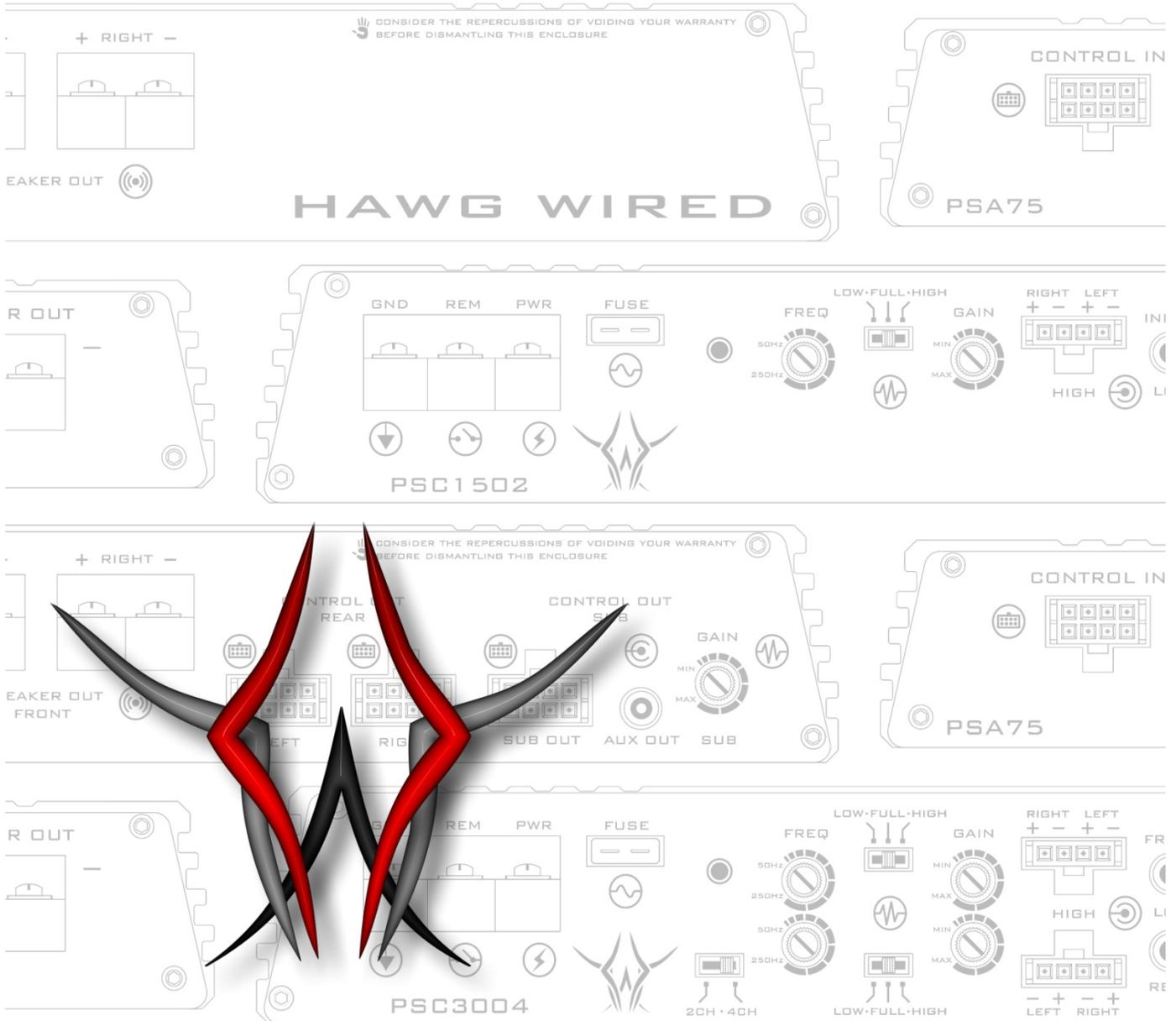


DESIGNED AND BUILT IN THE U.S.A.  
**HAWG WIRED**

# MPS3004 / RS4004 AMPLIFIER SYSTEMS



**INSTALLATION GUIDE**

# INTRODUCTION

CONGRATULATIONS! YOU'VE JUST PURCHASED WHAT WE CONSIDER TO BE THE FINEST MOTORCYCLE AUDIO EQUIPMENT AVAILABLE. WE TAKE PRIDE IN THE FACT THAT YOU'VE CHOSEN HAWG WIRED PRODUCTS, AND WELCOME YOU TO OUR FAMILY OF AUDIOPHILE ENTHUSIASTS. OUR GOAL HERE IS SIMPLE - TO BRING HIGH PERFORMANCE AUDIO FIDELITY TO YOU, THE RIDER, WITHOUT COMPROMISING YOUR BIKE'S ELECTRICAL SYSTEM OR STORAGE SPACE. SOME SIDE EFFECTS MAY OCCUR HOWEVER, INCLUDING BUT NOT LIMITED TO; PUZZLED LOOKS FROM OTHER MOTORISTS, OCCASIONAL SHOUTS FROM YOUR NEIGHBORS, AND THE ENVY OF YOUR FRIENDS. AFTER YEARS OF DESIGN AND ENGINEERING, CUSTOM CRAFTSMANSHIP, AND A GRAVE FOR CLEAN, CLEAR, LOUD MUSIC, WE BELIEVE WE'VE NAILED THIS STUFF DOWN RIGHT.



THANK YOU FOR YOUR SUPPORT  
THE HAWG WIRED TEAM

# SERIAL NUMBER

PLEASE RECORD THE MODEL AND SERIAL NUMBER(S) OF YOUR EQUIPMENT IN THE SPACE PROVIDED BELOW AS YOUR PERMANENT RECORD. THESE NUMBERS CAN BE FOUND ON THE FRONT AND/OR BOTTOM OF EACH COMPONENT. THIS WILL ASSIST US WITH YOUR FACTORY WARRANTY COVERAGE, AND MAY BE USEFUL TO YOU IN THE UNFORTUNATE EVENT THAT IT'S STOLEN.

MODEL NUMBER(S):	SERIAL NUMBER(S):
_____	_____
_____	_____
_____	_____

# KIT CONTENTS

KIT ITEMS INCLUDED (BY QUANTITY):	MPS3002 RS4002	MPS3004 RS4004
MPS3002 / RS4002 2 CHANNEL MAIN AMPLIFIER	1	1
MPS150 / RS200 SATELLITE AMPLIFIER		1
10 AWG POWER / GROUND CABLE	1	1
MAIN I/O HARNESS (FRONT HIGH LEVEL / FRONT SPEAKER OUT / REMOTE)	1	1
REAR SPEAKER OUTPUT CABLE		1
REAR HIGH LEVEL INPUT CABLE		1
LOW LEVEL (RCA TO PHONO) INPUT CABLE	1	2
CONTROL CABLE		1
SATELLITE BRACKET ( <b>BATWING USE ONLY</b> )		1
LARGE VELCRO PAD	1	1
SMALL VELCRO PAD		1
30 AMP ATC FUSE	1	1
18 AWG BARREL CRIMP		8
8" BLACK ZIP TIE	6	6
DIELECTRIC GREASE PACKET	1	1
ALCOHOL CLEANING PAD	2	2

## BEFORE YOU BEGIN

THIS SECTION IS INTENDED TO BRING YOU UP TO SPEED WITH OUR DOCUMENTATION CONVENTIONS. WE RECOMMEND READING THIS MANUAL THOROUGHLY BEFORE BEGINNING YOUR INSTALLATION TO ACHIEVE A TROUBLE FREE, LONG LASTING OUTCOME.

### TERMINOLOGY USED IN THIS MANUAL:

SOURCE UNIT	REFERS TO THE DEVICE THAT SUPPLIES THE AMPLIFIER WITH AUDIO INPUT, TYPICALLY YOUR RADIO, HEAD UNIT, MEDIA DEVICE, ETC.
MAIN AMPLIFIER	MPS3002 OR RS4002, MASTER 2 CHANNELS AMPLIFIERS THAT FUNCTION STANDALONE. THE BIGGEST BOX IN THE KIT.
SATELLITE AMPLIFIER	MPS150 OR RS200, ADD-ON AMPLIFIER THAT CONNECTS TO A MAIN AMPLIFIER. ONLY USED FOR MORE THAN 2 CHANNELS. THE SMALL BOX IN YOUR KIT.
CONTROL CABLE	USED TO CONNECT A SATELLITE AMPLIFIER TO THE MAIN AMPLIFIER FOR SYSTEMS WITH MORE THAN 2 CHANNELS.
REMOTE TURN-ON WIRE	USED TO SWITCH THE AMPLIFIER SYSTEM ON/OFF, USUALLY CONTROLLED BY YOUR IGNITION SYSTEM (CIGARETTE LIGHTER METHOD), OR BY THE REMOTE LEAD OF AN AFTERMARKET SOURCE UNIT.
LOW LEVEL INPUT CABLE	USED WHEN RCA CONNECTORS ARE THE SOURCE OF INPUT TO THE AMPLIFIER, TYPICALLY USED WITH AFTERMARKET SOURCE UNITS (PREFERRED METHOD).
HIGH LEVEL INPUT CABLE	USED WHEN SPEAKER WIRES ARE THE ONLY SOURCE OF INPUT TO THE AMPLIFIER, TYPICALLY USED WITH A FACTORY SOURCE UNIT.
BATWING FAIRING	HARLEY-DAVIDSON® TERM FOR THE FAIRINGS ON ELECTRA GLIDE MODELS, FORK MOUNTED, SINGLE HEADLIGHT STYLE.
SHARKNOSE FAIRING	HARLEY-DAVIDSON® TERM FOR THE FAIRINGS ON ROAD GLIDE MODELS, FRAME MOUNTED (FIXED), DUAL HEADLIGHT STYLE.
MANUFACTURER INSTRUCTIONS	REFERS TO ANY DOCUMENTATION PROVIDED BY A MANUFACTURER OTHER THAN HAWG WIRED (IE. HARLEY-DAVIDSON® SHOP REPAIR MANUAL, AFTERMARKET SOURCE UNIT OR SPEAKER MANUAL, ETC.).

### QUICK CONNECT SYMBOLS:

KEEP AN EYE OUT FOR THE “QUICK CONNECT” SYMBOLS THROUGHOUT THIS MANUAL; THEY PROVIDE A VISUAL LINK BETWEEN INSTRUCTIONS, DIAGRAMS, AND THE SYSTEM COMPONENTS.

POWER		BATTERY POSITIVE (+12VDC)
GROUND		BATTERY NEGATIVE (-), CHASSIS GROUND
REMOTE		REMOTE TURN-ON LEAD ACTIVATED BY +12VDC
FUSE		ESSENTIAL PROTECTION FROM SHORTS
LINE-IN		SOURCE INPUT, LOW LEVEL OR HIGH LEVEL INPUT
CONTROL		MAIN AMPLIFIER TO SATELLITE AMPLIFIER CONNECTION
SPEAKER		TERMINAL BLOCK CONNECTIONS FOR SPEAKER OUTPUT
CONFIGURE		AMPLIFIER CONFIGURATION FEATURES (GAIN, CROSSOVERS, ETC.)

**NOTE:** IF ANYTHING ABOUT THE INSTRUCTION OR INFORMATION PROVIDED IN THIS MANUAL IS UNCLEAR, QUESTIONABLE, OR YOU THINK WE'RE DEAD WRONG ABOUT SOMETHING, PLEASE CONTACT US.

# INSTALLATION INSTRUCTIONS

## INITIAL TEAR-DOWN



IF YOU HAVEN'T ALREADY, GET FAMILIAR WITH YOUR NEW SYSTEM BY BROWSING THE "USER GUIDE" SECTION OF THIS MANUAL. UNDERSTANDING YOUR EQUIPMENT FIRST CAN MAKE THE INSTALLATION INSTRUCTIONS EASIER TO FOLLOW.

1. WITH THE IGNITION SWITCH OFF, REMOVE THE SEAT.

**WARNING:** KEEP THE IGNITION SWITCH OFF THROUGHOUT THE ENTIRE INSTALLATION PROCESS.

**TIP:** REFER TO MANUFACTURER INSTRUCTIONS IF NECESSARY.

2. DISCONNECT THE NEGATIVE (-) SIDE OF THE BATTERY, FOLLOWED BY THE POSITIVE (+) SIDE.

**WARNING:** BE SURE TO PREVENT THE LOOSE BATTERY CABLES FROM CONTACTING THE EXPOSED BATTERY TERMINALS ACCIDENTALLY DURING THE INSTALLATION PROCESS.

3. CAREFULLY REMOVE THE FRONT FAIRING COVER, NOTING WHICH HOLE EACH SCREW COMES FROM, AS LENGTHS AND SIZES MAY DIFFER.

**TIP:** REFER TO MANUFACTURER INSTRUCTIONS IF NECESSARY, AND DON'T FORGET TO COVER YOUR FENDER.



WHILE YOU HAVE THIS THING APART, TAKE A MINUTE TO CHECK A FEW THINGS AT THE SAME TIME. BURNT OUT GAUGE BULBS, LOOSE HARNESS CONNECTORS CAUSING RATTLES, THAT SEAL THAT NEVER FAILS TO FALL OFF THE EDGE OF THE INNER FAIRING WITHOUT SOME TRIM ADHESIVE, INSTALLING THOSE NEW GAUGES YOU'VE BEEN WANTING TO GET...

4. DISCONNECT THE SPEAKER WIRING FROM THE FACTORY SPEAKERS (IF APPLICABLE).

### 4.1. FACTORY SOURCE UNIT

#### 2 AND 4 CHANNEL SOURCE,

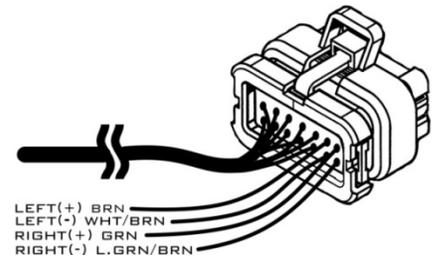
DISCONNECT THE **FRONT** SPEAKER WIRES FROM THE FACTORY SPEAKERS IN THE FAIRING AND PUT ASIDE FOR **HIGH-LEVEL INPUT** USE LATER.

4 CHANNEL SOURCE WIRES	H-D® SOURCE UNIT MODELS		
	1998-2005 8 OHM	1998-20XX CVD	2006-20XX 2 OHM
REAR LEFT +	BRN (PIN 10)	BRN (PIN 10)	BRN <sup>3</sup> (PIN 2)
REAR LEFT -	WHT/BRN (PIN 3)	WHT/BRN (PIN 3)	WHT/BRN <sup>3</sup> (PIN 25)
REAR RIGHT +	GRN (PIN 11)	GRN (PIN 11)	GRN <sup>3</sup> (PIN 1)
REAR RIGHT -	L.GRN/BRN (PIN 4)	L.GRN/BRN (PIN 4)	L.GRN/BRN <sup>3</sup> (PIN 24)

PIN NUMBERS APPLY TO OVERLAY HARNESS CONNECTOR

#### 4 CHANNEL SOURCE, IF RETAINING YOUR FRONT/REAR

**FADER IS REQUIRED**, GAIN ACCESS TO THE AUXILIARY HARNESS AND CUT THE 4 WIRES IN A PLACE WHERE YOU CAN EASILY BARREL CRIMP NEW WIRES TO ALL 8 WIRE ENDS. PUT ASIDE FOR REAR **HIGH-LEVEL INPUT** AND NEW SPEAKER WIRE USE LATER.



### 4.2. AFTERMARKET SOURCE UNIT

**2 AND 4 CHANNEL SOURCE**, DISCONNECT ANY FACTORY SPEAKER WIRES FROM THE BACK OF SPEAKERS AND SECURE THEM OUT OF THE WAY.



**TIP:** CUTTING A FEW WIRE TIES AND PULLING BACK LOOM WILL MAKE YOUR HARNESS MUCH EASIER TO WORK WITH. CHECK AND RE-CHECK AGAIN BEFORE CUTTING **ANY** FACTORY WIRES.



AT THIS POINT, TAKE A VISUAL INVENTORY OF YOUR INNER FAIRING. SECURE ANY LOOSE WIRES OR LOOMS AWAY FROM MOUNTING LOCATIONS WITH ZIP TIES. WITH THE MAIN AMPLIFIER TEMPORARILY IN PLACE, PERFORM A TEST FIT OF THE FRONT FAIRING COVER TO ENSURE THAT NO CONTACT OCCURS BEFORE PROCEEDING.

## INSTALLATION INSTRUCTIONS [CONTINUED]

### COMPONENT MOUNTING



USING VELCRO® AS A MOUNTING METHOD HAS THE FOLLOWING ADVANTAGES; IT HOLDS WELL UNDER EXTREME VIBRATION CONDITIONS, PROVIDES SOME MEASURE OF SHOCK ABSORPTION, AND ALLOWS FOR SIMPLE INSTALLATION, REMOVAL, AND ADJUSTMENT. HOWEVER, ONCE YOU STICK THOSE TWO SIDES TOGETHER WITH SOME PRESSURE, YOU'D DO WELL TO USE A PUTTY KNIFE SEPARATING THE TWO AGAIN. USING A PIECE OF PAPER OR THIN CARDBOARD BETWEEN THE 2 PIECES OF VELCRO WHEN TEST FITTING CAN MAKE THINGS A LOT EASIER.

**NOTE:** BE SURE TO CLEAN ALL ADHESIVE MATING SURFACES WITH THE INCLUDED ALCOHOL PADS BEFORE ATTACHING THE ADHESIVE VELCRO® PATCHES. ONCE THE ADHESIVE SIDE IS APPLIED TO A CLEAN SURFACE, WORK OUT THE AIR POCKETS WITH YOUR FINGER TIPS FOR MAXIMUM HOLDING STRENGTH AND LONGEVITY.

#### 5. DETERMINE THE MOUNTING LOCATION FOR THE AMPLIFIER BASED ON YOUR FAIRING:

##### 5.1. BATWING FAIRINGS

MOUNT THE MAIN AMPLIFIER (A) ON TOP OF THE SOURCE UNIT USING ONE OF THESE METHODS:

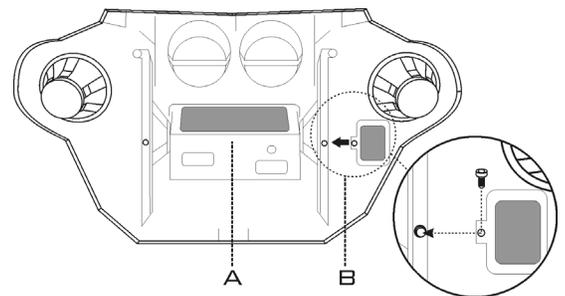
**2005 AND OLDER** - USE THE LARGE VELCRO® PATCH PROVIDED.

**2006 AND NEWER** - CUT THE LARGE VELCRO® PATCH IN HALF AND CHOOSE THE APPROPRIATE METHOD BELOW:

**WITH BOTH FACTORY XM AND CB MODULES** INSTALLED ABOVE THE SOURCE UNIT, USE THE TWO PATCH HALVES, ONE ON EACH MODULE.

**WITH NO FACTORY MODULES** INSTALLED ABOVE THE SOURCE UNIT, USE THE TWO PATCH HALVES, ONE ON EACH SIDE OF THE RIB RUNNING DOWN THE MIDDLE OF THE SOURCE UNIT.

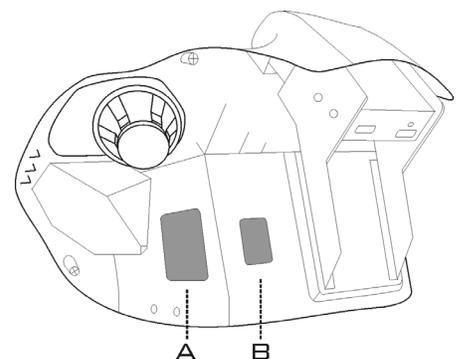
**WITH ONLY ONE FACTORY MODULE** INSTALLED ABOVE THE SOURCE UNIT, INSTALL THE **HKA150** ADAPTER BRACKET (SOLD SEPARATELY) IN THE BLANK MODULE SLOT, AND THEN USE THE TWO PATCH HALVES, ONE ON EACH MODULE.



REMOVE BOTH LEFT AND RIGHT FACTORY SPEAKER BRACES AND INSTALL THE SATELLITE BRACKET TO THE INNER FAIRING BRACE ON EITHER SIDE REUSING THE FACTORY HARDWARE. MOUNT THE SATELLITE AMPLIFIER (B) TO THE BRACKET USING THE SMALL VELCRO® PATCH PROVIDED.

##### 5.2. SHARKNOSE FAIRINGS

MOUNT THE MAIN AMPLIFIER (A) ON THE FLAT SPACE BENEATH THE GLOVE BOX USING THE LARGE VELCRO® PATCH PROVIDED. MOUNT THE SATELLITE AMPLIFIER (B); IN FRONT OF MAIN AMPLIFIER USING THE SMALL VELCRO® PATCH PROVIDED.



##### 5.3. CUSTOM INSTALLS - MOUNTING LOCATIONS CAN VARY, AND MUST BE TEST FIT ON A ONE-BY-ONE BASIS. CHECK FOR PROPER CLEARANCES BEFORE CONTINUING WITH THE INSTALLATION. THE WIRING KIT MAY NOT INCLUDE LONG ENOUGH WIRING NEEDED TO COMPLETE SOME CUSTOM INSTALLATIONS.



FOR ALL "TOP OF THE SOURCE UNIT" INSTALLATIONS, ENSURE THAT THE MAIN AMPLIFIER IS POSITIONED AS FAR BACK TOWARDS THE INNER FAIRING AS POSSIBLE.

## INSTALLATION INSTRUCTIONS [CONTINUED]

### WIRING THE MAIN AMPLIFIER



SOME BIKES MAY REQUIRE THAT THE GAS TANK BE LOOSENED OR REMOVED TO PROPERLY ROUTE THE POWER WIRE. PLEASE TAKE EVERY POSSIBLE PRECAUTION NECESSARY WHEN DEALING WITH YOUR GAS TANK! DEFINITELY REFER TO MANUFACTURER INSTRUCTIONS IF NECESSARY.

6. ROUTE AND CONNECT THE POWER WIRE (**WITHOUT THE IN-LINE FUSE INSTALLED**) FROM THE POSITIVE (+) BATTERY TERMINAL (**FIG. 6.A**), UNDER THE RIGHT SIDE (PASSENGER, STARBOARD, ETC.) OF THE GAS TANK, THROUGH THE FAIRING, AND TO THE MAIN AMPLIFIER. THE BLACK SLEEVE SHOULD END UP COVERING THE EXPOSED POWER WIRE BETWEEN THE GAS TANK AND THE FAIRING.

**WARNING:** DO NOT INSTALL THE IN-LINE FUSE UNTIL INSTRUCTED TO DO SO.

**NOTE:** ON 2006 AND NEWER, WE RECOMMEND UTILIZING THE FACTORY WIRING HARNESS CHANNEL UNDER THE TANK WITH A SUITABLE WIRE FEEDING TOOL OR DEVICE. USE OF A COAT HANGER IS AT YOUR OWN RISK.

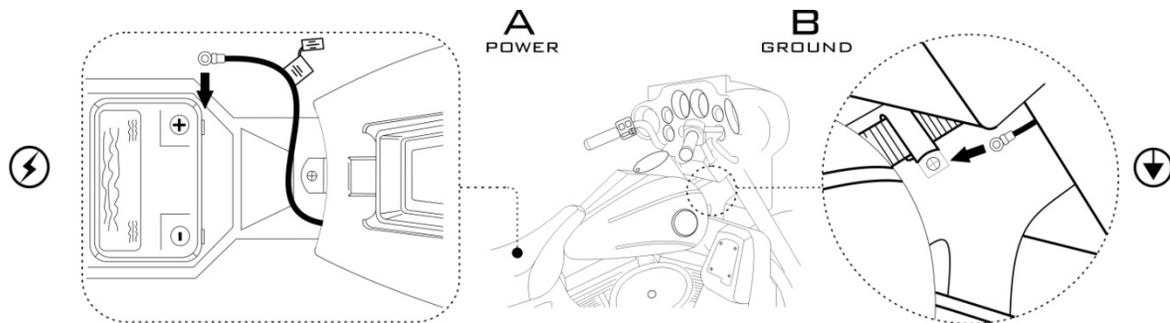


FIGURE 6 - POWER AND GROUND ROUTING AND CONNECTIONS

7. CONNECT THE GROUND WIRE TO CHASSIS GROUND (**FIG. 8.B**). TYPICALLY AN EXISTING SCREW OR NUT ON THE BIKE FRAME SHOULD BE USED, PREFERABLY WHERE A FACTORY GROUND STRAP ALREADY EXISTS.

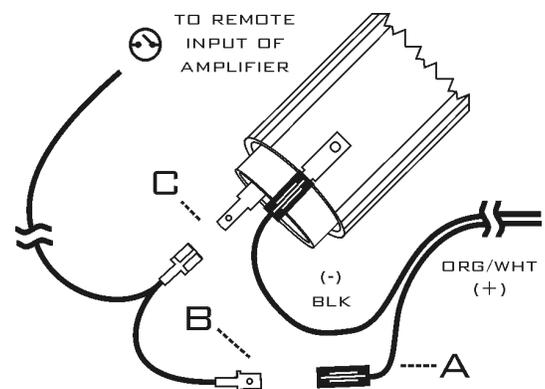
**TIP:** THE MAJORITY OF PROBLEM INSTALLS ARE THE RESULT OF A POOR GROUND. REFER TO "BE WELL GROUNDED" IN THE INSTALLATION CONSIDERATIONS SECTION FOR MORE INFORMATION.

8. CONNECT THE MAIN I/O HARNESS. ROUTE AND CONNECT THE REMOTE TURN-ON WIRE FROM THE AMPLIFIER LABELED **REM** TO ONE OF THE FOLLOWING LOCATIONS:

- 8.1. **FACTORY SOURCE UNITS** - TO UTILIZE THE **CIGARETTE LIGHTER METHOD**, DISCONNECT THE POWER TERMINAL FROM THE BACK OF THE LIGHTER (**FIG. 8.A**) AND CONNECT IT TO THE MALE TERMINAL OF THE REMOTE TURN-ON WIRE (**FIG. 8.B**). THEN CONNECT THE FEMALE TERMINAL TO THE LIGHTER TERMINAL (**FIG. 8.C**). THIS WILL TURN THE AMPLIFIER ON/OFF WITH THE IGNITION SWITCH.

- 8.2. **AFTERMARKET SOURCE UNITS** - REFER TO YOUR SOURCE UNIT INSTRUCTIONS TO DETERMINE IT'S REMOTE TURN-ON LEAD. THIS WILL TURN THE AMPLIFIER ON/OFF WITH THE SOURCE UNIT POWER SWITCH.

FIGURE 8 - CIGARETTE LIGHTER METHOD



# INSTALLATION INSTRUCTIONS [CONTINUED]

## WIRING THE MAIN AMPLIFIER (CONTINUED)



9. DETERMINE AND CONNECT YOUR SOURCE UNIT OUTPUT TO THE AMPLIFIER INPUT CABLE(S) USING ONE OF THE FOLLOWING **HIGH OR LOW LEVEL INPUT** METHODS:

9.1. FACTORY SOURCE UNITS - HIGH LEVEL INPUT (NO RCA CONNECTORS AVAILABLE)

**2 CHANNEL SOURCE**, CONNECT THE **FRONT** SPEAKER OUTPUT WIRES FROM THE SOURCE UNIT TO THE HIGH LEVEL INPUT CABLE (USE ATTACHED TERMINALS TO CONNECT INPUT WIRES TO THE SPEAKER WIRE TERMINALS IF POSSIBLE).

**4 CHANNEL SOURCE**, CONNECT THE **FRONT** AND **REAR** SPEAKER WIRES FROM THE SOURCE UNIT TO THE HIGH LEVEL INPUT CABLES RESPECTIVELY.

**NOTE:** FOR CUSTOM WIRING CONNECTIONS, WE RECOMMEND CRIMP, SOLDER, AND HEAT SHRINK.

HIGH LEVEL INPUT CABLE(S)		CONNECT TOGETHER	H-D® SOURCE UNIT MODELS		
2 CHANNEL – USE FRONT ONLY 4 CHANNEL – USE BOTH			1998-2005 8 OHM	1998-20XX CVO <sup>1</sup>	2006-20XX 2 OHM
FRONT LEFT +	WHT	---▶⊕◀---	WHT/ORG (PIN 16)	WHT/ORG (PIN 16)	WHT/ORG (PIN 16)
FRONT LEFT -	BLK (WHT TWIST)	---▶⊕◀---	L.GRN/WHT (PIN 17)	L.GRN/WHT (PIN 17)	L.GRN/WHT (PIN 17)
FRONT RIGHT +	RED	---▶⊕◀---	GRY/RED (PIN 18)	GRY/RED (PIN 18)	GRY/RED (PIN 18)
FRONT RIGHT -	BLK (RED TWIST)	---▶⊕◀---	L.GRN/BLK (PIN 1)	L.GRN/BLK (PIN 1)	L.GRN/BLK (PIN 1)
REAR LEFT +	WHT	---▶⊕◀---	BRN (PIN 10)	BRN (PIN 10)	BRN (PIN 2)
REAR LEFT -	BLK (WHT TWIST)	---▶⊕◀---	WHT/BRN (PIN 3)	WHT/BRN (PIN 3)	WHT/BRN (PIN 25)
REAR RIGHT +	RED	---▶⊕◀---	GRN (PIN 11)	GRN (PIN 11)	GRN (PIN 1)
REAR RIGHT -	BLK (RED TWIST)	---▶⊕◀---	L.GRN/BRN (PIN 4)	L.GRN/BRN (PIN 4)	L.GRN/BRN (PIN 24)

PIN NUMBERS APPLY TO H-D MAIN AND OVERLAY HARNESS CONNECTORS

**NOTE<sup>1</sup>:** CVO BIKES MAY BE EQUIPPED WITH A HIGH-OUTPUT SOURCE UNIT; **DO NOT USE THE FOLLOWING WIRE COLORS: WHT/PNK, PNK, WHT/GRY, GRY.** THESE OUTPUTS CAN DAMAGE THE AMPLIFIER INPUTS.

9.2. AFTERMARKET SOURCE UNITS - LOW LEVEL INPUT (RCA OUTPUT CONNECTORS AVAILABLE)

**2 CHANNEL SOURCE**, CONNECT THE **FRONT** RCA OUTPUT CONNECTORS FROM THE SOURCE UNIT TO THE LOW LEVEL INPUT CABLE.

**4 CHANNEL SOURCE**, CONNECT THE **FRONT** AND **REAR** RCA OUTPUT CONNECTORS FROM THE SOURCE UNIT TO THE LOW LEVEL INPUT CABLES RESPECTIVELY.



**NOTE:** VERY LITTLE DIELECTRIC GREASE IS NEEDED TO KEEP YOUR CONNECTIONS CORROSION FREE. VERY LITTLE MOISTURE IS NEEDED TO CORRODE CONTACTS NOT COVERED WITH DIELECTRIC GREASE.



10. PLUG THE CHOSEN INPUT CABLE(S) INTO THE CORRESPONDING CONNECTOR(S) OF THE MAIN AMPLIFIER LABELED **HIGH OR LOW, FRONT AND/OR REAR** ACCORDINGLY.

## INSTALLATION INSTRUCTIONS [CONTINUED]

### WIRING THE SATELLITE AMPLIFIER(S)

(4 CHANNEL OPTIONS ONLY)



INSTRUCTIONS 11 – 14 REFER TO 4 CHANNEL SPECIFIC OPTIONS. IF YOU ARE INSTALLING THE MPS3002 OR RS4002 2 CHANNEL SYSTEMS, PLEASE SKIP AHEAD TO INSTRUCTION 15.



#### 11. CHANNEL INPUT MODE SWITCH:

SET THIS SWITCH TO **2CH - 2 CHANNEL MODE** OR **4CH - 4 CHANNEL MODE** TO MATCH THE INPUT METHOD YOU'RE NOW WIRED FOR IN STEPS 11 – 13:

11.1. **2CH - 2 CHANNEL MODE**, USED FOR 2 CHANNEL SOURCE INPUT CONFIGURATIONS.

11.2. **4CH - 4 CHANNEL MODE**, USED FOR 4 CHANNEL SOURCE INPUT CONFIGURATIONS.

**NOTE:** THIS SWITCH IS EXPLAINED IN DETAIL LATER IN THE "USER GUIDE" SECTION.



12. APPLY A SMALL AMOUNT OF DIELECTRIC GREASE (INCLUDED IN THE KIT) TO EACH CONTROL CABLE CONNECTOR OF YOUR SYSTEM; CONTROL CABLE (BOTH ENDS), MAIN AMPLIFIER CONNECTOR, AND THE SATELLITE AMPLIFIER CONNECTOR, FOCUSING ON THE ELECTRICAL CONTACTS INSIDE THE PLASTIC CONNECTOR HOUSINGS.

**NOTE:** VERY LITTLE DIELECTRIC GREASE IS NEEDED TO KEEP YOUR CONNECTIONS CORROSION FREE. VERY LITTLE MOISTURE IS NEEDED TO CORRODE CONTACTS NOT COVERED WITH DIELECTRIC GREASE.



13. WITH THE AMPLIFIER OFF, ROUTE AND CONNECT THE CONTROL CABLE FROM THE APPROPRIATE CONNECTOR ON THE MAIN AMPLIFIER TO THE SATELLITE AMPLIFIER INSTALLED.



**WARNING:** NEVER CONNECT OR DISCONNECT THE CONTROL CABLES WHILE THE MAIN AMPLIFIER IS POWERED ON. THIS CAN DAMAGE THE MAIN AND/OR SATELLITE AMPLIFIER(S), AND WILL VOID YOUR WARRANTY AS WELL!



KEEP IN MIND THAT IF YOU PURCHASED THE MPS3002 OR RS4002 AMPLIFIER AS A 2 CHANNEL UPGRADEABLE SYSTEM, YOU CAN UPGRADE TO A 4 CHANNEL SYSTEM AT ANY TIME BY PURCHASING OUR SATELLITE AMPLIFIER.

### WIRING THE SPEAKERS



14. REPLACE THE FACTORY SPEAKERS WITH 4 OHM AFTERMARKET SPEAKERS (IF APPLICABLE).

**NOTE:** IF YOU ARE INSTALLING HAWG WIRED SPEAKERS, REFER TO THE INSTALLATION INSTRUCTIONS THAT CAME WITH THEM. IF INSTALLING ANOTHER BRAND OF SPEAKERS, REFER TO THOSE SPECIFIC MANUFACTURER INSTRUCTIONS IF NECESSARY.



15. ROUTE AND CONNECT THE SPEAKER WIRES FROM THE MAIN AMPLIFIER I/O HARNESS AND REAR SPEAKER OUTPUT CABLE TO EACH SPEAKER OF YOUR SYSTEM.

**NOTE:** KEEP THE POLARITIES (+/-) OF EACH WIRE PAIR CORRECT BETWEEN THE AMPLIFIER(S) AND SPEAKERS. IF YOU ARE INSTALLING HAWG WIRED SPEAKERS, REFER TO THE INSTALLATION INSTRUCTIONS THAT CAME WITH THEM. IF INSTALLING ANOTHER BRAND OF SPEAKERS, REFER TO THOSE SPECIFIC MANUFACTURER INSTRUCTIONS IF NECESSARY.

## INSTALLATION INSTRUCTIONS [CONTINUED]

### TESTING AND TUNING THE SYSTEM

16. RE-CONNECT THE POSITIVE (+) SIDE OF THE BATTERY, FOLLOWED BY THE NEGATIVE (-) SIDE.

**WARNING:** DO NOT INSTALL THE IN-LINE FUSE UNTIL AFTER THIS STEP.



THIS IS A GOOD TIME TO RE-CHECK YOUR CONNECTIONS **BEFORE INSTALLING THE FUSE**. MAKE SURE THAT THE CONTROL CABLE IS COMPLETELY SEATED AND LATCHED IN THEIR RESPECTIVE CONNECTOR, AND THAT POWER AND GROUND ARE PROPERLY CONNECTED TO THE MAIN AMPLIFIER.



17. INSTALL THE 30 AMP ATC FUSE INTO THE IN-LINE FUSE HOLDER ON THE POWER WIRE.

**NOTE:** IF THE FUSE DOESN'T BLOW WHEN YOU PLUG IT IN, YOU'VE PASSED THE INITIAL SMOKE TEST.

18. PERFORM A BASIC SYSTEM TEST. TURN THE KEY TO THE ACCESSORY POSITION AND VERIFY THAT THE AMPLIFIER(S) POWER UP (LED ON EACH COMPONENT SHOULD LIGHT) AND THAT THE SPEAKERS FUNCTION PROPERLY. IF NOT, PROCEED DIRECTLY TO “**TROUBLESHOOTING**” IN THE **USER GUIDE** SECTION.



19. CONFIGURE, TEST, AND TUNE YOUR SYSTEM BY FOLLOWING THE “**TEST AND TUNE**” INSTRUCTIONS GIVEN IN THE “**USER GUIDE**” SECTION OF THIS MANUAL. WHEN YOU'VE COMPLETED THESE INSTRUCTIONS AND ARE READY TO ROCK AND ROLL, RETURN HERE TO COMPLETE THE INSTALLATION.



NOW IT'S TIME TO START ROTATING KNOBS AND FLIPPING SWITCHES TO GET THE MOST OUT OF YOUR NEW SYSTEM. IF YOU RUN INTO ANY SNAGS ALONG THE WAY, LET US KNOW SO WE CAN HELP GET YOU UP AND RUNNING.

### WRAPPING IT UP

20. WITH THE IGNITION OFF, CAREFULLY INSTALL THE FAIRING COVER, ENSURING THAT EACH ATTACHING SCREW GOES BACK INTO THE HOLE IT CAME OUT OF. ONCE YOU HAVE EVERYTHING LINED UP AND ALL SCREWS LOOSELY INSTALLED, TIGHTEN EACH SCREW IN AN EVEN PATTERN TO AVOID BINDING.

**WARNING:** AVOID OVER-TIGHTENING; PLASTIC THREADS HAVE A TENDENCY TO PULL OUT EASILY. REFER TO MANUFACTURER INSTRUCTIONS IF NECESSARY.

21. INSTALL THE SEAT, TAKING CARE NOT TO DAMAGE OR PINCH YOUR FACTORY WIRING HARNESS OR NEW AMPLIFIER POWER WIRE.

**TIP:** BE SURE THAT BOTH BATTERY TERMINALS ARE CONNECTED AND TIGHT, AND THAT ANY GAS TANK BOLTS LOOSENED EARLIER ARE NOW TIGHT. REFER TO MANUFACTURER INSTRUCTIONS IF NECESSARY.

76 22. PERFORM A FINAL SYSTEM TEST. TURN THE KEY TO THE ACCESSORY POSITION AND VERIFY THAT ALL COMPONENTS STILL FUNCTION PROPERLY.

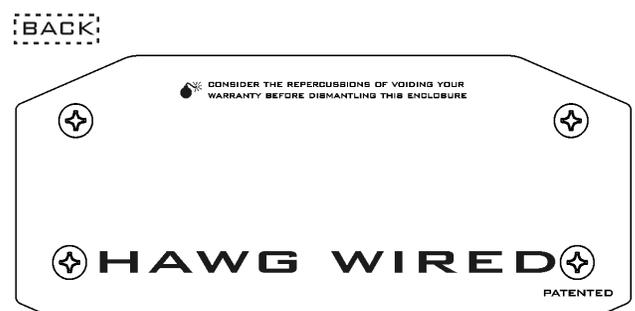
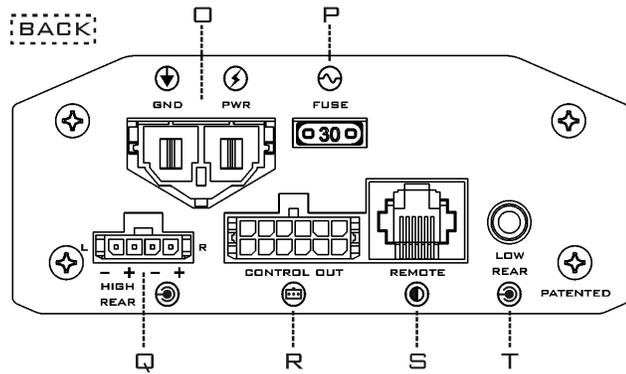
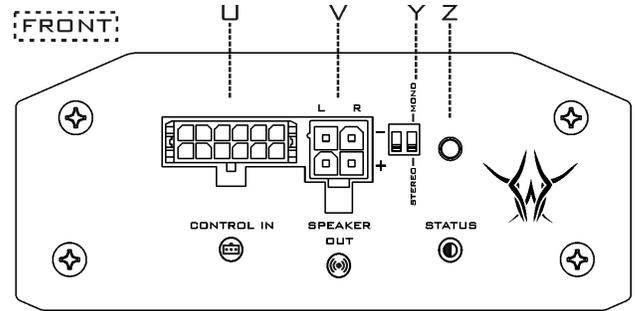
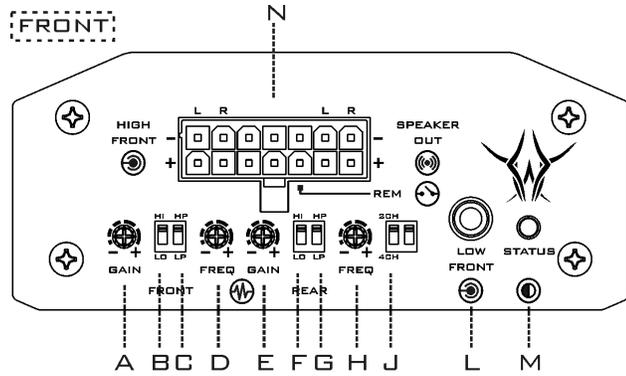
23. PERFORM A TEST RIDE AND AGAIN VERIFY THAT THE SYSTEM IS OK, AND THAT YOUR FRIENDS ARE SUFFICIENTLY JEALOUS.

**TIP:** JUSTIN WOULD LIKE TO REMIND YOU TO CHECK YOUR TIRE PRESSURE, AND FROM THE ENTIRE HAWG WIRED TEAM, THANKS FOR MAKING THIS POSSIBLE, KEEP THE RUBBER SIDE DOWN, AND CRANK IT!

# USER GUIDE

## CONNECTORS AND CONTROLS

PLANNING YOUR SYSTEM CONFIGURATION IS THE FIRST STEP TOWARDS HI-FI HAPPINESS, AND IT'S TIME YOU GET FAMILIAR WITH ALL THE BELLS AND WHISTLES ON YOUR NEW AMPLIFIER. THE TABLE BELOW LISTS THE CONTROLS AND CONNECTORS OF THE MPS3002 / RS4002 AND MPS150 / RS200 AMPLIFIERS.



A	INPUT GAIN ADJUST	J	CHANNEL MODE SWITCH	S	REMOTE CONTROL
B	INPUT MODE SWITCH	L	LOW LEVEL INPUT	T	LOW LEVEL INPUT (REAR)
C	CROSSOVER MODE SWITCH	M	STATUS INDICATOR	U	CONTROL IN
D	CROSSOVER FILTER ADJUST	N	MAIN I/O CONNECTOR	V	SPEAKER OUT (REAR)
E	INPUT GAIN ADJUST (REAR)	O	MAIN POWER CONNECTOR	Y	MONO / STEREO SWITCH
F	INPUT MODE SWITCH (REAR)	P	AMPLIFIER PROTECTION FUSE	Z	STATUS INDICATOR
G	CROSSOVER MODE SWITCH (REAR)	Q	HIGH LEVEL INPUT (REAR)		
H	CROSSOVER FILTER ADJUST (REAR)	R	CONTROL OUT		

## USER GUIDE [CONTINUED]

### CONNECTORS DEFINED



#### MAIN POWER CONNECTOR:



THIS CONNECTOR IS FOR YOUR MAIN POWER AND GROUND CONNECTIONS. THIS CONNECTS THE BATTERY AND GROUND CABLES TO THE AMPLIFIER. WITHOUT THIS, YOUR AMPLIFIER WOULD SIMPLY NEVER WORK.



#### MAIN I/O CONNECTOR:



THIS CONNECTOR COMBINES FRONT HIGH LEVEL INPUT, FRONT SPEAKER OUTPUT, AND REMOTE TURN-ON. HIGH LEVEL INPUT ALLOWS THE AMPLIFIER TO USE SPEAKER OUTPUTS FROM A SOURCE UNIT AS INPUTS TO THE AMPLIFIER. THIS IS THE ONLY WAY TO CONNECT A FACTORY HARLEY-DAVIDSON® SOURCE UNIT TO THIS SYSTEM. FRONT SPEAKER OUTPUTS WILL BE CONNECTED TO YOUR FRONT SPEAKERS. REMOTE TURN-ON IS USED TO TURN ON/OFF THE AMPLIFIER BY CONNECTING THIS TO A SWITCHED 12V SOURCE.

#### WIRE COLORS FOR THE HIGH LEVEL INPUT:

HIGH LEVEL CABLE	FRONT LEFT (+)	FRONT LEFT (-)	FRONT RIGHT (+)	FRONT RIGHT (-)
FRONT OR REAR	WHITE	BLACK/ TWISTED WITH WHITE	RED	BLACK/ TWISTED WITH RED



#### SPEAKER OUT CONNECTOR (REAR):

THIS CONNECTOR IS YOUR REAR SPEAKER OUTPUTS. REAR SPEAKER OUTPUTS WILL BE CONNECTED TO YOUR REAR SPEAKERS.



#### HIGH LEVEL INPUT CONNECTOR (REAR):

THIS CONNECTOR ALLOWS THE AMPLIFIER TO USE SPEAKER OUTPUTS FROM A SOURCE UNIT AS INPUTS TO THE AMPLIFIER. THIS IS THE ONLY WAY TO CONNECT A FACTORY HARLEY-DAVIDSON® SOURCE UNIT TO THIS SYSTEM. YOU WILL USE THIS CONNECTOR IF YOU ARE INSTALLING A 4 CHANNEL SYSTEM ON A 4 CHANNEL SOURCE UNIT.

#### WIRE COLORS FOR THE HIGH LEVEL INPUT:

HIGH LEVEL CABLE	FRONT LEFT (+)	FRONT LEFT (-)	FRONT RIGHT (+)	FRONT RIGHT (-)
FRONT OR REAR	WHITE	BLACK/ TWISTED WITH WHITE	RED	BLACK/ TWISTED WITH RED

## USER GUIDE [CONTINUED]

### CONNECTORS DEFINED

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#### LOW LEVEL INPUT CONNECTOR(S):

THIS CONNECTOR ALLOWS THE AMPLIFIER TO USE INDUSTRY STANDARD RCA OUTPUTS FROM AN AFTERMARKET SOURCE UNIT AS INPUTS TO THE AMPLIFIER. THIS IS THE PREFERRED METHOD WHEN RCA OUTPUTS ARE AVAILABLE, AND WILL PRODUCE THE CLEANEST SOURCE SIGNAL TO THE AMPLIFIER. IF YOU ARE INSTALLING A 4 CHANNEL SYSTEM ON A 4 CHANNEL SOURCE UNIT, BOTH THE FRONT AND REAR LOW LEVEL INPUT CABLES ARE IDENTICAL, SO IT DOESN'T MATTER WHICH ONE YOU USE FOR FRONT OR REAR; THE CONNECTIONS ARE THE SAME.

**NOTE:** WE USE INDUSTRY STANDARD 3.5MM HEADPHONE STYLE JACKS ON THE AMPLIFIER DUE TO THE SPACE CONSTRAINTS (2 3.5MM PHONO-JACKS ARE A LOT SMALLER THAN 4 RCA JACKS). ALTHOUGH WE HIGHLY RECOMMEND USING THE LOW LEVEL INPUT CABLES WE SUPPLY WITH THE KIT, TECHNICALLY YOU SHOULD BE ABLE TO UTILIZE ANY STANDARD RCA TO PHONO ADAPTER CABLE FOUND AT YOUR LOCAL ELECTRONIC STORE TO MAKE THESE CONNECTIONS. IT'S OUR GOAL TO KEEP THINGS SIMPLE AND STANDARD IF AT ALL POSSIBLE.



#### REMOTE CONNECTOR:

THIS CONNECTOR IS USED TO CONNECT OUR REMOTE CONTROL MODULE.



#### CONTROL CONNECTORS:

THE CONTROL CONNECTORS ARE USED TO CONNECT THE SATELLITE AMPLIFIER TO THE MAIN AMPLIFIER. THE PURPOSE OF THE MODULAR SATELLITE AMPLIFIER IS SIMPLE; TO GIVE YOU THE ULTIMATE INSTALLATION FLEXIBILITY WITHOUT ONE GIANT BOX. IT'S HOW WE'RE ABLE TO FIT UP TO 4 CHANNELS IN AS SMALL A SPACE AS A BATWING FAIRING.

## USER GUIDE [CONTINUED]

### CONTROLS DEFINED



#### INPUT MODE SWITCH:

THIS SWITCH SELECTS WHICH MODE OF INPUT THE AMPLIFIER IS CONFIGURED FOR, HIGH LEVEL INPUT OR LOW LEVEL INPUT. THE OPTIONS ARE AS FOLLOWS:



**HI - HIGH LEVEL INPUT MODE** - USED WHEN CONNECTING TO SPEAKER OUTPUTS FROM A SOURCE UNIT AS INPUTS TO THE AMPLIFIER. THIS IS THE INPUT MODE TO CONNECT A FACTORY HARLEY-DAVIDSON® SOURCE UNIT TO THIS SYSTEM.



**LO - LOW LEVEL INPUT MODE** - USED WHEN CONNECTING INDUSTRY STANDARD RCA OUTPUTS FROM AN AFTERMARKET SOURCE UNIT AS INPUTS TO THE AMPLIFIER. THIS IS THE PREFERRED METHOD WHEN RCA OUTPUTS ARE AVAILABLE, AND WILL PRODUCE THE CLEANEST SOURCE SIGNAL TO THE AMPLIFIER.



#### CHANNEL MODE SWITCH:

THIS SWITCH SELECTS HOW MANY CHANNELS OF INPUT THE AMPLIFIER IS CONFIGURED FOR, 2 OR 4 CHANNELS. THE OPTIONS ARE AS FOLLOWS:



**2CH - 2 CHANNEL MODE** - USED WHEN ONLY 2 CHANNEL SOURCE IS CONNECTED TO THE MAIN AMPLIFIER. USING THIS SETTING WILL FORCE THE FRONT AND REAR OUTPUTS TO BE DRIVEN BY ONLY THE **FRONT** PAIR OF INPUTS.



**4CH - 4 CHANNEL MODE** - USED WHEN 4 CHANNEL SOURCE IS CONNECTED TO THE MAIN AMPLIFIER. USING THIS SETTING WILL FORCE THE FRONT AND REAR OUTPUTS TO BE DRIVEN BY BOTH FRONT AND REAR INPUTS INDEPENDENTLY.

**NOTE:** THIS ALLOWS FRONT TO REAR FADING FROM THE SOURCE UNIT (IF AVAILABLE).



#### INPUT GAIN ADJUSTMENT:

A COMMON MISCONCEPTION ABOUT GAIN ADJUSTMENT ON AMPLIFIERS IS THAT "MORE GAIN = MORE VOLUME". ACTUALLY, IT'S NOT THE VOLUME THAT'S BEING INCREASED, BUT RATHER THE AMPLIFIER'S SENSITIVITY TO THE SOURCE INPUT. BY INCREASING THE GAIN LEVEL, YOU'RE INCREASING HOW SENSITIVE THE AMPLIFIER IS TO THE SIGNAL IT RECEIVES FROM THE SOURCE UNIT. THIS IS WHY IT'S IMPORTANT TO SET THE GAIN PROPERLY, RATHER THAN SIMPLY TURNING THE KNOB UNTIL IT'S REALLY LOUD.



**GAIN**

GAIN ALLOWS THE FOLLOWING NOMINAL OPERATING LEVEL ADJUSTMENTS:

**LOW LEVEL INPUT (RCA LINE-IN) - 250MV TO 2.5V**

**HIGH LEVEL INPUT (SPEAKER-IN) - 500MV TO 5V**

THESE VOLTAGE LEVELS CAN ACCOMMODATE VIRTUALLY ANY HARLEY-DAVIDSON® OR OTHER BRAND OF CAR, MARINE, OR MOTORCYCLE SOURCE UNITS, AS WELL AS JUST ABOUT ANYTHING THAT HAS RCA OR LINE-OUT STYLE OUTPUTS.



**WARNING:** SETTING THE GAIN TOO HIGH IN AN ATTEMPT TO GET "MORE VOLUME" CAN NOT ONLY CAUSE PREMATURE DISTORTION, BUT CAN ALSO DAMAGE YOUR SPEAKERS. **IF YOUR SYSTEM CONFIGURATION RESULTS IN YOUR GAIN CONTROL BEING SET OUTSIDE THE TYPICAL RANGE AS INDICATED ABOVE, CALL US TO RESOLVE THE PROBLEM.**

## USER GUIDE [CONTINUED]

### CONTROLS DEFINED



#### CROSSOVER MODE SWITCH:

THIS SWITCH SELECTS WHICH RANGE OF FREQUENCIES THAT THE BUILT-IN CROSSOVER WILL FILTER. EACH MODE IS EQUIPPED WITH 12DB PER OCTAVE ELECTRONIC FILTERS FOR PRECISE FREQUENCY ATTENUATION WITH MINIMAL PHASE DISTORTION. THE OPTIONS ARE AS FOLLOWS:



**LOW – LOW-PASS** – USED WHEN SPEAKER OUTPUTS WILL DRIVE SUBWOOFERS, OR LOW RANGE SPEAKERS ONLY.



**HIGH – HIGH-PASS (DEFAULT)** – USED WHEN SPEAKER OUTPUTS WILL DRIVE MIDDLE TO HIGH RANGE SPEAKERS ONLY (**RECOMMENDED SETTING FOR ALL 5.25" SPEAKERS**).



#### CROSSOVER FILTER ADJUSTMENT:

THE PURPOSE OF A CROSSOVER CIRCUIT IS TO FILTER OUT A SPECIFIC RANGE OF FREQUENCIES FROM A SPEAKER'S INPUT TO MAXIMIZE IT'S PERFORMANCE. FOR A TWEETER, THE GOAL IS TO FILTER OUT LOW (BASS) RANGE FREQUENCIES TO MAXIMIZE THE HIGH RANGE (TREBLE) RESPONSE. CONVERSELY, FOR A SUBWOOFER, THE GOAL IS TO FILTER OUT THE HIGH AND MID RANGE FREQUENCIES, LEAVING ONLY LOW FREQUENCIES TO PLAY THROUGH THE WOOFER.

THERE ARE TWO KINDS OF CROSSOVER IMPLEMENTATIONS, **ACTIVE** OR **PASSIVE**:

**ACTIVE CROSSOVER** – THIS FILTERS SELECTED FREQUENCIES **BEFORE** THE AUDIO SIGNAL IS AMPLIFIED, BETWEEN THE SOURCE UNIT AND AMPLIFIER. OUR BUILT-IN CROSSOVERS ARE AN EXAMPLE OF THIS TYPE OF CROSSOVER.

**THE GOOD** - BY REMOVING UNWANTED FREQUENCIES FROM THE SIGNAL **BEFORE** IT'S AMPLIFIED, YOUR OUTPUT BECOMES MORE EFFICIENT, ONLY WORKING TO AMPLIFY THE DESIRED RANGE OF FREQUENCIES.

**THE BAD** - BY REMOVING UNWANTED FREQUENCIES FROM THE SIGNAL **BEFORE** IT'S AMPLIFIED, YOU ARE DEDICATING THOSE FILTERED CHANNELS TO ONLY PROVIDE A CERTAIN FREQUENCY RANGE.

**PASSIVE CROSSOVER** – THIS FILTERS SELECTED FREQUENCIES **AFTER** THE AUDIO SIGNAL HAS BEEN AMPLIFIED, BETWEEN THE AMPLIFIER AND SPEAKER. SOME SPEAKERS ARE SOLD WITH PASSIVE CROSSOVERS INCLUDED, TYPICALLY A SMALL PLASTIC ENCLOSURE (LIKE OUR COMPONENT SERIES), OR CAPACITORS AND/OR COILS MOUNTED DIRECTLY TO THE SPEAKER (LIKE OUR UPGRADE AND PERFORMANCE SERIES).

**THE GOOD** - BY REMOVING UNWANTED FREQUENCIES FROM THE SIGNAL **AFTER** IT'S AMPLIFIED, YOUR AMPLIFIER'S OUTPUT IS STILL FULL RANGE, ALLOWING MORE FLEXIBLE USE, ABLE TO DRIVE TWEETERS, MID-RANGE, AND SUBWOOFERS ALIKE.

**THE BAD** - BY REMOVING UNWANTED FREQUENCIES FROM THE SIGNAL **AFTER** IT'S AMPLIFIED, YOU ARE FORCING THE FULL RANGE OF FREQUENCIES TO BE AMPLIFIED, REDUCING THE AMPLIFIER'S MAXIMUM POSSIBLE EFFICIENCY.



OUR BUILT-IN ACTIVE CROSSOVER(S) ARE FULLY ADJUSTABLE FROM 50HZ TO 250HZ, USING EITHER A **LOW-PASS MODE** (BASS ONLY) OR **HIGH-PASS MODE** (MIDRANGE AND HIGHS ONLY) TO EASILY MAXIMIZE YOUR SPEAKER'S POTENTIAL.

FREQ

## USER GUIDE [CONTINUED]

### TEST AND TUNE



#### SETTING THE GAIN:

WITH THE SYSTEM FUNCTIONING PROPERLY, FOLLOW THESE STEPS TO SET THE GAIN CONTROL:

1. TURN THE GAIN CONTROL(S) ALL THE WAY DOWN (COUNTER-CLOCKWISE). USING THE ADJUSTMENT TOOL PROVIDED.
2. TURN THE KEY TO THE ACCESSORY POSITION, AND THEN TURN THE SOURCE UNIT ON.
3. SET ALL **TONE** (BASS, TREBLE) AND **EQUALIZATION** CONTROLS (BALANCE, FADE) ON THE SOURCE UNIT TO "FLAT" OR "0", AND TURN OFF "LOUD" OR "LOUDNESS". IF A SEPARATE EQUALIZER IS USED, DISABLE OR SET ALL OF IT'S CONTROLS TO "FLAT" OR "0".  
**NOTE:** IF CONFIGURING MORE THAN 2 CHANNELS, SET THE **FADE** CONTROL TO "FRONT" ONLY, PROCEED WITH THESE INSTRUCTIONS, AND THEN SET **FADE** TO "REAR" ONLY AND REPEAT.
4. WHILE PLAYING A STANDARD NON-MP3 CD<sup>1</sup>, SET THE SOURCE UNIT'S VOLUME CONTROL TO 75% OF MAXIMUM LEVEL.
5. SLOWLY INCREASE TO GAIN CONTROL UNTIL YOU HEAR A SLIGHT DISTORTION OF THE AUDIO PLAYBACK AND THE STATUS LIGHT ON THE AMPLIFIER STARTS BLINKING. THE STATUS LIGHT BEGINS TO BLINK WHEN THE AMPLIFIER'S INPUTS OR OUTPUTS ARE CLIPPING. THIS IS THE MAX YOUR GAIN SHOULD BE SET.



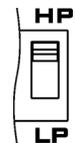
**WARNING:** SETTING THE GAIN TOO HIGH IN AN ATTEMPT TO GET "MORE VOLUME" CAN NOT ONLY CAUSE PREMATURE DISTORTION, BUT CAN ALSO DAMAGE YOUR SPEAKERS.



#### SETTING THE CROSSOVER:

WITH THE SYSTEM FUNCTIONING PROPERLY, FOLLOW THESE STEPS TO SET THE CROSSOVERS:

1. SELECT THE DESIRED MODE FOR EACH CROSSOVER MODE SWITCH; **LP** FOR **LOW-PASS MODE** OR **HP** FOR **HIGH-PASS MODE (DEFAULT)**.
2. SET ALL TONE (BASS, TREBLE) AND EQUALIZATION CONTROLS (BALANCE, FADE) ON THE SOURCE UNIT TO "FLAT" OR "0", AND TURN OFF "LOUD" OR "LOUDNESS". IF A SEPARATE EQUALIZER IS USED, DISABLE OR SET ALL OF IT'S CONTROLS TO "FLAT" OR "0".
3. WHILE PLAYING A STANDARD NON-MP3 CD<sup>1</sup>, SET THE CROSSOVER FILTER ADJUSTER TO THE DESIRED FREQUENCY USING THE PROVIDED ADJUSTMENT TOOL (**ADJUSTABLE FROM 50HZ TO 250HZ**).



**NOTE:** FOR SYSTEMS WITH MORE THAN 2 CHANNELS, FOLLOW BOTH OF THE ABOVE INSTRUCTIONS FOR THE FRONT AND REAR SEPARATELY. ONCE YOU'VE CONFIGURED EACH CHANNEL SECTION, YOU CAN FINE-TUNE THE OVERALL SYSTEM SETTINGS FOR OPTIMAL PERFORMANCE.



**NOTE<sup>1</sup>:** THIS IS THE PREFERRED AUDIO TESTING SOURCE METHOD, AS MP3, XM, FM, AND AM ALL HAVE SOME LEVEL OF COMPRESSION OR DEGRADATION INVOLVED, WHICH CAN LEAD TO VARYING RESULTS. IF THE PREFERRED METHOD IS NOT AVAILABLE, USE THE MOST COMMON PLAYBACK METHOD YOU USE WHILE RIDING.

**USER GUIDE [CONTINUED]****TROUBLESHOOTING**

INFRACTION	PROBABLE CAUSE	RESTITUTION
MAIN AMPLIFIER DOESN'T POWER UP (LED IS <b>OFF</b> )	REM WIRE IS NOT GETTING +12V TO THE AMPLIFIER	CHECK YOUR WIRING OF THE REMOTE TURN-ON WIRE. MAKE SURE THE TURN-ON SOURCE IS PROVIDING +12V.
	PWR WIRE IS NOT GETTING +12V TO THE AMPLIFIER	CHECK THIS WIRE ALL THE WAY TO THE BATTERY. MAKE SURE THE IN-LINE FUSE IS INSTALLED AND NOT BLOWN.
	GND WIRE IS NOT GETTING GROUND TO THE AMPLIFIER	MAKE SURE THE GROUND LOCATION SELECTED IS PROVIDING A GOOD, CLEAN CHASSIS GROUND.
SATELLITE AMPLIFIER DOESN'T POWER UP (LED IS <b>OFF</b> )	CONTROL CABLE IS NOT CONNECTED	MAKE SURE THAT THE CONTROL CABLE CONNECTORS ARE SEATED AND LATCHED COMPLETELY.
AMPLIFIER(S) POWER UP, BUT MAKE NO SOUND (LED IS <b>ON</b> )	SPEAKER WIRES ARE NOT CONNECTED OR SHORTED	CHECK YOUR WIRING FROM THE AMPLIFIERS TO EACH SPEAKER IN THE SYSTEM. MAKE SURE THAT THE WIRE TERMINALS ARE NOT SHORTING TO THE BIKE CHASSIS OR OTHER WIRES.
	INPUT FROM SOURCE UNIT NOT CONNECTED PROPERLY	CHECK YOUR <b>HIGH OR LOW</b> LEVEL INPUT WIRING FROM THE SOURCE UNIT TO THE MAIN AMPLIFIER.
	SOURCE UNIT HAS NO OUTPUT	CHECK THAT YOUR SOURCE UNIT IS FUNCTIONING PROPERLY. REFER TO MANUFACTURER INSTRUCTIONS IF NECESSARY.
SPEAKER OUTPUT SOUNDS LOW OR DISTORTED	INPUT GAIN LEVEL SET INCORRECTLY	SET THE GAIN LEVEL(S) USING THE INSTRUCTIONS IN " <b>TEST AND TUNE</b> ". IF YOU'VE ALREADY COMPLETED THIS STEP, TRY LOWERING THE GAIN SLIGHTLY UNTIL THE DISTORTION STOPS.
	LOW BATTERY CONDITION	CHECK YOUR BATTERY FOR PROPER CHARGE AND REPLACE IF NECESSARY.

## WARRANTY INFORMATION

HAWG WIRED OFFERS A LIMITED WARRANTY OF OUR PRODUCTS ON THE FOLLOWING TERMS:

• **LENGTH OF WARRANTY**

1 YEAR ON AUDIO SYSTEMS, ELECTRONICS, SPEAKERS, AND ACCESSORIES (RECEIPT REQUIRED).  
2 YEARS ON ALL REFERENCE SERIES AMPLIFIERS (RECEIPT REQUIRED).

• **COVERAGE**

THIS WARRANTY COVERS ONLY THE ORIGINAL PURCHASER OF A HAWG WIRED PRODUCT PURCHASED FROM AN AUTHORIZED HAWG WIRED DEALER IN THE UNITED STATES. IN ORDER TO RECEIVE SERVICE, THE PURCHASER MUST PROVIDE HAWG WIRED WITH A COPY OF THE RECEIPT STATING THE CUSTOMER NAME, DEALER NAME, PRODUCT PURCHASED AND DATE OF PURCHASE.

• **DEFECTIVE PRODUCTS**

PRODUCTS FOUND TO BE DEFECTIVE DURING THE WARRANTY PERIOD WILL BE REPAIRED OR REPLACED (WITH A PRODUCT DEEMED TO BE EQUIVALENT) AT HAWG WIRED'S DISCRETION.

• **WHAT IS NOT COVERED**

DAMAGE CAUSED BY ACCIDENT, ABUSE, IMPROPER OPERATIONS, WATER, THEFT  
ANY COST OR EXPENSE RELATED TO THE REMOVAL OR REINSTALLATION OF PRODUCT  
SERVICE PERFORMED BY ANYONE OTHER THAN AN AUTHORIZED HAWG WIRED SERVICE CENTER  
ANY PRODUCT WITH THE SERIAL NUMBER OR TAMPER LABELS DEFACED, ALTERED, OR REMOVED  
SUBSEQUENT DAMAGE TO OTHER COMPONENTS  
ANY PRODUCT PURCHASED OUTSIDE THE U.S.  
ANY PRODUCT NOT PURCHASED FROM AN AUTHORIZED HAWG WIRED DEALER

• **LIMIT ON IMPLIED WARRANTIES**

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. SOME STATES DO NOT ALLOW LIMITATIONS ON THE LENGTH OF AN IMPLIED WARRANTY, SO THIS LIMITATION MAY NOT APPLY. NO PERSON IS AUTHORIZED TO ASSUME FOR HAWG WIRED ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF THE PRODUCT.

• **HOW TO OBTAIN SERVICE**

PLEASE CALL 510.894.2999 FOR HAWG WIRED CUSTOMER SERVICE. YOU MUST OBTAIN A RETURN MATERIAL AUTHORIZATION NUMBER (RMA) TO RETURN ANY PRODUCT TO HAWG WIRED. YOU ARE RESPONSIBLE FOR SHIPPING CHARGES OF RETURNED PRODUCTS TO HAWG WIRED.

• **MADE IN THE USA**

OUR PRODUCTS ARE PROUDLY DESIGNED, DEVELOPED AND BUILT IN THE USA\*. THE MAJORITY OF THE COMPONENTS USED IN THE CONSTRUCTION OF OUR PRODUCTS ARE PRODUCED BY AMERICAN COMPANIES. HOWEVER, DUE TO THE GLOBAL NATURE OF MODERN MANUFACTURING AND THE ELECTRONICS INDUSTRY IN GENERAL, SOME PARTS MAY BE MANUFACTURED IN OTHER COUNTRIES.

\*OUR SPEAKERS ARE PROUDLY DESIGNED AND DEVELOPED IN THE USA. HOWEVER, DUE TO THE GLOBAL NATURE OF LOUDSPEAKER MANUFACTURING, OUR SPEAKERS ARE MANUFACTURED IN OTHER COUNTRIES.

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# HAWG WIRED, INC.

### CONTACT US BY EMAIL

GENERAL INFORMATION – [info@hawg-wired.com](mailto:info@hawg-wired.com)  
SALES AND MARKETING – [sales@hawg-wired.com](mailto:sales@hawg-wired.com)  
TECHNICAL SUPPORT – [tech@hawg-wired.com](mailto:tech@hawg-wired.com)

### CONTACT US BY PHONE

MAIN 510.894.2999  
EFAX 510.217.6994

VISIT US ON THE WEB AT [HAWG-WIRED.COM](http://HAWG-WIRED.COM)



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