

MP™ 400

Professional
80 Watt Compact
Powered Mixer



PEAVEY
Operating Guide

ENGLISH

MP™ 400

Powered Mixer

Thank you for purchasing the Peavey MP™ 400! The MP™ 400 is a four-channel, powered mixer packed into an amazing compact package. Featuring only the essential requirements for a sound reinforcement mixer, the MP 400 is a breeze to operate and a joy to own. Quality semiconductor components lend a hand to achieve the excellent audio characteristics and reliable service that has made the MP Series Mixer so well known.

The MP 400 boasts four discrete channels, each with high and low impedance inputs, a Contour high frequency EQ control, and Reverb and Level controls. The master section offers a three-band equalizer, Master Level and Reverb controls, 1/4" Main and Reverb/Aux Outputs, Aux Input, and Remote Switch Input.

The following guide explains the MP 400 features and the proper operation of each. Refer to the diagrams in each section to locate each feature by its designated number. Throughout this guide, related features will sometimes refer you to another feature using this number system. Let's begin by listing the main features of the MP 400.

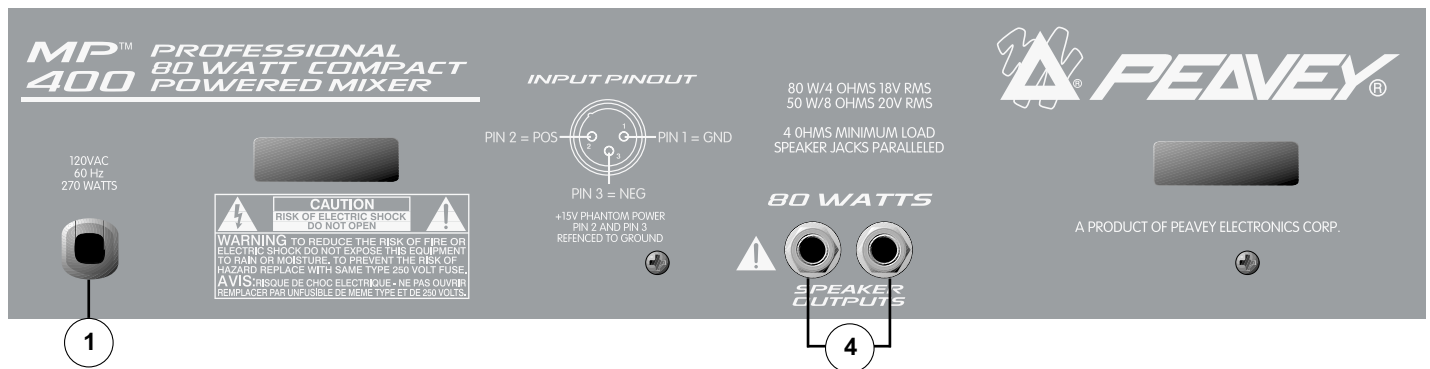
FEATURES:

- Four total input channels
- Reverb control on each channel
- Contour high frequency equalizer on each channel
- 1/4" and XLR inputs on each input channel
- 1/4" Main Output
- 1/4" Aux/Reverb Output
- 1/4" Aux Input
- 1/4" Remote Switch for reverb defeat
- Master Three-band Equalizer
- Master Level and Reverb controls
- 80 W power amp

POWER

This section describes the proper application of AC power to your MP 400. To insure the safety of you and your MP 400, please pay close attention to any designated cautions.

REAR PANEL



1. IEC POWER SOCKET:



With the Power Switch (#2) in the off (O) position, plug the power cord into this connector prior to plugging it into your AC power source. Always insure that proper grounding practices are utilized. Damage to the equipment may occur if improper line voltage is used (see voltage marking on unit). Never remove or cut the ground pin of the line cord plug.

NOTE: FOR UK ONLY

As the colors of the wires in the mains lead of this apparatus may not correspond with the colored markings identifying the terminals in your plug, proceed as follows: (1) The wire which is colored green and yellow must be connected to the terminal which is marked by the letter E, or by the earth symbol, or colored green or green and yellow. (2) The wire which is colored blue must be connected to the terminal which is marked with the letter N, or the color black. (3) The wire which is colored brown must be connected to the terminal which is marked with the letter L or color red.

2. POWER SWITCH (See front panel diagram next page)

Place this switch in the "ON" position to turn the unit on.

3. POWER LED (See front panel diagram next page)

Illuminates when AC power is being supplied to the mixer.

SPEAKER CONNECTIONS

This section will help you locate the two speaker output jacks on the rear of your MP 400.



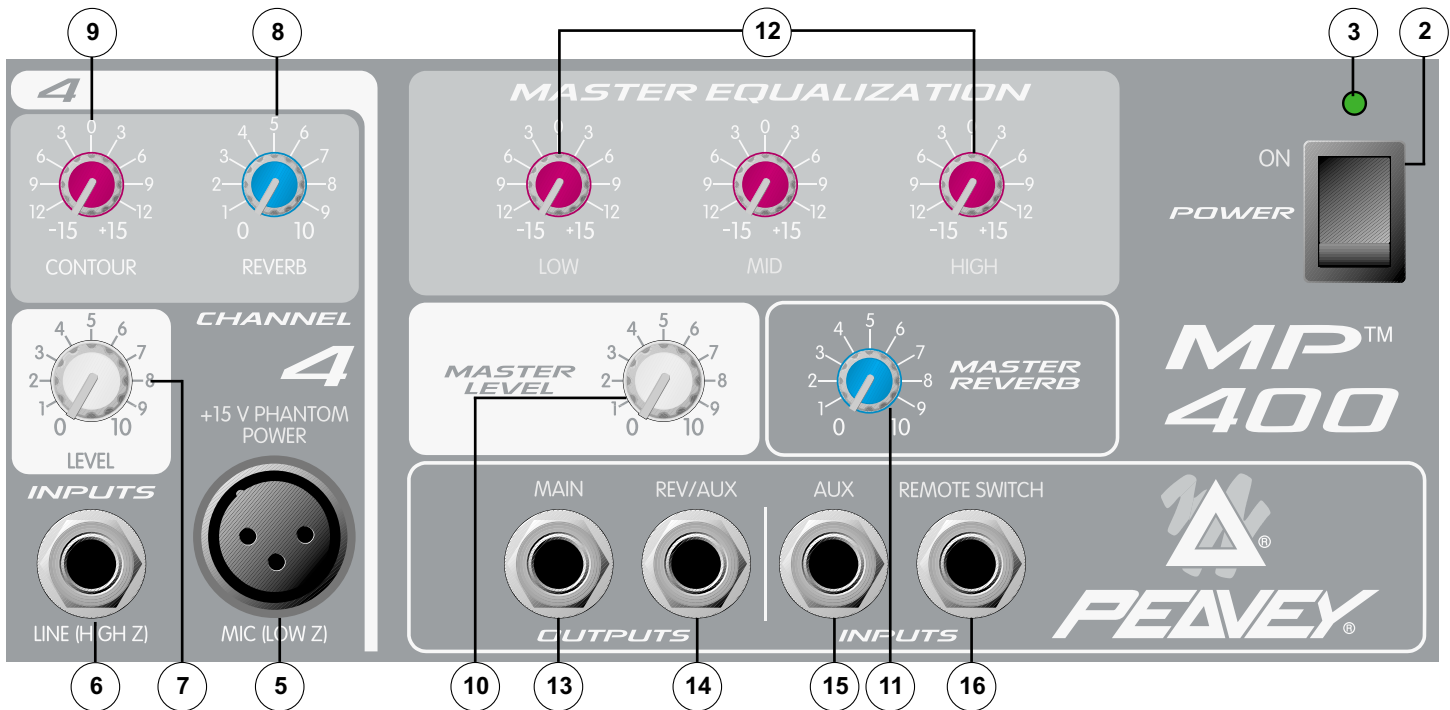
WARNING: NEVER ALLOW YOUR TOTAL SPEAKER IMPEDANCE TO DROP BELOW THE MINIMUM IMPEDANCE OF 4 OHMS.

4. SPEAKER OUTPUTS

Two parallel 1/4" jacks are provided at the output of the power amplifier for ease of speaker connection. Minimum speaker impedance (min. load) is 4 ohms.

CHANNEL FEATURES (CHANNELS 1-4)

The following section describes channels 1-4. Each of these input channels is identical.



5. MIC (LOW Z) INPUT

XLR balanced low impedance channel input optimized for a microphone or other low impedance source. Pin 2 is the positive input. This connector has +15V phantom power supply on Pins 2 and 3 at all times (Pin 1 is the ground reference).



WARNING: BECAUSE THE LOW-Z INPUTS HAVE PHANTOM POWER, ONLY CONNECT MICROPHONES OR PRODUCTS WITH A BALANCED OUTPUT TO PREVENT DAMAGE. IF YOU ARE UNSURE, PLEASE CHECK THE PRODUCT'S OPERATING INSTRUCTIONS.

6. LINE (HIGH Z) INPUT

1/4" unbalanced input that accepts line level sources equipped with a 1/4" plug (TS). The two inputs (XLR and 1/4") cannot be used simultaneously.

7. LEVEL

Sets the level of the individual channel in the mix.

8. REVERB

Sets the level of the internal reverb for the channel and must be used in conjunction with the master reverb level. It is post gain and will be affected by the LEVEL (7) adjustment. The Reverb/Aux control also determines the level of signal sent to the Effects Output (14).

9. CONTOUR

A shelving type of active tone control that varies the treble frequency level ± 15 dB at 10 kHz. It is designed to remove noise or to add brilliance to the signal, depending on the quality of the source.

MASTER FEATURES

10. MASTER LEVEL CONTROL

Controls the overall volume level of the system.

11. MASTER REVERB CONTROL

Controls the amount of reverb that will be heard in the main mix.

12. MASTER EQUALIZATION

Provides ± 15 dB equalization at each center frequency. EQ boost is obtained by moving a particular EQ band's control above the "0" position. EQ cut is obtained by moving a particular EQ band's control below the "0" position. The following list describes each EQ control and its center frequency.

Low - shelving type - 80 Hz

Mid - peak type - 1 kHz

High - shelving type - 10 kHz

OPERATION NOTE: This equalizer is designed to provide room equalization, feedback control and system tone control. No amount of equalization will correct the response curve of a poor loudspeaker. Always begin with all controls in the "0" position and avoid excessively cutting large segments of the audio passband, which would limit the system's dynamic range.

13. MAIN OUTPUT

1/4" unbalanced output that can be used as a source for an external amplifier/speaker system feed to other mixers or a tape deck.

14. REVERB/AUX OUTPUT

Plugging into this mono (TS) 1/4" output allows you to utilize external effects devices. In order to return the signal from the external effects unit, use the Aux Input (15). Simply turn the Reverb Master down to defeat the Internal Reverb if desired.

15. AUX INPUT

Use this mono 1/4"(TS) input to insert a line-level signal into the main mix. This signal can originate from a variety of sources including instrument/mic preamps, external effects (see #14), and even an additional sub mixer. This input bypasses the reverb and can be controlled by the Master EQ and Level.

16. REVERB FOOTSWITCH

Provided for connection of the optional remote footswitch (5100). The footswitch is used to activate/defeat the reverb.

MP™ 400 SPECIFICATIONS

Note: All specifications are typical unless otherwise noted.

0 dBV = 1 Volt RMS

0 dBu = .778 Volts RMS

All specs are referenced to nominal output level (0 dBV) unless otherwise noted.

All measurements are wideband 20 Hz to 20 kHz unless otherwise noted.

All control settings are nominal (50% rotation) unless otherwise noted.

CHANNEL:

Equivalent Input Noise

-116 dBV @ 40 dB Max Gain

Frequency Response:

(To Speaker Outputs)

±3 dB 20 Hz to 20 kHz

Distortion: @ (1 kHz):

Less than .009%

Input Impedance:

Low Z Bal. 2K ohms

1/4" Mic Input 22K ohms

CHANNEL EQ:

Contour EQ:

±15 dB @ 10 kHz Minimum

Center Detent flat ±2 dB

Nominal Channel Gain:

Line = 0 dB

Low Z = 30 dB

Maximum Channel Gain:

Low Z = 50 dB

Line = 19 dB

Nominal Input Level:

Low Z = -30 dB

Line = 0 dB

Minimum Input Level:

Low Z = -50 dB

Line = -19 dB

Maximum Input Level:

Low Z = -11 dB

Line = +28 dB

Phantom Power:

+15 VDC

MASTER:

Gain

Main: = 10 dB (variable)

High EQ:

± 15 dB @ 12 kHz Minimum

Center Detent flat ±2 dB

Mid EQ:

± 15 dB @ 1 kHz Minimum

Center Detent flat ±2 dB

Low EQ:

± 15 dB @ 60 HZ Minimum

Center Detent flat ±2 dB

Maximum Output Level:

Main: = + 18 dBV (8.0 V RMS)

Effects: = + 18 dBV (8.0 V RMS)

Nominal Headroom:

Main: = 18 dB

Effects: = 18 dB

Output Impedance:

Main: = 100 ohms

Effects: = 100 ohms

Output Noise:

Residual: -95

(Master Level Down)

Bus: -93

(Master Nominal, All Channel Level Full CCW, Reverb Level Down)

Nominal: -78

(All Controls Nominal, Low Z Input Terminated 150 Ohms)

Signal to noise ratio:

Microphone input to speaker output (>80 dB)

Frequency Response: 20 Hz to 20 kHz

SYSTEM DYNAMIC RANGE:

95 dB

POWER AMP SECTION:

Frequency Response:

+0, -3 dB, 30 Hz to 28 kHz @ Rated Power

RATED POWER AND LOAD:

80 W RMS into 4 ohms

55 W RMS into 8 ohms

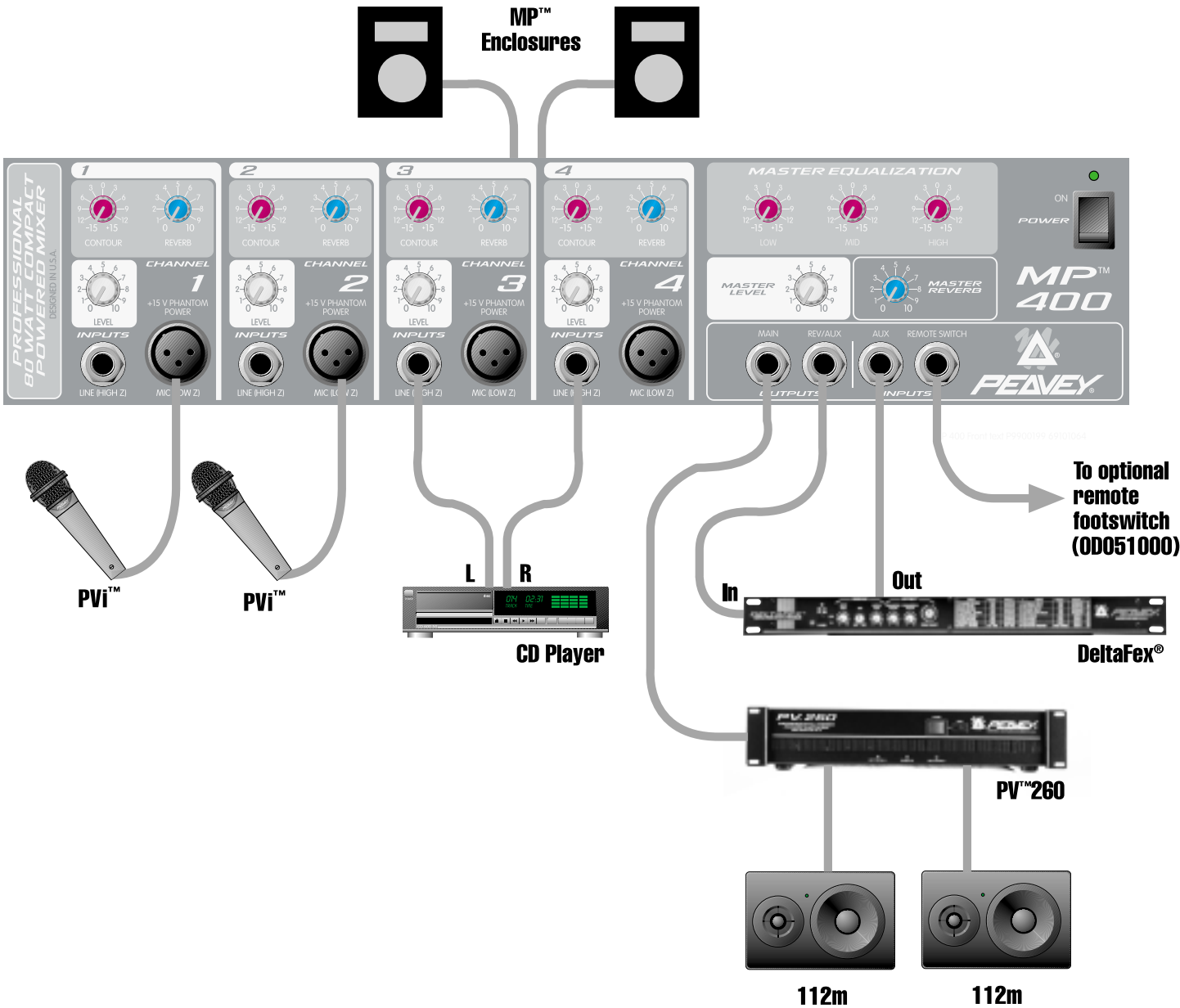
THD less than .5% Mic input to speaker output 1 kHz at rated power. Speaker system Impedance: 4 ohms minimum.

Power Requirements:

150W @ 100V, 120V, 230 VAC 50/60 Hz.

Specifications are subject to change without notice.

MP™ 400 RECOMMENDED HOOKUP





Features and specifications subject to change without notice.

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