

**OPERATING INSTRUCTIONS**

***MPA™ 700***

***MIXER/PREAMP***



## FEATURES:

- 7 channel mixing system
- 20-20 kHz frequency response
- Bridging input/output
- Dedicated program input
- Contour switch (special equalization)
- Bass and treble controls
- Plug in module capability
- Rack-mountable or stand alone package

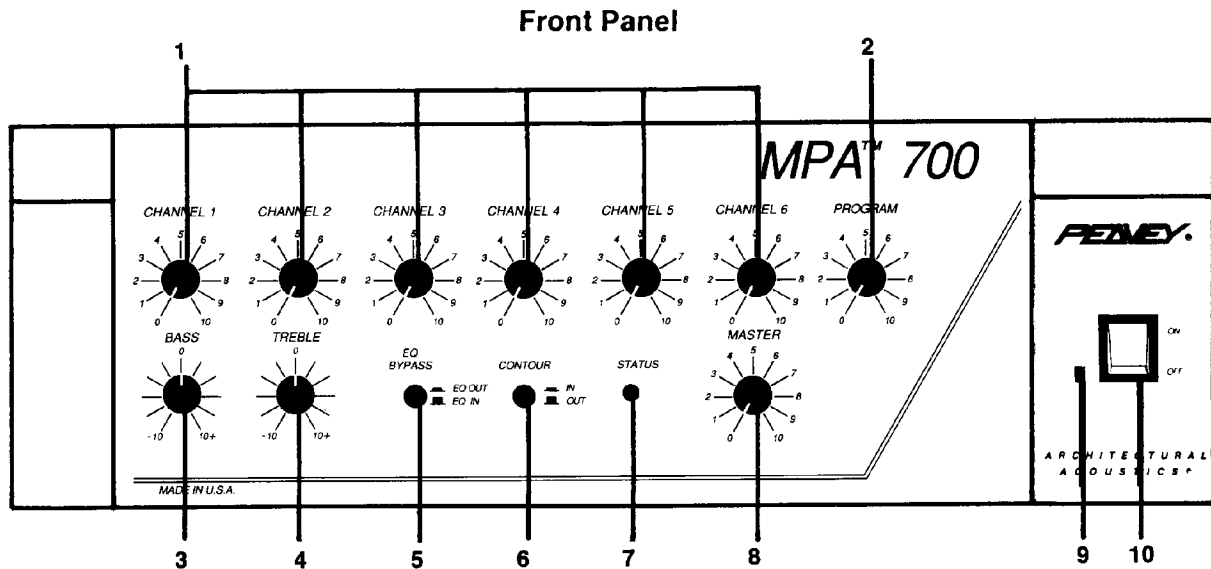
## General Description

The Architectural Acoustics MPA™ 700 is a high quality mixer/preamp with seven input channels. Each channel provides a level control and the master output section features bass and treble EQ controls (defeatable), and special equalization contour.

The MPA 700 provides unmatched application flexibility with an array of optional plug-in modules, allowing each system to be tailor-made for specialized installations. Input modules may be loaded in, as required, for varying sound reinforcement applications, number of input channels, special functions, etc.

The program input includes a level control and is totally separate from the other six channels. External signals may be patched in at this point as a system auxiliary input or the seventh input channel. Signals appearing at this input are routed directly to the master summing amplifier stage and are mixed with signals from the other six channels. Systems requiring a single input may use the program input and the purchase of an input module is not necessary. The program level control regulates the level of this input and the signal is routed through the system bass and treble controls.

The MPA 700 is packaged as a stand-alone unit but will also rack-mount into a standard 19" rack.



### Channel Level Control (1)

Controls the signal level at the channel input.

### Program Level Control (2)

Controls the signal level at the program input.

### Low EQ Control (Bass) (3)

Active equalization control that adjusts the low frequency response. Clockwise rotation boosts lows while counterclockwise rotation provides a cut (reduction) of the low frequencies ( $\pm 10$  dB).

### High EQ Control (Treble) (4)

Active equalization control that adjusts the high frequency response. Clockwise rotation boosts highs while counterclockwise rotation provides a cut (reduction) of the high frequencies ( $\pm 10$  dB).

### EQ Bypass (5)

The "in" position of this switch bypasses bass and treble

equalization. The "out" position allows operation of the equalization.

### Contour Switch (6)

The "in" position of this switch provides a 6 dB boost at 100 Hz and 6 dB boost at 10 kHz. The "out" position removes boost from the system.

### Status LED (7)

Indicates output level from the master mixing stage. Bi-color illumination capability indicates signal activity (green) and 3 dB below clipping (red).

### Master (8)

Controls the overall volume level of the system.

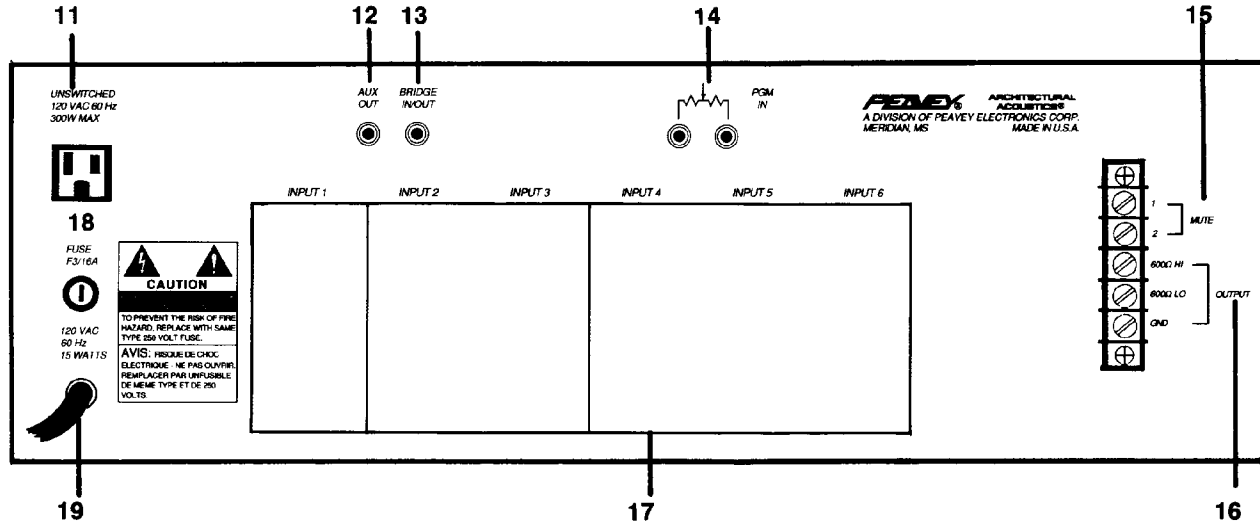
### Power On LED (9)

Indicates when AC power is being supplied to the unit.

### Power Switch (10)

Depress to "on" position to turn on.

## Rear Panel



### AC Outlet (Unswitched) (11)

Provides AC power for auxiliary equipment with power consumption 300 watts maximum.

### AUX Out (12)

Provides an unbalanced output via RCA jack for use with external equipment such as tape decks, power amps, etc.

### Bridge In/Out (13)

Provides output signal that is independent of the Master level control, Bass and Treble controls. It also may be used as a mixing output point when the similar terminal of another amplifier is connected to this terminal. A separate tape recording output may be taken from this point without interaction of EQ and master level control.

### Program In (14)

Accepts signals from other sources such as another mixer or mixer amplifier. Signal level at this input is controlled by the Program level control and is fed to the Master output. The program in may be regarded as channel "seven" without plug-in module capability. **NOTE:** This input is muted whenever the mute line is grounded.

### Mute (15)

Plug-in modules are available with muting function. The mute line may be activated with an external switch at this point.

### Outputs (16)

A 600 ohm transformer balanced output is provided via screw terminals at this point. (See figure 1)

### Module Input Ports (17)

Accepts plug-in modules for all six channels. Modules are optional and should be selected by installation requirements. **NOTE:** All modules will function in any of the six ports.

### Fuse (18)

Replace with the same size and rating.

### Power Cord (19)

Connect to 120V AC power source.

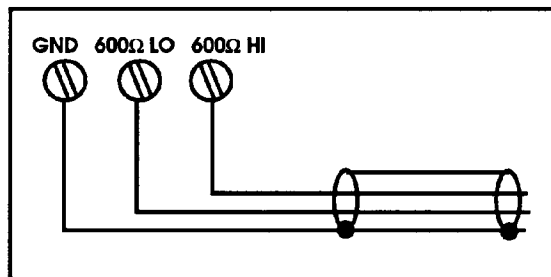


Figure 1: Low Z, Balanced Output Connection

## SPECIFICATIONS

**Output Power:**

+4 dBm (rated output)  
 +19 dBm (maximum)

**Power Bandwidth:**

43-20 kHz, +19 dBm, < 0.5% THD  
 40-20 kHz, +17 dBm, > 0.25% THD

**Frequency Response:**

20-20 kHz  $\pm 1$  dB

**THD:**

0.05% at 1 kHz, +19 dBm output

**S/N Ratio:**

Master Volume Min: 100dB  
 Master Volume Max: 77dB

**Tone Controls:**

Bass  $\pm 10$  dB @ 100 Hz  
 Treble  $\pm 10$  dB @ 10 kHz

**Contour:**

+6 dB @ 100 Hz  
 +6 dB @ 10 kHz

**Inputs:**

Six input ports, each accepts any input/output module; one dedicated program input (dual RCA phono jacks), bridge in/out phono jacks), bridge in/out

**Input Sensitivity:**

Ports 1-6 and PGM: 100mV @ 10K ohms  
 Bridge in/out: 100mV/3.3K ohms

**Outputs:**

Main: +4 dBu @ 600 ohms (balanced)  
 AUX: +3 dBu @ 10K ohms (unbalanced)

**Controls:**

7 input gain controls, 1 bass control, 1 treble control, 1 contour switch, 1 master gain control, 1 power switch, 1 EQ defeat switch

**Indicators:**

Power LED, Bi-color (green/red) status LED

**Protection:**

AC line fuse (external)

**Connectors:**

PGM input, bridge in/out, AUX out, - RCA phono jack  
 Ports 1-6 - card edge connector  
 600 ohm output - screw terminals  
 Mute - screw terminals  
 AC line cord - SJT, 3 prong  
 AC outlet - 3 prong

**Power Consumption:**

AC 120 volts, 60 Hz, 15 watts

**Dimensions:**

5.20" (H) x 17.00" (W) 12.625" (D)

**Weight:**

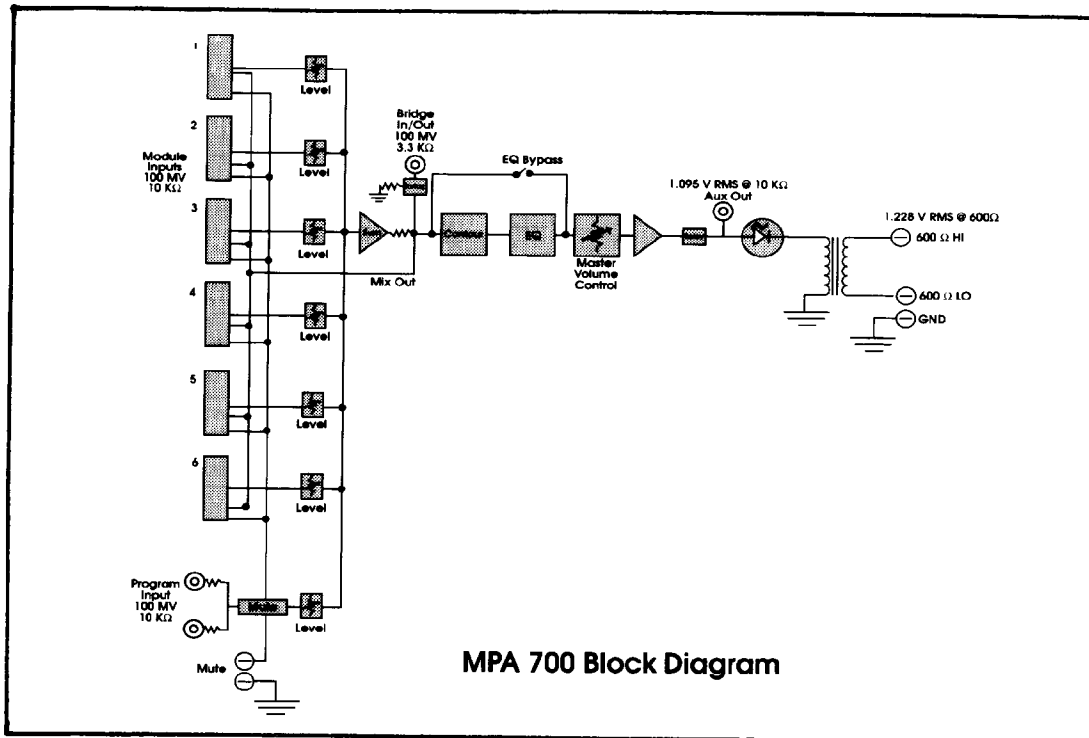
13 lbs.

**Color:**

Gray

**Other Features:**

Output disconnected for 5 seconds after power on



### **LIMITED WARRANTY**

Peavey Electronics Corporation warrants to the original purchaser of this new Architectural Acoustics product that it is free from defects in material and workmanship. If within one (1) year from date of purchase a properly installed product proves to be defective and Peavey is notified, Peavey will repair or replace it at no charge. (Note: Batteries and patch cords not covered.) "Original purchaser" means the customer for whom the product is originally installed.

Damage resulting from improper installation, interconnection of a unit or system of another manufacturer, accident or unreasonable use, neglect or any other cause not arising from defects in material and workmanship is not covered by this warranty. The warranty is valid only as to products purchased and installed in the United States.

**THIS LIMITED WARRANTY IS IN LIEU OF ANY AND ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE. UNDER NO CIRCUMSTANCES WILL PEAVEY BE LIABLE FOR ANY LOST PROFITS, LOST SAVINGS, INCIDENTAL DAMAGES OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT, EVEN IF PEAVEY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. THIS LIMITED WARRANTY IS THE ONLY EXPRESSED WARRANTY ON THIS PRODUCT, AND NO OTHER STATEMENT, REPRESENTATION, WARRANTY, OR AGREEMENT BY ANY PERSON SHALL BE VALID OR BINDING UPON PEAVEY.**

Peavey's liability to the original purchaser for damages for any cause whatsoever and regardless of the form of action, is limited to the actual damages up to the greater of Five Hundred Dollars (\$500) or an amount equal to the purchase price of the product that caused the damage or that is the subject of or is directly related to the cause of action. This limitation of liability will not apply to claims for personal injury or damage to real property or tangible personal property allegedly caused by Peavey's negligence. For information on service under this warranty, call a Peavey customer service representative at (601) 483-5376.

**DANGER**

EXPOSURE TO EXTREMELY HIGH NOISE LEVELS MAY CAUSE A PERMANENT HEARING LOSS. INDIVIDUALS VARY CONSIDERABLY IN SUSCEPTIBILITY TO NOISE INDUCED HEARING LOSS, BUT NEARLY EVERYONE WILL LOSE SOME HEARING IF EXPOSED TO SUFFICIENTLY INTENSE NOISE FOR A SUFFICIENT TIME.

THE U.S. GOVERNMENT'S OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) HAS SPECIFIED THE FOLLOWING PERMISSIBLE NOISE LEVEL EXPOSURES:

DURATION PER DAY IN HOURS	SOUND LEVEL dBA, SLOW RESPONSE
8	90
6	92
4	96
3	97
2	100
1 1/2	102
1	105
3/4	110
1/2 or less	115

ACCORDING TO OSHA, ANY EXPOSURE IN EXCESS OF THE ABOVE PERMISSIBLE LIMITS COULD RESULT IN SOME HEARING LOSS.

EAR PLUGS OR PROTECTORS IN THE EAR CANALS OR OVER THE EARS MUST BE WORN WHEN OPERATING THIS AMPLIFICATION SYSTEM IN ORDER TO PREVENT A PERMANENT HEARING LOSS IF EXPOSURE IS IN EXCESS OF THE LIMITS AS SET FORTH ABOVE. TO INSURE AGAINST POTENTIALLY DANGEROUS EXPOSURE TO HIGH SOUND PRESSURE LEVELS, IT IS RECOMMENDED THAT ALL PERSONS EXPOSED TO EQUIPMENT CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS SUCH AS THIS AMPLIFICATION SYSTEM BE PROTECTED BY HEARING PROTECTORS WHILE THIS UNIT IS IN OPERATION.

THIS MIXER CONSOLE/REPERTS DEVICE HAS BEEN DESIGNED AND CONSTRUCTED TO PROVIDE ADEQUATE SIGNAL (VOLTAGE) FOR PLAYING MODERN MUSIC. IMPROPER USE OF THE GAIN/BOOSTER CONTROLS AND/OR EXCESSIVE USE OF INTERNAL/EXTERNAL PRESES MAY CREATE CLIPPING (SQUARE WAVES) AND POSSIBLY CAUSE SUBSTANTIAL DAMAGE TO THE LOUDSPEAKER SYSTEMS. EXTENDED OPERATIONS OF THE GAIN/EQUALIZATION CONTROLS IN THEIR MAXIMUM POSITIONS IS THEREFORE NOT RECOMMENDED. PLEASE REMEMBER THAT MAXIMUM POWER CAN BE OBTAINED WITH VERY LOW SETTINGS OF THE GAIN/EQUALIZATION CONTROLS IF THE INPUT SIGNAL IS VERY STRONG.

IT IS COMMON PRACTICE AMONG USERS OF SOUND REPRODUCTION EQUIPMENT TO IDENTIFY THE INDIVIDUAL CHANNELS WITH A STRIP OF TAPE PLACED ABOVE OR BELOW THE ROW OF VOLUME FADERS. ANY TYPES OR BRANDS OF TAPE THAT IS VERY STRONG ADHESIVE WHICH CAN INHIBIT THE PRINT ON THE FACELATE AND ACTUALLY REMOVE THE PAINT WHEN THE TAPE IS REMOVED WE STRONGLY RECOMMEND THAT SCOTCH TAPE ONLY BE USED ON PAINTED SURFACES. NOR ANY OTHER TAPE THAT IS NOT SPECIALLY DESIGNED FOR SUCH APPLICATIONS. MEDICAL LIGHT ADHESIVE MARKING OR LABEL TAPE IS RECOMMENDED IF TAPE MUST BE LEFT ON PAINTED SURFACE FOR EXTENDED PERIODS. IT WILL BE DIFFICULT TO REMOVE. NEVER USE CLEAR OR SCOTCH TAPE ON ANY OTHER APPLICATIONS.

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water, i.e. a bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as a stove, radiator or another heat producing amplifier.
8. Disconnect from a power supply of the type marked on the unit adjacent to the power supply cord.
9. Never break off the ground pin on the power supply cord. For more information on grounding write for our free booklet "Shock Hazard and Grounding."
10. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
12. If this product is to be mounted in an equipment rack, rear support should be provided.
13. Metal parts can be cleaned with a damp rag. The vinyl covering used on some units can be cleaned with a damp rag, or an ammonia based household cleaner if necessary.
14. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation holes or any other openings.
15. This unit should be checked by a qualified service technician if:
  - A. The power supply cord or plug has been damaged.
  - B. Anything has fallen or been spilled into the unit.
  - C. The unit does not operate correctly.
  - D. The unit has been dropped or the enclosure damaged.
16. The user should not attempt to service this equipment. All service work should be done by a qualified service technician.



Features and specifications subject to change without notice.

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