MASSIYE

HIPPO SUBWOOFER & FULL RANGE AMPLIFIER

H8004/H12004/H30004 H1000/H3000/H5000 H8000/H12000 H30005



INTRODUCTION

Congratulations!

And thank you for purchasing a Massive Audio® HIPPO amplifier for your car audio system. You now own an amplifier of uncompromising design and engineering incorporating the latest advances in technology. This handcrafted amplifier is designed to deliver the demands of serious sound competitors. You will soon discover that "HIPPO" 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 American Craftsmanship 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* 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 of this manual 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:				

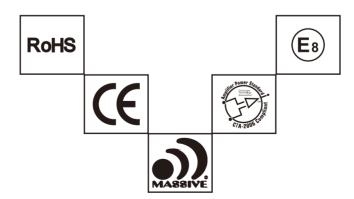
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DESIGN FEATURES

- ✓ 1 OHM STABLE DESIGN HIGH SPEED SWITCHING (CLASS D MONO BLOCK AMP-H1000,H3000,H5000, H8000.H12000)
- MIL SPEC, MULTI LAYER PCB WITH SMD PARTS
- **☑** BUILT-IN NOISE REDUCTION CIRCUITRY
- FULL MOSFET WITH HIGH GRADE HIGH SPEED SWITCHING DEVICES
- ✓ BUILT-IN AUTO SENSING TURN ON FUNCTION (HI-INPUTS)
- √ 12V REMOTE OUTPUT FOR EXTERNAL DEVICES (HI-INPUTS)
- ✓ 0~12DB VARIABLE BASS BOOST
- NEXT GENERATION ADVANCED 5 WAY PROTECTION CIRCUITRY
- ✓ WORLD WIDE STANDARDS COMPLIANT.

 (ROHS,E-MARK,CTA-2006,CE)





AMPLIFIER FUNCTIONS

1. + 12 VOLT POWER

CONNECT THIS TERMINAL THROUGH A FUSE OR CIRCUIT BREAKER TO THE POSITIVE TERMINAL OF THE VEHICLE BATTERY OR THE POSITIVE TERMINAL OF AN ISOLATED AUDIO SYSTEM BATTERY.

2. GND(H8004,H12004,H30004,H30005,H1000)

CONNECT THIS CABLE DIRECTLY TO THE FRAME OF THE VEHICLE. MAKE SURE THE METAL FRAME HAS BEEN STRIPPED OF ALL PAINT DOWN TO THE BARE METAL.

USE THE SHORTEST DISTANCE POSSIBLE. IT IS ALWAYS A GOOD IDEA TO REPLACE THE FACTORY GROUND AT THIS TIME WITH A LARGER CABLE EQUAL TO THE NEW DIRECTLY TO THE VEHICLE BATTERY GROUND TERMINAL OR ANY OTHER FACTORY GROUND POINTS.

2.B GND(H3000,H5000,H8000,H12000)

THE ABOVE HIGH-POWER H MODELS NEED POWER AND GROUND WIRES RUN DIRECTLY TO THE BATTERY BANK. GROUNDING TO THE VEHICLE FRAME IS NOT RECOMMENDED.

MOREOVER, AMPLIFIERS ABOVE TYPICALLY REQUIRE AN UPGRADED ALTERNATOR NEAR THE CURRENT DEMANDS OF THE HIPPO AMPLIFIER BEING USED. PLEASE NOTE: EXTRA BATTERIES HOLD CURRENT BUT DO NOT MAKE CURRENT AND WHEN DEPLETED THEY FIGHT WITH AMPLIFIERS FOR LIMITED CURRENT

3.RCA INPUT

THESE RCA INPUT JACKS CONNECT WITH YOUR SOURCE UNIT RCA LOW LEVEL OUTPUTS OR VIA OPTIONAL HI-LO ADAPTOR. THE USE OF HIGH QUALITY TWISTED PAIR CAR AUDIO CABLES IS RECOMMENDED TO PREVENT POSSIBLE DISTURBANCE OF THE AUDIO SIGNAL.

4. REMOTE(MONO BLOCKS)

CONNECT THE REMOTE CONTROLLER TO CONTROL THE SUBWOOFER AMPLIFIER VOLUME FROM THE DRIVER SEAT LOCATION, FOR EASE OF ADJUSTMENT DURING PLAYING.

5.Low Pass Filter Control

THIS CONTROL IS USED TO SELECT THE DESIRED LOW PASS X-OVER FREQUENCY. THE FREQUENCY CAN BE ADJUSTED FROM 90HZ TO 20KHZ FOR ALL NON FULL RANGE AMPLIFIERS.

6. HPF FILTER CONTROL

This control can filter out unwanted low frequencies from 10Hz - 2KHz. This function will increase the power handling of your woofers.

7. BASS BOOST LEVEL KNOB

NOTE: INCREASING DB ALSO INCREASES CURRENT DEMANDS AND AMPLIFIES POWER OUTPUT AND CAN CAUSE DAMAGE WHEN NOT DONE CORRECTLY AND WITH ENOUGH RESERVE CURRENT.

8.BASS BOOST FREQ KNOB

THIS CONTROLS THE BOOSTED CENTER FREQUENCY. THE FREQUENCY CAN BE ADJUSTED FROM 30HZ TO 70HZ ACCORDING TO THE CAR AUDIO SYSTEMS PERFORMANCE. (WHEN YOU ADJUST THIS KNOB TO 50HZ THE AMPLIFIER WILL BOOST THAT FREQUENCY) THIS FUNCTION SHOULD BE ADJUSTED IN COMBINATION WITH THE BASSBOOST CONTROL.

9. SPEAKERS

CONNECT SPEAKERS/SUBWOOFERS TO THESE TERMINALS. BE SURE TO CHECK WIRING FOR PROPER POLARITY. NEVER CONNECT THE SPEAKER CABLES TO CHASSIS GROUND.

10.X-over MODE(full range)

THIS SWITCH WORKS TOGETHER WITH THE FREQ TO ADJUST THE OPERATING FREQUENCY RANGE OF THE AMP. WHEN SWITCH TO LPF OR HPF, THE CORRESPONDING FILTER CAN ADJUST THE OPERATING FREQUENCY RANGE BETWEEN 5 OH Z TO 3K HZ. WHEN PUSHING THE SUBWOOFER, PLEASE SWITCH TO LPF MODE; WHEN PUSHING SMALL CALIBER FULL FREQUENCY SPEAKER, MIDDLE AND HIGH FREQUENCY LOUDSPEAKER, PLEASE SWITCH TO HPF MODE. WHEN

PUSHING LARGE CALIBER FULL FREQUENCY SPEAKER, PLEASE SWITCH TO FULL MODE. WHEN SWITCH TO FULL MODE, THE FILTERS WILL NOT FUNCTION.

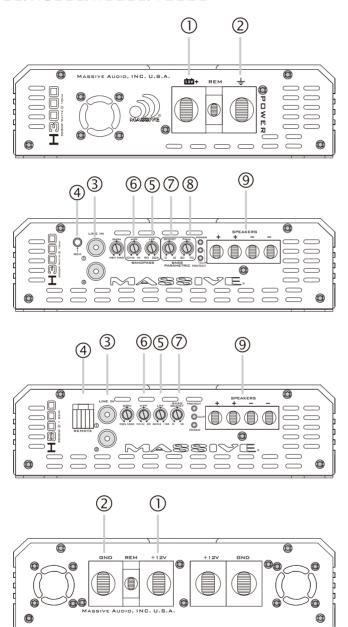
WARNING: USE BUTTONS AND HPF KNOB CORRECTLY TO PREVENT LOW FREQUENCY DAMAGE TO TWEETERS.

11.FREQUENCY CONTROL(FULL RANGE)

THIS SWITCH WORKS TOGETHER WITH X-0V8r FOR HIGH PASS FREQUENCY CROSSOVER WARNING: USE BUTTONS AND HPF KNOB CORRECTLY TO PREVENT LOW FREQUENCY DAMAGE TO TWEETERS.

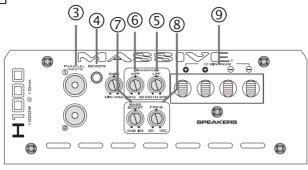
PANEL LAYOUT

FIG 1. MONO AMPLIFIER PANEL LAYOUT H3000/H5000/H8000/12000



PANEL LAYOUT

FIG 1. MONO AMPLIFIER PANEL LAYOUT H 1 0 0 0



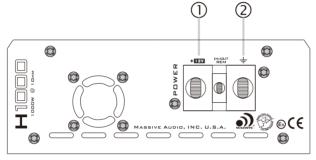
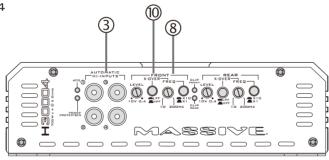


FIG 2. 4-CH AMPLIFIER PANEL LAYOUT



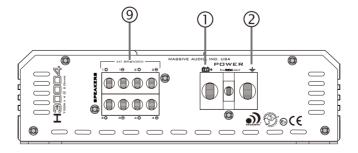
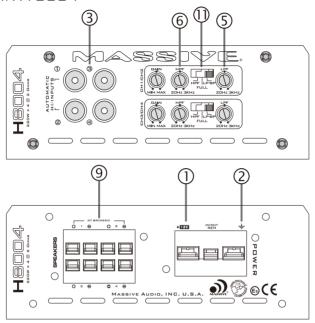


FIG 2. 4-CH AMPLIFIER PANEL LAYOUT H8004/H12004



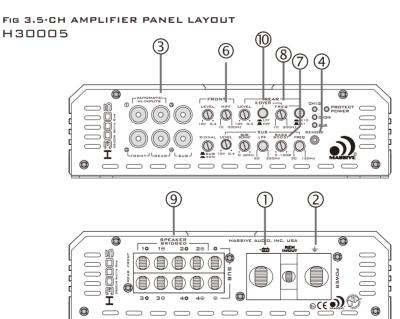
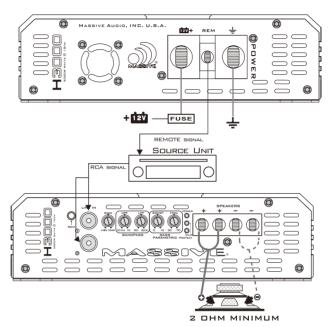


FIG 4. MONO AMOLIFIER WIRING H3000/H5000/H8000/12000



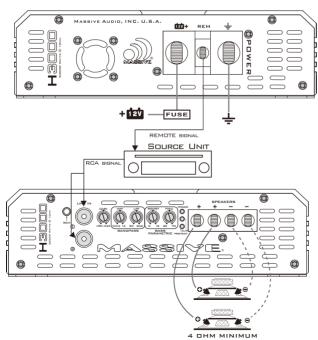
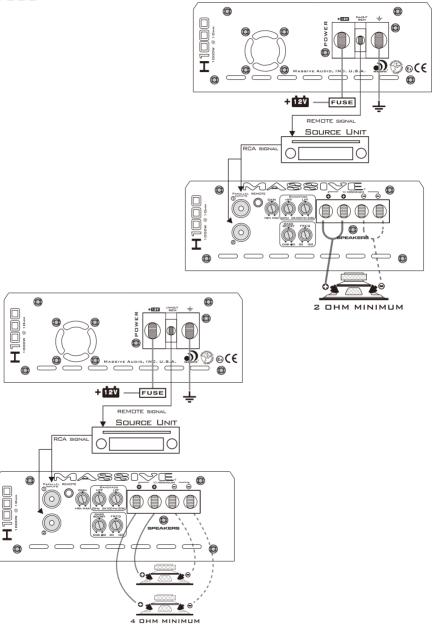


FIG 4. MONO AMOLIFIER WIRING H1000



*SUBWOOFER LOADS CANNOT BE LESS THAN THE MINIMUM STABLE IMPEDANCE RATED IN THIS MANUAL.
THE TWO NEGATIVE AND POSITIVE SPEAKER TERMINANLS ARE WIRED INTERNALLY.
ONLY ONE NEAGATIVE AND ONE POSITIVE TERMINALIS REQUIRED WHEN WIRING TO BP MONO AMPLIFIERS.

FIG 5. H8004/H12004 AMPLIFIER WIRING (3-CHANNEL MODE) 20HM-4 0HM 20НМ-4 ОНМ 0 0 **H**8004 OPOWER ஹ்⊕ெ€ 0 + 12V FUSE REMOTE SIGNAL SOURCE UNIT 4-Онм то 8-Онм RCA SIGNAL RCA SIGNAL

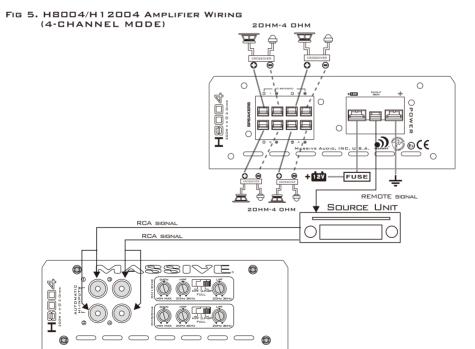
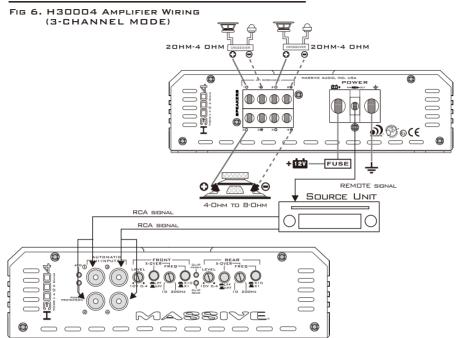
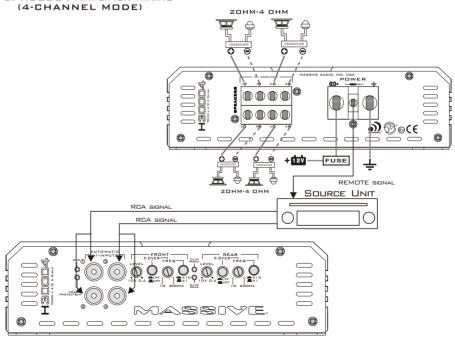
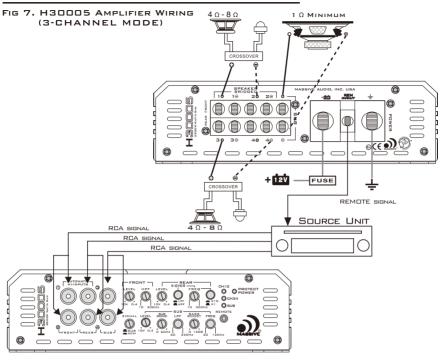
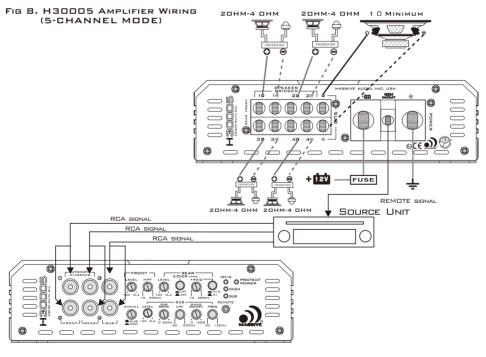


FIG 6. H30004 AMPLIFIER WIRING









TROUBLE SHOOTING

Symptom	Possible Remedy
Amplifier will not power up	Check to make sure you have a good ground connection. Check that there is battery power on the (+)terminal . Check all fuses, replace if necessary . Make sure that the Protection LED is not illuminated.
Protection LED Comes on	Check for short circuits on speaker leads. Check that the speaker load is not beyond the minimum load. Remove speaker lead, and reset the amplifier. If the protection LED still comes on, then the amplifier is faulty and needs servicing.
No output	Check that the RCA audio cables are plugged into the proper inputs. Check all speakers wiring. Check the headunit output and the amplifier level setting.
Low output	Reset the level Control. Check the Crossover Control settings.
High hiss in The speakers	Check the RCA cable is not shorted to power ground at amplifier side. Check the amplifier grounding.
Distorted sound	Check that the Input level control is set to match the signal level of the head unit. Always try to set the Input level as low as possible. Check that all crossover frequencies are properly set. Check for short circuits on the speaker leads
Amplifier gets Very hot	Check that the minimum load impedance for the amplifier model is correct. Check that there is good air circulation around the amplifier. In some applications, It may be necessary to add an external cooling fan. Do not mount amplifier upside down.

SPECIFICATIONS

Power	Н8004	H12004	Н30004	нзооо5	н 1 000	нзооо	Н5000	нвооо	H12000
TOTAL WATTS	1000 W	1400 W	2800W	2800W	1000 W	3100 W	5500 W	Booow	12000W
RMS РОWER @ 4 ОНМ	125W*4	200W*4	506W*4	202W*4+596W*1	430W*1	1000W*1	1.700W*1	Z000W*1	3000W*1
RMS POWER @ 2 OHM	220W*4	340W*4	706W*4	308W*4+1034W*1	71 DW*1	2000W*1	3300W*1	4000W*1	6000W*1
RMS POWER @ 1 DHM	N/A	N/A	N/A	N/A+1515W	1050W*1	3000W*1	1×M0005	1 * WOOO8	12000W*1
RMS POWER @ 4 DHM BRIDGE	450W × 2	680W × 2	1406*2	674W*2+N/A	N/A	A/A	A/A	N/A	N/A
Aubin									
FREQUENCY RESPONSE	10Hz-20KHz	10HZ-20KHZ	10Hz-20KHz	10Hz-20KHz	10Hz-20KHz	10Hz-20KHz	10Hz-ZOKHz	10Hz-15KHz	10Hz-15KHz
SIGNAL TO NOISE RATIO	9508	9508	9308	9356	9256	9508	9256	9508	9508
EFFICIENCY @ 40HM	87%	82%	%06	85%	%16	%16	%16	%16	%16
DAMPING FACTOR	26	26	180	180	26	26	26	92	26
INPUT IMPEDANCE	ZOK	ZOK	ZZK	ZZK	22K	ZZK	ZZK	ZZK	ZZK
CHANNEL SEPARATION	5308	5308	5008	8009	N/A	N/A	N/A	N/A	N/A
TOTAL HARMONIC DISTORTION (THD)	%05:0	.50%	0.1%	%1.0	%05.0	%05.0	%05.0	%05.0	%05.0
LOW LEVEL INPUT RANGE	0.4-8V	0.4-8V	V2-50	^4-8-0	0.4-8V	0.4-4V	0.4-4V	0.4-4V	0.4-4V
SELECTABLE X-DVER	FULL/HP/LP	FULL/HP/LP	YES	YES	FULL	FULL	FULL	FULL	FULL
Low PASS GROSSOVER(UNIT:Hz)-308	20HZ-3KHZ	20HZ-3KHZ			100Hz-20KHz	90Hz-ZOKHZ	90Hz-20KHz	90Hz-15KHz	90Hz-15KHz
SUB SONIC(UNIT:Hz)-308	20HZ-3KHZ	20HZ-3KHZ	W/N	YES	30Hz-120Hz	10HZ-1KHZ	10Hz-1KHz	10Hz-2KHz	10Hz-2KHz
BASS BOOST RANGE	N/A	N/A	W/A	0-120B	0 -1 ZDB	0-1208	0-12bB	0 -1 ZoB	0-1208
BASS BOOST FREQUENCY	N/A	N/A	N/A	30-120Hz	40-120Hz	30-70Hz	30-70Hz	W/A	4 /N
FEATURES									
AMPLIFIER GLASS	CLASS D	CLASS D	CLASSD	CLASS D	CLASS D	CLASS D	CLASS D	CLASS D	CLASS D
	FULL DIGITAL	FULL DIGITAL	DIGITAL POWER	DIGITAL POWER	FULL DIGITAL	FULL DIGITA	FULL DIGITAL	FULL DIGITAL	FULL DIGITAL
AMPLIFIER 17PE	AMPLIFIER	AMPLIFIER	AMPLIFIER	AMPLIFIER	AMPLIFIER	AMPLIFIER	AMPLIFIER	AMPLIFIER	AMPLIFIER
NUMBER OF CHANNELS	4 CHANNELS	4 CHANNELS	4 CHANNELS	5 CHANNELS	1 CHANNEL	1 CHANNEL	1 CHANNEL	1 CHANNEL	1 CHANNEL
MINIMUM IMPEDANCE	2 OHM	Z DHM	2 онм	NHO I	1 онм	1 DHM	п онм	л онм	1 онм
LED INDICATOR	YES	YEB	YES	YES	YES	YES	YES	YES	YES
POWER INPUT TERMINAL SIZE	46A	46A	46A	V90	45A	06A	DGA	DGA	06A
REMOTE LEVEL CONTROL	N/A	N/A	YES	sak	YES	YES	sak	YES	YES
	YES	YES	YES	YES	YES	YES	YES	YES	YES
OVER-LOAD PROTECTION	YES	YES	YES	834	YES	YES	834	YES	YES
DG Output Protection	N/A	A/A	YES	834	YE8	YES	83A	YES	YES
SHORT CIRCUIT OUTPUT PROTECTION	YES	YES	YES	834	YES	YES	YES	YES	YES
VOLTAGE INPUT PROTECTION	YES	YES	YES	A/N	YES	YES	YES	YES	YES
CLIPPING PROTECTION	YES	YES	YES	A/N	YES	YES	YES	YES	YES
DIMENSIONS									
DVERALL WIDTH (MM)	5.91" / 150 MM	5.91" / 150 MM	7.95"/ 202 MM	7.95"/ 202 MM	5.91" / 150 MM	7.95" / 202 MM	7.95" / 202 MM	7.95" / 202 MM	7.95" / 202 MM
OVERALL HEIGHT (MM)	2.17" / 55 MM	2.17" / 55 MM	2.22"/ 56.5 MM	2.22"/ 56.5 MM	2.17" / 55 MM	2.22" / 56.5 MM	2.22" / 56.5 MM	2.22" / 56.5 MM	2.22" / 56.5 MM
HEATSINK LENGTH (MM)	6.97" / 177 MM	7.87" / 200 MM	11.53"/ 293 MM	11.96"/ 304 MM	6.30" / 160 мм	7.72" / 196 MM	8.90" / ZZ6 MM	12.87"/ 327 MM	16.45"/ 418 MM

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 display abuse such as power deficiency, over driving the amplifier or clipping the input require purchase of a 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.

