

1620 MUSIC MIXER



FEATURES:

- Eleven Inputs
- Stereo Outputs for House, Booth, and Headphones
- Two Stereo Tape Outputs
- Processor Loop
- Mono Light Controller Output
- Flexible Switching Matrix
- Reliable Performance
- Ideal for Disco, Small Club, or Broadcast Production

The Model 1620 Music Mixer is an extremely flexible multi-input stereo mixer designed for the most critical and demanding applications. The outstanding features and reliability make it the perfect choice for nightclubs, broadcast production,

mobile discos, and other installations where high quality is essential.

The Model 1620 has six independent stereo channels, each with its own level and balance controls. The standard configuration features two stereo phono inputs, one transformer isolated mic input with variable gain, and eight stereo line level inputs. Three of the eight line inputs can accept additional phono or mic preamp cards. These optional cards permit combinations such as five phono inputs, one mic input, and five line inputs; two phono inputs, four mic inputs, and five line inputs, or any other combination you may require. The standard mic input and eight line inputs are selected to any of four level and balance controls through a flexible switching matrix.

The output circuits of the Model 1620 also feature extraordinary flexibility. Separate outputs for house and booth amplifiers are provided, each with its own level control. The house output is transformer-isolated so that remote amplifiers may be fed with minimum likelihood of noise pickup in the interconnecting lines.

A separate headphone circuit has its own selector switch, allowing its source to come from any of the six input controls (pre-fader) or from the program output; its level control feeds an internal headphone amplifier and front panel stereo 6.3 mm (1/4 in.) phone jack. For convenience in attaching lighting controllers, an isolated mono (L + R) output is provided on a rear panel jack; this output is not affected by any of the output level controls, so that lighting intensity will not be affected by overall level adjustments. Separate bass and treble controls for left and right channels affect the house, booth, headphone and mono outputs. The inflection points of these controls are carefully selected for minimum midrange coloration and maximum flexibility.

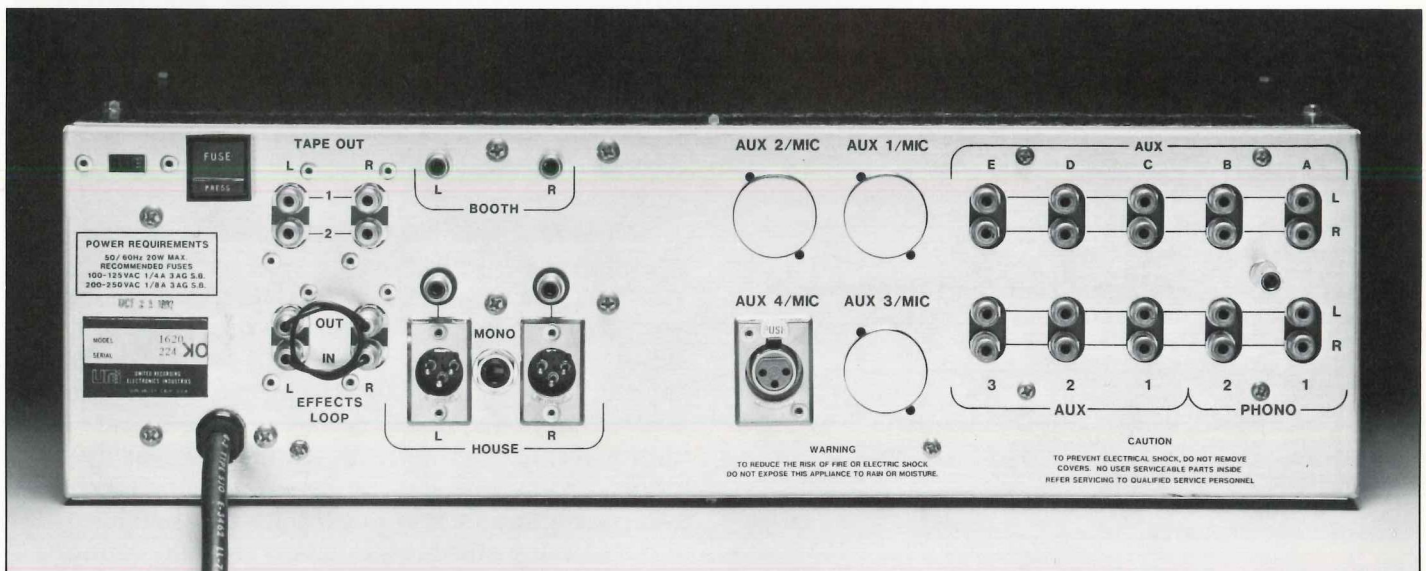
Additionally, two separate tape outputs are provided for making recordings, and a processor loop allows connection of equalizers or other signal modification equipment.

To further customize the 1620 Music Mixer for specific installations, qualified technicians may make simple internal modifications to defeat the tone controls, or connect the standard mic input so that it does not appear on the tape outputs or processor loop and is not affected by the master gain or tone controls.

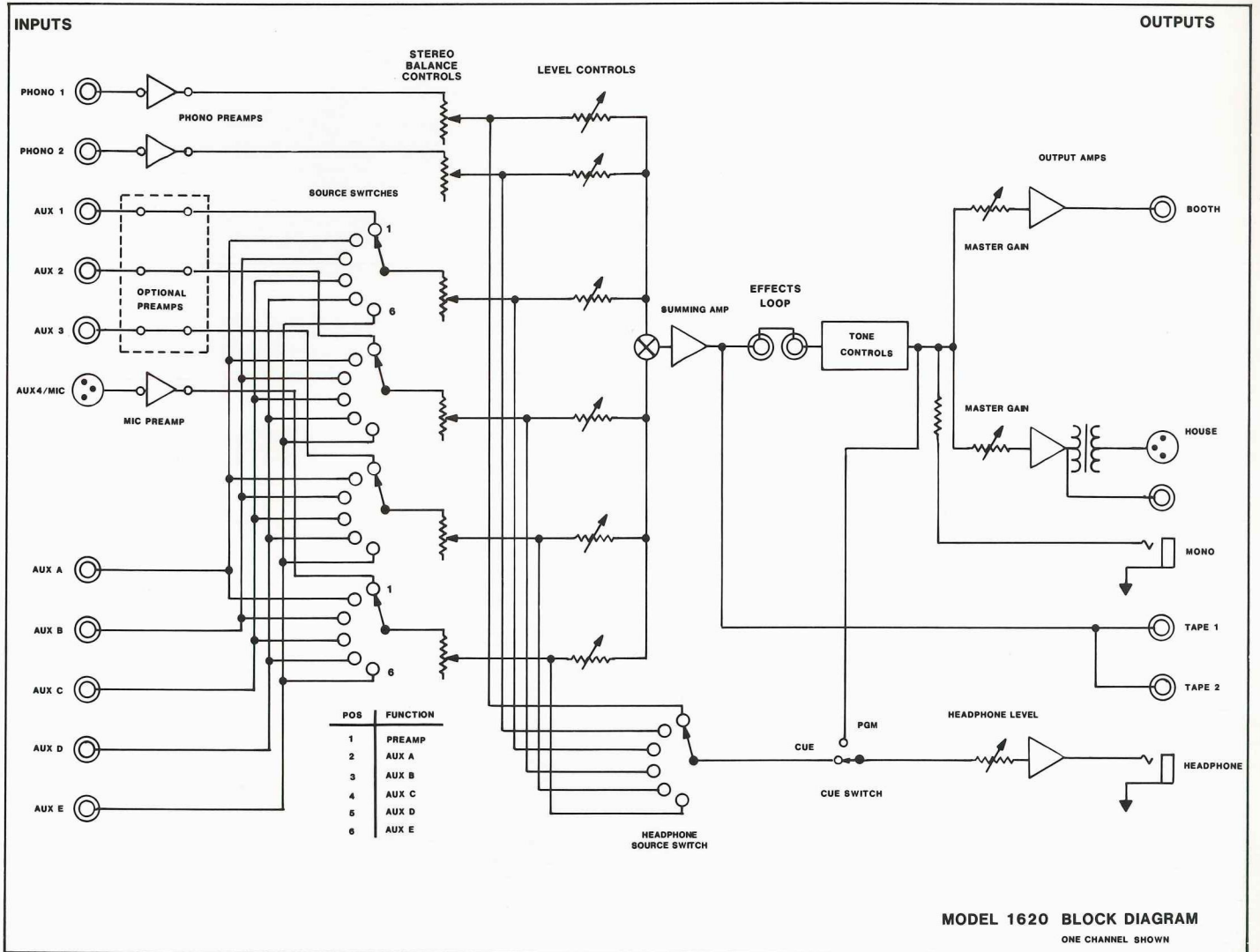
The Model 1620 has been designed for long life and reliability. All input and output level controls are quiet, smooth-acting conductive plastic. Modular construction assures minimum down time in case of problems—all preamplifiers, selector switches, level and balance controls are on modular subassemblies which may be replaced in the field without soldering. Components are operated well within their ratings to assure long life and reliability.

All this would mean little if the 1620 were not comfortable to use. Extensive consultations with leading experts have resulted in a familiar layout which will allow the experienced user to quickly acclimate to the new features and flexibility, yet will not intimidate an inexperienced operator.

The 1620 Music Mixer will provide the demanding user with the finest possible sound quality under the stresses of both fixed and portable installations. It features unparalleled flexibility for virtually any club application or small broadcast production configuration.



Rear Panel View



TECHNICAL SPECIFICATIONS:

INPUTS:

CONTROLS: Six stereo level and balance

Phono 1 & 2: RIAA-equalized stereo phono, with two Part No. 10-13854 preamplifier cards supplied as standard equipment.

Auxiliary 1—4: Switchable to any one of five line level sources or a preamplified low level source. Standard configuration: Aux 4 Input equipped with mono microphone preamplifier card, Part No. 10-13853. Optional configuration: Preamp source position accepts stereo phono preamplifier card or mono microphone preamplifier card; Phono inputs 1 & 2 alternately will accept mic preamp card in place of standard phono preamp card.

Phono Inputs:

Input Impedance: 47k ohms
Gain: 61 dB maximum @ 1kHz.
Connector: RCA-type phono jack

Microphone Input:

Input Impedance: For 150 ohm microphone, transformer isolated, bridging.
Gain: 60–80 dB, adjustable on card.
Noise: < -126 dB (ref. 0.775 V) equivalent input noise (15.7 kHz noise bandwidth).
Connector: XL-type three-pin female

Auxiliary Inputs:

Input Impedance: 10k ohm nominal.
Gain: 20 dB minimum.
Connector: RCA-type phone jack.

OUTPUTS:

House Outputs: Transformer isolated, symmetrical, floating.

Output Impedance: <50 ohms.
Recommended Load: 600 ohms or greater.
Frequency Response: ± 1 dB, 20 Hz–20 kHz.
Distortion: <0.1% THD, 20 Hz–20 kHz@ +4 dBm.
Maximum Output: +25 dBm (13.78 V) into 600 ohms.
Connectors: XL-type three-pin male, RCA-type phono jack. RCA output is unbalanced and capable of +20dB (7.75 V) into 5k ohms.

Booth Output: Same signal as House Output, separate front panel level control, unbalanced.

Output Impedance: 600 ohms
Recommended Load: 600 ohms or greater.
Frequency Response: ± 1 dB 20 Hz–20 kHz.
Distortion: <0.1% THD, 20 Hz–20 kHz@ +4 dB.
Maximum Output: +20 dB (7.75 V) into 5k ohms.
Connector: RCA-type phono jack.

Headphone Output:

Source: Switchable to any input control (prefader) or to program output, pre master fader.
Output Impedance: <50 ohms.
Recommended Load: 200 ohms or greater.
Frequency Response: +0, -1.5 dB, 20 Hz–20 kHz into 200 ohm load.
Distortion: <0.3% THD, 20 Hz–20 kHz@ +4 dB.
Maximum Output: +20 dB (7.75 V) into 200 ohms.
Connector: 6.3mm (¼ in.) phone jack, three conductor, on front panel.

Mono Output: Summed left and right program signals, not affected by master gain, intended for lighting controllers, etc.

Output Impedance: 5k ohms.
Recommended Load: 5k ohms or greater.
Frequency Response: ± 1dB, 20 Hz–20 kHz.
Maximum Output: +14 dB (3.88 V) into 5k ohms.
Connector: 6.3mm (¼ in.) phone jack, two conductor.

Tape Outputs (two):

Output Impedance: 600 ohms
Recommended Load: 5k ohms or greater.
Frequency Response: ± 1dB, 20 Hz–20 kHz.
Distortion: <0.1% THD, 20 Hz–20 kHz@ +4 dB.
Maximum Output: +20 dB (7.75 V) into 5k ohms.
Connectors: RCA-type phone jack.

Effects Loop Output: Same specifications as Tape Outputs.

Effects Loop Input:

Input Impedance: 10k ohms.
Maximum Input Level: +23 dB (10.95 V).
Connector: RCA-type phono jack.

TONE CONTROLS:

Affect program material from House, Booth, Headphone and Mono outputs; separate controls for left and right channels.

Treble: ± 10 dB @ 10 kHz.
Bass: ± 10 dB @ 50 Hz.

GENERAL SPECIFICATIONS:

Power Requirements: 100–125/200–250 V AC, 50/60 Hz, selectable on rear panel.

Consumption: 20 W maximum.
On/Off Switch: None.
Indicator: Red LED, front panel.
Fuse: Type 3 AG Slow Blow, ¼ A@115V,
 ⅛ A@230 V

Power Cord: 3 wire U-ground, captive, approx. 1.5m (5 ft.) long.

Environment: Operation: 0°C to +50°C. (+32°F to +122°F).
 Storage: -20°C to +60°C. (-4°F to +140°F)

Dimensions:

Front Panel: 133 x 483 mm (5¼ x 19 in.) EIA rack mount.
Depth Behind Panel: 203 mm (8 in.)

Finish: Panel is 3.2 mm (¼ in.) black anodized, horizontally brushed aluminum. Chassis is cadmium-plated steel.

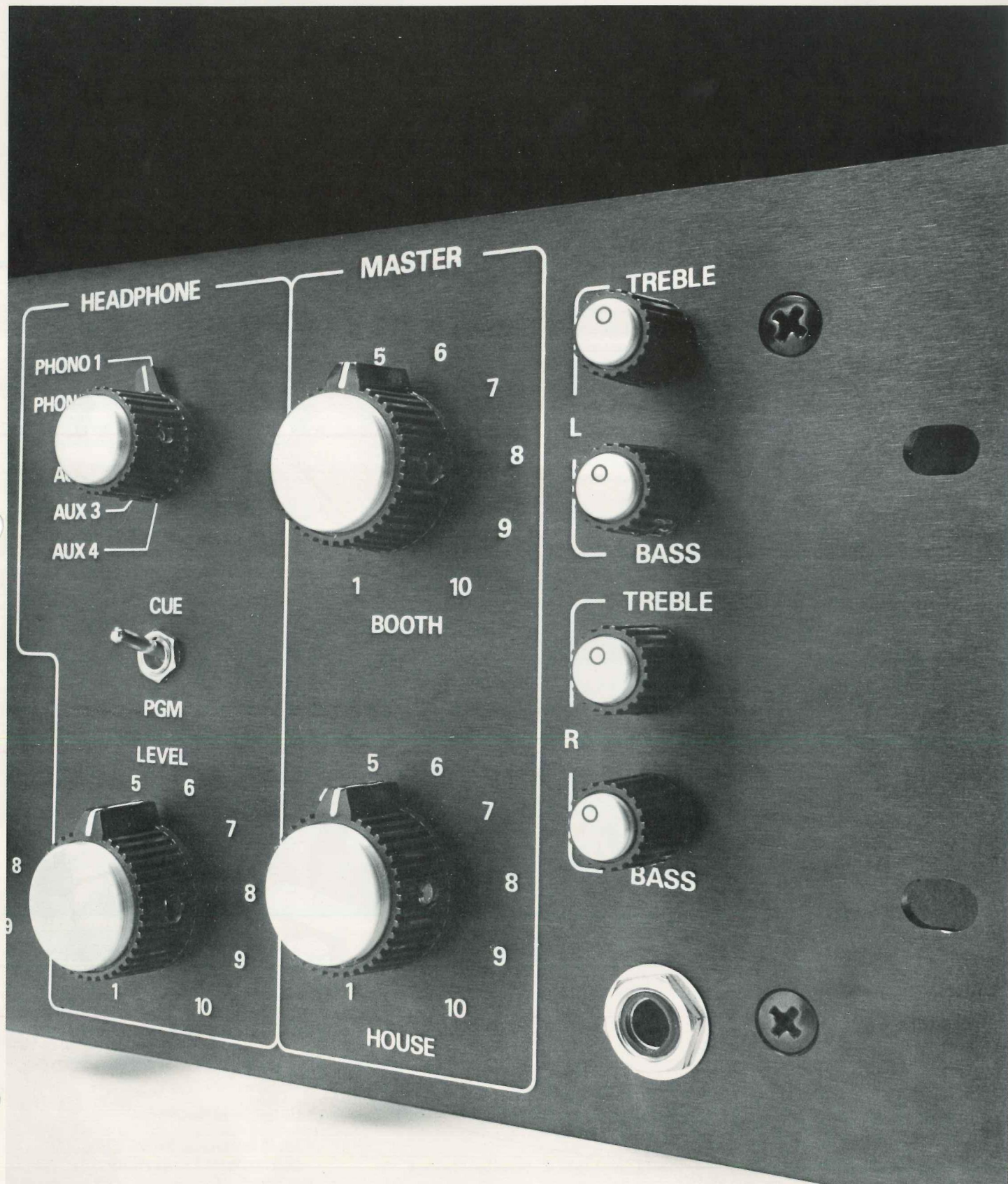
Net Weight: 5.9 kg (13 lb.).

Shipping Weight: 6.8 kg (15 lb.).

Accessories: Part No. 10-13853 Microphone Preamplifier.
 Part No. 10-13854 Phono Preamplifier.
 (Note: 1 ea 10-13853 and 2 ea 10-13854 are supplied in the 1620 Mixer; up to 3 additional preamplifiers may be installed.)

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The UREI 1620 Music Mixer



The UREI Music Mixer Model 1620

The UREI Model 1620 Music Mixer is a multi-input, extremely flexible stereo mixer optimized for the typically heavy usage found in contemporary nightclub service. The outstanding features and reliability of the Model 1620 also make it useful in broadcast production, sound reinforcement, and other applications where high quality is essential.

The standard configuration of the 1620 features two stereo phono inputs (each with its own level control), one transformer-isolated microphone input, and five stereo line level inputs. The mic input, the five line inputs and up to three additional optional phono and/or mic inputs are assigned by a unique, flexible switching matrix to four auxiliary input level controls. Each input control has its own balance control for precise adjustment of left vs. right level.

The output circuits of the Model 1620 also feature extraordinary flexibility. Separate outputs for house and booth amplifiers are provided, each with its own level control; the house output is transformer-isolated, so that remote amplifiers may be fed with minimum likelihood of noise

pickup in the interconnecting lines.

A separate headphone circuit has its own selector switch, allowing its source to come from any of the six input controls (pre-fader) or from the program output; its level control feeds an internal headphone amplifier and front panel stereo 6.3 mm (1/4 in.) phone jack. For convenience in attaching lighting controllers, an isolated mono (L + R) output is provided on a rear panel jack; this output is not affected by any of the output level controls, so that lighting intensity will not be affected by overall level adjustments. Separate bass and treble controls for left and right channels affect the house, booth, headphone and mono outputs. The inflection points of these controls have been carefully selected for minimum midrange coloration and maximum flexibility.

Additionally, two separate tape outputs are provided for making recordings, and a processor loop allows connection of equalizers or other signal modification equipment.

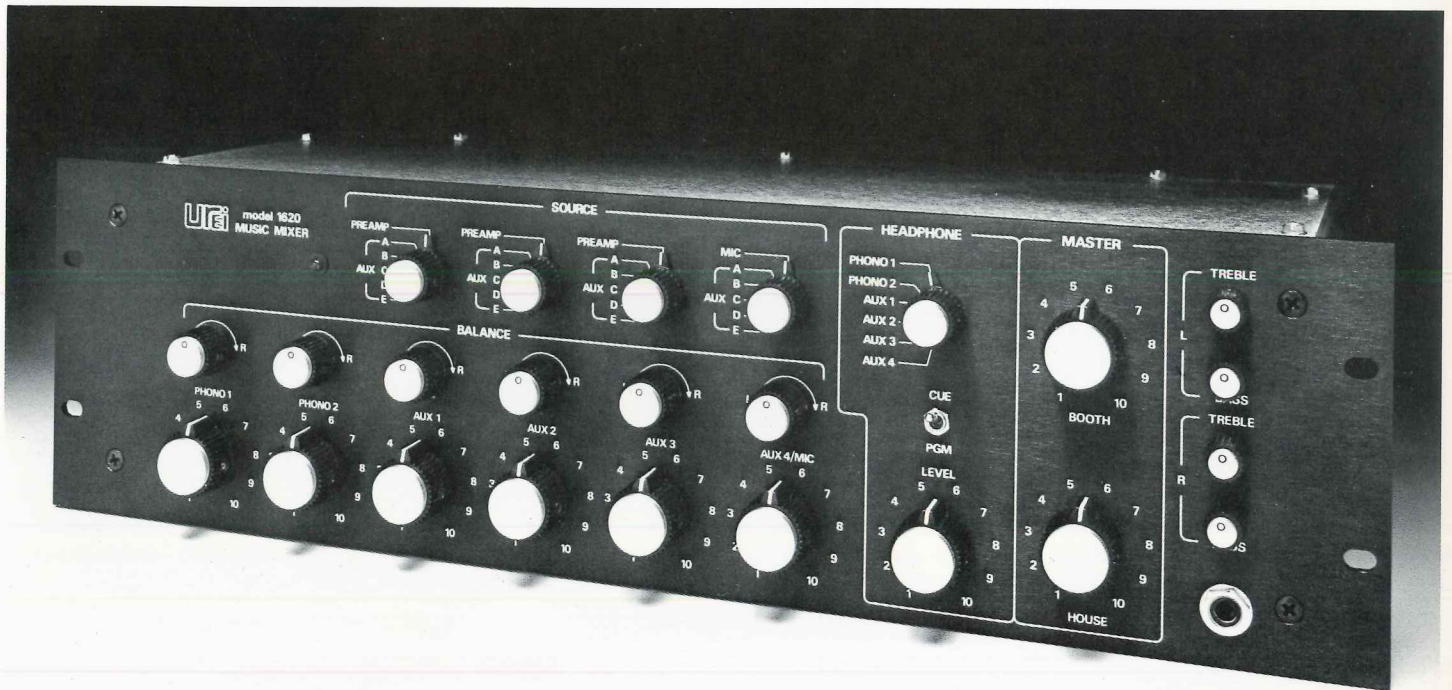
To further customize the 1620 Music Mixer for specific installations, qualified technicians may make simple internal modifications to defeat the tone controls, select the program feed to the headphones from

before the master gain control, and/or connect the standard mic input so that it does not appear on the tape outputs or processor loop and is not affected by the master gain or tone controls.

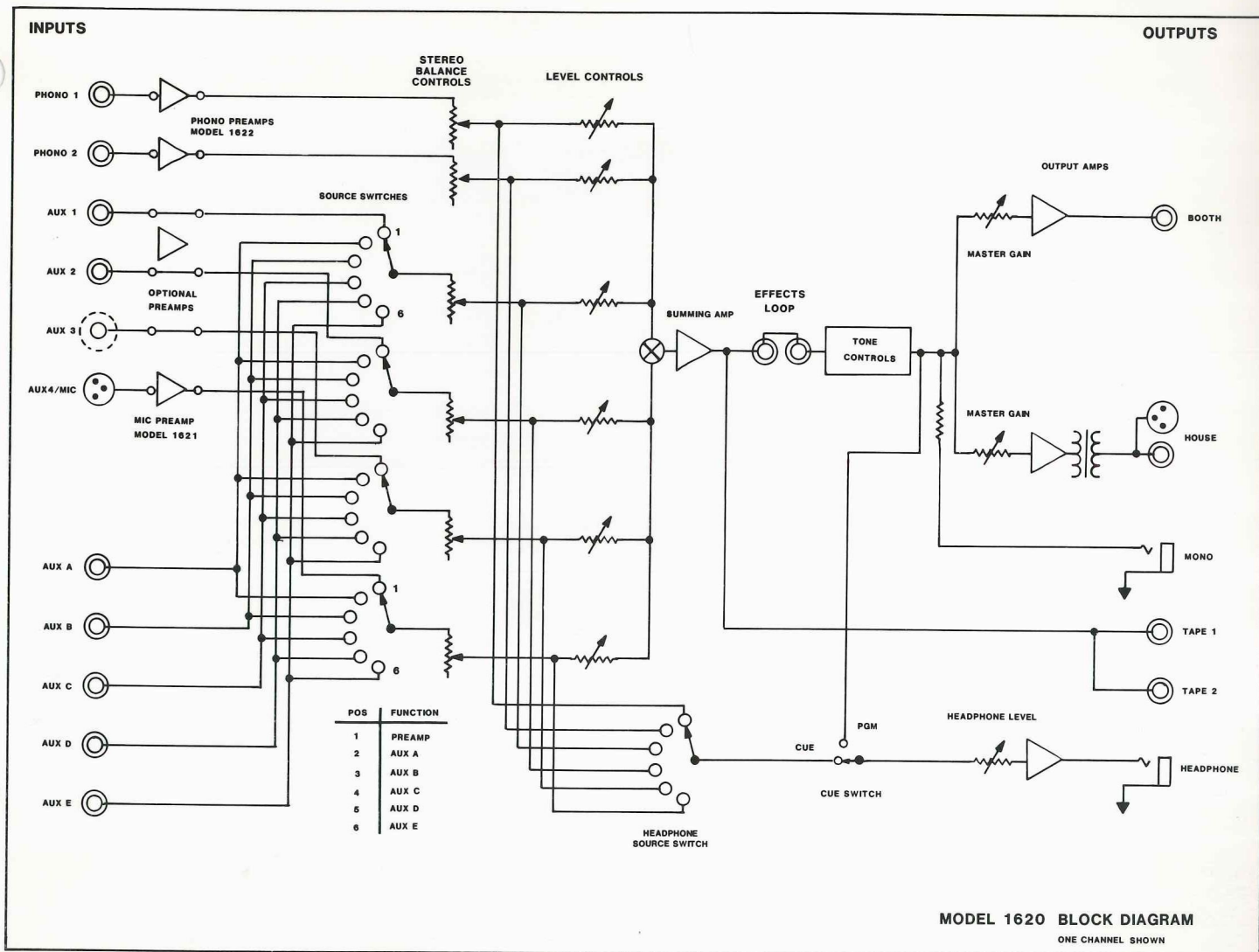
The Model 1620 has been designed for long life and reliability. All input and output level controls are quiet, smooth-acting conductive plastic. Modular construction assures minimum down time in case of problems—all preamplifiers, selector switches, level and balance controls are on modular subassemblies which may be replaced in the field without soldering. Components are operated well within their ratings to assure reliability in continuous duty service.

All this would mean little if the 1620 were not comfortable to use. Extensive consultations with leading experts have resulted in a familiar layout which will allow the experienced user to quickly acclimate to the new features and flexibility, yet will not intimidate an inexperienced operator.

The UREI 1620 Music Mixer will provide the demanding user with the finest possible sound quality under the stresses of both fixed and portable installations. It features unparalleled flexibility for virtually any club application or small broadcast production configuration.



- Eleven Inputs
- House, Booth and Headphone Stereo Outputs
- Two Stereo Tape Outputs and Processor Loop
- Mono Light Controller Output
- Reliable Performance
- Ideal for Disco, Small Club, or Broadcast Production



MODEL 1620 BLOCK DIAGRAM
ONE CHANNEL SHOWN

The UREI Model 1620 Music Mixer Technical Specifications

INPUTS	
Phono 1 & 2	Six stereo inputs with individual balance and level controls. RIAA-equalized stereo phono, with two Part No. 10-13854 preamplifier cards supplied as standard equipment.
Auxiliary 1-4	Switchable to any one of five line level sources or a preamplified low level source. Standard configuration: Aux 4 Input equipped with mono microphone preamplifier card, Part No. 10-13853. Optional configuration: Preamp source position accepts stereo phono preamplifier card or mono microphone preamplifier card; Phono inputs 1 & 2 alternately will accept mic preamp card in place of standard phono preamp card.
Phono Inputs	
Input Impedance	47k ohms
Gain	61 dB maximum @ 1kHz.
Connector	RCA-type phono jack.
Microphone Input	
Input Impedance	For 150 ohm microphone, transformer isolated, bridging.
Gain	60-80 dB, adjustable on card.
Noise	<-126 dB (ref. 0.775 V) equivalent input noise (15.7 kHz noise bandwidth).
Connector	XL-type three-pin female
Auxiliary Inputs	
Input Impedance	10k ohm nominal.
Gain	20 dB minimum.
Connector	RCA-type phono jack.

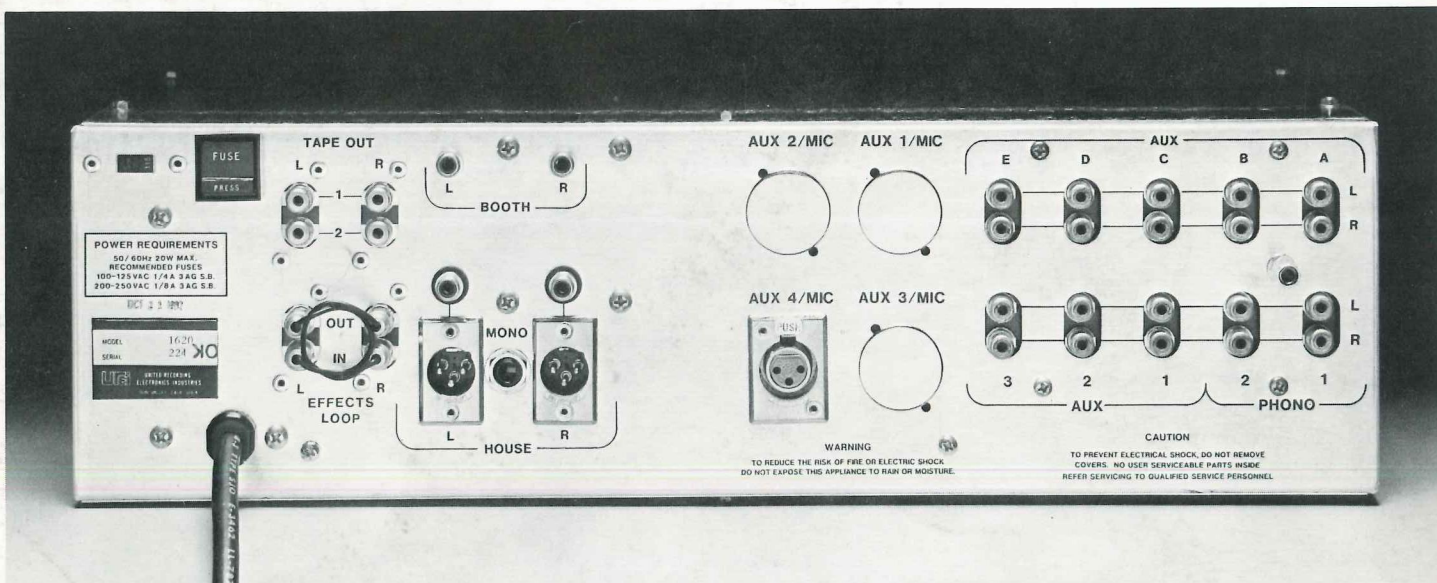
OUTPUTS	
House Outputs	Transformer isolated, symmetrical, floating. <50 ohms. 600 ohms or greater. ±1 dB, 20Hz-20 kHz. <0.1% THD, 20Hz-20 kHz @ +4 dBm. +25 dBm (13.78 V) into 600 ohms. XL-type three-pin male, RCA-type phono jack.
Booth Output	Same signal as House Output, separate front panel level control, unbalanced. 600 ohms. 600 ohms or greater. ±1 dB, 20 Hz-20 kHz. <0.1% THD, 20 Hz-20 kHz @ +4 dB. +20 dB (7.75 V) into 5k ohms. RCA-type phono jack.
Headphone Output Source	Switchable to any input control (pre-fader) or to program output. <50 ohms. 200 ohms or greater. +0, -1.5 dB, 20 Hz-20 kHz into 200 ohm load. <0.3% THD, 20 Hz-20 kHz @ +4 dB. +20 dB (7.75 V) into 200 ohms. 6.3mm (1/4 in.) phone jack, three conductor, on front panel.
Output Impedance	
Recommended Load	
Frequency Response	
Distortion	
Maximum Output	
Connectors	

OUTPUTS cont'd.

Mono Output	Summed left and right program signals, not affected by master gain, intended for lighting controllers, etc.
Output Impedance	5k ohms
Recommended Load	5k ohms or greater.
Frequency Response	±1 dB, 20 Hz—20 kHz.
Maximum Output	+14 dB (3.88 V) into 5k ohms.
Connector	6.3mm (¼ in.) phone jack, two conductor.
Tape Outputs (two)	
Output Impedance	600 ohms.
Recommended Load	5k ohms or greater.
Frequency Response	±1 dB, 20 Hz—20 kHz.
Distortion	<0.1% THD, 20 Hz—20 kHz @ +4 dB.
Maximum Output	+20 dB (7.75 V) into 5k ohms.
Connectors	RCA-type phone jack.
Effects Loop Output	Same specifications as Tape Outputs.
Effects Loop Input	
Input Impedance	10k ohms.
Maximum Input Level	+23 dB (10.95 V).
Connector	RCA-type phono jack.
TONE CONTROLS	Affect program material from House, Booth, Headphone and Mono outputs; separate controls for left and right channels.
Treble	±10 dB @ 10 kHz.
Bass	±10 dB @ 50 Hz.

GENERAL SPECIFICATIONS

Power Requirements	100-125/200-250 V AC, 50/60 Hz, selectable on rear panel.
Consumption	20 W maximum.
On/Off Switch	None.
Indicator	Red LED, front panel.
Fuse	Type 3 AG Slow Blow, ¼ A @ 115 V, ½ A @ 230 V.
Power Cord	3 wire U-ground, captive, approx. 1.5m (5 ft.) long.
Environment	Operating: 0°C to +50°C. (+32°F to +122°F) Storage: -20°C to +60°C. (-4°F to +140°F)
Dimensions	
Front Panel	133 x 483 mm (5¼ x 19 in.) EIA rack mount.
Depth Behind Panel	203 mm (8 in.).
Finish	Panel is 3.2 mm (¼ in.) black anodized, horizontally brushed aluminum. Chassis is cadmium-plated steel.
Net Weight	5.9 kg (13 lb.).
Shipping Weight	6.8 kg (15 lb.).
Accessories	Part No. 10-13853 Microphone Preamplifier. Part No. 10-13854 PhonoPreamplifier. (Note: 1 ea 10-13853 and 2 ea 10-13854 are supplied in the 1620 Mixer; up to 3 additional preamplifiers may be installed.)



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