

TIME ALIGNED™ STUDIO MONITOR SYSTEM

TA™ Licensed by E. M. Long Associates

MODEL
813A

FEATURES:

- The 813A 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 a reduction in transient distortion.
 - The new 800H-A H.F. horn incorporates many unique features which afford improved matching of 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.
 - Second L.F. 15" direct radiating driver fed from 3-way TA network for extended L.F. response and higher power handling capability at low frequencies.
 - >11.5 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 813A Studio Monitor System is a joint R & D effort of UREI and E. M. Long Associates. The TIME-ALIGN™ 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 systems, 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 re-

search 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 TA™.

For stereo applications the model 813A Studio Monitor System is built in "mirror-image" (813 L, 813 R) to produce identical dispersion towards the listening position between two systems.



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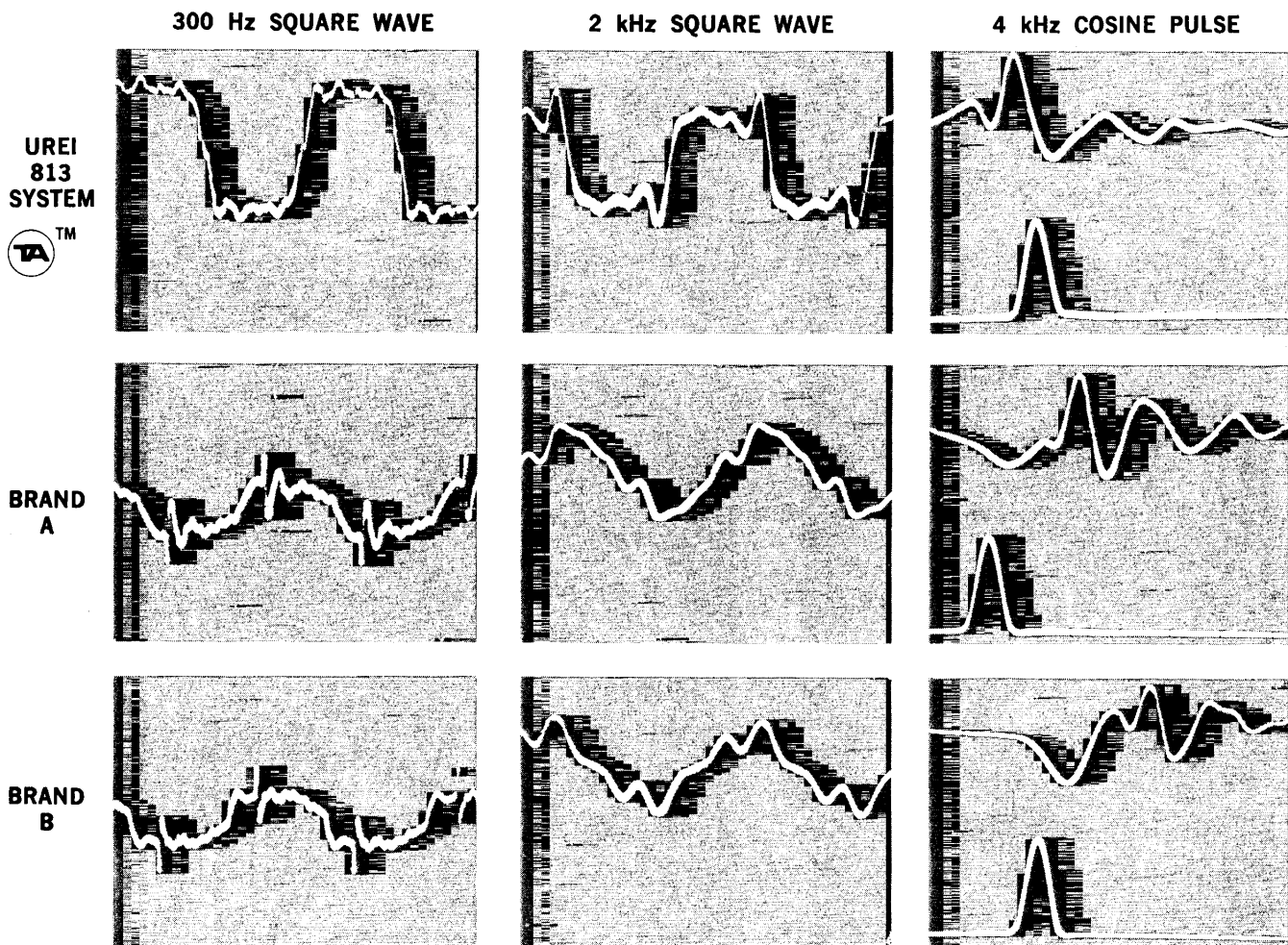
TELEX 65-1389 UREI SNVY

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The excellent transient behavior of the 813A system compared to two other popular networks and systems designed for the 604 series duplex speakers is graphically demonstrated below. (Crossover controls adjusted per manufacturers' instructions for best frequency response.)



SPECIFICATIONS:

Type: Dual woofer coaxial with Model 839 three way TA network

Power Rating: 150 watts 40 Hz to 20 kHz, with pink noise

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

Sensitivity: 89 dB SPL/volt/meter

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

Network: UREI 839, 3-way

Cabinet: Utility flat black painted

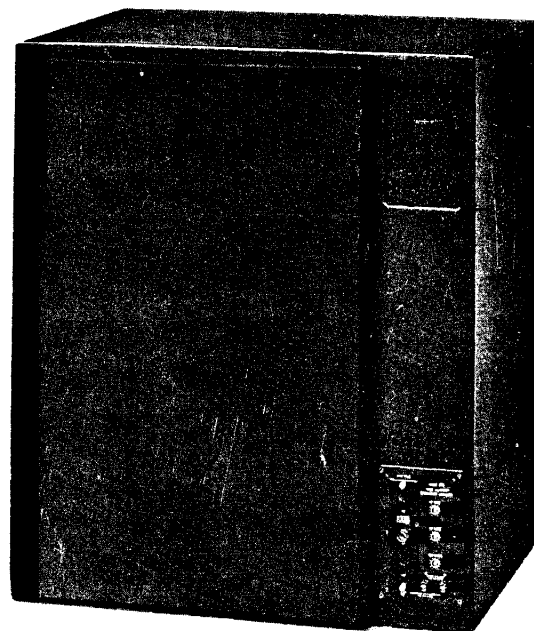
Weight: 83 kg (183 pounds)

Dimensions: Height = 0.914 m (36")

Width = 0.787 m (31")

Depth = 0.584 m (23") without grille

0.660 m (26") with grille



**UREI 813A SYSTEM
 WITH ACCESSORY GRILLE
 813AG**