

Designer Series Multi-channel Loudspeaker Protection Unit



19" Rack Mount, 1U, 8-channel, Designer Series Multi-Channel Loudspeaker Protection Unit

Made in the USA and England
Triad Speakers, Incorporated - Portland, Oregon
www.triadspeakers.com

HPF-8 - Setup Manual

Message from the President

Thank You...

For purchasing one of Triad's high performance speakers.

Every Triad product is designed and manufactured for both optimum performance and minimum impact on you're decor.

Please take the time to review this information. We have developed this manual so you would be familiar with all the performance features, and could better appreciate the superb engineering that has been built into your Triad loudspeakers.

Thanks again and happy listening.

Larry Pexton

President of Triad Speakers, Inc.

About your Triad DesignerSeries Products

The eight-channel HPF-8 or its two-channel cousin HPF-2 MUST be used with every DesignerSeries speaker to keep the manufacturer's warranty.

Combining a High Pass Filter with an automatically resetting Polyswitch Current Limiter, the HPF-8 has been designed specifically to enhance the reliability of your DesignerSeries loudspeaker by preventing excessive drivecurrent from your amplifier from reaching your speaker. If you attempt to overdrive your DS loudspeaker the HPF will automatically reduce the volume of sound until the excess drive is reduce.

- Make sure that your HPF unit is set up internally for your specific DS model(s). See Page 5. The HPF-8 is preset at the factory for use with the DS 500 loudspeaker.
- NEVER connect more than one DS loudspeaker to an output channel on the HPF-8.

Table of Contents

Application-Setup	
Important Information	4
Setting the Internal Jumpers	5
Connecting the HPF-8	6
Positioning	7
Specifications	
Product Dimensions	4
Appendix	
Warranty	BC



WARNING: DO NOT switch on the amplifier unless both HPF-8 and DesignerSeries loudspeakers are connected to it. Damage may occur to the amplifier if it is operated without a loudspeaker connected to the output of the HPF-8. **THE HPF-8 IS NOT SUITABLE FOR 100V/70V LINE SYSTEMS OR OTHER MANUFACTURER'S LOUDSPEAKERS**

Caution: Read this before operating your HPF-8

- 1 To ensure optimal performance, please read this guide carefully. Keep it in a safe place for future reference.
- 2 Install this product in a cool, dry and clean place - away from direct sunlight, heat sources, vibration, dust and moisture.
- 3 Do not expose this unit to sudden temperature changes or locate it in an environment with high humidity. This is to prevent condensation forming inside which may cause damage to this unit and possibly to devices connected to it.
- 4 Do not clean this unit with chemical solvents as this might damage the finish. Use a clean, dry or damp cloth.
- 5 Do not attempt to modify or repair this unit. Contact your distributor or the manufacturer if a fault should occur.
- 6 This unit features internal jumpers that may be adjusted by the installer. Please take care when removing and re-fitting the lid not to damage the four machine screws. Ensure the screws are tight when re-fitting them.



The HPF-8 features only passive circuit components. It should NEVER be connected to the mains electrical supply.

Important Information

The HPF-8 has been designed specifically to enhance the reliability of your DesignerSeries series loudspeakers. It features a high-pass filter and a current sensing fuse to protect the loudspeaker from being over-driven and potentially damaged. If the HPF-8 senses excessive drive current from the system's amplifier it will automatically reduce the sound level from the speaker until the amplifier's volume is reduced.

It is important to note the following:

Ensure that the correct internal jumper setting is used on each channel. Failure to do so could result in speaker damage unless both HPF-8 and DesignerSeries loudspeakers are connected to it.

NEVER connect more than one DesignerSeries loudspeaker to an output channel.

Be sure that all connections are made in accordance with this guide.

It is not recommended that you use amplifiers with power outputs that are far greater than the loudspeaker's own power rating.

It is not recommended that you intentionally cause the DesignerSeries to automatically protect the loudspeakers by deliberately over-driving them.

If you find that the DesignerSeries automatically reduces the audio volume from the loudspeakers frequently it may suggest that the amplifier being used is too powerful or that the layer of plaster over the speakers is too thick.

Specifications

Dimensions:	1U height front panel, 19" x 1.75" (482mm x 44.4mm), case depth, 8.375" (213mm)
Weight:	9lbs (4.1Kg)
Filter type:	Passive 3rd order high-pass. 20dB/octave slope, -3dB at approx. 70Hz with DS speaker connected
Fuse protection:	Self-resetting, current sensing type. Fuse threshold set via internal jumpers
Compatibility:	Suitable for use with DesignerSeries DS100, DS200DC, DS300, DS400DC, & DS500 only
Number of channels:	8
Connection type:	1x Springcon ® 4 pole connector per channel. Connector carries input and output for each channel
Maintenance requirements:	Protection fuses can be set by installer if necessary. Repeated tripping of fuses may require fuse replacement by the manufacturer to ensure optimal speaker performance

Setting the Internal Jumpers

The HPF-8 must be correctly configured for the model of DesignerSeries loudspeakers it will be used with.



The HPF-8 is a low voltage, passive device, however ALWAYS disconnect it from all speakers and amplifiers before adjusting the internal jumpers.

The circuit board inside the HPF-8 comprises of eight separate audio channels. Each channel features three sets of pins and one connecting jumper.

There is an area on the product serial number label where the individual channel designation can be marked once the jumpers have been set.

Set the jumpers as follows depending on the speaker model being connected:

For DS100/DS200dc, set the jumper on J3
 For DS300/DS400dc, set the jumper on J2
 For DS500 (default), set the jumper on J1

- J1 - DS500 (default)
- J2 - DS300/DS400dc
- J3 - DS100/DS200dc

IMPORTANT: no more than one jumper should be used per bank of 3 pins, e.g.



Note: unless specified otherwise, jumpers are set for DS500 as the factory default.

Inside the HPF-8

To set the jumpers the lid of the HPF-8 must be removed by carefully unscrewing the four machine screws on the sides of the chassis using a T-8 Torx bit.

The jumpers, J1, J2 and J3 for each channel are positioned as indicated in the diagram below:

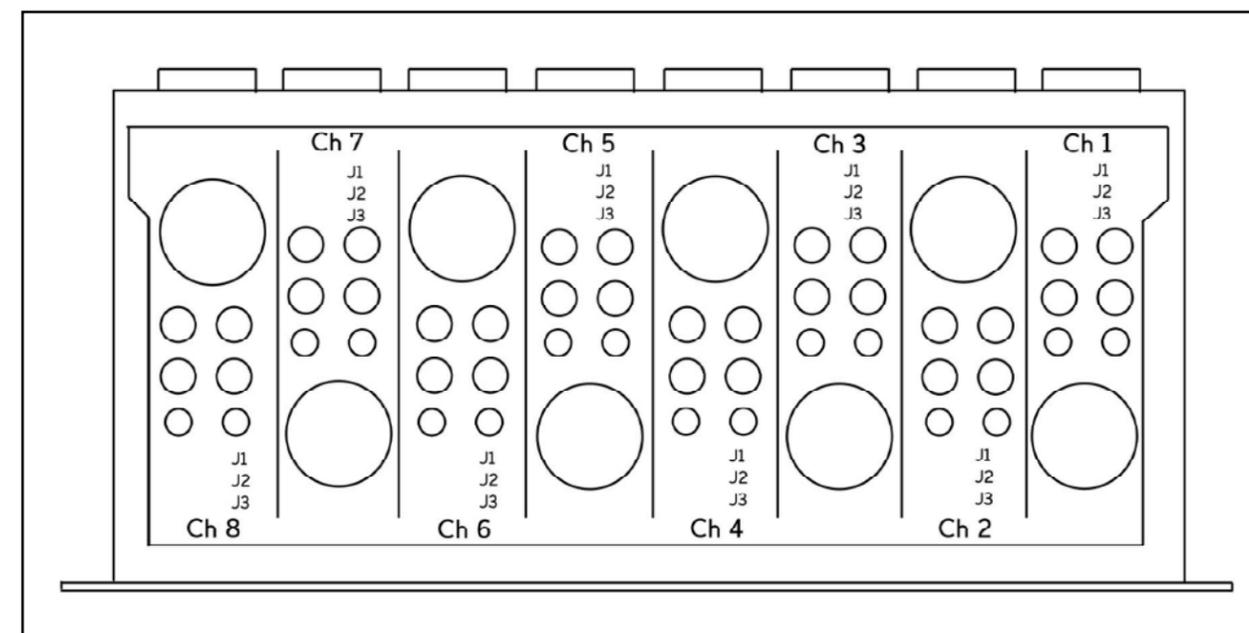


Diagram 1: Internal circuit board layout of HPF-8

Important:

Ensure that the jumpers are fully pushed down onto the pins.

ONLY remove and replace the lid fixing screws by HAND. Always use the correct tool and **DO NOT** overtighten.

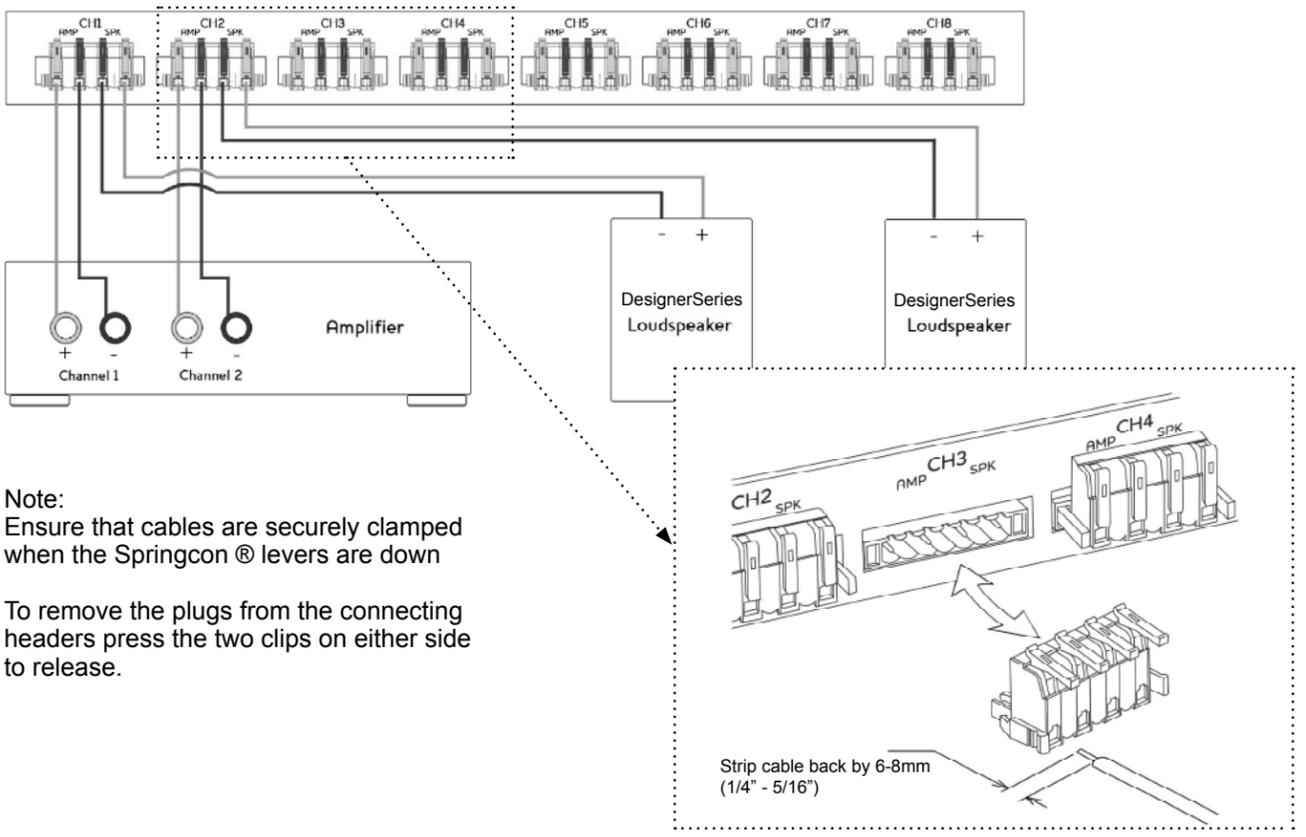
Ensure the lid is securely fitted to the product before it is installed.

Mark each channel's fuse setting on the product serial number label for future reference.

Connecting the HPF-8

2 Channel example wiring schematic:

In this example the red levers (shown as light grey in the diagram) on the Springcon® plugs are used for the “+” loudspeaker connections. Keep the connection polarity consistent on all channels.



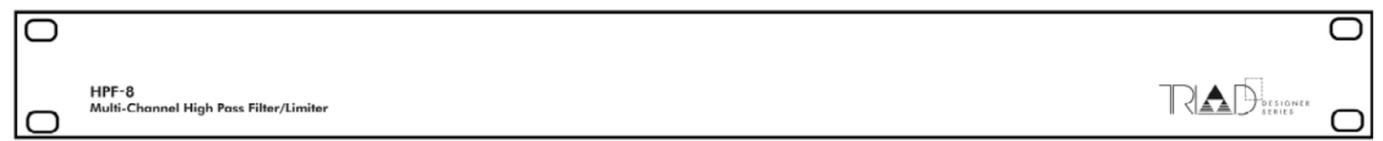
Note: Ensure that cables are securely clamped when the Springcon® levers are down

To remove the plugs from the connecting headers press the two clips on either side to release.

Positioning the HPF-8

The HPF-8 is designed to fit into a standard 19 inch equipment rack via 4 mounting holes and has a height of 1U (45mm/1.75 inches).

Diagram 5: HPF-8 rack mounting points detail



Alternatively, the HPF-8 can be placed on a shelf. Other equipment (up to 10kg/22lbs) may be placed on top if necessary. Take care not to scratch the top of the case and that any weight is not directly over the centre of the HPF-8.

Note: The HPF-8 does NOT require ventilation and therefore its installation position is not critical. However, the product should ALWAYS be installed in a dry environment that does not exceed 95 degrees Fahrenheit (35 degrees Centigrade).

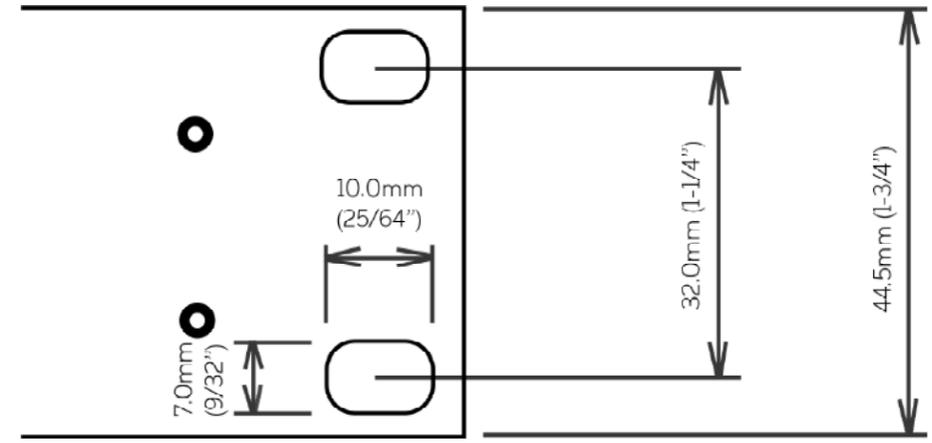
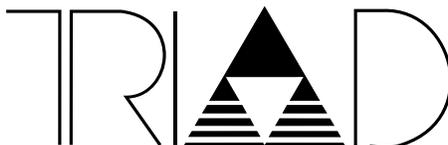


Diagram 4: HPF-8 front panel

The product's steel case provides all necessary shielding from magnetic fields generated by the HPF-8 itself (these are very small) or from other equipment placed nearby.



Triad Speakers Warranty Information

For your convenience, we have included space below for you to record your amplifier model and serial number, purchase date, dealer's name, and phone number. You will need the following information in the event your amplifier needs servicing. Please keep this manual and the sales receipt in a safe place.

Model: _____ Serial #: _____

Dealer Name: _____

Purchase Date: _____ Phone #: _____

Triad North American Warranty

Triad Designer Series speakers are warranted to be free from defects, materials and workmanship for the period stated below when operated under normal use with a HPF High Pass Filter / Current Limiter Loudspeaker and HPF unit Warranty ten (10) years.

This limited warranty period begins on the date of purchase

This limited warranty is extended only to Triad products and is expressly in lieu of all other warranties expressed or implied.

Should any defect in materials or workmanship occur within the limited warranty period, customers in the United States should contact Triad Customer Service at 1-877-264-6315, to obtain a Return Authorization (RA) Number. Customers in Europe should contact their dealer for service.

The product should be returned in its original packaging together with proof and date of purchase with the RA number clearly visible on outside of the box. At our discretion, we will repair or replace the product and return it, free from charge. If you do not have the original packaging for the product, contact your dealer or Triad Service, and we will provide it for you..

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