

User Manual



MP-PA40IP

Class-D 40W Power Amplifier



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Version: MP-PA40IP_2026V1.0

Preface

Read this user manual carefully before using the product. Pictures shown in this manual are for reference only. Different models and specifications are subject to real product.

This manual is only for operation instruction, please contact the local distributor for maintenance assistance. The functions described in this version were updated till January, 2026. In the constant effort to improve the product, we reserve the right to make functions or parameters changes without notice or obligation. Please refer to the dealers for the latest details.

FCC Statement

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation.

Operation of this equipment in a residential area is likely to cause interference, in which case the user at their own expense will be required to take whatever measures may be necessary to correct the interference. Any changes or modifications not expressly approved by the manufacture would void the user's authority to operate the equipment.



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1. Product Introduction

The MP-PA40IP is a 40W Class-D amplifier that supporting balanced audio input. It supports stereo/bridged output, featuring an adjustable EQ for sound customization. Controllable via front-panel buttons, RS-232, or TCP/IP for local and remote management, with an optional IR remote for added flexibility.

1.1 Features

- Balanced L/R audio input.
- Supports EQ adjustment for master/bass/treble.
- Controllable via buttons, RS-232, TCP/IP or IR (optional).
- Supports 2x20W@4Ω/2x10W@8Ω stereo or 1x40W@4Ω/1x20W@8Ω bridge out.

1.2 Package List

- 1x MP-PA40IP
- 1x 2-pin Green 3.81mm Phoenix Connector
- 1x 5-pin Green 3.81mm Phoenix Connector
- 1x 4-pin Green 5mm Phoenix Connector
- 1x RS-232 Cable
- 1x Adapter (DC 24V 2.71A, US/UK/AU/EU)
- 2x External Bridged Connector
- 2x Mounting Ears
- 4x Mounting Screws
- 4x Rubber feet
- 1x User Manual
- 1x IR Receiver (Optional)
- 1x Remote Control (Optional)

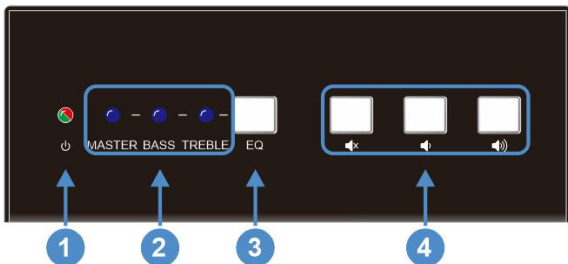
Note: Please contact your distributor immediately if any damage or defect in the components is found.

2. Specification

Transmission	
Input	Balanced L/R audio
Output	Stereo 4/8Ω or bridged 4/8Ω
Stereo Output	4Ω: 2x20W 8Ω: 2x10W
Bridged Output	4Ω: 1x40W 8Ω: 1x20W
Audio	
Frequency Response	20Hz-20kHz, ±3dB
THD+N	<0.1% @1kHz
SNR	>80dB (1kHz sine, A weighting)
Crosstalk	< -80dB@1kHz
General	
Power Supply	DC 24V 2.71A
Operation Temperature	-5°C ~ +55°C
Storage Temperature	-20°C ~ +70°C
Relative Humidity	10% ~ 90%
Dimension (W*H*D)	115 x 44 x 125mm
Net Weight	565g

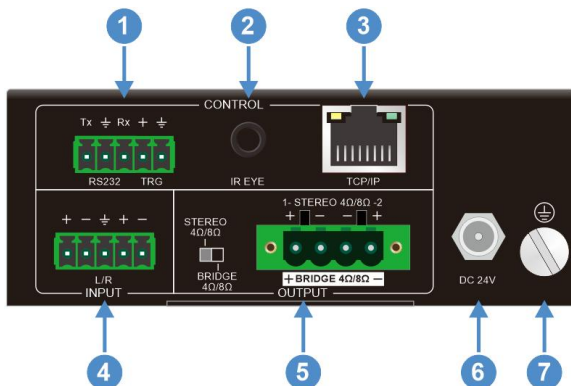
3. Panel Description

3.1 Front Panel



No.	Name	Description
1	POWER INDICATOR	1x green/red LED, power input indicator. ● Green on: device on. ● Red on: device standby. ● LED off: device off.
2	EQ INDICATOR	3x blue LED, master/bass/treble indicator of EQ. ● MASTER on: adjusting the output volume. The master indicator is on by default. ● BASS on: adjusting the low frequency gain of output. ● TREBLE on: adjusting the high frequency gain of output.
3	EQ	1x white button, press it to switch master/bass/treble.
4	VOLUME	3x white buttons, mute/Vol-/Vol+

3.2 Rear Panel

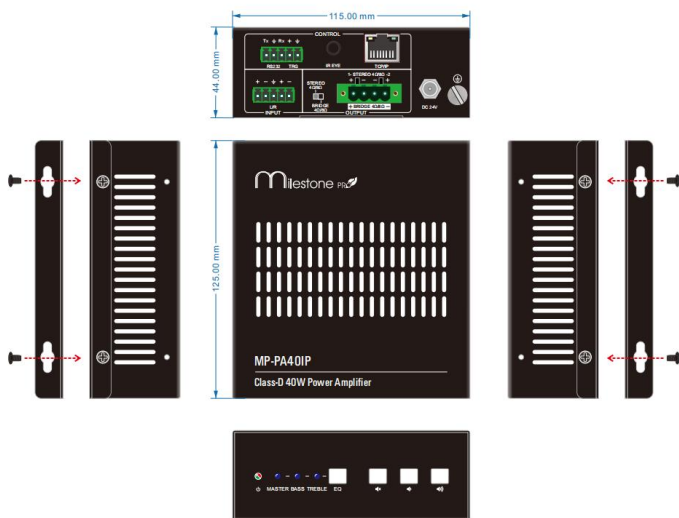


No.	Name	Description
1	RS232 & TRG	1x 5-pin 3.81mm green phoenix socket. ● Left 3-pin for RS-232 control. ● Right 2-pin for trigger entry/exit standby mode.
2	IR EYE	1x 3.5mm mini jack, connect to the IR receiver for remote control. <i>Note: these accessories are optional.</i>
3	TCP/IP	1x RJ45 with LED, for Web-GUI control. ● Yellow and green on: linked. ● Yellow and green flash: data transmission. ● Yellow and green off: disconnected.
4	INPUT	1x 5-pin 3.81mm green phoenix socket, for balanced L+R audio input.
5	OUTPUT	1x two-position dial, select stereo output or bridged output. 1x 4-pin 5mm green phoenix socket, for stereo output or bridged output.

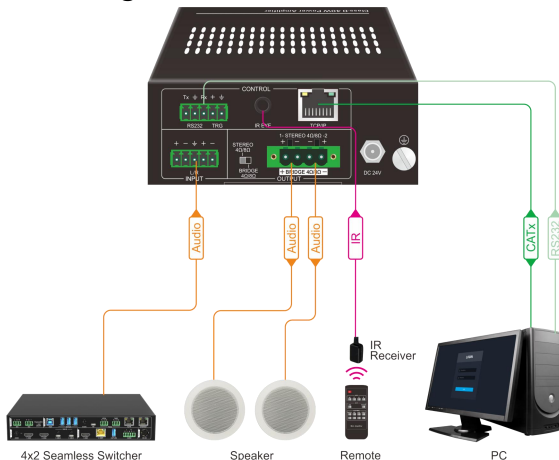
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6	DC 24V	Power supply input, DC 24V 2.71A.
7	GND	Screw grounding terminal.

4. Panel Drawing

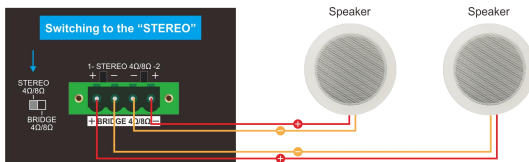


5. System Diagram

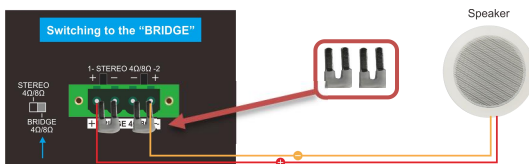


6. Output Connection

When dial at **STEREO 4Ω/8Ω**, connection as show below:



When dial at **BRIDGE 4Ω/8Ω**, please insert the external bridged connectors into the 4-pin connector. And connection as show below:



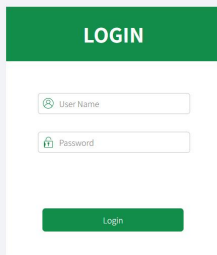
7. Web-GUI Control

Connect the TCP/IP port of the MP-PA40IP. TCP/IP supports static IP by default.

If connect the amplifier directly to the PC and using the static IP, please enter the TCP/IP: **192.168.0.178**

If it is DHCP, please use the assigned IP address.

Please type the IP address in the address bar of the browser to enter the Web-GUI login interface.

The image shows a web browser window displaying a login interface. At the top is a green header with the word "LOGIN" in white capital letters. Below the header is a white rectangular box containing two input fields. The first field is labeled "User Name" with a small user icon to its left. The second field is labeled "Password" with a small padlock icon to its left. Below these fields is a green button with the word "Login" in white text.

Then type the User Name and the Password. The login information is as follows:

User Name: admin
Password: Admin123@

Last, click Login to enter the main interface.

Note: To protect the safety of the device, please change the default password in time.

7.1 Audio

Audio

RS-232

Network

Security

GUI: V1.0.0a
Firmware: V1.0.0a

Sleep Standby Logout

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Audio

Equalization

-40dB

0dB

0dB

0dB

10dB

5dB

0dB

-5dB

-10dB

0dB

10dB

5dB

0dB

-5dB

-10dB

Master

Bass

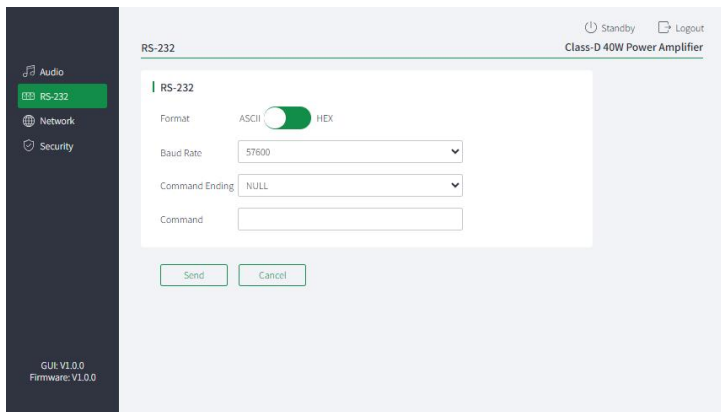
Treble

Mute the Output Volume ☐

Delay Time ms (0-300ms)

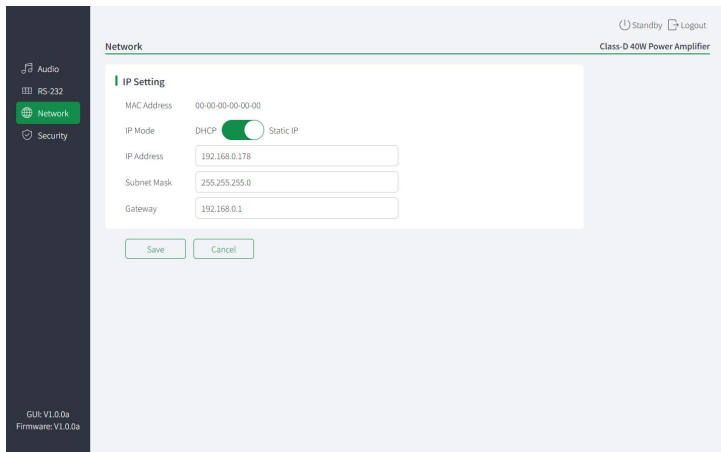
Equalization: adjust the Master/Bass/Treble via thumb/spinner/type the value. Supports one-click mute and sets the delay time.

7.2 RS-232



RS-232: pass-through the RS-232 commands to the third-party device.

7.3 Network



IP Setting: configure as DHCP or Static IP as required.

7.4 Security

Audio

RS-232

Network

Security

Standby Logout

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Security

Password Change

Old Password

New Password

Confirm Password

Password must have a minimum of 8 characters, including at least 1 number, 1 lower case, 1 upper case and 1 special character.

Save

Cancel

Firmware Upgrade

Firmware Upgrade

MCU DSP

FW File Path

C:\

Upgrade

Front Panel Lock

Enable

OFF ON

Auto Standby

Enable

OFF ON

Delay Time

15

Min (1 ~ 180 min)

Trigger

Enable

OFF ON

Level

Low High

Trigger High: The unit will enter standby when detecting a high levels voltage(3-24V, includes 3V) while keep power on when detecting a low levels voltage(0-3V).

Factory Default

Factory Default

Reset

GUI: V1.0.0a

Firmware: V1.0.0a

Password: change the password according to password policy.

Firmware Upgrade: upload the file to upgrade MCU/DSP

Front Panel Lock: enable/disable the buttons of front panel.

Auto Standby: without operation or signal input within 15 minutes by default, it will automatically enter standby mode.

Trigger: enter/exit standby mode by detecting the voltage level.

Factory Default: restore factory settings.

8. RS-232 Control

8.1 RS-232 Control Software

Installation: Copy the control software file to the control PC

Uninstallation: Delete all the control software files in corresponding file path.

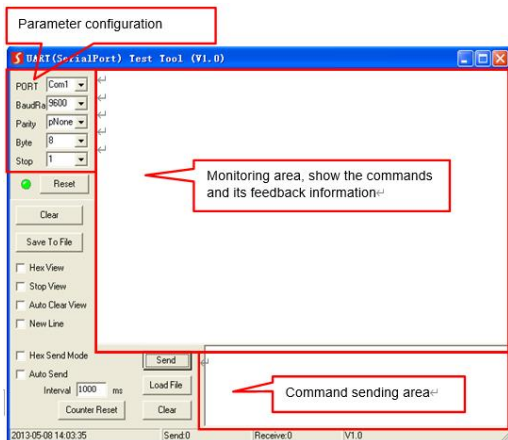
Basic Setting:

Connect the MP-PA40IP with a PC which is installed with RS-232 control software. Double-click the software icon to run this software.

Here takes the software CommWatch.exe as example:



The main view is shown as below:



Please set the parameters of COM number, bound rate, data bit, stop bit and the parity bit correctly, and then able to send command in command sending area. For related parameters, please refer to **8.2 RS-232 Command**.

8.2 RS-232 Command

Baud rate: 57600 (default)

Data bit: 8

Stop bit: 1

Parity bit: NONE

Command terminator: <CR><LF>

Error command feedback code: <Command error
<Out of range

Note:

1. Commands are not case sensitive and can automatically identify mixed case commands;
2. The "0" in front of the valid value can be ignored, for example: 01 and 1 inputs are both normal variable values;
3. The space between the command and the variable can be ignored, for example: >SetVideo01 and >SetVideo 01 commands can be sent effectively.

8.2.1 Getting Commands

Command	Function	Example & Feedback
>? or >Help	Get command information	>? or >Help
		<MP-PA40IP <V1.0.0a <System Information Commands >?/Help Print Help Information >GetStatus Print System Status >GetFwVersion Print FW Version ...List all commands...
>GetStatus	Get device status	>GetStatus
		<MP-PA40IP <V1.0.0a <PowerStatus On <KeyStatus On <TrgStatus Off <TrgActive 3-24V <RS232Baud 57600 <AutoStandby On <AutoStandbyTime 15mins <MasterVolume 0dB <AudioMute Off <AudioBass 0dB <AudioTreble 0dB

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		<TCP/IP DHCP Off <TCP/IP IP Address 192.168.000.178 <TCP/IP Gateway Address 192.168.000.001 <TCP/IP Subnet Mask 255.255.255.000 <LAN MAC 12:34:56:78:90:11
>GetFwVersion	Get firmware version	>GetFwVersion <GetFW Version: V1.0.0a
>GetDeviceName	Get device name	>GetDeviceName <Device Name: MP-PA40IP
>GetPower	Get standby moder	>GetPower <PowerStatus On
>GetKeyLock	Get the status of the button control	>GetKeyLock <KeyLock Off
>GetTrg	Get Trg mode	>GetTrg <Trigger Off
>GetTrgActive	Get Trg level	>GetTrgActive <Trigger Active Voltage 0-3V
>GetAutoStandby	Get standby mode	>GetAutoStandby <Auto Standby On
>GetAutoStandbyTime	Get automatic standby time	>GetAutoStandbyTime <Auto Standby 15min
>GetAudioDelayTime	Get the audio delay time	>GetAudioDelayTime <Audio Delay Time 100ms
>GetAudioVol	Get audio volume	>GetAudioVol <Audio Volume 0dB
>GetAudioMute	Get audio mute status.	>GetAudioMute <Audio Mute Off
>GetAudioBass	Get low-frequency Gain value	>GetAudioBass 0 >GetAudioBass 0dB
>GetAudioTreble	Get high-frequency Gain value	>GetAudioTreble <Audio Treble 0dB
>GetRs232Baud	Get RS-232 baud rate	>GetRs232Baud <RS232Baud 57600
>GetNetDHCP	Get TCP/IP DHCP status	>GetNetDHCP <DHCP Off
>GetNetIp	Get TCP/IP address	>GetNetIp <IP Address 192.168.000.178
>GetNetGw	Get TCP/IP gateway address	>GetNetGw <Gateway Address 192.168.000.001
>GetNetSm	Get TCP/IP Subnet Mask address	>GetNetSm <Subnet Mask 255.255.255.000

8.2.2 Setting Commands

Command	Function	Example & Feedback
>SetDeviceName:[Param1]	Set device name XX = The name of the device to send to (maximum 14 strings).	>SetDeviceName MP-PA40IP
		<Device Name: MP-PA40IP
>SetPower [Param1]	Enter/exit standby mode Param1 = On, Off On - Power on Off - Power off	>SetPower On >SetPower Off
		<System Power Off <System Power On, Please Wait A Moment... Done
>SetKeyLock [Param1]	Set the status of the button control Param1 = On, Off On - <SetKeyStatus Off Off - <SetKeyStatus On	>SetKeyLock On >SetKeyLock Off
		<KeyLock On <KeyLock Off
>SetTrg [Param1]	Set Trg mode Param1 = On, Off On - <Trigger On Off - <Trigger Off	>SetTrg On >SetTrg Off
		<Trigger On <Trigger Off
>SetTrgActive [Param1]	Set Trg level Param1= H,L H - <Trigger Active Voltage 3-24V L - <Trigger Active Voltage 0-3V	>SetTrgActive L >SetTrgActive H
		<Trigger Active Voltage 0-3V <Trigger Active Voltage 3-24V
>SetAutoStandby [Param1]	Set standby mode Param1 = On, Off	>SetAutoStandby On >SetAutoStandby Off
		<Auto Standby On <Auto Standby Off
>SetAutoStandbyTime [Param1]	Set automatic standby time Param1 = 1:180	>SetAutoStandbyTime 1
		<Auto Standby 1min
>SetAudioDelayTime [Param1]	Set the audio delay time Param1 = 0:300	>SetAudioDelayTime 100 <Audio Delay Time 100ms
>SetAudioVol [Param1]	Set audio volume Param1 = -80:0	>SetAudioVol 0
		<Audio Volume 0dB
>SetAudioMute [Param1]	Set audio to mute. Param1 = On, Off	>SetAudioMute Off
		<Audio Mute Off
>SetAudioBass [Param1]	Set low-frequency Gain value Param1 = -10:10	>SetAudioBass 0
		<Audio Bass 0dB
>SetAudioTreble [Param1]	Set high-frequency Gain value Param1 = -10:10	>SetAudioTreble 0
		<Audio Treble 0dB
>Reboot	MCU reboot	>Reboot
		<Reboot

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>SetRs232Baud [Param1]	Set RS-232 baud rate Param1 = 1-7 1: 2400 2: 4800 3: 9600 4: 19200 5: 38400 6: 57600(Default) 7: 115200	>SetRs232Baud 6
		<RS232Baud 57600
>SetRs232Out [Param1]:[Param2]: [Param3]:[Param4]	RS232 pass-through (supports pass-through of up to 600 bytes of data) Param1 = a,h a: ASCII h: HEX Param2 = 1-7 1: 2400 2: 4800 3: 9600 4: 19200 5: 38400 6: 57600(Default), 7: 115200 Param1 = 0-3 00: NULL 01: CR 02: LF 03: CR+LF Param4 = character	>SetRs232Out a:6:0:RS232
		RS232
>SetNetDHCP [Param1]	Set TCP/IP DHCP status Param1 = On,Off	>SetNetDHCP On
		>SetNetDHCP Off
>SetNetIp [Param1]	Set TCP/IP address Param1 = XXX.XXX.XXX.XXX	<DHCP On
		<DHCP Off
>SetNetIp [Param1]	Set TCP/IP address Param1 = XXX.XXX.XXX.XXX	>SetNetIp 192.168.000.178
		<IP Address 192.168.000.178
>SetNetGw [Param1]	Set TCP/IP gateway address Param1 = XXX.XXX.XXX.XXX	>SetNetGw 192.168.000.001
		<Gateway Address 192.168.000.001
>SetNetSm [Param1]	Set TCP/IP Subnet Mask address Param1 = XXX.XXX.XXX.XXX	>SetNetSm 255.255.255.000
		<Subnet Mask 255.255.255.000
>SetNetRb	Restart IP service	>SetNetRb
		<Network Reboot And Apply New Config!!!
>FactoryReset	Restore factory settings	>FactoryReset
		<FactoryReset

9. Customer Service

The return of a product to our Customer Service implies the full agreement of the terms and conditions hereinafter. These terms and conditions may be changed without prior notice.

1) **Warranty**

The limited warranty period of the product is fixed three years.

2) **Scope**

These terms and conditions of Customer Service apply to the customer service provided for the products or any other items sold by authorized distributor only.

3) **Warranty Exclusions:**

Factory applied serial number has been altered or removed from the product.

Damage, deterioration or malfunction caused by:

- ✧ Normal wear and tear.
- ✧ Use of supplies or parts not meeting our specifications.
- ✧ No certificate or invoice as the proof of warranty.
- ✧ The product model showed on the warranty card does not match with the model of the product for repairing or had been altered.
- ✧ Damage caused by force majeure.
- ✧ Servicing not authorized by distributor.
- ✧ Any other causes which do not relate to a product defect.

4) **Documentation:**

Customer Service will accept defective product(s) in the scope of warranty coverage at the sole condition that the defect has been clearly defined, and upon reception of the documents or copy of invoice, indicating the date of purchase, the type of product, the serial number, and the name of distributor.

Note: For further assistance or solutions, please contact your local distributor.