

## AM 4000 Series

■ The AM4060 is designed for continuous duty in speech, music, paging and sound reinforcement applications in churches, schools, offices, arenas, hotel meeting rooms, convention centers, recreation facilities and other venues demanding high performance, flexible features and rugged dependability.

■ Four microphone inputs are actively balanced, have XLR connectors, and can be programmed to interrupt or attenuate the line level inputs. Microphone inputs 2–4 feature switched 24V phantom power and switched high-pass and low-pass filters. Microphone Input 1 can be switched to line level, set to have priority over all inputs, and can be activated by either VOX with an adjustable threshold or a contact closure. Activation of any microphone override provides 18Vdc (300mA) at a barrier connector on the rear panel, which may be used to drive LEDs or relays. Two unbalanced, stereo Aux inputs are internally summed to mono and selected by a switch on the front panel. Two unbalanced Tape (auxiliary) line level outputs with a level control and an unbalanced signal processing loop are also provided. All are terminated to RCA connectors.

■ Output modes include 4Ω and 25V, 50V, 70V and 100V constant voltage. The smart output stage is fully protected against permanent damage caused by overloading, shorts and extreme temperatures. The AM4060 will operate on either 115 or 230VAC, 50/60Hz supplied by a detachable IEC power cord. Insulated terminals to connect a backup 24Vdc battery are provided on the rear panel. Switchover to DC is automatic.

■ The front panel provides level controls for each Mic, selected Aux and Master volume, as well as the Bass and Treble shelving filters. The control knobs can be easily removed for security, and their recessed shafts covered with inserts supplied with the unit. LEDs indicate power, signal present at the output, peak and output overload. 12dB/octave Bass and Treble shelving equalization with up to 12dB of boost or cut at 100Hz and 10kHz can be applied to the output signal.

■ Accessories include an easily installed chime.

■ This Mackie Industrial product is covered by an exclusive, one-time, NO FAULT repair policy in addition to a five year limited warranty.

## Integrated Mixer/Amplifier



## Features

- 4 Lo-Z, XLR Microphone Inputs
- 2 Stereo Auxiliary Inputs
- 60 Watt RMS, Convection Cooled
- 4Ω - 25V - 50V - 70V - 100V Outputs
- Switched 24V Phantom and H-P/L-P Filters
- 2 Tape/Aux Outputs with Level Trim
- Signal Processing Loop
- 2 RU Rack-Mounting Kit included
- Automatic 24Vdc Backup Power Input

- Foreground/Background Music Systems
- Sound Reinforcement Systems
- Paging Systems
- Continuous-duty Applications

# AM4060 Integrated Mixer/Amplifier

## Specifications

### Performance

Amplifier Power:	60W, nominal, 90W peak (10mS)
Frequency Response:	50Hz–15kHz $\pm$ 3dB
Distortion:	Less than 1% THD at 1kHz nominal power
Noise:	Better than 65dB

### Equalization

Output:	Treble shelving: $\pm$ 12 dB at 10kHz Bass shelving: $\pm$ 12 dB at 100Hz
Inputs 2–4:	H-P filter: 12dB/oct. at 300Hz L-P filter: 12dB/oct. at 7kHz

### Audio Inputs

Microphones:	Three, active balanced XLR, LoZ, 1.3mV, 1.2K, 24V phantom powering with on-off switch
Microphone/Line:	One, active balanced XLR and parallel barrier, switched mic/line; Mic: LoZ, 1mV, Line: 80mV
Line Level:	Three, unbalanced, RCA connectors. Two each, left and right (summed) Aux, either pair selectable via front-panel switch, 100mV; One, Main (signal processing return), 775mV

### Audio Outputs

Number of Channels:	One
Low Impedance:	4 $\Omega$
Constant Voltage:	25V, 50V, 70V, 100V Barrier connectors
Line Level:	One, signal processing output 2.5V, 600 $\Omega$ Two, tape (auxiliary) outputs 0–2.2V, RCA connectors

### Control Inputs & Outputs

DC Outputs:	LED relay output, aux DC output: 18Vdc (300mA) activated by priority
Inputs:	Priority switch input, dry contact closure barrier connectors

### Controls

Front Panel:	Power switch, master Volume, Inputs 1–4, Aux level, Aux 1/2 switch, Treble shelving, Bass shelving
Rear Panel:	Tape output level, Voice priority threshold, Chime output level (if installed), 24V phantom on/off switch, H-P Filter in/out switch, L-P Filter in/out switch, Source Voltage Selector switch

### Power supply

115/230Vac ( $\pm$ 5%), 50/60Hz, 180VA DC (24V battery) 5A/Hr
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### Environment

Maximum Ambient:	131°F (55°C) Non-precipitating humidity
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### Physical

Dimensions (HxWxD):	3.46" x 17" x 12.4" (88mm x 431mm x 314mm)
Weight:	20.9lbs. (9.5kg)
Finish:	Black painted or treated steel, white nomenclature

### Warranty

3 years, parts & labor one-time, no-fault repair policy
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### Accessories

A1708:	Three Chime Card
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# AM4060 Integrated Mixer/Amplifier

**MACKIE INDUSTRIAL**

**AM 4060 - P.A. AMPLIFIER**

OVERLOAD SIGNAL PEAK ON

**POWER**

**VOLUME**

**EQ**

LOW HIGH

**AUX**

1 2

**INPUT LEVELS**

INPUT 1 INPUT 2 INPUT 3 INPUT 4

AUX

AUX

**POWER**

**MACKIE INDUSTRIAL**

**COMMANDS**

Vdc Vdc PRIORITY GND LED 300mA

**INPUT 1**

IN PRIORITY GND

**INPUT 2**

**INPUT 3**

**INPUT 4**

**FILTER**

H.P. L.P. OFF ON

**PHANTOM 24V**

OFF ON

**VOICE THR**

**MIC/LINE**

LINE MIC

**MONITORING GAIN**

**POWER OUTPUTS**

AUX IN 0 4Ω 25V

L R

**PRE OUT**

L R

**MAIN IN**

1 2

**POWER OUTPUTS**

0 50V 70V 100V

L R

**TAPE OUT**

L R

**OUTPUT LEVEL**

**CHIME LEVEL**

**VOLTAGE SELECTOR**

D.C. FLUSE

**POWER INPUT**

24V D.C.

**LINE**

50/60 Hz 115/230V

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**CAUTION:** DO NOT TOUCH THE FRONT PANEL CONTROLS OR THE REAR PANEL TERMINALS WHILE THE AMPLIFIER IS ON. SEE INSTRUCTION MANUAL.

# AM4060 Integrated Mixer/Amplifier

## Architects' and Engineers' Specifications

The integrated mixer/amplifier shall have a nominal output power of at least 60W RMS. It shall operate on 115VAC or 230VAC at either 50Hz or 60Hz and have its source power supplied by a detachable IEC power cord. In addition the unit shall be capable of being directly powered by a 24Vdc source, such as storage batteries. It shall have a power switch on the front panel. The unit shall have a constant-impedance output to drive a 4Ω load at its rated output. It shall also have 25V, 50V, 70V and 100V constant-voltage outputs with like performance.

Inputs to the unit shall include: at least four actively balanced microphone; two unbalanced, stereo Aux; and an unbalanced signal processing return. Outputs shall include: at least two unbalanced Tape (auxiliary) jacks with a common, continuously variable level control; and one signal processing send. Balanced connections shall be made through XLR connectors and unbalanced connections through RCA connectors.

Microphone Input 1 shall have adjustable sensitivity between mic and line, selected by a switch on the rear panel. This input shall also be programmable to completely exclude or attenuate all other inputs when its priority link is activated by either a contact closure or a VOX circuit, with a continuously adjustable threshold. The XLR connector for Input 1 shall be wired, in parallel, to a barrier strip on the rear panel. Microphone inputs 2-4 shall have a 24V phantom powering circuit that can be disabled with a switch on the rear panel. These inputs shall be equipped with a high-pass filter and a low-pass filter having a response of 12dB/octave and fixed -3db points at 300Hz and 7kHz, respectively. Each of these filters shall be enabled by a switch on the rear panel. Additionally, these inputs shall be programmable to completely exclude or attenuate all other inputs except for microphone input.

Two auxiliary voltage outputs shall be provided on the rear panel to drive accessory relays and LEDs. The relay output shall deliver +18Vdc at 300mA. Voltage shall go high when any microphone priority function is active.

The unit shall have, on its front panel, continuously variable controls for each microphone input, an auxiliary input selector switch, a master volume control, as well as bass and treble shelving filter controls. The shelving filters shall have a range of ±12dB, with the frequency for the bass fixed at

100Hz and the treble fixed at 10kHz. LED status indicators shall be provided on the front panel to indicate power, signal present at the output terminals, peak signals near clipping and an overload condition.

The integrated mixer/amplifier shall be a model AM4060, manufactured by Mackie Industrial.




[www.mackieindustrial.com](http://www.mackieindustrial.com)

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Electronic files for this product available at:  
[www.mackieindustrial.com](http://www.mackieindustrial.com)

This Specification Sheet	AM4060.PDF
Quick-Start Manual	AM4060QS.PDF
Owner/Operator's Manual	AM4060ML.PDF

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