

# TIME ALIGNED™ STUDIO MONITOR SYSTEM

MODEL  
815A

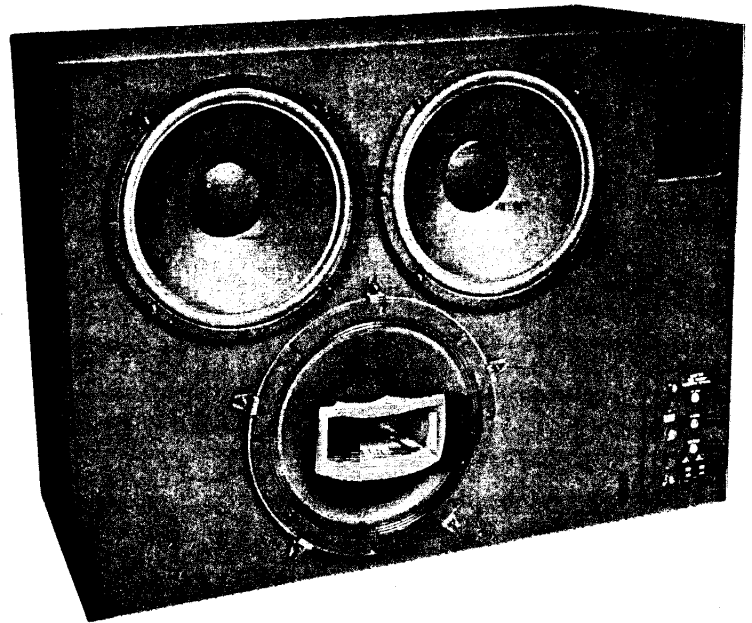
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## FEATURES:

- The 815A uses a newly developed\* high frequency horn utilizing UREI's Diffraction Buffer plus other new techniques. This results in smoother response, extended H.F. range, and improved off-axis response.
  - Provides reduction in transient distortion.
  - The new 800H-A H.F. horn incorporates many unique features which afford improved matching of the horn driver throat to free air and substantially reduce the "Shadow Effect" common to some coaxial type loudspeakers. In addition, other acoustic techniques have been employed to significantly reduce transient distortion (ringing). These features improve the combining of the low and high frequency drivers in a smooth time and magnitude relationship.
  - Low loss crossover network allows maximum power transfer to the transducers and corrects the spatial alignment of acoustic centers.
  - BNC connector on the crossover network allows the use of Conductor Compensation as available on the UREI Model 6500 Power Amplifier. This reduces the reactive effects of the speaker cable and improves damping.
  - 604 ceramic duplex with UREI custom H. F. horn for extended and more uniform H.F. response.
  - Two L.F. 15" direct radiating drivers fed from 3-way TA network for extended L.F. response and higher power handling capability at low frequencies.
  - 13 cu. ft. enclosure with pressure control aperture for excellent L.F. damping, good efficiency and low distortion.
  - Unique enclosure damping method provides high efficiency conversion of low frequency sound pressure to adiabatic energy.
- \* Patent pending.

The 815A Studio Monitor System is a joint R & D effort of UREI and E. M. Long Associates. The TIME-ALIGNED™ TECHNIQUE is a real-time design method, utilizing proprietary instrumentation developed by Long which allows the driver placements and network parameters to be adjusted simultaneously, achieving near perfect alignment of the frequency components of a complex transient waveform as heard by a listener.


The importance of time (phase) parameters of loudspeaker systems, in addition to smooth frequency response, has been postulated for many years. These group time delay anomalies may be severe in some multi transducer sys-



tems, although they may exhibit satisfactory or even excellent frequency response.

Within the last decade, many advocates have presented outstanding scientific papers on this subject. Richard C. Heyser, among others, has contributed magnificent research dealing with the importance of time (phase) correlation.

Quoting from Heyser in Audio, June 1976: "We realize that the concept of time response of a speaker is a whole new ballgame to many people and is probably a bit confusing if all you ever considered before was steady state frequency measurements."

Edward M. Long presented a paper before the Audio Engineering Society in May of 1976, entitled "A Time Align Technique for Loudspeaker System Design." UREI is a licensee of E. M. Long Associates, for the instrumentation methods and the use of the Trademark .

For stereo applications the model 815 Studio Monitor System is built in "mirror-image" (815 L, 815 R) to produce identical dispersion towards the listening position between two systems.

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## SPECIFICATIONS:

**Type:** Triple woofer coaxial with Model 849  
three way TA network

**Power Rating:** 75 watts 40 Hz to 20 kHz, with  
pink noise

**Frequency response:**  $\pm 3$  dB, 40 Hz to 15 kHz  
measured "freespace"  
 $4 \pi$  steradians ( $h = 5$  m,  $d = 1$  m)

**Sensitivity:** 91 dB SPL/volt/meter

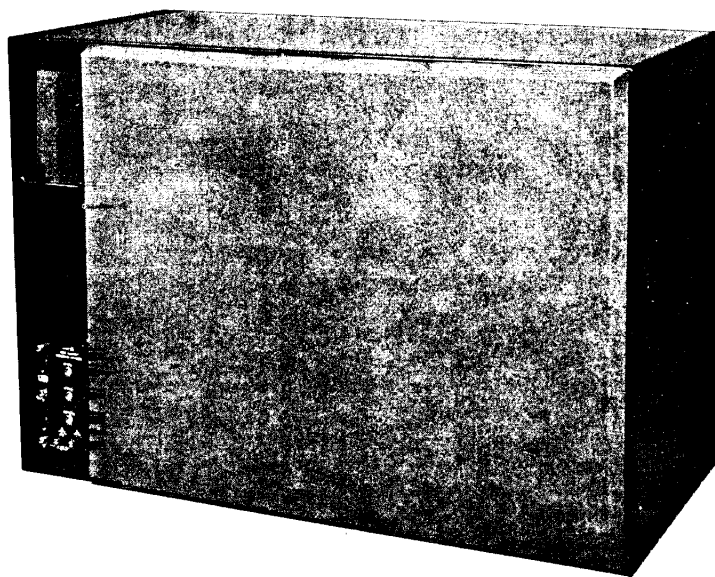
**Impedance:** 8 ohms, nominal  
(minimum impedance  $> 4$  ohms)

**Network:** UREI 849, 3-way

**Cabinet:** Utility flat black painted

**Weight:** 107 kg (235 pounds)

**Dimensions:** Height = 0.813 m (32")  
Width = 1.105 m (43½")  
Depth = 0.533 m (21") without  
grille  
0.610 m (24") with grille



**UREI 815A SYSTEM  
WITH ACCESSORY GRILLE 815AG**