



...is all you need



SXR1002

SXR1004

SXR1202

SXR1204

SXR1502

SXR1504

SXR REFERENCE PERFORMANCE

CONGRATULATIONS !

You now own an EXCURSION SXR REFERENCE Subwoofer, the product of an uncompromising design and german engineering philosophy. A product made from Car Audio fanatics who truly believe in the relentless pursuit of perfection. A product made for the single goal to be the ultimate choice for SPL Competition.

EXCURSION Subwoofers are the result of several decades of product improvements, competition, innovation and highest quality parts and control standards in industry. When properly installed these speakers will provide you with many years of listening pleasure and are the perfect balance between high fidelity, extreme performance and long-lasting reliability.

Should your SXR Subwoofer ever need a service, Please record your information on the following lines to refer to in the event that you may need it later.

Dealer's Name _____

Date of Purchase _____

Installation Shop _____

Installation Date _____

At EXCURSION Intl. we are confident you will have many years of outstanding enjoyment from your high performance investment. For maximum performance we recommend that you have your new EXCURSION SXR Subwoofer installed by an exclusive Authorized EXCURSION Dealer

To learn more about EXCURSION, please visit us on the World Wide Web at

<http://www.excursion.us>

CAUTION !

Continuous exposure to sound pressure levels in excess of 100dB can cause permanent hearing loss. EXCURSION Speakers are capable of producing sound pressure levels well over 170dB. Please observe all local sound ordinances while listening to your EXCURSION System. EXCURSION Intl. accepts no liability for hearing loss, bodily injury, or property damage due to the result of use or misuse of this product.

EXCURSION SXR SUBWOOFER FEATURE

Kraft Pulp & Mica Poly Cone Mix : The cone and its choice of material effect almost everything in regard to the Sound Quality of the subwoofer. While the cone must remain exceptionally stable under the stress of high sound pressure levels a well balanced formula of maximum stiffness at minimum weight is the prior target next to a high grade internal damping for reproduction from the deepest bottom signals. We at EXCURSION especially took care at this keypoint of a subwoofer which we call our REFERENCE. We have designed an air chamber sandwich technology using a natural Kraft Pulp Paper Cone and a full size inversed Polypropylen Dustcap. This sandwich effect into a Sound Design which meets the best of several worlds. It combine authentic high end demands of dryness and volume of the weightless Kraft Pulp Cone with a greasing and an outstanding low Frequency Sound Performance of the closed air sandwich structure with its high grade polypropylene surface of the inverse Dustcap.

Rigid tooled oversized Steel Basket: Their symmetrical design together with the stamped EXCURSION logos ensure outstanding static, aerodynamic and stiffness of our EXCURSION steel baskets. For EXCURSION SXR baskets we tricked again with our historical Double Wide Surround (DWS) Technology and our patended Basket Flange Design, effect into more cone area than average which support their outputs. All together ensure linear excursion in an extremely rigid non-resonant frame, which fix motor structure and all moving parts together. Coated with black antivibration colour the baskets are acoustical deaden to provide best results. We at EXCURSION took especially care of maximum cooling of voice coil. All baskets are symmetrical vented below the spider for maximum heat transfer, knowing that a cool voice coil is able to take more power and handle more power.

Voice Coils: The heart of EXCURSION SXR REFERENCE Subs are these over several decades improved and carefully designed 2.5" Voice Coils. With the experience of past we have made them almost unbreakable and weightless. At max. load-bearing capacity we wrap pure and solid copper wire on 4layers on aluminium formers, which assure with a row of extra Top Vents in the upper Voice Coil Former a fully air cooling circle flow between pole piece of motor and the perimeter vents of our REFERENCE basket.

280 once Motor Structure: The motor structure of a Subwoofer drives the cone. Just like an engine of a car our Double stacked engine allow your SXR Subwoofer transfer an incredible Power and Excursion while our unbreakable linear spider ensure precise linear movements. Our extra bumped and aero pole vented backplates set them no limits, While the EXCURSION rubber boot and gasket protect your Sub and car at installation.

A REFERENCE is called REFERENCE as it refer to a Flagship we at EXCURSION would preferable like to get compared. Our REFERENCE refer to our engineering Philosophy.

Pre-Installation Instructions:

It is recommended that you have your new EXCURSION SXR Sub professionally installed by your authorized EXCURSION dealer. This will ensure use of proper installation techniques & materials. If you choose to perform your own installation, the following instruction will give you direction making your purchase complete.

The factors for the port area are manifold and can not be reduced only to depend on the cone area of the woofer that is used. But at least it is a good advice not to go with less than $1/7$ of the cone area for ported and $1/4$ for bandpass enclosures.

While you are building up and tuning your sub system you should use a trial-port. This should be longer than calculated or recommended. While tuning the system you can find the best sounding length by shortening the port in approx 2 cm steps. The final tuning in the car does not only result out of what you do with the port. Also the position of the port in the enclosure and surrounding areas and position in the trunk have notable impact. The load-through of rear seats are also uncalculable as well size and construction type of the car. This easy effect with different results.

Please do NOT use carpet or cloth within the port or inside the enclosure. It has bad effects on the air flow. It is recommended to round up the ends of the port and ensure a glossy surface where ever the air moves inside the enclosure or port. The moving air mass will speed up and thank you by producing less side noises.

You can also prevent the port itself from resonating. The techniques are the same as you know from building enclosures or damping doors. You can use energy absorbing material or you can raise the stiffness of the port by bracing.

To have your subwoofer system playing clear and accurate you must follow the idea of an acoustical "dead" workplace, with just the moving cone. First of all, the enclosure itself might be not rigid enough. In most cases you can raise the stiffness by implementing braces, that connect in best way four walls. Or at least stiff up the baffle against back-wall. You can build enclosures with wallthickness of many centimetres, but bracing will have same effect with less weight! Now, when your enclosure is stiff and rigid to save you against bomb attacks, you can put it in your trunk. Do not forget it is important to fix it in the trunk of your car.

For further direction consult an authorized EXCURSION installation specialist

If you are intending to use multiple subwoofers in your system, EXCURSION recommends having separate chambers for each subwoofer if the subwoofers will be operated by different amplified signals. This prevents possible cancellation.

WARNING: The use of silicone rubber to seal in a speaker will void the Warranty! If sealing is needed to the speaker gasket, use caulking cord or vinyl weather strip.

IMPORTANT: Never cut any metal that is an integral part of an automobile's safety or structural support system.

NOTE: EXCURSION strongly recommends that you operate the complete audio system at low volume before final installation of your SXR Series Subwoofers. This will allow a trial listening test to set maximum volume without distortion.

CAUTION: Make sure that all speaker wiring is fully protected from cutting or wear. Any short circuits developing as a result could severely damage the radio unit or amplifier. Make sure that all speaker wires easily reach the speaker terminals without stress on the wire or connectors.

PREPARING FOR INSTALLATION

Note: The tools listed below may be required for proper installation.

- * An electric drill with drill bits
- * Phillips-head and standard screwdrivers
- * Crimping tool and needle-nose pliers
- * Silicon sealant or closed cell weather-stripping
- * Metal file, Hole saw, Tin Snips, Wire strippers

INSTALLATION PRECAUTIONS

Note: Proceed only if you are a qualified installer otherwise let your dealer do it.

- * Always wear protective eyewear when using tools
- * Turn OFF all stereo and other electrical devices before you begin
- * Disconnect the (-) negative lead from your vehicle's battery.
- * Keep the speakers in the package until final installation.
- * Locate fuel lines, brake lines, oil lines, electrical cables when planning installation.
- * Check to see clearance behind the mounting surface before installing speakers.
- * When running speaker wires through sheet metal, be sure to use grommets to properly insulate the wires from metal edges.

10" TSP DATAS & ENCLOSURE RECOMMENDATION

SXR-10D2

VC: 2x 20hm
 Test: 3,70hm
 Fs: 25,277 Hz
 Vas: 45,438 Liter
 Qms: 5,161
 Qes: 0,330
 Qts: 0,310
 Mms: 156,372g
 BL™: 17,192
 SD: 356,6 sqCM
 Cms: 0,2383 mm/N
 No: 0,215%
 Splo: 85,3 dB
 Xmax: 16 mm

**Optimum Ported
 10" SPL Box :**

Internal Volume: 42,8 Liter
 VB nett Volume: 38,8 Liter
 Port Diameter: 2x 75 mm
 Port Length: each 240 mm
 F3: 41,5 Hz
 FB: 49,4 Hz

Enclosure Metrics

MDF: 19 mm
 Wide: 540 mm
 Height: 310 mm
 Depth: 355 mm

SXR-10D4

VC: 2x 40hm
 Test: 7,70hm
 Fs: 21,944 Hz
 Vas: 59.795 Liter
 Qms: 3,821
 Qes: 0,36
 Qts: 0,329
 Mms: 149,865 g
 BL™: 21.051
 SD: 356,6 sqCM
 Cms: 0,351 mm/N
 No: 0,170%
 Splo: 84,3 dB
 Xmax: 16 mm

**Optimum Ported
 10" SQPL Box :**

Internal Volume: 40,0 Liter
 VB nett Volume: 31,3 Liter
 Port Height: 38 mm
 Port Wide: 332 mm
 Port Length: 390 mm
 F3: 44,8 Hz - FB: 53,0 Hz

Enclosure Metrics

MDF: 19 mm
 Wide: 370 mm
 Height: 400 mm
 Depth: 385 mm

12" TSP DATAS & ENCLOSURE RECOMMENDATION

SXR-12D2

VC: 2x 20hm
Test: 3,70hm
Fs: 26,136 Hz
Vas: 63,07 Liter
Qms: 4,28
Qes: 0,499
Qts: 0,447
Mms: 235,348 g
BL™: 17.509
SD: 530,93 sqCM
Cms: 0,1576 mm/N
No: 0,218%
Splo: 86,4 dB
Xmax: 16 mm

Optimum Ported 12" SPL Box :

Internal Volume: 56,2 Liter
VB nett Volume: 49,2 Liter
Port Diameter: 2x 100 mm
Port Length: each 250 mm
F3: 46,2 Hz
FB: 55,0 Hz

Enclosure Metrics

MDF: 19 mm
Wide: 540 mm
Height: 360 mm
Depth: 360 mm

SXR-12D4

VC: 2x 40hm
Test: 7,70hm
Fs: 21,87 Hz
Vas: 57,388 Liter
Qms: 4,693
Qes: 0,649
Qts: 0,57
Mms: 232,424 g
BL™: 21,87
SD: 530,93 sqCM
Cms: 0,1434 mm/N
No: 0,179%
Splo: 85,6 dB
Xmax: 16 mm

Optimum Ported 12" SQPL Box :

Internal Volume: 51,0 Liter
VB nett Volume: 39,0 Liter
Port Wide: 382 mm
Port Height: 42 mm
Port Length: 390 mm
F3: 46,6 Hz - FB: 53,0 Hz

Enclosure Metrics

MDF: 19 mm
Wide: 420 mm
Height: 450 mm
Depth: 380 mm

15" TSP DATAS & ENCLOSURE RECOMMENDATION**SXR-15D2**

VC: 2x 20hm
Test: 3,70hm
Fs: 19,624 Hz
Vas: 276,47 Liter
Qms: 4,427
Qes: 0,459
Qts: 0,416
Mms: 228,5 g
BL™: 16.172
SD: 815 sqCM
Cms: 0,302 mm/N
No: 0,329%
Splo: 87,7 dB
Xmax: 16 mm

**Optimum Ported
15" SPL Box :**

Internal Volume: 70,5 Liter
VB nett Volume: 60,0 Liter
Port Diameter: 2x 100 mm
Port Length: each 250 mm
F3: 41,0 Hz
FB: 50,0 Hz

Enclosure Metrics

MDF: 19 mm
Wide: 630 mm
Height: 420 mm
Depth: 352 mm

SXR-15D4

VC: 2x 40hm
Test: 3,70hm
Fs: 21,966 Hz
Vas: 197,033 Liter
Qms: 5,012
Qes: 0,623
Qts: 0,554
Mms: 235,42 g
BL™: 20.193
SD: 815 sqCM
Cms: 0,2145 mm/N
No: 0.248%
Splo: 87,1 dB
Xmax: 16 mm

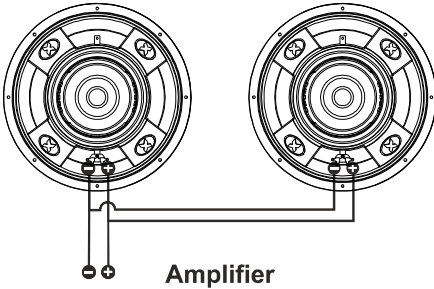
**Optimum Ported
15" SQPL Box :**

Internal Volume: 90,5 Liter
VB nett Volume: 68,4 Liter
Port Wide: 462 mm
Port Height: 52 mm
Port Length: 530 mm
F3: 37,2 Hz - FB: 43,4 Hz

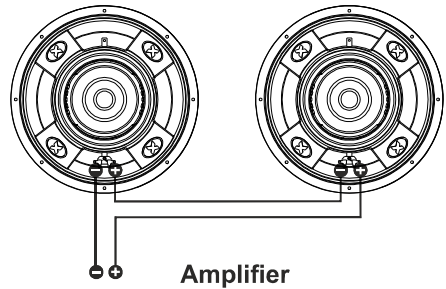
Enclosure Metrics

MDF: 19 mm
Wide: 500 mm
Height: 550 mm
Depth: 425 mmm

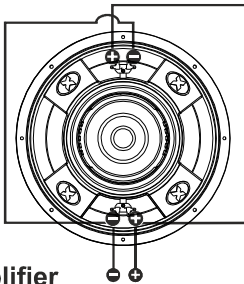
WIRING DIAGRAM



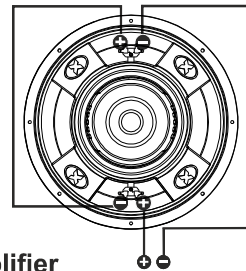
Parallel 2x Single 4 ohm subs = 2 ohm



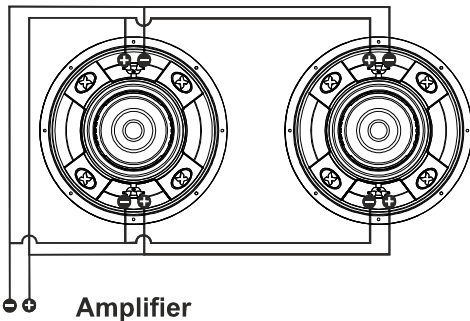
Series 2x Single 4 ohm subs = 8 ohm



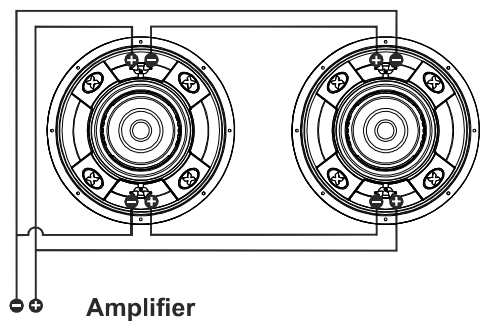
Parallel 1x Dual 4 ohm sub = 2 ohm



Series 1x Dual 4 ohm sub = 8 ohm



Parallel-Parallel 2x Dual 4 ohm subs = 1 ohm



Series-Parallel 2x Dual 4 ohm sub = 4 ohm

SPECIFICATIONS FOR EXCURSION SXR SUBWOOFER SERIES

(Due to Constant Improvements, Specifications and Parameters are subject to change without notice)

Model	Size	Nominal Impedance	Power RMS/PEAK	Sensitivity 1W/1m	Motor Size	Mounting Depth	Inner Dia. Cut out	Outer Dia.	Kg
SXR-10 D2	10"/25cm	2x20ohm	600 / 1500 W	85.3dB	280 oz.	136mm	235mm	276mm	6.5
SXR-10 D4	10"/25cm	2x40ohm	600 / 1500 W	84.3dB	280 oz.	136mm	235mm	276mm	6.5
SXR-12 D2	12"/30cm	2x20ohm	600 / 1500 W	86.4dB	280 oz.	150mm	283mm	325mm	7.0
SXR-12 D4	12"/30cm	2x40ohm	600 / 1500 W	85.6dB	280 oz.	150mm	283mm	325mm	7.0
SXR-15 D2	15"/38cm	2x20ohm	600 / 1500 W	87.7dB	280 oz.	171mm	349mm	394mm	8.0
SXR-15 D4	15"/38cm	2x40ohm	600 / 1500 W	87.1dB	280 oz.	171mm	349mm	394mm	8.0

CAUTION: Excursion Subwoofer are capable of producing dangerous SPL levels

ATTENTION: Excursion Subwoofer demand at least 50 hours break in time for maximum Performance.



EXCURSION LIMITED WARRANTY POLICY

EXCURSION Intl. offers limited warranty on EXCURSION products under normal use on the following terms:

EXCURSION Speakers are to be free of defects in material and workmanship for a period of one year.

This warranty applies only to EXCURSION products sold to consumers by Authorized EXCURSION Dealers in Germany. Products purchased by consumers from an EXCURSION dealer in another country are covered only by that country's Distributor and not by EXCURSION Intl.

This warranty covers only the original purchaser of EXCURSION product. In order to receive service, the purchaser must provide EXCURSION with the receipt stating the consumer name, dealer, product and date of purchase.

Products found to be defective during the warranty period will be repaired or replaced (with a product deemed to be equivalent) at Excursion`s discretion and will not be liable for incidental or consequential damages. EXCURSION will not warranty this product under the following situations:

- * **Speakers received with bent frames or water damages**
- * **Abuse such as holes in the cone, surround or ripped spider**
- * **Voice coil damage due to amplifier clipping or distortion**
- * **Product that has not been installed according to this owner manual**

Any implied warranties including warranties of fitness for use and merchantability are limited in duration to the period of the express warranty set forth above. No person is authorized to assume for EXCURSION any other liability in connection with the sale of this product.

Please call prior your authorized EXCURSION dealer the product got purchased. In case they are not accessible call 0961-416-0420 for EXCURSION Customer Service. You must obtain an RA# (Return Authorization Number) to return any product to EXCURSION Intl. The RA number must be prominently marked on the outside of the shipping carton or the delivery will be refused. Please pack your return carefully! We are not responsible for items damaged in shipping. Return the defective product along with a copy of the original dated retail sales receipt, plus 10,- EUR for handling and diagnostic evaluation to:

EXCURSION Intl. - A Division of CHPW
Attn: Returns (RA#)
Neustaedter Str. 20
D-92685 Floss / Germany



EXCURSION - A Division of CHPW

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