MODEL:

106
Mic Amplifier/DA

P/N: 2900-000074 Rev 4
106 Quick Start Guide

This guide helps you install and use your product for the first time. For more detailed information, go to http://www.kramerav.com/manual/106 to download the latest manual or scan the QR code on the left.

Step 1: Check what’s in the box
- **106** Mic Amplifier/DA
- 1 Power supply (12V DC)
- 4 Rubber feet
- 1 Quick Start sheet

Save the original box and packaging materials in case you need to return your 106 for service.

Step 2: Install the 106
Attach the rubber feet and place on a table or mount the 106 in a rack (using an optional RK-3T rack mount).

Step 3: Connect the inputs and outputs
Always switch off the power on each device before connecting it to your 106.

Always use Kramer high-performance cables for connecting AV equipment to the 106.

Step 4: Connect the power
Connect the 12V DC power adapter to the 106 and plug the adapter into the mains electricity.

Step 5: Operate the 106
Adjust the line out audio level with a small screwdriver.
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Welcome to Kramer Electronics! Since 1981, Kramer Electronics has been providing a world of unique, creative, and affordable solutions to the vast range of problems that confront video, audio, presentation, and broadcasting professionals on a daily basis. In recent years, we have redesigned and upgraded most of our line, making the best even better!

Our 1,000-plus different models now appear in 14 groups that are clearly defined by function: GROUP 1: Distribution Amplifiers; GROUP 2: Switchers and Routers; GROUP 3: Control Systems; GROUP 4: Format/Standards Converters; GROUP 5: Range Extenders and Repeaters; GROUP 6: Specialty AV Products; GROUP 7: Scan Converters and Scalers; GROUP 8: Cables and Connectors; GROUP 9: Room Connectivity; GROUP 10: Accessories and Rack Adapters; GROUP 11: Sierra Video Products; GROUP 12: Digital Signage; GROUP 13: Audio; and GROUP 14: Collaboration.

Congratulations on purchasing your Kramer 106 Mic Amplifier/DA, which is ideal for the following typical applications:

- Public address systems
- Presentation and multimedia audio distribution
## 2 Getting Started

We recommend that you:

- Unpack the equipment carefully and save the original box and packaging materials for possible future shipment
- Review the contents of this user manual

Go to [www.kramerav.com/downloads/106](http://www.kramerav.com/downloads/106) to check for up-to-date user manuals, application programs, and to check if firmware upgrades are available (where appropriate).

### 2.1 Achieving the Best Performance

To achieve the best performance:

- Use only good quality connection cables (we recommend Kramer high-performance, high-resolution cables) to avoid interference, deterioration in signal quality due to poor matching, and elevated noise levels (often associated with low quality cables)
- Do not secure the cables in tight bundles or roll the slack into tight coils
- Avoid interference from neighboring electrical appliances that may adversely influence signal quality
- Position your Kramer 106 away from moisture, excessive sunlight and dust

This equipment is to be used only inside a building. It may only be connected to other equipment that is installed inside a building.
2.2 Safety Instructions

Caution: There are no operator serviceable parts inside the unit

Warning: Use only the Kramer Electronics input power wall adapter that is provided with the unit

Warning: Disconnect the power and unplug the unit from the wall before installing

2.3 Recycling Kramer Products

The Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC aims to reduce the amount of WEEE sent for disposal to landfill or incineration by requiring it to be collected and recycled. To comply with the WEEE Directive, Kramer Electronics has made arrangements with the European Advanced Recycling Network (EARN) and will cover any costs of treatment, recycling and recovery of waste Kramer Electronics branded equipment on arrival at the EARN facility. For details of Kramer’s recycling arrangements in your particular country go to our recycling pages at http://www.kramerelectronics.com/support/recycling/.
3 Overview

The 106 Mic Amplifier / DA is a high-quality distribution amplifier for balanced mono microphone signals. It takes one dynamic or condenser microphone input and distributes the signal to two high-level balanced mono line outputs, reaching 27Vpp (22dB).

The 106 features:

- Three trimmers to adjust the LINE OUT audio level
- A switch for selecting the type of microphone (condenser or dynamic)
- Two balanced mono line outputs for power amplifiers
3.1 Defining the 106 Mic Amplifier/DA

This section defines the 106.

![Diagram of 106 Mic Amplifier/DA](image)

<table>
<thead>
<tr>
<th>#</th>
<th>Feature</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LEVEL LINE OUT 2 Trimmer</td>
<td>Adjusts the LINE OUT 2 audio level. Insert a screwdriver into the small hole and carefully rotate it to adjust the audio level</td>
</tr>
<tr>
<td>2</td>
<td>LINE OUT 1 Trimmer</td>
<td>Adjusts the LINE OUT 1 audio level</td>
</tr>
<tr>
<td>3</td>
<td>MASTER Trimmer</td>
<td>Adjusts both the LINE OUT 1 and LINE OUT 2 audio levels</td>
</tr>
<tr>
<td>4</td>
<td>ON LED</td>
<td>Illuminates when receiving power</td>
</tr>
<tr>
<td>5</td>
<td>MIC IN Terminal Block Connector</td>
<td>Connects to the microphone</td>
</tr>
<tr>
<td>6</td>
<td>TYPE COND./DYN Selector Switch</td>
<td>Push to select the condenser microphone, release to select the dynamic microphone</td>
</tr>
<tr>
<td>7</td>
<td>LINE OUT 1 Terminal Block Connector</td>
<td>Connects to acceptor 1</td>
</tr>
<tr>
<td>8</td>
<td>LINE OUT 2 Terminal Block Connector</td>
<td>Connects to acceptor 2</td>
</tr>
<tr>
<td>9</td>
<td>12V DC</td>
<td>+12V DC connector for powering the unit</td>
</tr>
</tbody>
</table>
4  Connecting the 106

Always switch off the power to each device before connecting it to your 106. After connecting your 106, connect its power and then switch on the power to each device.

To connect the 106 as illustrated in the example in Figure 2:

1. Connect a mono balanced microphone to the MIC IN terminal block connector.

2. Connect the LINE OUT 1 terminal block connector to a power amplifier and/or the LINE OUT 2 terminal block connector to a power amplifier.

3. Connect each power amplifier to a loudspeaker.

4. Connect the 12V DC power adapter to the power socket, and connect the adapter to the mains electricity.

5. Adjust the audio level via LEVEL trimmers, if required.

Use the LINE OUT 1 trimmer to adjust the line 1 output, use the LINE OUT 2 trimmer to adjust the line 2 output, and use the MASTER trimmer to adjust both line outputs.

Figure 2: Connecting the 106 Mic Amplifier/DA
## Technical Specifications

<table>
<thead>
<tr>
<th><strong>INPUT:</strong></th>
<th>1 microphone mono balanced on 3 pin terminal block connector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OUTPUTS:</strong></td>
<td>2 mono balanced line outputs on 3 pin terminal block connectors</td>
</tr>
<tr>
<td><strong>MAX. OUTPUT LEVEL:</strong></td>
<td>27Vpp (22dBm)</td>
</tr>
<tr>
<td><strong>BANDWIDTH:</strong></td>
<td>&gt;40kHz</td>
</tr>
<tr>
<td><strong>S/N RATIO:</strong></td>
<td>81dB</td>
</tr>
<tr>
<td><strong>CONTROLS:</strong></td>
<td>Mic. Type selector pushbutton, -14dB to +68dB LINE OUT trimmers (MASTER trimmer at max.), +37dB to +68dB master (LINE OUT trimmer at max.)</td>
</tr>
<tr>
<td><strong>COUPLING:</strong></td>
<td>Input: AC, Output: DC</td>
</tr>
<tr>
<td><strong>INPUT IMPEDANCE:</strong></td>
<td>~10kΩ</td>
</tr>
<tr>
<td><strong>OUTPUT IMPEDANCE:</strong></td>
<td>50Ω</td>
</tr>
<tr>
<td><strong>GAIN:</strong></td>
<td>Up to 68dB</td>
</tr>
<tr>
<td><strong>AUDIO THD +NOISE:</strong></td>
<td>0.18%</td>
</tr>
<tr>
<td><strong>AUDIO 2nd HARMONIC:</strong></td>
<td>0.16%</td>
</tr>
<tr>
<td><strong>POWER CONSUMPTION:</strong></td>
<td>12V DC, 220mA</td>
</tr>
<tr>
<td><strong>OPERATING TEMPERATURE:</strong></td>
<td>0° to +40°C (32° to 104°F)</td>
</tr>
<tr>
<td><strong>STORAGE TEMPERATURE:</strong></td>
<td>-40° to +70°C (-40° to 158°F)</td>
</tr>
<tr>
<td><strong>HUMIDITY:</strong></td>
<td>10% to 90%, RHL non-condensing</td>
</tr>
<tr>
<td><strong>DIMENSIONS:</strong></td>
<td>12 cm x 7.5 cm x 2.5 cm (4.7&quot; x 2.95&quot; x 0.98&quot;, W, D, H)</td>
</tr>
<tr>
<td><strong>WEIGHT:</strong></td>
<td>0.3 kg (0.66lbs.) approx.</td>
</tr>
<tr>
<td><strong>INCLUDED ACCESSORIES:</strong></td>
<td>Power supply (12V, 500mA), mounting bracket</td>
</tr>
<tr>
<td><strong>OPTIONS:</strong></td>
<td>RK-3T 19&quot; rack adapter</td>
</tr>
</tbody>
</table>

Specifications are subject to change without notice at [http://www.kramerelectronics.com](http://www.kramerelectronics.com)
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E-mail: info@kramerel.com

SAFETY WARNING
Disconnect the unit from the power supply before opening and servicing

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