

# MASSIVE<sup>®</sup>

DIGITAL BLOCK FULL RANGE AMPLIFIER

*D* **4000.2**

*D* **1600.4**



# INTRODUCTION:

## **Congratulations!**

And thank you for purchasing a “Massive Audio” D-Block Series Amplifier for your car audio system. You now own an amplifier of uncompromising design and engineering incorporating the latest advances in circuitry. This handcrafted amplifier is designed to deliver the demands of serious sound enthusiasts. You will soon discover that D Block Series amplifiers display a fine balance between high quality, performance and reliability; all proven qualities of “Massive Audio” products.

“Massive Audio” amplifiers are the result of the latest advancements in technology using only the highest quality components and quality control standards. In order to provide you with many years of listening pleasure, we recommend you to have your new amplifier installed by an Authorized “Massive Audio Dealer.” This will ensure the proper installation of your product, and will also increase the length of your warranty to **ONE YEAR**.

*(Please see the warranty section for more details.)*

Please take a moment to thoroughly read this manual to ensure that you get the maximum benefit from this new addition to your car audio system. When installed properly, this unit will provide years of trouble-free performance.

Should your amplifier ever need service or replacement due to theft, please record the following information, which will help protect your investment.

Model #: \_\_\_\_\_

Dealer's Name: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Installation Shop and Date: \_\_\_\_\_

# **DESIGN FEATURES**

- ☒ **Extreme power in a small footprint**
- ☒ **MCU Power Management (D1600.4 Only)**
- ☒ **High / Low Level Input Switch (D1600.4 Only)**
- ☒ **Auto Turn-on/off Functions (D1600.4 Only)**
- ☒ **Low distortion full band width for sound quality tuning**
- ☒ **Advanced Full Range Digital design**
- ☒ **Built-in noise reduction circuitry**
- ☒ **Full Mosfet with high grade switching devices**
- ☒ **World Wide standard compliant.  
(RoHS, E-mark, CEA-2006, CE)**
- ☒ **Mil Spec double sided PCB with SMD parts**
- ☒ **X10 Switch for HPF/LPF for Bandpass Crossovers  
for all channels (D4000.2 Only)**
- ☒ **Advanced 5 way protection**
- ☒ **Illuminated logo on heavy duty aluminum heat-sink**
- ☒ **Designed and engineered in the U.S.A**

# AMPLIFIER FUNCTIONS

## **1. Speaker connection**

- Never connect the speaker cables with the chassis ground. This could destroy your amplifier.
- Check that your speakers are connected correctly which means plus to plus and minus to minus

## **2. BATT+**

Battery + (plus) terminal. The + (plus) 12 Volt power cable must be connected with a fuse on the battery + (plus) terminal. (Please refer to Table 1 to select cable and fuse)

## **3. REM**

Remote terminal. The remote cable must be connected with the radio automatic antenna terminal so that the amplifier will switch on and off automatically with the radio. If there are 2 or more amplifiers connected to this antenna terminal it might be necessary to add an additional relay. Please consult your dealer.

## **4. GND**

Chassis ground-terminal. The chassis ground cable must be connected very tightly on a nearby solid and electric conductive place.

## **5. RCA audio-input**

These RCA audio-inputs connect with your source unit RCA outputs. Please use car audio RCA cables, otherwise it may be disturbed. Keep these cables as short as possible. To avoid disturbances from your car electronics, please don't close the existing car cables when you install the RCA cables. If your source unit has only one set output, please use a suitable Y-RCA adaptor. If your source unit has only speaker outputs, you should use a HIGH-LOW level adaptor. All models linkable with single RCA for easy bridging.

## **6. Input select (D1600.4 only)**

For 4CH mode, Group A (CH1 and CH2) and Group B (CH3, CH4) both require stereo input signal. All 4 channels will work independently.

For 2CH mode, Only Group A (CH1 and CH2) requires stereo input signal, Group B (CH3, CH4) will receive the same signal as Group A. 2CH model is for source unit that has only 1 stereo output signal.

## **7. Input Level (D1600.4 only)**

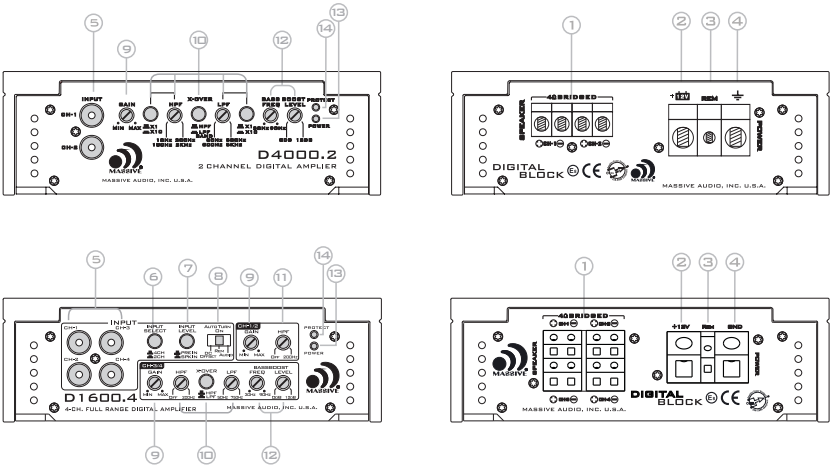
The amplifier has dual input sensitivity differential inputs which will receive either High level (Speaker output) or Low level (RCA) signals from your car stereo's source unit.

When switch to PRE IN, The signal can be delivered to the amplifier using the low-level RCA outputs on the source unit.

When switch to SPK IN, The high-level signal can be run from the source unit's speaker outputs to the stereo RCA input on the end panel of the amplifier using the HL01.

### 8. Auto Turn On (D1600.4 only)

For auto turn on/off mode, D1600.4 amplifier offer 3 options: DC Offset/Rem/Audio.  
**REM:** When auto turn on to REM, please connect the unit REM terminal to the source unit remote terminal with an 18AWG cable. This is the preferred mode.  
**DC OFFSET:** If the OEM source unit has no REM signal output, you can choose DC OFFSET (Meanwhile, Input select switch to SPK IN mode) , DC OFFSET can turn on/off EA series amp by detecting the 6V DC Offset from the OEM source unit speaker terminal.  
**AUDIO:** Audio mode can turn ON/OFF D1600.4 amp by detecting the audio signal from source unit. **Note:** If the volume is too Low, The amp may fail to turn on. So please check if the source unit volume is properly set.



### 9. Gain

Gain control regulates the sensitivity of the amplifier to match the signal output voltage of your source unit.  
The Gain control is not intended for volume adjustment.  
Use high quality CD music and increase the volume of your source unit to 75%.  
Position the Gain at the minimum and then slowly increase Gain (clockwise).  
Stop at the first sign of distortion, then lower the Gain a little ( counter clockwise) to achieve clear undistorted music at the maximum level.

### 10. X-over mode and frequency Control

These controls allow control over the frequencies played. There are options for HPF/LPF/Full Range and Band Pass.  
When the X1/X10 button is set to the “out ” position the HPF range adjustments are 10Hz ~ 200Hz . When this button in set at the “ in ” the HPF range is from 100Hz ~2KHz.  
WARNING: Use buttons and HPF knob correctly to prevent low frequency damage to tweeters. The LPF range adjustments are 80Hz~500Hz. When this button is set to “ in ” the LPF range is from 800Hz~5KHz.(D1600. 4 without function of multiple 10 times X-over)

**11. HPF**

This controls the frequencies played for the front channels. Low frequencies can be cut off from OFF to 200Hz. At OFF position, No low frequencies cut off, Meaning full range. Use HPF knob correctly to prevent low frequency damage to tweeters.

**12. Bass Boost Frequency and Level Control**

By adjusting these two knobs, you can boost a wanted frequency to a wanted level. The center boost frequency is adjustable from 30Hz to 90Hz, the boost level is adjustable from 0dB to 12dB.

**13. POWER-LED**

Indicates the amplifier is switched on. It will flash when there is a malfunction.

**14. PROTECTION-LED**

Indicated if the amplifier is in protection or other malfunction.

**PRE INSTALLATION**

We recommend to have the installation done by an Authorized Massive Audio, Dealer. Required Power, Ground Connection and proper external fuse as indicated below:

**TABLE 1**

<i><b>Model</b></i>	<i><b>Fuse</b></i>	<i><b>Wire</b></i>
<b>D4000.2</b>	150 AMP	4 Gauge
<b>D1600.4</b>	100 AMP	4~6 Gauge

We recommend a fuse to be installed within 16 inches of the battery.

The Ground Wire should be connected directly to the chassis of your vehicle with a metal to metal ground point connection.

The amplifier must be securely mounted to a solid, dry and low vibration surface in the trunk or passenger area.

Position the amplifier in an area with sufficient air flow to insure proper heat dissipation.

Position the amplifier for an easy access to the input-setting controls.

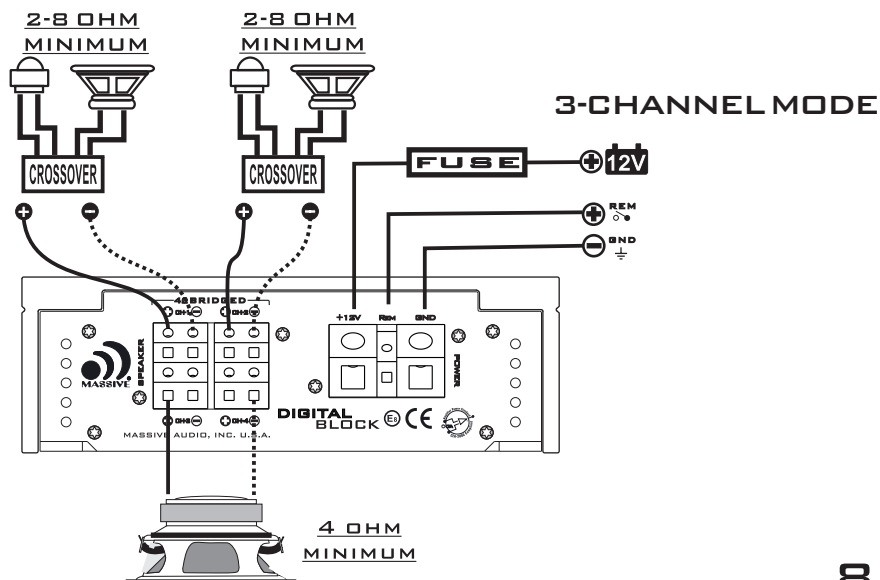
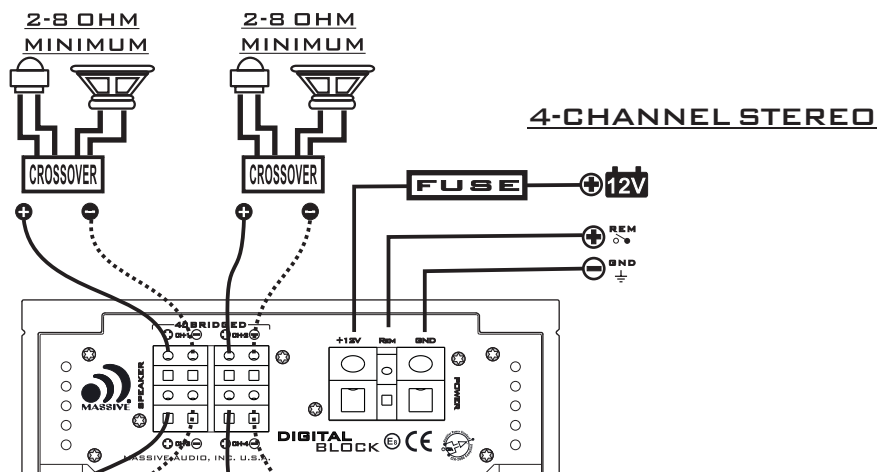
Install all amplifier cables as far as possible from car electrical cables. i.e. The car ignition cable.

FOR: D 4000.2

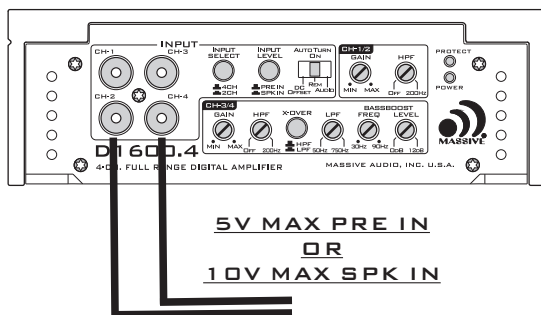


# WIRING CONFIGURATION

FOR: D1600.4







# SPECIFICATIONS

MODEL	D4000.2	D1600.4
RMS @ 4 Ohm	500W x 2	300W x 4
RMS @ 2 Ohm	1000W x 2	400W x 4
RMS @ 4 Ohm Bridged	2000W x 1	800W x 2
Input Sensitivity	0.2~5V	PRE IN: 0.2~5V SPK IN: 0.4~10V
LPF / Bandpass	80 ~ 500Hz / 800 ~ 5KHz	50~750Hz
HPF / Bandpass	10 ~ 200Hz / 100 ~ 2KHz	10~200Hz
Frequency Response	10~55KHz	20~20KHz
Bassboost Frequency	30~90Hz	30~90Hz
Bassboost Level	0dB~12dB	0dB~12dB
THD at 4Ohm Load 30% Rated Power	<0.15%	<0.15%
S/N Ratio	>70dB	>70dB
Efficiency (CEA-2006)	>80%	>85%
Minimum Load	2 OHM	2 OHM
Protection System	YES	YES
Overheat Temperature Protection	80°C/176F	80°C/176F
Components & PCB	Smt&double Side Board	Smt&double Side Board
Dimensions (H x W x L)Inches	2.1 x 6.5 x 16.1	2.1 x 6.5 x 12.1
Dimensions (H x W x L)Millimeter	54 x 165 x 409	54 x 165 x 308

# WARRANTY

- Massive Audio, Inc. warrants all manufactured amplifier products to be free from defect in material and workmanship for a period not to exceed **ONE YEAR\*** from the date of original purchase when installed by an authorized “Massive Audio” dealer. Units that are not installed by an authorized “Massive Audio” dealer maintain a warranty not to exceed 90 days from the original purchase date by the original purchaser.
- **Products that displays abuse such as power deficiency, over driving the amplifier or clipping the input require purchase of new PCB for replacement.**
- “Massive Audio” obligations under this warranty are limited to repairing or replacing, at its own sole option, any such defective products. This warranty does not apply to equipment that has been damaged by accident, negligence, or misapplication or has been altered or modified in anyway. This warranty applies only to the original purchaser who must have properly registered the product within 30 days of purchase.

*Except as provided herein, Massive Audio, Inc. makes no warranties or representations, express or implied, including any warranty implied by law, whether for merchantability or fitness for a particular purpose and shall be effective only for the period that this express warranty is effective. SEE THE WARRANTY REGISTRATION CARD TO ADDITIONAL INFORMATION.*

\*DUE TO CONSTANT IMPROVEMENTS SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTIFICATION.

# TROUBLES SHOOTING

## MALFUNCTION

## SHOULD CHECK

### **Power LED doesn't light up**

check all fuses on the amplifier  
check main fuse near the battery  
check plus and minus battery cables  
check remote voltage

### **Power LED is on but no sound**

check volume control on the radio  
check GAIN regulator on the amplifier  
check RCA cables and connections  
check speaker cables and connections

### **Bass response is low**

one speaker cable could be disconnected  
the bass control on the radio is set on low  
an active crossover unit is adjusted wrong

### **The amplifier switches On and Off**

bad chassis ground connection to the amplifier  
cable terminals and battery terminals are oxidated  
low voltage from the battery  
remote wire is not connected right

### **One channel has no function**

check RCA connections of this channel  
check speaker connection of this channel  
balance regulator to the radio is not set in the middle  
check speakers for this channel

For additional questions please contact your authorized Massive Audio, dealer.



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