SONANCE®

DSP 8-130 MKII
SONAMP® MULTI-CHANNEL POWER AMPLIFIER
WITH SONARC
INSTRUCTION MANUAL

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SONANCE®

Important Safety Information

You should always follow these basic safety precautions when using your Sonamp DSP 8-130 MKII, to reduce the risk of fire, electric shock, and injury to persons:

1. **Read and retain instructions:** Read all the safety and operating instructions before operating the amplifier, and retain them for future reference.

2. **Heed warnings:** Adhere to all warnings and precautions listed on the amplifier and in the operating instructions.

3. **Follow instructions:** Follow all operating instructions.

4. **Water:** Never use the amplifier next to water.

5. **Carts and stands:** The amplifier should be used only with a cart or stand that is recommended by the manufacturer. An amplifier and cart combination should be moved with care.

6. *CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT USE THE POLARIZED PLUG WITH AN EXTENSION CORD, RECEPTACLE, OR OTHER OUTLETS UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.*

7. **Ventilation:** Situate the amplifier so that its location does not interfere with its proper ventilation.

8. **Heat:** Situate the amplifier away from heat sources such as radiators, stoves, or other appliances (including amplifiers) that produce heat.

9. **Grounding or polarization:** Grounding or polarization are precautions that should be taken so that these attributes are not defeated.

10. **Power-cord protection:** Route power supply cords so that they will not be walked on or pinched by items placed on or against them.

11. **Cleaning:** To clean the amplifier, use "canned air" or wipe the amplifier with a soft cloth. Do not use solvents, as they may damage the amplifier.

12. **Non-use periods:** Unplug the amplifier's power cord from the outlet when the amplifier will be left unused for a long period of time.

13. **Object entry:** Care should be taken so that objects do not fall through the opening of the enclosure.

14. **Moisture:** Do not expose the amplifier to dripping or splashing. Do not place objects filled with liquids, such as vases, on the amplifier.

15. **Damage requiring service:** Have the amplifier serviced by a qualified service personnel when:

    • The power supply cord or the plug has been damaged.

    • Objects have fallen, or liquid has been spilled into the amplifier.

    • The amplifier has been exposed to rain.

    • The amplifier does not appear to operate normally or exhibits a marked change in performance.

    • The amplifier has been dropped, or the enclosure damaged.

16. **Servicing:** The user should not attempt to service the amplifier beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

17. **Lifting:** Improper lifting of the 18 lbs. (8.2kg) DSP 8-130 MKII Amplifier can cause personal injury.

18. **Power requirement:** Do not connect the Sonamp to the accessory outlet of any other component. A minimum 15 amp (20 amp preferred) grounded wall outlet is required.

WARNING: THE POWER (MAINS) PLUG SERVES AS THE AMPLIFIER'S DISCONNECT DEVICE. THE DISCONNECT DEVICE SHALL REMAIN READILY OPERABLE DURING OPERATION. TO ENSURE THAT THE DISCONNECT DEVICE (POWER PLUG) IS EASILY ACCESSIBLE, THE USER SHALL NOT PLACE THE AMPLIFIER IN A CONFINED AREA DURING OPERATION.

19. **Storms:** To prevent damage to components, unplug all electronic equipment during thunderstorms.

⚡	**CAUTION** RISK OF ELECTRIC SHOCK DO NOT OPEN	⚠

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE REFER SERVICING TO AUTHORIZED SERVICE PERSONNEL.

⚡ The lightning flash with arrowhead symbol, within an equilateral triangle, 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.

⚠ The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. THE APPLIANCE SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING. NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPLIANCE.

INSTRUCTIONS IMPORTANTES CONCERNANT LA SÉCURITÉ

1. Lisez soigneusement ces instructions.

2. Conservez-les en lieu sûr pour toute référence future.

3. Respectez scrupuleusement tous les avertissements de sécurité.

4. Suivez toutes les instructions indiquées.

5. Ne pas utiliser cet appareil près de l'eau.

6. Nettoyez cet appareil uniquement avec un chiffon sec.

7. Ne jamais obstruer ses ouïes de ventilation. Installez cet appareil suivant les instructions recommandées par son fabricant.

8. Ne jamais installer cet appareil près d'une source dechaleur, comme les radiateurs, bouches de chaleur, fours ettout autre appareil (y compris les amplificateurs de puissance) générant de la chaleur.

9. Ne jamais démonter la prise polarisée ou la broche de mise à la terre de la prise secteur. Une prise polarisée possède deux lames, l'une étant plus large que l'autre (standard américain). Une prise avec mise à la terre possède trois broches, dont une centrale déportée par rapport aux deux autres. Ces différents brochages ont été conçus pour votre sécurité. Si la prise de l'appareil ne rentre pas dans la prise d'alimentation secteur de votre installation, veuillez consulter un électricien agréé pour le remplacement de la prise murale (certainement pas aux normes actuelles).

10. Protégez le câble d'alimentation secteur de telle manière qu'il ne puisse pas être écrasé ou pincé, particulièrement au niveau des prises, du passage dans des goulettes prévues à cet usage, ou à l'endroit où il sort de l'appareil.

11. N'utilisez que les systèmes de fixation et accessoires prévus et conseillés par le fabricant.

12. N'utilisez que des tables, supports, pieds, bras de fixation prévus ou conseillés par le fabricant, ou vendus avec l'appareil. Si un support mobile est utilisé, toujours procéder avec une grand précaution lors du déplacement dece support afin d'éviter que l'appareil ne tombe et puisse blesser physiquement une personne.

13. Débranchez complètement l'appareil pendant un orage ou une longue période de non-utilisation.

14. Pour toute intervention sur l'appareil, adressez-vous exclusivement à du personnel qualifié et agréé. Une interventions' avérera nécessaire si l'appareil a été endommagé, pour quelque raison que ce soit, et par exemple si le câble d'alimentation secteur ou sa prise sont endommagés, si du liquide a pénétré à l'intérieur de l'appareil, ou un objet y est tombé, ou bien si l'appareil a été exposé à la pluie ou à l'humidité, ou bien est tombé, ou encore ne fonctionne pas de manière normale.

15. Ne jamais exposer cet appareil à des risques de coulures ou d'éclaboussures de liquides ; ne jamais poser d'objets remplis de liquide – comme des vases, sur l'appareil.

Le symbole de l'éclair terminé par une pointe de flèche, dans un triangle équilatéral, est utilisé pour indiquer à l'utilisateur la présence d'une tension électrique potentiellement dangereuse, à l'intérieur de l'appareil, d'un niveau suffisamment élevé pour présenter des risques d'électrisation aux personnes physiques.

Le symbole du point d'exclamation, dans un triangle équilatéral, est utilisé pour indiquer à l'utilisateur, dans les manuels accompagnant l'appareil, la présence d'un point très important, concernant le fonctionnement ou la maintenance de l'appareil, à respecter impérativement.

ATTENTION: POUR RÉDUIRE TOUT RISQUE D'ÉLECTROCUTION, NE JAMAIS EXPOSER CET APPAREIL À LA PLUIE OU L'HUMIDITÉ.

ATTENTION

RISQUE D'ÉLECTRISATION
NE PAS OUVRIR

ATTENTION : AFIN DE RÉDUIRE LES RISQUES D'ÉLECTRISATION, NE JAMAIS ÔTER LE CAPOT DE L'APPAREIL. IL N'Y A À L'INTÉRIEUR AUCUNE PIÈCE SUSCEPTIBLE D'ÊTRE MODIFIÉE PAR L'UTILISATEUR. TOUJOURS FAIRE APPEL À UN TECHNICIEN AGRÉÉ.

WARNING: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and receiver.

• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

• Consult the dealer or an experienced radio/TV technician for help.

Introduction

Thank you for purchasing the Sonance Sonamp DSP 8-130 MKII amplifier. When properly installed, this amplifier will give you many years of entertainment. To get the most out of your new amplifier, please read this manual thoroughly before you begin installation.

To achieve the best performance, Sonance recommends that this amplifier be installed by a Sonance Authorized Dealer/Installer.

Box Contents

Your Sonamp DSP 8-130 MKII box should contain:

(1) Quickstart guide

(1) Sonamp DSP 8-130 MKII amplifier

(1) IEC power cord

(4) Feet

(2) Rack ears

Unpacking

Save the carton and polystyrene inserts for future safe transport in case the amplifier is moved or requires shipping for repair.

Before proceeding with installation, locate the serial number on the rear panel of the unit and (MAC address on bottom chassis) note it here for future reference:
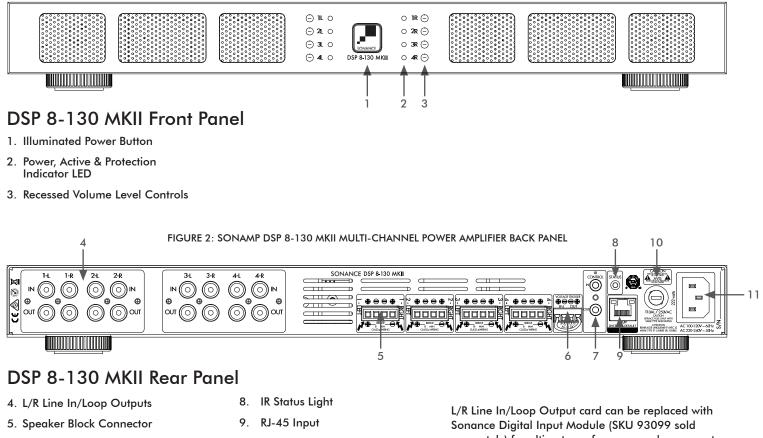
S/N:_____

MAC:_____

Placement

Place the amplifier on a level surface, in an upright position, out of direct sunlight and away from windows through which rain may enter.

Situate the amplifier away from heat sources such as hot air ducts or radiators. Be sure that the amplifier is adequately ventilated by convection or suitable cabinet fans.

• Never place any object on or against the amplifier.

• Never operate the amplifier on a carpeted surface as this will compromise ventilation.

• When the amplifier is installed in any cabinet, the front or back must be open during operation. Alternately, install fans in the cabinet to assure continuous ventilation.

FIGURE 1: SONAMP DSP 8-130 MKII MULTI-CHANNEL POWER AMPLIFIER FRONT PANEL

DSP 8-130 MKII Front Panel

1. Illuminated Power Button

2. Power, Active & Protection Indicator LED

3. Recessed Volume Level Controls

FIGURE 2: SONAMP DSP 8-130 MKII MULTI-CHANNEL POWER AMPLIFIER BACK PANEL

DSP 8-130 MKII Rear Panel

4. L/R Line In/Loop Outputs

5. Speaker Block Connector

6. Trigger Input/Output Connector

7. IR Control In/Out

8. IR Status Light

9. RJ-45 Input

10. AC Fuse Holder

11. Power Cord Connection

L/R Line In/Loop Output card can be replaced with Sonance Digital Input Module (SKU 93099 sold separately) for ultimate performance enhancement through direct connection to a digital source.

Front Panel

Power Switch

The power switch turns the amplifier on and off.

When the Sonance logo on the power switch is lit bright white, the amplifier has power and is turned ON and ready to operate.

When the Sonance logo is slightly dimmed the amplifier is in to sleep/all channels asleep/sleep mode active mode.

When the Sonance logo on the power switch is blinking white, the amplifier power supply is in thermal protection. The channel LEDs will also light red when the power supply is in thermal protect mode.

NOTE: Upon initial power up there will be an approximately 9-12 second boot up cycle. This is normal.

Input/Output Lights

When each channel is active, the LED will light green as long as a signal is present.

When the LED blinks red, this is an indication that the channel is being overdriven.

When the LED lights are solid red this is an indication the amplifier is in protect mode. While in protect mode, the LED lights will periodically light green to retest the output to determine if the short has been removed. Protect mode could be caused by a short in the wire, overheating of the amplifier or possibly an internal problem with the amplifier.
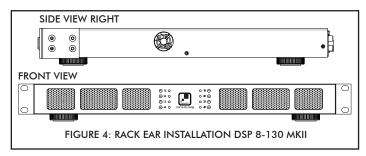
NOTE: WHEN ANY OF THE LEDS ARE LIT RED TURN THE AMPLIFIER OFF IMMEDIATELY. DETERMINE THE CAUSE OF THE PROBLEM BEFORE TURNING THE AMPLIFIER ON.

Volume Level Control

Each channel on the amplifier has volume adjustments found in the SONARC software. Output volume can be adjusted in SONARC or from the front panel recessed volume controls. Output volume will reflect the option last adjusted. The DSP 8-130 MKII amplifier ships at the +12 or maximum volume level.

Rack Ear Installation DSP 8-130 MKII

The DSP 8-130 MKII ships with two rack ears. Unscrew the four Phillips head screws (M4 x 0.7 pitch x 10mm long) found on each side of the left and right forward section of the amplifier. Use these screws to connect the included rack ears to the amplifier (see Figure 4).

SIDE VIEW RIGHT

FRONT VIEW

FIGURE 4: RACK EAR INSTALLATION DSP 8-130 MKII

Shelf Mounting

If shelf mounting, attach the four included feet by screwing them into the threaded openings, on the bottom chassis, no tool is required.
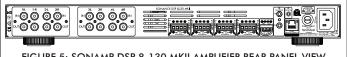
Rear Panel

Line Inputs/Loop Outputs

The DSP 8-130 MKII amplifier has four pair of LINE INPUTS and four pair of Loop OUTPUTS.

The loop outputs are non buffered; the maximum number of amplifiers that can be looped together will depend on the output capability of your source component

Speaker Connections

The removable block connectors used on the Sonamp amplifiers will accept up to 12 gauge wire.

Follow the connection layout on the rear panel of the amplifier. Make sure no bare wires come in contact with the amplifier chassis. When bridging channels, use the two outside connections on each connector. The positive wire from the speaker should be on the left side connection and the negative connection should be on the right side.

Auto On - Voltage In/Out Trigger

The Sonamp amplifiers can be turned on and off using 3-30 volts AC or DC. The Voltage Output supplies a 12 volt DC signal to control additional amplifiers or other equipment. The included red wire is to prevent the amp from accidentally entering sleep mode during setup. Remove the red wire when using voltage trigger.

IR Control

IR control is accomplished via the IR control In/Out jacks. IR controls global On/Off, group volume, muting and input source selections. Connectivity can be seen with IR status light.

IP Control

IP control is accomplished via the RJ-45 input. IP controls power On/Off, volume, muting and input source selections for either global control or group control. For more detail see network connection instructions.

AC Fuse Holder

To replace the fuse, unplug the power cord from the Power Cord Connector and use a screwdriver to remove the fuse holder.
DSP 8-130 MKII - 15 amp AC (T15-AL)

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE, REPLACE THE FUSE WITH ONLY THE SAME TYPE AND RATING.

Power Cord

The Sonamp amplifiers feature removable IEC power connectors. Plug the female end of the power cord into the Power Cord Connector on the amplifier rear panel and plug the male end into a grounded wall socket.
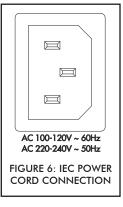
DO NOT plug the amplifier's power cord into a convenience outlet on any other audio or video component. If you need to use an extension cord, use only a heavy duty (14-GAUGE OR LARGER) extension cord to avoid starving the amplifier of the current necessary for full operation.

Powering the Amplifier

The Sonamp DSP 8-130 MKII features a removable IEC power connector (Figure 6). A 14-gauge EIA standard 120-volt grounded power cable is included with the amplifier.

Each time the amplifier's power cord is initially plugged in and the POWER switch is turned ON, all channel outputs are disconnected for approximately 9-12 seconds and all PROTECTION LEDs will illuminate briefly while the amp boots up.

AC 100-120V ~ 60Hz
AC 220-240V ~ 50Hz

FIGURE 6: IEC POWER CORD CONNECTION

IMPORTANT: DO NOT PLUG THE POWER CORD INTO THE WALL OUTLET UNTIL ALL SYSTEM CONNECTIONS HAVE BEEN MADE AND VERIFIED.

Plug the female end of the power cable into the Power Connector on the amplifier's rear panel and plug the male end directly into a grounded 15 amp or 20 amp wall outlet.
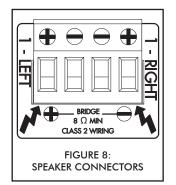
IMPORTANT: DO NOT PLUG THE AMPLIFIER'S POWER CORD INTO A CONVENIENCE OUTLET ON ANY OTHER AUDIO OR VIDEO COMPONENT.

If the electrical service is subject to frequent sags, spikes, or brownouts, a power conditioner designed for use with high fidelity equipment should be employed to protect the amplifier.

Amplifiers Power Requirements:

Model	Input Voltage	Output Power (sinewave)	Draw Watts	15 AMP Breaker Qty of Amplifiers	20 AMP Breaker Qty of Amplifiers
DSP 8-130 MKII	100-120V AC	Full Power All Channels @8 ohms	1160	1	1
		Full Power All Channels @4 ohms	1512	1	1
		1/8 Power All Channels @8 ohms	181	7	10
		1/8 Power All Channels @4 ohms	226	6	8
		@ Idle	35		
		Sleep Mode	1.1		
		Voltage or Audio Green	0.45		

Model	Input Voltage	Output Power (sinewave)	Draw Watts	13 AMP Breaker Qty of Amplifiers	20 AMP Breaker Qty of Amplifiers
DSP 8-130 MKII	220-240V AC	Full Power All Channels @8 ohms	1097	1	1
		Full Power All Channels @4 ohms	1440	1	1
		1/8 Power All Channels @8 ohms	182	7	10
		1/8 Power All Channels @4 ohms	219	6	8
		@ Idle	31		
		Sleep Mode	1.2		
		Voltage or Audio Green	0.48		

FIGURE 7: SONAMP DSP 8-130 MKII MULTI-CHANNEL AMPLIFIER POWER REQUIREMENTS

Speaker Connections

For the best sound you should use premium speaker wire, that complies with fire rating codes. Be sure to check local codes governing wire that may be installed within walls or ceilings. Sonamp amplifiers are stable with any reputable brand of speaker wire or cable. The Sonamp amplifiers use speaker block connectors that can accommodate up to 12 gauge wire (see Figure 8).
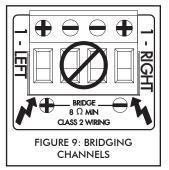
NOTE: ALWAYS CHECK LOCAL BUILDING CODES BEFORE INSTALLING WIRE IN WALLS OR CEILINGS.

1 - LEFT 1 - RIGHT
BRIDGE
8 Ω MIN
CLASS 2 WIRING

FIGURE 8: SPEAKER CONNECTORS

Bridging Channels DSP 8-130 MKII

IMPORTANT: THE MINIMUM SPEAKER IMPEDANCE FOR BRIDGED OPERATION IS 8 OHMS. DO NOT OPERATE A ZONE IN THE BRIDGED MODE INTO A SPEAKER THAT IS LESS THAN 8 OHMS NOMINAL IMPEDANCE.

Bridging channels is accomplished using the SONARC software. On the second tab IN/OUT Settings, go to the output setup area to bridge mode and make your selections with the drop down buttons (see page 10). Connect the speaker's "+" lead to the left side of the connector marked "+" (see figure 8). Connect the speakers "-" lead to the right side of the connector marked "+" (see figure 9).
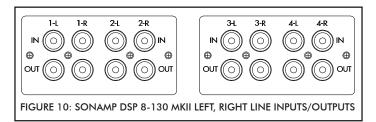
1 - LEFT 1 - RIGHT
BRIDGE
8 Ω MIN
CLASS 2 WIRING

FIGURE 9: BRIDGING CHANNELS

Source Connections DSP 8-130 MKII

On the left side of the rear panel are the left and right audio inputs for all eight channels. In addition to the audio inputs there are also loop outputs for each channel.

The loop outputs allow multiple amplifiers to share common audio sources. The loop outputs on the amplifiers are not buffered. The number of amplifiers that can be connected in series will depend on the output level of your audio source. The source connected to the LEFT and RIGHT LINE IN Inputs pass through the LEFT and RIGHT LINE Outputs (see Figure 10).

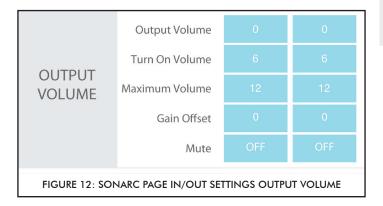FIGURE 10: SONAMP DSP 8-130 MKII LEFT, RIGHT LINE INPUTS/OUTPUTS

Volume Level Control

Volume can be controlled in SONARC or from the individual recessed volume level control screws, located on the front panel (see Figure 12). These volume controls balance the desired sound levels per channel.

Volume can be controlled three different ways with SONARC (see Figure 11).

FIGURE 11: VOLUME LEVEL CONTROLS

1. Output volume
2. Turn on volume
3. Maximum volume (caution use light pressure when adjusting)

Output volume and Turn on volume are overwritten in SONARC when the front panel level controls are adjusted. Output volume ranges between -70 to 12. **The volume level controls are set at +12 by default**.

OUTPUT VOLUME		
Output Volume	0	0
Turn On Volume	6	6
Maximum Volume	12	12
Gain Offset	0	0
Mute	OFF	OFF

FIGURE 12: SONARC PAGE IN/OUT SETTINGS OUTPUT VOLUME

IMPORTANT: USE CAUTION WHEN SETTING VOLUME LEVELS EITHER ON THE AMPLIFIER OR AN AUDIO SWITCHER AS NOT TO OVERDRIVE AND POSSIBLY DAMAGE SPEAKERS. VERIFY ALL SOURCES AS OUTPUT VOLTAGE VARIES FROM DEVICE TO DEVICE.

Protection Circuitry and LEDs

The Sonamp amplifiers have a multi-stage protection system to prevent damage to your amplifier and speakers. See Appendix A.

Amplifier Channel Protection DSP 8-130 MKII
If a channel encounters a short-circuit or extremely low impedance, the affected channel outputs automatically mute. The output of the effected channel will remain muted until the fault has been corrected. Only the effected channels output will mute, all other channels will continue to operate normally. Note: In bridged mode the protection circuitry will sense a short circuit across both positive speaker terminals.

Amplifier Channel Protection Indication LED's DSP 8-130 MKII
On the front panel of the Sonamp DSP 8-130 MKII amplifiers are dual color LEDs that illuminate to indicate the current operating status of each amplifier channel.

LED's Blinking Red: This is an indication that the channel is being overdriven.
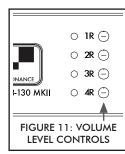
LED's Solid Red: This is an indication the amplifier is in protect mode. While in protect mode the LED lights will periodically light green to retest the output to determine if the short has been removed. Protect mode could be caused by a short in the wire, overheating of the amplifier or possibly an internal problem with the amplifier.

IMPORTANT: ALLOWING THE AMPLIFIER TO OPERATE WITH ONE OR MORE CHANNELS IN PROTECT MODE FOR AN EXTENDED PERIOD OF TIME CAN DAMAGE THE AMPLIFIER.

Amplifier Power Supply Protection DSP 8-130 MKII:
The amplifier also has protection for the power supply.

Power Switch Blinking Light: If the power supply heat sink temperature exceeds the design maximum, the protection circuit will activate, disconnecting all channel outputs. This is indicated by a blinking and red LEDs on the front panel power switch.

IMPORTANT: ANY TIME THE PROTECTION CIRCUITS ARE TRIGGERED, UNPLUG THE AMPLIFIER'S POWER CORD FROM THE WALL OUTLET BEFORE TROUBLESHOOTING.

SONARC SOFTWARE

NETWORK CONNECTION INSTRUCTIONS

Equipment List

1. Computer or tablet
2. Network router with DHCP service enabled
3. Two RJ-45 cables (one when using wireless)

Connecting to Your SONARC Homepage

1. The amplifier's factory settings has DHCP set to ON.
2. Connect the amplifier to a network with a router. Make sure the computer and amplifier are on the same network.
3. Turn on the amplifier.
4. The amplifier will be issued an IP address by the router.
5. Use an IP Scanner to determine the IP Addresses of the Sonance DSP amps on the network. We recommend Fing app for IOS, Advanced IP Scanner for Windows devices and LanScan for macOS.
6. Network devices will show up and the amplifier will be named Sonance.
7. Open Safari or Chrome.
8. In the URL address window at the top, enter the IP address of the Sonance DSP amplifier to configure.
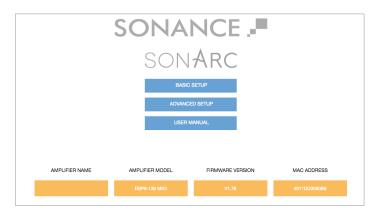
SONARC Legend

Toggle/
Pull-down Menu   Free Type Field   Single Action Menu

SONARC Homepage

Setup Options

Your SONARC Homepage will have two options for setup; Basic Setup and Advanced Setup. Amplifier name can be entered by the installer.
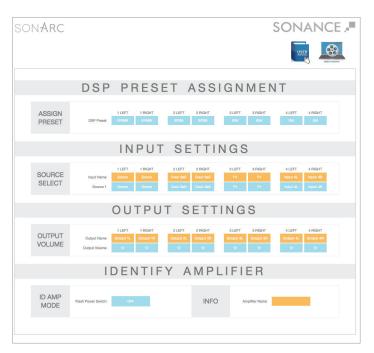

BASIC SETUP PAGE

This page is for basic set up of EQ, Source and Volume.

Basic Setup

To start, click on the Basic Setup button.

DSP Preset Assignment

Assign Preset

Click on the individual channels to show the drop down menu of preset options. Once you locate the preset for your Sonance speakers click on the name to set the preset. Each Sonance DSP amplifier has 50 slots with pre-configured DSP curves for Sonance speaker models pre-loaded. If the speaker model in your application is not on the pre-loaded list, hundreds of DSP files are available for download from the Sonance website. Download the preset file for additional Sonance speaker models at www.sonance.com/electronics/amplifiers/dsp.

Input Settings / Source Select

Input Name

This is a user entered field with a maximum of 15 characters. Use these fields to describe the type of input connected.

Input Source

This pull down menu allows you to select which Input you would like to assign to the channel.

Output Settings / Output Volume

Output Name

This is a user entered field with a maximum of 15 characters. Use these fields to describe the room or area the channel will be powering.

Output Volume

If you are using a control system to adjust the volume you can skip these two steps.

1. Set the Output Volume for each channel pair.

2. Set the Turn On Volume the same as the Output Volume.

   a. It's important to set the Turn On Volume the same in case the amplifier power is shut off accidentally.

   b. Front panel level controls overwrite these two settings.

NOTE: LEFT AND RIGHT CHANNELS ARE LINKED. OUTPUT VOLUME IS LINKED TO TURN ON VOLUME IN BASIC SETUP.

Identify Amplifier

ID Amp Mode

When the power switch is turned ON, the power button on the front of the amplifier will flash to indicate which amplifier you are programming. This will make the amplifier easy to identify in a multiple amplifier installation.

Info

This is a user entered field with a maximum of 15 characters. Use this area to name your MKII.

The basic setup is complete!

ADVANCED SETUP PAGE

This page in SONARC allows you to make advanced changes to the your amplifiers settings and configuration.

Advanced Setup

To start click on the Advanced Setup button from your MKII's homepage.

GENERAL SETTINGS TAB

The Advanced Setup automatically starts out on the General Settings tab. This tab is used to set up your MKII with a network connection, triggering and other basic information.

IP SETUP

DHCP On/Off

DHCP ON/OFF is the first option in IP SETUP. All Sonance DSP series amplifiers ship with DHCP (Dynamic Host Connection Protocol) ON. In most installations DHCP should be left ON except when you are using a control system for IP control. If you are controlling the DSP series amplifier using IP, then we suggest you turn DHCP OFF and use a static IP address.

IP Address

The second setting in the IP SETUP section is the IP address. When DHCP is ON the current IP address will be displayed. To change the IP address DHCP must be set to OFF.

When DHCP is turned off the IP address that the router assigned to the amplifier will still be applied. This IP address is a good place to start since it is not being used by another network device. If you wish to change the IP address you should perform a scan of the network and only assign an unused IP address within the range of your router. As a general rule only change the last three digits of the IP address in the amplifier settings and only assign numbers between 1 and 254. Following this suggestion will minimize the chance of making the amplifier inaccessible.

It is critical to type in the correct IP address. If the wrong IP address is entered, the amplifier could become inaccessible. Make changes to the IP settings only if you fully understand network setup.

Reseting DHCP

If IP address is not known and the amp is locked out, use the volume control reset method in Appendix A.

IP Subnet Mask

The third setting in the IP SETUP section is the IP Subnet Mask. This is an advanced network setup function. Under most circumstances this field should not need to be edited. Making changes in this field should only be done by experienced network administrators.

ID Amp Mode

When the power switch is turned ON, the power button on the front of the amplifier will flash to indicate which amplifier you are programming. This will make the amplifier easy to identify in a multi-amp installation.

Backup Restore

The green BACKUP and RESTORE buttons take all of the settings of the amplifier including the DSP settings and encapsulates them into one file. This allows you to transfer these settings into another amp of the same model. This is a proprietary file type (.bin file), agnostic to PC or Mac.

Print

The print button will output a complete list of all settings for the amplifier. It is always a good idea to keep a backup hard copy of the settings for each installation.

Auto On

Select the Auto On method you would like to use with the blue pull down menu. During setup it is strongly recommended that you keep the Auto On method set to POWER BUTTON to prevent the amplifier from shutting off. You can return at anytime to the Auto On setting and select the final method of Auto On for your installation. When controlling the amplifier using IP and IR commands we suggest using the Power Button Auto On mode. See Appendix B.

Audio

In the Audio Auto On, mode there are three Sleep Mode options. Each channel has an independent Sleep Mode setting. The Sleep Mode is triggered by an audio sensing circuit on each channel of the amplifier.

Audio Green

In the Audio Auto On mode the amplifier will power off after 15 minutes without and audio signal present on any of the channels. When an audio signal is applied the amplifier will take approximately 9-12 seconds for the amplifier to reproduce audio after going through its power up sequence. In the audio Auto ON mode the sleep function is active, see sleep mode note below. This mode complies with EU energy saving standards.

Power Button

When Sleep Mode is set to OFF the channel will be on at all times. Use the Sleep mode OFF setting for audio signals like a doorbell or paging where audio must be reproduced immediately at any time.

Voltage

In the Voltage Auto On mode, the amplifier will power off immediately when the trigger voltage has been removed. When a 3-30V AC or DC voltage is sent to the amplifier, it will take approximately 6-8 seconds for the amplifier to reproduce audio after going through its power up sequence. This mode complies with EU energy saving standards.

Voltage Green

In the Voltage Green Auto On mode the amplifier will power off immediately when the trigger voltage has been removed. When a 3-30V AC or DC voltage is sent to the amplifier it will take approximately 6-8 seconds for the amplifier to reproduce audio after going through its power up sequence. **In Voltage Green mode the Ethernet connection is not active when the amplifier is off!** This mode complies with EU energy saving standards.

Sleep Mode

Sleep mode allows you to select how long the amplifier will stay active after the trigger method subsides.

Off

When set in the OFF mode the channel will be on at all times. Use the OFF setting for audio signals like a doorbell or paging where audio must be reproduced immediately at any time.

After 15 Minutes

When an audio signal has not been present on a channel for 15 minutes, the channel will go to sleep. From the sleep state the channel will take approximately 2-3 seconds to reproduce audio again. This mode is similar to legacy Sonamp Auto-On operation.

After 3 Hours

When an audio signal has not been present on a channel for 3 hours, the channel will go to sleep. From the sleep state the channel will take approximately 2-3 seconds to reproduce audio again. This mode works well for home theater installations.

Info

The orange blocks are installer entered data. Each field has a maximum of 15 characters.

IN/OUT SETTINGS TAB

The IN/OUT Settings tab is used to assign your MKII's input and output specifications.

Input Setup

Input Name

This is a user entered field with a maximum of 15 characters. Use these fields to describe the type of input connected.

Input Trim dB

This pull down menu allows for input levels to be adjusted +/-6dB. This gives you the ability to level out all your inputs so when you switch from input to input the levels will be equal. This can eliminate any harsh transitions between sources with different output voltages. Select the pull down menu in each channel to adjust the level trim between plus or minus 6dB in increments of .5dB.

Output Setup

Output Name

This is a user entered field with a maximum of 15 characters. Use these fields to describe the location of the speakers.

Stereo / Mono

Allows each channel to be set for Stereo or Mono operation. When Mono is selected the Left and Right of the input selected will be combined to create Mono.
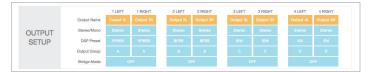
DSP Preset

Apply any of the available Sonance DSP presets to each channel of the amplifier independently. You can apply any open preset & then make modifications on the EQ Settings page.

Output Group

The DSP 8-130 has eight Output Group options A-H. When using IP or IR to control the amplifier, commands are sent to an output group and not to a specific channel.

Bridge Mode

When more power is required, two channels can be bridged. Follow the instructions on page 5 for connecting the wires then select Bridge ON.

Output Source

Source 1

This is the primary source you will direct to the speakers. Any of the inputs available on the amplifier can be selected. When channels are in the same Output Group, the inputs will all change in unison. Left inputs default to left outputs and right inputs to right outputs.

Source 2

This is a secondary source that, based on the Mode Source 2 setting described below, will either override or mix with Source 1. This input could be used for a doorbell or paging for example.
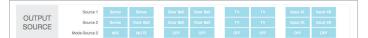
Mode Source 2

Off

When set to OFF, the second source has no effect on the operation of the channel.

Mix

When set to MIX, Source 1 and Source 2 will be blended together when a signal is present on Source 2.

Mute

When set to MUTE, Source 1 will be muted while Source 2 is active.

Output Volume

Output Volume

This is the main volume level control for each channel. When channels are placed in the same Output Group the levels will change simultaneously.

NOTE: FRONT PANEL VOLUME CONTROLS OVERWRITE THIS SETTING.

Turn On Volume

This determines what volume level the amplifier will default to when it is turned on. Channels placed in the same Output Group will automatically have identical levels. Turn On Volume level is implemented when the amplifier is turned off with the power switch or goes into sleep mode.

NOTE: FRONT PANEL VOLUME CONTROLS OVERWRITE THIS SETTING.

Maximum Volume

When using IP or IR, this can be used to limit how loud the speakers will play in certain areas. The Output Group selected does not affect this setting.

Gain Offset

The gain offset setting allows channels in the same Output Group to have their levels adjusted independently by +/- 6dB. This is an independent setting not affected by the Output Group.

Mute

The mute setting eliminates the output from the speakers. Channels placed in the same Output Group will change simultaneously.

OUTPUT VOLUME									
Output Volume		12	12	12	12	12	12	12	12
Turn On Volume		12	12	12	12	12	12	12	12
Maximum Volume		-10	-10	12	12	12	12	12	12
Gain Offset		-3	-3	0	0	0	0	0	0
Mute		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

EQ SETTINGS TAB

The EQ Settings tab is used to assign your DSP EQ Presets for each channel. EQ Presets provide best possible audio quality for most Sonance speakers. EQ Presets are available at http://www.sonance.com/electronics/amplifiers/dsp.

Assign Preset

Output Name

These can be named Output 1L & Output 1R or room names such as Kitchen L and Kitchen R. These are a duplicate of the Output Name on the IN/OUT Settings page.

DSP Preset

Select your DSP preset with the blue pull down menu. This will auto populate in the IN/OUT Settings page.

ASSIGN PRESET		1 LEFT	1 RIGHT	2 LEFT	2 RIGHT	3 LEFT	3 RIGHT	4 LEFT	4 RIGHT
	Output Name	Output 1L	Output 1R	Output 2L	Output 2R	Output 3L	Output 3R	Output 4L	Output 4R
	DSP Preset	VP66R	VP66R	8PS8	8PS8	ISW	ISW	IS4	IS4

Test Signal

The SONARC software includes a built in pink noise generator. The pink noise signal can be used in conjunction with a real time analyzer to measure speakers.

Test Signal Select

You have the option of pink noise or test signals fed into line level inputs. Use the blue pull down menu to select between pink noise or line level inputs as a source for the test signal.

Volume

Select your desired volume.

On/Off

Toggles between on and off.
The pink noise signal should not be left on for more than 10 minutes to minimize the risk of damaging the speakers.

NOTE: THE PINK NOISE GENERATOR IS AFTER THE AUDIO SENSORY CIRCUIT SO THE AMP WILL GO TO SLEEP DEPENDING ON THE AUTO ON MODE SELECTED.

TEST SIGNAL	Test Signal Select	Pink Noise	Pink Noise	Pink Noise	Pink Noise	Pink Noise	Pink Noise	Pink Noise	Pink Noise
	Volume	-20	-20	-20	-20	-20	-20	-20	-20
	On / Off	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

DSP Preset Editor

Select Preset to Edit

This section allow you to edit any of the 50 existing presets. Select the preset you want to edit from the dropdown menu.

SELECT PRESET TO EDIT	EDIT NAME	DELETE SETTINGS
FLAT	FLAT	RESET

EDIT Name

Edit the name of your preset with up to 15 characters.

Delete Settings

The Reset button deletes the selected preset.

Import Export

All Presets

The green IMPORT EXPORT buttons allow you to save all 50 presets in one file. This option can be useful when setting up multiple amplifiers.

Single Preset

The green IMPORT EXPORT buttons allow you to import or export presets individually.

Export Single Preset

1. Use the blue pull down menu SELECT PRESET TO EDIT located above the IMPORT EXPORT green buttons.

2. Select the preset you choose to export from the pull down menu.

3. Press the green EXPORT button. Depending on your web browser, the exported file will be saved in your Downloads folder or you will be prompted where you would like to save the file.

Import Single Preset

1. Import speaker preset to a location on your computer. This can be accomplished by saving a DSP preset downloaded from Sonance website.

2. Select the location you would like to store the new preset using the SELECT PRESET TO EDIT pull down menu. You can save the new preset in any of the open preset locations or you can overwrite an existing preset you do not need.

3. Press the green IMPORT button.

4. From the pop-up menu choose local or internet.

5. You will be directed to MY COMPUTER (WINDOWS) or FINDER (MAC).

6. Find & Select the new preset you would like to import (.eqs).

7. You will be directed to a screen that says Upload Successful.

8. Press "Click Here To Go Back".

9. The preset will now be saved in the location you selected.

NOTE: PRESETS DOWNLOADED FROM INTERNET CAN TAKE UP TO 15 SECONDS TO DOWNLOAD.

Copy Preset

From / To the blue pull down menus allow you to pull a preset from one location and assign it to another location. Press green copy button to activate.
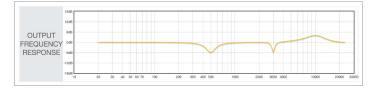

Output Frequency Response

This graph reflects the changes made below.

The above EQ image shows EQ4 ON at 500Hz, the Q is set to 3 with a -6dB gain, creating a gradual dip in the lower midrange.

EQ9 shows ON at 3000Hz, the Q is set to 10 with a -6dB gain, creating a sharp dip in the midrange.

EQ10 shows ON at 10000Hz, the Q is set to 1 with a +4dB gain, creating a very gradual slope in the high frequencies.

Parametric EQ

All Sonance DSP amplifier models feature a 10 band parametric EQ. Adjustments made to the EQ will be displayed on the Output Frequency Response graph. We strongly suggest not adjusting the EQ without proper measurement equipment.

EQ On/Off

Turns each of the 10 parametric EQ filters on and off.
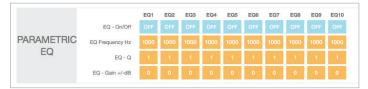
EQ Frequency Hz

Enter the center frequency (20Hz - 20kHz) for the filter to be adjusted.

EQ-Q

This setting determines the width of the adjustment range. The lower the number the wider the bandwidth. The higher the number the narrower the bandwidth.

EQ Gain +/-dB

The level of each parametric adjustment can be set +/-12dB. Careful adjustment of the EQ Gain is necessary to prevent damage to the speakers. Always increase the level as little as possible. The first choice should always be to reduce the output to achieve the target frequency response.

Delay

Delay is shown in Milliseconds, Feet and Meters. You can make an entry in any of the three fields and the other fields will be calculated automatically.

The minimum delay is .01 milliseconds, the maximum delay is 12 milliseconds.

This function is useful when compensating for distance between satellites and subwoofers for instance.

Tilt Control

The tilt controls are very sophisticated bass and treble control. By selecting a start frequency and level you can ramp the bass and or treble up or down. The effect of the tilt control is visible in the Output Frequency Response graph.

Low Tilt / High Tilt

This setting turns the Low and High tilt controls ON and OFF.

Frequency

Enter the start frequency of the tilt in Hz.

To boost the low frequencies you would typically set the Low Tilt to 100Hz. To boost the high frequencies you would set the High Tilt to around 5kHz.

Gain

The gain can be set in 1dB steps +/-12dB. When setting the gain use as little positive gain as possible to minimize the risk of damage to the loudspeakers.

Crossover

LP Xover / HP Xover

This setting turns the high and low pass crossovers ON and OFF.

Frequency

In this field you can enter any frequency between 20Hz-20kHz.

Filter Type

6dB, 12dB, 18dB and 24dB per octave Butterworth filters are available in the pull down menu.

The higher the number the faster the speakers output will be reduced below or above the crossover frequency.

In a typical satellite subwoofer system the crossover frequency would be around 80-100Hz for both the high and low pass filters.

Limiter

The limiter operates as a brick wall limit on the output of the amplifier. The limiter drop down menu has -3dB, -6dB and -12dB options. The maximum outputs for each of the models:

	No Limiter	-3dB	-6dB	-9dB
MKII	130 watts	65 watts	32.5 watts	16.25 watts

All of the above output power ratings are when connected to an 8 Ohm load.

SPECIFICATIONS

SONAMP 8-130 MKII

Number of Channels	8 (4 stereo pairs)
Output Power - 8 ohms (Stereo)	130 Watts RMS per channel (all channels driven)
Output Power - 4 ohms (Stereo)	145 Watts RMS per channel (all channels driven)
Output Power - 8 ohms (Bridged)	300 Watts
Frequency Response	5Hz – 50kHz (bandwidth limited)
Total Harmonic Distortion	0.15% (1kHz, 8 ohms) 0.1% (1kHz, 4 ohms)
Signal to Noise Ratio	–100dB (20Hz-20kHz)
Input Gain	29dB
Input Sensitivity	100mV for 1 Watt Output @8 ohms
	1140mV for 130 Watts Output @8 ohms
Input Impedance	20k ohms
Loop Output Impedance	600 ohms
Maximum Source Input Voltage	2.9V VAC RMS
Communication Protocol	TCP/IP (RJ-45 10/100 Base T)
Power Consumption 120V AC	
@8 ohms (sinewave, full power)	1160 Watts (all channels driven)
@4 ohms (sinewave, full power)	1512 Watts (all channels driven)
@8 ohms (sinewave, 1/8 power)	181 Watts (all channels driven)
@4 ohms (sinewave, 1/8 power)	226 Watts (all channels driven)
@idle	35 Watts
Sleep Mode	1.1 Watts
Voltage or Audio Green	0.45 Watts
Power Consumption 220V AC	
@8 ohms (sinewave, full power)	1097 Watts (all channels driven)
@4 ohms (sinewave, full power)	1440 Watts (all channels driven)
@8 ohms (sinewave, 1/8 power)	182 Watts (all channels driven)
@4 ohms (sinewave, 1/8 power)	219 Watts (all channels driven)
@idle	31 Watts
Sleep Mode	1.2 Watts
Voltage or Audio Green	0.48 Watts
Heat Output	
@8 ohms (sinewave, full power)	737 BTU (all channels driven)
@4 ohms (sinewave, full power)	1365 BTU (all channels driven)
@8 ohms (sinewave, 1/8 power)	215 BTU (all channels driven)
@4 ohms (sinewave, 1/8 power)	303 BTU (all channels driven)
AC Voltage	100-120V@60Hz, 220-240V@50Hz
AC Fuse	10A (T10AL ~ 250V)
Rack Space Requirement	1U
Dimensions w/ Feet (W x H x D)	17 1/4" x 2 1/8" x 16 13/16" (438mm x 54mm x 427mm)
Dimensions w/ Rack Ears w/o Feet (W x H x D)	19" x 1 3/4" x 16 13/16" (482mm x 44mm x 427mm)
Shipping Weight	18 lbs (8.2kg)

CAD Files available for download at www.sonance.com/electronics/amplifiers/dsp

APPENDIX A

LED Indicator	Explanation
Dim White Power Button	Amplifier is plugged in and in standby mode.
Bright White Power Button	Amplifier is active.
Power Switch Blinking	The amp is in ID Amp Mode (see page 9).
Green LED	Signal is present (>2.5mv) on channel.
Blinking Green	Signal is going above and below the active level or between songs.
Blinking Red	The channel is being overdriven.
Solid Red	The amp is in protection mode (see page 6).
Power Switch Blinking Light +LED's Blinking Red	Amp temperature exceeds the design maximum.

DHCP Reset Step	DHCP Reset Steps
Step 1	Turn amplifier off.
Step 2	With light pressure adjust 1L Volume Control full counter clockwise.
Step 3	With light pressure adjust 1R Volume Control full clockwise.
Step 4	Power on amplifier (wait for Power Button to show a series of flashes).
Step 5	Turn amplifier off.
Step 6	Set the 1L Volume Control full clockwise or at desired volume level.
Step 7	Power on amplifier.

Amplifier Factory Reset	Amplifier Factory Reset Steps
Step 1	In a URL address window enter the amplifiers IP address with the extension /Update.htm
Step 2	On the update page, locate the red reset button. Use this button to completely reset the amplifier.
Step 3	Return to the Home Page to set up the amplifier. Note: EQ presets will not be deleted.

APPENDIX B

DSP 8-130 MKII Amplifier - Auto On / Sleep Mode Details

AUTO ON SETTING	SLEEP MODE OPTIONS	TIME TO MUSIC	ETHERNET
AUDIO	OFF	Always On	Always On
AUDIO	15 MIN	6-8 seconds	Always On
AUDIO	3 HRS	6-8 seconds	Always On

AUTO ON SETTING	SLEEP MODE OPTIONS	TIME TO MUSIC	ETHERNET
AUDIO GREEN	NONE	6-8 seconds	Turns Off after 15 MIN without audio

AUTO ON SETTING	SLEEP MODE OPTIONS	TIME TO MUSIC	ETHERNET
POWER BUTTON	OFF	Always On	Always On
POWER BUTTON	15 MIN	2-3 seconds	Always On
POWER BUTTON	3 HRS	2-3 seconds	Always On

AUTO ON SETTING	SLEEP MODE OPTIONS	TIME TO MUSIC	ETHERNET
VOLTAGE	NONE	6-8 seconds	Always On

AUTO ON SETTING	SLEEP MODE OPTIONS	TIME TO MUSIC	ETHERNET
VOLTAGE GREEN	NONE	6-8 seconds	Turn Off after 15 MIN without voltage

LIMITED TWO (2) YEAR WARRANTY

Sonance warrants to the first end-user purchaser that this Sonamp-brand product (8-130 MKII Multi-Channel Power Amplifier), when purchased from an authorized Sonance Dealer/Distributor, will be free from defective workmanship and materials for the period stated below. Sonance will at its option and expense during the warranty period, either repair the defect or replace the Product with a new or remanufactured Product or a reasonable equivalent.

EXCLUSIONS

TO THE EXTENT PERMITTED BY LAW, THE WARRANTY SET FORTH ABOVE IS IN LIEU OF, AND EXCLUSIVE OF, ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IS THE SOLE AND EXCLUSIVE WARRANTY PROVIDED BY SONANCE. ALL OTHER EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, IMPLIED WARRANTY OF FITNESS FOR USE, AND IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE ARE SPECIFICALLY EXCLUDED.

No one is authorized to make or modify any warranties on behalf of Sonance. The warranty stated above is the sole and exclusive remedy and Sonance's performance shall constitute full and final satisfaction of all obligations, liabilities and claims with respect to the Product.

IN ANY EVENT, SONANCE SHALL NOT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, ECONOMIC, PROPERTY, BODILY INJURY, OR PERSONAL INJURY DAMAGES ARISING FROM THE PRODUCT, ANY BREACH OF THIS WARRANTY OR OTHERWISE.

This warranty statement gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion of implied warranties or limitations of remedies, so the above exclusions and limitations may not apply. If your state does not allow disclaimer of implied warranties, the duration of such implied warranties is limited to period of Sonance's express warranty.

Your Product Model and Description: Sonamp DSP 8-130 MKII Multi-Channel Power Amplifier

Warranty Period for this Product: Two (2) years from the date on the original sales receipt or invoice or other satisfactory proof of purchase.

Additional Limitations and Exclusions from Warranty Coverage: The warranty described above is non-transferable, applies only to the initial installation of the Product, does not include installation of any repaired or replaced Product, does not include damage to allied or associated equipment which may result for any reason from use with this Product, and does not include labor or parts caused by accident, disaster, negligence, improper installation, misuse (e.g. overdriving the amplifier or speaker, excessive heat, cold or humidity), or from service or repair which has not been authorized by Sonance. Obtaining Authorized Service: To qualify for the warranty, you must contact your authorized Sonance Dealer/Installer or call Sonance Customer Service at (949) 492-7777 within the warranty period, must obtain a return merchandise number (RMA), and must deliver the Product to Sonance shipping prepaid during the warranty period, together with the original sales receipt, or invoice or other satisfactory proof of purchase.

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