Integrated mixer amplifier

PA-60/120/240
SUMMARY
The Inter-M PA-60/120/240 are integrated mixer amplifiers. They are complete and economical multi-purpose desktop mixer-amplifiers providing a cost-effective solution to public address and similar applications. Three versions are available with outputs of 60, 120 and 240 watts respectively into direct (4 Ω) or distributed (70 V/100 V line) speaker systems.

OVERVIEW
The Inter-M PA-60/120/240 are integrated mixer amplifiers. They are complete and economical multi-purpose desktop mixer-amplifiers providing a cost-effective solution to public address and similar applications. Three versions are available with outputs of 60, 120 and 240 watts respectively into direct (4 Ω) or distributed (70 V/100 V line) speaker systems. Each have six inputs; five microphones or line level selectable balanced on XLR–F and/or euro block connector inputs with rear mounted level selector switch setting the input sensitivity from mic to line level. The sixth input is high impedance unbalanced on summing RCA connectors. A telephone input terminal is provided for telephone paging. Base and treble tone control provide sound equalization. VOX priority override is available on mic 1–2 and telephone inputs. Additionally there is a preamp mix out (500 mV, 600 Ω); main amp in (1 V, 47 kΩ); which allows linking of multiple amplifiers together. A master volume control, loudspeaker zone selection (5 zone and “all-call”) on 70/100 volt outputs and built-in chime and siren tones (manual operation) is also featured. The PA Series amplifier is designed for reliable service in permanent installations, and comes complete with short-circuit and thermal protection and is ideal for voice reproduction and BGM applications. The PA Series is an ideal solution for medical offices, restaurants, schools, etc.
THE NEW PA SERIES ADVANTAGE

Frequency Response(CH1~6)
The new PA-60/120/240 offers enhanced frequency response compared to the former PA-2000/4000/6000 Series. With an improved widened frequency response of 80 Hz to 17 kHz the new PA series offers better speech intelligibility and higher quality sound for Music reproduction.

S/N Ratio
The new PA Series has a higher signal to noise ration than its predecessor does. With a 78 dB S/N the new PA Series delivers better desirable power ratio than noise giving it great tone and high-resolution sound.

Power Consumption(1/8 W Output)
Among their advantages is their power efficiency, reduced power consumption and lower heat dissipation over traditional amplifiers.

Weight/Size
The new PA Series offers reduced size and weight for easier portability and economy in transportation costs.

Phantom Power
Phantom power is now available on inputs 1 to 3 allowing the use of high sensitivity condenser microphones.
**TECHNICAL NOTES**

**EXT IN**
This input can be used to expand the mixer inputs. It is the input to the power amp stage of the mixer amp. An external mixer can be connected to this input and expand the input capacity of the Mixer amplifier.

**MIX OUT**
The MIX-out is a line level signal output of the mix bus. It can be used for recording, linking to another amplifier for additional power, or linked to a processor and subwoofer amplifier.

**Input Selection Switch(INPUT 1~3, INPUT 4~5)**
- **INPUT 1 ~ 3**
  Select LINE, MIC or PHANTOM depending on the input signal. Select PHANTOM to supply DC voltage required by condenser microphone.
- **INPUT 4 ~ 5**
  Select LINE or MIC in accordance with the input signal.

**Priority Volume Control**
Sets the ducking level giving priority to telephone, mic 1, mic 2, EXT in, chime and Siren, over all other BGM inputs.

**Speaker Zone Pre-set**
The SPEAKER ZONE ON PRESET can be set via these DIP switches. This function allows the amplifier zone output selector to revert to a pre-set selection when the power switch is turned ON. For example, by setting DIP switch 1 and 3 on, this will set the speaker zones 1 and 3 on when the power switch is turned on.

**PROTECTION**
The PA-60/120/240 employs a protection circuit to protect the amplifier from momentary or long-term overloading and overheating. The PROTECTION LED on the front panel when lit indicates that the protection circuit is activated. No audio will be heard when the amp is in protection mode.

**External CHIME connector**
The CHIME can be remotely activated by connecting a push button switch to this terminal.

**EX MUTE connector**
The output level of INPUT 3~6 are controlled by the priority control volume when the external mute switch terminal is closed.
FEATURE

- **High-efficiency Class-D Amplifier**
  Offer greater power efficiency over traditional amplifiers, reduced physical size and lower heat dissipation.

- **Multiple input**
  6 Inputs (3×3 pin balanced XLR/euroblock, 2×balanced euroblock, 1×stereo phono)
  Telephone input (Euroblock connectors)

- **Priority broadcasting**
  Priority—telephone, mic 1, mic 2, Chime and Siren, in order from ch 1 to ch 6.

- **Phantom Power Supply**
  Phantom Power is available (INPUT 1~3) for use with condenser microphones.

- **Input/Output Monitoring**
  Channel-specific input signal LED
  Output level 7 segment Bar graph LED VU meter.

- **Base and Treble tone controls**
  Provide user adjustable sound equalization.

- **5 Zone speaker selection**
  Allows the selection and audio broadcast to a specific speaker zone, all zones or any combination of all 5 zones.

- **Announce tones**
  Chime & Siren

- **Expandability**
  Line in/Line out

- **Optional 19” rack kits (BKT–A120)**

- **EX CHIME, EX MUTE**
  It can be used when the external chime and mute switch terminal is closed.
### SPECIFICATION

<table>
<thead>
<tr>
<th></th>
<th>PA-60</th>
<th>PA-120</th>
<th>PA-240</th>
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<tbody>
<tr>
<td><strong>Rated Output</strong></td>
<td>60 W</td>
<td>120 W</td>
<td>240 W</td>
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<tr>
<td><strong>Frequency Response (@ Speaker Output, 1 W)</strong></td>
<td>80 Hz~17 kHz</td>
<td></td>
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<tr>
<td><strong>THD (@ Rated Power, 1 kHz)</strong></td>
<td>less than 1 %</td>
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<tr>
<td><strong>S/N (@ Rated Output, Line Input)</strong></td>
<td>more than 78 dB</td>
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<tr>
<td><strong>TONE CONTROL (100 Hz, 10 kHz, ±3 dB)</strong></td>
<td>±10 dB</td>
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<tr>
<td><strong>Input Sensitivity / Impedance (@ High-Z Output)</strong></td>
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<tr>
<td><strong>INPUT 1~5</strong></td>
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</tr>
<tr>
<td>MIC</td>
<td>-50 dBu/2 kΩ</td>
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<tr>
<td>LINE</td>
<td>-10 dBu/2 kΩ</td>
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<tr>
<td><strong>INPUT 6</strong></td>
<td></td>
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<td></td>
<td>-10 dBu/10 kΩ</td>
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<tr>
<td><strong>TEL IN</strong></td>
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<tr>
<td></td>
<td>0 dBu/10 kΩ</td>
<td></td>
<td></td>
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<tr>
<td><strong>EXT IN</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 dBu/20 kΩ</td>
<td></td>
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<tr>
<td><strong>MIX OUT / Impedance</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>0 dBu/10 kΩ</td>
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<tr>
<td><strong>Speaker Output Level/Impedance</strong></td>
<td></td>
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<tr>
<td><strong>100 V region</strong></td>
<td>100 V/167 Ω</td>
<td>100 V/84 Ω</td>
<td>100 V/42 Ω</td>
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<tr>
<td><strong>70 V region</strong></td>
<td>70 V/82 Ω</td>
<td>70 V/41 Ω</td>
<td>70 V/21 Ω</td>
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<tr>
<td><strong>8/4Ω Output</strong></td>
<td>8 Ω</td>
<td>40 W</td>
<td>120 W</td>
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<tr>
<td><strong>Rated Output Power (@ 1 kHz, THD 1 %)</strong></td>
<td>4 Ω</td>
<td>60 W</td>
<td>160 W</td>
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<tr>
<td><strong>Operating Temperature</strong></td>
<td>-10 °C~ +40 °C</td>
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<tr>
<td><strong>Power Source</strong></td>
<td>AC 120 V/60 Hz or AC 230 V/50 Hz or AC 240 V/50 Hz (Supplied AC mains transformer depends on contrary requirements)</td>
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<tr>
<td><strong>Power Consumption</strong></td>
<td>40 W</td>
<td>60 W</td>
<td>90 W</td>
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<tr>
<td><strong>Weight</strong></td>
<td>6.2 kg/13.7 lbs</td>
<td>7.4 kg/16.3 lbs</td>
<td>9.8 kg/21.6 lbs</td>
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<tr>
<td><strong>Dimensions (WxHxD)</strong></td>
<td>420×88×319 mm/16.5×3.5×12.6 in</td>
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APPLICATION

Applications include BGM, background music or paging. Ideal for use in places such as the classroom, training center, restaurant, and cafe.

- Restaurants and Lounge
- Higher education
- Seminar rooms and lecture halls
- Conference Room
- K through 12
- Retail Shops

Our technology can be found in schools, hospitals, malls, campus, transportation, correctional facilities and a variety of commercial and industrial applications.

- Education facilities
  (Elementary/high school/College/University/Training Institute, etc)

- Commercial establishments
  (Department stores, Shopping centers, multiplex cinemas, hospitals, etc.)

- Public facilities
  (Government offices, transportation, stations, terminal, exhibition hall, factory, resorts, etc.)
ACCESSORIES

BKT-A120