



MAD

M110-BTR

MADE TO PLAY LOUD

WE PLAY LOUD!!

We know what you want. You want it LOUD, and that's 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. Before installing your MAD head unit, make sure that you read through the manual thoroughly and follow the instructions. Save the manual for future usage and reference!

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

Make sure that your vehicle has a 12 VDC voltage negative ground system, that it can handle an increased power consumption, and that both the alternator and the power source are healthy and up to the task.

Do not install the head unit where it may be exposed to dirt, excessive damp or moisture. If the head unit is exposed it might result in electric failure, shock or damage to the product. Your head unit will produce heat so make sure it'll have sufficient air circulation. Servicing is required when the product has been damaged in any way and /or doesn't operate normally. Refer all services 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 head unit to use - take no shortcuts when installing the unit, make sure that all connectors are protected and secured.

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

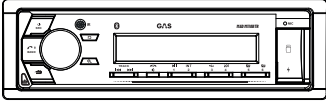
There's a first time for everything, if you need help - ask a friend or contact your local GAS AUDIO POWER dealer/installer.

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

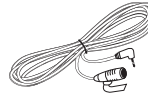
We know you're excited to dive head first into installing your new head unit, but before you do: Make sure that the head unit and all the accessories are included in the packaging.



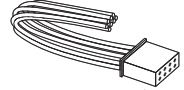
Head unit



Remote



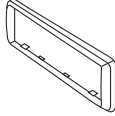
Microphone



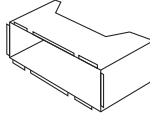
ISO connection
(2 pcs)



Manual



Trim panel

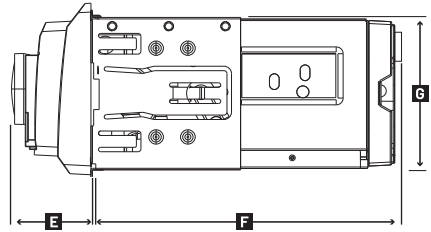
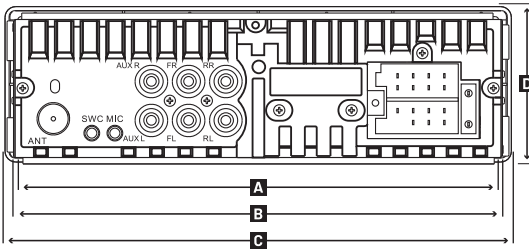


Mounting
sleeve



Removal keys
(2 pcs)

DIMENSIONS



	A	B	C	D	E	F	G	
M110-BTR	178	182	188	58	32	111	53	mm

SPECIFICATIONS

We take pride in our work! Listening, measuring and engineering are essential parts in our workshop. That's how we make sure to bring you an awesome product with NO BULLSHIT.

GENERAL

Power source	14.4V (11-16V)
Maximum current consumption	15A MAX
Operational temp.	-10°C to +60°C
LED backlighting	7 colors and custom RGB
Illuminated buttons	Yes
Memory backup	Yes
Detachable front panel	Yes
Weight (net)	0.6kg

BLUETOOTH

Version	BT 5.3
---------	--------

USB / MicroSD

USB standard	USB1.1, USB 2.0
File system	FAT12/16/32
MP3 decode	Compliant with MPEG1/2 Audio Layer3

AUDIO

MAX output level	2V RMS
MAX power output	50W x 4ch
Load impedance	4 Ohm
Frequency response	20Hz to 20kHz
Tone Controls	BAS -9dB / +9dB MID -9dB / +9dB TRE -9dB / +9dB
Signal-to-noise ratio	85dB
Separation	80dB

FM RADIO

Tuning range	87.5-108
IF range	10.7MHz
Usable sensitivity (-30dB)	15dB
Usable-to-noise radio	60dB
Stereo separation	30dB(1 KHz)
Frequency response	30-15000 Hz

FEATURES

The MAD M110-BTR head unit is made to be LOUD and last for years to come. We want to help you and your vehicle to be as LOUD as possible. We've made sure that is the case by using innovative and groundbreaking techniques that increase durability.

MAD IN EVERY POSSIBLE WAY

Take it to the next level with the MAD M110-BTR! This powerful single DIN head unit brings MP3, WAV and WMA audio playback for a true sound experience in your car. Enjoy music through Bluetooth, USB or AUX. Or tune in your favorite radio channel with RDS while traveling. We don't call ourselves Audio Power for nothing!

PRECISION CONTROL

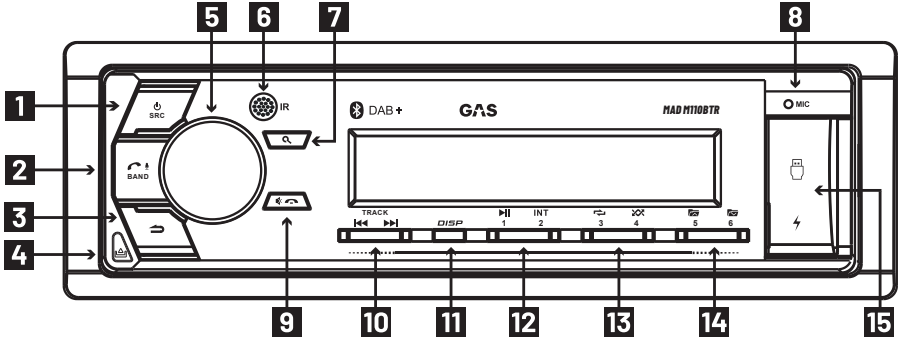
We know you'll want to add one or two amplifiers to your sound system, which requires at least two pair of RCA outputs. MAD M110-BTR gives you that possibility. All important features have been taken care of. You get the full control over your setup with bass, middle and treble tone controls. Fifteen EQ-presets so that you can tune your sound for different styles like pop, rock, country, classic, jazz, electric, powerful, dynamic, superbass or custom. In the custom mode you can adjust 10 EQ-bands for tuning the sound after your own preferences. MAD and LOUD as you like it!

SAFETY FIRST

Staying connected isn't just important—it's essential. That's why we've equipped the head unit with Bluetooth and not one, but two microphones. One in the head unit and an external one (cable included). So that you can focus on the road while talking with your friends. Security a concern? Our detachable front panel lets you take it with you, to keep thieves at bay and your mind at ease. Time to go LOUD and live PROUD!

FUNCTIONS

We want to help you and your vehicle to be as LOUD as possible. We've packed the head unit with a bunch of interesting features. We know you're itching to get your new sound system going, but make sure to read through these pages - so you can get the most out of your setup!



1 SRC ON/OFF

Short press: Switch on device
 In operation: Change of source
 FM Radio, DAB Radio, USB (when connected), Aux in, Bluetooth.

Long press: Switch off device.

2 BAND / PHONE

Radio mode: Changes to next 6 stored stations.

BT mode: Calling the last dialed number on your mobile phone. Answer incoming Call.

USB mode: Name of the File, Folder, Title, Album, Artist.

3 BACK

MENU mode: Back. Return to the previous menu

4 DETACH BUTTON

The head unit has detachable front panel. Pressing the **Detach Button** separates the panel from the stereo itself.

5 VOLUME KNOB

Rotate to adjust volume. Navigate up/down in the menus.

MENU mode: Press to select.

6 INFRARED RECEIVER

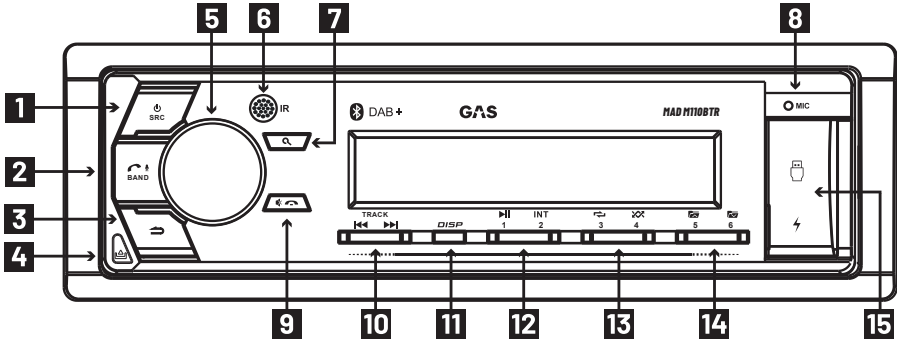
Infrared eye for remote control.

7 SEARCH


Radio mode
 Short press: Station 1
 Long press: Search station

USB mode: Jumps to the selected number. Turn Volume knob to find what number on the file, confirm by pushing the knob.

FUNCTIONS



8 BUILT-IN MICROPHONE
Mic. for answering phone calls.

9 
Mute audio and/or reject calls.

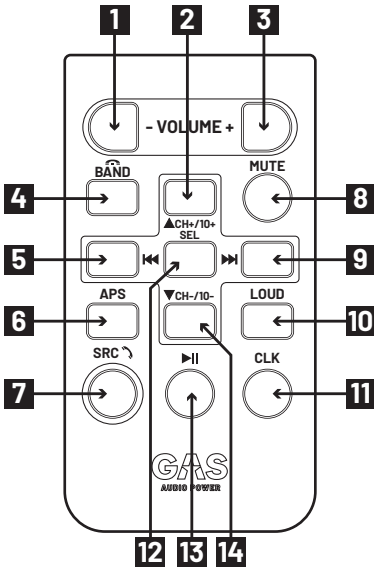
10 TRACK
Radio mode: Start/Stop search radio station.
BT mode:
>>| One press: Skip to next track
|<< One short press: Jump to the beginning of the track (if the track has played +10 sec, or prev. track).
|<< Press twice: Go to prev. track.

11 DISP
Turn off the display.

12 NUMBER BUTTONS (1-6)
13
14
Radio mode: Stored radio stations.
USB mode:
1 Go to next folder
2 Go to previous folder
3 Repeat - Track / Folder / OFF
4 Random Play - ALL / OFF
5 Paus/Play
6 Int - SCAN ON / SCAN OFF

15 USB PORT
Playback from USB devices and USB charging (5V 1.5A)

FUNCTIONS



1 **VOLUME - / VOLUME +**
3 Lower / Increase the volume.
In menu: Down / Up scrolling.

2 **CH+ / 10+ / CH-/10-**
14 Change radio channel + / -

4 **BAND**
 Browse stored radio channel.
In phone call: Hang up

5 **PREVIOUS / NEXT TRACK**
9 Go to previous / next track.

6 **APS**
In menu: Go back.
Radio mode: Automatic scan and save channel preset.

7 **SRC**
 Switch between sources.
Incoming phone call: Answer

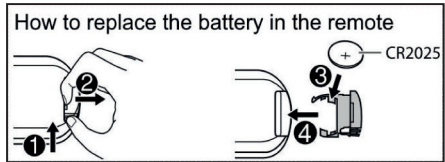
8 **MUTE**
 Mute sound.

10 **LOUD**
 Change the loudness level.

11 **CLK**
 Short press: Shows the clock.
 Long press: Turn off the display.

12 **SELECT**
 Select / enter.

13 **PLAY / PAUSE**
 Play / pause track.



HOW TO

A well-built sound system will set you aside from the rest and elevate your vehicle! It's important that you carefully read the instructions on the following pages. This is to make sure that you use the head unit correctly, so your system is as LOUD as possible!

QUICK START

1) Press  to start the head unit.

2) Set Clock

- Press Volume knob. Turn until the **[SYSTEM]** menu is shown.
- Press Volume knob to enter.
- Turn Volume knob until **[CLOCK]** menu is shown.
- Press Volume knob to enter. **[CLK SET]** menu is shown.
- Choose between 12H or 24H.
- Turn the Volume knob to choose.
- Turn volume knob until **[ADJUST]** is shown
- Press Volume knob to enter.
- Start adjusting the minutes by turning the volume knob. When done press the Volume knob for adjusting hours. Press the volume knob when done.

3) Bluetooth Pairing

- Press SCR until **[BT]** shows in the display.
- Open Bluetooth settings on your mobile device.
- Find "MAD M110BTR"
- Connect your mobile device to the head unit.

Turn ON/OFF head unit via vehicle ignition

If the car audio system is connected with the vehicle ignition, turning off the ignition key also switches off the device. Switching on the ignition will turn on the device.

Memory function

The head unit has a memory function to store radio channels. The radio channels are stored when the power is turned off and will be shown again once the power is turned on.

Volume adjustments

The volume on the head unit can be adjusted in steps from 0 (min) to 40 (max). Simply adjust the volume either by turning the volume knob on the unit or use the included remote control.

HOW TO

Storing radio station

Select the desired preset with the BAND-button. Set the desired station by pressing one of the preset buttons [1]-[6] for approximately 3 seconds to store the current station at the button. Up to 6 stations can be stored in each bank (there are 3 banks), so up to 18 stations can be stored in total. Press the BAND-button to change memory bank, press the preset buttons [1]-[6] to choose the stored station.

USB/MicroSD media playback

The car audio system can be used to play MP3 files as well as MP3, WMA, ACC, WAV & FLAC files on USB drive. Turn off the car audio system before removing the USB/MicroSD. The source USB is automatically chosen when it is plugged into the head unit. Use the preset buttons [1]-[2] on the head unit to browse through folders. Preset button [3] gives you repeat options (RPT Track, RPT Folder, RPT OFF) and preset button [4] gives you the option to random the playing order of the tracks. Preset button [5] is for Play/Pause and preset button [6] plays the first 10 sec of the chosen track.

Menu options

In the head units main menu there are several settings and options that you can adjust. To get to the main menu, press the volume knob. Turn volume knob for Audio settings or System settings. Press Volume knob to enter.

Audio settings

- EQ SET (FLAT, CLASSIC, ROCK, POP, EASY, TOP40, JAZZ, VOCAL, COUNTRY, SUPERBASS, NATURAL, ELECTRIC, POWERFUL, DYNAMIC, CUSTOM)
- Loudness (LOUD)
- Bass (BASS)
- Midrange (MID)
- Treble (TREBLE)
- Fader (FADER)
- Balance (BALANCE)

System settings

- Language (LANGUAGE)
- Clock (CLOCK)
- Beep (BEEP)
- AUX in (AUX IN)
- Car ACC (CAR ACC)
- Reset (RESET)
- Version (VERSION)

Display settings

- Color (COLOR)

HOW TO

AUDIO SETTINGS

The audio settings make it possible to adjust the performance of the sound system. Press the volume knob to access the menu. Turn the volume knob until the **[AUDIO]** option is shown, press the volume knob to enter settings. There are seven different settings you can adjust. Turn the volume knob to browse the different settings and press the volume knob to select the setting you want to change. Turn the volume knob to adjust the value and press the volume knob to confirm the change. Wait a few seconds, the unit will exit the menu automatically. Or press the back button to go back to the Audio menu.

MENU SETTING	FUNCTION	VALUES
[BASS]	Adjust the relative level of bass.	[-9]-[0]-[+9](1dB steps)
[MIDRANGE]	Adjust the relative level of midrange.	[-9]-[0]-[+9](1dB steps)
[TREBLE]	Adjust the relative level of treble.	[-9]-[0]-[+9](1dB steps)
[FADER]	Adjust the relative level between front and back speakers.	[R7]-[0]-[F7](1 steps)
[BALANCE]	Adjust the relative level between left and right speakers.	[L7]-[0]-[R7](1 steps)
[LOUDNESS]	Raises lower and higher frequencies. Only use on low volumes.	OFF, ON



HOW TO

EQ SETTINGS

Toggle on/off between the pre-set EQ levels: FLAT, CLASSIC, ROCK, POP, EASY, TOP40, JAZZ, VOCAL, COUNTRY, SUPERBASS, NATURAL, ELECTRIC, POWERFUL, DYNAMIC, CUSTOM. The Custom EQ setting have 10 adjustable EQ-bands for tuning the sound after your own preferences.

EQ BAND	SETTINGS
[32Hz]	[-9] - [0] - [+9](1dB steps)
[64Hz]	[-9] - [0] - [+9](1dB steps)
[125Hz]	[-9] - [0] - [+9](1dB steps)
[250Hz]	[-9] - [0] - [+9](1dB steps)
[500Hz]	[-9] - [0] - [+9](1dB steps)
[1kHz]	[-9] - [0] - [+9](1dB steps)
[2kHz]	[-9] - [0] - [+9](1dB steps)
[4kHz]	[-9] - [0] - [+9](1dB steps)
[8kHz]	[-9] - [0] - [+9](1dB steps)
[16kHz]	[-9] - [0] - [+9](1dB steps)



HOW TO

FM TUNER

FM tuner includes options to adjust settings of the head unit's FM radio and RDS functions. Press the volume knob to access the menu. Turn the volume knob until the **[SYSTEM]** option is shown and press the knob to enter. Turn the volume knob until **[TUNER]** is shown and press the knob again to select. There are seven settings you can adjust. Turn the volume knob to browse the different settings and press to select the setting you want to change. Turn the volume knob to adjust the value and press the knob to confirm the change. Wait a few seconds, the unit will exit the menu automatically. Or press the back button to return.

MENU SETTING	FUNCTION	VALUES
[REGION]	Region in the world.	EUROPA, RUSSIA, ASIA, USA
[MONO/STEREO]	Mono setting improves the FM reception, but the stereo effect may be lost. Choose stereo setting for better sound quality and stereo sound.	MONO, STEREO
[DX/LOCAL]	Adjusts the sensitivity when the scan/seek function is used. With Local activated, the scan/seek will stop on weaker stations/signals located nearby. When DX is activated the scan/seek stop on more powerful stations/signals from far away.	DX, LOCAL
[RDS]	(Radio Data System) signal with additional functions, like displaying the name of the radio station.	OFF, ON
NOTE! The following settings are only visible when the RDS setting is ON		
[AF SET]	Maintain the station while switching between radio transmitters on route.	OFF, ON
[NEWS SET]	Play news when PTY is on.	OFF, ON
[PTY SEARCH]	Programme type search.	PTY NONE, NEWS, AFFAIRS, INFO, SPORT, EDUCATION, DRAMA, CULTURE, SCIENCE, VARIED, POP, ROCK, EASY, LIGHT, CLASSICS, OTHER, WEATHER, FINANCE, CHILDREN, SOCIAL, RELIGION, PHONE IN, TRAVEL, LEISURE, JAZZ, COUNTRY, NATION, OLDIES, DOCUMENT

HOW TO

BLUETOOTH

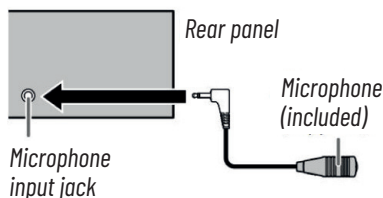
BLUETOOTH FUNCTIONS

The Bluetooth® function allows pairing cell phones & BT equipped media playback devices with the car audio system. When you connect a cell phone with the car audio system, you can make phone calls with the built-in hands free function. You can access the last dialed number in you mobile device.

If the connected Bluetooth® device supports functions like A2DP and AVRCP, you can play music via the car audio system and control playback. During a call, music playback is interrupted and resumes again after the call.

If a cell phone is registered via Bluetooth® and a call is received during playback, the source playback is interrupted and the call menu is displayed. To get the best quality in the conversation, it's recommended to use the external microphone.

Connect the microphone to the head unit. To capture your voice during handsfree calling, you need to install the microphone. The cable is 2.95m long.



Mount the microphone as close to the driving position as possible. The cord must be safely installed.

CONNECTING BLUETOOTH DEVICE

Press the SRC button until you get to the [BLUETOOTH] option. Find "MAD M110BTR" in the list of Bluetooth devices on your mobile phone and select it to connect.

HANDS-FREE PHONE CALLS

GAS M110-BTR head unit handles hands-free phone calls with the external or internal microphone. When you receive an incoming phone call, you simply answer by pressing the ["PHONE"/ BAND] button on the head unit or the ["PHONE"/SRC] button on the remote control. To end the phone call you press the [DISP] button on the head unit or the [BAND] button on the remote control.

If you wish to make a phone call directly through the MAD M110-BTR head unit, press the ["PHONE"/ BAND] button on the unit to call the latest phone number in your call-log.

HOW TO

SYSTEM

The system settings make it possible to adjust the unit's system settings. Press the volume knob to access the menu. Turn the volume knob until the **[SYSTEM]** option is shown, press the volume knob to enter settings. There are three different settings you can adjust. Turn the volume knob to browse the different settings and press the volume knob to select the setting you want to change. Turn the volume knob to adjust the value and press the volume knob to confirm the change. Wait a few seconds, the unit will exit the menu automatically. Or press the back button to go back to the Audio menu.

MENU SETTING	FUNCTION	VALUES
[LANGUAGE]	Set the language in the head unit.	ENGLISH
[CLOCK]	Set the time in the head unit.	CLK SET 12H / 24H ADJUST TIME
[BEEP]	Set the beep tone on or off.	ON / OFF
[AUX IN]	Activate the AUX input.	YES / NO
[CAR ACC]	Turn the +12Volt ACC power off. Some car just use +12Volt B+ and no +12Volt ACC power.	YES / NO
[RESET]	Reset to factory settings.	YES / NO
[VERSION]	Software version.	Example. DQ2 0.13

HOW TO

DISPLAY

The display settings make it possible to adjust the unit's display settings. Press the volume knob to access the menu. Turn the volume knob until the **[DISPLAY]** option is shown, press the volume knob to enter settings. Turn the volume knob to browse the different settings and press the volume knob to select the setting you want to change. Turn the volume knob to adjust the value and press the volume knob to confirm the change. Wait a few seconds, the unit will exit the menu automatically. Or press the back button to go back to the Audio menu.

The display color can be changed between blue, red, green, yellow, cyan, purple and white. The VARIABLE setting makes the color of the display shift between the colors above. With the CUSTOM setting you can adjust the color used on the display and buttons to any color. Enter the RGB numbers from 0-255 for the three color channels Red, Blue and Green to mix and create the color of your choice.

GAS Audio Powers favorite color is ofcourse orange, if you wanna use our LOUD orange color on the head unit, add the following RGB values: R = 255, G = 77, B = 6.

MENU SETTING	FUNCTION	VALUES
[DISPLAY] [COLOR]	Choose color on the display text and buttons.	VARIABLE, BLUE, RED, GREEN, YELLOW, CYAN, PURPLE, WHITE, CUSTOM
[CUSTOM]	Enter the RGB number for the color of you choose.	RED [0] - [255] GREEN [0] - [255] BLUE [0] - [255]

TROUBLESHOOTING

NO POWER

Check the head unit to make sure it isn't damaged. If your system doesn't get any power, the most common issue is either in the wiring or the fuse. Use a multimeter to measure the head unit voltages, both yellow and red cable (+12-16V)

Check that all speaker cables are connected to your sound system. If you are using a car specific cable harness, make sure it is for your car model. Most modern cars have some kind of CAN-Bus system to start the OEM head unit, for these cars a special CAN-Bus harness is needed. Make sure that the RCA cables are properly connected if external amplifier is used and that you have 12V remote on the external amplifier.

UNWANTED NOISE

Start by looking over the speakers in the sound system so there is no damage or connection issue with the wiring. Make sure that your signal cables or speaker cables aren't too close to the power cables. If the noise changes with the accelerator, it is most certain a ground loop issue. Make sure that the grounding point is good, especially if an external amplifier is used.

When all of the above has been tested/looked over, and the unwanted noise does not vanish, consult your local GAS dealer.

DISTORTION

Start by looking over the installation and all cables in the sound system 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. If an external amplifier is used, make sure that the gain/level is set according to the amplifier's instructions. If your amplifier has a boost function, lower its effect or turn it off.

WARRANTY & DISPOSAL

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



The crossed-out wheeie 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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