

# RADIOACTIVE SERIES

## Loudspeakers

### Owner's manual / data sheet

#### GZRT 25SQ – Sound Quality Tweeter

- Sound quality 25 mm / 1" tweeter
- Coated silk dome
- Vented neodymium motor
- Black finish compound housing and installation frame
- Hexagon protection grill

#### GZRM 80SQ – Sound Quality Midrange

- Sound quality 80 mm / 3.15" midrange speaker
- Black anodized aluminum cone
- Neodymium motor
- Resonance-free compound basket
- Hexagon protection grill

#### GZRK 165SQ – Sound Quality Midwoofer

- High-efficient 165 mm / 6.5" midwoofer
- Black anodized aluminum cone and dust cap
- Linearizing copper cap
- Rubber surround
- Nomex spider
- Resonance-free steel basket
- Hexagon protection grill

#### GZRC 165.2SQ – Component Speaker System

- Sound quality 2-way component speaker system
- High quality 12 dB/oct. passive 2-way crossover

#### GZRC 165.3SQ – Component Speaker System

- Sound quality 3-way component speaker system
- High quality 12 dB/oct. passive 3-way crossover

## GZRT 25SQ – Specifications

Cone material	Coated silk dome
Cone diameter	25 mm / 1"
Motor system	Vented neodymium
Efficiency (SPL)	89 dB (1W/1m)
Impedance (nominal)	4 ohms
Resonant frequency ( $F_s$ )	1550 Hz
Frequency response	2500 Hz - 24 kHz
Power handling (nominal/max.)	70 / 110 Watts (high pass filtered @ 2500 Hz / 12 dB/oct.)
Outer diameter (incl. mounting frame)	54 mm / 2.13"
Mounting diameter	48 mm / 1.89"
Mounting depth	16 mm / 0.63"

## GZRM 80SQ – Specifications

Voice coil type	Copper wire / aluminum former
Voice coil diameter	25 mm / 1"
Cone material	Black anodized aluminum
Cone diameter	61 mm / 2.4"
Dust Cap material	Black anodized aluminum
Motor system	Neodymium
Efficiency (SPL)	89 dB (1W/1m)
Impedance (nominal)	4 ohms
$Q_{ms} - Q_{es} - Q_{ts}$	2.86 - 0.44 - 0.38
$M_{ms} - B_l - V_{as}$	2.65 gr - 3.58 N/A - 1.5 L / 0.053 cu.ft
Resonant frequency ( $F_s$ )	114 Hz
Frequency response	140 Hz - 4 kHz
Power handling (nominal/max.)	50 / 80 Watts (high pass filtered @ 150 Hz / 12 dB/oct.)
Outer diameter	94 mm / 3.7"
Mounting diameter	77 mm / 3.03"
Mounting depth	34 mm / 1.34"

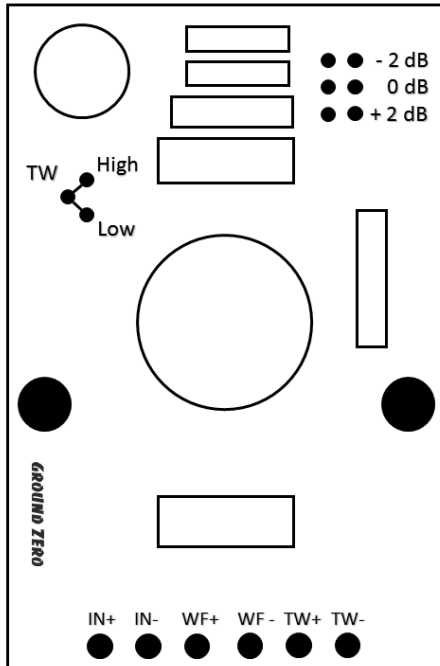
## GZRK 165SQ – Specifications

Voice coil type	Copper wire
Voice coil diameter	25 mm / 1"
Cone material	Black anodized aluminum
Cone diameter	118 mm / 4.65"
Dust cap material	Black anodized aluminum
Motor system	Ferrite
Efficiency (SPL)	89 dB (1W/1m)
Impedance (nominal) / $R_e$	3 ohms / 2.9 ohms
$Q_{ms} - Q_{es} - Q_{ts} - R_{ms}$	4.28 - 0.76 - 0.65 - 1.3 kg/s
$M_{ms} - C_{ms} - B_l - L_e - V_{as}$	15.2 gr - 0.46 mm/N - 4.7 N/A - 0.21 mH - 11.5.1 L / 0.41 cu.ft.
Resonant frequency ( $F_s$ )	60.1 Hz
Frequency response	35 - 4000 Hz
Power handling (nominal/max.)	110 / 160 Watts
Recommended enclosure size	20 L / 0.71 ft <sup>3</sup> (up to free air)
Outer diameter	165 mm / 6.5"
Mounting diameter	142.5 mm / 5.61"
Mounting depth	68 mm / 2.68"

### 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
- Use adequately dimensioned power and speaker wires to connect the components

### GZRC 165.2SQ Crossover

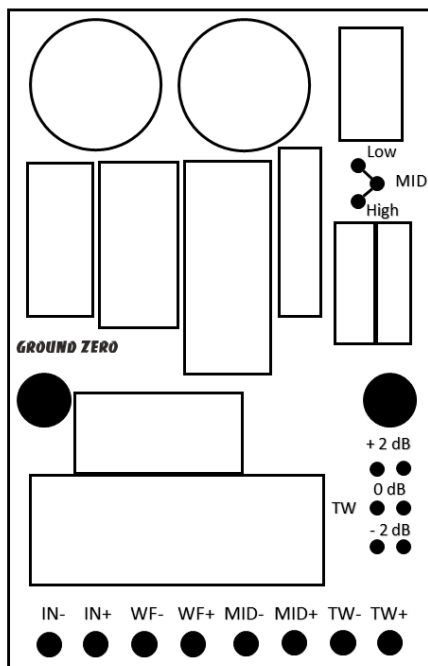


3-step individual tweeter level adjustment:  
The tweeter level can be set by positioning the jumper to the required level position at - 2 dB / 0 dB / + 2 dB

Tweeter cut-off frequency:  
The high pass crossover frequency can be selected with the jumper between low and high  
Low: Increase of the lower tweeter frequency response  
High: Linear frequency response for direct speaker alignment to the listening position

Speaker connection:  
IN Input from head unit / amplifier  
TW Tweeter connector  
WF Midwoofer connector

### GZRC 165.3SQ Crossover



3-step individual tweeter level adjustment:  
The tweeter level can be set by positioning the jumper to the required level position at - 2 dB / 0 dB / + 2 dB

Midrange cut-off frequency:  
The low pass crossover frequency can be selected with the jumper between low and high  
Low: Linear frequency response for direct speaker alignment to the listening position  
High: Increase of the upper midrange frequency response

Speaker connection:  
IN Input from head unit / amplifier  
TW Tweeter connector  
MID Midrange connector  
WF Kickwoofer connector

## Component Speaker Systems – Composition / Specifications

Speaker Set	GZRC 165.2SQ/SQ-ACT	GZRC 165.3SQ/SQ-ACT
Tweeter	GZRT 25SQ	GZRT 25SQ
Midrange speaker	-	GZRM 80SQ
Midwoofer/kickwoofer	GZRK 165SQ	GZRK 165SQ

Speaker Set	GZRC 165.2SQ	GZRC 165.3SQ
Frequency response	35 Hz – 24 kHz	35 Hz – 24 kHz
Power handling (nominal / max.)	120 / 190 Watts	150 / 230 Watts
Impedance (nominal)	3 ohms	3 ohms
Crossover slope	12 dB / oct.	12 dB / oct.
Tweeter level adjustment	+ 2 dB / 0 dB / - 2dB	+ 2dB / 0 dB / - 2dB
Tweeter crossover point	High / Low	not selectable
Midrange crossover point	-	High / Low

## Active Component Speaker Systems – Crossover Recommendation

Speaker Set	GZRC 165.2SQ-ACT	GZRC 165.3SQ-ACT
Recommended crossover (midwoofer)	HP >40 Hz / LP >2500 Hz	HP >40 Hz / LP >200 Hz
Recommended crossover (midrange)	-	HP >200 Hz / LP >2500 Hz
Recommended crossover (tweeter)	HP >2500 Hz	HP >2500 Hz

## 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.



*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!*



GROUND ZERO products are engineered in Germany  
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