



700 SERIES MIXER/ AMPLIFIERS:

A-706

A-712

A-724

TOA 700 SERIES MIXER/AMPLIFIERS offer versatile features and outstanding value for installed sound applications such as boardrooms, educational facilities, houses of worship and many others.

The 700 Series model lineup includes the **A-706** (60 W), **A-712** (120 W), and **A-724** (240 W); all manufactured with proven TOA quality and reliability. Features include six mic/line inputs, two auxiliary line inputs and a 900 Series module port. Each mic/line input includes a mic trim control and 23 VDC phantom power. Speaker outputs consist of 70.7 V, 25 V and 4 ohm. An auxiliary line output can be used for recording or connection to an external booster amplifier.

An Auto-Mute function provides voice-activated priority override. You can assign inputs to activate or respond to the muting function with rear panel DIP switches. Muting can also be activated with an external switch-closure.

Other features include channel and master volume controls, bass/treble, processor insert jacks and output level meter. Master volume and power on/off can also be controlled remotely. Short-circuit and thermal protection circuitry ensures extended operation. Optional accessories include the MB-25B rack-mount kit and YA-920 volume control security knob.

The 700 Series is UL and cUL listed with competitive pricing and a five-year warranty.



HIGHLIGHTS

- **Nine Channel Integrated Mixer/Amplifiers** for paging and background/foreground music distribution
- **Proven TOA Quality and Reliability** with wide frequency response, very low noise and distortion, and excellent output regulation
- **Three Models:**
 - A-706 (60 W)
 - A-712 (120 W)
 - A-724 (240 W)
- **Six Mic/Line Inputs**, balanced, with mic trim, 23 VDC phantom power and removable terminal block connector
- **Two Auxiliary Inputs**, unbalanced, with dual-RCA jacks for convenient connection of stereo sources
- **Module Slot** accepts 900 Series plug-in modules with additional features
- **Transformer-Isolation for Telephone Paging Applications** (Input #1)
- **25 V, 70.7 V and 4 Ohm Speaker Outputs** with removable terminal block connector
- **Auto-Mute Priority Function** assignable via external switches
 - Channels 1-3 and Module configurable as Mute Send
 - Channels 1-8 and Module configurable as Mute Receive
- **Auto-Mute SENSE Control** for adjusting mute activation threshold
- **External Mute Terminals** for activating mute function with external switch-closure
- **Individual Channel and Master Volume Controls**
- **Bass/Treble Tone Controls**
- **Output Level Meter and Power Indicator**
- **Remote Master Volume** controlled with an external 10k ohm linear-taper potentiometer
- **Auxiliary Output** for connecting an external amplifier or recording device
- **Pre-amp. Out / Power Amp. In Insert Jacks** for connecting external signal processors
- **Remote AC Turn-On** for activating power with an external switch-closure
- **Turn-On Delay** disconnects output during power-up
- **Over-current and Thermal Protection Circuitry** prevents potential damage from overloads, short-circuit and overheating
- **Detachable IEC-type AC Power Cord**
- **Volume Control Security Knobs Included (4)**
- **Optional Rack-Mount Kit**, model MB-25B (2 RU)
- **UL / cUL Listed**
- **Five Year Warranty**

OPTIONAL ACCESSORIES

Plug-in Modules (see back page)

MB-25B Rack-mount Kit (2 RU)

PF-511 Perforated Rack Panel (1 RU)

YA-920 Volume Control Security Knob

IT-455 Input Transformer (channels 2 and 3)

SPECIFICATIONS

700 SERIES
MIXER/AMPLIFIERS

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www.toaelectronics.com



| | |
|--|---|
| Type | Nine channel mixer/amplifier |
| Output Power | A-706: 60 W RMS, A-712: 120 W RMS, A-724: 240 W RMS |
| Frequency Response | 50 - 20k Hz (± 3 dB) |
| Total Harmonic Distortion | 0.5% at 1k Hz, rated output |
| Inputs | Input 1 - 6: Mic -70 to -50 dBV, 600 Ω /Line -10 dBV, 600 Ω Input 1: transformer-balanced, Phoenix 3P terminal Input 2-6: electronically-balanced, Phoenix 3P terminal Input 7 - 8: Line -10 dBV, 10k Ω , unbalanced RCA pin jack (stereo-sum) Module: Specifications dependent on module type Power IN: 0 dBV, 10k Ω , unbalanced, RCA pin jack |
| Outputs | Speaker OUT: 70.7 V line, 25 V line, and 4 - 16 Ω , Phoenix 4P terminal Minimum Impedance: 70.7 V line: 83 Ω (A-706), 42 Ω (A-712), 21 Ω (A-724) 25 V line: 10 Ω (A-706), 5.2 Ω (A-712), 2.6 Ω (A-724) Preamp OUT: 0 dBV, 600 Ω , unbalanced, RCA pin jack Rec OUT: 0 dBV, 600 Ω , unbalanced, RCA pin jack |
| Output Regulation | Less than 2 dB, no load to full load |
| Phantom Power | 23 VDC, switchable, Inputs 1 - 6 |
| Module Slot | Card edge connector connects to audio input and output points of TOA 900 Series modules. Use of Mute-type modules is not required in 700 Series models. |
| Dynamic Range | Input 1 - 6: >70 dB Input 7 - 8, Module: >80 dB (Band Pass: 20 Hz - 20k Hz, with Tone Controls centered) |
| Tone Control | Bass: ± 10 dB at 100 Hz, Treble: ± 10 dB at 10k Hz |
| Control Input | Remote Volume: 10k Ω linear-taper potentiometer, Phoenix terminal Power Remote: No-voltage make contact input Open voltage: 28 VDC (when unit power is OFF) Short-circuit: Under 10 mA, Phoenix terminal Mute Control: No-voltage make contact input Open voltage: 28 VDC (when unit power is OFF) Short-circuit: Under 10 mA, Phoenix terminal |
| Indicator | 5-point LED output level meter, Power indicator LED |
| Power Source | 120 VAC, 60 Hz |
| Power Consumption (Based on UL/CSA standard) | A-706: 68 W, A-712: 110 W, A-724: 215 W |
| Operating Temperature | 14 ^o F to 104 ^o F (-10 ^o C to + 40 ^o C) |
| Finish | Panel: ABS resin, black, hair line Case: Steel plate, black |
| Dimensions (W x H x D) | 16.8" x 4.3" x 14.68" (420 x 107.7 x 367 mm) |
| Weight | A-706: 20.55 lbs (9.3 kg), A-712: 27.85 lbs (12.6 kg), A-724: 29.84 lbs (13.5 kg) |
| Accessories (included) | 4 x Volume Control Security Knobs: YA-920 |

APPLICATIONS

| | | |
|-----------------------------|----------------------------|----------------|
| Airports | Convenience Stores | Offices |
| Audio/Visual | Educational Facilities | Public Address |
| Auditoriums / Theatres | Fitness Clubs / Gymnasiums | Restaurants |
| Banks | Hotels / Hospitality | Retail Stores |
| Bars / Lounges / Nightclubs | Houses of Worship | Theme Parks |
| Boardrooms | Industrial / Warehouses | Training Rooms |
| Business Music | Museums | |
| Conference Facilities | Music Distribution | |

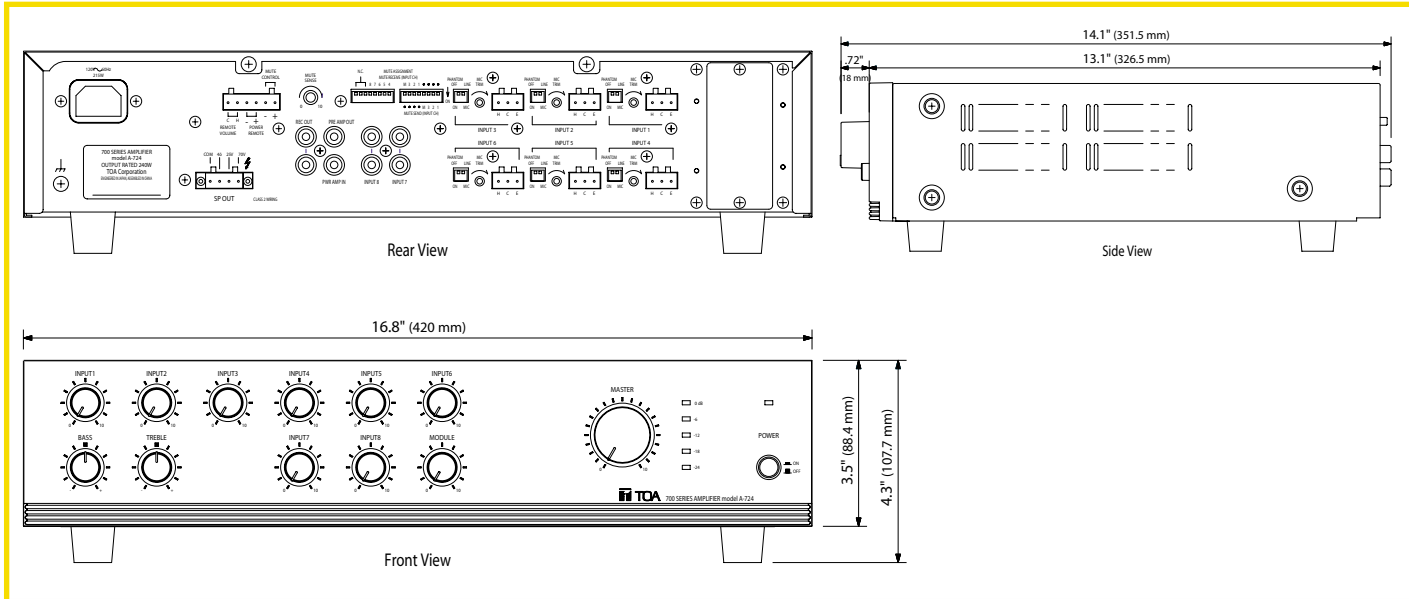


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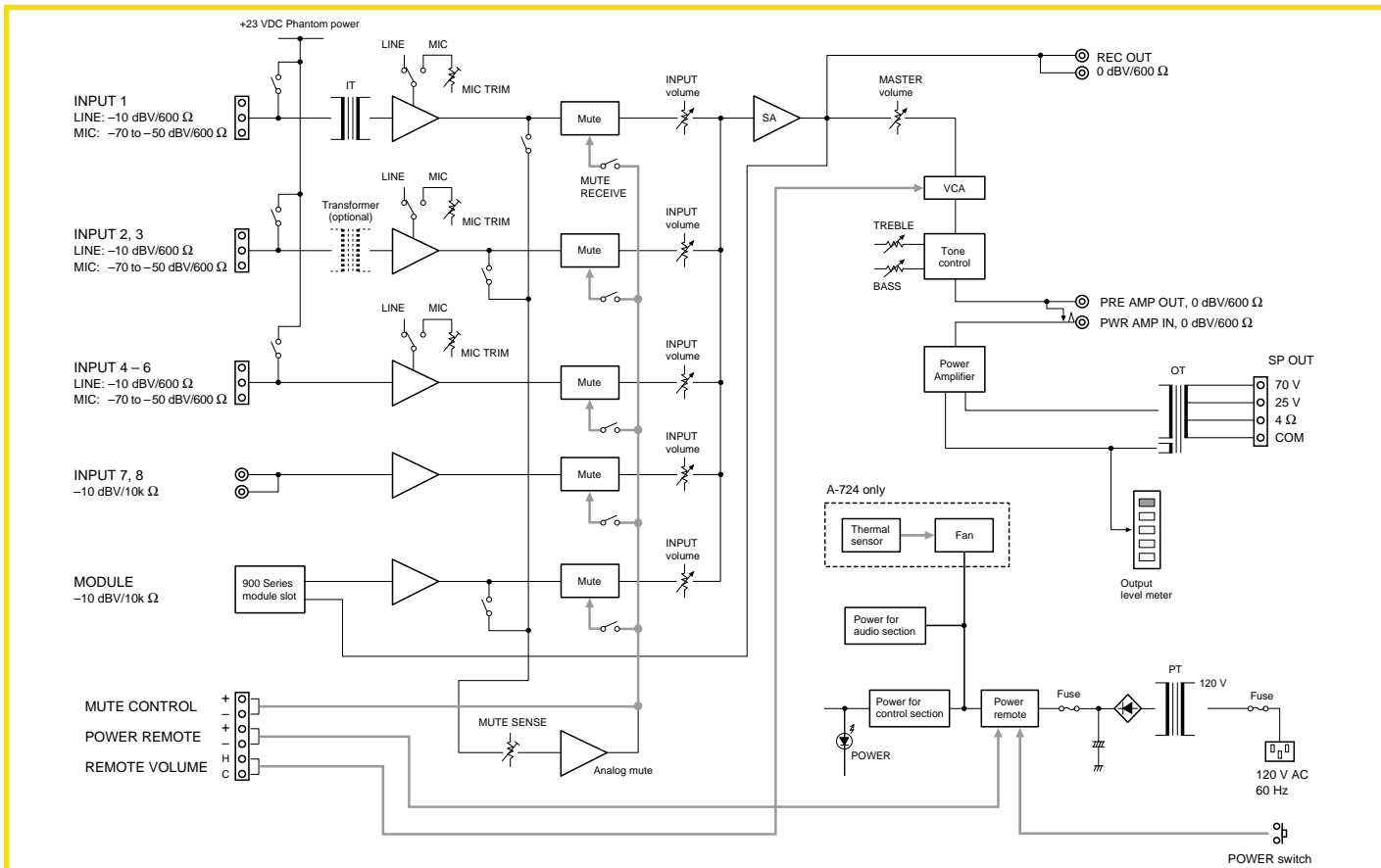
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SPECIFICATIONS

DIMENSIONAL DRAWING



BLOCK DIAGRAM





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700 SERIES MIXER/AMPLIFIERS



MODULE SELECTION CHART



| | Model | Description |
|-----------------------------|---|---|
| Microphone Input Modules | M-01F | Microphone Input Module, Balanced, 200 Ω , Lo/Hi-Cut Filters, Female XLR |
| | M-01M | Same as M-01F with Male XLR |
| | M-01P | Same as M-01F with Phone Jack |
| | M-01S | Same as M-01F with Removable Terminal Block |
| | M-03P | Microphone Input Module, HiZ, Unbalanced, 50k Ω , Lo/Hi-Cut Filters, Phone Jack |
| | M-21S | Microphone Input Module, Balanced, 200 Ω , Lo/Hi-Cut Filters, Remote Vol. Control, Screw Terminals |
| | M-51F | Microphone Input Module, Balanced, 200 Ω , Lo-Cut Filter, Voice Gate, Female XLR |
| | M-51S | Same as M-51F with Removable Terminal Block |
| | M-61F | Microphone Input Module, Balanced, 200 Ω , Lo/Hi-Cut Filters, Compressor, Female XLR |
| | M-61S | Same as M-61F with Removable Terminal Block |
| Line Input Modules* | B-01F | Balanced Line Input Module, 10k Ω Transformer, Female XLR |
| | B-01S | Balanced Line Input Module, 10k Ω Transformer, Removable Terminal Block |
| | B-21S | Balanced Line Input Module, 10k Ω Transformer, Remote Volume Control, Screw Terminals |
| | L-01F | Line Matching Input Module, 600 Ω Transformer, Balanced, Female XLR |
| | L-01S | Same as L-01F with Removable Terminal Block |
| | U-01F | Line Input Module, Unbalanced, 220k Ω , Female XLR |
| | U-01P | Same as U-01F with Phone Jack |
| | U-01R | Same as U-01F with RCA Jack |
| | U-01S | Same as U-01F with Removable Terminal Block |
| | U-03R | Stereo Line Input Module, Lo/Hi-Cut Filters, Stereo Summing Dual RCA Jacks |
| | U-03S | Line Input Module, Lo/Hi-Cut Filters, Removable Terminal Block |
| | U-14R | Dual Input Priority Module w/ AGC, Stereo Summing Dual RCA Jacks NEW! |
| | U-21S | Line Input Module, Unbalanced, 220k Ω , Remote Volume Control, Screw Terminals |
| U-61S | Line Input Module, Unbalanced, 220k Ω , Compressor, Removable Terminal Block | |
| Special Function Modules | E-03R | 900 Series Processor Module for F-121C/CM Speakers, Dual RCA Jacks |
| | E-04R | 900 Series Processor Module for H-1 Speakers, Dual RCA Jacks |
| | E-05R | 900 Series Processor Module for H-2/H-2WP Speakers, Dual RCA Jacks |
| | E-06R | 900 Series Processor Module for H-3/H-3WP Speakers, Dual RCA Jacks |
| | E-07S | 900 Series Low Pass Filter Output Module for FB-100 and HB-1, Removable Terminal Block |
| | S-01S | Signal Generator Module, 1 kHz Sine Wave, Removable Terminal Block |
| | S-02S | Signal Generator Module, Buzzer/Yelp, Removable Terminal Block |
| | S-04S | Signal Generator Module, 8 Selectable Tones, Removable Terminal Block |
| | S-20S | Digital Message/Tone Module w/ USB, Removable Terminal Block NEW! |
| | T-01S | Line Output Module, Balanced, 600 Ω , Removable Terminal Block |
| | T-02S | Line Input Module for Music-on-Hold, Unbalanced, 220k Ω Input, 600 Ω Balanced Output, Screw Terminals |
| V-01S | Remote Master Volume Control (VCA) Module, Removable Terminal Block NEW! | |

* For Line Input Modules: Use "B" modules w/ transformer isolation for balanced/unbalanced sources. Use "L" modules only for 600 ohm impedance matching. Use "U" for unbalanced sources w/ short cables (\leq 15 feet).

Visit www.toaelectronics.com to download:

- Specification Sheets
- Architect and Engineering Specifications
- 900 Series Module Guide
- Installation Manual
- CAD Files
- High-resolution Images

Literature Order #: L-700SERIES
 Specifications subject to change without notice.
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