



i2300

i2600

i4500

i5800

Owner's Manual

INTRODUCTION

Thank you for purchasing an Image Dynamics amplifier for your automotive sound system.

Your amplifier has been designed and manufactured to the highest standards ensuring years of enjoyment in your vehicle. For maximum performance and extended warranty coverage, we highly recommend that you have your new amplifier installed by an authorized Image Dynamics dealer. Your authorized dealer has the training, expertise and installation equipment to ensure optimum performance from this product. Should you decide to install the amplifier yourself, please take the time to read this manual thoroughly so as to familiarize yourself with its installation requirements and setup procedures.

FEATURES - CLASS AB AMPLIFIER

- PWM MOSFET POWER SUPPLY AMPLIFIER
- REMOTE LEVEL CONTROL
- HIGH CURRENT BI-POLAR OUTPUTS
- 12dB/Oct. CROSSOVER
 - VARIABLE HIGH PASS CROSSOVER (40Hz-250Hz)
 - VARIABLE LOW PASS CROSSOVER (40Hz-250Hz)
- HIGH EFFICIENCY ALUMINUM HEAT SINK
- VARIABLE 0dB TO 18dB BASS EQ AT 40Hz
- PROTECTION CIRCUIT WITH STATUS LED
- THROUGH OUTPUT RCA FOR RUNNING MULTIPLE AMPLIFIERS
- 2 OHM STEREO 4 OHM MONO OPERATION
- SOFT START / MUTE CIRCUIT

WARNING

High powered audio systems in a vehicle are capable of generating “Live Concert” levels of sound pressure. Continued exposure to excessively high volume sound levels may cause hearing loss or damage. Also, operation of a motor vehicle while listening to audio equipment at high volume levels may impair your ability to hear external sounds such as; horns, warning signals, or emergency vehicles, thus constituting to a potential traffic hazard.

PLANNING and INSTALLING YOUR SYSTEM

Installation Applications

This amplifier is designed for operation in vehicles with 12V, negative-ground electrical systems. Use of this product in vehicles with positive ground and/or voltages other than 12V may result in damage to the product and will void the warranty.

Planning Your Installation

It is important that you take the time to read this manual and that you plan out your installation carefully. The following are some considerations that you must take into account when planning your installation.

Installation Guidelines

Mounting your Amplifier is easy. Keep in mind the following guidelines:

- Supply ample power, Amplifiers do not make power they convert the current from the cars battery into musical energy through the speakers in your system.
- Proper ground connection is required. The ground for the amplifier must carry the same current as the positive power wire. It is suggested to upgrade the factory ground wire from the battery to the chassis of your vehicle.
- The amplifier requires adequate ventilation. Position the amplifier with sufficient surrounding area for proper cooling. If possible mount amplifier in a vertical position .
- Keep the amplifier out of the engine compartment and other locations that may cause excessive heat or moisture.
- **Do not mount the amplifier to a subwoofer enclosure or any other place that may have excessive vibration!**
- **It is required that the main power wire for the amplifier(s) be fused within 18” of the battery for safety.**

Mistakes to Avoid:

- Check before drilling any holes in your vehicle to make sure that you will not be drilling through a gas tank, brake line, wiring harness or other vital vehicle system.

- Do not run system wiring outside or underneath the vehicle. This is an extremely dangerous practice which can result in severe damage to your vehicle and person.

- Protect all system wires from sharp metal edges and wear by carefully routing them, tying them down, and using grommets & loom where appropriate.

PLANNING and INSTALLING YOUR SYSTEM (continued)

STEPS FOR AMPLIFIER INSTALATION-

The following represents the steps for a typical amplifier installation, using an aftermarket source unit or OEM source Interface. Not all installations are the same and different procedures may be required. If you have any questions, please contact your authorized Image Dynamics dealer for assistance.

1- Disconnect the negative battery connection and secure it to prevent accidental re-connection during installation. This is a required step!

2- Run power wire (minimum 4 AWG) from the battery to the amplifier, taking care to route it in such a way that it will not be damaged and will not interfere with vehicle operation. Use 2 AWG or 1/0 AWG power wire if multiple are being installed.

3- Connect power wire to the positive battery post. Fuse the wire within 18 inches wire length of the positive battery post. This fuse protects the vehicle in the case of a short circuit. Do not install the fuse until the power wire has been connected to the amplifier.

4- Run RCA cables and remote turn-on wire from the source unit to the amplifier.

5- Run speaker wire from the speaker locations to the amplifier.

6- Find a good, solid metal grounding point close to the amplifier, remove all paint and sound deadener to bare metal, then connect the negative power wire using a minimum of a #12 screw or 1/4" bolt. Use minimum 4 AWG power wire from the amplifier to the ground connection point. In most vehicles, it is necessary to upgrade the battery to chassis ground wire to a minimum of 4 AWG.

7- Securely mount the amplifier using supplied hardware.

8- Connect the positive and negative power wires to the amplifier. A fuse near the amplifier is not recommended.

9- Connect the remote turn-on wire to the amplifier.

10- Connect the RCA cables to the amplifier.

11- Connect the speaker wires to the amplifier.

12- Carefully select the proper settings for the Amplifier according to the needs of the system.

13- Install power wire fuse and reconnect the negative battery post terminal.

14- Turn on the system at a low level to check that the amplifier is configured correctly. Resist the temptation to crank it up until you have verified the control settings.

15- Make necessary adjustments to the input sensitivity controls to obtain the right overall output and the desired balance in the system.

16- Enjoy your system.

POWER CONNECTIONS

CAUTION

Prior to installing the amplifier, disconnect the negative (ground) wire from the vehicle's battery. This will prevent accidental damage to the system, the vehicle and your person during installation.

The i-series amplifiers power and ground connections are designed to accept 4/8 AWG power wire. 4 AWG is the minimum recommended power wire size for this amplifier. If you are installing multiple amplifiers and wish to use a single main power wire, use 2 AWG or 1/0 AWG main power wire (depending on total system current demands). The main 2 AWG or 1/0 AWG power wire should terminate into a distribution block mounted as close to the amplifiers as possible and should connect to the amplifier with 8 - 4 AWG power wire.

The ground connection should be made using the same gauge wire as the power connection and should be kept as short as possible, to a solid piece of sheet metal in the vehicle. The surface of the sheet metal should be sanded at the contact point to create a clean, metal-to-metal connection between the chassis and the ground wire termination. For proper grounding use a bolt with a star washer, a #10/12 sheet metal screw can be used alternately.

Any wires run through metal barriers (such as fire walls), must be protected with a high quality insulating grommet to prevent damage to the insulation of the wire. Failure to do so may result in a dangerous short circuit.

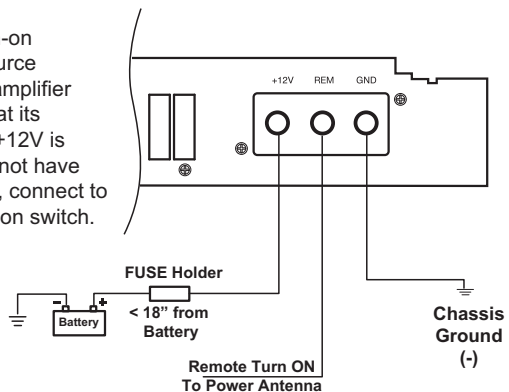
NOTE: Many vehicles use small gauge wire to ground the battery to the vehicle chassis and to connect the alternator to the battery. These wires should be upgraded to 4 AWG when installing large or multiple amplifier systems exceeding 500 watts.

FUSES

It is required that the main power wire to the amplifier(s) in the system be fused within 18 inches of the positive battery connection. The fuse value at each power wire should be high enough for all of the equipment being run from that power wire. If only an individual amplifier is being run from that power wire, we recommend a fuse equal to the amplifiers fuses be used. No fuse is required or recommended directly before the amplifier power

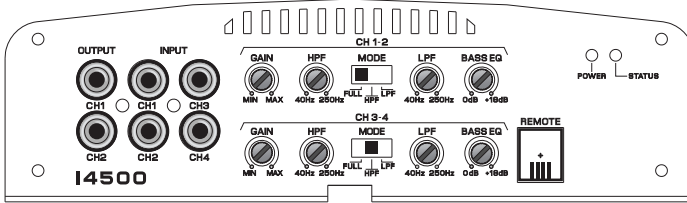
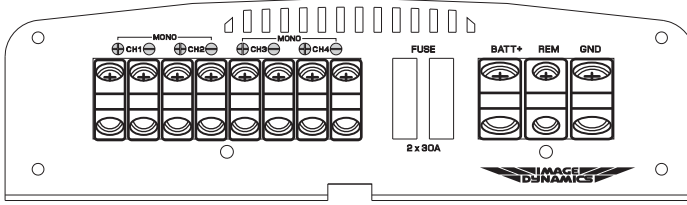
REMOTE TURN-ON

The i-Series use +12V remote turn-on lead, typically controlled by the source unit's remote turn-on output. The amplifier will turn on when +12V is present at its "Remote" input and turn off when +12V is switched off. If a source unit does not have a dedicated remote turn-on output, connect to +12V circuit controlled by the ignition switch.

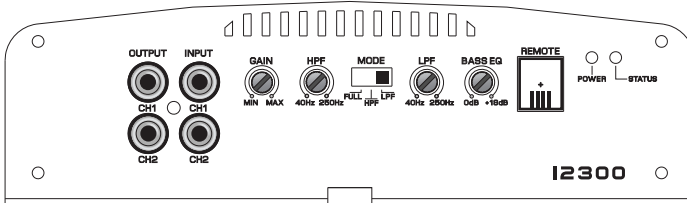
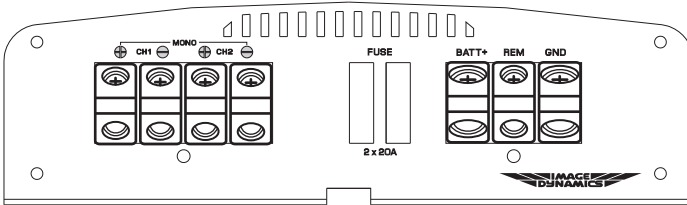


CONTROLS AND SETTINGS

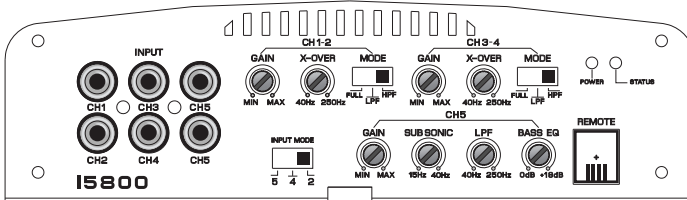
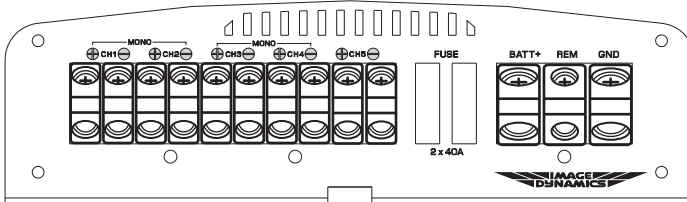
● 4 Channel



● 2 Channel

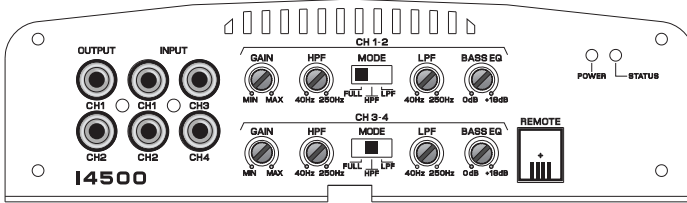
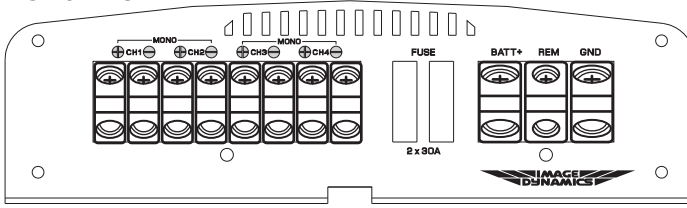


● 5-Channel

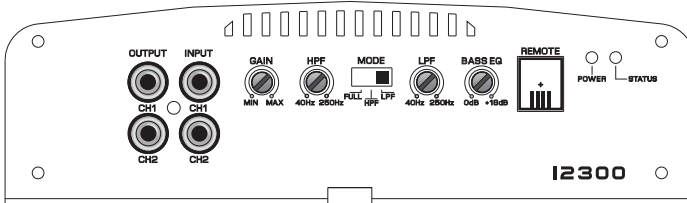
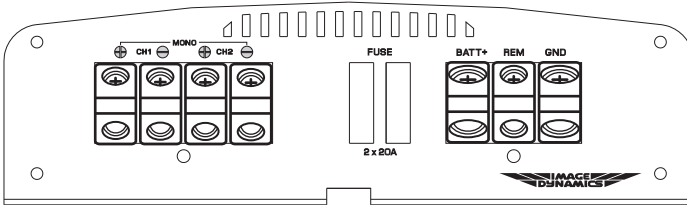


CONTROLS AND SETTINGS

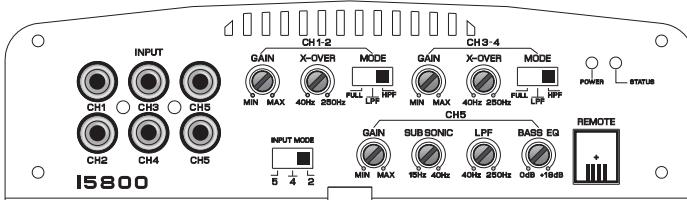
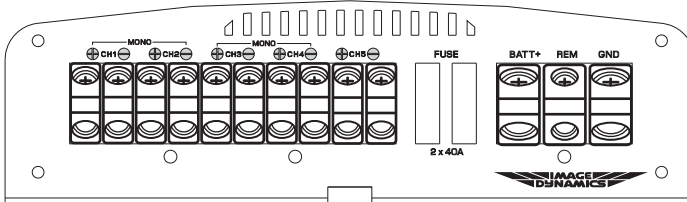
● 4 Channel



● 2 Channel



● 5-Channel



CONTROLS AND SETTINGS

SET UP ADJUSTMENTS



Input Gain Adjustment

Input Sensitivity Control

This control allows you to match the input level of the amplifier to the output of your head unit.

Matching the input can be accomplished in three simple steps:

1. Set the Input GAIN on the amplifier to Min (completely counter clock wise).
2. Turn on the head unit and adjust volume to just below maximum volume, and set the BASS and TREBLE to zero.
3. Adjust the GAIN control clockwise until the sound just begins to distort, then back off slightly to cut distortion and operate at optimum gain.

Remember, the GAIN control is not a volume control, Ignoring the three steps above may leave you with damaged speaker and/or a damaged amplifier.



Bass Adjustment

Bass EQ Control

This special feature is designed to provide you more powerful bass output, it allows you to boost the Bass @ 40 Hz up to +12dB. Keep in mind that more is not always better. Setting the control to the max (+12dB) will cause stress and could result in damage.



High Pass Filter Control

(HPF) High Pass Filter Adjustment

When using coaxial or component speaker system, this allows you to attenuate the lower bass frequencies allowing the speaker to play loudly with greater clarity and less distortion . To get better sound quality from coaxial or component speaker system, we recommend the frequency should be 80Hz (No lower than 65Hz). The MODE switch is set at "HPF".

CONTROLS AND SETTINGS

LPF



Low Pass Filter Control

LPF (Low Pass Filter) Adjustment

Using this control will attenuate all frequencies above the selected frequency, this limits the highest frequency your speaker(s) will play. The MODE switch should be set at "LPF".

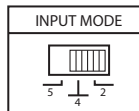


Remote Port

This is for the Remote Gain Control. Plugging in the remote Bass Control overrides the BASS EQ Control on the amplifier end panel.

SPECIAL CONTROLS FOR THE i5800

The following instructions apply to the model i5800 only. You will not find these controls on any of the other models in this series.



Input Mode Switch

Input Mode

The INPUT MODE switch allows you to select the number of input channels from the source (head unit) to the amplifier. The designations 2, 4, and 5 refer to the number of channels or "pairs" of low level RCA style inputs (ex: 1pr, 2pr, and 3pr). This allows you to drive all channels eliminating the need to use "Y" adaptors.

SUB SONIC



Sub Sonic Adjustment

Sub Sonic Adjustment

The sub sonic control will filter out frequencies below where the control it is set from going to your subwoofer(s). This will prevent subs from playing frequencies that may harm the speaker. This is normally used only with Ported and Infinite baffle subwoofer systems.

SPECIFICATIONS

SPEC.	MODEL	i2300	i2600
POWER @ 14.4V 1% THD + N			
RMS AT 4 Ohm , STEREO		75W X 2CH	150W X 2CH
RMS AT 2 Ohm , STEREO		150W X 2CH	300W X 2CH
RMS AT 4 Ohm , MONO		300W X 1CH	600W X 1CH
S/N RATIO @ rated power		> 94dB	> 94 dB
THD+N typical/rated power		0.05% / 1%	0.05% / 1%
CHANNEL SEPARATION		> 60 dB	> 60 dB
INPUT SENSITIVITY		0.5V ~ 4.0V	0.5V ~ 4.0V
INPUT IMPEDENCE		20 KOhm	20 KOhm
SLEW RATE		15V / μ Sec	15V / μ Sec
DAMPING FACTOR @ 50 Hz		> 150 @ 4ohms	> 150 @ 4ohms
FUSE RATING		25A X 2	40A x 2
DIMENSION			
* WIDTH		8.0" / 203mm	8.0" / 203mm
* HEIGHT		2.25" / 57mm	2.25" / 57mm
* LENGTH		13.75" / 349mm	16.5" / 419mm

SPECIFICATIONS

SPEC.	MODEL	i4500	i5800
POWER @ 14.4V <1% THD + N			
RMS AT 4 Ohm , STEREO		75W X 4CH	65W X 4CH + 250 x 1
RMS AT 2 Ohm , STEREO		115W X 4CH	90W X 4CH + 400 x 1
RMS AT 4 Ohm , MONO		230W X 2CH	180W X 2CH + 400 x 1 (2)
S/N RATIO @ rated power		> 94 dB	> 94 dB
THD+N typical/rated power		0.05% / 1%	0.05% / 1%
CHANNEL SEPARATION		> 60 dB	> 60 dB
INPUT SENSITIVITY		0.5V ~ 4.0V	0.5V ~ 4.0V
INPUT IMPEDENCE		20 KOhm	20 KOhm
SLEW RATE		15V / μ Sec	15V / μ Sec
DAMPING FACTOR @ 50 Hz		> 150 @ 4 ohms	> 150 @ 4ohms
FUSE RATING		30A x 2	40A x 2
DIMENSION			
* WIDTH		8.0" / 203mm	8.0" / 203mm
* HEIGHT		2.25" / 54mm	2.25" / 54mm
* LENGTH		14.9" / 378.5mm	18.5" / 470mm

IMAGE DYNAMICS USA LIMITED WARRANTY

IMAGE DYNAMICS USA warrants this product is free from defects in material and workmanship for a period of 1 (ONE) year from date of original purchase when installed by an authorized retailer or in a retailer approved installation, this must be indicated in writing on the original sales receipt.

Ninety (90) days if not installed by an authorized dealer or in an authorized retailer approved installation.

This warranty is not transferable and applies only to the original retail purchaser of the product from an authorized IMAGE DYNAMICS USA Retailer. Upon inspection by Image Dynamics USA should service be necessary under this warranty for any reason due to manufacturing defects IMAGE DYNAMICS will, at its sole discretion, repair or replace the defective product with new or re-manufactured product at no charge.

This warranty is limited and does not cover claims for damage caused by misuse, abuse, neglect, alteration, normal wear and tear, and is limited to material failures or defects arising during normal use in a dealer approved installation.

All warranty returns should be sent to IMAGE DYNAMICS USA freight prepaid through an authorized IMAGE DYNAMICS USA retailer and must be accompanied by proof of purchase (a copy of the original sales receipt). Direct returns from consumers or non-authorized retailers will be refused unless specifically authorized by IMAGE DYNAMICS USA customer service with a valid return authorization number. This warranty does not cover the cost of removing or reinstalling the amplifiers.

All warranty returns must be packaged in original retail packaging and be accompanied by a copy of the original sales receipt. Products damaged in shipment due to improper packaging will not be covered under this warranty.

No other warranties are expressed or implied.

In no event will IMAGE DYNAMICS be liable for incidental, consequential, or other damages resulting from the use of this product, this includes but is not limited to, damage to hearing, property or person, damage based upon inconvenience or on loss of use of the product, and, to the extent permitted by law, damages for personal injury.

This warranty gives you specific legal rights, and you may have other rights, which vary from state to state. This warranty applies to products sold and used in the United States of America. In all other countries, contact your distributor. If you have any questions please contact customer service @ 866-933-1414.

CAUTION:

THESE PRODUCTS ARE CAPABLE OF VERY HIGH SOUND PRESSURE LEVELS. PROLONGED EXPOSURE TO SOUND PRESSURE LEVELS IN EXCESS OF 100DB CAN CAUSE PERMANENT HEARING LOSS. PLEASE LISTEN USING COMMON SENSE AND RESTRAINT

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