

GROUND ZERO[®]
GERMAN ENGINEERING

URANIUM SERIES
Loudspeaker System

GZUC 165.2SQ
GZUC 165.2SQ-ACT

Owner's Manual

English

Introduction

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

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

This tweeter 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!

URANIUM Series – Amazing Sound Quality

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

Each product of the URANIUM line-up has been developed carefully to fulfill the demands of music enthusiasts with high audiophile expectations at a reasonable price level. Applying all of Ground Zero's sound quality competition experience while tuning the product details carefully, results in emotional and amazing audio reproduction. The distinguished amplifiers point out the main purpose by their designation: SQ beyond the average!

GZUC 165.2SQ/SQ-ACT is a loudspeaker system of the new URANIUM series, delivering an outstanding sound performance.

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

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Loudspeaker System

GZUC 165.2SQ

GZUC 165.2SQ-ACT

Features

- High-Quality 2-way SQ loudspeaker system
- Klippel[®] optimized mid/kickwoofer
- Black anodized aluminum cone
- GZ-design aluminum cast basket
- High-efficient, linearized neodymium motor
- Durable rubber surround
- Gold plated terminals
- 28 mm / 1.1" SQ silk dome tweeter with flush mount housing
- Variable 12 dB/oct crossover with level adjustment (not for ACT model)
- GZ-Design hexagon style protection grill

GROUND ZERO GZUC 165.2SQ / SQ-ACT

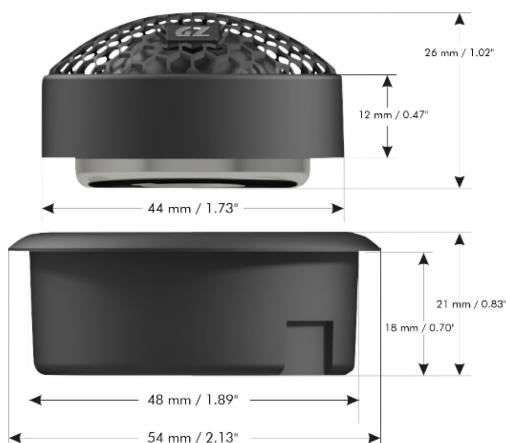
Specifications

Model	GZUC 165.2SQ
Speaker type	165 mm / 6.5" 2-way loudspeaker system with crossover
Impedance (nominal)	4 ohms
Frequency response	40 Hz – 25 kHz
High pass filter	Low: 4800 Hz / High: 5500 Hz @ 12 dB/oct.
Low pass filter	4800 Hz @ 12 dB/oct.
Power handling (RMS)	140 Watts
Power handling (max.)	230 Watts

Model	GZUC 165.2SQ-ACT
	165 mm / 6.5" 2-way loudspeaker system for active application

Specification	GZUT 28SQ
Diameter (nominal)	28 mm
Housing	Plastic
Dome	Coated silk
Voice Coil	28 mm / 1.1" copper
Motor	Neodymium magnet
Impedance	4 ohms
Frequency response	2500 Hz – 25 kHz
Power handling	80 Watts RMS 130 Watts max. (3 kHz HPF @ 12dB/oct)
Resonance frequency	1300 Hz
Efficiency (SPL)	90 dB

Model	GZUC 165SQ
Diameter (nominal)	165 mm / 6.5"
Basket	Aluminum cast
Cone	Anodized aluminum
Voice coil	50 mm / 2" copper
Motor	Neodymium magnet
Impedance (nominal)	4 ohms
Frequency response	40 Hz – 3.5 kHz
Power handling	120 Watts RMS 180 Watts max. (60 Hz HPF @ 12dB/oct)
Resonance frequency	54.6 Hz
Efficiency (SPL)	87 dB
R_e	3.2 ohms
Q_{ms}	3.87
Q_{es}	0.77
Q_{ts}	0.64
V_{as}	12.6 L
M_{ms}	16.3 g
B_L	4.84 N/A
R_{ms}	1.44 kg/s
C_{ms}	0.52 mm/N
L_E	0.17 mH
X_{max} (excursion)	12 mm / 0.47" (p2p)



Dimensions Tweeter	Outer diameter	54 mm / 2.13"
	Mounting diameter	48 mm / 1.89"
	Mounting depth	18 mm / 0.71"

Dimensions Crossover	(W x H x D)	85 x 34 x 140mm / 3.35 x 1.34 x 5.51"
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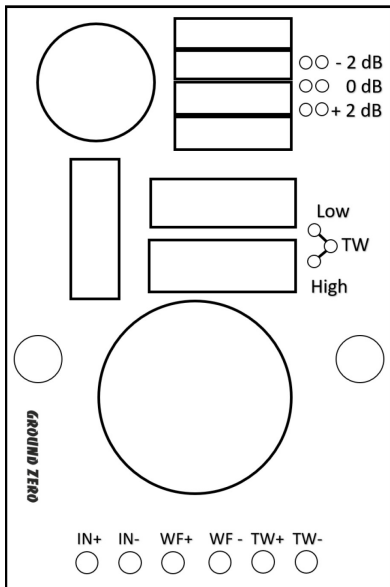
GROUND ZERO GZUC 165.2SQ / SQ-ACT

GZUC 165SQ Dimensions

Dimensions Mid / Kickwoofer	Outer diameter (A)	165 mm / 6.5"
	Mounting diameter (B)	144 mm / 5.67"
	Mounting depth (C)	63 mm / 2.48"



Crossover Setup (not for ACT model)



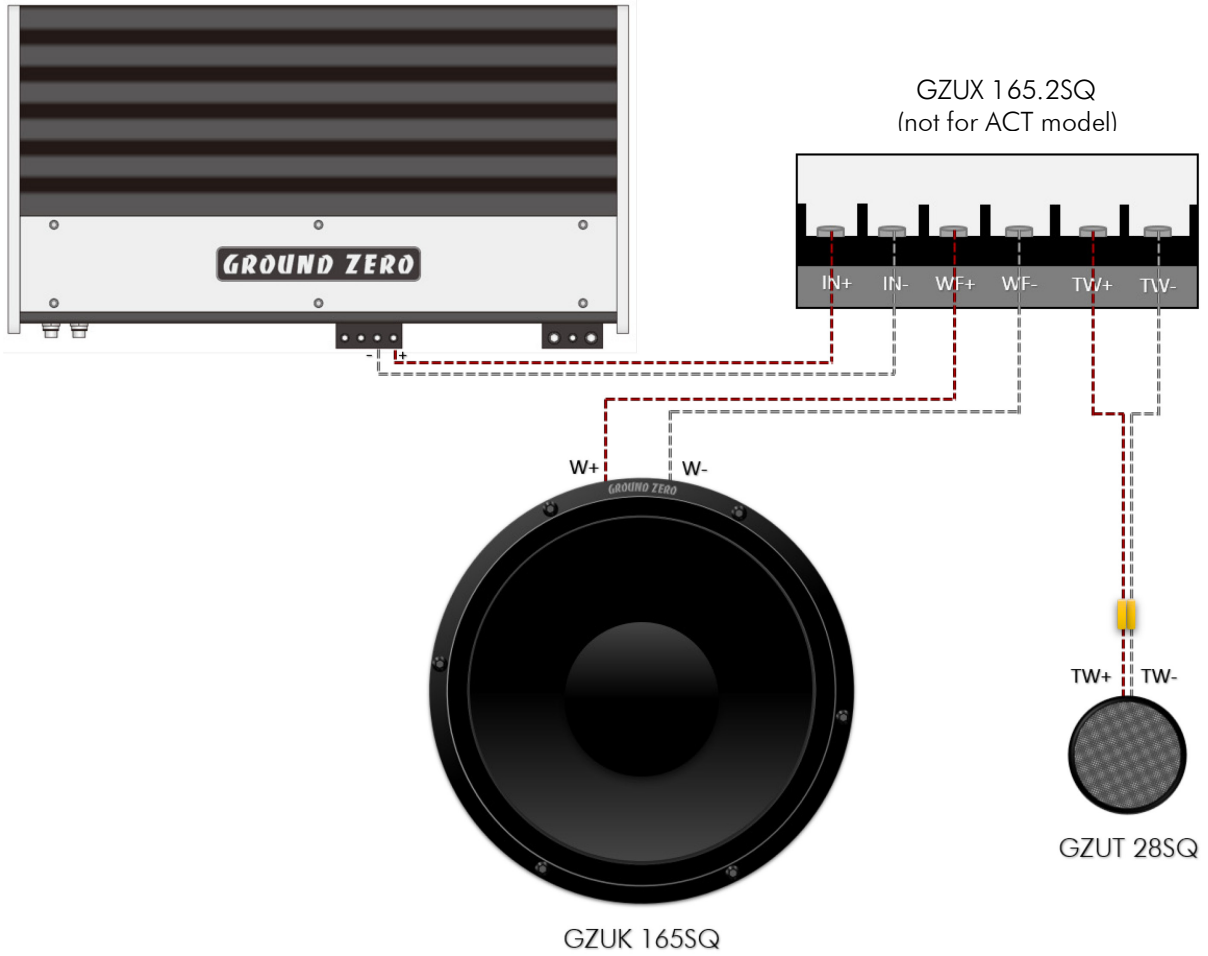
Tweeter level adjustment:
The tweeter level can be set by positioning the jumper to the required level position

Tweeter cut-off frequency:
The high pass crossover frequency can be selected with the jumper between low or high

IN	Input from head unit / amplifier
TW OUT	Tweeter connector
WF OUT	Mid/kickwoofer connector

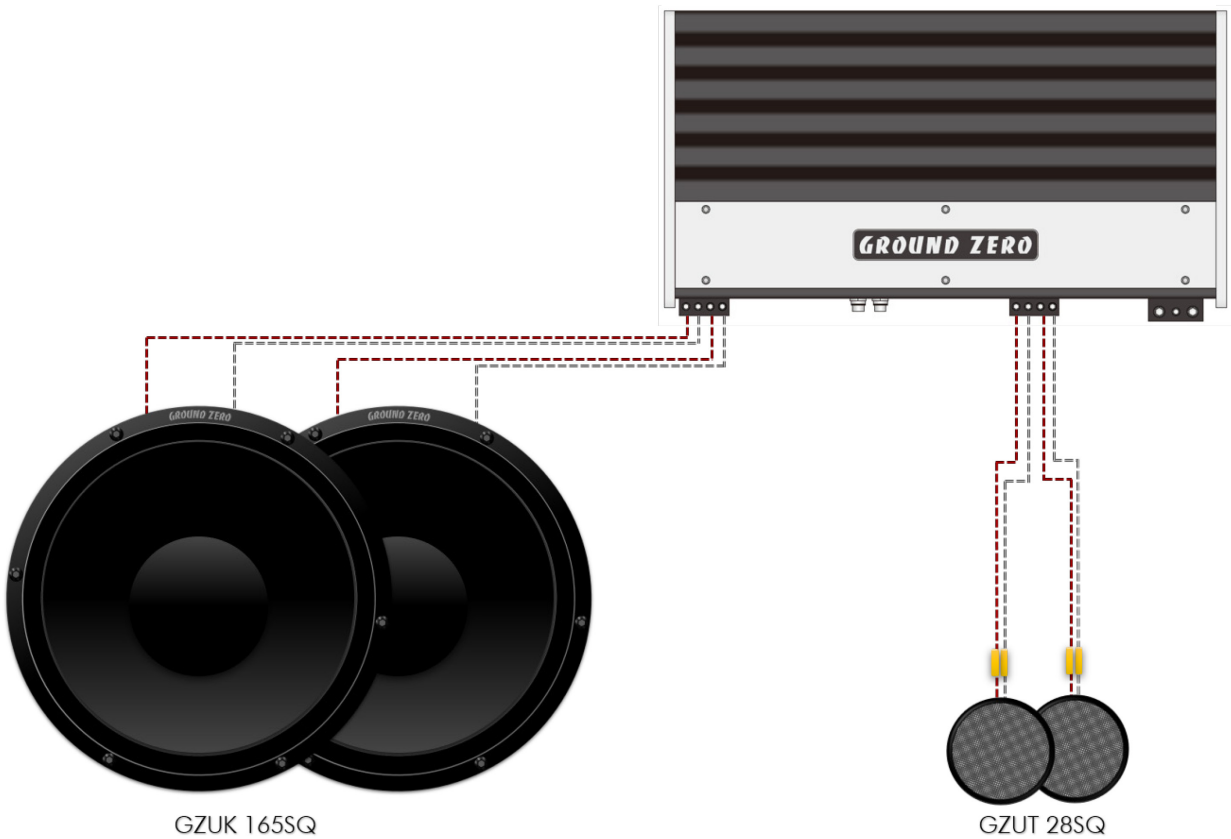
GROUND ZERO GZUC 165.2SQ / SQ-ACT

GZUC 165.2SQ Wiring



GZUC 165.2SQ-ACT Wiring

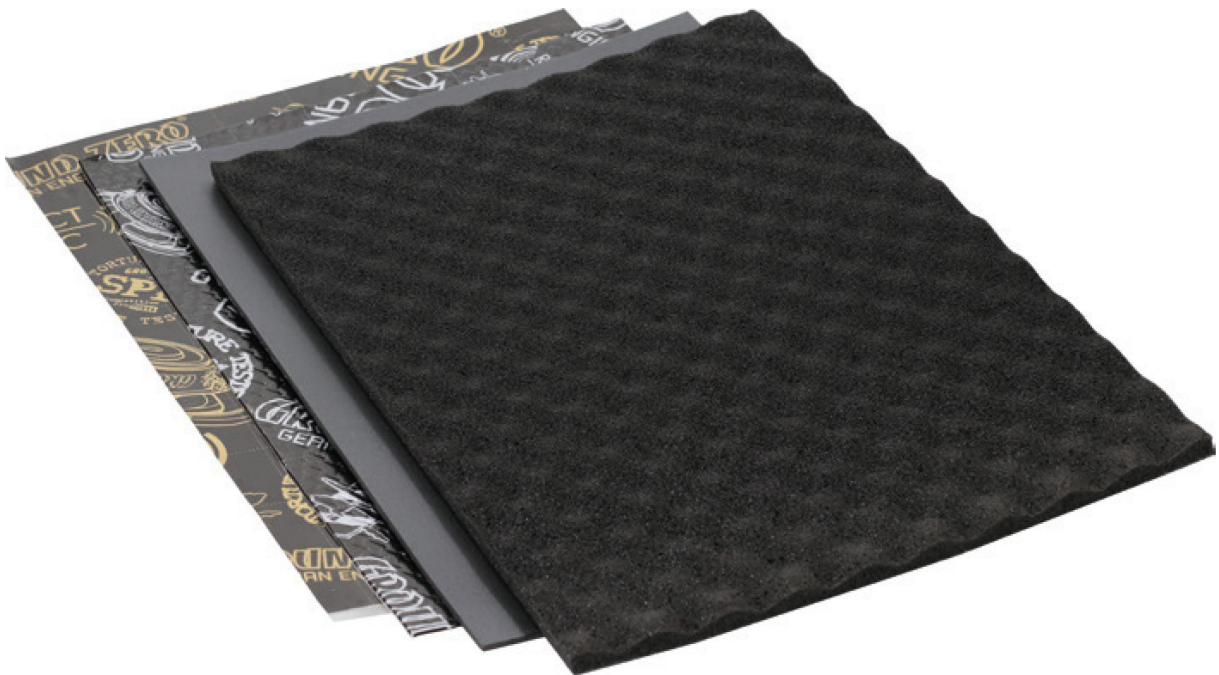
4-channel amplifier with integrated active crossover



Noise damping – Essential basis for high-quality sound experience

Simple or thin surfaces and panels of the car's body and in the vehicle's interior tend by stimulation to vibrations, in particular by vibrations that arise while driving or when playing music with the speaker cones. In order to reduce the resulting booming, the natural resonance, means the frequency at which these surfaces resonate particularly strongly, must be reduced. For this purpose, the insulation of aluminum-butyl requires the largest possible mass. For this purpose, GROUND ZERO offers materials with different properties and basis weight. In addition, the GROUND ZERO range offers other products, such as self-adhesive aluminum plates or sound-absorbing foam mats, which improve the result even more. The bonding of these materials drastically changes the tendency of body parts to oscillate, which significantly reduces the unwanted noise level. A complete door damping set is available with GZDM DOORKIT PRO.

Essential door damping is available as GZDM DOORKIT PRO





Listening to music can be emotional, impressive, relaxing or enjoyable. At that, it doesn't really matter what kind of music is the personal favorite, whether it's Instrumental, Jazz, Electro, Latin, Classic, Rock or any other music direction. However, audio reproduction quality at each desired volume is elementary. Some music styles require higher levels while others prefer the soft tones. GROUND ZERO considers all the different wishes of customers during the development of new products. Along with this, the target is to create the most realistic sound, to transfer the soul of the music and the intention of the performer. Summarized to one phrase: RESPECT THE MUSIC!

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