



Home » EUPHORIA » EUPHORIA EX300.4 Full Range Class D Amplifier User Manual



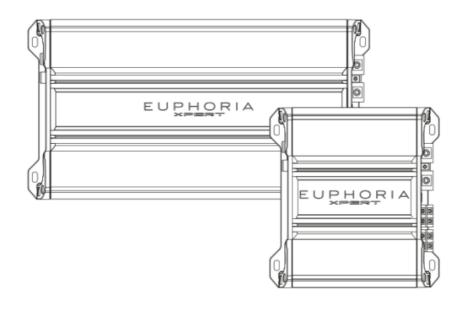
# **EUPHORIA**<sub>TM</sub>

### EX3000.1 EX1500.1

Full Range Class D Monoblock

## EX300.4 EX200.4 EX100.4

4 Channel Full Range Class D



**USER MANUAL Installation Instructions | Owner's Manual** 

Due to continuous improvement of the product, specifications are subject to change without notice.

# Contents [ hide ]

- 1 AMPLIFIERS' SPECIFICATION
- 2 AMPLIFIER'S CONTROL & CONNECTION.
- 3 INSTALLATION
- 4 TROUBLESHOOTING
- **5 LIMITED WARRANTY**
- 6 Documents / Resources
  - 6.1 References

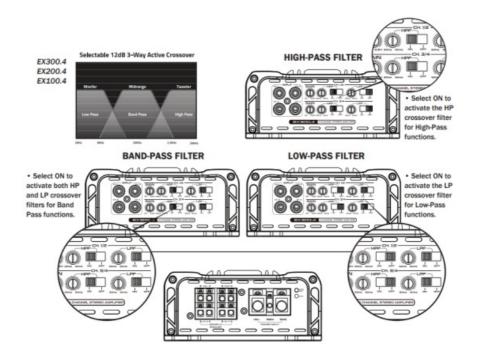
# **AMPLIFIERS' SPECIFICATION**

AMPLIFIERS: EX300.4, EX200.4, EX100.4

SPECIFICATIONS @14 .4 Volts -1% THD	EX300.4	EX200.4	EX100.4
Rated Power:	4 x 300 Watts @ 4Ω	4 x 200 Watts @ 4 Ω	4 x 50 Watts @ 4 Ω
Rated Power:	4 x 500 Watts @ 2Ω	4 x 300 Watts @ 2	4 x 100 Watts @ 2Ω
Rated Power:		2 x 400 Watts @ 4 Ω (Bridged)	2 x 200 Watts @ 4Ω (Bridged)
Rated Power:	2 x 600 Watts @ 4Ω (Bridged)		
Working Voltage	10-16 Volts	10-16 Volts	10-16 Volts
Frequency Response:	10Hz – 20KHz	10Hz – 20KHz	10Hz – 20KHz
Signal to Noise Ratio:	<95dB	<95dB	<85dB
Damping Factor:	@ 4Ω >114/1KHz	@ 4Ω >101/1KHz	@ 4Ω >57/1KHz

Low Level Input:	6V - 0.2V	6V - 0.2V	6V - 0.2V
Ch 1/2 High Pass Filter Variable:	20Hz – 5KHz	20Hz – 5KHz	20Hz – 5KHz
Ch 1/2 Low Pass Filter Variable:	50Hz – 5KHz	50Hz – 5KHz	50Hz – 5KHz
Ch 3/4 High Pass Filter Variable:	20Hz – 5KHz	20Hz – 5KHz	20Hz – 5KHz
Ch 3/4 Low Pass Filter Variable:	50Hz – 5KHz	50Hz – 5KHz	50Hz – 5KHz
Minimum Working Impe dance:	2Ω Stereo	2Ω Stereo	2Ω Stereo

# **AMPLIFIER'S CONTROL & CONNECTION.**



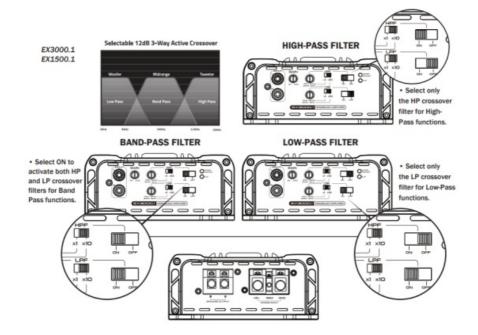
**AMPLIFIERS' SPECIFICATION** 

AMPLIFIERS: EX3000.1, EX1500.1

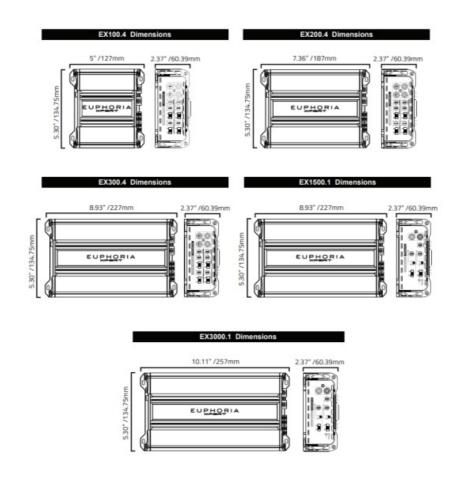
SPECIFICATIONS @14.4 Volts -1% THD	EX3000.1	EX1500.1	
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Rated Power:	1 x 3000 Watts @ 1Ω	1 x 1500 Watts @ 1Ω
Rated Power:	1 x 1500 Watts @ 2Ω	1 x 750 Watts @ 2Ω
Rated Power:	1 x 750 Watts @ 4Ω	1 x 325 Watts @ 4Ω
Working Voltage	10-16 Volts	10 – 16 Volts
Frequency Response:	10Hz – 20KHz	10Hz – 20KHz
Signal to Noise Ratio:	<95dB	<95dB
Damping Factor:	@ 4Ω >53/1KHz	@ 4Ω >91/1KHz
Low Level Input:	6V - 0.2V	6V - 0.2V
High Pass Variable Filter R anges:	20Hz – 800Hz / 200Hz – 8KHz	20Hz – 800Hz / 200Hz – 8K Hz
Low Pass Variable Filter R anges:	50Hz – 800Hz / 500hz – 8KHz	50Hz – 800Hz / 500hz – 8K Hz
Minimum Working Impedan ce:	1Ω	1Ω

# **AMPLIFIER'S CONTROL & CONNECTION.**



#### **AMPLIFIERS' DIMENSIONS**



#### **INPUT**

Connect RCA output cables from the head unit to EUPHORIA XPERT amplifiers' RCA Input

# **GAIN (6V~0.2V)**

Connect RCA output cables from the head unit to EUPHORIA XPERT amplifiers' RCA Input

## **ACT- Adaptive Crossover Technology**

All models of EX amplifiers feature an active crossover system capable of adapting to any system configuration.

Select HP for smaller full range speakers or tweeters.

This setting will filter out any unwanted lower frequencies according to the set frequency.

Select both HP and LP for bandpass for running midrange or midbass drivers. This setting will filter out both unwanted low or high frequencies according to the setting of each control.

Select LP for subwoofers drivers. This setting filters out any unwanted high frequencies a subwoofer can not produce.

# +12V (POWER CONNECTION)

This must be connected to the fuse positive terminal (+12V) of the battery.

Recommended wire is 4 gauge or thicker. Check the battery voltage.

# **GND (GROUND CONNECTION)**

It is connected to the negative or ground cables of the vehicle. Recommended wire is 4 gauge or thicker.

# **REM (REMOTE)**

It is connected to switched +12V with a trigger cable coming from the head unit.

#### **APC Audio Protection Circult**

The APC protects the amplifier against speaker shorting or malfunction. In the event that the APC is activated, resting the amplifier by removing a remote trigger input will allow the amplifier to restart as long as the fault has been removed.

# SESI - Signal Evaluation Status Indicator

Power LED-lit shows normal operation.

Protect LED-RED-lit shows general malfunction, faulty connection or thermal protection. Clip LED-lit indicates over input of RCA signal which could cause the amplifier to be over driven and protect.

# **INSTALLATION**

In case you install the amplifier by yourself, please read the owner's manual very carefully before your installation Please take all steps into consideration or, you can have a Euphoria authorized dealer check the installation and set your car audio systems.

#### 3-1. MOUNTING PREPARATION

Disconnect the negative (-) battery cable before mounting your amplifier or making any connections. Check the battery and alternator ground (-) connections. Make sure they are properly connected and free of corrosion before selecting a mounting location. Please take some concerns into consideration with cooling efficiency and safety.

#### 3-2. MOUNTING PREPARATION

The EX amplifiers use a specially designed heat radiation heat sink to avoid excessive heat from circuitry. But for better heat dissipation, it is good to find the mounting location where you can install vertically with the heat sink fins and better air flow around heat sink. For the safety reasons you must find a dry and well ventilated location and make sure any cables and drilling car equipment do not interfere with the mounting location. Be sure the mounting location and drilling of pilot cables will not present a hazard to any cables, control cables, fuel lines, fuel tanks, hydraulic lines or other vehicle systems or components.

**NOTE:** Special care must be taken when mounting amplifier, leave 1/4" of space from the ground.

#### 3-3. +12V, GND, REM CONNECTION

# **12V (POWER CONNECTION)**

Before mounting the amplifier, disconnect the negative (-) wire from the battery to protect any accidental damage to amplifier and audio system. EX amplifiers requires at least the use of 4 gauge wiring for all power connections. Connect the power cables to the power terminal labeled as +12V. EX Amplifiers are not internally fused and require external fusing. In order to install external fuses, connect one end of the fuse holder to the power cable and the other end of the fuse holder to the positive battery within 18 in of the same cable gauge. This fuse location will protect the system and the vehicle against the possibility of a short circuit in the power cable. Be sure to use fuses and fuse holders adequate for the current draw application.

## **GND (GROUND CONNECTION)**

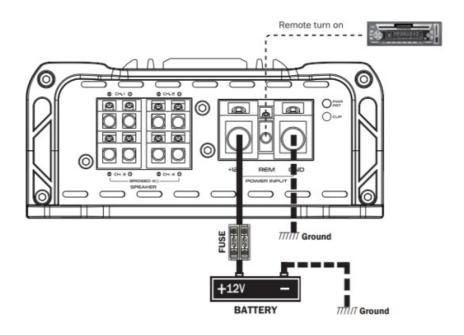
Locate a secure grounding connection as close as possible. Make sure the location is clean and provides a direct electrical connection to the frame of the vehicle. Connect one end of a short piece of the same gauge cable as the power cable to the grounding point. Run the one end of the cable to the grounding point. Run the other end of the

cable to the mounting location. Connect the ground cable to the screw terminal labeled as GND.

#### **REM (REMOTE CONNECTION)**

Run a remote turn on cable from the head unit's remote switched +12V output.

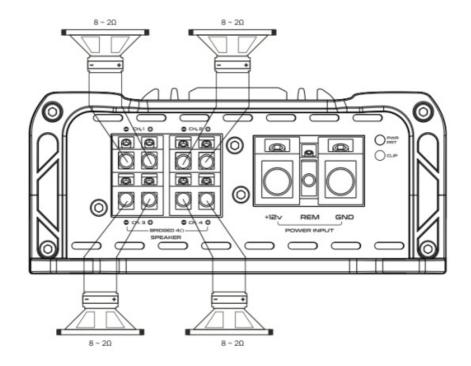
### AMPLIFIER +12V, GROUND, REMOTE CONNECTION DIAGRAM



#### **3-4. SPEAKER CONNECTION**

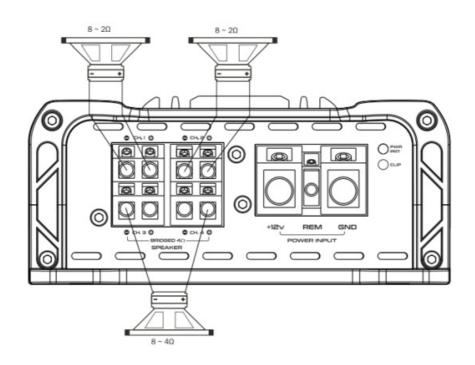
Euphoria recommends to use a minimum 12 gauge speaker connecting cables. Run 12 gauge speaker connecting cables from your speakers to the amplifier's mounting location. Keep speaker cables away from the power cables and amplifier's input cables. Use grommets anywhere the cables have to pass through the holes in the metal frame or sheet metal. Connect to the speakers according to the type of terminals on each speaker. Strip 3/8" of insulation from the end of each cable and twist the cables strands together tightly. Make sure there are no stray strands that might touch other cables or terminals and cause a short circuit.

#### EX300.4/EX200.4/EX100.4 AMPLIFIER SPEAKER CONNECTION DIAGRAM 1

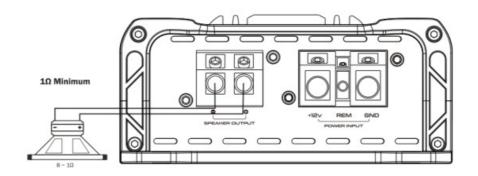


# A CAUTION!!

EX300.4/EX200.4/EX100.4 working voltage is 10-16 Volts EX300.4/EX200.4/EX100.4 minimum working impedance is 20 in stereo. EX300.4/EX200.4/EX100.4 AMPLIFIER SPEAKER CONNECTION DIAGRAM 2



EX3000.1/EX1500.1 AMPLIFIER SPEAKER CONNECTION DIAGRAM 1



# **A** CAUTION

EX3000.1/EX1500.1 working voltage is 10-16 Volts EX3000.1/EX1500.1 minimum impedance is  $1\Omega$ .

#### **TROUBLESHOOTING**

## **NO SOUND (NO OUTPUT)**

- 1. Please check all connections, cables, routing, short and voltage at amplifier and head unit.
- 2. Please check built-in or external fuses, if it is blown, please replace with new one.
- 3. Please check whether speakers work well, you can test speakers by connecting to another amplifiers.

#### **PROTECTION**

- 1. Please check overload, overheat (thermal), short, voltage and DC offset.
- 2. Minimum working impedance for EX200.4, EX300.4, EX100.4 is 20 stereo. Working voltage is 10-16 Volts. EX1500.1/EX3000.1 minimum working impedance is 10 stereo.
- 3. If the amplifier shuts down due to overheat, Reset by turning off the remote input and allowing time to cool down. Please make sure there are no airflow obstructions around the amplifier to prevent thermal protection.

#### WHINING NOISE

1. Engine noise is caused by poor grounding of amplifier, head unit, other components, battery or alternator, so please check all grounding connections.

## **LIMITED WARRANTY**

Euphoria<sup>™</sup> warrants any products purchased in the U.S.A. from an authorized Euphoria<sup>™</sup> dealer. All products are warranted to be free from defects in material and workmanship under normal use and service for a period of two (2) years when the unit is installed by an authorized Euphoria<sup>™</sup> dealer. Non-authorized dealer installed products carry a one (1) year parts and labor limited warranty. This warranty applies to the original purchase only.

Euphoria<sup>™</sup> will either repair or replace (as its option) any unit that had been found to be defective and under warranty provided the defect occurs within the two (2) years warranty period.

This limited warranty periods do not extend to units having been subjected to misuse, abuse, neglect, or accident. Products that in Euphoria<sup>TM</sup>'s judgment shows evidence of having been altered, modified, or serviced without Euphoria<sup>TM</sup>'s authorization, will be ineligible under this warranty.

To obtain warranty services please contact your retailer or visit our website at <a href="https://www.euphoriacaraudio.com">www.euphoriacaraudio.com</a> for more details.



#### DB Research L.L.P.

302 Hanmore Industrial Parkway // Harlingen, TX 78550

ph: 877.787.0101 // fx: 956.421.4513 // www.euphoriacaraudio.com

# **Documents / Resources**



EUPHORIA EX300.4 Full Range Class D Amplifier [pdf] User Manual EX300.4, EX200.4, EX100.4, EX300.4 Full Range Class D Amplifier, Full Range Class D Amplifier, Range Class D Amplifier, Amplifier

#### References

- User Manual
- **EUPHORIA**

Search:

e.g. whirlpool wrf535swhz

♠ Amplifier, Class D Amplifier, Euphoria, EX100.4, EX200.4, EX300.4, EX300.4 Full Range Class D Amplifier, Full Range Class D Amplifier

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