbing or repeated use
* High capacity hard-disk and SuperFloppy drives
- Fast set-up, mobile
- Automatic data reduction for efficient storage
* Compatable with digital $\vee \mathcal{R}$ audio archival storage


## Principal Components

Input/Ourput Module containing:
16 bit linear analog to digital converters
16 bit linear digital to analog converters
Microphone pre-amps
Patch bay
Power supplies
Central Processing Unit Module containing:
Intel Multibus computer backplane (IEEE796 Standard)
Digital signal processing units (Texas Instruments TSM320 based)
System bus master processor (Motorola MC68000)
Direct memory access interface to disk storage modules
Input/Output module interface
Telecommunications interface to AT\&T Accunet (56,000 baud) Optional
SuperFloppy disk drive; 3.3 megabytes
Hard disk drive; 190 megabytes
Music Workspace Module containing:
Hard disk drives; 1 minimum, 4 maximum; 190 to 570 megabytes Disk controller and power supplies
Music Workspace Expansion module (up to 7 maximum) containing: Hard disk drives; 1 minimum, 4 maximum; 190 to 840 megabytes
Disk controller and power supplies

## Performance

Sample rate $50,000 \mathrm{~Hz}$ (other rates optional) Resolution... .. 16 bits
Gain control. front panel
$\qquad$ Dynamic range.....................................................better than 92 dB Frequency response......................................................... 20 to $15,000 \mathrm{~Hz}$

Wow \& Flutter $\qquad$ none Distortion (at $1 \mathrm{kHz}, 10$ volt peak to peak)............. $<0.010 \%$., 3rd
Channel separation............................................................. 92 dB

## Editing Faciltites

Input device:

- Typewriter style keyboard with cursor control keys

Text displays for:

- Input of program material and labelling
- Sequencing playlists
- Defining fades and cross-fades
- Help
- Deleting and inserting program material
- Diagnostics
- Music Workspace status report listing;
- time remaining on disk
- total time recorded
- names and length of playlists
- names and lengths of each time in playlist(s)

Archival output:

- 16 bit PCM to video cassette or digital tape deck
-14 bit PCM to video cassette or digital tape deck
- CompuSonics Audio SuperFloppy diskette

SMPTE time coded file marking system for lock-up to other studio equipment.

## PRICE UPON APPLICATION

## COMAD SENTRYBOX



The "Sentry Box," DAS-2, is designed to constantly monitor the presence of an audio signal and to energize a relay when audio is absent.
Two similar circuits are housed in the same $13 / /^{\prime \prime}$ rack mounted chassis. The DAS-2 may be used to monitor any two audio channels such as stereo left and right, AM and FM programming, AM and TV audio, audio in and audio out, etc.
In the event of a channel failure, one of the two red panel LEDs will illuminate and relay contacts, corresponding to the dead channel, will close. The double pole double throw (DPDT) relay contacts may be used to activate an alarm system or switch equipment on or off.
Option 01 and option 02 are respectively 1 kHz and 440 Hz tone generators. The DAS-2 may be arranged to substitute tone for missing audio or the tone generators may be used for test purposes.
Option 03 provides a buzzer which may be wired to a spare relay contact.
Applications:

1. Two channel signal detection with dual alarm contacts
2. Two channel turn on/off control of two transmitters with presence/absence of program audio
3. Single channel turn on/off control of a transmitter with presence/absence of program audio and independent verification (audio confidence)
4. Two channel substitution of two different tones for loss of program audio
5. Substitution of tone upon loss of program audio and subsequent equipment turn off after time period of up to 15 minutes
6. Automation. Sequential operation of up to three program sources
7. Two tone generators for test purposes

## PRICE UPON APPLICATION

## NEUMANN



The model U 87 is the best known and most widely used of the fet $80^{\circ}$ series. Its 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 patterns, frequency response and sensitivity. Its high frequency response is practically linear even in its cardioid and figure-8 positions even close-up. The response below 40 Hz is purposely rolled off to prevent low frequency blocking. This roll-off may be switched to 200 Hz to allow compensation for the bass rise common to all good directional microphones when used at close range. The U 87 is specifically designed for close miking studio applications. No microphone in Neumann's history has had as long and distinguished a career as the U 87. The venerable, tube equipped $U 47$ was manufactured for only 12 years, while the $U$ 87's twentieth anniversary is already history! An enviable track record. This is THE world class microphone! 48 volt power supply required. Wind screen and shock mounting optionally available.

## PRICES UPON APPLICATION

## MARANTZ PORTABLE CASSETTE SYSTEMS



The 200 and 220 by Marantz offer more to the Broadcast News Operation than ever before available.

* Outstanding Features Include: 15/16 ips ( $1 / 2$ speed) or regular 1-7/8 ips
* Vari-speed control which allows correction of tapes which may have been recorded with less-than-full battery power
* PA/Play mix permits one of the most sought-after abilities: Live intro with optional microphone, actuality on tape, then back to live. (Using the cassette machine as an integral part of a telephone report)
In addition to features listed which are common to both machines, the 220 also has three heads and variable bias for normal, $\mathrm{CrO}_{2}$, and $/ \mathrm{FeCr}$ Tape. FeCr tape permits a frequency response of up to 14 kHz .
2002 heads. .$\$ 210.00$
2203 heads. .$\$ 266.00$


## FUTURE TECHNOLOGY . . . TODAY AT ALLIED

dbx 700 DIGITAL AUDIO PROCESSOR


From the time that digital was first applied to recording, it was both a blessing and a curse. The sound was a blessing. The price was cursed. But once that sound was heard, there was no turning back. So dbx, the very same people who brought you breakthroughs in noise reduction, turned its collective technical prowess to the matter of the curse. And in true dbx fashion, they came up with a way to make that crisp, clean digital sound available at an astoundingly affordable price.
The "hows, whys and wherefores" are important. Because all along, digital audio encoding/decoding could be achieved two different ways. One way is PCM (pulse-code modulation). It's the accepted and great-sounding (but very expensive) circuit you find in digital recording systems right now. The other way is DM (delta modulation). It's less expensive but produces less-than-acceptable sound. So when dbx entered the digital ring, they knew their task was to create the best of both worlds. dbx engineers did just that, by tackling what were thought to be the insurmountable problems inherent in basic delta modulation.
Precision Companding solves a major problem with delta modulation-limited dynamic range. The dbx 700 offers a dynamic range of more than 110 dB , resulting in an unbelievably low noise floor that's completely neutral-sounding. (Other forms of delta modulation have less dynamic range and may have a noise floor with a distinct tonal character.) The compander's novel design and the direct digital link between encoder and decoder guarantee not just that it cannot mistrack but that its overall performance is absolutely transparent.
Linear Prediction estimates a signal's future by monitoring its recent past. It does this 700,000 times a second. This further increases the dynamic range of our fixed delta modulator and prevents the audible noise modulation common in other forms of DM.
The bottom line is the extraordinary sound quality of digital at a fraction of the cost of the competition. A cost so low that you can create a digital remote transmission system with the dbx 700 Digital Audio Processor and the MA/COM system overleaf that will rival live performance.

## SPECIFICATIONS:

Channels:
Frequency response:
Dynamic range:

Wow/flutter:
THD:
Sampling rate:
A/D conversion:
Headphone jack:
Console connections:

Dimensions:
Weight.
10 Hz two (unweighted, maximum rms signal to noise floor, input shorted, noise bandwidth 20 kHz ): greater than

110 dB
less than $0.01 \%$ unweighted; less than $0.006 \%$ wrms less than $0.03 \%$ total harmonic distortion, $1 \mathrm{kHz}, 1 \mathrm{~V} \mathrm{rms}$ input 700 k bits/sec precision-companded, linearpredictive delta modulation
ine in balanced 10 k -ohms yes out, electronically balanced; will drive 600 ohms to +24 dBm $51 / 4$ 'H $\times 19^{\prime \prime} \mathrm{W} \times 111 / 2^{\prime} \mathrm{D}$ approx. 20 lbs

PRICE UPON APPLICATION
2 Required for STL
We have just put you into a digital AUDIO RECORDER AT A BARGAIN PRICE .. . WOULD YOU LIKE MORE?
HOW ABOUT AN AURAL STUDIO TRANSMITTER LINK WITH THE SAME DIGITAL PERFORMANCE?

## ALL RIGHT!

## JUST ADD THE M/A-COM LINK BELOW TO THE dbx 700

## M/A-COM 23VFM 23 GHZ MICROWAVE LINK



The M/A-COM 23VFM system is a budget priced solid-state FM microwave link that provides reliable, short range digital audio links in the 21.8 to 22.0 GHz and 23.0 to 23.2 GHz frequency bands. With the addition of a digital processor(s), systems can be configured as Stereo Digital only, or, with optional subcarriers, Stereo digital and up to two additional 15 kHz analog channels. Perfect for FM SCA audio, FM SCA data, or transmitter remote control.
The MIA-COM 23 VFM System is an economical alternative to conventional telco loops or conventional 950 mHz STL links. This FM Microwave system with less than one watt of power, will typically go a distance of one to two miles, depending on area rainfall. Also, 23 gHz signals bounce well which might be a way to go around an obstruction between your studio and transmitter site.
The compact, lightweight MA-23VFM System is engineered to provide reliable performance and simplicity of operation at reasonable cost. Transmitter and REceiver subsystems are comprized of weather-resistant RF units equipped with integral high gain antennas designed for outdoor use, and a Control/Interface Unit containing power supply and baseband circuits. Distances of 250 feet ( 76 m ) between the Control/Interface Unit and RF Heads are possible with no signal degradation. Units are completely aligned at the factory and do not require any adjustments once installed. Field proven, solid-state technology is employed featuring direct signal conversion Gunn Oscillators that have a long history of troublefree performance in other M/A-COM products serving the communications industry.

## PRICE UPON APPLICATION

## AURATONE 5C



Recording/Broadcast standard mixdown/comparative monitors and extension speakers. Walnut woodgrain vinyl finish, black foam grille. The little powerhouse. They tell you exactly what's going on.
MANUFACTURER'S SUGGESTED LIST PRICE, PER PR. . $\$ 95$

## ASSOCIATE PRODUCER ${ }^{\circledR}$



Allied's Associate Producer facilitates and centralizes your dubbing needs. The turntable mount is our famous shock absorber style (Page 39).
We invite you to select and customize components. The cartridge tonearm of your choice; a Technics SP15, SP25, or SP10 turntable (Pages 87, 88); A CD player of your choice (Page 88); a cassette deck (Page 60); an amplifier (Pages 1, 2, 3, 4) speakers such as TOA, JBL, or ALC (Pages 67,68) and a pair of Omnimounts (Page 42) to mount the speakers to sides or top. You may choose an Audicord, BE, Fidelipac, Ramko or ITC cart machine.
Put it all together with Phase Audio's cart dubbing center.


Allied can supply all the separate components or assemble, prewire, and test as a complete system for you.

## PRICE UPON APPLICATION

## ELECTRO-DUCT® by Electrovert



This plastic duct has more positive features than any other. If you've had to fight cover-on \& cover-off with inferior brands, you'll appreciate the zip-on, zip-off ability of Electro-Duct's cover.
When you buy Electro-Duct, the cover is included in the price. Allied stocks $1^{\prime \prime} \times 1^{\prime \prime}, 2^{\prime \prime} \times 2^{\prime \prime}, 3^{\prime \prime} \times 3^{\prime \prime}$, and $4^{\prime \prime} \times 4^{\prime \prime}$. Length: $6^{1 / 2}$ ft . Color: gray.
We went for the best so you can have the best. There are many PVC Duct manufacturers. There's only one Electrovert.
PRICE UPON APPLICATION

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FONE BOX
FOUR CORNE
FONE BOX
FOUR CORNE
FREQUENCY COUNTERS.
FLYSCREEN, COPPER.....
FREQUENCY COUNTERS.
FLYSCREEN, COPPER.....

(111)


## Terms and <br> Conditions of Sale

BY TELEPHONE: The most convenient way to order from Allied is by telephone, confirmed with a written purchase order. When placing an order, call the Allied office that serves your area. (See inside back cover.) Allied provides toll free ordering sevice where possible - collect calls are not acceptable. Office hours are 8 AM to 5 PM local time per office. Written purchase orders, sent to confirm a telephone order, must be noted as CONFIRMING. Failure to do so could result in additional charges for freight and handling.
CREDIT TERMS: We ship open account to firms rated high by Dun \& Bradstreet Inc., otherwise, terms are cash or chargeable to Visa or Master Card with Bank approval. Payment terms are Nev/30 days from date of invoice unless otherwise specified. Accounts placed for collection lose all credit privileges. COD orders require a 25\% payment in advance unless the customer is established with ABE. Shipping terms are FOB Richmond, Seattle, or point of origin if factory drop-shipped
PARTIAL BILLING: Payment is due Net/30 days firm on each invoice rendered. Due to time differential in shipment of various items, each invoice becomes due and payable within 30 days of the date of the invoice. If this is not possible, we will be glad to ship all equipment at one time with one invoice becoming due Net/30 days firm. Please advise which method is desired. Government funded purchase orders must include a copy of the instrument of funding. ALLIED ACCEPTS NO PENALTY CLAUSES!

TRIALS \& SALES ON APPROVAL: Trials and sales on approval require a firm purchase order or payment in advance or deposit at our option unless otherwise specified. Approval terms are applicable only if specified in advance on the order and accepted by our Sales and Credit Department. Goods must be returned within the specified time on the invoice or the sale is considered final. Normal trial period is 10 days. Charges will be assessed for any damage or loss.
LEASING: Allied offers several Leasing Plans from various companies arranged to suit your individual needs, including a Lease Purchase Plan. The customer is responsible for all transportation and insurance charges unless arranged in advance with the Leasing Company.
USED EQUIPMENT: Used equipment offered and purchased "as-is, no-return,' must be paid for in advance or sent C.O.D. Allied will make a fair representation and the customer will buy at his own risk. Allied will authorize returns on repaired used equipment within 10 days of delivery in which the customer will be credited full amount of purchase, less all shipping and packing charges.
BACK ORDERS: Items ordered that are temporarily out of stock or have to be drop shipped from the manufacturer, will be placed on back order.

TAXES: Sales tax will be added where applicable. Firms operating under tax free condition must state applicable license or contract numbers and be prepared to furnish necessary certificates of proof. We must collect tax in TX, GA, IL, IN, and WA unless tax exemption certificates are provided.

SHIPMENT: Your order will be shipped via UPS, if possible. Otherwise, equipment will be shipped via Parcel Post, Truck or Air Freight. If you require a special or particular form of shipment, please specify. Please be aware that there are insurance limitations on certain forms of shipments and that we may not be able to follow your exact shipping requests due to limitations on services available in various parts of the country and tariff restrictions. Allied will make every effort to ship your merchandise in a fast and inexpensive manner. Merchandise in stock will be shipped within 24 hours of receipt of order. If it is a drop shipment from the manufacturer, a request will be made via telephone to expedite shipment. Pickups are made several times a day from our facility
to expedite service. Please allow extra time for truck shipments and parcel post. Overnight shipments a specialty (as requested).
GUARANTEE: All merchandise is covered by the manufacturer's warranty. Allied backs these warranties with personal interface between the problem and the factory solution. Many parts and replacement units are available from our stock or will be expedited from the manufacturer at Allied's direction as the customer requests. Allied or the manufacturer will, at their option, repair or replace defective parts or merchandise in warranty. The customer will be billed for the replacement or repair and full credit will be issued, less the freight, upon satisfactory return of the defective unit in the time period specified.
CLAIMS \& RETURNS: Inspect all shipments immediately upon receipt. Missing cartons or obvious damage to cartons, shipped by common carrier, should be noted on the delivery receipt. Concealed damage or loss should be reported at once to the carrier and an inspection requested. Losses or damage to parcel post shipments should be reported to our Customer Service Dept. All claims for shortage or damage must be made within two days after receipt of shipment. Claims for lost shipments must be made within 10 days of receipt of invoice or other notification of shipment. Save damaged or pilfered cartons until claim is settled. Do not return any goods to Allied without obtaining a Return Authorizatlon Number and instructions from our Customer Service Dept. Goods returned unauthorized by collect freight will be refused. Goods returned which were ordered by customers in error are subject to a restocking charge. IMPORTANT - Under present rules and regula tions by most carriers it is the end user's responsibility to inspect and report losses and damage. It is essential you follow correct procedure in applying for claims and most of all, do it promptly. Any adjustment and/or replacement must be requested within seven (7) working days of your receiving agent's receipt of shipment. You may be compensated only if all accompanying boxes, packing materials, and documentation are available for inspection and used for the return
REPAIRS \& WARRANTY SERVICE: Contact our Customer Service Dept. at 317-962-8596 for instructions on repair. Do not return goods without a Retum Authorzation Number and make sure proper documentation is enclosed stating the problem encountered. If you fee your problem can be solved by conversation with a technician, please ask our Customer Service Dept. to connect you with the Repair Dept.
PERSONAL SERVICE: Regardless of quantity, it's our Company policy to treat each order and inquiry as a person-to-person encounter. Your questions, comments and criticisms are welcome. Our staff is made up entirely of professionals willing to give you helpful assistance and work out possible problems to your full satisfaction.

CORPORATE REFERENCES \& POLICIES: Allied Broadcast Equipment is a division of Allied Advertising Corporation, an Indiana Corporation since 1966. It is our sincere desire to give the broadcast and recording industry the best possible service anywhere. Please direct any comments conceming service and policy to . . . President, Allied Broadcast Equipment, PO Box 1487, Rlchmond, Indlana, 47375 USA.

NO INSTALLATION: Installation is not included. Certain items do not come factory-assembled and Allied makes no representation to the contrary.
NOTE: Prices are manufacturer suggested list and are for reference only, discounts are available to qualified clients on many items. Terms are cash, net/30 days on approved credit, Visa or Master Card. Freight and handling charges will be added to all shipments. Prices subject to change without notice. Typographical and clerical errors are subject to correction.

# The United States of Allied 



## To Order


RICHMOND, IN Sales Office

Connecticut
Delaware
Hawaii
Indiana
Kentucky
Maine
Maryland
Massachusetts
New Hampshire
New Jersey
New York
Ohio
Pennsylvania
Rhode island Vermont
Virginia
West Virginia

## CHICAGO, IL Sales Office

Illinois
lowa
Michigan
Minnesota
Missouri
Nebraska
North Dakota
South Dakota Wisconsin

5097 N. Elston Ave., Sulte 303 Chicago, IL 60630

| ORDERS | $800-621-3726$ <br> ILLINOIS |
| :---: | :---: |
| ORDERS | 800-572-9138 |
| INQUIRIES | 312-794-0224 |
| w.U.EZ Link TTY DDD | $\begin{aligned} & 62128430+ \\ & 3125457408 \end{aligned}$ |

## SEATTLE, WA Sales Office

| Alaska Arizona |  | 1112 S. 344th Street, Sulte 312 Federal Way, WA 98003 |
| :---: | :---: | :---: |
| California | ORDERS | $\begin{aligned} & \text { 800-426-9781 } \\ & \text { WASHINGTON } \end{aligned}$ |
| Idaho |  |  |
| Nevada | ORDERS INQUIRIES | $\begin{aligned} & 800-562-8178 \\ & 206-838-2705 \end{aligned}$ |
| Oregon |  |  |
| Utah |  |  |
| Washington | w.U.EZ Link TTY DDD FAX | $\begin{aligned} & 62128440+ \\ & 2069528018 \\ & 2069528567 \end{aligned}$ |
| Wyoming |  |  |
|  |  |  |


| Arkansas |  | Sulte 309 - Chaddlick Center <br> 1201 E. 15th, Plano, TX 75074 |
| :--- | ---: | :---: |
| Colorado |  | $\mathbf{8 0 0 - 5 2 7 - 4 3 9 2}$ |
| Kansas | ORDERS | TEXAS |
| Louisiana |  | $\mathbf{8 0 0} 442-4741$ |
| New Mexico | ORDERS | $214-423-8667$ |
| Oklahoma | Texas | INQUIRIES |
|  | W.U.EZ Link | $62128450+$ |
|  | TTY DDD | 2144238681 |
|  | FAX | 2145789162 |

## ATLANTA, GA Sales Office

| Alabama Florida |  | Shannon Towers, 4405 Mall Bi Sulte 314, Unton Chy, GA 30291 |
| :---: | :---: | :---: |
| Georgia |  |  |
| Mississippi <br> North Carolina | ORDERS | $\begin{gathered} \text { 800-241-0192 } \\ \text { GEORGIA } \end{gathered}$ |
| South Carolina |  |  |
| Tennessee | ORDERS | 800-282-0246 |
|  | INQUIRIES | 404-964-1464 |
|  | W.U.EZ Link | $62128460+$ |
|  | TTY DDD | 4049641466 |
|  | FAX | 4049642820 |

[^3]Corporate Office:
P.O. Box $1487 \bullet 635$ South E Street • Richmond, Indlana


[^0]:    '‘SHIPPING AND HANDLING WILL BE ADDED''

[^1]:    "PRICES ARE U.S., DOMESTIC ONLY',

[^2]:    - Digital bench/portable multimeter
    - $43 / 4$ digit LCD display featuring 29,999 digits. 13 mm high

[^3]:    INTERNATIONAL INQUIRIES and ORDERS from outside the 50 United States are recelved at Richmond address above or (U.S.) 317-935-1704. Telex 380474 FAX 317-962-8961. PRICES in this catalog are U.S., Domestic only. Prices \& specifications are subject to change without notice.

