

GROUND ZERO[®]

GERMAN ENGINEERING



2016/2017

Hall of Fame

The image is a dense collage of award stickers for Ground Zero speakers. The stickers are arranged in a chaotic, overlapping manner, creating a 'Hall of Fame' effect. Each sticker typically features the following information:

- Award Category:** Such as 'TESTSIEGER', 'BEST PRODUCT', 'KLANGTIPP', 'PREISTIPP', 'EISA AWARD', 'EMPFEBLUNG', 'LEISTUNGSTIPP', 'BEST PRODUCT', 'SPITZENKLASSE', 'ABSOLUTE SPITZENKLASSE', 'OBERKLASSE', 'MITTELKLASSE', 'EINGANGSKLASSE', 'IN-CAR SUBWOOFER', 'IN-CAR HIGH-END COMPONENT', 'MOBILE SUBWOOFER'.
- Score:** A large number representing the score, ranging from 1.1 to 1.6.
- Publication:** 'CAR & HI-FI'.
- Issue:** A date indicating the issue number, such as 'Ausgabe 2/2016' or 'Ausgabe 1/2014'.
- Product Name:** The specific speaker model, such as 'Ground Zero GZPW 15SPL', 'Ground Zero GZRB 3000XFL', 'Ground Zero GZHA 2400XII', 'Ground Zero GZRA 1.2500D', 'Ground Zero GZIB 200BT', 'Ground Zero GZPW Reference 250', 'Ground Zero GZPW Reference 2T', 'Ground Zero GZPW Reference 4PURE', 'Ground Zero GZPW Reference 18 + GZPT Reference 28', 'Ground Zero GZPW Reference 20', 'Ground Zero GZPW Reference 21', 'Ground Zero GZPW Reference 22', 'Ground Zero GZPW Reference 23', 'Ground Zero GZPW Reference 24', 'Ground Zero GZPW Reference 25', 'Ground Zero GZPW Reference 26', 'Ground Zero GZPW Reference 27', 'Ground Zero GZPW Reference 28', 'Ground Zero GZPW Reference 29', 'Ground Zero GZPW Reference 30', 'Ground Zero GZPW Reference 31', 'Ground Zero GZPW Reference 32', 'Ground Zero GZPW Reference 33', 'Ground Zero GZPW Reference 34', 'Ground Zero GZPW Reference 35', 'Ground Zero GZPW Reference 36', 'Ground Zero GZPW Reference 37', 'Ground Zero GZPW Reference 38', 'Ground Zero GZPW Reference 39', 'Ground Zero GZPW Reference 40'.
- Quote:** A short review snippet, such as '„Der Preisbrecher im Test schlägt sich in der Praxis hervorragend.“' or '„Das Ground Zero GZPW 15SPL ist ein rundum empfehlenswertes System zum günstigen Preis.“'.

The stickers are color-coded: red for 'Testsieger' and 'Best Product', blue for 'EISA Award', yellow for 'Preisstipp', and various shades of grey and white for other categories. The overall composition is a vibrant and detailed representation of the brand's accolades.

Founded in 1995 by Karl Felix Lautner, Ground Zero originally started handling the distribution of car audio products "Made in USA". Fascinated by the unique design of GZ Engineering USA, Ground Zero exclusively introduced these revolutionary subwoofers to the European market in 1997.

Today, that time is considered as the beginning of the Ground Zero brand.

In 1999, the German Ground Zero Company took over the trademark rights of "Ground Zero" for Europe and established a specific product development and engineering for the local markets.

The same year, the enterprise moved to the south of Germany, in the near of Munich where the company is still based today. 2003 the German Ground Zero company took over the all global trademarks of "Ground Zero" and has been renamed to Ground Zero GmbH after the US based company GZ Engineering USA discontinued the operation.

Ground Zero GmbH has always been and remains a privately owned company.

The German car audio brand name "Ground Zero Audio" is a registered trademark all over the world.

With global distribution and partners in more than 60 countries worldwide, Ground Zero offers a full range of more than 300 exclusive car audio products designed and developed by its own in-house engineering department.

The wide Ground Zero product range includes speakers and subwoofers as well as amplifiers and further digital equipment used for SQ (Sound Quality) and SPL (Sound Pressure Level) audio reproduction in each price class.

Numerous car audio journals have confirmed in serious testing the highest award winning product quality convincing even the most sophisticated customers using Ground Zero products for all kinds of sound competitions all over the world.

GZ equipped cars were collecting winning trophies with outstanding ratings for their audio performance for years and remain to be in the circle of European and World Champions every season.

Looking forward, Ground Zero will continue to manufacture a perfectly balanced and diversified line-up of products at highest quality standard.

Ensuring such a high quality, Ground Zero carefully monitors every step of production.

Starting with development, top-notch tools and highly accurate measurement equipment such as the laser controlled KLIPPEL® system are used to optimize speakers and subwoofers.

Precise amplifier power measurements of up to ~10,000 Watts are obtained by using a solid analogue 1.500 Ampere power supply and markets most famous Audio Precision® test equipment.

As a result, Ground Zero power indications are corresponding to CEA 2006-A standards.

Beyond that, each product runs a number of intensive tests at the Ground Zero laboratory and installed in automotive environments. Without exception, every single Ground Zero product is evaluated this way prior to its final production release and market launch.

During the production at certified factories, Ground Zero runs a whole range of detailed quality controls (QC) of each part.

This is the basis for perfect quality of a Ground Zero product that is finally shipped to all valuable customers.

Ground Zero is always working hard to enhance products and create innovations setting new trends by collaborating with partners closely and keeping in touch with customers. Hereafter, GZ does not hesitate to strike new paths to develop market-driven new products to fulfill desires of consumers from all over the world.

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REFERENCE Pure Sound Quality

The multiple award-winning REFERENCE components have been designed for music enthusiasts looking for the ultimate sound quality in a car.

The designation of the latest two amplifiers, REFERENCE 2PURE and 4PURE, reveal the essential idea behind: Pure SQ! Strictly omitting every kind of signal affecting filter results in a total new High End level audio performance, never heard before. Therefore, only the best parts ever used for car audio amplifiers have been considered good enough to find their way to these two and all other amplifier models of the REFERENCE line.

Exclusively developed and handmade Mundorf® capacitors for the power supply and pre amp section, top-end audio operational amplifiers LM4562 with lowest harmonic distortion and noise density, Rhodium RCA sockets and ultimate high-end potentiometers by ALPS®, just to mention a few, have been arranged on a fully symmetrical circuit board layout.

All REFERENCE amplifiers, wear a high-quality copper-anodized aluminum heat sink with a toned acrylic bottom, allowing to take a look on the discreetly white illuminated, copper-plated double-layer pc board with shielded transformers at the high-current power supply section as well as on the amplifier part with its High End components like Sanken® transistors, ELNA®, WIMA® and Mundorf® capacitors and famous integrated circuits by Burr-Brown®.

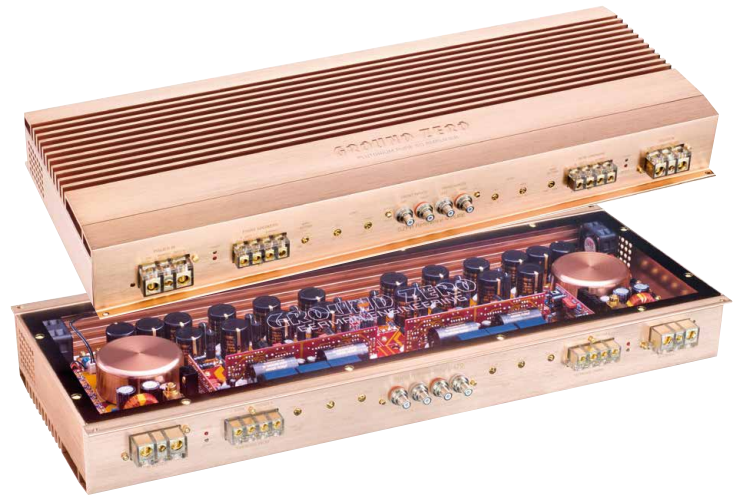
While each model offers a Bias adjustment, setting the operating mode from Class AB very close to pure Class A as an exclusive feature, the SYM and XS models have inbuilt wide-band filters with a bypass function additionally. Not least, massive and encapsulated terminals turn Ground Zero's REFERENCE amplifiers into unique, pure sound quality artworks.

REFERENCE line speakers are accurately hand built in Europe, selected into corresponding pairs of least tolerance. The 80 mm / 3.15" midrange and 180 mm / 7" mid bass drivers are composed of hand coated pressed paper cones, copper voice coils spooled by hand and hand assembled baskets of machined aluminum parts and linearized motors. The 28 mm / 1.1" tweeter with its precise two-layer coated silk dome and the specially designed multi-part chamber, benefits from its outstanding low resonance frequency of 600 Hz and performs perfectly from 1500 Hz up already.

For the most accurate bass performance, the unique high-tech 250 mm / 10" REFERENCE subwoofer comes with a lot of particular solutions, such as a number of linearization parts added to the magnet system optimizing the impedance and eliminating distortion, a handmade high-tech cone made of two outer layers of paper and a special two-component foam compressed to an extremely lightweight but stiff three-layer sandwich element. The 50 mm / 2" copper voice coil with 35 mm / 1.38" winding height in combination with the double layer polyester-cotton Bimax® spider and the loss-free rubber surround allows perfect linear excursion up to +/- 15 mm / 0.6". Last but not least, this exceptional subwoofer has been optimized to perform down to 30 Hz or even below in small enclosures.

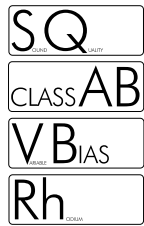
Emphasizing the High End status of the REFERENCE products, each amplifier, speaker and subwoofer is finally certified by Ground Zero's in-house quality department and delivered in a classy, logo-branded wooden box, handmade in Germany.





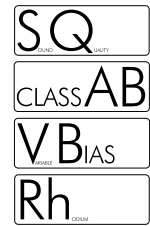
GZPA Reference 2PURE 2CH Amp

High End SQ amplifier
 2 x 420 / 750 / 1150 W @ 4 / 2 / 1 Ω
 Bridgemode 1 x 2700 W Max @ 2 Ω
 No filters – PURE sound
 Bias setting variable Class AB ~ A
 Separated L & R Gain control
 Symmetrical dual mono design
 Rhodium RCA sockets
 ALPS potentiometers
 GZ exclusive Mundorf capacitors
 White LED illumination



GZPA Reference 4PURE 4CH Amp

High End SQ amplifier
 4 x 150 / 270 / 425 W @ 4 / 2 / 1 Ω
 Bridgemode 2 x 1000 W Max @ 2 Ω
 No filters – PURE sound
 Bias setting variable Class AB ~ A
 Separated L & R Gain control
 Symmetrical dual 2 channel design
 Rhodium RCA sockets
 ALPS potentiometers
 GZ exclusive Mundorf capacitors
 White LED illumination



After the introduction of the award-winning REFERENCE amplifier line-up some time ago, GZ offers two of the absolutely best sounding amplifiers ever built:

REFERENCE 2PURE & REFERENCE 4PURE

The long lasting development of these High End amplifiers was focused on three top maxims:
 Absolute symmetrical structure! - Absolute direct signal way! - Absolute lowest signal loss!

As a logical step, the REFERENCE PURE amplifiers waive all kind of filters and unnecessary controllers influencing the signal. Removing these components during the development ended up in a brand new circuit layout.

The result is the most unobstructed and unadulterated signal flow from the RCA input sockets all the way to the speaker terminals.

At the same time, this cleared the space for the use of elite-class ALPS® potentiometers for the Bias setting control changing the operation mode from traditional Class AB very close to pure Class A.

Consistently, the equivalent parts have been integrated to control the input sensitivity, either per channel or per pair of channels by summing the signal via direct switch.

To avoid losing any details of the audio signal and to minimize distortion, only the most sophisticated components have been selected for the REFERENCE PURE amplifiers. This starts with Rhodium plated RCA sockets predestined to be plugged to GZ's High End REFERENCE RCA cables using identical Rhodium coated RCA connectors.

No-compromise quality involves using only the best available parts like the LM4562 operational amplifiers with rated THD+N lower than 0.00003% that are generally accepted as the best components to be used in High End amplifiers.

Furthermore, exclusively developed and produced new Mundorf M-Caps® are applied.

Together with the latest Generation-II ELNA® SILMIC electrolytic capacitors and custom-made metal-oxide resistors, lowest loss of signal quality has been achieved in the amplifier section.

High End SANKEN® transistors are already well known from the REFERENCE amplifier line-up, but to continue improving the thermal stability, selective and low-tolerance Vishay Dale emitter resistors have been integrated.

Additionally, bipolar secondary E-caps have been developed in cooperation with Mundorf® and arranged to stabilize the power supply with a buffering of remarkable 98.000µF for the 4-channel and still 48.000µF for the 2-channel model.

On primary side, the new REFERENCE PURE amplifiers differ significantly from the other REFERENCE line amplifiers. The power supply has not only been separated electrically, but also physically leading to an absolute symmetrical layout of the circuit.

Therefore, the REFERENCE 4PURE can be considered as a dual 2-channel amplifier while the REFERENCE 2PURE is technically a real dual mono amplifier, since the right and left channel are virtually absolute separated from each other.

High performance transformers shielded by copper anodized aluminum covers used for both models are designed to extremely low loads of 1 Ohm while the amplifiers are protected by on-board Mini-ANL fuses.

Last but not least to mention is the amazing output power of these benchmark setting amplifiers up to 1150 Watts/channel at 1 Ohm load for the REFERENCE 2PURE and 425 Watts/channel at 1 Ohm load for the REFERENCE 4PURE model creating an unbelievable precise and detailed as well as a punchy and dynamic sound at the highest imaginable quality.





GZPA Reference 2SYM

2CH Amp

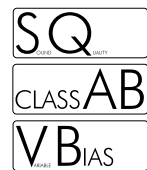
High End SQ amplifier
 2 x 420 / 750 / 1150 W @ 4 / 2 / 1 Ω
 Bridgemode 1 x 2700 W Max @ 2 Ω
 Subsonic / Highpass / Lowpass
 Phaseshift / Bypass
 Bias setting variable Class AB ~ A
 Symmetrical dual mono design
 GZ exclusive Mundorf capacitors
 Bass remote control included
 White LED illumination



GZPA Reference 4SYM

4CH Amp

High End SQ amplifier
 4 x 150 / 270 / 425 W @ 4 / 2 / 1 Ω
 Bridgemode 2 x 1000 W Max @ 2 Ω
 Highpass / Lowpass / Bypass
 Bias setting variable Class AB ~ A
 Symmetrical dual 2 channel design
 GZ exclusive Mundorf capacitors
 White LED illumination



GZPA Reference 2XS

2CH Amp

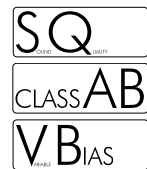
High End SQ amplifier
 2 x 200 / 380 W @ 4 / 2 Ω
 Bridgemode 1 x 900 W Max @ 4 Ω
 Subsonic / Highpass / Lowpass
 Phaseshift / Bypass
 Bias setting variable Class AB ~ A
 Selected high quality parts
 Bass remote control included
 White LED illumination

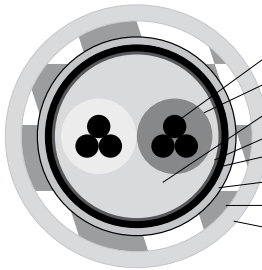


GZPA Reference 4XS

4CH Amp

High End SQ amplifier
 4 x 120 / 220 W @ 4 / 2 Ω
 Bridgemode 2 x 500 W Max @ 4 Ω
 Highpass / Lowpass / Bypass
 Bias setting variable Class AB ~ A
 Selected high quality parts
 White LED illumination





- 3/0.55 OCC
- PE INSULATION, ID 2.0MM, RED & WHITE
- COTTOM YAM
- AL
- COND, PVC, ID: 5.2 MM
- BRAIDING 16/8/0.16 OFC
- WHITE NYLON BRAIDED
- PCV JACKET, TRANSPARENT, OD: 8.5 MM

GZCC Reference

High End RCA cables
 Rhodium coated connectors
 Carbon shell
 OCC Copper wire and OFC braiding
 Silver soldering
 GZCC Reference 157RH
 1.57 m / 5.15 ft
 GZCC Reference 314RH
 3.14 m / 10.3 ft
 GZCC Reference 549RH
 5.49 m / 18.01 ft



GZSC REF 1.5S-OFC

Speaker cable spool
 2 x 1.50 mm² / 15 AWG
 Silver plated pure OFC wire
 Strands: 2*(4*21/0.115OFC+3*28/0.10SPC+PVC)
 OD 3.8 + 3.8 / 0.15" + 0.15"
 Cable length: 48 m / 157.48 ft



GZSC REF 2.5S-OFC

Speaker cable spool
 2 x 2.50 mm² / 13 AWG
 Silver plated pure OFC wire
 Strands: 2*(4*34/0.115OFC+3*45/0.10SPC+PVC)
 OD 4.2 + 4.2 / 0.17" + 0.17"
 Cable length: 39 m / 127.95 ft



GZSC REF 4.0S-OFC

Speaker cable spool
 2 x 4.00 mm² / 11 AWG
 Silver plated pure OFC wire
 Strands: 2*(4*55/0.115OFC+3*72/0.10SPC+PVC)
 OD 5 + 5 / 0.2" + 0.2"
 Cable length: 30 m / 98.43 ft





GZPT Reference 28 B

Tweeter

High End 28 mm / 1.1" tweeter
 100 WRMS / 150 WMAX
 1.5 – 30 kHz / FS: 600 Hz
 2 layer hand coated silk dome
 Damped coupled chamber
 Anodized aluminum housing
 Linearized dual neodymium magnet
 Handmade in Germany
 Selected in pairs



GZPT Reference 28

Tweeter

High End 28 mm / 1.1" tweeter
 100 WRMS / 150 WMAX
 1.5 – 30 kHz / FS: 600 Hz
 2 layer hand coated silk dome
 Damped coupled chamber
 Chromed aluminum housing
 Linearized dual neodymium magnet
 Handmade in Germany
 Selected in pairs



Optional speaker housing GZSP 28TW



GZMW Reference 180

Midwoofer

High End 180 mm / 7.09" midwoofer
 100 WRMS / 150 WMAX
 40 – 3500 Hz / FS: 56.8 Hz
 Coated pressed paper cone
 Conex spider / Flat rubber surround
 Hand assembled aluminum basket
 Handmade in Europe
 Selected in pairs
 Speaker grill included



GZPM Reference 80

Midrange

High End 80 mm / 3.15" midrange
 80 WRMS / 120 WMAX
 150 – 6000 Hz / FS: 107.5 Hz
 Coated double pressed paper cone
 Conex spider / Flat rubber surround
 Hand assembled aluminum basket
 Handmade in Europe
 Selected in pairs
 Speaker grill included

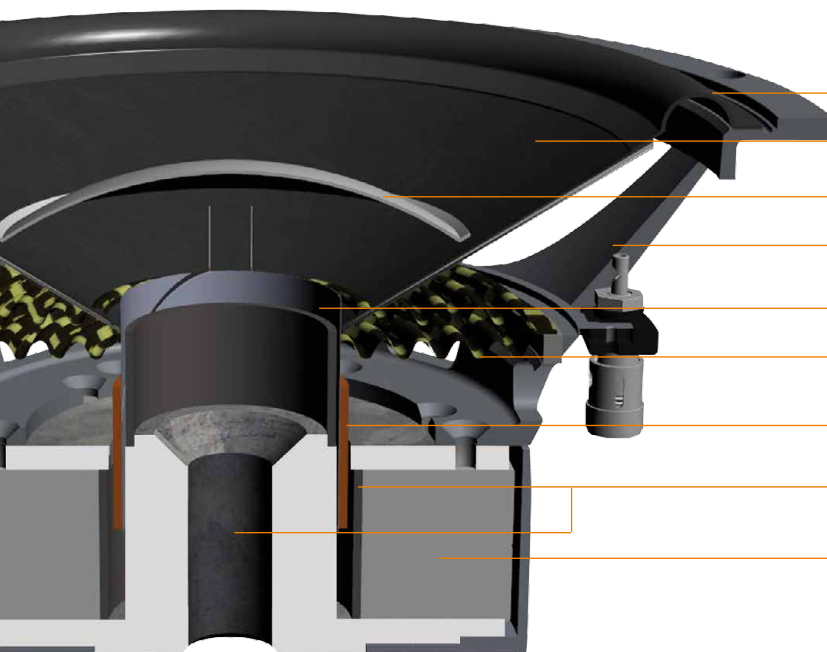




GZPW Reference 250

Subwoofer

High End 250 mm / 10" subwoofer
 500 WRMS / 2 x 2 Ω
 31.3 Hz / Qts 0.40
 VAS 36.5 L / 1.29 ft³
 3-layer sandwich cone
 Hightech rubber surround
 Bimax® spider
 50 mm / 2" copper voice coil
 Aluminum cast basket
 Handmade in Germany



SURROUND
 Light-weight rubber

DUSTCAP
 Coated highly pressed paper

VOICE COIL FORMER
 High temperature stable glassfiber

VOICE COIL
 50 mm / 2" copper voice coil

MOTOR
 Linearized high efficient motor
 with double ferrite magnet

CONE
 Three layer sandwich
 (Paper - 2 component foam - paper)

BASKET
 Resonance free aluminum cast

SPIDER
 Double-layer BIMAX®
 (Polyester - Cotton)

SHORT CIRCUIT RINGS
 Aluminum rings for impedance linearizing
 and distortion elimination

PLUTONIUM High End Sound Quality meets High-power SPL

Since the introduction of this line-up to the market, each added product embodies the PLUTONIUM features to deliver ultimate SPL levels or high-end sound quality.

Developing a new PLUTONIUM product, one of these targets is most important and requires the use of exceptional materials and technologies. Avoiding compromise, no efforts are spared to reach the set goal. Every single series product is tested under several conditions and fine-tuned until all demands and strict requirements of the in-house development department are fulfilled to create a highly satisfying new member of the line-up.

Following these high standards without exception, Ground Zero succeeds to meet all desires and needs of customers using the PLUTONIUM products at technical, electrical and mechanical limits in SPL competitions as well as the wide range of SQ enthusiasts choosing this line to enjoy its outstanding audio reproduction ability.

Started with subwoofers in the beginning and extended by amplifiers, the line has been completed with extraordinary speakers in the meantime.

The PLUTONIUM line contains the most powerful amplifiers of Ground Zero's entire product line. Four different models cover every requirement and provide up to incredible 23.000 Watts in link-mode.

All of these high-power Class D amplifiers have been developed to ensure best subwoofer performance for highest demands such as SPL competitions.

"Made in Germany", Ground Zero's exclusive PLUTONIUM speakers are selected into corresponding pairs and packed in classy wooden boxes. Developed for sophisticated sound quality requests, these drivers are positioned at the top end of GZ's speaker line-up apart from the REFERENCE line. Drivers with ceramic-anodized aluminum or magnesium cone, coupled chamber silk-dome tweeters and crossovers, assembled using finest components, are available in various combinations as well as separately for individual 2 and 3-way active or passive applications. Customers using these fantastic drivers are collecting SQ competition awards and become champions worldwide every year.

Last but not least, PLUTONIUM subwoofers are probably most famous and known as Ground Zero's "State-of-the-Art" products. Starting from the market release, GZPW SPL subwoofers have set benchmarks in all SPL competitions around the world and have been awarded for best performance by numerous test magazines.

The dedicated "Extreme" models won several dB drag world championships. With a handmade lightweight but extraordinary stiff three-layer carbon cone, strong five-layer longtime-stable Conex spiders and a high-power flat-wire CCA voice coil on stainless steel former, these subwoofers have been designed to crack a record of 180 dB and more.

The GZPW 15LTD is limited to a number of 333 pieces with impressive 5000 Watts RMS of power handling, realized by a high-temperature stable CCA voice coil, powered by a massive triple-magnet motor with black-anodized machined parts and complex ventilation for adequate cooling. The application of a progressive four-layer spider and the high-roll sandwich surround stitched to a reinforced paper cone with yellow thread results in tremendous low bass performance with an amazing xmax of remarkable 60 mm / 2.36".

The latest spectacular bombshell in the PLUTONIUM line-up is the completely new earth shaking GZ PLUTONIUM X-MAX subwoofer, setting a new benchmark for cone excursions.

To enable this tremendous stroke, Ground Zero used components with extremely high power handling such as 4" round wire CCA voice coils with 80 mm / 3.15" winding height, Ground Zero style triple-layer progressive Xmax surrounds, four-layer NOMEX spiders and ultra high efficient 4pcs magnet constructions that have never been used before. The massive aluminum cone with an inverted dust-cap can be driven by up to 10.000 Watts in its solid red-colored aluminum-cast basket demonstrating the new class of subwoofers.





GZPA 1.4K-HCX

1 CH Amp

High power mono amplifier
 1200 / 2400 / 4000 W @ 4 / 2 / 1 Ω
 Linkmode 10000 W Max @ 2 Ω
 Subsonic / Lowpass
 Phaseshift / Bass Boost
 Stabilized dual power supply
 Bass remote control included



GZPA 1.6K-HCX

1 CH Amp

High power mono amplifier
 1700 / 3200 / 5800 W @ 4 / 2 / 1 Ω
 Linkmode 13600 W Max @ 2 Ω
 Subsonic / Lowpass
 Phaseshift / Bass Boost
 Stabilized sixfold power supply
 Bass remote control included



GZPA 1.8K-HCX

1 CH Amp

High power mono amplifier
 2600 / 4800 / 8400 W @ 4 / 2 / 1 Ω
 Linkmode 18600 W Max @ 2 Ω
 Subsonic / Lowpass
 Phaseshift / Bass Boost
 Stabilized sixfold power supply
 Bass remote control included



GZPA 1.10K-HCX

1 CH Amp

High power mono amplifier
 3200 / 5900 / 10500 W @ 4 / 2 / 1 Ω
 Linkmode 23000 W Max @ 2 Ω
 Subsonic / Lowpass
 Phaseshift / Bass Boost
 Stabilized eightfold power supply
 Bass remote control included





GZPT 28SX

Tweeter

High End 28 mm / 1.1" tweeter
 100 WRMS / 150 WMAX
 2 – 30 kHz / FS: 750 Hz
 2 layer coated silk dome
 Damped coupled chamber
 Anodized aluminum housing
 Linearized dual neodymium magnet
 Handmade in Germany



Optional speaker housing
 GZSP 28TW



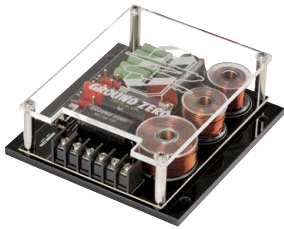
GZPM 80SQX

Midrange

High End 80 mm / 3.15" midrange
 70 WRMS / 110 WMAX
 150 – 4000 Hz / FS: 109.4 Hz
 High-tech magnesium cone
 Aluminum cast basket
 Linearized neodymium magnet
 Handmade in Germany
 Speaker grill included



Optional speaker housing
 GZSP 80MID



GZPX 165SQ

Crossover

High End 2 Way crossover set
 Cutoff 2800 Hz
 For GZPK 165Q + GZPT 28SX
 Mundorf Mcaps®
 Low distortion air coils
 Protection soffit
 MOX resistors
 Adjustable tweeter level



GZPK 165Q

Midwoofer

High End 165 mm / 6.5" midwoofer
 130 WRMS / 210 WMAX
 30 – 3000 Hz / FS: 45.3 Hz
 Ceramic anodized aluminum cone
 Aluminum cast basket
 Linearized ferrite magnet
 Handmade in Germany
 Speaker grill included



GZPX 16.3SQ

Crossover

High End 3 Way crossover set
 Cutoff 200/3000 Hz
 For GZPK 165Q + GZPM 80SQX
 + GZPT 28SX
 Mundorf Mcaps®
 Low distortion air coils
 Protection soffit
 MOX resistors
 Adjustable tweeter level
 Separated crossover
 for kickwoofer & mid/high





GZPC 165SQ-ACT

High End 2 Way active system
 Midwoofer: GZPK 165Q
 Tweeter: GZPT 28SX
 Handmade in Germany
 Speaker grill included

Component



GZPC 16.3SQ-ACT

High End 3 Way active system
 Midwoofer: GZPK 165Q
 Midrange: GZPM 80SQX
 Tweeter: GZPT 28SX
 Handmade in Germany
 Speaker grill included

Component



GZPC 165SQ

High End 2 Way passive system
 150 WRMS / 250 WMAX
 30 – 30000 Hz / Cutoff 2800 Hz
 Midwoofer: GZPK 165Q
 Tweeter: GZPT 28SX
 Crossover: GZPX 165SQ
 Handmade in Germany
 Speaker grill included

Component



GZPC 16.3SQ

High End 3 Way passive system
 200 WRMS / 300 WMAX
 30 – 30000 Hz
 Cutoff 200/3000 Hz
 Midwoofer: GZPK 165Q
 Midrange: GZPM 80SQX
 Tweeter: GZPT 28SX
 Crossover: GZPX 16.3SQ
 Separated crossover
 for kickwoofer & mid/high
 Handmade in Germany
 Speaker grill included

Component





GZPW 12SPL-EXTREME

Subwoofer

High power 300 mm / 12" subwoofer
 8000 WSPL / 2 x 1 Ω
 47.7 Hz / Qts 0.45
 VAS 14.9 L / 0.53 ft³
 Handmade carbon sandwich cone
 VOXR high SPL surround
 4-Layer Conex spider
 75 mm / 3" aluminum voice coil
 Aluminum cast basket



GZPW 15SPL-EXTREME

Subwoofer

High power 380 mm / 15" subwoofer
 15000 WSPL / 2 x 1 Ω
 46.7 Hz / Qts 0.31
 VAS 22.9 L / 0.81 ft³
 Handmade carbon sandwich cone
 VOXR high SPL surround
 5-Layer Conex spider
 100 mm / 4" CCA voice coil
 Aluminum cast basket



GZPW 18SPL-EXTREME

Subwoofer

High power 460 mm / 18" subwoofer
 15000 WSPL / 2 x 1 Ω
 45.1 Hz / Qts 0.31
 VAS 43.5 L / 1.54 ft³
 Handmade carbon sandwich cone
 VOXR high SPL surround
 5-Layer Conex spider
 100 mm / 4" CCA voice coil
 Aluminum cast basket





GZ PLUTONIUM Xmax Subwoofer

High power 380 mm / 15" subwoofer
 10000 WSPL / 2 x 1 Ω
 35 Hz / Qts 0.40
 VAS 40 L / 1.41 ft³
 Massive aluminum cone
 GZ Xmax surround
 4-Layer Nomex spider
 High excursion 100 mm /
 4" CCA voice coil
 Aluminum cast basket



GZPW 10SPL Subwoofer

High power 250 mm / 10" subwoofer
 6500 WSPL / 2 x 1.6 Ω
 51.7 Hz / Qts 0.40
 VAS 6.9 L / 0.24 ft³
 Fiber reinforced paper cone
 VOXR high SPL surround
 4-Layer Conex spider
 75 mm / 3" aluminum voice coil
 Aluminum cast basket



GZPW 12SPL Subwoofer

High power 300 mm / 12" subwoofer
 6500 WSPL / 2 x 1 Ω
 47.7 Hz / Qts 0.45
 VAS 14.9 L / 0.53 ft³
 Fiber reinforced paper cone
 VOXR high SPL surround
 4-Layer Conex spider
 75 mm / 3" aluminum voice coil
 Aluminum cast basket



GZPW 15SPL Subwoofer

High power 380 mm / 15" subwoofer
 10000 WSPL / 2 x 1 Ω
 39.1 Hz / Qts 0.23
 VAS 36.8 L / 1.3 ft³
 Fiber reinforced paper cone
 VOXR high SPL surround
 4-Layer Conex spider
 100 mm / 4" aluminum voice coil
 Aluminum cast basket



GZPW 18SPL Subwoofer

High power 460 mm / 18" subwoofer
 10000 WSPL / 2 x 1 Ω
 34 Hz / Qts 0.26
 VAS 87 L / 3.07 ft³
 Fiber reinforced paper cone
 VOXR high SPL surround
 4-Layer Conex spider
 100 mm / 4" aluminum voice coil
 Aluminum cast basket



GZPW 15 LIMITED Subwoofer

High power 380 mm / 15" subwoofer
 5000 WRMS / 2 x 1 Ω
 35.6 Hz / Qts 0.39
 VAS 50.4 L / 1.78 ft³
 Fiber reinforced paper cone
 High roll sandwich surround
 4-Layer Conex spider
 100 mm / 4" CCA voice coil
 Aluminum cast basket

NUCLEAR superior sound, high power handling and amazing workmanship

The NUCLEAR line products benefit of several technical features of the upper level PLUTONIUM line. For instance, the NUCLEAR speakers are also "Made in Germany", using the same motor structure and basket for the midwoofer and midrange models. Even though, no efforts have been spared, Ground Zero managed to position the NUCLEAR line speakers, produced with greatest care, at a noticeable lower price level, making the amazingly sounding high quality line-up even more affordable. The speakers are available separately for active 2 or 3-way applications as well as a passive 2-way set with high quality crossovers.

The NUCLEAR line features three GZNW XSPL subwoofers with outer diameters of 300 mm / 12" up to 460 mm / 18" using dual 1 Ohm round wire CCA voice coils, able to handle up to incredible 6.500 Watts of SPL power. Paired with the yellow colored surround stitch and an ultra solid perfectly ventilated aluminum cast basket, these subwoofers are predestined for high level audio setups and furthermore for competition use in an affordable price range.

Additionally, Ground Zero introduces two brand new long-excursion NUCLEAR subwoofers. The triple magnet motorized 300 mm / 12" and 380 mm / 15" GZNW Xmax models are directly related to the new GZ PLUTONIUM Xmax subwoofer and share some key features like the stiff aluminum cone, the massive Ground Zero style Xmax surround, the high-wound long excursion voice coil and the red colored aluminum cast basket indicating their identity and determination: extreme loud and low bass!

Ground Zero's NUCLEAR amplifier line has become very well known for massive and extremely powerful Class AB full-range as well as really strong mono Class D amplifiers. Another key feature highlighting the GZNA models is their impressive low impedance stability thanks to dual high current power supplies, enabling this excellent performance.

Furthermore, each amplifier is equipped with double layer pc boards with generous circuit paths for high damping factor, SMD technology for maximum efficiency and high quality gold-plated terminals as well as RCA sockets. The impressive aluminum NUCLEAR heat sink takes care of perfect cooling and can be combined with optically identical HYDROGEN models in the same installation.





GZNA 1.2550DXII

1CH Amp

High power mono amplifier
 850 / 1500 / 2400 W @ 4 / 2 / 1 Ω
 Linkmode 6200 W Max @ 2 Ω
 Subsonic / Lowpass
 Phaseshift / Bass Boost
 Stabilized dual power supply
 Bass remote control included

CLASS **D**

GZNA 2850XII

2CH Amp

High power amplifier
 2 x 430 / 800 / 1200 W @ 4 / 2 / 1 Ω
 Bridgemode 1 x 2800 W Max @ 2 Ω
 Subsonic / Highpass / Lowpass
 Phaseshift / Bass Boost
 High current dual power supply
 Bass remote control included

CLASS **AB**



GZNA 4330XII

4CH Amp

High power amplifier
 4 x 200 / 350 / 550 W @ 4 / 2 / 1 Ω
 Bridgemode 2 x 1300 W Max @ 2 Ω
 Subsonic / Highpass / Lowpass
 Phaseshift / Bass Boost
 High current dual power supply
 Bass remote control included

CLASS **AB**



GZNT 25SQ

Tweeter

High End 25 mm / 1" tweeter
 80 WRMS / 130 WMAX
 2 – 28 kHz / FS: 750 Hz
 2 layer coated silk dome
 Damped coupled chamber
 Anodized aluminum housing
 High efficient neodymium magnet
 Handmade in Germany



GZNM 80SQ

Midrange

High End 80 mm / 3.15" midrange
 60 WRMS / 100 WMAX
 150 – 5000 Hz / FS: 115 Hz
 Coated paper cone
 Aluminum cast basket
 Linearized neodymium magnet
 Handmade in Germany
 Speaker grill included



Optional speaker housing
 GZSP 80MID



GZNK 165SQ

Midwoofer

High End 165 mm / 6.5" midwoofer
 130 WRMS / 200 WMAX
 40 – 3000 Hz / FS: 55.2 Hz
 Coated paper cone
 Aluminum cast basket
 Linearized ferrite magnet
 Handmade in Germany
 Speaker grill included



GZNC 1650SQ

Component

High End 2 Way passive system
 150 WRMS / 250 WMAX
 40 – 28000 Hz / Cutoff 2800 Hz
 Midwoofer: GZNK 165SQ
 Tweeter: GZNT 25SQ
 High quality crossover
 Handmade in Germany
 Speaker grill included





GZNW 12Xmax

Subwoofer

High power 300 mm / 12" subwoofer
 5000 WSPL / 2 x 1 Ω
 38 Hz / Qts 0.45
 VAS 25 L / 0.88 ft³
 Massive aluminum cone
 GZ Xmax surround
 4-Layer Nomex spider
 High excursion 75 mm / 3" CCA voice coil
 Aluminum cast basket



GZNW 15Xmax

Subwoofer

High power 380 mm / 15" subwoofer
 7500 WSPL / 2 x 1 Ω
 36 Hz / Qts 0.43
 VAS 43 L / 1.52 ft³
 Massive aluminum cone
 GZ Xmax surround
 4-Layer Nomex spider
 High excursion 75 mm / 3" CCA voice coil
 Aluminum cast basket



GZNW 12XSPL

Subwoofer

High power 300 mm / 12" subwoofer
 4500 WSPL / 2 x 1 Ω
 38.1 Hz / Qts 0.41
 VAS 25.7 L / 0.91 ft³
 Fiber reinforced paper cone
 High roll sandwich surround
 4-Layer Conex spider
 75 mm / 3" CCA voice coil
 Aluminum cast basket



GZNW 15XSPL

Subwoofer

High power 380 mm / 15" subwoofer
 5500 WSPL / 2 x 1 Ω
 39 Hz / Qts 0.57
 VAS 48 L / 1.69 ft³
 Fiber reinforced paper cone
 High roll sandwich surround
 5-Layer Conex spider
 75 mm / 3" CCA voice coil
 Aluminum cast basket



GZNW 18XSPL

Subwoofer

High power 460 mm / 18" subwoofer
 6500 WSPL / 2 x 1 Ω
 31.3 Hz / Qts 0.57
 VAS 139.7 L / 4.93 ft³
 Fiber reinforced paper cone
 High roll sandwich surround
 5-Layer Conex spider
 75 mm / 3" CCA voice coil
 Aluminum cast basket



URANIUM affordable and great sound quality

The URANIUM product line-up represents affordable speakers, subwoofers and amplifiers for ambitious sound quality setups.

Therefore, it is no surprise that the GZUC 650SQ has been one of Ground Zero's most popular 2-way passive speaker systems worldwide. To fulfill the desires of even more customers, Ground Zero decided to expand the URANIUM speaker line-up by an upgraded version and to offer a new SQX model while the previous model was revised as well and starts now as SQ-II version into its next life cycle featuring the high tech WFWC® cone, a coupled chamber for the 25 mm / 1" silk dome tweeter and redesigned crossover housings for MKP Caps, massive air coils and MOX resistors without residual inductivity.

Regarding the new SQX model, Ground Zero went the extra mile and improved every detail of the speaker system.

The WFWC® cone of the Klippel® optimized midwoofer was reshaped to increase the effective area, while the aluminum cast basket was completely redesigned and offers considerable better ventilation. Partial oscillation has nearly been eliminated by the new LDW® surround. Power handling and efficiency of the 25 mm / 1" SQX tweeter has been noticeable improved while the coupled air volume lowers the resonance frequency at the same time.

Moreover, a new shaped silk dome offers much better off-axis performance.

Emphasizing visual appearance and quality statement, the SQX tweeter was embellished with a black-anodized aluminum cabinet.

Last but not least, the passive crossover implies high quality components and provides a bi-amping option.

For active applications however, each URANIUM SQX speaker as well as the GZHT 25SQ tweeter is available separately in pairs.

The unique 60 mm / 2.36" SQ mid/full-range with black-anodized aluminum cone is still available to create a 3-way speaker system.

For lower frequencies, Ground Zero's URANIUM line offers three high quality subwoofers with outer diameters of 200 mm / 8", 250 mm / 10" and 300 mm / 12". Each comes with a stiff and lightweight paper cone and a very stable convex shaped dust cap.

Further features are specially developed multilayer foam surrounds, audiophile Polycot spiders with woven lead wires and high-power copper voice coils on loss-free Kapton formers.

The 8" and 12" versions are also available in carefully calculated sealed enclosures of massive MDF "Made in Europe".

To fulfill audiophile requirements, the URANIUM SQ-line amplifiers were developed. The circuit design is based on the REFERENCE amplifiers, using only the best and selected parts such as Burr-Brown® ICs, ELNA® and WIMA® capacitors, Sanken® transistors and MOX resistors.

The double-layer pc boards are optimized to achieve high damping factors and extremely low distortion. The URANIUM line-up started with a 2 and 4-channel model and has actually been expanded by a brand new 6-channel version, each extremely flat with only 46 mm / 1.8" heat sink height and equipped with highly accurate wideband filters offering a full active application mode.



GZUA 2.250SQ

2CH Amp

High quality SQ amplifier
 2 x 180 / 320 / 500 W @ 4 / 2 / 1 Ω
 Bridgemode 1 x 1200 W Max @ 2 Ω
 Subsonic / Highpass
 Lowpass / Bypass
 Phaseshift / Bass Boost
 Selected high quality parts
 Bass remote control included



GZUA 4.150SQ

4CH Amp

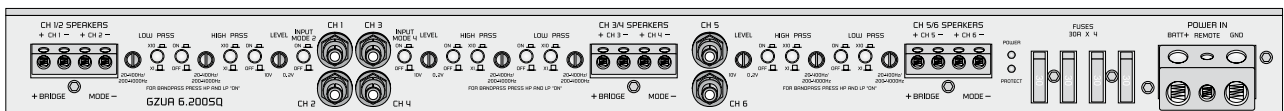
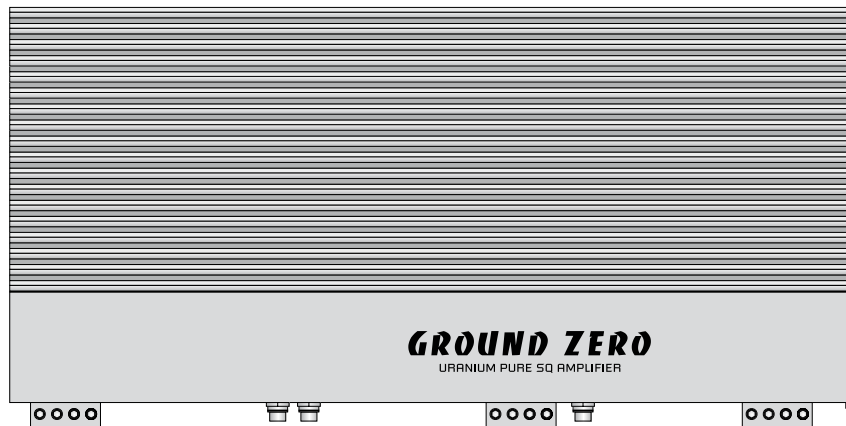
High quality SQ amplifier
 4 x 110 / 190 W @ 4 / 2 Ω
 Bridgemode 2 x 460 W Max @ 4 Ω
 Subsonic / Highpass
 Lowpass / Bypass
 Selected high quality parts



GZUA 6.200SQ

6CH Amp

High quality SQ amplifier
 4 x 90 / 140 W @ 4 / 2 Ω
 and 2x 200 / 320 W @ 4 / 2 Ω
 Bridgemode 2 x 350 W @ 2 Ω
 and 1 x 800 W @ 2 Ω
 Subsonic / Highpass
 Lowpass / Bypass
 Selected high quality parts





GZUT 25SQX

Tweeter

High quality 25 mm / 1" tweeter
70 WRMS / 120 WMAX
2 – 25 kHz / FS: 750 Hz
Coated silk dome
Damped coupled chamber
Anodized aluminum housing
High efficient neodymium magnet



GZHT 25SQ

Tweeter

High quality 25 mm / 1" tweeter
70 WRMS / 110 WMAX
2 – 22 kHz / FS: 850 Hz
Coated silk dome
Damped coupled chamber
High efficient neodymium magnet



GZUF 60SQ

Fullrange

High quality 60 mm / 2.5" fullrange
60 WRMS / 100 WMAX
300 – 20000 Hz / FS: 150 Hz
Black aluminum cone
Fiber composite basket
High efficient neodymium magnet
Speaker grill included
Mounting accessories included



GZUK 65SQX

Midwoofer

High quality 165 mm / 6.5" midwoofer
120 WRMS / 200 WMAX
40 – 4000 Hz / FS: 55.1 Hz
WFWC® cone / LDW® surround
Aluminum cast basket
Linearized ferrite magnet
Speaker grill included



GZUC 650SQX

Component

High Quality 2 Way passive system
140 WRMS / 220 WMAX
40 – 25000 Hz / Cutoff 2800 Hz
Midwoofer: GZUK 65SQX
Tweeter: GZUT 25SQX
High quality bi-amping crossover
Speaker grill included



GZUC 650SQ-II

Component

High Quality 2 Way passive system
130 WRMS / 210 WMAX
40 – 24000 Hz / Cutoff 2800 Hz
165 mm / 6.5" midwoofer
with WFWC® cone
High quality crossover
Speaker grill included





GZUW 12SQX

Subwoofer

Sound Quality 300 mm / 12" subwoofer
 600 WRMS / 2 x 2 Ω
 38.6 Hz / Qts 0.62
 VAS 41.1 L / 1.45 ft³
 Fiber reinforced paper cone
 VOXR U shape foam surround
 1-Layer Polycot spider
 50 mm / 2" copper voice coil
 Aluminum cast basket



GZUW 8SQ

Subwoofer

Sound Quality 200 mm / 8" subwoofer
 300 WRMS / 2 x 2 Ω
 44.5 Hz / Qts 0.46
 VAS 12.1 L / 0.43 ft³
 Fiber reinforced paper cone
 VOXR U shape foam surround
 1-Layer Polycot spider
 50 mm / 2" copper voice coil
 Aluminum cast basket



GZUW 10SQX

Subwoofer

Sound Quality 250 mm / 10" subwoofer
 450 WRMS / 2 x 2 Ω
 46.7 Hz / Qts 0.62
 VAS 14.2 L / 0.5 ft³
 Fiber reinforced paper cone
 VOXR U shape foam surround
 1-Layer Polycot spider
 50 mm / 2" copper voice coil
 Aluminum cast basket



GZUB 30SQ

Enclosure

High quality loaded enclosure
 Woofer: GZUW 12SQX
 600 WRMS / 2 x 2 Ω
 Solid 25 mm / 1" MDF wood
 38 Liter / 1.34 ft³ sealed
 Made in Europe



GZUB 20SQ

Enclosure

High quality loaded enclosure
 Woofer: GZUW 8SQ
 300 WRMS / 2 x 2 Ω
 Solid 25 mm / 1" MDF wood
 13 Liter / 0.46 ft³ sealed
 Made in Europe



HYDROGEN maximum fun factor products for music lovers

Within the HYDROGEN line-up Ground Zero offers a wide range of affordable products able to satisfy all demands regarding high level performance, sound quality and music enthusiasm. Customers choosing a HYDROGEN model have one major desire: have pleasure and fun while listening to their favorite music.

The most important part to fulfill this expectation is contributed by Ground Zero's low frequency specialists, the HYDROGEN subwoofers, all of them featuring pure copper high-power voice coils and solid aluminum cast baskets. Two different subwoofer lines are available, each serving a different purpose.

The GZHW X line consists of three award-winning aluminum cone models with outer diameters of 200 mm / 8", 250 mm / 10" and 300 mm / 12". Following Ground Zero's very own tradition these subwoofers are predestined to reproduce extremely low bass out of rather small enclosures. For this reason Ground Zero offers two loaded MDF enclosures including special bass tunnel technology.

The second line with the brand new HYDROGEN SPL subwoofers has been developed to handle a huge amount of input power reaching extremely high bass levels and hence to be used successfully under competition conditions.

Reduced to one component and one coaxial speaker system, the HYDROGEN speaker line-up contains the most requested 165 mm / 6.5" speaker size. Ground Zero brought all of its technical expertise into these two unique models and equipped them with excellent parts such as a WFWC® cone, known from the URANIUM series, providing extraordinary low distortion by combining thin woven glass fiber and strong rough wooden fabric. Due to its light weight and stiffness, this cone material offers a remarkable good sound quality.

The component system includes variously adjustable crossovers, built of high quality parts and a pair of audiophile 25 mm / 1" silk dome tweeters. Using exactly the same components within the coaxial model makes the GZHF 652C one of the best coaxial speaker systems available on the market.

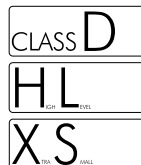
To complete the HYDROGEN family, two amplifier lines are available. The massive strand-cast aluminum heatsink of the GZHA XII models are identical to the ones used in the NUCLEAR line. Therefore, mixed series multi amplifier installations can be realized. The affordable 2- and 4 channel Class AB amplifiers and the Class D mono version feature latest SMD technology and stabilized dual power supplies.

Apart from these regular sized models and especially for limited installation space, Ground Zero introduces the brand new HYDROGEN MINI amplifiers. Meeting all requirements, a 2- and a 4-channel model as well as a mono subwoofer amplifier in a small-sized black-anodized aluminum heat sink is available.

GZHA MINI ONE

1CH Amp

Compact digital mono amplifier
120 / 390 / 630 W @ 4 / 2 / 1 Ω
Linkmode 1500 W Max @ 2 Ω
Subsonic / Lowpass
Phaseshift / Bass Boost
High-Level input with auto-on
Bass remote control included



GZHA MINI TWO

2CH Amp

Compact digital amplifier
2 x 130 / 230 W @ 4 / 2 Ω
Bridgemode 1 x 550 W Max @ 4 Ω
Subsonic / Highpass / Lowpass
High-Level input with auto-on
Bass remote control included



GZHA MINI FOUR

4CH Amp

Compact digital amplifier
4 x 80 / 130 @ 4 / 2 Ω
Bridgemode 2 x 320 W Max @ 4 Ω
Subsonic / Highpass / Lowpass
High-Level input with auto-on





GZHA 1.1850DXII

1CH Amp

High power mono amplifier
 700 / 1200 / 1850 W @ 4 / 2 / 1 Ω
 Linkmode 4800 W Max @ 2 Ω
 Subsonic / Lowpass
 Phaseshift / Bass Boost
 Stabilized dual power supply
 Bass remote control included

CLASS D

GZHA 2400XII

2CH Amp

High power amplifier
 2 x 270 / 480 / 750 W @ 4 / 2 / 1 Ω
 Bridgemode 1 x 1800 W Max @ 2 Ω
 Subsonic / Highpass / Lowpass
 Phaseshift / Bass Boost
 High current dual power supply
 Bass remote control included

CLASS AB



GZHA 4200XII

4CH Amp

High power amplifier
 4 x 140 / 200 @ 4 / 2 Ω
 Bridgemode 2 x 500 W Max @ 4 Ω
 Subsonic / Highpass / Lowpass
 Phaseshift / Bass Boost
 High current dual power supply
 Bass remote control included

CLASS AB



GZHF 652C

Coaxial

High Quality 2 Way coaxial
100 WRMS / 160 WMAX
Freq. response 50 – 20000 Hz
165 mm / 6.5" midwoofer
with black WFWC® cone
25 mm / 1" silkdome tweeter
Speaker grill included



GZHC 65C

Component

High Quality 2 Way passive system
120 WRMS / 200 WMAX
Freq. response 40 – 20000 Hz
165 mm / 6.5" midwoofer
with black WFWC® cone
Tweeter: GZHT 25X
High quality crossover
Speaker grill included



GZHT 25X

Tweeter

High quality 25 mm / 1" tweeter
60 WRMS / 100 WMAX
3 – 20 kHz / FS: 1600 Hz
Coated silk dome
Ferrofluid cooling



GZHW 20X

Subwoofer

High power 200 mm / 8" subwoofer
400 WRMS / 2 x 2 Ω
36 Hz / Qts 0.35
VAS 8.3 L / 0.29 ft³
Aluminum cone
Rubber surround
1-Layer Conex spider
50 mm / 2" copper voice coil
Aluminum cast basket



GZHW 25X

Subwoofer

High power 250 mm / 10" subwoofer
600 WRMS / 2 x 2 Ω
27.1 Hz / Qts 0.37
VAS 27 L / 0.95 ft³
Aluminum cone
Rubber surround
1-Layer Conex spider
50 mm / 2" copper voice coil
Aluminum cast basket



GZHW 30X

Subwoofer

High power 300 mm / 12" subwoofer
800 WRMS / 2 x 2 Ω
23.5 Hz / Qts 0.33
VAS 62 L / 2.19 ft³
Aluminum cone
Rubber surround
1-Layer Conex spider
63 mm / 2.5" copper voice coil
Aluminum cast basket



GZHB 20XBT

Enclosure

High quality loaded enclosure
Woofer: GZHW 20X
400 WRMS / 2 x 2 Ω
Solid MDF wood
17 Liter / 0.6 ft³ bass tunnel
White LED illumination



GZHB 30XBT

Enclosure

High quality loaded enclosure
Woofer: GZHW 30X
800 WRMS / 2 x 2 Ω
Solid MDF wood
45 Liter / 1.59 ft³ bass tunnel
White LED illumination



GZUP 10

250 mm / 10" Passive radiator



GZUP 12

300 mm / 12" Passive radiator

GZHW 8XSPL-D1 (no image) Subwoofer

High power 200 mm / 8" subwoofer
 1500 WSPL / 2 x 1 Ω
 39.3 Hz / Qts 0.45
 VAS 4.3 L / 0.15 ft³
 Fiber reinforced paper cone
 High roll sandwich surround
 2-Layer Polycot spider
 63 mm / 2.5" copper voice coil
 Aluminum cast basket



GZHW 10XSPL-D1 Subwoofer

High power 250 mm / 10" subwoofer
 2500 WSPL / 2 x 1 Ω
 40.5 Hz / Qts 0.412
 VAS 10.16 L / 0.36 ft³
 Fiber reinforced paper cone
 High roll sandwich surround
 2-Layer Polycot spider
 63 mm / 2.5" copper voice coil
 Aluminum cast basket



GZHW 12XSPL-D1 Subwoofer

High power 300 mm / 12" subwoofer
 3000 WSPL / 2 x 1 Ω
 39.7 Hz / Qts 0.475
 VAS 17.61 L / 0.62 ft³
 Fiber reinforced paper cone
 High roll sandwich surround
 2-Layer Polycot spider
 75 mm / 3" copper voice coil
 Aluminum cast basket



GZHW 15XSPL-D1 Subwoofer

High power 380 mm / 15" subwoofer
 3500 WSPL / 2 x 1 Ω
 36.8 Hz / Qts 0.482
 VAS 39.68 L / 1.4 ft³
 Fiber reinforced paper cone
 High roll sandwich surround
 2-Layer Polycot spider
 75 mm / 3" copper voice coil
 Aluminum cast basket



GZHW 18XSPL-D1 Subwoofer

High power 460 mm / 18" subwoofer
 4000 WSPL / 2 x 1 Ω
 34.3 Hz / Qts 0.381
 VAS 75.21 L / 2.66 ft³
 Fiber reinforced paper cone
 High roll sandwich surround
 2-Layer Polycot spider
 75 mm / 3" copper voice coil
 Aluminum cast basket



RADIOACTIVE specialized products for various applications

Ground Zero's RADIOACTIVE line offers a wide range of speakers, subwoofers and amplifiers including high efficient coaxial and component speaker systems, particularly flat speakers and subwoofers, affordable SPL components and loaded subwoofer enclosures. Furthermore, the series includes Ground Zero's water-resistant marine speakers.

The RADIOACTIVE speakers with their black high-gloss powder-coated baskets, powerful magnets and a significantly stiff glass-fiber cone in combination with the round-wire copper voice coil on aluminum-former achieve superior sound quality while capable to handle high input power at the same time. Additionally, an extremely flat 200 mm / 8" neodymium magnet midwoofer is available.

Introducing the upcoming line-up of new RADIOACTIVE AL speakers, Ground Zero offers two coaxial models.

Both, the 165 mm / 6.5" 2-way and the 6x9" 3-way version with an additional PEI midrange, feature high efficient 3-Ohm voice coils, flat-shape surrounds reducing partial oscillation, PEI coaxial tweeters and the name-giving aluminum cone.

Obviously, the most important category is the RADIOACTIVE subwoofer line-up. For ultimate bass performance this line offers a wide range of affordable high efficient XSPL subwoofers, available in diameters from 250 mm / 10" to 380 mm / 15".

The second line consists of real low bass specialists at an amazing price-performance-ratio equipped with 75 mm / 3" high-excursion copper voice coils powered by massive double magnets.

Apart from the ultra flat versions, each RADIOACTIVE subwoofer uses a lightweight but stiff paper cone and a convex IMPP dust cap with a 3-D Ground Zero logo.

Furthermore, two extremely high power handling and ready-to-play enclosure subwoofers equipped with single or double 300 mm / 12" drivers are available. However, especially for limited space applications, two models in 200 mm / 8" and 300 mm / 12" size were developed with extremely low 60 mm / 2.36" respectively 73 mm / 2.87" of mounting depth.

The last-named is available loaded to an extra-slim enclosure for special purpose, as well.

The subwoofers and speakers can be driven by the wide range of RADIOACTIVE amplifiers containing a high-power 4-channel and two mono models in medium-sized black-anodized aluminum heat sinks as well as Ground Zero's new, extremely small but high efficient full-range Class D MICRO amps, providing 100 Watts per channel by the ultra compact GZRA MICRO FOUR and up to amazing 350 Watts @ 2 Ohm for the identically sized GZRA MICRO ONE.



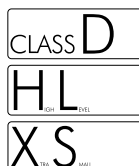
Original Size



GZRA MICRO ONE

1 CH Amp

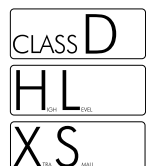
Compact digital mono amplifier
220 / 350 W @ 4 / 2 Ω
Subsonic / Lowpass
Bass Boost
Extremely compact design
High-Level input with auto-on
Bass remote control included



GZRA MICRO FOUR

4 CH Amp

Compact digital amplifier
4 x 60 / 100 @ 4 / 2 Ω
Bridgemode 2 x 250 W Max @ 4 Ω
Highpass / Lowpass
Extremely compact design
High-Level input with auto-on





GZRA 1.2500DX 1CH Amp

High power mono amplifier
 750 / 1400 / 2200 W @ 4 / 2 / 1 Ω
 Linkmode 6000 W Max @ 2 Ω
 Subsonic / Lowpass
 Phaseshift / Bass Boost
 Stabilized triple power supply
 Bass remote control included

CLASS D

GZRA 2255X (no image) 2CH Amp

High power amplifier
 2 x 150 / 250 @ 4 / 2 Ω
 Bridgemode 1 x 600 W Max @ 4 Ω
 Subsonic / Highpass /
 Lowpass / Bass Boost
 Bass remote control included

CLASS AB



GZRA 1.1650D 1CH Amp

High power mono amplifier
 650 / 1250 / 1800 W @ 4 / 2 / 1 Ω
 Linkmode 4600 W Max @ 2 Ω
 Subsonic / Lowpass
 Phaseshift / Bass Boost
 Stabilized dual power supply
 Bass remote control included

CLASS D



GZRA 4230 4CH Amp

High power amplifier
 4 x 140 / 230 @ 4 / 2 Ω
 Bridgemode 2 x 550 W Max @ 4 Ω
 Subsonic / Highpass /
 Lowpass / Bass Boost
 High current dual power supply

CLASS AB



GZRF 65AL

Coaxial

High Quality 2 Way coaxial
100 WRMS / 140 WMAX
Freq. response 50 – 25000 Hz
165 mm / 6.5" midwoofer with aluminum cone
High efficient 3 Ω voice coil
13 mm / 0.51" PEI tweeter
Speaker grill included



GZRF 69AL

Coaxial

High Quality 3 Way coaxial
130 WRMS / 200 WMAX
Freq. response 40 – 25000 Hz
6 x 9" midwoofer with aluminum cone
High efficient 3 Ω voice coil
13 mm / 1" PEI tweeter
50 mm / 2" PEI midrange
Speaker grill included



GZRC 16XII

Component

High Quality 2 Way passive system
120 WRMS / 180 WMAX
Freq. response 40 – 20000 Hz
165 mm / 6.5" midwoofer
with glass fiber cone
Tweeter: GZHT 25X
High quality crossover
Speaker grill included



GZRC 165FXII

Component

Flat 2 Way passive system
110 WRMS / 160 WMAX
Freq. response 50 – 20000 Hz
165 mm / 6.5" midwoofer
with glass fiber cone
Tweeter: GZHT 25X
High quality crossover
Speaker grill included



GZRC 10XII

Component

High Quality 2 Way passive system
80 WRMS / 120 WMAX
Freq. response 60 – 20000 Hz
100 mm / 4" midwoofer
with glass fiber cone
Tweeter: GZHT 25X
High quality crossover
Speaker grill included



GZRF 52XII

Coaxial

High Quality 2 Way coaxial
70 WRMS / 110 WMAX
Freq. response 70 – 22000 Hz
130 mm / 5.25" midwoofer
with glass fiber cone
13 mm / 0.51" PEI tweeter
Speaker grill included



GZRF 13FXII

Coaxial

Flat 2 Way coaxial
60 WRMS / 100 WMAX
Freq. response 80 – 22000 Hz
130 mm / 5.25" midwoofer
with glass fiber cone
13 mm / 0.51" PEI tweeter
Speaker grill included



GZRF 42XII

Coaxial

High Quality 2 Way coaxial
80 WRMS / 100 WMAX
Freq. response 80 – 22000 Hz
100 mm / 4" midwoofer
with glass fiber cone
13 mm / 0.51" PEI tweeter
Speaker grill included



GZRC 6857X

Component

High Quality 2 Way passive system
120 WRMS / 180 WMAX
Freq. response 55 – 22000 Hz
5 x 7" / 6 x 8" midwoofer
with coated paper cone
25 mm / 1" silk dome tweeter
High quality crossover
Speaker grill included



GZRF 5768X

Coaxial

High Quality 2 Way coaxial
80 WRMS / 130 WMAX
Freq. response 65 – 22000 Hz
5 x 7" / 6 x 8" midwoofer
with coated paper cone
13 mm / 0.51" Mylar tweeter
Speaker grill included



GZRF 6900P

Coaxial

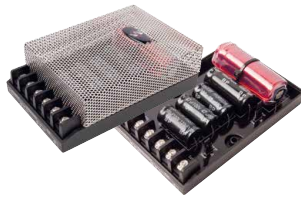
High power 3 Way coaxial
250 WRMS / 400 WMAX
Freq. response 40 – 20000 Hz
6 x 9" midwoofer
with coated paper cone
13 mm / 0.51" PEI tweeter
50 mm / 2" PEI midrange
Speaker grill included



GZMW 200X-NEO

Midwoofer

Flat 200 mm / 8" midwoofer
 100 WRMS / 160 WMAX / 1 x 4 Ω
 35 – 3500 Hz / FS: 38.4 Hz
 Coated paper cone
 Lightweight neodymium magnet
 Speaker grill included



GZBR 200BMW

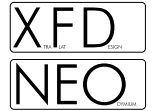
Upgrade adapter for all BMW E- and F-series
 Compatible with
 GZMW 200X-NEO and GZRW 8FL



GZRW 8FL

Woofer

Flat 200 mm / 8" Woofer
 150 WRMS / 250 WMAX / 1 x 2 Ω
 30 – 600 Hz / 45.3 Hz
 Qts 0.938 / VAS 17.6 L / 0.62 ft³
 Extra flat IMPP cone
 Nomex spider
 36 mm / 1.42" copper voice coil
 Flat steel basket
 Optimized for free-air applications



Optional grill available

GZRX 2-Way Kick

Crossover

Kick / 2 Way crossover
 to combine component or coaxial
 speakers with additional kickwoofers
 Lowpass 200 / 250 Hz
 Highpass 90 / 150 Hz

GZRW 12XFL

Subwoofer

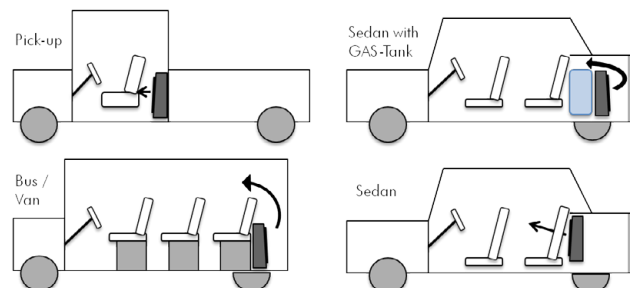
Flat 300 mm / 12" subwoofer
 500 WRMS / 2 x 2 Ω
 28.4 Hz / Qts 0.47
 VAS 63.3 L / 2.24 ft³
 Extra flat IMPP cone
 Rubber surround
 Fiber mix spider
 50 mm / 2.5" copper voice coil
 Flat ABS basket



GZRB 3000XFL

Enclosure

Flat loaded enclosure
 Woofer: GZRW 12XFL
 500 WRMS / 2 x 2 Ω
 Solid MDF wood
 19 Liter / 0.67 ft³ sealed





GZRW 25XSPL-D1/D2 Subwoofer

High power 250 mm / 10" subwoofer
 Fiber reinforced paper cone
 U shape foam surround
 2-Layer Polycot spider
 63 mm / 2.5" copper voice coil
 Solid steel basket
GZRW 25XSPL-D1
 800 WSPL / 2 x 1 Ω / 40.3 Hz
 Qts 0.47 / VAS 13.24 L / 0.47 ft³
GZRW 25XSPL-D2
 800 WSPL / 2 x 2 Ω / 44.8 Hz
 Qts 0.64 / VAS 10.25 L / 0.36 ft³



GZRW 30XSPL-D1/D2 Subwoofer

High power 300 mm / 12" subwoofer
 Fiber reinforced paper cone
 U shape foam surround
 2-Layer Polycot spider
 75 mm / 3" copper voice coil
 Solid steel basket
GZRW 30XSPL-D1
 1500 WSPL / 2 x 1 Ω / 39.2 Hz
 Qts 0.554 / VAS 20.19 L / 0.71 ft³
GZRW 30XSPL-D2
 1500 WSPL / 2 x 2 Ω / 36.1 Hz
 Qts 0.591 / VAS 22.94 L / 0.81 ft³



GZRW 38XSPL-D2 Subwoofer

High power 380 mm / 15" subwoofer
 1800 WSPL / 2 x 2 Ω
 33.5 Hz / Qts 0.62
 VAS 65.3 L / 2.3 ft³
 Fiber reinforced paper cone
 U shape foam surround
 2-Layer Polycot spider
 75 mm / 3" copper voice coil
 Solid steel basket



GZRW 10D2/D4 Subwoofer

High power 250 mm / 10" subwoofer
 Fiber reinforced paper cone
 U shape foam surround
 1-Layer Polycot spider
 63 mm / 2.5" copper voice coil
 Solid steel basket
GZRW 10D2
 600 WRMS / 2 x 2 Ω / 34 Hz
 Qts 0.61 / VAS 23.2 L / 0.82 ft³
GZRW 10D4
 600 WRMS / 2 x 4 Ω / 34.6 Hz
 Qts 0.63 / VAS 22.5 L / 0.79 ft³



GZRW 12D2/D4 Subwoofer

High power 300 mm / 12" subwoofer
 Fiber reinforced paper cone
 U shape foam surround
 1-Layer Polycot spider
 75 mm / 3" copper voice coil
 Solid steel basket
GZRW 12D2
 800 WRMS / 2 x 2 Ω / 28.4 Hz
 Qts 0.43 / VAS 50.4 L / 1.78 ft³
GZRW 12D4
 800 WRMS / 2 x 4 Ω / 30.2 Hz
 Qts 0.48 / VAS 47.6 L / 1.68 ft³



GZRW 15D2/15D4 Subwoofer

High power 380 mm / 15" subwoofer
 Fiber reinforced paper cone
 U shape foam surround
 1-Layer Polycot spider
 75 mm / 3" copper voice coil
 Solid steel basket
GZRW 15D2
 1000 WRMS / 2 x 2 Ω / 23.58 Hz
 Qts 0.439 / VAS 163.08 L / 5.76 ft³
GZRW 15D4
 1000 WRMS / 2 x 4 Ω / 24.7 Hz
 Qts 0.46 / VAS 135.8 L / 4.8 ft³



GZRB 300XSPL Enclosure

High quality loaded enclosure
 Woofer: GZRW 30XSPL-D2
 1500 WSPL / 2 x 2 Ω
 Solid MDF wood
 63 Liter / 2.22 ft³ front bass tunnel
 Black Plexiglas front



GZRB 2.300SPL Enclosure

High quality loaded enclosure
 2 x 300 mm / 12" SPL woofer
 2000 WSPL / 4 x 4 Ω
 Solid MDF wood
 40 & 60 Liter / 1.41 & 2.12 ft³
 4th order bandpass
 White LED illumination



RADIOACTIVE MARINE off-shore and bathroom suitable speakers

Since nowadays listening to favorite music isn't limited to cars, Ground Zero's engineers also took care of the audio reproduction at particular places and environments with special requirements to speaker construction and resistance.

Fulfilling these specifications, two sophisticated RADIOACTIVE MARINE line 2-way coaxial speakers are available in white finish, suitable to be installed at places of high humidity such as a spa, bathrooms or pool areas. More than that, the water-resistant and UV stable speakers can even be used in off-shore applications with occasionally appearing direct splashing water such as on outer decks of a yacht or on recreational and leisure boats.



GZRM 130

Coaxial

Water-resistant 2 Way coaxial
60 WRMS / 100 WMAX
Freq. response 70 – 20000 Hz
130 mm / 5.25" midwoofer
with IMPP cone
13 mm / 0.51" Mylar tweeter
Speaker grill included

GZRM 165

Coaxial

Water-resistant 2 Way coaxial
70 WRMS / 120 WMAX
Freq. response 60 – 20000 Hz
165 mm / 6.5" midwoofer
with IMPP cone
13 mm / 0.51" Mylar tweeter
Speaker grill included



TITANIUM upper entry level with premium quality products

The TITANIUM line-up combines premium quality with efficiency in a wide range of dedicated speakers, subwoofers and amplifiers.

Two 2-way component speaker sets with 130 mm / 5.25" and 165 mm / 6.5" diameter featuring a pair of high quality 25 mm / 1" silk-dome tweeters and in-line crossovers for easy installation are positioned in the TITANIUM speaker line as well as a wide range of coaxials with the most requested and some additional rare sizes of 87 mm / 3.5" and 4 x 6". Additionally, a high power 250 mm / 10" 3-way version with high efficient ferrofluid-cooled PEI mid-tweeter is available.

Similar to the speakers, each TITANIUM subwoofer features a lightweight, coated paper cone as well as high-power round-wire copper voice coil for perfect sound performance.

The subwoofers are available in diameters of 200 mm / 8" up to 300 mm / 15" with a double 2 Ohm voice coil. As a special feature they can be used in "Free Air" mode. Apart from that, two loaded bandpass subwoofer enclosures are also available.

The TITANIUM amplifier line-up contains a vast variety of models for all demands. They are cooled by a massive, one-piece heat sink with smooth hairline brushed finish and partly embedded high-gloss black acrylic logo plate. Equipped with removable side panels, the installation is simple and the wiring is covered.

Technical wise, high quality parts, such as double layer pc boards with SMD technology, and carefully designed circuits result in tremendous power output of up to 3000 Watts using two Class D mono amplifiers in link mode.

The 2 Ohm stable fullrange Class AB amplifiers are available in 2-, 4- and 5 channel versions including wideband filters and offering high damping factors, these amplifiers are perfect for sophisticated car audio applications.

Especially for truck installations, Ground Zero offers two models of the TITANIUM amplifier line-up in a 24-Volt edition, a 4 channel version and 800 Watts mono.



GZTA 1.1200DX-II

1CH Amp

High quality mono amplifier
400 / 800 / 1300 W @ 4 / 2 / 1 Ω
Linkmode 3000 W Max @ 2 Ω
Subsonic / Lowpass
Phaseshift / Bass Boost
Stabilized dual power supply
Bass remote control included

CLASS D



GZTA 1.800DX-B 1CH Amp

High quality mono amplifier
 350 / 550 / 850 W @ 4 / 2 / 1 Ω
 Linkmode 2000 W Max @ 2 Ω
 Subsonic / Lowpass
 Phaseshift / Bass Boost
 Stabilized power supply
 Bass remote control included

CLASS D



Optional

GZTA 2155X-B 2CH Amp

High quality amplifier
 2 x 100 / 150 @ 4 / 2 Ω
 Bridgemode 1 x 400 W Max @ 4 Ω
 Subsonic / Highpass /
 Lowpass / Bass Boost
 Bass remote control optional

CLASS AB

GZTA 2255X (no image) 2CH Amp

High quality amplifier
 Silver heatsink
 2 x 150 / 250 @ 4 / 2 Ω
 Bridgemode 1 x 600 W Max @ 4 Ω
 Subsonic / Highpass /
 Lowpass / Bass Boost
 Bass remote control included

CLASS AB



GZTA 4125X-B 4CH Amp

High quality amplifier
 4 x 90 / 130 @ 4 / 2 Ω
 Bridgemode 2 x 320 W Max @ 4 Ω
 Subsonic / Highpass /
 Lowpass / Bass Boost

CLASS AB



GZTA 5120X-B 5CH Amp

High quality amplifier
 4 x 50 + 1 x 180 W @ 4 Ω
 4 x 70 + 1 x 260 W @ 2 Ω
 Subsonic / Highpass /
 Lowpass / Bass Boost
 Bass remote control included

CLASS AB



GZTA 1.800DX-24V 1CH Amp

High quality mono amplifier
 350 / 550 / 850 W @ 4 / 2 / 1 Ω
 Linkmode 2000 W Max @ 2 Ω
 Subsonic / Lowpass
 Phaseshift / Bass Boost
 Stabilized 24 Volt power supply
 Bass remote control included

CLASS D

24VOLT



GZTA 4125X-24V 4CH Amp

High quality 24 Volt amplifier
 4 x 90 / 130 @ 4 / 2 Ω
 Bridgemode 2 x 320 W Max @ 4 Ω
 Subsonic / Highpass /
 Lowpass / Bass Boost
 Stabilized 24 Volt power supply

CLASS AB

24VOLT



GZTC 130TX Component

High quality 2 Way passive system
 90 WRMS / 140 WMAX
 Freq. response 60 – 20000 Hz
 130 mm / 5.25" midwoofer
 with coated paper cone
 25 mm / 1" silkdome tweeter
 Compact inline crossover
 Speaker grill included



GZTC 165TX Component

High quality 2 Way passive system
 110 WRMS / 160 WMAX
 Freq. response 50 – 20000 Hz
 165 mm / 6.5" midwoofer
 with coated paper cone
 25 mm / 1" silkdome tweeter
 Compact inline crossover
 Speaker grill included



GZTF 16TX Coaxial

High quality 2 Way coaxial
 80 WRMS / 120 WMAX
 Freq. response 70 – 20000 Hz
 165 mm / 6.5" midwoofer
 with coated paper cone
 13 mm / 0.51" Mylar tweeter
 Speaker grill included



GZTF 69TX Coaxial

High quality 3 Way coaxial
 120 WRMS / 180 WMAX
 Freq. response 40 – 20000 Hz
 6 x 9" midwoofer
 with coated paper cone
 13 mm / 0.51" Mylar tweeter
 55 mm / 2.17" Mylar midrange
 Speaker grill included



GZTF 46TX Coaxial

High quality 2 Way coaxial
 70 WRMS / 110 WMAX
 Freq. response 80 – 20000 Hz
 4 x 6" midwoofer
 with coated paper cone
 13 mm / 0.51" Mylar tweeter
 Speaker grill included



GZTF 250TX Coaxial

High power 3 Way coaxial
 120 WRMS / 300 WMAX
 Freq. response 40 – 25000 Hz
 250 mm / 10" midwoofer
 with coated paper cone
 13 mm / 0.51" PEI tweeter
 55 mm / 2.17" PEI midrange
 Speaker grill included



GZTF 10TX Coaxial

High quality 2 Way coaxial
 60 WRMS / 100 WMAX
 Freq. response 90 – 20000 Hz
 100 mm / 4" midwoofer
 with coated paper cone
 13 mm / 0.51" Mylar tweeter
 Speaker grill included

GZTF 8.7TX Coaxial

High quality 2 Way coaxial
 50 WRMS / 90 WMAX
 Freq. response 100 – 20000 Hz
 87 mm / 3.5" midwoofer
 with coated paper cone
 13 mm / 0.51" Mylar tweeter



GZTF 13TX (no image) Coaxial

High quality 2 Way coaxial
 70 WRMS / 110 WMAX
 Freq. response 80 – 20000 Hz
 130 mm / 5.25" midwoofer
 with coated paper cone
 13 mm / 0.51" Mylar tweeter
 Speaker grill included



Optional grill
GZTG 200T

GZTW 20TX

Subwoofer

High quality 200 mm / 8" subwoofer
 200 WRMS / 2 x 2 Ω
 39.4 Hz / Qts 0.54
 VAS 20.9 L / 0.74 ft³
 Coated paper cone
 Rubber surround
 1-Layer Polycot spider
 38 mm / 1.5" copper voice coil
 Solid steel basket



Optional grill
GZTG 250T

GZTW 25TX

Subwoofer

High quality 250 mm / 10" subwoofer
 300 WRMS / 2 x 2 Ω
 38.3 Hz / Qts 0.52
 VAS 28.2 L / 0.996 ft³
 Coated paper cone
 Rubber surround
 1-Layer Polycot spider
 50 mm / 2" copper voice coil
 Solid steel basket



Optional grill
GZTG 300T

GZTW 30TX

Subwoofer

High quality 300 mm / 12" subwoofer
 400 WRMS / 2 x 2 Ω
 33.7 Hz / Qts 0.53
 VAS 55.5 L / 1.96 ft³
 Coated paper cone
 Rubber surround
 1-Layer Polycot spider
 50 mm / 2" copper voice coil
 Solid steel basket



GZTB 2500BP

Enclosure

High quality loaded enclosure
 250 mm / 10" Woofer
 300 WRMS / 2 x 2 Ω
 Solid MDF wood
 12 & 22 Liter / 0.42 & 0.78 ft³
 4th order bandpass
 White LED illumination



GZTB 3000BP

Enclosure

High quality loaded enclosure
 300 mm / 12" Woofer
 400 WRMS / 2 x 2 Ω
 Solid MDF wood
 20 & 33 Liter / 0.71 & 1.17 ft³
 4th order bandpass
 White LED illumination



IRIDIUM entry level with many features and top performance

Representing the entry class of Ground Zero's product range, the IRIDIUM line-up offers a lot of useful features and top performance containing a variety of affordable products.

The brand new IRIDIUM speaker line-up includes a vast range of component and coaxial speaker systems.

While two 2-way component systems with the mostly requested diameters of 130 mm / 5.25" and 165 mm / 6.5" are available including a new high efficient soft dome tweeter, another two flat component systems with 100 mm / 4" and 165 mm / 6.5" feature an audiophile 19 mm / 0.75" silk dome tweeter. Furthermore, a range of 2-way coaxials in sizes of 100 mm / 4" to 165 mm / 6.5" as well as a 6 x 9" 3-way version and three ultra flat models with a diameter from 100 mm / 4" to 165 mm / 6.5" featuring a slightly reduced mounting depth compared to their predecessors are available including a newly developed panel containing a 13 mm / 0.51" Mylar soft dome tweeter. Moreover, for the large oval version, a 50 mm / 2" Mylar midrange has been applied additionally.

The midrange and all the tweeters are equipped with a PTC overload protection.

The IRIDIUM GZIW X subwoofers are available in three diameters from 200 mm / 8" to 300 mm / 12" and feature an IMPP cone in combination with a convex PP dust cap with embossed 3-D Ground Zero logo. Long lasting Polycot spiders with woven lead wires and high-power copper voice coils ensure a precise bass performance in various applications. These subwoofers are available in a variety of active and passive enclosures, starting with a single 200 mm / 8" version up to a massive double loaded 300 mm / 12" model. The active subwoofer enclosures offer RCA sockets, high-level inputs with auto-on, a crossover function and a phase inversion switch.

For two decades, Ground Zero is setting standards for SPL subwoofers in different product lines and on a wide price range.

For this reason it was self-evident to offer IRIDIUM SPL subwoofers, too. This target was put into practice by introducing the remarkable 300 mm / 12" sized GZIW 12SPL with an impressive SPL power handling of 1000 Watts.

To fulfill further demands, Ground Zero expanded the line by adding two models, a 250 mm / 10" and a huge 380 mm / 15" version.

While the IRIDIUM GZIW X and the GZIW SPL models share the efficiently ventilated and strong steel basket, all other components, especially the Klippel® optimized double-magnet system and soft parts like high-speed double layer Polycot and Conex spiders as well as an exclusively tooled high-roll multilayer V-shaped surround have been integrated to perform the highest SPL levels available in this price class.

The IRIDIUM SPL subwoofers feature high-power dual 2 Ohm voice coils with a diameter of 63 mm / 2.5" using a pure-copper wire on aluminum former for perfect heat absorption.

Additionally, the 300 mm / 12" SPL model is available as a single and double loaded vented SPL enclosure subwoofer made of high quality MDF featuring front bass tunnel, yellow painted protection steel bars and high quality bi-amping terminals.

The previously mentioned high-level auto-on function is one of the key features used for the IRIDIUM amplifier range.

The line-up contains a powerful mono amplifier providing up to 600 Watts, three different 2-channel models with a maximum power of 2x 235 Watts and a high quality symmetrical 4-channel version. All of them are equipped with solid black-anodized aluminum heat sinks with hairline brushed finish and partly embedded high-gloss black acrylic showing the Ground Zero logo.





GZIA 1.600HPX-B 1CH Amp

High quality mono amplifier
 230 / 400 / 600 W @ 4 / 2 / 1 Ω
 Lowpass / Bass Boost
 High-Level input with auto-on
 Bass remote control included

CLASS AB
HL

GZIA 2130HPX-B 2CH Amp

High quality amplifier
 2 x 85 / 130 @ 4 / 2 Ω
 Bridgemode 1 x 320 W Max @ 4 Ω
 Highpass / Lowpass
 High-Level input with auto-on
 Bass remote control optional

CLASS AB
HL



GZIA 4115HPX-II 4CH Amp

High quality amplifier
 4 x 70 / 115 @ 4 / 2 Ω
 Bridgemode 2 x 250 W Max @ 4 Ω
 Highpass / Lowpass
 High-Level input with auto-on

CLASS AB
HL

GZIA 2080HPX-II 2CH Amp

High quality amplifier
 2 x 60 / 80 @ 4 / 2 Ω
 Bridgemode 1 x 240 W Max @ 4 Ω
 Highpass / Lowpass
 High-Level input with auto-on

CLASS AB
HL

GZIA 2235HPX-II 2CH Amp

High quality amplifier
 2 x 150 / 235 @ 4 / 2 Ω
 Bridgemode 1 x 540 W Max @ 4 Ω
 Highpass / Lowpass
 High-Level input with auto-on
 Bass remote control optional

CLASS AB
HL



X-GZTA Bassremote

Optional bassremote
 for GZIA, GZTA, GZRA, GZHA and GZNA amps



GZIC 13X

Component

High quality 2 Way passive system
90 WRMS / 140 WMAX
Freq. response 60 – 20000 Hz
130 mm / 5.25" midwoofer
with HQPP cone
19 mm / 0.75" softdome tweeter
Compact inline crossover
Speaker grill included



GZIC 16X

Component

High quality 2 Way passive system
100 WRMS / 150 WMAX
Freq. response 50 – 20000 Hz
165 mm / 6.5" midwoofer
with HQPP cone
19 mm / 0.75" softdome tweeter
Compact inline crossover
Speaker grill included



GZIF 40X

Coaxial

High quality 2 Way coaxial
60 WRMS / 100 WMAX
Freq. response 80 – 20000 Hz
100 mm / 4" midwoofer
with HQPP cone
13 mm / 0.51" Mylar tweeter
Speaker grill included



GZIF 52X

Coaxial

High quality 2 Way coaxial
70 WRMS / 110 WMAX
Freq. response 60 – 20000 Hz
130 mm / 5.25" midwoofer
with HQPP cone
13 mm / 0.51" Mylar tweeter
Speaker grill included



GZIF 65X

Coaxial

High quality 2 Way coaxial
80 WRMS / 120 WMAX
Freq. response 50 – 20000 Hz
165 mm / 6.5" midwoofer
with HQPP cone
13 mm / 0.51" Mylar tweeter
Speaker grill included



GZIF 69X

Coaxial

High quality 3 Way coaxial
120 WRMS / 180 WMAX
Freq. response 40 – 20000 Hz
6 x 9" midwoofer
with HQPP cone
13 mm / 0.51" Mylar tweeter
50 mm / 2" Mylar midrange
Speaker grill included





GZIC 400FX

Component

Flat 2 Way passive system
60 WRMS / 100 WMAX
Freq. response 70 – 20000 Hz
100 mm / 4" midwoofer
with coated paper cone
Tweeter: GZHT 19X
Compact inline crossover
Speaker grill included



GZIC 650FX

Component

Flat 2 Way passive system
100 WRMS / 140 WMAX
Freq. response 50 – 20000 Hz
165 mm / 6.5" midwoofer
with coated paper cone
Tweeter: GZHT 19X
Compact inline crossover
Speaker grill included



GZIF 4001FX

Coaxial

Flat 2 Way coaxial
50 WRMS / 90 WMAX
Freq. response 80 – 20000 Hz
100 mm / 4" midwoofer
with coated paper cone
13 mm / 0.51" Mylar tweeter
Speaker grill included



GZIF 6501FX

Coaxial

Flat 2 Way coaxial
70 WRMS / 110 WMAX
Freq. response 60 – 20000 Hz
165 mm / 6.5" midwoofer
with coated paper cone
13 mm / 0.51" Mylar tweeter
Speaker grill included



GZIF 5201FX

Coaxial

Flat 2 Way coaxial
60 WRMS / 100 WMAX
Freq. response 70 – 20000 Hz
130 mm / 5.25" midwoofer
with coated paper cone
13 mm / 0.51" Mylar tweeter
Speaker grill included



GZHT 19X

Tweeter

High quality 19 mm / 0.75" tweeter
40 WRMS / 70 WMAX
3.5 – 20 kHz / FS: 1650 Hz
Coated silk dome
Ferofluid cooling



GZIW 200X

Subwoofer

High quality 200 mm / 8" subwoofer
 150 WRMS / 1 x 4 Ω
 38.4 Hz / Qts 0.48
 VAS 27 L / 0.95 ft³
 IMPP cone / Rubber surround
 1-Layer Polycot spider
 38 mm / 1.5" copper voice coil
 Solid steel basket



GZIW 250X

Subwoofer

High quality 250 mm / 10" subwoofer
 250 WRMS / 1 x 4 Ω
 30.1 Hz / Qts 0.44
 VAS 43.8 L / 1.55 ft³
 IMPP cone / Rubber surround
 1-Layer Polycot spider
 50 mm / 2" copper voice coil
 Solid steel basket



GZIW 300X

Subwoofer

High quality 300 mm / 12" subwoofer
 350 WRMS / 1 x 4 Ω
 34.9 Hz / Qts 0.69
 VAS 53.6 L / 1.89 ft³
 IMPP cone / Rubber surround
 1-Layer Polycot spider
 50 mm / 2" copper voice coil
 Solid steel basket

GZIW 165X (no image)

Subwoofer

High quality 165 mm / 6.5" subwoofer
 100 WRMS / 1 x 4 Ω
 44.9 Hz / Qts 0.45
 VAS 9.7 L / 0.34 ft³
 IMPP cone / Rubber surround
 1-Layer Polycot spider
 38 mm / 1.5" copper voice coil
 Solid steel basket



GZIW 10SPL

Subwoofer

High power 250 mm / 10" subwoofer
 700 WSPL / 2 x 2 Ω
 39 Hz / Qts 0.60
 VAS 25 L / 0.88 ft³
 Fiber reinforced paper cone
 V shape high roll foam surround
 2-Layer Polycot / Conex spider
 63 mm / 2.5" copper voice coil
 Solid steel basket



GZIW 12SPL

Subwoofer

High power 300 mm / 12" subwoofer
 1000 WSPL / 2 x 2 Ω
 36.9 Hz / Qts 0.67
 VAS 35.6 L / 1.257 ft³
 Fiber reinforced paper cone
 V shape high roll foam surround
 2-Layer Polycot / Conex spider
 63 mm / 2.5" copper voice coil
 Solid steel basket



GZIW 15SPL (no image)

Subwoofer

High power 380 mm / 15" subwoofer
 1200 WSPL / 2 x 2 Ω
 35 Hz / Qts 0.68
 VAS 60 L / 2.12 ft³
 Fiber reinforced paper cone
 V shape high roll foam surround
 2-Layer Polycot / Conex spider
 63 mm / 2.5" copper voice coil
 Solid steel basket



GZIB 2.3000SPL

Enclosure

High quality loaded enclosure
 Woofer: 2 x GZIW 12SPL
 2000 WSPL / 4 x 2 Ω
 Solid MDF wood
 82 Liter / 2.9 ft³ front bass tunnel



GZIB 3000SPL

Enclosure

High quality loaded enclosure
 Woofer: GZIW 12SPL
 1000 WSPL / 2 x 2 Ω
 Solid MDF wood
 45 Liter / 1.59 ft³ front bass tunnel





GZIB 165BR

Enclosure

High quality loaded enclosure
 Woofer: GZIW 165X
 100 WRMS / 1 x 4 Ω
 Solid composite MDF wood
 11 Liter / 0.39 ft³ front bass tunnel



GZIB 200BR

Enclosure

High quality loaded enclosure
 Woofer: GZIW 200X
 150 WRMS / 1 x 4 Ω
 Solid composite MDF wood
 17 Liter / 0.6 ft³ front bass tunnel



GZIB 300BR

Enclosure

High quality loaded enclosure
 300 mm / 12" Woofer
 350 WRMS / 1 x 4 Ω
 Solid composite MDF wood
 37 Liter / 1.31 ft³ front bass tunnel



GZIB 2.300BR

Enclosure

High quality loaded enclosure
 2 x 300 mm / 12" Woofer
 700 WRMS / 2 x 2 Ω
 Solid composite MDF wood
 70 Liter / 2.47 ft³ front bass tunnel



GZIB 80PT

Enclosure

High quality loaded enclosure
 Woofer: GZIW 200X
 150 WRMS / 1 x 4 Ω
 Solid composite tube
 17 Liter / 0.6 ft³ vented



GZIB 165BR-ACT

Active Woofer

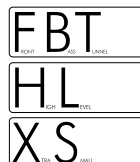
High quality active woofer
 Woofer: GZIW 165X
 80 WRMS / 150 WMAX
 Lowpass / Phaseshift
 Solid composite MDF wood
 11 Liter / 0.39 ft³ front bass tunnel
 High-Level input with auto-on



GZIB 200BR-ACT

Active Woofer

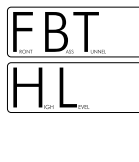
High quality active woofer
 Woofer: GZIW 200X
 100 WRMS / 200 WMAX
 Lowpass / Phaseshift
 Solid composite MDF wood
 17 Liter / 0.6 ft³ front bass tunnel
 High-Level input with auto-on



GZIB 300BR-ACT

Active Woofer

High quality active woofer
 300 mm / 12" Woofer
 150 WRMS / 300 WMAX
 Lowpass / Phaseshift
 Solid composite MDF wood
 37 Liter / 1.31 ft³ front bass tunnel
 High-Level input with auto-on



COMPETITION superior sound quality and SPL level for real stage atmosphere

Designed to perform highly professional SPL levels, the COMPETITION line contains a wide range of specialized speakers and drivers.

For the best high frequency reproduction, six different high-efficient far-field compression tweeters are available offering a variety of possibilities. Apart from these massive aluminum horn drivers, Ground Zero offers three rectangular models having an extreme wide-angle dispersion of 90° by 60° meeting almost every application target.

Heavy duty midrange drivers are available up to a size of 250 mm / 10", using a lightweight pressed paper cone combined with stiff spiders and surrounds made of cotton for outstanding high-power handling and stability.

The two 300 mm / 12" hard-bass woofers with high-power copper-wire voice coils are optimized for free-air application as well as horn or vented installations. Based on an optimized lightweight pressed paper cone, they are even suitable for a wide-band use up to 3 KHz.

Apart from that, the COMPETITION line-up also includes some high tech fullrange speakers, such as an extra flat high-efficient 2-way coaxial speaker with integrated high-power compression tweeter.

Furthermore, two unique 200 mm / 8" SPL models, "Made in Italy", are available for extremely loud applications on highest sound quality level, one special dual cone construction and one High-Fidelity coaxial speaker with 32 mm / 1.26" silk dome tweeter.

Another remarkable recently introduced fullrange COMPETITION driver is the 7x10" model GZCF 7104XSPL.

Ultra high efficient and capable of handling up to 300 Watts of power input, the 4-way coaxial speaker with its pressed paper cone woofer and ferrofluid cooled 50 mm / 2" midrange, a PEI soft-dome tweeter as well as a piezoelectric super tweeter, each PTC overload protected, is predestined for every kind of high power application.

Additionally, Ground Zero offers the brand new GZCF 710POWER for ultimate SPL levels featuring a huge 50 mm / 2" voice coil handling up to 400 Watts of power input, a 25 mm / 1" tweeter as well as a 19 mm / 0.75" supertweeter with aluminum dome and PTC protection and external 12 dB/Octave crossovers.





GZCT 0500X

Tweeter

High power compression tweeter
 30 WRMS / 100 WMAX
 4 – 25 kHz / SPL 102 dB
 Dispersion 30°
 Aluminum dome
 25 mm / 1" CCAR voice coil
 Aluminum cast housing
 Neodymium magnet



GZCT 3500X-S / -B

Tweeter

High power compression tweeter
 30 WRMS / 100 WMAX
 3 – 25 kHz / SPL 99 dB
 Dispersion 40°
 Aluminum dome
 25 mm / 1" CCAW voice coil
 Aluminum cast housing
 GZCT 3500X-S
 Silver version
 GZCT 3500X-B
 Black version



GZCT 1800X

Tweeter

High power compression tweeter
 30 WRMS / 100 WMAX
 5 – 20 kHz / SPL 102 dB
 Dispersion 40°
 Aluminum dome
 25 mm / 1" CCAR voice coil
 Plastic injection housing



GZCT 2000X

Tweeter

High power compression tweeter
 30 WRMS / 100 WMAX
 3 – 25 kHz / SPL 100 dB
 Dispersion 40°
 Aluminum dome
 25 mm / 1" CCAW voice coil
 Aluminum cast housing



GZCT 2200X

Tweeter

High power compression tweeter
 40 WRMS / 120 WMAX
 4 – 25 kHz / SPL 105 dB
 Dispersion 40°
 Aluminum dome
 38 mm / 1.5" CCAR voice coil
 Aluminum cast housing



GZCT 4000X

Tweeter

High power compression tweeter
 50 WRMS / 140 WMAX
 2.5 – 20 kHz / SPL 103 dB
 Dispersion 90° x 60°
 Aluminum dome
 44.5 mm / 1.75" CCAW voice coil
 Aluminum cast housing



GZCT 5000SPL/-B

Tweeter

High power compression tweeter
 70 WRMS / 180 WMAX
 2.5 – 20 kHz / SPL 108 dB
 Dispersion 90° x 60°
 Titanium dome
 44.5 mm / 1.75" CCAW voice coil
 Elliptical tractrix horn
 GZCT 5000SPL
 Yellow version
 GZCT 5000SPL-B
 Black version





GZCM 6-4PPX

Midrange

High power 170 mm / 6.69" midrange
 150 WRMS / 400 WMAX
 150 – 10000 Hz / SPL 95 dB
 Fiber reinforced paper cone
 Aluminum phaseplug
 50 mm / 2" voice coil
 Aluminum cast basket
 Speaker grill included



GZCM 8-4PPX

Midrange

High power 200 mm / 8" midrange
 200 WRMS / 500 WMAX
 150 – 10000 Hz / SPL 96 dB
 Fiber reinforced paper cone
 Aluminum phaseplug
 50 mm / 2" voice coil
 Aluminum cast basket
 Speaker grill included



GZCM 10-4PPX

Midrange

High power 250 mm / 10" midrange
 300 WRMS / 600 WMAX
 120 – 5000 Hz / SPL 96 dB
 Fiber reinforced paper cone
 Aluminum phaseplug
 75 mm / 3" voice coil
 Aluminum cast basket
 Speaker grill included



GZCM 6-4FX

Midrange

Flat 165 mm / 6.5" midrange
 100 WRMS / 300 WMAX
 200 – 5000 Hz / SPL 94 dB
 Fiber reinforced paper cone
 38 mm / 1.5" voice coil
 Speaker grill included



GZCM 8-4FX

Midrange

Flat 200 mm / 8" midrange
 100 WRMS / 400 WMAX
 150 – 4000 Hz / SPL 94 dB
 Fiber reinforced paper cone
 38 mm / 1.5" voice coil
 Speaker grill included



GZCM 10-4FX

Midrange

Flat 250 mm / 10" midrange
 200 WRMS / 500 WMAX
 120 – 5000 Hz / SPL 96 dB
 Fiber reinforced paper cone
 50 mm / 2" voice coil
 Speaker grill included



GZCK 165SPL

Midwoofer

High power 165 mm / 6.5" midwoofer
 100 WRMS / 250 WMAX
 50 – 4000 Hz / SPL 93 dB
 Fiber reinforced paper cone
 High roll w-surround
 38 mm / 1.5" voice coil
 Speaker grill included



GZCK 200SPL

Midwoofer

High power 200 mm / 8" midwoofer
 150 WRMS / 300 WMAX
 50 – 6000 Hz / SPL 93 dB
 Fiber reinforced paper cone
 High roll w-surround
 38 mm / 1.5" voice coil
 Speaker grill included



GZCX 130/160

Crossover

Universal 2-Way crossover
 To combine all GZCM/GZCK with GZCT



GZCF 710POWER

Coaxial

High power 3 Way coaxial
300 WRMS / 400 WMAX
50 – 30000 Hz / SPL 94 dB
7 x 10" midwoofer with paper cone
50 mm / 2" copper voice coil
19 mm / 0.75" Aluminum super tweeter
25 mm / 1" Aluminum tweeter
External 12 dB crossover
Speaker grill included
6 x 9" adapter included



GZCF 7104XSPL

Coaxial

High power 4 Way coaxial
220 WRMS / 300 WMAX
35 – 25000 Hz / SPL 93 dB
7 x 10" midwoofer
with water repellent paper cone
13 mm / 0.51" Piezo super tweeter
13 mm / 0.51" PEI tweeter
50 mm / 2" Paper cone midrange
Speaker grill included
6 x 9" adapter included



GZCF 8-4SPL

Fullrange

High power 200 mm / 8" fullrange
300 WRMS / 600 WMAX
100 – 15000 Hz / SPL 92
Coated paper dual cone
Black aluminum dustcap
50 mm / 2" voice coil
Aluminum cast basket
Handmade in Europe
Optional grill GZCG 20SC



GZCF 165COAX

Coaxial

High power 2 Way coaxial
165 mm / 6.5" midrange
125 WRMS / 200 WMAX
180 – 3500 Hz / SPL 97 dB
Compression tweeter
35 mm / 1.38" PEN-dome
25 WRMS / 100 WMAX
3.5 – 25 kHz / SPL 100 dB
6 dB crossover included
Speaker grill included



GZCF 200COAX

Coaxial

High power 2 Way coaxial
200 mm / 8" midrange
150 WRMS / 250 WMAX
150 – 3000 Hz / SPL 98 dB
Compression tweeter
44.5 mm / 1.75" Titanium dome
50 WRMS / 150 WMAX
3 – 25 kHz / SPL 100 dB
6 dB crossover included
Speaker grill included



GZCF 8-4COAX-SPL

Coaxial

High power 2 Way coaxial
200 mm / 8" midwoofer
150 WRMS / 300 WMAX
90 – 2500 Hz / SPL 93 dB
32 mm / 1.26" silk dome tweeter
50 WRMS / 100 WMAX
2.5 – 26 kHz / SPL 93 dB
Handmade in Europe
Optional grill GZCG 20SC



GZCX 8-4COAX-SPL

Crossover

High power 2 Way crossover set
Cutoff 2500 Hz
For GZCF 8-4COAX-SPL



GZCW 12-50

Midwoofer

High power 300 mm / 12" midwoofer
300 WRMS / 600 WMAX
50 – 3000 Hz / SPL 96 dB
Coated paper cone
High roll w-surround
50 mm / 2" voice coil
Optimized for free-air, horn,
vented and sealed applications



GZCW 12-75SPL

Midwoofer

High power 300 mm / 12" midwoofer
300 WRMS / 600 WMAX
50 – 3000 Hz / SPL 96 dB
Coated paper cone
High roll w-surround
75 mm / 3" voice coil
Optimized for free-air, horn,
vented and sealed applications



CAR SPECIFIC easy to install sound upgrade solutions

Ground Zero's line of CAR SPECIFIC solutions consists of various components designed for upgrading the OEM audio systems of modern cars easily.

The dedicated speaker kits for BMW vehicles introduce a whole line of upcoming "Plug and Play" speaker solutions, ready to be installed without complications by replacing the manufacturer's standard equipment. They are available as an active or passive 200 mm / 8" sized 2-way component speaker system with the necessary installation brackets as well as a high-power active set, including the ultra flat GZRW 8FL midwoofer fitting to the BMW brackets, too.

Fulfilling the customers desire for lower frequency response, compact bass upgrades - Ground Zero's GZUB aluminum cast active subwoofers - are available in sizes of 160 mm / 6" up to 250 mm / 10" as well as an entry level 200 mm / 8" plastic-injection mold housing GZTB model. Each of these active under-seat subwoofers comes with very flat housing, enabling the installer to find a place even in the most limited space. With the integrated high-level inputs in addition to RCA inputs and a high-level auto-on function they can be connected easily. For comfortable volume control from the driver's position, each of the active subwoofers includes a remote control.

As most of the OEM head units lack sufficient amplifier power and therefore, deliver a disappointing sound performance, a "Plug and Play" 4-channel ISO amplifier was developed providing 70 Watts per channel or even 180 Watts in 3-channel bridged mode, enough to run a full speaker system.

For even more extended audio upgrades and aftermarket head units, Ground Zero offers its unique pre-amplifier GZEQ 4.7X providing up to 7 Volts of RCA output and a wide range of adjustable filters as well as the option to connect additional signal sources such as mobile phones or mp3 players. Due to the half-DIN housing, it can be mounted easily in the dash board.

GZ BMW Kit - Passive (2CH)

Passive 3 Way BMW system
Optimized for 2 channel amplifier
Fit for all E- and F-Series
Consists of:
2 x GZMW 200X-NEO
Flat 200 mm / 8" midwoofer
1 x GZIC 400FX
Flat 2 Way passive system
1 x GZRX 2-Way Kick
Kickwoofer crossover
1 x GZBR 200BMW
BMW underseat adapter



GZ BMW Kit - Active (4CH)

Active 3 Way BMW system
Optimized for 4 channel amplifier
Fit for all E- and F-Series
Consists of:
2 x GZMW 200X-NEO
Flat 200 mm / 8" midwoofer
1 x GZIC 400FX
Flat 2 Way passive system
1 x GZBR 200BMW
BMW underseat adapter



GZ BMW POWER Kit - Active (4CH)

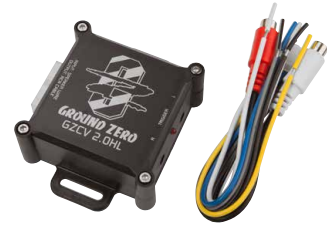
Active high power 3 Way BMW system
Optimized for 4 channel amplifier
Fit for BMW E- and F-Series
Consists of:
2 x GZRW 8FL
Flat 200 mm / 8" woofer
1 x GZIC 400FX
Flat 2 Way passive system
1 x GZBR 200BMW
BMW underseat adapter





GZEQ 4.7X Pre-amp

High quality pre-amplifier
 4-band equalizer -16 > +16 dB
 Freq. response: 5 Hz – 30 kHz
 Input sensitivity: 50 mV – 3 VRMS
 Output voltage: 7 VRMS
 6 Channel output front / rear / sub
 Adjustable LPF: 50 – 250 Hz



GZCV 2.0HL HL-Converter

Active high to low converter
 12 V Remote out



GZTB 20ACT Active Woofer

Flat active woofer
 200 mm / 8" woofer
 100 WRMS / 160 WMAX
 Plastic injection enclosure
 Extremely flat design
 High-Level input with auto-on
 Remote control included



GZUB 600XACTII Active Woofer

Flat active woofer
 160 mm / 6" woofer
 100 WRMS / 160 WMAX
 Aluminum cast enclosure
 Extremely flat design
 High-Level input with auto-on
 Remote control included



GZUB 800XACTII Active Woofer

Flat active woofer
 200 mm / 8" woofer
 120 WRMS / 180 WMAX
 Aluminum cast enclosure
 Extremely flat design
 High-Level input with auto-on
 Remote control included



GZUB 1000XACTII Active Woofer

Flat active woofer
 250 mm / 10" woofer
 150 WRMS / 210 WMAX
 Aluminum cast enclosure
 Extremely flat design
 High-Level input with auto-on
 Remote control included



Unfortunately in-car environments offer adverse conditions and installation positions for speakers. However, inaccurate audio reproduction can be corrected using digital technologies.

Exactly for this purpose, Ground Zero's product line-up contains the GZDSP 6-8X digital sound processor. Its wide range of functions can be adjusted with a computer in real-time. Thanks to the variety of connection options, it is possible to integrate the unit to any kind of OEM or aftermarket system and upgrade the sound quality to a level satisfying even ambitious expectations.

The GZDSP 6-8X appears in a noble heatsink of massive black anodized aluminum cast with high-grade gold-plated input and output Tiffany-style RCA sockets and offers a six-channel RCA input as well as high-level speaker inputs.

If necessary, a full-range audio signal can be generated by summing several OEM active crossover-divided frequency ranges.

Thanks to the auto-on function in high-level input mode, no separate remote wire is required.

Additional audio sources such as MP3 players or iPods can be connected directly to the 3.5 mm / 1/8" jack.

Even optical SP/DIF signals are applicable using the integrated TOSLINK connector.

In order to create any kind of input and output configuration, the channel matrix is variously adjustable.

Therefore, almost every desired speaker combination can be put into practice such as 3-way full-active front systems with single subwoofer or a passive front system with a pair of active kickwoofers and additional subwoofers.

The input mode is selectable using the optional remote control unit GZDSP Remote. More than that, the main volume level is adjustable and one of up to 10 previously saved individual presets can be chosen and will be shown on the white illuminated display.

Without the remote unit, only the main input will be active and one software selected preset.

Preset and setup adjustments are made using the included PC software. After connecting the GZDSP 6-8X to a computer, each channel can be adjusted in real-time by an easy to use graphical interface in order to achieve perfect audio results, including a 31-band equalizer with variable filter-quality, a high-/low-/band-pass crossover with slopes of up to 48 dB/Octave and a precisely adjustable 8-channel time alignment function with selectable distance or time scale.

Additionally to the GZDSP 6-8X, Ground Zero offers a 4- and a 6- channel amplifier with all of the mentioned DSP features and adjustable using the same easy to handle PC software. A mono channel amplifier completes the line-up with identical, flat heatsink design. While the 4-channel version GZUA 4.80DSP provides 90 Watts per channel at 4 Ohm or 150 Watts at 2 Ohm load and offers a 4-channel pre-amp output to connect additional amplifiers.

The 6-channel amplifier GZUA 6.120DSP delivers 60/100 Watts at 4/2 Ohm on four channels as well as 120/200 Watts at 4/2 Ohm on channels 5 & 6, while still one pair of pre-amp outputs for is offered. These could be connected to the perfectly matching mono amplifier providing up to 600 Watts at 1 Ohm and able to run even high demanding subwoofers.



GZDSP 6-8X

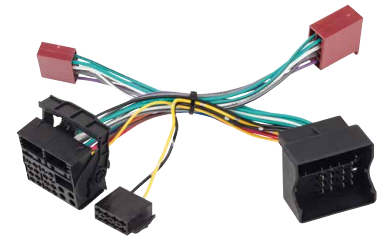
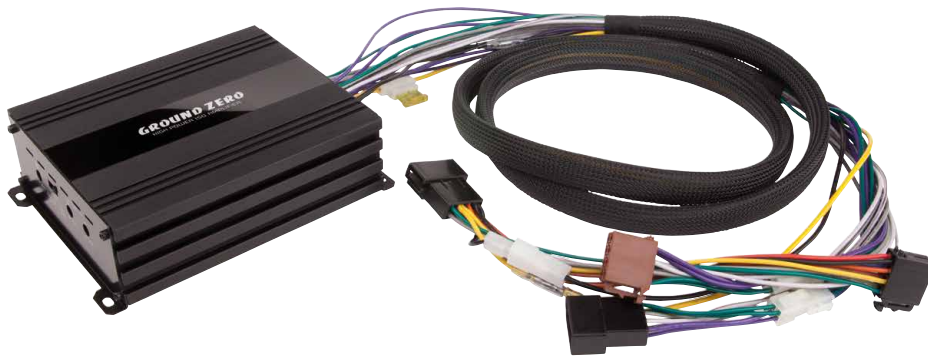
High quality 6 to 8 digital sound processor
 Cirrus Logic Single Core 32 bit, 8-Channel, 192 kHz
 Main in: 6 x RCA / 6 x High-Level input with auto-on
 Aux in: 3.5 mm (1/8") stereo jack
 Digital in: TOSLINK optical 12 ~ 96 kHz stereo
 Output: 8 x RCA
 10 presets individually programmable
 Dimension: 96 x 39 x 185 mm / 3.78" x 1.54" x 7.28"
 Crossover: BPF / LPF / HPF Butterworth 20 - 20000 Hz
 Slope: 6 / 12 / 18 / 24 / 30 / 36 / 42 / 48 dB/Okt.
 Time alignment: 0 - 15 ms / 0 - 510 cm each channel
 EQ: 6 x 31 band for output A - F (20 - 20000 Hz), -18 ~ 12dB, Q 0.5 - 9
 2 x 11 band for output G&H (20 - 200 Hz), -18 ~ 12dB, Q 0.5 - 9
 Optional remote control (GZDSP Remote) with LED-Display
 for master-volume, preset and input-mode selection

8CH DSP



GZDSP Remote

Remote control for GZDSP 6-8X / GZUA 4.80DSP / GZUA 6.120DSP
 Black brushed aluminum front
 White LED display
 Input selection
 Master volume control
 Sub volume control
 10 preset selection
 Cable included



GZCS 4.60ISO

4CH Amp

High quality upgrade amplifier
 4 x 70 / 90 @ 4 / 2 Ω
 3CH Mode 2 x 70 + 1 x 180 W @ 4Ωm
 Highpass / Lowpass
 Including 2 m / 6.56 ft cable harness
 with ISO adaption

CLASS AB

P N P

X S

GZCS ISO Quadlock

Quadlock (Fakra) adapter for
 VW / Audi / BMW / Mercedes / etc.
 until 2013

GZCS ISO Quadlock II

Quadlock II (Fakra II) adapter for
 VW / Audi / BMW / Mercedes / etc.
 from 2013 on



Optional



Optional

GZUA 4.80DSP

4CH Amp

High quality DSP amplifier
 4 x 90 / 150 @ 4 / 2 Ω
 Bridgemode 2 x 350 W @ 4 Ω
 Integrated 8 Channel DSP
 2x Stereo output
 High-Level input with auto-on
 GZDSP Remote optional

CLASS D

DSP

X S

GZUA 6.120DSP

6CH Amp

High quality DSP amplifier
 4 x 60 + 2 x 120 W @ 4 Ω
 4 x 100 + 2 x 200 W @ 2 Ω
 Integrated 8 Channel DSP
 1x Stereo output
 High-Level input with auto-on
 GZDSP Remote optional

CLASS D

DSP

X S

GZUA 1.600D (no image)

1CH Amp

High quality mono amplifier
 200 / 360 / 600 W @ 4 / 2 / 1 Ω
 Subsonic / Lowpass
 Phaseshift / Bass Boost

CLASS D

X S



DAMPING MATERIAL

Listening to favorite music is most enjoyable if there is no disturbing noise around. Unfortunately, in-car environments consist of a wide range of materials causing a lot of annoying noises. Especially large scaled body parts tend to vibrate and affect the audio reproduction of the car speakers in a negative way.

To avoid deep frequency vibrating noises, most of the surfaces, panels and coverings should be treated with additional noise damping materials. Ground Zero offers a wide range of particular damping products "Made in Russia" to eliminate sound impairing issues offering high efficient noise proofing.

They reduce vibration, increase bass response as well as dynamics and ensure a precise audio reproduction.

A properly damped interior will be even much quieter by reducing driving noises caused by engine and tires.

Finally, the damping effect will bring a clear, undisturbed and powerful sound to your car...no vibration, just sound!

((NO VIBRATION - JUST SOUND))



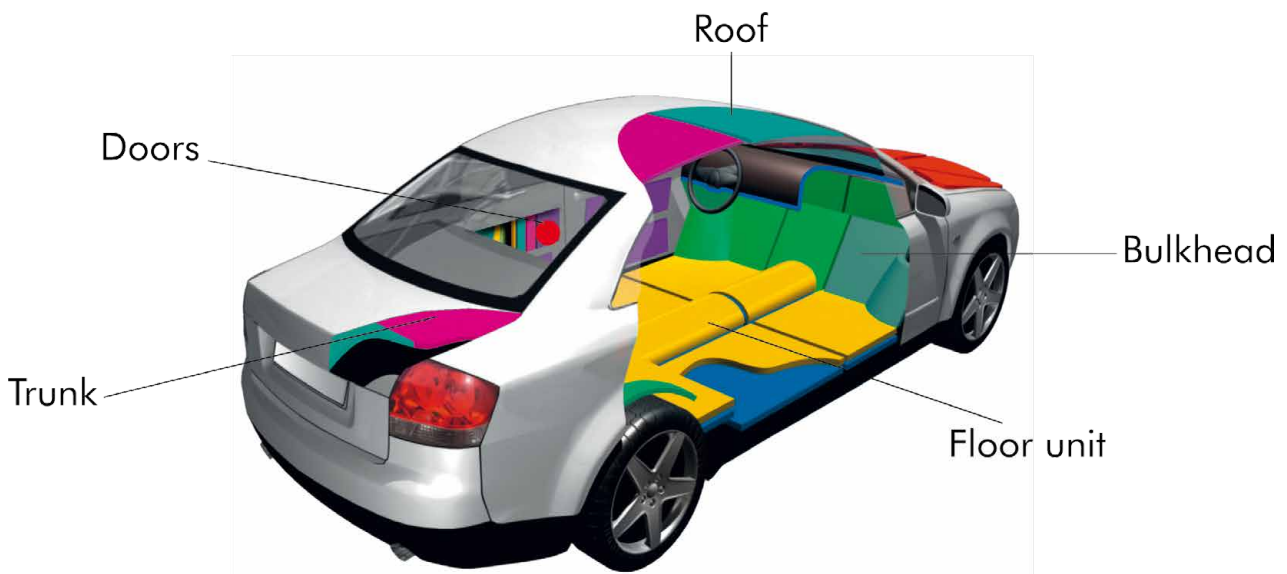
Stop
Vibration



Higher Acoustic
Performances



Insulate
Heat





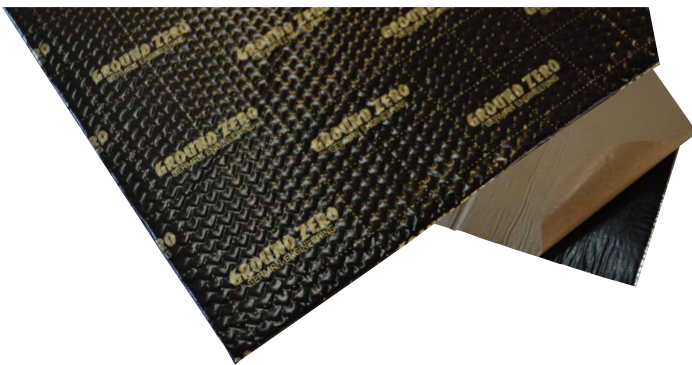
GZDM 1900ML-GOLD Vibration damping

Self adhesive high efficient multi layer damping material
 One layer of bitumen mastic
 One layer of polymer based butyl rubber
 Aluminum foil as outer surface
 Application on body parts, doors and panels
 Very high mechanical loss factor
 Total thickness: 4,2 mm / 0.165"
 Size per sheet: 375 mm x 500 mm / 14.76" x 19.69"
 Package content: 10 sheets



GZDM 1900MC-GOLD All-in-one damping

Self adhesive multi component damping material
 One layer of viscous elastic polyurethane foam
 One layer of polymer based butyl rubber
 Aluminum foil as substrate
 Application on body parts, doors, panels and coverings
 Noise absorption: -85%
 Total thickness: 7 mm / 0.28"
 Size per sheet: 375 mm x 500 mm / 14.76" x 19.69"
 Package content: 10 sheets



GZDM 3750AB-GOLD Vibration damping

Self adhesive high efficient single layer damping material
 One layer of polymer based butyl rubber
 Aluminum foil as outer surface
 Application on body parts, doors and panels
 High mechanical loss factor
 Very flexible and waterproof
 Total thickness: 2,2 mm / 0.087"
 Size per sheet: 750 mm x 500 mm / 29.53" x 19.69"
 Package content: 10 sheets



GZDM 3750AB-SILVER Vibration damping

Self adhesive lightweight single layer damping material
 One layer of polymer based butyl rubber
 Aluminum foil as outer surface
 Application on body parts, doors and panels
 High mechanical loss factor
 Very flexible and waterproof
 Total thickness: 1,7 mm / 0.067"
 Size per sheet: 750 mm x 500 mm / 29.53" x 19.69"
 Package content: 10 sheets



GZDF 300-G Sound absorber

Self adhesive viscous elastic polyurethane foam
 Application on doors and roof panels and coverings
 Noise absorption: -85%
 Total thickness: 10 mm / 0.394"
 Size per sheet: 1000 mm x 500 mm / 39.37" x 19.69"
 Package content: 3 sheets



GZDR 1000

Heavy duty damping roller



GZPC 20B OFC / 20Y OFC

Power cable spool
20 mm² / 4 AWG
Flexible pure OFC wire
Strands: 60*12+59*7/0.15OFC
OD 10 mm / 0.39"
Cable length: 30 m / 98.43 ft



GZPC 35B OFC / 35Y OFC

Power cable spool
35 mm² / 2 AWG
Flexible pure OFC wire
Strands: 35*3*12+34*3*7/0.15OFC
OD 12.8 mm / 0.5"
Cable length: 30 m / 98.43 ft



GZPC 50B OFC / 50Y OFC

Power cable spool
50 mm² / 0 AWG
Flexible pure OFC wire
Strands: 50*3*12+49*3*7/0.15OFC
OD 15.5 mm / 0.61"
Cable length: 15 m / 49.21 ft



GZPC 10B / 10R

Power cable spool
10 mm² / 7 AWG
Flexible CCA wire with 30% copper
Strands: 7*81/0.15CCA
OD 6.7 mm / 0.26"
Cable length: 50 m / 164.04 ft



GZPC 20B / 20R

Power cable spool
20 mm² / 4 AWG
Flexible CCA wire with 30% copper
Strands: 7*7*23/0.15CCA
OD 10 mm / 0.39"
Cable length: 50 m / 164.04 ft



GZPC 35B / 35R

Power cable spool
35 mm² / 2 AWG
Flexible CCA wire with 30% copper
Strands: 7*7*40/0.15CCA
OD 12.8 mm / 0.5"
Cable length: 30 m / 98.43 ft



GZPC 50B / 50R

Power cable spool
50 mm² / 0 AWG
Flexible CCA wire with 30% copper
Strands: 7*7*58/0.15CCA
OD 15.5 mm / 0.61"
Cable length: 20 m / 65.62 ft



GZSC 2-0.75

Speaker cable spool
2 x 0.75 mm² / 18 AWG
Flexible CCA wire with 30% copper
Strands: 2*42/0.15CCA
OD 2.4 + 2.4 mm / .094" + .094"
Cable length: 200 m / 656.17 ft



GZSC 2-1.50

Speaker cable spool
2 x 1.50 mm² / 15 AWG
Flexible CCA wire with 30% copper
Strands: 2*85/0.15CCA
OD 3 + 3 mm / 0.12" + 0.12"
Cable length: 200 m / 656.17 ft



GZSC 2-2.50

Speaker cable spool
2 x 2.50 mm² / 13 AWG
Flexible CCA wire with 30% copper
Strands: 2*7*20/0.15CCA
OD 4.2 + 4.2 mm / 0.17" + 0.17"
Cable length: 200 m / 656.17 ft



GZSC 2-4.00

Speaker cable spool
2 x 4.00 mm² / 11 AWG
Flexible CCA wire with 30% copper
Strands: 2*7*32/0.15CCA
OD 5 + 5 mm / 0.2" + 0.2"
Cable length: 200 m / 328.08 ft



GZCC 5.3X

High quality RCA cable
5 m / 16.4 ft triple shielded
Including remote wire



GZCC 5.1XLC

High quality twisted RCA cable
5 m / 16.4 ft single shielded



GZCY 30X

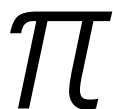
High quality Y-adapter
1 x female / 2 x male



GZCC X-TP

Triple shielded, twisted RCA cable
Gold plated brass RCA connectors
Black & yellow snake skin
High quality blister packaging

- GZCC 0.57X-TP
0.57 m / 1.87 ft
- GZCC 1.14X-TP
1.14 m / 3.74 ft
- GZCC 3.14X-TP
3.14 m / 10.3 ft
- GZCC 5.49X-TP
5.49 m / 18.01 ft



A perfect harmonically audio-bionic connection of the single components is created by homogeneously derived cable lengths from the circle constant π





GZPK 50X

50 mm² / 0 AWG power kit
 High quality CCA with 30% copper
 5 m / 16.4 ft triple shielded RCA cable
 including remote wire
 5.2 m / 17.06 ft power cable red
 0.8 m / 2.62 ft ground cable black
 ANL fuseholder incl. 300 A fuse
 including accessories and connectors

GZPK 35X

35 mm² / 2 AWG power kit
 High quality CCA with 30% copper
 5 m / 16.4 ft triple shielded RCA cable
 including remote wire
 5.2 m / 17.06 ft power cable red
 0.8 m / 2.62 ft ground cable black
 ANL fuseholder incl. 200 A fuse
 including accessories and connectors



GZPK 20X

20 mm² / 4 AWG power kit
 High quality CCA with 30% copper
 5 m / 16.4 ft triple shielded RCA cable
 including remote wire
 5.2 m / 17.06 ft power cable red
 0.8 m / 2.62 ft ground cable black
 Mini ANL fuseholder incl. 80 A fuse
 including accessories and connectors

GZPK 10X

10 mm² / 7 AWG power kit
 High quality CCA with 30% copper
 5 m / 16.4 ft triple shielded RCA cable
 including remote wire
 5.2 m / 17.06 ft power cable red
 0.8 m / 2.62 ft ground cable black
 Mini ANL fuseholder incl. 60 A fuse
 including accessories and connectors



GZPK 10XLC

10 mm² / 7 AWG power kit
 High quality CCA with 30% copper
 5 m / 16.4 ft twisted RCA cable
 5 m remote wire
 5.2 m / 17.06 ft power cable red
 0.8 m / 2.62 ft ground cable black
 Mini ANL fuseholder incl. 60 A fuse
 including accessories and connectors





GZTC 1.0FX

1.0 Farad Power Cap
16 V / 20 V Surge
Voltmeter with white illumination
Including mounting bracket



GZHC 2.0FX

2.0 Farad Power Cap
16 V / 20 V Surge
Voltmeter with white illumination
Including mounting bracket



GZPC 12.0FX

12.0 Farad Power Cap
16 V / 20 V Surge
Voltmeter with white illumination
Including mounting bracket



GZFH 1.50/1.50 ANL/MANL



GZFH 1.50/2.20 ANL/MANL



GZBT 2.50 MANL-POS



GZBT 2.50 NEG



GZDB 3.50/4.20



GZFH 3.50/4.20 ANL/MANL



GZFH 1.20/1.20 MANL



GZFH 1.20 IL-MANL

Model	Type	Input	Output
GZFH 1.50/1.50 ANL/MANL	ANL/MANL fuseholder	1 x 50 mm ² / 0 AWG	1 x 50 mm ² / 0 AWG
GZFH 1.50/2.20 ANL/MANL	ANL/MANL fuseholder	1 x 50 mm ² / 0 AWG	2 x 20 mm ² / 4 AWG
GZFH 1.20/1.20 MANL	MANL fuseholder	1 x 20 mm ² / 4 AWG	1 x 20 mm ² / 4 AWG
GZFH 1.20 IL-MANL	MANL fuseholder	1 x 20 mm ² / 4 AWG	1 x 20 mm ² / 4 AWG
GZFH 3.50/4.20 ANL/MANL	ANL/MANL fuseholder	3 x 50 mm ² / 0 AWG	4 x 20 mm ² / 4 AWG
GZBT 2.50 MANL-POS	Battery terminal + (with MANL fuse)	-	1 x 50 mm ² / 0 AWG direct (1 x 50 mm ² / 0 AWG fused with MANL)
GZBT 2.50 NEG	Battery terminal -	-	2 x 50 mm ² / 0 AWG
GZDB 3.50/4.20	Distribution block	3 x 50 mm ² / 0 AWG	4 x 20 mm ² / 4 AWG

Model	Ampere	QTY
GZFU 100A / 1 ANL	100	1 in blister
GZFU 100A / 10 ANL	100	10 in polybag
GZFU 150A / 1 ANL	150	1 in blister
GZFU 150A / 10 ANL	150	10 in polybag
GZFU 200A / 1 ANL	200	1 in blister
GZFU 200A / 10 ANL	200	10 in polybag
GZFU 300A / 1 ANL	300	1 in blister
GZFU 300A / 10 ANL	300	10 in polybag
GZFU 400A / 1 ANL-SPL	400	1 in blister
GZFU 400A / 10 ANL-SPL	400	10 in polybag



Model	Ampere	QTY
GZFU 40A / 2 MANL	40	2 in blister
GZFU 40A / 10 MANL	40	10 in polybag
GZFU 60A / 2 MANL	60	2 in blister
GZFU 60A / 10 MANL	60	10 in polybag
GZFU 80A / 2 MANL	80	2 in blister
GZFU 80A / 10 MANL	80	10 in polybag
GZFU 100A / 2 MANL	100	2 in blister
GZFU 100A / 10 MANL	100	10 in polybag
GZFU 150A / 2 MANL	150	2 in blister
GZFU 150A / 10 MANL	150	10 in polybag
GZFU 200A / 2 MANL	200	2 in blister
GZFU 200A / 10 MANL	200	10 in polybag





GZTG 200T

200 mm / 8" Protection grill
ABS plastic injection



GZTG 250T

250 mm / 10" Protection grill
ABS plastic injection



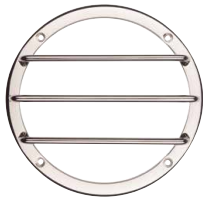
GZTG 300T

300 mm / 12" Protection grill
ABS plastic injection



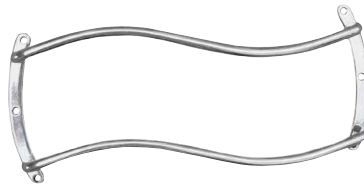
GZTG 380T

380 mm / 15" Protection grill
ABS plastic injection



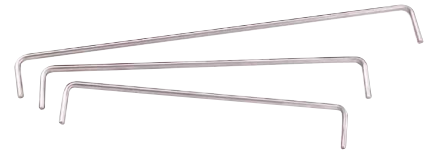
GZMG 165/6.5

165 mm / 6.5" Protection grill
Black chrome steel
For all 165 mm / 6.5" speakers



GZMG

Chrome woofer/speaker protection
GZMG 20/8 (for 200 mm / 8" speaker)
GZMG 25/10 (for 250 mm / 10" speaker)
GZMG 30/12 (for 300 mm / 12" speaker)
GZMG 38/15 (for 380 mm / 15" speaker)



GZBRK

Woofer protection bar
GZBRK 290 (290 mm / 11.42")
GZBRK 340 (340 mm / 13.39")
GZBRK 425 (425 mm / 16.73")



GZBR 200BMW

Upgrade adapter for all BMW E- and F-series
Compatible with
GZMW 200X-NEO and GZRW 8FL



GZCG 20SC

200 mm / 8" Protection mesh grill
For GZCM / GZCW / GZCF 8-4SPL /
GZCF 8-4Coax-SPL



X-GZRW 8FL Grill

200 mm / 8" Protection mesh grill
For GZCM / GZCW / GZCF 8-4SPL /
GZCF 8-4Coax-SPL / GZRW 8FL /
GZMW 200X-NEO



GZAP 80Y

Yellow airflow optimized ABS plastic port
with \varnothing 80 mm / 3.15" and
400 mm / 15.85" port length



GZAP 80B

Black airflow optimized ABS plastic port
with \varnothing 80 mm / 3.15" and
400 mm / 15.85" port length



GZAP 80A

Anthracite airflow optimized ABS plastic port
with \varnothing 80 mm / 3.15" and
400 mm / 15.85" port length



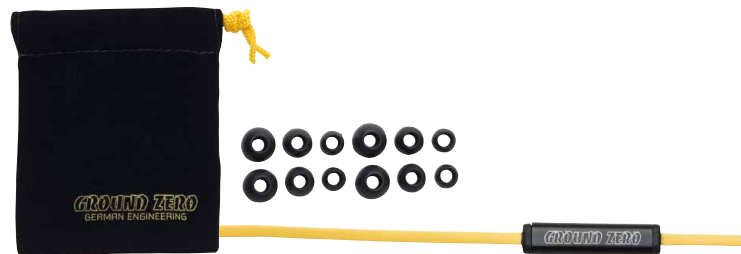
GZHP 40-OE

High quality foldable on ear headphone
 Speaker: 40 mm
 Sensitivity: 100 ± 3 dB at 1 KHz
 Microphone sensitivity: -43 ± 4 dB
 Frequency Response: 20 Hz – 20KHz
 Impedance: $32 \pm 15\%$ Ω
 Max Power: 30 mW
 Plug Type: 3.5 mm
 Cable length: 120 cm / 47 in.
 Cable: Dual side cable
 Weight: 150 g
 In-Line Mic compatible with
 Apple/Samsung/HTC and more



GZHP 9-IE

High quality in ear headphone with aluminum housing
 Speaker: 9 mm
 Sensitivity: 98 dB at 1 KHz
 Microphone sensitivity: -42 ± 3 dB
 Impedance: 32 Ω
 Frequency Response: 20 Hz – 20KHz
 RMS: 3 mW
 Plug Type: 3.5 mm
 Cable length: 120 cm / 47 in.
 Weight: 15 g
 In-Line Mic compatible with
 Apple/Samsung/HTC and more



Amplifier

Series

Product	Output power @ 4/2/1 Ohm	Bridged max @ 4/2 Ohm (link mode)	LPF / Hz	HPF (Subsonic) / Hz	BP	Bass-boost	Phase-shift	Remote	Line Out	High-level & auto-on	Dimensions (mm/inch)
GZPA Reference 4 Pure	4x 150/270/425 W	2x 650/1000 W max	Pure	Pure							236 x 67,5 x 590 9.29 x 2.66 x 23.23
GZPA Reference 2 Pure	2x 420/750/1150 W	1x 1800/2700 W max	Pure	Pure							236 x 67,5 x 590 9.29 x 2.66 x 23.23
GZPA Reference 4 Sym	4x 150/270/425 W	2x 650/1000 W max	40 - 3000	40 - 3000	✓						236 x 67,5 x 590 9.29 x 2.66 x 23.23
GZPA Reference 2 Sym	2x 420/750/1150 W	1x 1800/2700 W max	20 - 400 200 - 4000	20 - 400 200 - 4000	✓		✓	✓			236 x 67,5 x 590 9.29 x 2.66 x 23.23
GZPA Reference 4XS	4x 120/220 W	2x 500 W max @ 4 Ohm	40 - 3000	40 - 3000	✓						236 x 67,5 x 420 9.29 x 2.66 x 16,54
GZPA Reference 2XS	2x 200/380 W	1x 900 W max @ 4 Ohm	40 - 3000	40 - 3000	✓	✓	✓	✓			236 x 67,5 x 420 9.29 x 2.66 x 16,54
GZPA 1.10K-HCX	1x 3200/5900/10500 W	1x 23000 W max @ 2 Ohm (linkmode)	35 - 250	10 - 50	✓	✓	✓	✓	✓		290 x 67,5 x 900 11.42 x 2.66 x 35.43
GZPA 1.8K-HCX	1x 2600/4800/8400 W	1x 18600 W max @ 2 Ohm (linkmode)	35 - 250	10 - 50	✓	✓	✓	✓	✓		290 x 67,5 x 820 11.42 x 2.66 x 32.28
GZPA 1.6K-HCX	1x 1700/3200/5800 W	1x 13600 W max @ 2 Ohm (linkmode)	35 - 250	10 - 50	✓	✓	✓	✓	✓		230 x 65 x 650 9.06 x 2.56 x 25.59
GZPA 1.4K-HCX	1x 1200/2400/4000 W	1x 10000 W max @ 2 Ohm (linkmode)	35 - 250	10 - 70	✓	✓	✓	✓	✓		230 x 63 x 550 9.06 x 2.48 x 21.65
GZNA 4330XII	4x 200/350/550 W	2x 1300 W max @ 2 Ohm	30 - 3000	5 - 3000	✓	✓	✓	✓			293 x 67 x 560 11.54 x 2.64 x 22.05
GZNA 2850XII	2x 430/800/1200 W	1x 2800 W max @ 2 Ohm	30 - 400 300 - 4000	5 - 400 50 - 4000	✓	✓	✓	✓			293 x 67 x 600 11.54 x 2.64 x 23.62
GZNA 1.2550DXII	1x 850/1500/2400 W	1x 6200 W max @ 2 Ohm (linkmode)	30 - 250	5 - 50	✓	✓	✓	✓	✓		293 x 67 x 560 11.54 x 2.64 x 22.05
GZUA 6.200SQ	4x 90/140 & 2x 200/320 W	2x 350W & 1x 800 W max @ 4 Ohm	20 - 400 200 - 4000	20 - 400 200 - 4000	✓						209 x 46 x 550 8.23 x 1.81 x 21.65
GZUA 4.150SQ	4x 110/190 W	2x 460 W max @ 4 Ohm	20 - 400 200 - 4000	20 - 400 200 - 4000	✓						209 x 46 x 360 8,23 x 1.81 x 14.17
GZUA 2.250SQ	2x 180/320/500 W	1x 1200 W max @ 2 Ohm	20 - 400 200 - 4000	20 - 400 200 - 4000	✓	✓	✓	✓			209 x 46 x 360 8.23 x 1.81 x 14.17
GZHA 4200XII	4x 140/200 W	2x 500 W max @ 4 Ohm	80 (CH 1/2) 30 - 250 (CH 3/4)	40 - 3000 (CH 1/2) 5 - 250 (CH 3/4)	✓	✓	✓	✓	✓		293 x 67 x 400 11.54 x 2.64 x 15.75
GZHA 2400XII	2x 270/480/750 W	1x 1800 W max @ 2 Ohm	30 - 250	5 - 500	✓	✓	✓	✓			293 x 67 x 400 11.54 x 2.64 x 15.75
GZHA 1.1850DXII	1x 700/1200/1850 W	1x 4800 W max @ 2 Ohm (linkmode)	30 - 250	5 - 50	✓	✓	✓	✓	✓		293 x 67 x 400 11.54 x 2.64 x 15.75
GZHA MINI FOUR	4x 80/130 W	2x 320 W max @ 4 Ohm	40 - 4000	10 - 500	✓					✓	135 x 52 x 210 5,32 x 2.05 x 8.27
GZHA MINI TWO	2x 130/230 W	1x 550 W max @ 4 Ohm	40 - 4000	10 - 500	✓			✓	✓	✓	135 x 52 x 210 5,32 x 2.05 x 8.27
GZHA MINI ONE	1x 220/390/630 W	1x 1500 W max @ 2 Ohm (linkmode)	30 - 250	10 - 50	✓	✓	✓	✓	✓	✓	135 x 52 x 210 5,32 x 2.05 x 8.27
GZRA 4230	4x 140/230 W	2x 550 W max @ 4 Ohm	40 - 4000	5 - 500	✓	✓					230 x 47 x 415 9.06 x 1.85 x 16.34
GZRA 2255X	2x 150/250 W	1x 600 W max @ 4 Ohm	40 - 4000	5 - 500	✓	✓		✓			230 x 51 x 396 9.06 x 1.85 x 16.34
GZRA 1.2500DX	1x 750/1400/2200 W	1x 6000 W max @ 2 Ohm (linkmode)	30 - 250	10 - 50	✓	✓	✓	✓	✓		230 x 47 x 552 9.06 x 1.85 x 21.73
GZRA 1.1650D	1x 650/1250/1800 W	1x 4600 W max @ 2 Ohm (linkmode)	30 - 250	10 - 50	✓	✓	✓	✓	✓		230 x 47 x 385 9.06 x 1.85 x 15.16
GZRA MICRO FOUR	4x 60/100 W	2x 250 W max @ 4 Ohm	30 - 400	30 - 400						✓	75 x 44 x 190 2.95 x 1.73 x 7.48
GZRA MICRO ONE	1x 220/350 W		40 - 400	15 - 25	✓	✓	✓	✓		✓	75 x 44 x 190 2.95 x 1.73 x 7.48

Amplifier												
Series	Product	Output power @ 4/2/1 Ohm	Bridged max @ 4/2 Ohm (link mode)	LPF / Hz	HPF (Subsonic) / Hz	BP	Bass-boost	Phase-shift	Remote	Line Out	High-level & auto-on	Dimensions (mm/inch)
	GZTA 5120X-B	4x 50/70 W & 1x 180/260 W	2x 170 W max @ 4 Ohm (Ch 1-4)	40 - 4000 (CH 1-4) 40 - 250 (CH 5)	40 - 4000 (CH 1-4) 10 - 50 (CH 5)	✓			✓			230 x 49 x 472 9.06 x 1.93 x 18.58
	GZTA 4125X-B	4x 90/130 W	2x 320 W max @ 4 Ohm	40 - 4000	5 - 500	✓	✓					230 x 49 x 397 9.06 x 1.93 x 15.63
	GZTA 2255X	2x 150/250 W	1x 600 W max @ 4 Ohm	40 - 4000	5 - 500	✓	✓		✓			230 x 49 x 397 9.06 x 1.93 x 15.63
	GZTA 2155X-B	2x100/150 W	1x 400 W max @ 4 Ohm	40 - 4000	5 - 500	✓	✓		optional			230 x 49 x 298 9.06 x 1.93 x 11.73
	GZTA 1.800DX-B	1x 350/550/850 W	1x 2000 W max @ 2 Ohm (linkmode)	30 - 250	10 - 50	✓	✓	✓	✓	✓		230 x 49 x 365 9.06 x 1.93 x 14.37
	GZTA 1.1200DX-II	1x 400/800/1300 W	1x 3000 W max @ 2 Ohm (linkmode)	30 - 250	10 - 50	✓	✓	✓	✓	✓		230 x 49 x 445 9.06 x 1.93 x 17.52
	GZTA 4125X-24V	4x 90/130 W	2x 320 W max @ 4 Ohm	40 - 4000	5 - 500	✓	✓					230 x 49 x 397 9.06 x 1.93 x 15.63
	GZTA 1.800DX-24V	1x 350/550/850 W	1x 2000 W max @ 2 Ohm (linkmode)	30 - 250	10 50	✓	✓	✓	✓	✓		230 x 49 x 365 9.06 x 1.93 x 14.37
	GZIA 4115HPX-II	4x 70/115 W	2x 250 W max @ 4 Ohm	30 - 250	40 - 3000						✓	192 x 49 x 284 7.56 x 1.93 x 11.18
	GZIA 2235HPX-II	2x 150/235 W	1x 540 W max @ 4 Ohm	30 - 250	40 - 3000				optional		✓	192 x 49 x 284 7.56 x 1.93 x 11.18
	GZIA 2130HPX-B	2x 85/130 W	1x 320 W max @ 4 Ohm	30 - 250	40 - 3000				optional		✓	213 x 50 x 215 8.39 x 1.97 x 8.46
	GZIA 2080HPX-II	2x 60/80 W	1x 240 W max @ 4 Ohm	30 - 250	40 - 3000						✓	192 x 49 x 174 7.56 x 1.93 x 6.85
	GZIA 1.600HPX-B	1x 230/400/600 W		30 - 250			✓		✓		✓	213 x 50 x 333 8.39 x 1.97 x 13.11
	GZCS 4.60ISO	4x 70/90 W	2x 70 W & 1x 180 W @ 4 Ohm	50 - 250 (rear CH)	50 - 250 (front & rear CH)						ISO	135 x 52 x 165 5.31 x 2.05 x 6.5
	GZUA 4.80DSP	4x 90/150 W	2x 350 W @ 4 Ohm						optional	4 channel	✓	185 x 40 x 181 7.28 x 1.57 x 7.13"
	GZUA 6.120DSP	4x 60/100 W & 2x 120/200 W							optional	2 channel	✓	185 x 40 x 211 7.28 x 1.57 x 8.31"
	GZUA 1.600D	1x 200/360/600 W		30 - 150	15 - 55	✓	✓		✓			185 x 40 x 140 7.28 x 1.57 x 5.51"

Active subwoofer								
Series	Product	Woofers	Type	Enclosure	Dimensions (mm/inch)	Lowpass	Bass remote	Output power
	GZUB 1000XACTII	250 mm / 10" Flat woofer	Flat active woofer	Aluminum cast	360 x 270 x 78 / 14.17 x 10.63 x 3.07	50 - 100 Hz	✓	150 / 210 W
	GZUB 800XACTII	200 mm / 8" Flat woofer	Flat active woofer	Aluminum cast	345 x 240 x 68 / 13.58 x 9.45 x 2.68	50 - 100 Hz	✓	120 / 180 W
	GZUB 600XACTII	160 mm / 6" Flat woofer	Flat active woofer	Aluminum cast	290 x 203 x 72 / 11.42 x 7.99 x 2.83	50 - 100 Hz	✓	100 / 160 W
	GZTB 20ACT	200 mm / 8" Flat woofer	Flat active woofer	Plastic injection	345 x 237 x 72 / 13.58 x 9.33 x 2.83	50 - 100 Hz	✓	100 / 160 W
	GZIB 300BR-ACT	300 mm / 12" Woofer	Front-Basstunnel	37 L / 1.31 ft³ Wood	440 x 365 x 390 (300) / 17.32 x 14.37 x 15.35 (12)	40 - 160 Hz		150 / 300 W
	GZIB 200BR-ACT	GZIW 200X	Front-Basstunnel	18 L / 0.64 ft³ Wood	380 x 260 x 310 (245) / 15 x 10.24 x 12.2 (9.65)	40 - 160 Hz		100 / 200 W
	GZIB 165BR-ACT	GZIW 165X	Front-Basstunnel	11 L / 0.39 ft³ Wood	310 x 220 x 300 (250) / 12.2 x 8.66 x 11.81 (9.8)	40 - 160 Hz		80 / 150 W

Component									
Series	Product	Outer Ø	Mounting Ø	Depth	Tweeter	Midwoofer	Frequency range	Impedance	Power handling RMS/MAX
	GZPC 16.35SQ	165 mm / 6.5" 94 mm / 3.7"	143,5 mm / 5.65" 76,5 mm / 3.01"	68 mm / 2.68" 34 mm / 1.34"	GZPT 28SX	GZPK 16SQ GZPM 80SQX	30 Hz - 30 kHz	3 Ω	200 / 300 W
	GZPC 16.35SQ-ACT	165 mm / 6.5" 94 mm / 3.7"	143,5 mm / 5.65" 76,5 mm / 3.01"	68 mm / 2.68" 34 mm / 1.34"	GZPT 28SX	GZPK 16SQ GZPM 80SQX	30 Hz - 30 kHz		
	GZPC 165SQ	165 mm / 6.5"	143,5 mm / 5.65"	68 mm / 2.68"	GZPT 28SX	GZPK 16SQ	30 Hz - 30 kHz	4 Ω	150 / 250 W
	GZPC 165SQ-ACT	165 mm / 6.5"	143,5 mm / 5.65"	68 mm / 2.68"	GZPT 28SX	GZPK 16SQ	30 Hz - 30 kHz		
	GZNC 1650SQ	165 mm / 6.5"	143,5 mm / 5.65"	68 mm / 2.68"	GZNT 25SQ	GZNK 165SQ	40 Hz - 28 kHz	4 Ω	150 / 250 W
	GZUC 650SQX	165 mm / 6.5"	142 mm / 5.59"	70 mm / 2.76"	GZUT 25SQX	GZUK 65SQX	40 Hz - 25 kHz	4 Ω	140 / 220 W
	GZUC 650SQ-II	165 mm / 6.5"	145,7 mm / 5.74"	66 mm / 2.6"	GZHT 28SX	GZHT 25SQX	40 Hz - 24 kHz	4 Ω	130 / 210 W
	GZHC 65C	165 mm / 6.5"	145,7 mm / 5.74"	63 mm / 2.48"	GZHT 25X	WFWC cone	40 Hz - 20 kHz	4 Ω	120 / 200 W
	GZRC 16XII	165 mm / 6.5"	142,5 mm / 5.61"	69 mm / 2.72"	GZHT 25X	Glasfiber cone	40 Hz - 20 kHz	4 Ω	120 / 180 W
	GZRC 10XII	102 mm / 4.02"	93 mm / 3.66"	50 mm / 1.97"	GZHT 25X	Glasfiber cone	60 Hz - 20 kHz	4 Ω	80 / 120 W
	GZRC 165FXII	165 mm / 6.5"	143 mm / 5.63"	44 mm / 1.73"	GZHT 25X	Glasfiber cone	50 Hz - 20 kHz	4 Ω	110 / 160 W
	GZRC 6857X	5 x 7" / 6 x 8"	123 x 180 mm / 4.84 x 7"	59 mm / 2.3"	25 mm / 1" silk dome	Coated paper cone	55 Hz - 22 kHz	4 Ω	120 / 180 W
	GZTC 165TX	165 mm / 6.5"	142,5 mm / 5.61"	67 mm / 2.64"	25 mm / 1" silk dome	Coated paper cone	50 Hz - 20 kHz	4 Ω	110 / 160 W
	GZTC 130TX	130 mm / 5.25"	118 mm / 4.65"	62 mm / 2.44"	25 mm / 1" silk dome	Coated paper cone	60 Hz - 20 kHz	4 Ω	90 / 140 W
	GZIC 16X	165 mm / 6.5"	143,5 mm / 5.65"	60 mm / 2.36"	19 mm / 0.75 softdome	HQPP cone	50 Hz - 20 kHz	4 Ω	100 / 150 W
	GZIC 13X	130 mm / 5.25"	114 mm / 4.49"	50 mm / 1.97"	19 mm / 0.75 softdome	HQPP cone	60 Hz - 20 kHz	4 Ω	90 / 140 W
	GZIC 650FX	165 mm / 6.5"	142,5 mm / 5.61"	44 mm / 1.73"	GZHT 19X	Coated paper cone	50 Hz - 20 kHz	4 Ω	100 / 140 W
	GZIC 400FX	102 mm / 4.02"	93 mm / 3.66"	30 mm / 1.18"	GZHT 19X	Coated paper cone	70 Hz - 20 kHz	4 Ω	60 / 100 W

Coaxial									
Series	Product	Outer Ø	Mounting Ø	Depth	Tweeter	Midwoofer	Frequency range	Impedance	Power handling RMS/MAX
	GZHF 652C	165 mm / 6.5"	145,7 mm / 5.74"	63 mm / 2.48"	25 mm / 1" silk dome	WFWC cone	50 Hz - 20 kHz	4 Ω	100 / 160 W
	GZRF 6900P	150 x 230 mm / 6 x 9"	153 x 216 mm / 6.02 x 8.5"	85 mm / 3.35"	13 mm / 0.51" PEI 50 mm / 2" PEI	Coated paper cone	40 Hz - 20 kHz	4 Ω	250 / 400 W
	GZRF 69AL	150 x 230 mm / 6 x 9"	152 x 214 mm / 5.98 x 8.4"	82 mm / 3.23"	13 mm / 0.51" PEI 50 mm / 2" PEI	Aluminum cone	40 Hz - 25 kHz	3 Ω	130 / 200 W
	GZRF 65AL	165 mm / 6.5"	142,5 mm / 5.61"	68 mm / 2.68"	13 mm / 0.51" PEI	Aluminum cone	50 Hz - 25 kHz	3 Ω	100 / 140 W
	GZRF 52XII	130 mm / 5.25"	117,5 mm / 4.63"	61 mm / 2.4"	13 mm / 0.51" PEI	Glasfiber cone	70 Hz - 22 kHz	4 Ω	70 / 110 W
	GZRF 42XII	102 mm / 4.02"	93 mm / 3.66"	50 mm / 1.97"	13 mm / 0.51" PEI	Glasfiber cone	80 Hz - 22 kHz	4 Ω	60 / 100 W
	GZRF 13FXII	130 mm / 5.25"	117,5 mm / 4.63"	37 mm / 1.46"	13 mm / 0.51" PEI	Glasfiber cone	80 Hz - 22 kHz	4 Ω	60 / 100 W
	GZRF 5768X	5 x 7" / 6 x 8"	123 x 180 mm / 4.84 x 7"	59 mm / 2.3"	13 mm / 0.51" PEI	Coated paper cone	65 Hz - 20 kHz	4 Ω	80 / 130 W
	GZRM 165	165 mm / 6.5"	142,5 mm / 5.61"	62 mm / 2.44"	13 mm / 0.51" Mylar	IMPP cone	60 Hz - 20 kHz	4 Ω	70 / 120 W
	GZRM 130	130 mm / 5.25"	119 mm / 4.69"	52 mm / 2.05"	13 mm / 0.51" Mylar	IMPP cone	70 Hz - 20 kHz	4 Ω	60 / 100 W
	GZTF 250TX	250 mm / 10"	232 mm / 9.13"	102 mm / 4.02"	13 mm / 0.51" PEI 55 mm / 2.17" PEI	Coated paper cone	40 Hz - 25 kHz	4 Ω	120 / 300 W
	GZTF 69TX	150 x 230 mm / 6 x 9"	152 x 214 mm / 5.98 x 8.4"	80 mm / 3.15"	13 mm / 0.51" Mylar 55 mm / 2.17" Mylar	Coated paper cone	40 Hz - 20 kHz	4 Ω	120 / 180 W
	GZTF 16TX	165 mm / 6.5"	142,5 mm / 5.61"	61 mm / 2.4"	13 mm / 0.51" Mylar	Coated paper cone	70 Hz - 20 kHz	4 Ω	80 / 120 W
	GZTF 13TX	130 mm / 5.25"	118 mm / 4.65"	52 mm / 2.05"	13 mm / 0.51" Mylar	Coated paper cone	80 Hz - 20 kHz	4 Ω	70 / 110 W
	GZTF 10TX	102 mm / 4.02"	93 mm / 3.66"	43 mm / 1.69"	13 mm / 0.51" Mylar	Coated paper cone	90 Hz - 20 kHz	4 Ω	60 / 100 W
	GZTF 8.7TX	87 mm / 3.43"	80 mm / 3.15"	43 mm / 1.69"	13 mm / 0.51" Mylar	Coated paper cone	100 Hz - 20 kHz	4 Ω	50 / 90 W
	GZTF 46TX	100 x 150 mm / 4 x 6"	90 x 141 mm / 3.54 x 5.55"	48 mm / 1.89"	13 mm / 0.51" Mylar	Coated paper cone	80 Hz - 20 kHz	4 Ω	70 / 110 W
	GZIF 69X	150 x 230 mm / 6 x 9"	150 x 220 mm / 5.9 x 8.66"	81,5 mm / 3.2"	13 mm / 0.51" Mylar 50 mm / 2" Mylar	HQPP cone	40 Hz - 20 kHz	4 Ω	120 / 180 W
	GZIF 65X	165 mm / 6.5"	143,5 mm / 5.65"	60 mm / 2.36"	13 mm / 0.51" Mylar	HQPP cone	50 Hz - 20 kHz	4 Ω	80 / 120 W
	GZIF 52X	130 mm / 5.25"	114 mm / 4.49"	50 mm / 1.97"	13 mm / 0.51" Mylar	HQPP cone	60 Hz - 20 kHz	4 Ω	70 / 110 W
	GZIF 40X	102 mm / 4.02"	92 mm / 3.6"	47 mm / 1.85"	13 mm / 0.51" Mylar	HQPP cone	80 Hz - 20 kHz	4 Ω	60 / 100 W
	GZIF 6501FX	165 mm / 6.5"	142,5 mm / 5.61"	44 mm / 1.73"	13 mm / 0.51" Mylar	Coated paper cone	60 Hz - 20 kHz	4 Ω	70 / 110 W
	GZIF 5201FX	130 mm / 5.25"	117,5 mm / 4.63"	37 mm / 1.46"	13 mm / 0.51" Mylar	Coated paper cone	70 Hz - 20 kHz	4 Ω	60 / 100 W
	GZIF 4001FX	102 mm / 4.02"	93 mm / 3.66"	30 mm / 1.18"	13 mm / 0.51" Mylar	Coated paper cone	80 Hz - 20 kHz	4 Ω	50 / 90 W
	GZCF 710POWER	180 x 250 mm / 7 x 10"	6 x 9" Adapter	90 mm / 3.54"	19 mm / 0.75" Aluminum 25 mm / 1" Aluminum	Fiber reinforced paper cone	50 Hz - 30 kHz	3 Ω	300 / 400 W
	GZCF 7104XSPL	180 x 250 mm / 7 x 10"	6 x 9" Adapter	86 mm / 3.39"	13 mm / 0.51" PEI 50 mm / 2" paper cone 13mm / 0.51" piezo	Fiber reinforced paper cone	35 Hz - 25 kHz	4 Ω	200 / 300 W
	GZCF 8-4 COAX-SPL	210 mm / 8.27"	185 mm / 7.28"	95 mm / 3.74"	32 mm / 1.26" silk dome	Fiber reinforced paper cone	TW: 2.5 - 26 kHz MID: 90 Hz - 2.5 kHz	TW: 5 Ω MID: 4 Ω	TW: 50 / 100 W Mid: 150 / 300 W
	GZCF 200COAX	210 mm / 8.27"	184 mm / 7.24"	89 mm / 3.5"	44.5 mm / 1.75" titanium compression horn	Fiber reinforced paper cone	TW: 3 - 25 kHz MID: 150 Hz - 3 kHz	TW: 4 Ω MID: 4 Ω	TW: 50 / 150 W Mid: 150 / 250 W
	GZCF 165COAX	169 mm / 6.65"	147,5 mm / 5.8"	79 mm / 3.11"	35 mm / 1.38" PEN compression horn	Fiber reinforced paper cone	TW: 3.5 - 25 kHz MID: 180 Hz - 3.5 kHz	TW: 4 Ω MID: 4 Ω	TW: 25 / 100 W Mid: 125 / 200 W

Woofer / Midwoofer / Midrange / Fullrange

Series	Product	Outer Ø	Mounting Ø	Depth	Voice coil Ø	Cone	FS	QTS	VAS	Frequency range	Impedance	Power handling RMS/MAX
	GZMW Reference 180	181,2 mm / 7.13"	155,5 mm / 6.12"	68 mm / 2.68"	25 mm / 1"	Coated paper	56.8 Hz	0.58	16 L / 0.56 ft³	40 Hz - 3.5 kHz	4 Ω	100 / 150 W
	GZPM Reference 80	98 mm / 3.86"	85.4 mm / 3.36"	45 mm / 1.77"	19 mm / 0.75"	Coated paper	107.5 Hz	0.6	0.8 L / 0.028 ft³	150 Hz - 6 kHz	4 Ω	80 / 120 W
	GZPK 165SQ	165 mm / 6.5"	143,5 mm / 5.65"	68 mm / 2.68"	36 mm / 1.42"	Alu-Ceramic	45.3 Hz	0.62	22.1 L / 0.78 ft³	30 Hz - 3 kHz	4 Ω	130 / 210 W
	GZPM 80SQX	94 mm / 3.7"	76,5 mm / 3.01"	34 mm / 1.34"	25 mm / 1"	Magnesium	109.4 Hz	0.46	0.9 L / 0.032 ft³	150 Hz - 4 kHz	4 Ω	70 / 110 W
	GZNK 165SQ	165 mm / 6.5"	143,5 mm / 5.65"	68 mm / 2.68"	36 mm / 1.42"	Coated paper	55.2 Hz	0.65	14.6 L / 0.52 ft³	40 Hz - 3 kHz	4 Ω	130 / 200 W
	GZNM 80SQ	94 mm / 3.7"	76,5 mm / 3.01"	34 mm / 1.34"	25 mm / 1"	Coated paper	115 Hz	0.39	1 L / 0.035 ft³	150 Hz - 5 kHz	4 Ω	60 / 100 W
	GZUK 65SQX	165 mm / 6.5"	142 mm / 5.59"	70 mm / 2.76"	31 mm / 1.22"	WFWC	55.1 Hz	0.49	12.6 L / 0.45 ft³	40 Hz - 4 kHz	4 Ω	120 / 200 W
	GZUF 60SQ	72 mm / 2.83"	61 mm / 2.4"	36 mm / 1.42"	25 mm / 1"	Black Aluminum	150 Hz	0.64	0.4 L / 0.14 ft³	300 Hz - 20 kHz	4 Ω	60 / 100 W
	GZMW 200X-NEO	205 mm / 8.07"	182 mm / 7.17"	57 mm / 2.24"	38 mm / 1.5"	Coated paper	38.4 Hz	0.48	41.9 L / 1.48 ft³	35 Hz - 3.5 kHz	4 Ω	100 / 160 W
	GZCW 12-75SPL	312 mm / 12.28"	282 mm / 11.1"	133 mm / 5.24"	75 mm / 3"	Reinforced paper	42.2 Hz	0.27	71.9 L / 2.54 ft³	40 Hz - 3 kHz	4 Ω	400 / 800 W
	GZCW 12-50	312 mm / 12.28"	282 mm / 11.1"	130 mm / 5.12"	50 mm / 2"	Reinforced paper	47.1 Hz	0.42	93.4 L / 3.68 ft³	50 Hz - 3 kHz	4 Ω	300 / 600 W
	GZCF 8-4SPL	210 mm / 8.27"	185 mm / 7.28"	92 mm / 3.62"	50 mm / 2"	Coated paper	92 Hz	0.99	8.1 L / 0.29 ft³	100 Hz - 15 kHz	4 Ω	300 / 600 W
	GZCM 10-4PPX	261 mm / 10.28"	232 mm / 9.13"	108 mm / 4.25"	75 mm / 3"	Reinforced paper	117.9 Hz	0.65	10.4 L / 0.37 ft³	120 Hz - 5 kHz	4 Ω	300 / 600 W
	GZCM 8-4PPX	209 mm / 8.23"	184 mm / 7.24"	92 mm / 3.62"	50 mm / 2"	Reinforced paper	124.3 Hz	0.47	6.8 L / 0.24 ft³	150 Hz - 10 kHz	4 Ω	200 / 500 W
	GZCM 6-4PPX	173 mm / 6.81"	148 mm / 5.83"	82 mm / 3.23"	50 mm / 2"	Reinforced paper	126.5 Hz	0.46	4.8 / 0.17 ft³	150 Hz - 10 kHz	4 Ω	150 / 400 W
	GZCM 10-4FX	257 mm / 10.12"	230 mm / 9.06"	76 mm / 2.99"	50 mm / 2"	Reinforced paper	91.2 Hz	0.69	23.5 L / 0.83 ft³	120 Hz - 5 kHz	4 Ω	200 / 500 W
	GZCM 8-4FX	210 mm / 8.27"	180 mm / 7.09"	65 mm / 2.56"	38 mm / 1.5"	Reinforced paper	132.1 Hz	1, 02	6.3 L / 0.22 ft³	150 Hz - 4 kHz	4 Ω	100 / 400 W
	GZCM 6-4FX	165 mm / 6.5"	143 mm / 5.63"	52 mm / 2.05"	38 mm / 1.5"	Reinforced paper	216.6 Hz	0.94	1.8 L / 0.06 ft³	200 Hz - 5 kHz	4 Ω	100 / 300 W
	GZCK 200SPL	209 mm / 8.23"	183 mm / 7.2"	86 mm / 3.39"	38 mm / 1.5"	Reinforced paper	54.3 Hz	0.38	31.2 L / 1.10 ft³	50 Hz - 6 kHz	4 Ω	150 / 300 W
	GZCK 165SPL	167 mm / 6.57"	145 mm / 5.7"	71.5 mm / 2.81"	38 mm / 1.5"	Reinforced paper	56.8 Hz	0.31	16.2 L / 0.57 ft³	50 Hz - 4 kHz	4 Ω	100 / 250 W

Tweeter

Series	Product	Outer Ø w/o frame	Outer Ø incl. frame	Mounting Ø incl. frame	Total height w/o frame	Mounting depth incl. frame	Voice coil Ø	Dome	FS	Frequency range	Impedance	Power handling RMS/MAX
	GZPT Reference 28 (28B)	54 mm / 2.1"		48 mm / 1.89"	50 mm / 1.97"	39 mm / 1.54"	28 mm / 1.1"	Coated silk	600 Hz	1.5 - 30 kHz	4 Ω	100 / 150 W
	GZPT 28SX	54 mm / 2.1"		48 mm / 1.89"	42 mm / 1.65"	31 mm / 1.22"	28 mm / 1.1"	Coated silk	750 Hz	2 - 30 kHz	4 Ω	100 / 150 W
	GZNT 25SQ	49 mm / 1.93"		43.1 mm / 1.7"	32.8 mm / 1.29"	21.5 mm / 0.85"	25 mm / 1"	Coated silk	750 Hz	2 - 28 kHz	4 Ω	80 / 130 W
	GZUT 25SQX	49 mm / 1.93"		43.1 mm / 1.7"	34.3 mm / 1.35"	22 mm / 0.87"	25 mm / 1"	Coated silk	750 Hz	2 - 25 kHz	4 Ω	70 / 120 W
	GZHT 25SQ	44 mm / 1.73"	54 mm / 2.13"	48 mm / 1.89"	32 mm / 1.26"	22 mm / 0.87"	25 mm / 1"	Coated silk	850 Hz	2 - 22 kHz	4 Ω	70 / 110 W
	GZHT 25X	42 mm / 1.65"	54 mm / 2.13"	48 mm / 1.89"	21 mm / 0.83"	20 mm / 0.79"	25 mm / 1"	Coated silk	1600 Hz	3 - 20 kHz	4 Ω	60 / 100 W
	GZHT 19X	37 mm / 1.46"	50 mm / 1.97"	41 mm / 1.61"	18 mm / 0.71"	15 mm / 0.59"	19 mm / 0.75"	Coated silk	1650 Hz	3.5 - 20 kHz	4 Ω	40 / 70 W

Subwoofer												
Product	Outer Ø	Mounting Ø	Depth	Voice coil Ø	Cone	FS	QTS	VAS	Impedance	Power handling	Recommended amplifier power	
GZPW Reference 250	275 mm / 10.8"	235 mm / 9.25"	128 mm / 5.04"	50 mm / 2"	3 Layer sandwich	31.3 Hz	0.4	36.5 L / 1.29 ft³	2 x 2 Ω	500 W RMS	300 - 600 W	
GZ PLUTONIUM Xmax	392 mm / 15.43"	358 mm / 14.09"	300 mm / 11.8"	100 mm / 4"	Aluminum	35 Hz	0.4	40 L / 1.41 ft³	2 x 1 Ω	10000 W SPL	4000 - 10000 W	
GZPW 18SPL-Extreme	465 mm / 18.3"	426 mm / 16.77"	299 mm / 11.77"	100 mm / 4"	Carbon sandwich	45.1 Hz	0.31	43.5 L / 1.54 ft³	2 x 1 Ω	15000 W SPL	5000 - 15000 W	
GZPW 15SPL-Extreme	392 mm / 15.43"	358 mm / 14.09"	272 mm / 10.71"	100 mm / 4"	Carbon sandwich	46.7 Hz	0.31	22.9 L / 0.81 ft³	2 x 1 Ω	15000 W SPL	4000 - 15000 W	
GZPW 12SPL-Extreme	314 mm / 12.36"	284 mm / 11.18"	220 mm / 8.66"	75 mm / 3"	Carbon sandwich	47.7 Hz	0.45	14.9 L / 0.53 ft³	2 x 1 Ω	8000 W SPL	2000 - 8000 W	
GZPW 18SPL	465 mm / 18.3"	426 mm / 16.77"	292 mm / 11.5"	100 mm / 4"	Reinforced paper	34 Hz	0.26	87 L / 3.07 ft³	2 x 1 Ω	10000 W SPL	5000 - 10000 W	
GZPW 15SPL	392 mm / 15.43"	358 mm / 14.09"	272 mm / 10.71"	100 mm / 4"	Reinforced paper	39.1 Hz	0.23	36.8 l / 1.3 ft³	2 x 1 Ω	10000 W SPL	4000 - 10000 W	
GZPW 12SPL	314 mm / 12.36"	284 mm / 11.18"	220 mm / 8.66"	75 mm / 3"	Reinforced paper	47.7 Hz	0.45	14.9 L / 0.53 ft³	2 x 1 Ω	6500 W SPL	2000 - 6500 W	
GZPW 15 Limited	392 mm / 15.43"	358 mm / 14.09"	285 mm / 11.22"	100 mm / 4"	Reinforced paper	35.6 Hz	0.39	50.4 L / 1.78 ft³	2 x 1 Ω	5000 W RMS	4000 - 6000 W	
GZNW 15Xmax	392 mm / 15.43"	358 mm / 14.09"	285 mm / 11.22"	75 mm / 3"	Aluminum	36 Hz	0.43	43 L / 1.52 ft³	2 x 1 Ω	7500 W SPL	3000 - 7500 W	
GZNW 12Xmax	314 mm / 12.36"	284 mm / 11.18"	235 mm / 9.25"	75 mm / 3"	Aluminum	38 Hz	0.45	25 L / 0.88 ft³	2 x 1 Ω	5000 W SPL	2500 - 5000 W	
GZNW 18XSPL	465 mm / 18.3"	426 mm / 16.77"	286 mm / 11.26"	75 mm / 3"	Reinforced paper	31.3 Hz	0.57	139.7 L / 4.93 ft³	2 x 1 Ω	6500 W SPL	2000 - 6500 W	
GZNW 15XSPL	392 mm / 15.43"	358 mm / 14.09"	260 mm / 10.24"	75 mm / 3"	Reinforced paper	39 Hz	0.57	48 L / 1.69 ft³	2 x 1 Ω	5500 W SPL	2000 - 5500 W	
GZNW 12XSPL	314 mm / 12.36"	284 mm / 11.18"	226 mm / 8.9"	75 mm / 3"	Reinforced paper	38.1 Hz	0.41	25.7 L / 0.91 ft³	2 x 1 Ω	4500 W SPL	1500 - 4500 W	
GZUW 12SQX	315 mm / 12.4"	281 mm / 11.06"	150 mm / 5.91"	50 mm / 2"	Reinforced paper	38.6 Hz	0.62	41.1 L / 1.45 ft³	2 x 2 Ω	600 W RMS	400 - 800 W	
GZUW 10SQX	262 mm / 10.31"	236 mm / 9.29"	148 mm / 5.83"	50 mm / 2"	Reinforced paper	46.7 Hz	0.62	14.2 L / 0.5 ft³	2 x 2 Ω	450 W RMS	300 - 600 W	
GZUW 8SQ	215 mm / 8.46"	181 mm / 7.13"	108 mm / 4.25"	50 mm / 2"	Reinforced paper	44.5 Hz	0.46	12.1 L / 0.43 ft³	2 x 2 Ω	300 W RMS	200 - 400 W	
GZHW 18XSPL-D1	464 mm / 18.27"	425 mm / 16.73"	255 mm / 10.04"	75 mm / 3"	Reinforced paper	34.3 Hz	0.38	75.21 L / 2.66 ft³	2 x 1 Ω	4000 W SPL	2000 - 4000 W	
GZHW 15XSPL-D1	388 mm / 15.28"	356 mm / 14"	208 mm / 8.19"	75 mm / 3"	Reinforced paper	36.8 Hz	0.48	39.68 L / 1.4 ft³	2 x 1 Ω	3500 W SPL	1800 - 3500 W	
GZHW 12XSPL-D1	314 mm / 12.36"	281 mm / 11.06"	176 mm / 6.93"	75 mm / 3"	Reinforced paper	39.7 Hz	0.48	17.61 L / 0.62 ft³	2 x 1 Ω	3000 W SPL	1500 - 3000 W	
GZHW 10XSPL -D1	272 mm / 10.71"	240 mm / 9.45"	155 mm / 6.1"	63 mm / 2.5"	Reinforced paper	40.5 Hz	0.41	10.16 L / 0.36 ft³	2 x 1 Ω	2500 W SPL	1500 - 2500 W	
GZHW 8XSPL-D1	215 mm / 8.46"	187 mm / 7.36"	152 mm / 5.98"	63 mm / 2.5"	Reinforced paper	39.3 Hz	0.45	4.3 L / 0.15 ft³	2 x 1 Ω	1500 W SPL	500 - 1500 W	
GZHW 30X	314 mm / 12.36"	281 mm / 11.06"	162 mm / 6.43"	63 mm / 2.5"	Aluminum	23.5 Hz	0.33	62 L / 2.19 ft³	2 x 2 Ω	800 W RMS	600 - 1000 W	
GZHW 25X	272 mm / 10.71"	240 mm / 9.45"	149 mm / 5.91"	50 mm / 2"	Aluminum	27.1 Hz	0.37	27 L / 0.95 ft³	2 x 2 Ω	600 W RMS	400 - 800 W	
GZHW 20X	211 mm / 8.3"	187 mm / 7.36"	120 mm / 4.8"	50 mm / 2"	Aluminum	36 Hz	0.35	8.3 L / 0.29 ft³	2 x 2 Ω	400 W RMS	300 - 600 W	
GZRW 38XSPL-D2	390 mm / 15.35"	353 mm / 13.9"	184 mm / 7.24"	75 mm / 3"	Reinforced paper	33.5 Hz	0.62	65.3 L / 2.3 ft³	2 x 2 Ω	1800 W SPL	1000 - 1800 W	
GZRW 30XSPL-D2	320 mm / 12.6"	283 mm / 11.14"	159 mm / 6.26"	75 mm / 3"	Reinforced paper	36.1 Hz	0.51	22.94 L / 0.81 ft³	2 x 2 Ω	1500 W SPL	800 - 1500 W	
GZRW 30XSPL-D1	320 mm / 12.6"	283 mm / 11.14"	159 mm / 6.26"	75 mm / 3"	Reinforced paper	39.2 Hz	0.55	20.19 L / 0.71 ft³	2 x 1 Ω	1500 W SPL	800 - 1500 W	
GZRW 25XSPL-D2	272 mm / 10.71"	233 mm / 9.17"	145 mm / 5.71"	63 mm / 2.5"	Reinforced paper	44.8 Hz	0.64	10.25 L / 0.36 ft³	2 x 2 Ω	1200 W SPL	600 - 1200 W	
GZRW 25XSPL-D1	272 mm / 10.71"	233 mm / 9.17"	145 mm / 5.71"	63 mm / 2.5"	Reinforced paper	40.3 Hz	0.47	13.24 L / 0.47 ft³	2 x 1 Ω	1200 W SPL	600 - 1200 W	
GZRW 15D4	390 mm / 15.35"	353 mm / 13.9"	184 mm / 7.24"	75 mm / 3"	Reinforced paper	24.7 Hz	0.46	135.8 L / 4.8 ft³	2 x 4 Ω	1000 W RMS	800 - 1400 W	
GZRW 15D2	390 mm / 15.35"	353 mm / 13.9"	184 mm / 7.24"	75 mm / 3"	Reinforced paper	23.6 Hz	0.44	163.08 L / 5.76 ft³	2 x 2 Ω	1000 W RMS	800 - 1400 W	
GZRW 12D4	320 mm / 12.6"	283 mm / 11.14"	159 mm / 6.26"	75 mm / 3"	Reinforced paper	30.2 Hz	0.48	47.6 L / 1.68 ft³	2 x 4 Ω	800 W RMS	600 - 1200 W	
GZRW 12D2	320 mm / 12.6"	283 mm / 11.14"	159 mm / 6.26"	75 mm / 3"	Reinforced paper	28.4 Hz	0.43	50.4 L / 1.78 ft³	2 x 2 Ω	800 W RMS	600 - 1200 W	
GZRW 10D4	272 mm / 10.71"	233 mm / 9.17"	145 mm / 5.71"	63 mm / 2.5"	Reinforced paper	34.6 Hz	0.63	22.5 L / 0.79 ft³	2 x 4 Ω	600 W RMS	400 - 800 W	
GZRW 10D2	272 mm / 10.71"	233 mm / 9.17"	145 mm / 5.71"	63 mm / 2.5"	Reinforced paper	34 Hz	0.61	23.2 L / 0.82 ft³	2 x 2 Ω	600 W RMS	400 - 800 W	
GZRW 12XFL	330 mm / 12.99"	288 mm / 11.34"	73 mm / 2.87"	50 mm / 2"	IMPP	28.4 Hz	0.47	63.3 L / 2.24 ft³	2 x 2 Ω	500 W RMS	400 - 600 W	
GZRW 8FL	204 mm / 8.03"	178 mm / 7.01"	55 mm / 2.17"	36 mm / 1.42"	IMPP	45.3 Hz	0.94	17.6 L / 0.62 ft³	2 Ω	250 W MAX	80 - 250 W	

Subwoofer												
Product	Outer Ø	Mounting Ø	Depth	Voice coil Ø	Cone	FS	QTS	VAS	Impedance	Power handling	Recommended amplifier power	
GZTW 30TX	310 mm / 12.2"	285 mm / 11.22"	147 mm / 5.79"	50 mm / 2"	Coated paper	33.7 Hz	0.53	55.5 L / 1.96 ft ³	2 x 2 Ω	400 W RMS	300 - 450 W	
GZTW 25TX	257 mm / 10.12"	230 mm / 9"	132 mm / 5.2"	50 mm / 2"	Coated paper	38.3 Hz	0.52	28.2 L / 1 ft ³	2 x 2 Ω	300 W RMS	200 - 350 W	
GZTW 20TX	210 mm / 8.27"	184 mm / 7.24"	102 mm / 4.02"	38 mm / 1.5"	Coated paper	39.4 Hz	0.54	20.9 L / 0.74 ft ³	2 x 2 Ω	200 W RMS	100 - 250 W	
GZIW 15SPL	380 mm / 15"	358 mm / 14.09"	185 mm / 7.28"	63 mm / 2.5"	Reinforced paper	35 Hz	0.68	60 L / 2.12 ft ³	2 x 2 Ω	1200 W SPL	800 - 1200 W	
GZIW 12SPL	310 mm / 12.2"	285 mm / 11.22"	162 mm / 6.38"	63 mm / 2.5"	Reinforced paper	36.9 Hz	0.67	35.6 L / 1.26 ft ³	2 x 2 Ω	1000 W SPL	600 - 1000 W	
GZIW 10SPL	257 mm / 10.12"	230 mm / 9"	147 mm / 5.79"	63 mm / 2.5"	Reinforced paper	39 Hz	0.60	25 L / 0.88 ft ³	2 x 2 Ω	700 W SPL	400 - 700 W	
GZIW 300X	310 mm / 12.2"	285 mm / 11.22"	145 mm / 5.71"	50 mm / 2"	IMPP	34.9 Hz	0.69	53.6 L / 1.89ft ³	4 Ω	350 W RMS	200 - 400 W	
GZIW 250X	257 mm / 10.12"	230 mm / 9"	130 mm / 5.1"	50 mm / 2"	IMPP	30.1 Hz	0.44	43.8 L / 1.55ft ³	4 Ω	250 W RMS	200 - 300 W	
GZIW 200X	211 mm / 8.3"	182 mm / 7.17"	101 mm / 3.98"	38 mm / 1.5"	IMPP	38.4 Hz	0.48	27 L / 0.95 ft ³	4 Ω	150 W RMS	100 - 200 W	
GZIW 165X	168 mm / 6.6"	147 mm / 5.79"	80 mm / 3.15"	38 mm / 1.5"	IMPP	44.9 Hz	0.45	9.7 L / 0.34 ft ³	4 Ω	100 W RMS	60 - 150 W	

Enclosures								
Product	Woofer	Type	Net. Volume	Dimensions (mm/inch)	Impedance	Power handling	Recommended amplifier power	
GZUB 30SQ	GZUW 12SQX	Sealed	38 L / 1.34 ft ³	530 x 350 x 350 (240) / 20.87 x 13.78 x 13.78 (9.45)	2 x 2 Ω	600 W RMS	400 - 800 W	
GZUB 20SQ	GZUW 8SQ	Sealed	13 L / 0.46 ft ³	370 x 245 x 255 (200) / 14.57 x 9.65 x 10.04 (7.9)	2 x 2 Ω	300 W RMS	200 - 400 W	
GZHB 30XBT	GZHW 30X	Basstunnel	45 L / 1.59 ft ³	570 x 380 x 420 (300) / 22.4 x 15 x 16.5 (11.81)	2 x 2 Ω	800 W RMS	600 - 1000 W	
GZHB 20XBT	GZHW 20X	Basstunnel	17 L / 0.6 ft ³	430 x 250 x 340 (260) / 16.9 x 10 x 13.5 (10.3)	2 x 2 Ω	400 W RMS	300 - 600 W	
GZRB 2.300SPL	2 x 300 mm / 12" SPL Woofer	4th order bandpass	40 & 60 L / 1.41 & 2.12 ft ³	840 x 395 x 580 (320) / 33 x 15.55 x 22.83 (12.6)	4 x 4 Ω	2000 W SPL	1000 - 2000 W	
GZRB 3000XSPL	GZRW 30XSPL-D2	Front-Basstunnel	63 L / 2.22 ft ³	650 x 380 x 450 (330) / 25.6 x 15 x 17.72 (12.99)	2 x 2 Ω	1500 W SPL	800 - 1500 W	
GZRB 3000XFL	GZRW 12XFL	Sealed	19 L / 0.67 ft ³	700 x 380 x 140 (90) / 27.56 x 15 x 5.51 (3.54)	2 x 2 Ω	500 W RMS	400 - 600 W	
GZTB 3000BP	300 mm / 12" Woofer	4th order bandpass	20 & 33 L / 0.71 & 1.17 ft ³	510 x 380 x 445 (345) / 20.08 x 15 x 17.52 (13.58)	2 x 2 Ω	400 W RMS	300 - 450 W	
GZTB 2500BP	250 mm / 10" Woofer	4th order bandpass	12 & 22 L / 0.42 & 0.78 ft ³	485 x 332 x 385 (285) / 19.09 x 13.07 x 15.16 (11.22)	2 x 2 Ω	300 W RMS	200 - 350 W	
GZIB 2.3000SPL	2 x GZIW 12SPL	Front-Basstunnel	82 L / 2.9 ft ³	840 x 380 x 420 (300) / 33.07 x 15 x 16.54 (11.81)	4 x 2 Ω	2000 W SPL	1200 - 2000 W	
GZIB 3000SPL	GZIW 12SPL	Front-Basstunnel	45 L / 1.59 ft ³	560 x 360 x 360 (260) / 22.05 x 14.17 x 14.17 (10.24)	2 x 2 Ω	1000 W SPL	600 - 1000 W	
GZIB 2.300BR	2 x 300 mm / 12" Woofer	Front-Basstunnel	70 L / 2.47 ft ³	820 x 365 x 390 (290) / 32.28 x 14.37 x 15.35 (11.4)	2 x 2 Ω	700 WRMS	500 - 800 W	
GZIB 300BR	300 mm / 12" Woofer	Front-Basstunnel	37 L / 1.31 ft ³	440 x 365 x 390 (300) / 17.32 x 14.37 x 15.35 (12)	4 Ω	350 WRMS	250 - 400 W	
GZIB 200BR	GZIW 200X	Front-Basstunnel	17 L / 0.6 ft ³	380 x 260 x 290 (230) / 15 x 10.24 x 11.42 (9.06)	4 Ω	150 WRMS	100 - 200 W	
GZIB 165BR	GZIW 165X	Front-Basstunnel	11 L / 3.9 ft ³	310 x 220 x 300 (250) / 12.2 x 8.66 x 11.81 (9.8)	4 Ω	100 W RMS	60 - 150 W	
GZIB 80PT	GZIW 200X	Bass tube	17 L / 0.6 ft ³	252 x 260 x 520 (400) / 9.92 x 10.24 x 20.47 (15.75)	4 Ω	150 WRMS	100 - 200 W	

Technologies

CLASS D

Digital amplifier

W R D
WIDE RANGE DISPERSION

Wide range dispersion and a linear off axis performance

CLASS AB

Analogue amplifier

HANDMADE

Accurately handmade product with selected parts

24VOLT

Amplifiers - technically designed for a 24 volt environment like trucks, coaches and vans

FBT
FRONT BASS TUNNEL

High efficient front bass tunnel port for powerful bass performance

V BIAS
VARIABLE

Variable bias setting to allow adjusting the amplifier from Class AB to nearly Class A operation mode

BT
BASS TUNNEL

Patented triangle bass tunnel port for optimized low bass performance

H L
HIGH LEVEL

High level input with auto-on

X MAX ↑ ↓

Huge excursion capability due to a GZ-style 3-layer sandwich surround & a high flexible Nomex spider

XFD
EXTRA FLAT DESIGN

Extra flat designed product for easy installation

SPL
SOUND PRESSURE LEVEL

Extremely powerful products for competition and loud music reproduction

LDW
LOW DISTORTION WAVE

Complex shaped wave-form surround for an extremely linear performance and the reduction of partial oscillation

SQ
SOUND QUALITY

High grade Sound Quality products for competition and excellent sound reproduction

W FWC
WOVEN FIBER WOVEN CONE

This state of the art cone material and its production technology combine extraordinary low distortion of thin woven glass fiber and the outstanding strength of rough wooden fabric. Due to its light weight this cone offers perfect and precise sound quality.

Rh
RHODIUM

As a member of the exclusive platinum group, Rhodium is one of the most costly and rare materials used for making highest quality plug's plating. It's extremely hard and doesn't corrode even under toughest conditions as in car audio use. Beside the reliability, Rhodium plated connectors provide fast, powerful controlled bass, an open and transparent mid- to upper- frequencies performance, which gives you a smooth, nuanced wideband tonal balance.

CERAMIC
ANODIZED ALUMINUM CONE

High End aluminum cone with ceramic anodizing for linear frequency response and low distortion

SPW
SILVER PLATED WIRE

Cable with 50% silver plated OFC wires

COMPOSITE
COATED PAPER CONE

Pressed High End composite paper cone with damping mineral coating

OFC
OXYGEN FREE COPPER

Oxygen-free copper wire - best electrical conductivity under any condition and temperature

MAGNESIUM
MAGNESIUM CONE

Lightweight high tech pure magnesium cone

OCC

High grade copper wire, optimized with a continuous casting process for a uniform crystalline structure

CC
COUPLED CHAMBER

Sound Quality tweeter with complex ventilated and damped coupled chamber for low resonance frequency and wide frequency range

PNP
PLUG AND PLAY

Easy install plug and play products

NEO
NEODYMIUM

Low weight and high efficient Neodymium magnet

DSP
DIGITAL SOUND PROCESSOR

With integrated Digital Sound Processor

BIMAX

High flexible „Made in Germany“ double layer polyester-cotton spider

X S
EXTRA SMALL

Compact dimension for easy installation

HE
HIGH EFFICIENCY

High efficient product for perfect performance with low power

Ground Zero directs special attention to develop perfect working and sounding speakers and subwoofers. Therefore, as one of just a few companies in car audio industry, each speaker is tested using a Klippel® measurement system belonging to Ground Zero's development department to optimize every detail and achieve the requested speaker characteristics. As a result, Ground Zero speakers and subwoofers comply with their indicated parameters under every kind of application and each condition.

Klippel® R&D system and measurement methods

The behavior of electro dynamical loudspeakers at high amplitudes cannot be described by a linear model. This conventional model suggests a transfer response independent of input signal amplitudes. In fact thermal and nonlinear mechanisms cause signal distortion and limit acoustical output. New techniques are developed for the identification of nonlinearities. They allow measurement and prediction of nonlinear transfer behavior and also the subjective evaluation of the nonlinear distortion in audio-signals. The tools give valuable information about the correlation between the physical characteristics of driver and perceived sound quality. It is possible to recognize the physical causes of distortion by understanding the measured loudspeaker parameters.

(Extracted from www.klippel.de/know-how/introduction.html)

LSI – Large Signal Identification

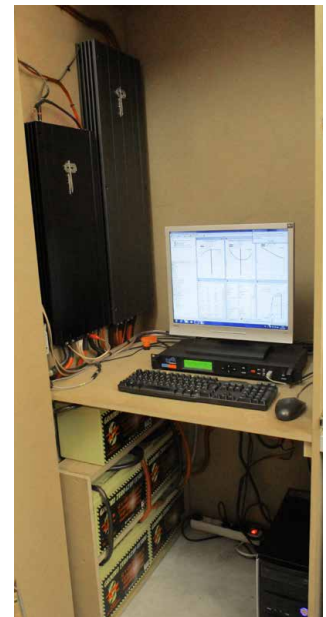
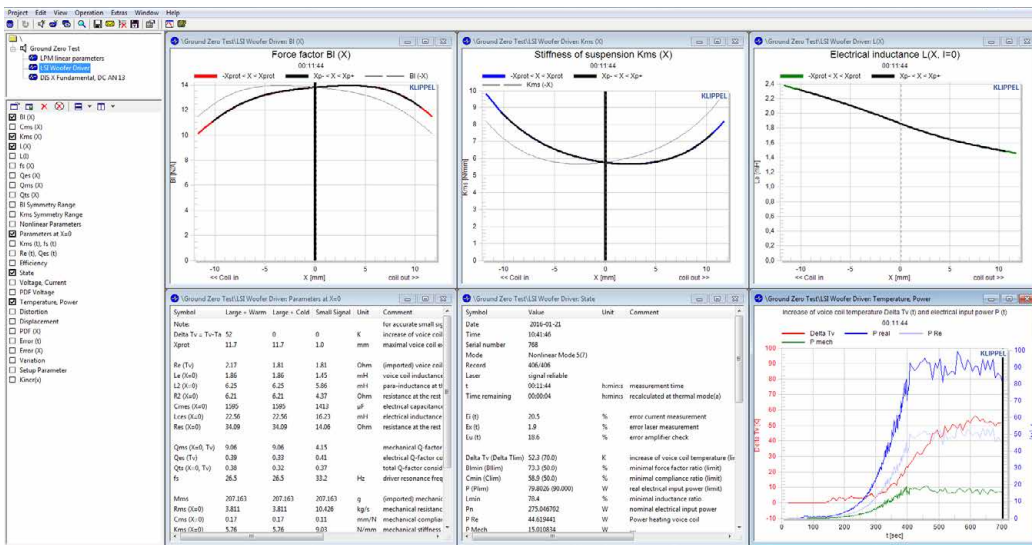
The LSI measurement delivers linear, nonlinear and thermal parameters of loudspeakers dynamically by monitoring voltage and current at the speaker terminal according to IEC standard 62458. The speakers are measured under normal working conditions (free air, sealed or vented enclosure) and will be excited by an audio-like signal (noise).

DIS – 3D Distortion Measurement

This method performs a series of measurements using a single or two-tone stimulus varied in amplitude and frequency to check the large signal behavior of audio systems. The results are the steady-state amplitude responses of the DC component, fundamentals, harmonic and intermodulation components.

LPM – Linear Parameter Measurement

LPM identifies the lumped parameters of the speakers's equivalent circuit including T/S, creep and lossy inductance parameters. A multi-tone stimulus is used to measure the voltage, current, voice coil displacement and sound pressure at sufficient SNR while operating the speaker in the small signal domain.





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