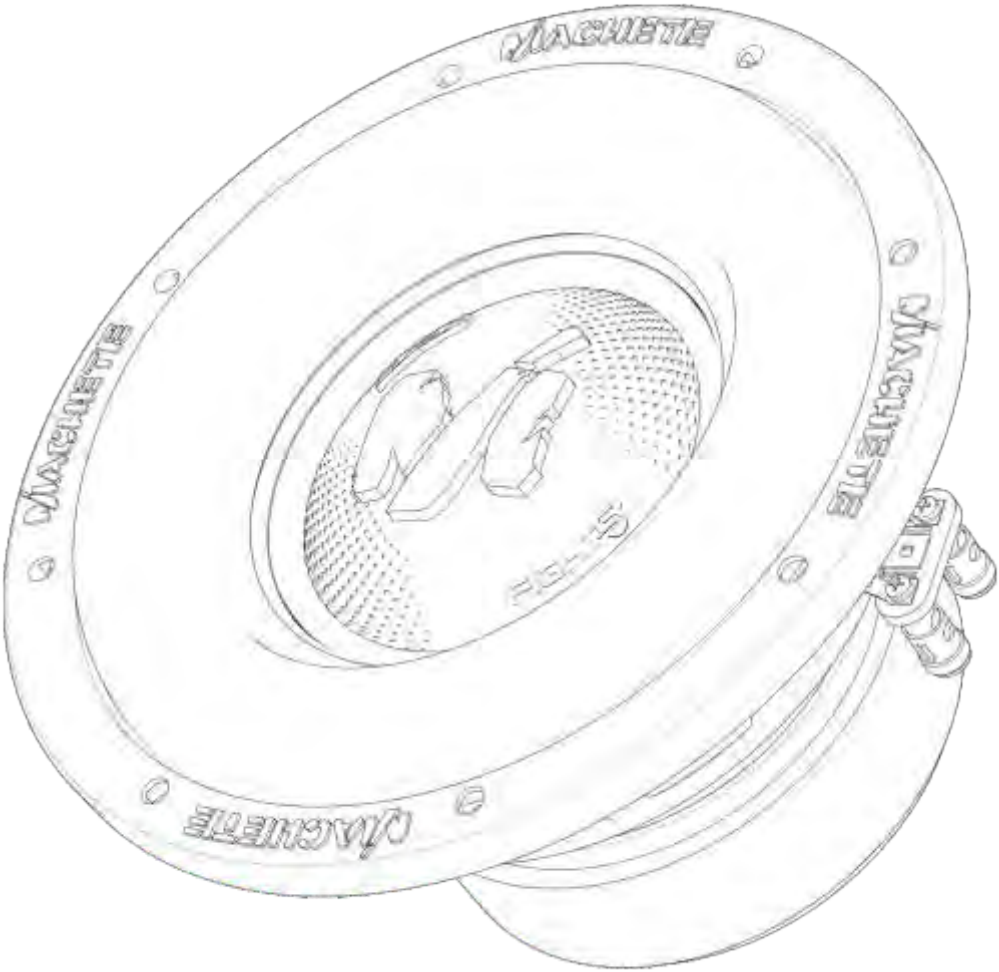
Deaf Bonce

MACHETE FIGHTS

**OWNER'S MANUAL** | **SUBWOOFER**

**РУКОВОДСТВО ПОЛЬЗОВАТЕЛЯ** | **САБВУФЕР**




**MF-08S D2/D4** / **MF-10S D2/D4** / **MF-12S D2/D4** / **MACHETE SERIES**

https://alphard.audio

1. Introduction
2. Safety instructions
3. Wiring diagrams
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(for the European countries with separate waste collection)

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dBDRA EMMA european mobile media association

## 1. INTRODUCTION

EN

Thank you for purchasing of this Deaf Bonce product! Our company is committed to the creation of extremely loud sound systems with no loss of quality.

To ensure proper use, please carefully read through this manual before using this product. It is especially important that you read and observe caution's in this manual. Please keep the manual in a safe and accessible place for future reference.

## 2. SAFETY INSTRUCTIONS

1. Fasten the subwoofer properly when installing it in the vehicle. If the component is disconnected during driving, it may cause serious damage to the passengers of the vehicle or another vehicle.

2. Before installing the components, if possible store the product in its original package to avoid accidental damage to the product.

3. Be careful when installing and dismantling the subwoofer! Do not let the subwoofer drop to avoid damage of its moving parts.

4. When working with tools follow safety rules.

5. Before the installation switch off the head unit and all other audio devices to avoid their damage.

6. Make sure that the location of the subwoofer does not hinder the proper operation of mechanical and electrical devices of the vehicle.

7. Do not install components in places exposed to water, excessive humidity, high or low temperature, dust or dirt. ATTENTION!!! The product may be operated at +5 °C (41F) to +40 °C (104F). In case of moisture condensation, let the product to dry.

8. When performing plumbing, drilling or cutting works with the car, make sure that there is no wiring, brake lines, fuel pipe or other structural elements under the place of work. Follow the safety rules! Use protective glasses and gloves.

9. When stretching back the speaker cables make sure that they are not in contact with sharp edges or moving mechanical devices. Make sure that they are firmly fixed and protected over the entire length.

10. The diameter of the speaker cables must be selected in accordance with the length and applied power.

11. Never stretch the cables outside of the car and near the moving parts of the car. This can lead to destruction of the insulating layer, short circuit and fire.

12. To protect the cables use rubber gaskets if the wire passes through a hole in the plate, or other similar materials if it lies close to the parts exposed to heat.

**CAUTION!!! High sound pressure can damage your health!**
**Please use the common sense when controlling volume!**

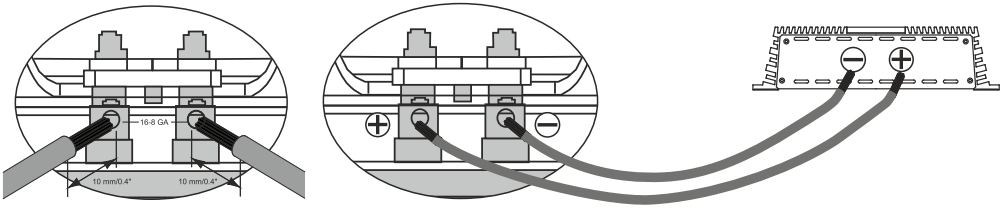
## 3. WIRING DIAGRAMS

Attention! You need to connect both voice coils of the subwoofer.

Do not expose your amplifier to loads below the value predetermined by the manufacturer.

Various examples of connection types are given at the pages below. Use these examples to determine the required load impedance of your connection.

### Connection of terminals




### Serial connection

**Total impedance = ΩSub 1 + ΩSub 2 + ΩSub 3 ...**

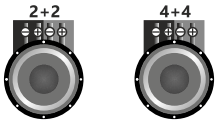
## Parallel connection

$$\text{Total impedance} = \frac{1}{\frac{1}{\Omega\text{Sub 1}} + \frac{1}{\Omega\text{Sub 2}} + \frac{1}{\Omega\text{Sub 3}} \ldots} \ldots$$

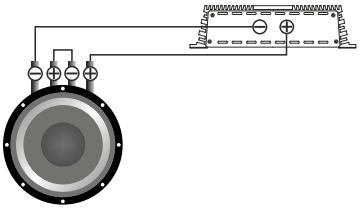
## Schemes of enabling the load of the subwoofer

### Voice coils 2+2, 4+4 Ohm

**The subwoofer has voice coil D2 or D4.**

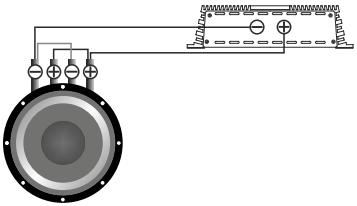



### One subwoofer, coils in series



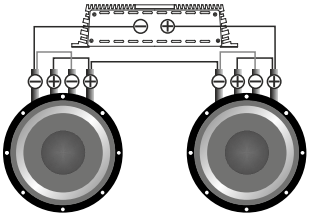
| Voice coils | Total impedance |
|---|---|
| 2+2 Ohm | 4 Ohm |
| 4+4 Ohm | 8 Ohm |

### One subwoofer, coils in parallel

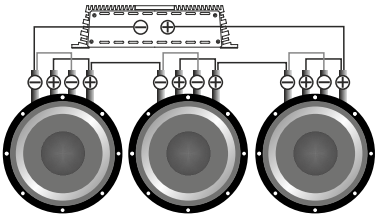


| Voice coils | Total impedance |
|---|---|
| 2+2 Ohm | 1 Ohm |
| 4+4 Ohm | 2 Ohm |

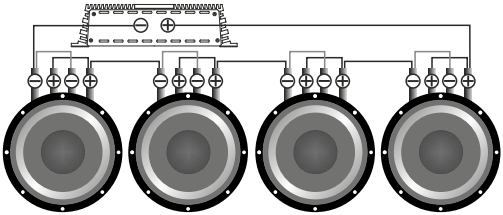
### Subwoofers in series, coils in parallel



| Voice coils | Total impedance |
|---|---|
| 2+2 Ohm | 2 Ohm |
| 4+4 Ohm | 4 Ohm |

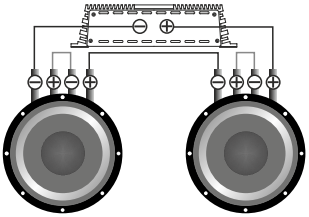


| Voice coils | Total impedance |
|---|---|
| 2+2 Ohm | 3 Ohm |
| 4+4 Ohm | 6 Ohm |

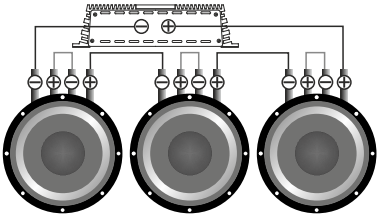


| Voice coils | Total impedance |
|---|---|
| 2+2 Ohm | 4 Ohm |
| 4+4 Ohm | 8 Ohm |

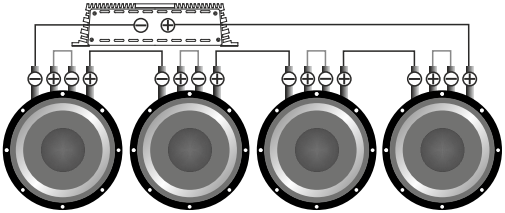
## Subwoofers in series, coils in series



| Voice coils | Total impedance |
|---|---|
| 2+2 Ohm | 8 Ohm |
| 4+4 Ohm | 16 Ohm |

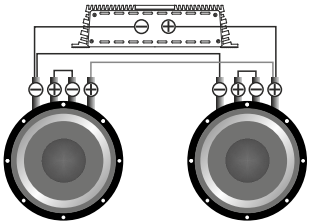


| Voice coils | Total impedance |
|---|---|
| 2+2 Ohm | 12 Ohm |
| 4+4 Ohm | 24 Ohm |

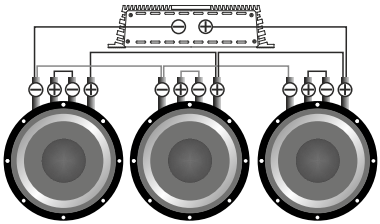


| Voice coils | Total impedance |
|---|---|
| 2+2 Ohm | 16 Ohm |
| 4+4 Ohm | 32 Ohm |

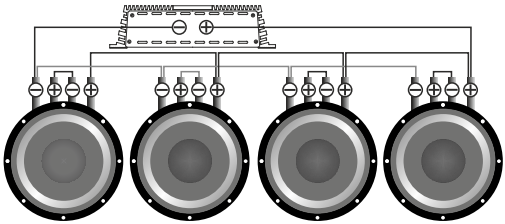
## Subwoofers in parallel, coils in series



| Voice coils | Total impedance |
|---|---|
| 2+2 Ohm | 2 Ohm |
| 4+4 Ohm | 4 Ohm |

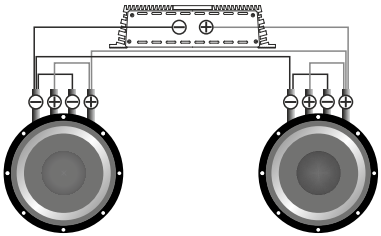


| Voice coils | Total impedance |
|---|---|
| 2+2 Ohm | 1.33 Ohm |
| 4+4 Ohm | 2.66 Ohm |

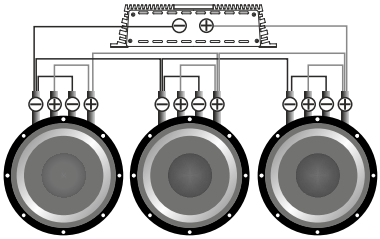


| Voice coils | Total impedance |
|---|---|
| 2+2 Ohm | 1 Ohm |
| 4+4 Ohm | 2 Ohm |

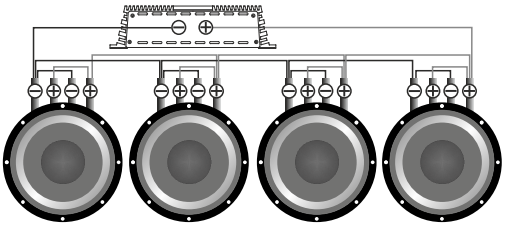
## Subwoofers in parallel, coils in parallel



| Voice coils | Total impedance |
|---|---|
| 2+2 Ohm | 0.5 Ohm |
| 4+4 Ohm | 1 Ohm |



| Voice coils | Total impedance |
|---|---|
| 2+2 Ohm | 0.33 Ohm |
| 4+4 Ohm | 0.66 Ohm |



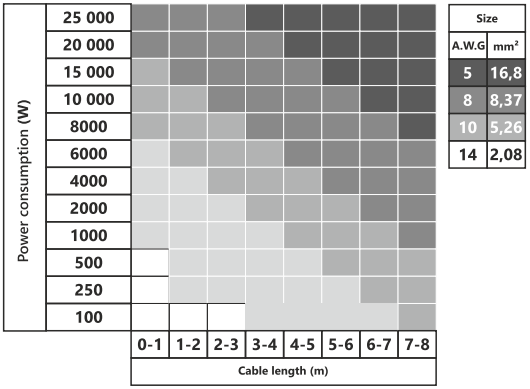
| Voice coils | Total impedance |
|---|---|
| 2+2 Ohm | 0.25 Ohm |
| 4+4 Ohm | 0.5 Ohm |

**CAUTION!!! High sound pressure can damage your health!**
**Please use the common sense when controlling volume!**

## Selection of the diameter of speaker cables

EN

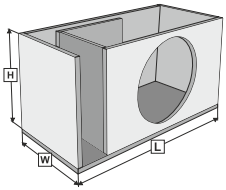
Use the table below to select the desired diameter based on the length and power consumption.




| Size | |
|---|---|
| A.W.G | mm² |
| 5 | 16,8 |
| 8 | 8,37 |
| 10 | 5,26 |
| 14 | 2,08 |

## 4. RECOMMENDED ENCLOSURE PARAMETERS

**Bass reflex box**




**L*W*H = body volume**

| Parameters | MF-08S | MF-10S | MF-12S |
|---|---|---|---|
| The recommended volume, liters / ft³ | 23 / 0.8 | 40 / 1.4 | 50 / 1.7 |
| Port area, cm² / inch² | 65 / 10.1 | 80 / 12.4 | 150 / 24 |
| Port length, cm / inch | 45 / 17.7 | 35 / 13.8 | 62 / 24.4 |
| Hz setting | 39 | 37 | 35 |

## 5. HOW TO USE

The correct choice of the amplifier, its settings and enclosure design prolongs the lifetime of your subwoofer. You should select an amplifier with a nominal power below the nominal power of the subwoofer. Proper coordination of the head unit (HU) with the amplifier will provide a clean, undistorted signal fed to the subwoofer, which prevents overheating and voice coil damage. Like any other speaker the subwoofer has moving and stationary parts. We strongly recommend that the moving parts of the subwoofer should be warmed up at the beginning of operation. Be extra careful when warming up the parts. Warm up the subwoofer using musical material for 40 hours at medium power. If, during operation at maximum volume you feel strange smell, you should lower the volume of the subwoofer and let the device to cool down at a low volume.

Recommended settings of the amplifier and HU: Volume of HU should not exceed 80%. The amplifier sensitivity should be set to 50%, subsonic filter frequency (Subsonic) should be set to 5 Hz below the port settings. For example, if you configure the port at 30 Hz, Subsonic should be set to 25 Hz. The low pass filter LPF (the filter that cuts all frequencies above those set for the filter) should be set to 63-80 Hz, bassboost should be set to 0.

## 6. SPECIFICATIONS

| Model | MF-08S D2/D4 | MF-10S D2/D4 | MF-12S D2/D4 |
|---|---|---|---|
| Size (Inch) | 8 | 10 | 12 |
| Surround material | Foam | Foam | Foam |
| Cone material | Pressed paper | Pressed paper | Pressed paper |
| Frame material | Stamped steel | Stamped steel | Stamped steel |
| Magnet type | Ferrite | Ferrite | Ferrite |
| Power RMS (W) | 600 | 800 | 800 |
| Power MAX (W) | 1200 | 1600 | 1600 |
| Voice coil size (Inch) | 2 | 2.5 | 2.5 |
| Voice coil wire | Copper | Copper | Copper |

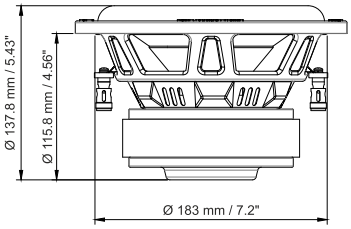
## THIELE-SMALL PARAMETERS

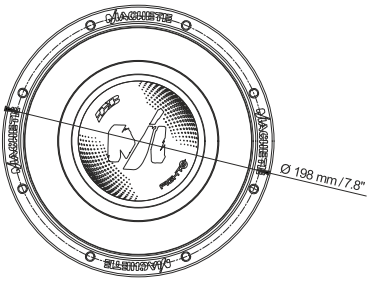
| | | | |
|---|---|---|---|
| Impedance (Ohm) | 2+2 / 4+4 | 2+2 / 4+4 | 2+2 / 4+4 |
| Re (Ohm) | 1.8+1.8 / 3.6+3.6 | 1.8+1.8 / 3.6+3.6 | 1.8+1.8 / 3.6+3.6 |
| SPL (dB) | 84 / 84.3 | 84 / 84.1 | 86 / 87 |
| Xmax (mm) | 12 | 14 | 14 |
| Fs (Hz) | 48 / 48.2 | 36 / 36.3 | 35 / 38 |
| Vas (L) | 7.5 / 7.9 | 20.5 / 20.8 | 36.5 / 34.3 |
| Qts | 0.41 / 0.42 | 0.45 / 0.46 | 0.49 / 0.51 |
| BL | 15.1 / 15.4 | 18 / 18.2 | 18.5/ 21.5 |

**This specified sensitivity is not directly connected with the sound pressure in the vehicle and therefore should not be used as the sole indicator for comparison with other subwoofers.**

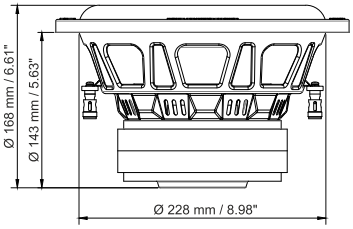
## 7. DIMENSIONS

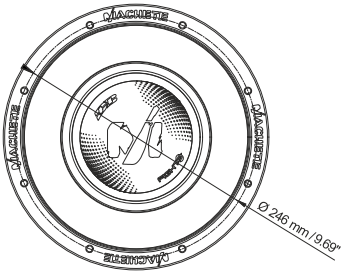
### MF-08S



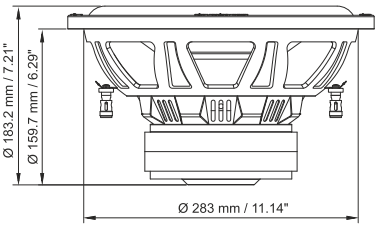



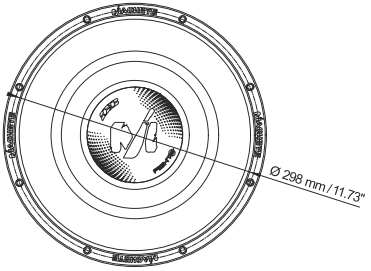

### MF-10S




### MF-12S




## 8. BOX CONTENTS

1. Subwoofer - 1 pc.
2. Owner's Manual - 1 pc.
3. Warranty card - 1 pc.

## 9. WARRANTY AND MAINTENANCE INFO



Deaf Bonce products are warranted against defects concerning materials and their manufacturing under normal functioning conditions.

While the product is under warranty, defective parts will be repaired or replaced at the manufacturer's decision. The defective product, along with notification about it, must be returned to the dealer from which it was purchased together with the warranty certificate duly filled in, complete with the original packaging. If the product is no longer under warranty, it will be repaired at the current costs.

Our company does not undertake any liability for damages due to transportation. Our company does not take any responsibility for costs or loss of profit due to the impossibility to use the product, other accidental or consequential costs, expenses or damages suffered by the customer. Warranty according to laws in force. For more information visit our website and carefully read warranty card.

The manufacturer reserves the right to change design and specification without prior notice.

## 10. INFORMATION ON DISPOSAL OF THE ELECTRICAL AND ELECTRONIC EQUIPMENT (FOR THE EUROPEAN COUNTRIES WITH SEPARATE WASTE COLLECTION)

Items marked "crisscrossed wheeled bin" are not allowed to be disposed of together with usual household waste. These electrical and electronic products should be disposed of in special reception centers, equipped for recycling such products and components. For information about the location of the nearest disposal / recycling spot and the rules of delivery of waste please contact your local municipal office. Recycling and proper disposal helps to protect the environment and prevent harmful effects on health.

**MF-08S** **MF-10S** **MF-12S**

**Manufacturer: Ningbo Sound Solution I&E Trading Co., Ltd**
**Made in China**

1. Введение
2. Меры предосторожности
3. Способы подключения
4. Параметры рекомендуемых оформлений
5. Рекомендации по эксплуатации
6. Технические характеристики
7. Размеры
8. Комплектация
9. Информация по гарантийному и сервисному обслуживанию
10. Информация об утилизации электрического и электронного оборудования
(для европейских стран, в которых организован раздельный сбор отходов)

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## 1. ВВЕДЕНИЕ



Благодарим Вас за приобретение продукции Deaf Bonce! Наша компания стремится к созданию чрезвычайно громких систем без потери качества.

Для обеспечения правильной эксплуатации оборудования внимательно прочитайте данное руководство перед использованием. Особенно важно, чтобы Вы соблюдали все меры предосторожности, указанные в данном руководстве. Пожалуйста, сохраните руководство в надежном и доступном месте.

## 2. МЕРЫ ПРЕДОСТОРОЖНОСТИ

1. Хорошо закрепляйте сабвуфер во время установки в автомобиле. Если компонент отсоединится во время езды, он может нанести серьезные повреждения пассажирам автомобиля или другим автомобилям.

2. Перед установкой компонентов, во избежание непреднамеренного повреждения, по возможности храните изделие в его оригинальной упаковке до начала установки.

3. Будьте осторожны при установке или демонтаже сабвуфера! Не допускайте падений сабвуфера, повреждения его подвижных частей.

4. При работе с инструментами соблюдайте технику безопасности.

5. Перед началом установки во избежание повреждений выключите головное устройство и все прочие устройства аудиосистемы.

6. Убедитесь в том, что выбранное Вами место установки динамика не нарушает нормальную работу механических и электрических устройств автомобиля.

7. Не устанавливайте компоненты там, где они могут подвергаться воздействию воды, излишней влажности, высокой или низкой температуры, пыли или грязи. ВНИМАНИЕ!!! Разрешается эксплуатация изделия при температуре от +5 °C (41F) до +40 °C (104F). В случае конденсации влаги, дайте изделию просохнуть.

8. При проведении слесарных работ, сверлении или резки металла автомобиля, убедитесь что под местом работ нет электропроводки, трубопроводов тормозной системы, бензопровода либо других элементов конструкции. Соблюдайте технику безопасности! Используйте защитные очки и перчатки.

9. Прокладывая акустические кабеля убедитесь в том, что они не находятся в контакте с острыми краями или движущимися механическими устройствами. Убедитесь в том, что они прочно закреплены и защищены по всей длине.

10. Сечение акустических кабелей необходимо выбирать исходя из длины и подаваемой мощности.

11. Никогда не протягивайте кабеля снаружи автомобиля, и возле двигающихся частей автомобиля. Это может привести к разрушению изоляционного слоя, короткому замыканию и возгоранию.

12. Для защиты кабелей используйте резиновые прокладки если кабель идет через отверстие в пластине или другие подобные материалы, если он пролегает рядом с частями, подверженными нагреву.

**ВНИМАНИЕ!!! Высокое звуковое давление может навредить вашему здоровью, поэтому руководствуйтесь здравым смыслом и практикуйте безопасный звук!**

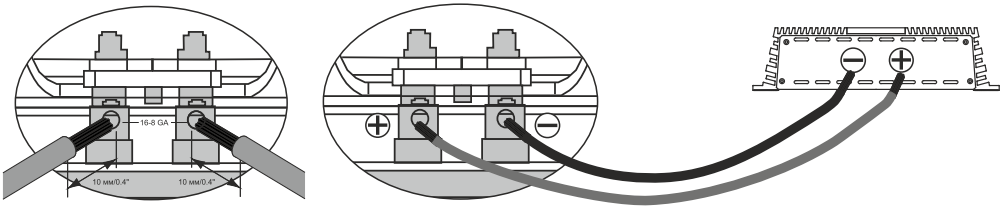
## 3. СПОСОБЫ ПОДКЛЮЧЕНИЯ

Внимание! Необходимо обязательно подключить обе звуковые катушки сабвуфера.

Ни в коем случае не подвергайте свой усилитель нагрузкам ниже разрешенных производителем.

Различные примеры коммутаций приведены на следующих страницах. Используйте данные примеры для определения необходимого вам сопротивления подключения.

### Подключение терминалов



## Последовательное соединение

**Полное сопротивление = ΩSub 1 + ΩSub 2 + ΩSub 3 ...**

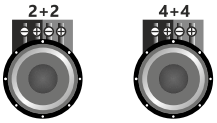
## Параллельное соединение

$$\text{Полное сопротивление} = \frac{1}{\frac{1}{\Omega\text{Sub 1}} + \frac{1}{\Omega\text{Sub 2}} + \frac{1}{\Omega\text{Sub 3}} \ldots} \ldots$$

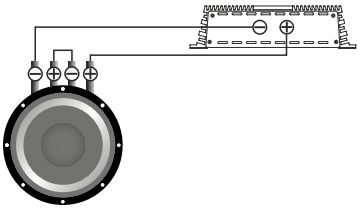
## Схема включения нагрузки сабвуфера

## Звуковые катушки 2+2, 4+4 Ом

**Сабвуфер имеет звуковую катушку D2 или D4.**

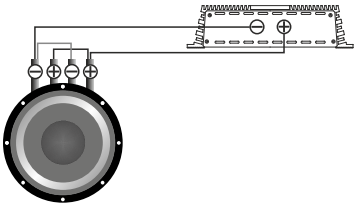



## Один сабвуфер, катушки последовательно



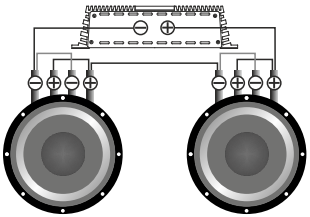
| Звуковые катушки | Общий импеданс |
|---|---|
| 2+2 Ом | 4 Ом |
| 4+4 Ом | 8 Ом |

## Один сабвуфер, катушки параллельно

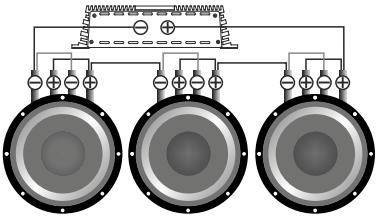


| Звуковые катушки | Общий импеданс |
|---|---|
| 2+2 Ом | 1 Ом |
| 4+4 Ом | 2 Ом |

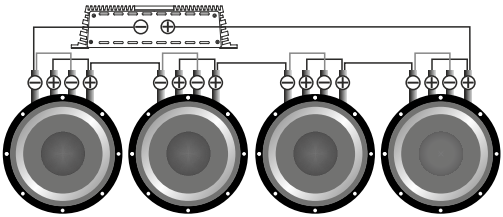
## Сабвуферы последовательно, катушки параллельно



| Звуковые катушки | Общий импеданс |
|---|---|
| 2+2 Ом | 2 Ом |
| 4+4 Ом | 4 Ом |

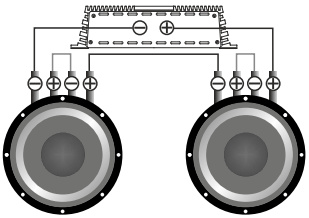


| Звуковые катушки | Общий импеданс |
|---|---|
| 2+2 Ом | 3 Ом |
| 4+4 Ом | 6 Ом |

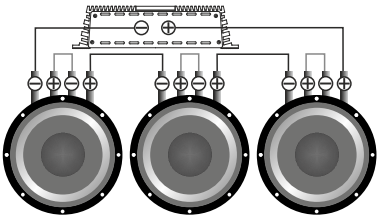


| Звуковые катушки | Общий импеданс |
|---|---|
| 2+2 Ом | 4 Ом |
| 4+4 Ом | 8 Ом |

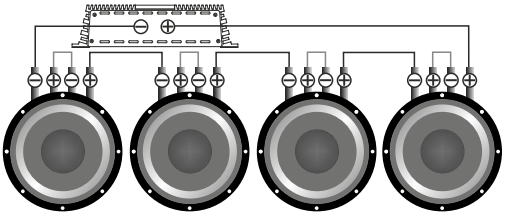
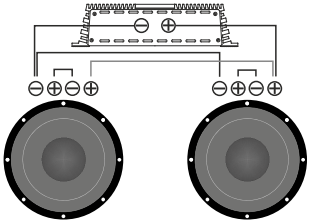
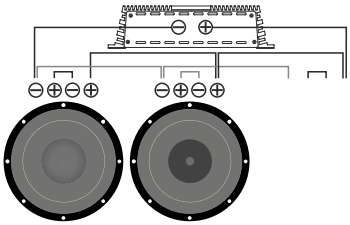
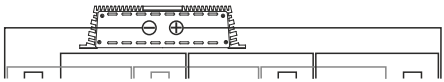
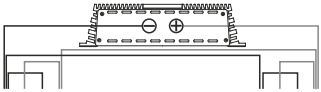
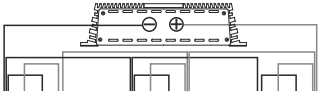
## Сабвуферы последовательно, катушки последовательно



| Звуковые катушки | Общий импеданс |
|---|---|
| 2+2 Ом | 8 Ом |
| 4+4 Ом | 16 Ом |



| Звуковые катушки | Общий импеданс |
|---|---|
| 2+2 Ом | 12 Ом |
| 4+4 Ом | 24 Ом |



| Звуковые катушки | Общий импеданс |
|---|---|
| 2+2 Ом | 16 Ом |
| 4+4 Ом | 32 Ом |