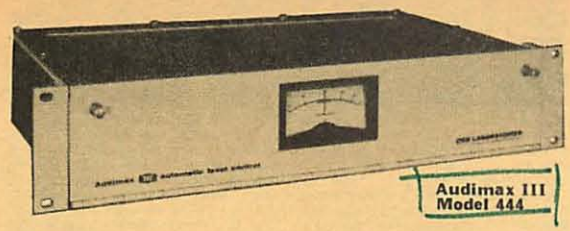
CBS LABORATORIES
A DIVISION OF COLUMBIA BROADCASTING SYSTEM, INC.

PROFESSIONAL AUDIO PRODUCTS

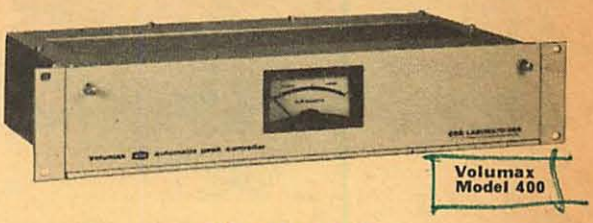
NEW SOLID STATE AUDIO UNITS FOR PROFESSIONAL BROADCASTERS



AUDIMAX® III AUTOMATIC LEVEL CONTROL

The new solid state Audimax III acts as a trained, super-alert engineer in maintaining maximum modulation or recording level and signal quality. Unlike ordinary compressors or AGC amplifiers with constantly rising or falling gain, the unit operates on a "platform" principle which completely preserves the short term dynamic fidelity and prevents thumping or pumping. Adopted by numerous independent stations as well as by the CBS Radio and Television networks, it has many applications in broadcasting, recording, background music, public address and paging systems. When program levels are too high, Audimax automatically reduces its gain with inaudible speed. When program levels are too low, Audimax automatically turns up the gain without pumping or having to wait for the slow discharge of recovery time elements. When program levels are correct, the gain is not changed. Audimax's exclusive "platform" mode of operation completely preserves short term dynamic fidelity. When pauses occur, Audimax recognizes that only noise or background effects are present. Gated Gain Stabilizer maintains constant gain so that background sounds will neither disappear nor come swishing up during these intervals. All decisions to raise, lower or maintain constant gain are based on an analysis of the previous 10-second history of the program as compared with the incoming signal at any time. Audimax will not be confused by such special effects as pistol shots and barking dogs. If the level of these bursts is too high, Audimax will temporarily reduce its gain, but then immediately return to the pre-burst level. There are no "holes" in the program. In addition to its normal gain riding activities, Audimax subtly boosts program levels to achieve an average of 6 db higher modulation than with normal manual control methods. For the standby condition at the end of programs, such as occur in recording and film studios or with intermittently-used network lines, the Return-to-Zero control waits approximately 10 seconds and then slowly returns the gain to normal. **Frequency Response:** Flat within 1 db, 50–15,000 cps. **Harmonic Distortion:** Less than 1%, 50–15,000 cps at +16 dbm output. **Noise Level:** Below −60 dbm at normal gain. **Control Characteristic:** ±10 db of gain control. **Gated Gain Stabilizer:** Threshold adjustable from −24 db to normal input. **Return-to-Zero Function:** Returns gain to normal during pauses greater than 10 sec. **Maximum Gain:** 50 db. **Input and Output Impedance:** 600 ohms, balanced or unbalanced (150 ohms optional). **Normal Output Level:** +11 VU. **Maximum Output:** +25 dbm. **Minimum Input Level:** −30 VU. **Power Required:** 15 watts at 115/230 VAC, 50/60 cps. **Size:** 9⅝" d. x 3½" h., standard 19" rack mounting. Shipping Weight, 17 lbs.

CBS Laboratories Audimax III Model 44 Automatic Level Control—Net Each..... **$665.00**



AUDIMAX III-S
STEREO AUTOMATIC LEVEL CONTROL

Consists of two Audimax III instruments physically and electronically coupled to provide simultaneous gain control in both channels. Since this gain control is a function of the stereophonic sum signal (L+R), it preserves spatial perspective and prevents undesirable "ping-pong" effects. **Size:** 9⅝" d. x 7" h., standard 19" rack mounting. Shipping Weight, 34 lbs.

CBS Laboratories Audimax III-S Model 445 Stereo Automatic Level Control—Net Each..... **$1390.00**

VOLUMAX® AUTOMATIC PEAK CONTROLLER

Like its companion-piece, the Audimax III, the completely solid state Volumax is a tool to help the broadcaster obtain maximum program power from each watt of carrier power. Unit doubles effective radiated program power compared with conventional peak limiters; when used along with the Audimax, astonishing power improvements of nearly 8 to 1 have been achieved. Prevents carrier over-modulation caused by instantaneous program peaks without audio distortion and "pumping" effects, and without the necessity of a reduction in program level or wasting valuable modulation capability. Analyzes all program material and automatically chooses the appropriate regulation speed with gentle or microsecond-fast limiting action, depending on the nature of the program waveform. The result is a more even, pleasant sound that can be safely transmitted at twice the program power levels to be expected from conventional limiters. In AM broadcasting, negative peaks must be kept below 100% modulation to prevent carrier cut-off, but positive peaks may modulate the carrier over 100%. Since the Volumax can be operated asymmetrically at the option of the user, limiting levels for negative peaks may be kept below the 100% modulation level while positive peaks may be allowed to modulate over 100%. Unit is normally used in conjunction with the Audimax III or another automatic level control. **Frequency Response:** Flat within 1 db, 50–15,000 cps. **Harmonic Distortion:** Less than 1%, 50–15,000 cps throughout normal control range. **Noise Level:** −70 db. **Maximum Gain:** +50 db. **Input and Output Impedance:** 600 ohms. **Maximum Output Level:** +20 dbm. **Input Level:** −25 to +8 dbm. **Attack Time:** Less than 1 μsec or 4 msec, depending on program waveform. **Maximum Operating Temperature:** 55° C. **Power Required:** 15 watts at 117 VAC, 50/60 cps. **Size:** 9⅝" d. x 3½" h., standard 19" rack mounting. Shipping Weight, 17 lbs.

CBS Laboratories Volumax Model 400 Automatic Peak Controller—Net Each..... **$665.00**

COMPLETE STEREO-AUDIO TEST RECORD LABORATORY

TECHNICAL SERIES PROFESSIONAL TEST RECORDS

CBS Laboratories technical series professional test records are high precision tools designed to assist audio and quality-control engineers, and test or service technicians, in rapid evaluation of audio components, equipment and systems. Each record includes a complete series of tests. Eliminate much special equipment and save hours of time. A productive tool for laboratory, production line or field testing.

CBS Laboratories Model STR-100 Frequency Test Record—Tests pickups and systems for: Sweep and spot frequency response, channel separation, wavelength loss, stylus wear, compliance; phasing, vertical and lateral tracking, tone arm resonance. Net Each..... **$8.50**

CBS Laboratories Model STR-110 Square Wave, Tracking and Intermodulation Test Record—Tests pickups for transient and intermodulation distortion. Also tests for tracking ability, dynamic compliance, damping and high frequency stylus tip mass. Recorded with 2.5° vertical modulation slant. Net Each..... **$10.00**

CBS Laboratories Model STR-111 Square Wave, Tracking and Intermodulation Test Record—Same tests as Model STR-110, but recorded with new 15° vertical modulation slant recommended by RIAA and EIA. Net Each..... **$10.00**

CBS Laboratories Model STR-120 Wide Range Pickup Response Test Record—Checks response above and below audible range where audible distortions can originate. Response to 50,000 cps. Twice-normal-level, low frequency glide tones detect arm resonance, cone and cabinet rattles. Silent grooves test for rumble and surface noise. Standard-level bands at 0 db provide for overall signal-to-noise measurements. Net Each..... **$10.00**

CBS Laboratories Model STR-130 RIAA Frequency Response Test Record—Speeds calibrating and testing of professional recording and record playback equipment. Can be used with automatic curve tracer for permanent record. Net Each.... **$10.00**

CBS Laboratories Model STR-140 RIAA Pink Noise Acoustical Test Record—Permits testing speakers in the room in which they will be used, under actual listening conditions. Tests include ½-octave noise bands with voice announcements; and, continuous ½-octave sweeps covering 30–15,000 cps. Net Each... **$10.00**

CBS Laboratories Model BTR-150 Broadcast Test Record—Tests all audio equipment for AM, FM, TV and FM stereo. Tests include reference level adjustment, peak capability test, level control adjustment, ballistic testing of VU meters, wow and flutter, rumble and hum, frequency response, separation and phasing. One side is monophonic; other, stereophonic. Net.. **$10.00**

CBS Laboratories Model STR-160 Vertical Tracking Angle Test Record—Provides for the first time a rapid and precise measurement of the vertical tracking angle of stereo pickups under actual operating conditions. An ideal record for use in conforming with the 15° RIAA standard. Contains 15 bands of 400-cps tone recorded at an effective vertical angle graduated from −6° to +43°. The angle of each band has been accurately calibrated by analysis of the electrical waves, by optical patterns, and by mechanical measurements using a pickup with adjustable vertical tracking angle. Stated angle is held accurate within ±2°. Net Each..... **$10.00**

CBS Laboratories Model STR-101 "Seven Steps to Better Listening" Test Record—Through easy-to-make tests and simply narrative, this test record for home use will help the hi-fi enthusiast blend his electronic components and room acoustics into one well-tuned, properly functioning system. Offers following stereo tests: Left-right identification, phasing, speaker balance, tone control setting, alternate phasing. Also gives checks on stereo-mono tone control setting, buzz and rattle elimination, lateral and vertical tracking. With booklet of operational notes by Edward Tatnall Canby. Net Each..... **$5.00**