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)

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MB-25B</td>
<td>Rack-mount Kit (2 RU)</td>
</tr>
<tr>
<td>PF-511</td>
<td>Perforated Rack Panel (1 RU)</td>
</tr>
<tr>
<td>YA-920</td>
<td>Volume Control Security Knob</td>
</tr>
<tr>
<td>IT-455</td>
<td>Input Transformer (channels 2 and 3)</td>
</tr>
</tbody>
</table>
### SPECIFICATIONS

**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 -20 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**
- **A-706**: 68 W, **A-712**: 110 W, **A-724**: 215 W
(Based on UL/CSA standard)

**Operating Temperature**
14°F to 104°F (-10°C to + 40°C)

**Finish**
- Panel: ABS resin, black, hair line
- Case: Steel plate, black

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

**BLOCK DIAGRAM**

**SPECIFICATIONS**

**INPUTS**
- **INPUT 1**
  - LINE: -10 dBV/600 Ω
  - MIC: -70 to -50 dBV/600 Ω

- **INPUT 2, 3**
  - LINE: -10 dBV/600 Ω
  - MIC: -70 to -50 dBV/600 Ω

- **INPUT 4 – 6**
  - LINE: -10 dBV/600 Ω
  - MIC: -70 to -50 dBV/600 Ω

- **INPUT 7, 8**
  - -20 dBV/10k Ω

- **MODULE**
  - -20 dBV/10k Ω

**OUTPUTS**
- **REC OUT**
  - 0 dBV/600 Ω

- **PRE AMP OUT**
  - 0 dBV/600 Ω

- **PWR AMP IN**
  - 0 dBV/600 Ω

**Dimensions**
- Front View: 16.8" (420 mm)
- Rear View: 14.1" (351.5 mm)
- Side View: 3.5" (88.4 mm)

**Technical Details**
- **Power**
  - 120 V AC, 60 Hz
- **Fuse**
  - 100 V AC, 60 Hz

**Additional Features**
- **MUTE CONTROL**
- **POWER REMOTE**
- **REMOTE VOLUME**

**Mute Assignments**
- MUTE RECEIVE
- MUTE SEND

**Input Connectors**
- INPUT 1, INPUT 2, INPUT 3, INPUT 4, INPUT 5, INPUT 6, INPUT 7, INPUT 8, MODULE

**Power for Control Section**
- Power remote
- Power for audio section

**Power for Remote Control Section**
- Power remote

**Thermal Sensor**
- Fan

**Fan**
- Output level meter

**Transformer (optional)**
- 100 Series module slot
# Module Selection Chart

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-01F</td>
<td>Microphone Input Module, Balanced, 200 Ω, Lo/Hi-Cut Filters, Female XLR</td>
</tr>
<tr>
<td>M-01M</td>
<td>Same as M-01F with Male XLR</td>
</tr>
<tr>
<td>M-01P</td>
<td>Same as M-01F with Phone Jack</td>
</tr>
<tr>
<td>M-01S</td>
<td>Same as M-01F with Removable Terminal Block</td>
</tr>
<tr>
<td>M-03P</td>
<td>Microphone Input Module, HiZ, Unbalanced, 50k Ω, Lo/Hi-Cut Filters, Phone Jack</td>
</tr>
<tr>
<td>M-21S</td>
<td>Microphone Input Module, Balanced, 200 Ω, Lo/Hi-Cut Filters, Remote Vol. Control, Screw Terminals</td>
</tr>
<tr>
<td>M-51F</td>
<td>Microphone Input Module, Balanced, 200 Ω, Lo-Cut Filter, Voice Gate, Female XLR</td>
</tr>
<tr>
<td>M-51S</td>
<td>Same as M-51F with Removable Terminal Block</td>
</tr>
<tr>
<td>M-61F</td>
<td>Microphone Input Module, Balanced, 200 Ω, Lo/Hi-Cut Filters, Compressor, Female XLR</td>
</tr>
<tr>
<td>M-61S</td>
<td>Same as M-61F with Removable Terminal Block</td>
</tr>
<tr>
<td>B-01F</td>
<td>Balanced Line Input Module, 10k Ω Transformer, Female XLR</td>
</tr>
<tr>
<td>B-01S</td>
<td>Balanced Line Input Module, 10k Ω Transformer, Removable Terminal Block</td>
</tr>
<tr>
<td>B-21S</td>
<td>Balanced Line Input Module, 10k Ω Transformer, Remote Volume Control, Screw Terminals</td>
</tr>
<tr>
<td>L-01F</td>
<td>Line Matching Input Module, 600 Ω Transformer, Balanced, Female XLR</td>
</tr>
<tr>
<td>L-01S</td>
<td>Same as L-01F with Removable Terminal Block</td>
</tr>
<tr>
<td>U-01F</td>
<td>Line Input Module, Unbalanced, 220k Ω, Female XLR</td>
</tr>
<tr>
<td>U-01P</td>
<td>Same as U-01F with Phone Jack</td>
</tr>
<tr>
<td>U-01R</td>
<td>Same as U-01F with RCA jack</td>
</tr>
<tr>
<td>U-01S</td>
<td>Same as U-01F with Removable Terminal Block</td>
</tr>
<tr>
<td>U-03R</td>
<td>Stereo Line Input Module, Lo/Hi-Cut Filters, Stereo Summing Dual RCA Jacks</td>
</tr>
<tr>
<td>U-03S</td>
<td>Line Input Module, Lo/Hi-Cut Filters, Removable Terminal Block</td>
</tr>
<tr>
<td>U-14R</td>
<td>Dual Line Input Priority Module w/ AGC, Stereo Summing Dual RCA Jacks <strong>NEW</strong>!</td>
</tr>
<tr>
<td>U-21S</td>
<td>Line Input Module, Unbalanced, 220k Ω, Remote Volume Control, Screw Terminals</td>
</tr>
<tr>
<td>U-61S</td>
<td>Line Input Module, Unbalanced, 220k Ω, Compressor, Removable Terminal Block</td>
</tr>
<tr>
<td>E-03R</td>
<td>900 Series Processor Module for F-1211C/CM Speakers, Dual RCA Jacks</td>
</tr>
<tr>
<td>E-04R</td>
<td>900 Series Processor Module for H-1 Speakers, Dual RCA Jacks</td>
</tr>
<tr>
<td>E-05R</td>
<td>900 Series Processor Module for H-2/H-2WP Speakers, Dual RCA Jacks</td>
</tr>
<tr>
<td>E-06R</td>
<td>900 Series Processor Module for H-3/H-3WP Speakers, Dual RCA Jacks</td>
</tr>
<tr>
<td>E-07S</td>
<td>900 Series Low Pass Filter Output Module for FB-100 and HB-1, Removable Terminal Block</td>
</tr>
<tr>
<td>S-01S</td>
<td>Signal Generator Module, 1 kHz Sine Wave, Removable Terminal Block</td>
</tr>
<tr>
<td>S-02S</td>
<td>Signal Generator Module, Buzzer/Yelp, Removable Terminal Block</td>
</tr>
<tr>
<td>S-04S</td>
<td>Signal Generator Module, 8 Selectable Tones, Removable Terminal Block</td>
</tr>
<tr>
<td>S-20S</td>
<td>Digital Message/Tone Module w/ USB, Removable Terminal Block <strong>NEW</strong>!</td>
</tr>
<tr>
<td>T-01S</td>
<td>Line Output Module, Balanced, 600 Ω, Removable Terminal Block</td>
</tr>
<tr>
<td>T-02S</td>
<td>Line Input Module for Music-on-Hold, Unbalanced, 220k Ω Input, 600 Ω Balanced Output, Screw Terminals</td>
</tr>
<tr>
<td>V-01S</td>
<td>Remote Master Volume Control (VCA) Module, Removable Terminal Block <strong>NEW</strong>!</td>
</tr>
</tbody>
</table>

* 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 (< 15 feet).