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Contact customer service at WWW.gig-fx.com for further information

gig-fx Inc. 1050 Winter Street, Suite 1000 Waltham, MA 02451



MEGAWAH™

Operating Manual

PATENTS PENDING WORLDWIDE



Safety first

NEVER USE outlets which are not wired correctly. If you have ANY doubt at all, please call an experienced electrician.

In addition to the above, make sure your amplifiers are wired

Safety first

Electrical faults can kill you.

In the music world, the most common form of electrical shock occurs when the musician forms a path for an electrical current between two different circuits where one of them is faulty. Usually this is caused by holding a guitar plugged into one circuit and touching a microphone which is plugged into a different circuit. If one of the circuits (or a piece of equipment in the path) is faulty, there is a real danger of electrical shock.

gig-fx pedals offer the possibility of working in stereo using two amplifiers. If one of your amplifiers is connected to a different electrical circuit from the other, you need to make sure that both circuits are wired correctly. Use a 'mains tester' from an electrical or hardware store to test the mains outlets. It should indicate that the 'Live' (Hot), Neutral and Ground are all present on the correct pins.

The MEGA-WAH is six Wah's plus a foot volume control

- Classic Wah: The original classic Wah sound, mono or STEREO in a lightweight package
- Mega-Wah: More OOOMPH on the bass frequencies giving

correctly and have not been modified by inexperienced personnel. Beware of amplifiers that have switches that reverse polarity or lift ground connections. When touring in foreign countries, make sure your amplifiers are set for the correct voltage. If you use a transformer to change the mains voltage from 110VAC to 220VAC or vice versa, use a mains outlet tester to make sure the output of the transformer is correctly wired and the ground is connected.	 more wah power. Trig-Wah: Envelope Wah sound triggered by a note. Auto-wah: Set the Wah frequency of choice Stereo-Wah: Can be used in a stereo effects train or can provide mono-in and stereo out Stereo-Reverse-Wah: Reverse one channel for a unique new effect Foot-volume control: At the flick of a switch, the pedal becomes a stereo foot volume control.
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How it works

The *MEGA-WAH* has two entirely independent Wah circuits in one package giving a stereo in, stereo out capability. The effect also will accept a mono input signal and automatically provide a stereo output. The effect is bypassed when the pedal is all the way back. To use the effect, just press down on the pedal and the optical linkage will automatically and noiselessly turn the unit on and then provide the Wah of choice. The resonance control allows adjustment of the peak value of the Wah gain curve determining how much 'Wah' the pedal provides. The gain control allows control over how much overall gain the pedal provides to allow soloing a higher volume levels.

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In conclusion, providing that one of the amplifier grounds is still present throughout the circuit, it should be safe to lift one of the grounds and any ground-loop buzz should buzz off.

Powering it up - AC Adapter

Preferred power supply is a regulated 9V DC supply class 2 adapter with minimum 100mA output current capability. The *MEGA-WAH* employs a standard 2.1mm diameter plug but not all commercially available power supplies can deliver enough current to power the *MEGA-WAH* as well as all of your other effects. Please check the output current capability of your power supply. No harm will come to the unit if the power supply jack has the wrong polarity, but double check that the center-pin of the power jack is negative polarity. The unit will only be on if there is a jack plug inserted into the LEFT input channel.

negative -

Pedal Board Mounting

Attach strips of self-adhesive Velcro sufficient to cover the rubber pads on the base plate of the pedal. Cover your pedal board with the other side of the Velcro and, Voilà!



Ground loops (the kind of buzz you don't want)

Sometimes, when working in stereo, an annoying hum or buzz will appear when two amplifiers are used. This can occur when the amplifiers are plugged into two separate circuits, or if either of the amplifiers has some internal wiring issues, or if the large ground loop forms an antenna. Test the mains outlets using a mains tester as described in the safety warning in this manual or call an electrician to test the outlets.

Once you have verified that the outlets are wired correctly, you can usually solve the problem by disconnecting ('lifting') ONE of the grounds on the amplifier circuits (NOT BOTH – IT IS DANGEROUS TO PLAY WITHOUT ANY GROUND AT ALL). In the US, you can do this by using a 'ground lifting' plug which eliminates one ground connection. In Europe or elsewhere that uses three-pin plugs, you may need to use a specially adapted plug that does not have a ground connection. Consult an electrician first if you need to modify any 220V mains connections. 220V is a deadly voltage.

Battery Power

The unit can be operated temporarily on a single 9V battery and will be 'on' and drawing current as long as there is a ¹/₄" jack plug inserted into the LEFT input jack socket (nothing will happen if there is an input present in the right input only). To replace battery, unscrew smaller base panel as indicated underneath the unit. To preserve battery life, always unplug the input jack when pedal is not in use.

The *MEGA-WAH* draws up to 50mA making it unsuitable for using battery power for gigs or long sessions. This is because the MegaWah has two complete Wah circuits to accommodate true stereo working and also because we chose to use higher voltage circuits to improve signal clarity.

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By-Passing the unit

The unit is by-passed if the pedal is in the full-back position. You will not feel any switch as it is a noiseless, wear-free optical switch. The effect will turn on when the pedal is depressed. When bypassed, neither of the LEDs will be illuminated.

Please note, even when by-passed, the pedal will draw current as long as there is a jack plug inserted in the input jack socket so to preserve battery life, remove jack plug when pedal is not in use. The nature of the bypass is a silicon switch which has an open

Hooking it up

The best position for the *MEGAWAH* in a chain of effects depends on the other effects you use and your playing style. If you use the most common effects such as delay, compressor, distortion, chorus, we recommend that you put the *MEGAWAH* first in the chain. This is our subjective preference because the sound produced is 'bigger'. Placing the *MEGAWAH* last in the chain provides a dominant Wah sound.

In a stereo chain, the *MEGAWAH* can go anywhere in the chain because it is stereo-in and stereo-out, but the same suggestion applies as above in terms of preferred positioning. If you use a *gig-fx CHOPPER* and follow it with a *MEGAWAH*, you can use the chop sound of the *CHOPPER* and the note-triggered envelope wah setting of the *MEGAWAH* to provide a fun and funky effect.



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Controls

Mode Selector Switch (top left)

CRY MODE

• This puts the *MEGAWAH* into classic wah mode. Adjust the gain and resonance to get the desired sound. The most 'classic' sound is usually found with the Resonance turned to around two O'clock.

MEGA MODE:

• This mode kicks the wah up a notch, boosts the bass to make unique fat and funky wah sounds.

TRIG MODE:

• In this mode, an incoming note will trigger the wah to give an envelope / synth wah sound.

AUTO MODE:

• This mode allows the pedal to become an Autowah, the frequency of which is controlled by the rate control knob.

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Controls

SLIDE SWITCHES

- There are two slide switches, one on the left side of the *MEGAWAH* and one on the right. The switch on the left switches the unit between a volume pedal function and a wah pedal.
- The switch on the right hand side switches the RIGHT channel from normal to reverse creating an interesting sound effect.

Stereo v. Mono

The *MEGA-WAH* can be used as a mono device or a stereo device, however, the MegaWah's sound effects are more entertaining in stereo. It is recommended to use the device in a stereo set up either by using two amplifiers or a stereo amplifier. If you use two channels in a PA, stereo preamp, or mixer, make sure both inputs are panned, one to the left and the other to the right.

Signal to noise

Safety, EMI

This unit is compliant with:

CE norms

• EMI as described in CISPR 22

power supply or 9V battery

• EMI requirements as described in EN55013

All *gig-fx* products have low noise circuits, but as with any WAH effect, the *MEGA-WAH* circuit will contribute some noise when the pedal is in use. To minimize this noise, use relatively high guitar volume levels with relatively low amplifier volume levels according to the room. Turning the amplifier volume high with the guitar volume low will degrade the signal to noise ratio.

• FCC requirements for conducted and radiated emissions

• UL listing not required if used with class 2 (limited current)

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Features:

- Easy to use. No programming or scrolling through patches required
- All analog circuitry. Warm, full range sound
- Transparent bypass achieved by a FET switch. Open frequency response
- Stereo in, stereo out, mono in stereo out.
- Reliable, wear-free, noise-free optical operation. Bypassed when pedal is all the way back
- 9V operating voltage, 50mA current consumption
- Will accept standard 2.1mm power supply plug center negative
- Flashing blue and red LED's to show modulation rates
- Compact Size: 9" x 4" (228mm x 103mm)
- Lightweight, high-quality aircraft aluminum casting and rugged construction, only 2.2lbs (1.1kg). Patented ergonomics

Troubleshooting

All *gig-fx* pedal products are tested three times - once with a scope looking for correct waveforms, once on the bench before assembly, and then a final full audio test and visual examination prior to packaging. But hey, even NASA gets it wrong sometimes, so if you have a problem, please let us know. Here are solutions to the most often reported issues we have come across so far:

Problem: The pedal is too loose or too tight, does not stay in the off position, or moves after leaving it in one place. This can cause the bypass not to work if the pedal does not stay in the back position.

Solution: The pedal pivot screws need adjustment. For this you will need a 10mm crescent wrench and a Philips screwdriver. Most wrenches can fit in the cavity so that they can hold the

Troubleshooting continued

locking nuts, but some are too fat and the wings need to be filed or ground a bit in order to fit. If you do not have one, gig-fx will send you a wrench free of charge. Simply insert the wrench into the cavity under the pedal from the back and locate the locking nut into the jaw of the wrench so that the nut is held. Now use the screwdriver to tighten or loosen the screw to provide the resistance of choice. Be careful to tighten both sides evenly. If you have a spring-scale, such as those used for weighing fish, the correct uplift force need to lift the front of the pedal is in the range of 1kg (2lbs), but if not, just set so that is tight enough to stay in the off position or any other position, but not so tight it is stiff to move with your foot. Let your foot be the judge, as it is much stronger than your hand.

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Troubleshooting continued

adjustment and the unit will not switch off. This is usually because the optical components have either changed characteristics or have moved slightly. There is an adjustment pot for your convenience so that you can adjust the turn-on point. The pot is located through a hole under the serial number / bar code label. You will need a small screwdriver to adjust it.

The pot on the left adjusts the optical switch turn on point (use it to adjust the point in the pedal movement where the unit turns on). If the unit will not turn off, turn the switch clockwise until the unit turns on and off at a point where the pedal is around 2mm(1/8") from its resting position.

The pot on the right adjusts the amount of delay before the pedal turns off (so that you do not turn the unit off accidentally during pedal movements). Turn it clockwise to make the delay longer. 22





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