

**MAD**



# **MAD** PB1

PB1-46 / PB1-48

**MADE TO PLAY LOUD**

## **WE PLAY LOUD!!**

We know what you want. You want it LOUD, and that is exactly what we do, what we live for. Vibrations, gut-punches and straight up loud music - that's what makes us tick. We won't dress up in fancy words or claim to be something we're not. We are the NO BULLSH!T car audio brand!

Every single product with the GAS logo on it is born out of passion, the same that has driven us for two generations and that will keep us rolling up to your neighbourhood, winning and pushing the limits for many generations to come!

It's up to you to choose your own level of loud, and if you don't like what we do that's OK. You are welcome back when you've had your first true GAS experience. We don't exclude, we don't judge and we do not make up any excuses for who we are.

We are GAS and we are proud to be LOUD!

# **GAS**

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# SAFETY

**PLAY LOUD & SAFE.** Read through this information, follow the instructions and save the manual for future usage and reference.

Make sure to pay attention to the instructions when you see this symbol: 

Do not expose your new loaded enclosure to excessive damp or moisture. If the enclosure/speaker is exposed it might result in electric failure, shock or damage to the product. Servicing is required when the product has been damaged in any way and/or doesn't operate normally. Refer all servicing to qualified service personnel only.

Keep the cables inside the vehicle separate from sharp edges or components that may be affected or take damage. Follow the recommended cable sizes and always use high quality cables and accessories. Even if you're eager to put the enclosure to use – take no shortcuts when installing the cables, make sure that all connectors are protected and secured.

Do not drill any holes without checking what lies beneath, and don't cut anything without making sure that no important components risk being damaged.

To avoid potential injury from enclosure movements, the pre-loaded enclosure must be securely fastened in the vehicle on a suitable location.

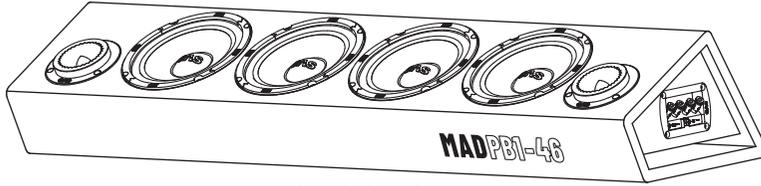
There is a first time for everything, if you need help – ask a friend or contact your local GAS AUDIO POWER dealer/installer.

We want you to experience your product's MAD sound, but we don't want you to injure yourself or others. Use common sense, respect high pressure levels and volume, and follow your local laws and regulations.



# UNPACKING

Unboxing your new MAD product is an experience, make sure that the enclosure and all the accessories are included in the packaging:



Loaded enclosure



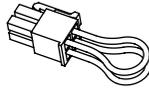
Manual



Brackets  
(4 pcs)

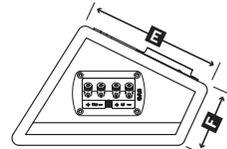
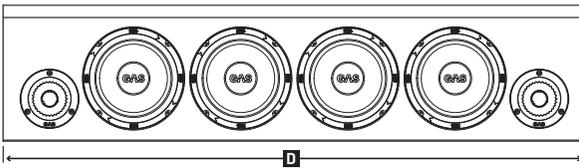
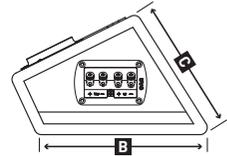
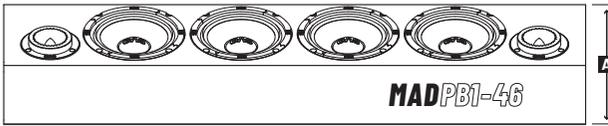


Screws  
(8 pcs)



AST connectors  
(2 pcs)

# DIMENSIONS



	A	B	C	D	E	F	
PB1-46	169	247	200	950	199	90	mm
PB1-48	236	235	236	1102	268	108	mm

# SPECIFICATIONS

Below you'll find the specifications that has been checked and tested in our workshop. The specifications aren't directly connected with the sound pressure in the vehicle, and shouldn't be used as the sole indicator for comparison with other enclosures. The MAD PB1 SPL enclosures are loaded with MAD PM1 midrange speakers and PT1 tweeters.

## MAD PB1-46

Component	Pre-loaded SPL enclosure
Size	4x6.5" (165mm) 2x1" (25mm)
Enclosure material	MDF board
Power RMS	340W
Power MAX	680W
Freq. response	100-20000Hz
Nominal Impedance	2+2 Ohm
Sensitivity	97dB

## MAD PT1-254 TWEETER

Component	SPL tweeter
Tweeter size	1" (25mm)
Nominal impedance	4 Ohm
Power RMS	50W
Power MAX	100W
Freq. response	2000-20000Hz
Voice Coil	1" KSV
Cone	Black matte alu. diaphragm
Housing	Aluminum
Magnet	HQ Ferrite
Capacitor	3.3uF MKT 250V

## MAD PM1-64 WOOFER

Component	SPL midrange
Woofers size	6.5" (165mm)
Nominal impedance	4 Ohm
Power RMS	60W
Power MAX	120W
Freq. response	100-12 000Hz
Sensitivity	94dB
Voice Coil	1" KSV
Woofers cone	Reinforced pressed paper
Woofers basket	Steel
Woofers suspension	2R cloth surround
Woofers magnet	HQ Ferrite
Woofers spider	Polycotton

## MAD PB1 CROSSOVER

Type	High pass
Slope	6 db
Cut off	7000 Hz
Tweeter level	N/A

# SPECIFICATIONS

## **MAD PB1-48**

Component	Pre-loaded SPL enclosure
Size	4x8" (200mm) 2x1" (25mm)
Enclosure material	MDF board
Power RMS	380W
Power MAX	760W
Freq. response	90-20000Hz
Nominal Impedance	2+2 Ohm
Sensitivity	97dB

## **MAD PT1-254 TWEETER**

Component	SPL tweeter
Tweeter size	1" (25mm)
Nominal impedance	4 Ohm
Power RMS	50W
Power MAX	100W
Freq. response	2000-20000Hz
Voice Coil	1" KSV
Cone	Black matte alu. diaphragm
Housing	Aluminum
Magnet	HQ Ferrite
Capacitor	3.3uF MKT 250V

## **MAD PM1-84**

Component	SPL midrange
Woofer size	8" (200mm)
Nominal impedance	4 Ohm
Power RMS	70W
Power MAX	140W
Freq. response	90-10 000Hz
Sensitivity	93dB
Voice Coil	1" KSV
Woofer cone	Reinforced pressed paper
Woofer basket	Steel
Woofer suspension	2R cloth surround
Woofer magnet	HQ Ferrite
Woofer spider	Polycotton

## **MAD PB1 CROSSOVER**

Type	High pass
Slope	6 db
Cut off	7000 Hz
Tweeter level	N/A

# FEATURES

## HOW DO YOU LIKE YOUR SPL?

For these enclosures, we've implemented a new feature that we're calling AST - an Active Smart Terminal. By removing the AST connector in the speaker terminal, you can connect separate amplifiers to the midrange speakers and to the tweeters for an active setup. This improves the sound quality and increases the Sound Pressure Level - are you ready to ditch your sound boundaries and unleash the MADness?

## OPTIMIZED SLOT PORT DESIGN

Even if LOUD is one of our core beliefs, it's also important that your sound expectations are met. We've used an optimized high output airflow slot port design to the enclosure, to minimize distortion and give you a cleaner, more musical output. This feature makes sure that you can be as LOUD as you want, without sacrificing sound quality.

## CRAZY TWEETERS

Look out, this is a wild one. We've included the MAD PT1 in this awesome SPL enclosure, a horn tweeter that's always ready to kick some ass and show you how good tweeters can make or break a sound system. This 1-inch horn tweeter with aluminum cone will play really LOUD and endure the toughest cruises!

## MIDRANGE MADNESS

Awesome tweeters are one thing, midrange speakers are another. You'll need four crazy midrange speakers to take your sound system to the next level. We've got you covered with the MAD PM1, here to stay and to play LOUD. Are you going to be "that guy" who stays on the sidelines, or are you going to show everyone how LOUD you can be? If you're ready to take the first step into the wonderful world of SPL, you're good with the PB1 SPL enclosures!

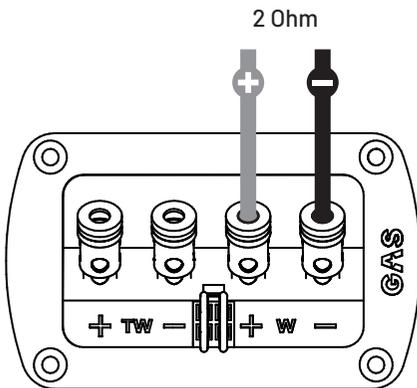


# HOW TO

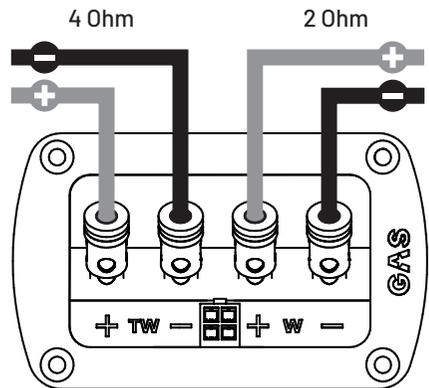
## INSTALL PRE-LOADED ENCLOSURE

Before installing your brand new pre-loaded enclosure, make sure that you have everything you need. Have the right tools ready, and make sure that you have the necessary knowledge/skill to perform the installation properly. Preparation and knowledge is crucial!

Since the enclosure is pre-loaded with MAD midrange speakers and tweeters, the installation is very simple. Just connect it with your amplifier and get ready to play LOUD! To take your SPL setup to the next level, we've included a whole new feature, we're calling it AST. Active Smart Terminal.

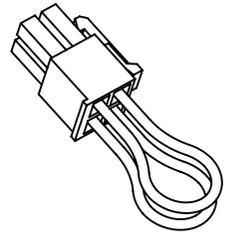


with AST connector  
(passive mode)



without AST connector  
(active mode)

The AST feature is based on the idea to give you full power over your SPL enclosure. The AST connector gives you the choice to connect the woofers and tweeters, for a passive mode connection to one amplifier. Or you can remove the connector, and connect separate amplifiers to the midrange speakers and to the tweeters for an active mode/setup (see the following page for setup suggestions). This improves the sound quality and increases the Sound pressure Level. To make your LOUD system even LOUDER!



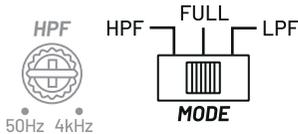
When the AST connector is not in place, the tweeter's built-in capacitor is still active to protect them from noise issues such as DSP/amplifier failures that could damage the tweeters.

# HOW TO

## INSTALL PRE-LOADED ENCLOSURE

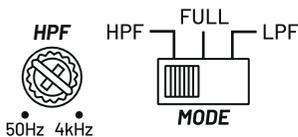
Use the appropriate settings on your amplifier/dsp when connected to your SPL enclosure. If you remove the AST connector, you have several setting options you can use. Some include active crossover settings and some are pure full range amplifier setups. See the recommend crossover settings below.

### TWEETER AMPLIFIER (OPT. 1):



Set the switch to FULL, the internal passive cross over will be used. Benefit here is that you can use a full range amplifier without any need for active filter. Compared to passive mode you can still change the level/gain between woofer and tweeter as you use different amplified channels.

### TWEETER AMPLIFIER (OPT. 2):



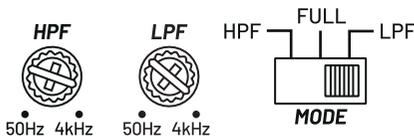
Set high pass filter to 4kHz and the switch to HP/HPF mode. This way your connected tweeters will have an extra protection below the passive cross over point and the sound can be tailored toward your own preferences depending on the chosen active filter frequency. Both the passive and active crossover is in use with option 2.

### MIDRANGE/WOOFER AMPLIFIER (OPT. 1):



Set the high pass filter to 120Hz (PB1-46) or 100Hz (PB1-48) and the switch to HP/HPF mode. Compared to passive mode you can still change the level/gain between woofer and tweeter as you use different amplified channels. **WARNING!** Switch to FULL setting or lowering your high pass crossover point can damage your speakers and is not recommended.

### MIDRANGE/WOOFER AMPLIFIER (OPT. 2):



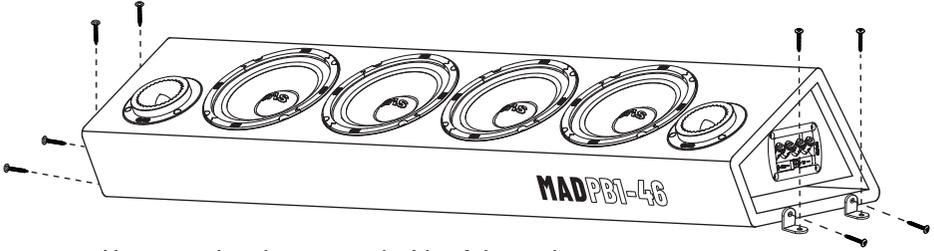
Set HP/HPF to 120Hz (PB1-46) or 100Hz (PB1-48) and the LP/LPF to 4 kHz. Set the crossover switch to LP/LPF mode. This way your connected midrange/woofers will play from 120/100Hz to 4 kHz and your connected midrange/woofers will have a protection below the chosen HP/HPF setting and the sound can be tailored toward your own preferences depending on the chosen LP/LPF filter frequency.

# HOW TO

## INSTALL PRE-LOADED ENCLOSURE



Make sure that the enclosure doesn't move around while driving, use the included mounting brackets and screws to securely fasten it in position.



Mount two brackets on each side of the enclosure.

# TROUBLESHOOTING

## NO POWER/SOUND

Check the enclosure/speakers to make sure it isn't damaged. If not all speakers are playing, make sure the AST connector is in place, or check cross over settings for both amplifiers. If your pre-loaded enclosure doesn't get any power, the most common issue is either in the wiring or in the amplifier. Use a multimeter to measure the amplifier's voltage on the +12V terminal and the remote signal terminal. Make sure that you have a negative ground connection. Check the built-in fuse (if there is one) on the amplifier. If there's no power coming through – control the fuse on the power cable. If the fuse is intact you should check all of the wiring to ensure cable integrity.

## DISTORTION

Start by looking over the enclosure/speakers so there's no damage or connection issue with the wiring. Check the speaker cables to make sure that the polarity isn't reversed on one channel. Check the settings on the amplifier, make sure that the gain/level function is set according to the amplifier's instructions. If your amplifier has a boost function, lower its effect or turn it off.

When all of the above has been tested/looked over, and all is as it should be but the pre-loaded enclosure still has no power/sound or other problems, consult your local GAS AUDIO POWER dealer/installer

# WARRANTY & DISPOSAL

This product is covered by warranty, depending on the conditions in the country where it's sold. If the pre-loaded enclosure is returned for service, please include the original dated receipt (or a copy) with the product. Make sure that the enclosure is packaged properly and secured, preferably in its original packaging.



The crossed-out wheellie bin symbol means that the product, literature and packaging included must be taken to separate collection at the end of their working life. Don't dispose of these products as unsorted municipal waste: take them for recycling. For info on your nearest recycling point, check with your local waste authority.



This product has been granted with the CE certification mark to show that the product follows the health, safety, and environmental protection standards for products sold within the European Economic Area (EEA).



GAS Audio Power products comply with the relevant provisions of the RoHS Directive for the European Union. In common with all Electrical and Electronic Equipment (EEE) the product shouldn't be disposed of as household waste. Alternative arrangements may apply in other jurisdictions.



GAS Audio Power is a global partner of the European Mobile Media Association, an organization that focus on promoting the custom made mobile media installations to consumers.

# THE GAS WORLD

You've entered the world of GAS. We aim to please, and we've made sure to have products made for you. No matter what stage of the LOUD-addiction you might find yourself in, there is a GAS product to fill your need.

## ***MAD***

Just starting out? The MAD series is made to play LOUD and to be the express lane to a no bullsh!t sound system that will make sure everyone can hear you coming!

## ***MAX***

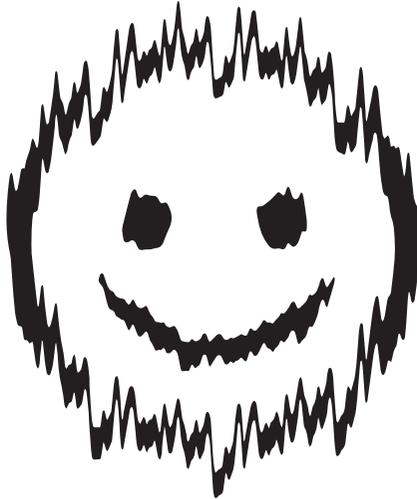
The MAX series holds products made to deserve the center stage. Powerful, heavy duty and designed to be noticed. We made NO COMPROMISES because we know that you wouldn't accept it.

## ***CMP***

The CMP series has been developed for the crucial seconds when the dB-counter starts to tick. All CMP products have hand-picked, high quality, COMPETITION GRADE components and they are specially designed to withstand an awesome amount of power.



# THANKS FOR JOINING GAS AUDIO POWER!



**GAS**  
AUDIO POWER

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