

**GROUND ZERO<sup>®</sup>**  
**GERMAN ENGINEERING**

**PLUTONIUM SERIES**  
**Subwoofer**

**GZPW 10SQ**

Owner's Manual

English

## Introduction

Thank you for choosing a GROUND ZERO product and welcome to your new PLUTONIUM series loudspeaker!

This is the owner's manual providing instructions on the operation and installation of this high-end subwoofer. Please, read it carefully. If you have any further questions, please contact your local GROUND ZERO dealer or our regional distribution partner.

This subwoofer is one of the most important parts of your car audio system. However, it will only be able to deliver its full performance when each part of the whole system is tuned carefully matching each other. Therefore, we recommend consulting a car audio specialist to compile the desired sound system, as well as for installation and tuning.

We hope you will enjoy the sound quality of an enthusiastic development by the GROUND ZERO engineering team!

## PLUTONIUM Series – The High-End Experience

Products belonging to the GROUND ZERO PLUTONIUM series stand for high-end sound quality or extreme power handling capability.

To achieve one of these targets, exceptional materials and technologies are applied during the development.

The technical, electrical and mechanical skills of the resulting products convince not only during worldwide sound quality competitions but also satisfy the demands of high-end enthusiasts with outstanding audio reproduction ability.

The new GZPW SQ line of subwoofers marks the start of a new generation of low frequency drivers, delivering an outstanding sound performance.

The GZPA SQ amplifiers have been developed by experienced sound quality engineers and tuned by music loving enthusiasts. They are being built with highest care using some of the best quality parts available and run through numerous tests prior to handing over to GROUND ZERO partners and retail shops.

## Terms of Warranty

The limited warranty for this product is covered by GROUND ZERO's regional distribution partners and their terms and conditions. For further information contact your local retailer or regional distributor.

## General installation note

- Never drill a hole to the vehicle's gas tank or brake lines, to wirings or any other important vehicle parts!
- Never pass wires over sharp edges or vehicle parts due avoid any kind of damage
- Keep the wiring away from the antenna and electronic devices contributing to radio reception
- Lay the power supply wiring always separated from speaker wiring to avoid disturbance

# GROUND ZERO<sup>®</sup>

## GERMAN ENGINEERING

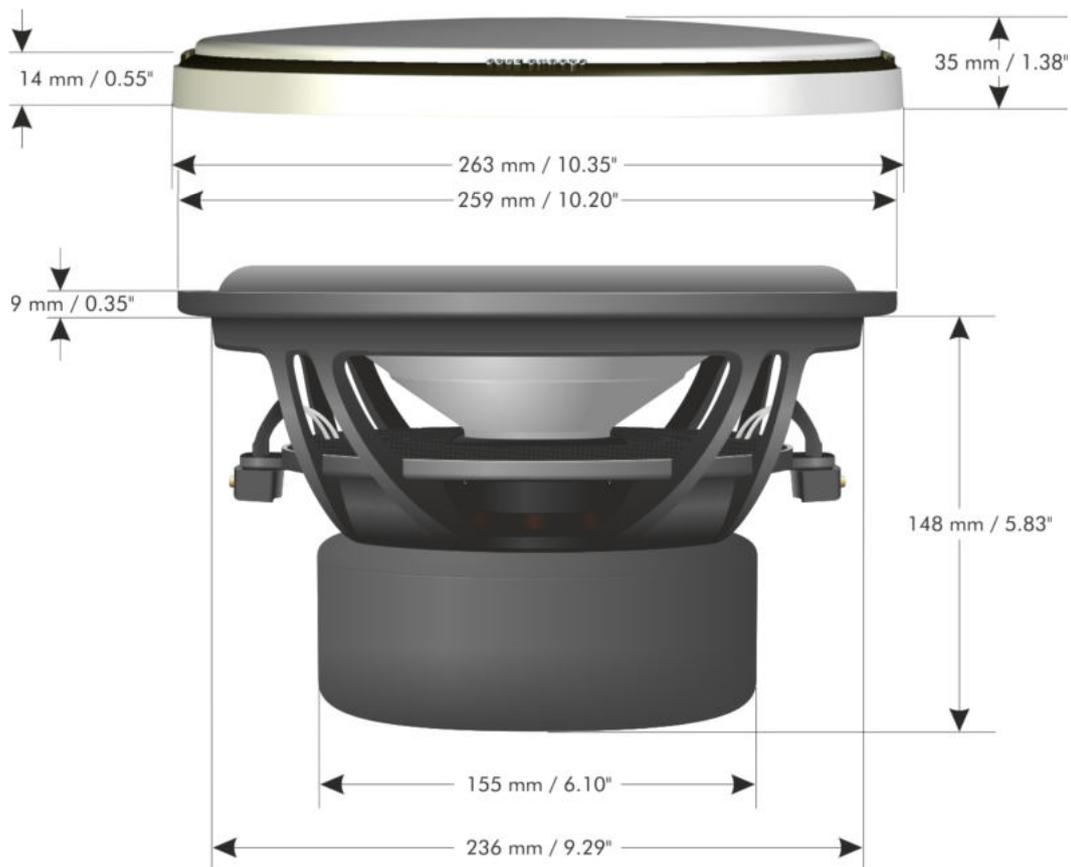
# PLUTONIUM SERIES

Subwoofer

## GZPW 10SQ

### Features

- High-end sound quality subwoofer
- Klippel<sup>®</sup> optimized (for sealed enclosures)
- Anodized aluminum cone
- Solid aluminum cast basket
- Rubber surround
- Copper wire voice coil
- 250 mm / 10" nominal diameter
- Aluminum cast fastening rim and grill included



## Mounting ring

The aluminum cast fastening ring can be used with either the 3-D flat logo rim only covering the mounting screws or the 3-D logo rubber rim together with the protection grill.



3D-Gummikranz - flach  
3D rubber rim - flat

Aluminium Befestigungsring  
aluminum fastening ring



Schutzgitter  
protection grill

3D Gummikranz für Schutzgitter  
3D rubber rim for protection grill

Aluminium Befestigungsring  
aluminum fastening ring

## Installation

1



2

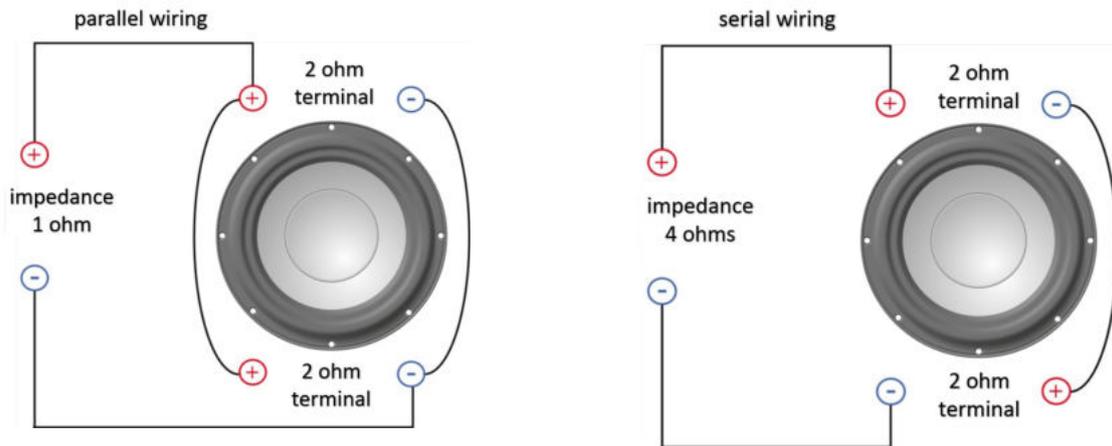


First, connect the wiring and put the subwoofer to the cutout\*. Place the aluminum fastening on top and fasten it using the screws included (or other matching threaded countersunk screws)

\* sealing tape or foam is recommended, if necessary

Next, insert the rubber rim to the matching recesses in the fastening ring. And finally, cover the subwoofer with the protection grill by inducing it into the gap of the logo rubber rim.

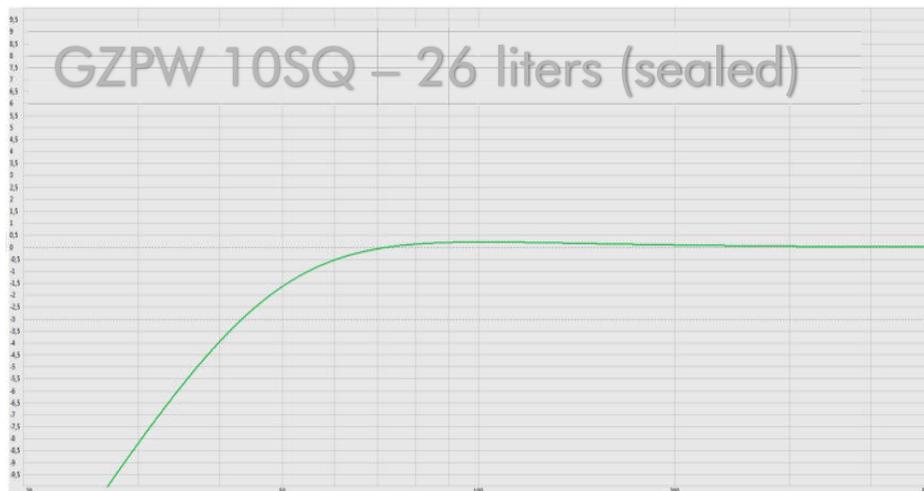
## Impedance / parallel or serial wiring



## Enclosure recommendation

Sealed	26 liters net / 0.92 cu. ft. net
Enclosure Q	0.79
Sealed (volume range)	20 - 30 liters net / 0.70 – 1.06 cu.ft. net
Enclosure Q (range)	0.85 – 0.78

Note: Individual customer enclosures need to be calculated according the audio target!



Above-mentioned enclosures are just general suggestion!

Please note that you should find the enclosure matching your very personal requests regarding the enclosure type, frequency response and resonance tuning based on your car and own taste.

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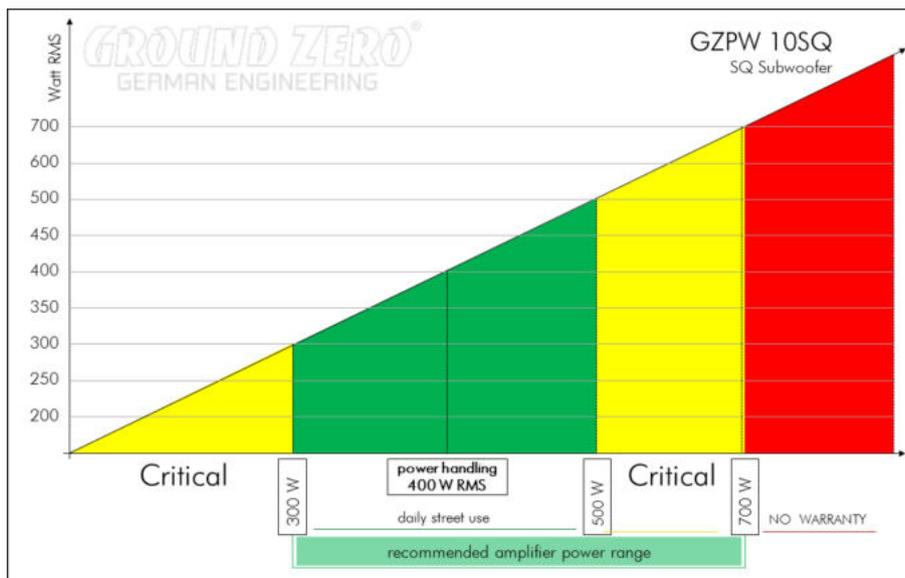
[www.ground-zero-audio.com](http://www.ground-zero-audio.com)



## Specifications

GZPW 10SQ	
Voice coil diameter (mm / inch)	50 / 2"
Impedance	2x 2 ohms
Re (in serial)	4.0 ohms
Resonance frequency (F <sub>s</sub> )	34 Hz
Q <sub>ms</sub>	4.89
Q <sub>es</sub>	0.66
Q <sub>ts</sub>	0.58
V <sub>as</sub> (Liter / cu.ft.)	23.54 / 0.831
M <sub>ms</sub> (grams)	153.8
X <sub>max</sub> (mm / inch)	30 / 1.18"
Efficiency (dB SPL 1W/1m)/(dB SPL 2.83 Vrms)	83.8 / 86.7
B <sub>l</sub>	14.5
Le (@ 10 kHz)	1.492 mH
C <sub>ms</sub>	0.134 mm/N
Power handling (Watts RMS/max.)	400 / 700
Empfohlene Verstärkerleistung / Recommended amplifier power	300 – 700 W RMS @ 4 ohms ( 1 ohm)

## Power handling



## Frequency diagram / Impedance curve

