

Congratulations on your purchase of the CARVIN H400 Four Channel Headphone Amp. Your unit has been engineered and made in the U.S.A. using only high quality electronic components and uncompromising workmanship.

The H400 will drive a total of eight pairs of headphones to their maximum output with excellent clarity. The H400 features four independent output channels each with it's own mix of 3 stereo sources: INPUT A, INPUT B and the AUX IN for that channel.

When using the unit in MONO, a total of 4 main inputs plus 2 aux inputs for each channel are available. The signal routing flexibility of the H400 makes it useful as a distribution amp for installation applications.

Use caution with the H400. It is capable of high levels which may cause hearing damage.

RECEIVING INSPECTION

INSPECT YOUR H400 FOR DAMAGE which may have occurred during shipping. If any damage is found, please notify the shipping company and CARVIN.

SAVE THE CARTON & ALL PACKING MATERIALS. In the event you have to re-ship your unit, always use the original carton and packing material. This will provide the best possible protection during shipment. CARVIN and the shipping company are not liable for damage caused by improper packing.

SAVE YOUR INVOICE. It will be required for warranty service if needed in the future.

SHIPMENT SHORTAGE. If you find items missing, they may have been shipped separately. Please allow several days for the rest of your order to arrive before inquiring.

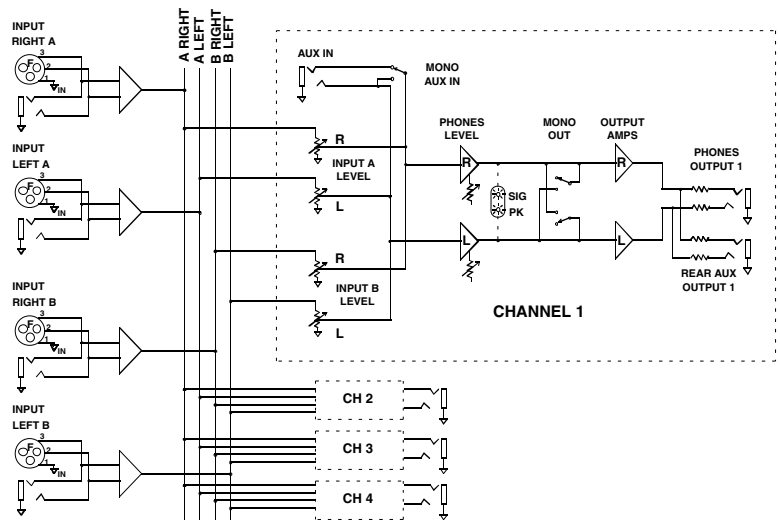
RECORD THE SERIAL NUMBER on the enclosed warranty card for your records. Keep your portion of the card and return the portion with your name and comments to us.

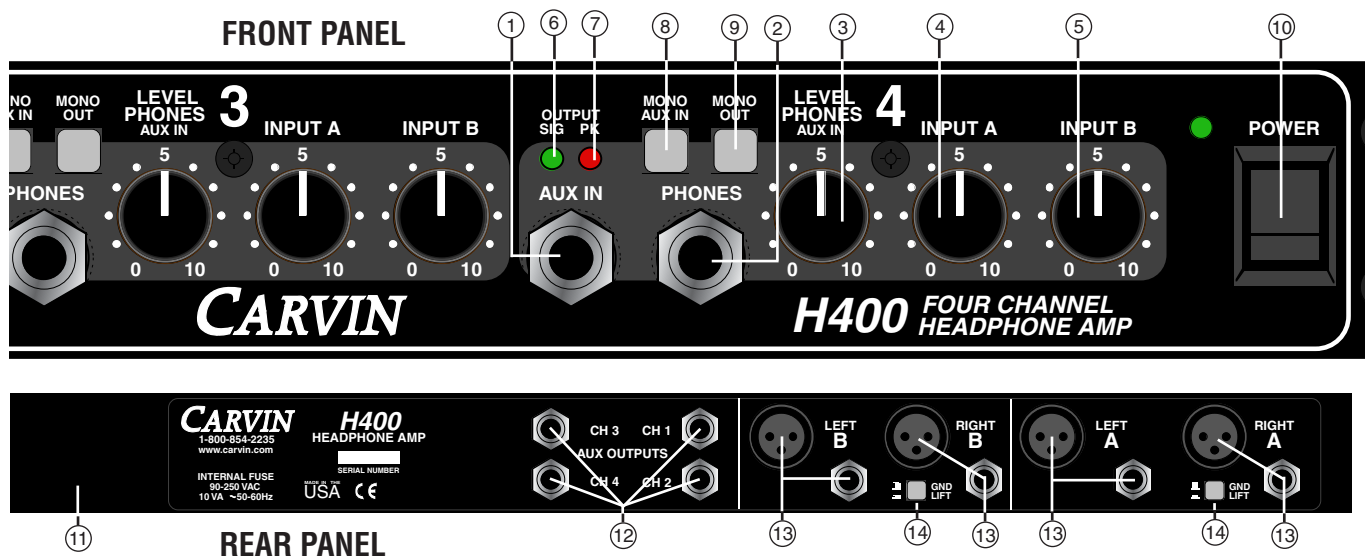
USA customers register online at: www.carvin.com/registration
 All other countries register online at: www.carvinworld.com/registration

H400 SPECIFICATIONS

- FREQUENCY RESPONSE: 5Hz TO 40kHz, -0.5dB (INPUT A or B)
 20Hz TO 40kHz, -0.5dB (AUX IN)
- OUTPUT POWER: 2W @ 40Ω
 800 mW @ 150Ω
 240mW @ 600Ω
- THD+N: 20Hz TO 20kHz, 0.01% @ 90% POWER
- INPUT IMPEDANCE: 20KΩ BAL., 10KΩ UNBAL.
- OUTPUT IMPEDANCE: 11Ω or greater
- INPUT to OUTPUT GAIN: 20dB
- S/N RATIO: >100dB
- STEREO INPUTS A & B: XLR BALANCED,
 1/4" BALANCED or UNBALANCED
 with GROUND LIFT
- FRONT AUX INPUTS: 1/4" STEREO,
 MONO switch
- OUTPUTS: 1/4" STEREO front and rear, MONO switch,
 SIGNAL and PEAK indicators
- POWER REQUIREMENTS: 4VA, 90-255VAC, 50/60Hz SWITCHING SUPPLY
- FUSE: INTERNAL 1.5A FAST BLOW
- DIMENSIONS: 1.75"H x 19"W x 5"D
- SHIPPING WEIGHT: 7 LBS

BLOCK DIAGRAM





FRONT PANEL FEATURES:

1. AUX INPUT JACK

Receives stereo or mono inputs from sources to be heard only at the related PHONES output. Adjust the input level with the LEVEL PHONES control then adjust INPUTs A&B accordingly.

2. PHONES OUTPUT JACK

Plug headphones into this jack. Start with the LEVEL PHONES at a low setting to avoid damage to your hearing or to headphones.

3. PHONES LEVEL CONTROL (AUX IN)

Adjusts the output volume heard at the PHONES jack and the input level from the AUX IN jack.

4. INPUT A CONTROL

Adjusts the volume of INPUT A going to the LEVEL PHONES heard at the PHONES jack for the related channel 1-4.

5. INPUT B CONTROL

Adjusts the volume of INPUT B going to the LEVEL PHONES heard at the PHONES jack for the related channel 1-4.

6. SIG LED

Shows when a signal is present at the PHONES jack output.

7. PK LED

Shows when the output signal of the channel is being overdriven. Reduce the PHONES LEVEL control if the LED lights.

8. MONO AUX IN SWITCH

Pressing the MONO AUX IN switch IN causes the AUX IN jack to receive signal from the TIP conductor only, sending the same signal to Left and Right.

9. MONO OUT SWITCH

Pressing the MONO OUT switch IN sends the same MONO signal to both the Left and Right sides of the PHONES jack.

10. POWER

Push this switch to the UP position to apply power to the unit. The POWER LED will display to show that the **H400** is on.

REAR PANEL FEATURES:

11. LINE CORD:

The exclusive built-in auto switching power supply allows you to connect any voltage from 90 to 255v 50-60Hz. Use a 3-conductor line cord for maximum safety. If the **H400** is to be plugged into a 2-prong outlet, use a quality 3-to-2 prong grounded adapter. Do not defeat the grounding pin of your AC line cord.

12. AUX PHONES OUTPUTS 1-4:

These jacks are connected in parallel with the corresponding PHONES jacks on the front panel. When using both the front and rear outputs of a channel, use headphones of similar impedances. Using headphones of different impedances on the same channel may result in radically different volume levels.

13. XLR AND 1/4" INPUT JACKS A&B:

Connect your inputs here. Adjust the levels at each output channel with the INPUT A and INPUT B controls. If MONO sources are being monitored, use the MONO OUT switches on the front panel. A total of four MONO inputs can be used in this case.

14. GROUND LIFT SWITCH:

This switch lifts the grounds on the inputs and outputs when pressed IN. This is useful for eliminating ground loops.

H400 SETUPS:

The **H400** can be used in various configurations.

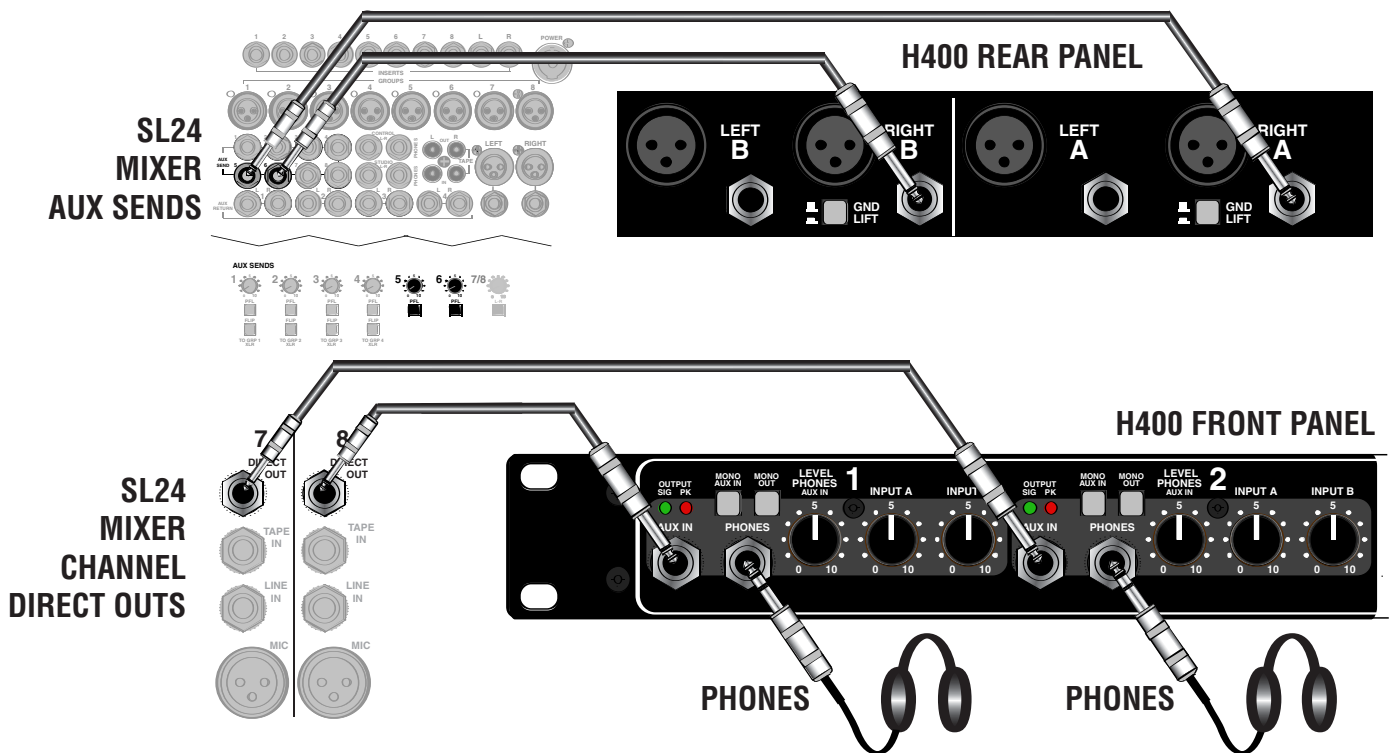
For a basic headphone monitor connection, the **H400** LEFT A and RIGHT A inputs are connected to the MAIN outputs of a mixer. Headphones are plugged into the front PHONES jacks. Start with all controls at minimum. With music playing from the mixer, turn the INPUT A control to about “5” then gradually raise the PHONES LEVEL control to a comfortable listening level.


Fig. 1 shows a more complex monitoring setup. Each headphone channel gets a separate mix of INPUT A and INPUT B. The channel’s AUX IN jack allows monitoring of a THIRD source heard only at that channel.

The **H400** A and B inputs are connected to separate AUX SENDs of a mixer. The **H400** Channel 1 AUX IN jack is connected to a mixer channel’s DIRECT OUT. Set the MONO AUX IN switch to the “IN” position.

While playing the instrument on the mixer channel selected, adjust the **H400** LEVEL PHONES control to a listenable level. Adjust the INPUT A and INPUT B controls to blend in the desired mix of signals from the mixer. For example, assign drums and bass to the mixer aux send going to INPUT A and assign the vocals and guitar to the mixer aux send going to INPUT B. The guitarist (mixer channel “8”) may want to hear more guitar so connect the DIRECT OUT from mixer channel “8” to the AUX IN jack of headphone channel “1”. The bassist may want to hear more kick drum (mixer channel “7”) so connect the DIRECT OUT from mixer channel “7”(kick) to the AUX IN jack of headphone channel “2”.

FIG. 1



 This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



IMPORTANT! FOR YOUR PROTECTION, PLEASE READ THE FOLLOWING:

WATER AND MOISTURE: Appliance should not be used near water (near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc). Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

POWER SOURCES: The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

GROUNDING OR POLARIZATION: Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

POWER CORD PROTECTION: Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

SERVICING: The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

FUSING: If your unit is equipped with a fuse receptacle, replace only with the same type fuse. Refer to replacement text on the unit for correct fuse type.

SAFETY INSTRUCTIONS (EUROPEAN)

The conductors in the AC power cord are colored in accordance with the following code.

GREEN & YELLOW—Earth BLUE—Neutral BROWN—Live

U.K. MAIN PLUG WARNING: A molded main plug that has been cut off from the cord is unsafe. NEVER UNDER ANY CIRCUMSTANCES SHOULD YOU INSERT A DAMAGED OR CUT MAIN PLUG INTO A POWER SOCKET.



LIMITED WARRANTY

Your Carvin product is guaranteed against failure for 1 YEAR unless otherwise stated. Carvin will service and supply all parts at no charge to the customer providing the unit is under warranty. Shipping costs are the responsibility of the customer. CARVIN DOES NOT PAY FOR PARTS OR SERVICING OTHER THAN OUR OWN. A COPY OF THE ORIGINAL INVOICE IS REQUIRED TO VERIFY YOUR WARRANTY. Carvin assumes no responsibility for horn drivers or speakers damaged by this unit. This warranty does not cover, and no liability is assumed, for damage due to: natural disasters, accidents, abuse, loss of parts, lack of reasonable care, incorrect use, or failure to follow instructions. This warranty is in lieu of all other warranties, expressed or implied. No representative or person is authorized to represent or assume for Carvin any liability in connection with the sale or servicing of Carvin products. CARVIN SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

When RETURNING merchandise to the factory, you may call for a return authorization number. Describe in writing each problem. If your unit is out of warranty, you will be charged the current FLAT RATE for parts and labor to bring your unit up to factory specifications.

MAINTAINING YOUR EQUIPMENT

Avoid spilling liquids or allowing any other foreign matter inside the unit. The panel of your unit can be wiped from time to time with a dry or slightly damp cloth in order to remove dust and bring back the new look. As with all pro gear, avoid prolonged use in caustic environments (salt air). When used in such an environment, be sure the mixer is adequately protected by a cover.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL!