



## *IPS-A223S / IPS-A511S*

**SERIES UNBALANCED STEREO AUDIO TO  
BALANCED OUTPUT IPS INSERTS**

**OPERATING GUIDE**



## PROPRIETARY INFORMATION

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### **Operators Safety Summary**

*The general safety information in this summary is for operating personnel.*

**Read Instructions** Read and understand all safety and operating instructions before using this equipment. Keep the instructions handy.

**Do Not Remove Covers or Panels** There are no user-serviceable parts within the unit.

**Power Source** This product is intended to operate from the specified wall plug-in power supply. Do not use any other power source.

**Grounding the Product** This product is grounded through the grounding conductor of the power cord. To avoid electrical shock, plug the power cord into a properly wired receptacle before connecting to the product input or output terminals.

**Use the Proper Power Cord** Use only the power cord and connector specified for your product. Use only a power cord that is in good condition. Refer cord and connector changes to qualified service personnel.

**Do Not Operate in Explosive Atmospheres** To avoid explosion, do not operate this product in an explosive atmosphere.

# INTRODUCTION

The IPS-A223S and IPS-A511S inserts are the latest addition to the FSR IPS product line. Either unit will convert an unbalanced line level input to a balanced output capable of driving a long cable run. The balanced stereo output assures immunity to noise and ground loop interference.

# FEATURES

- Indicator LED for power
- Balanced Stereo Output
- Buffered Outputs
- Eliminates ground loops and noise

# APPLICATIONS

- Boardrooms • Houses of Worship • Control Rooms
- Classrooms • Staging and Rental

# ACCESSORIES

- A full selection of FSR IPS mounting plates
- Wall mount power supply included
- A hugh selection of FSR cables and connectors

# Installation and Operation

The IPS-A223S and IPS-A511S inserts have a mounting standard that will fit any FSR IPS series wall plates or IPS Rack Mount Frame. Mounting screws are included for both products.

**NOTE:**

Do not plug the included power supply in until the cabling installation is completed and the unit is mounted.

Connect the output cabling and power supply leads to the screw terminals as shown on the diagram. Observe polarity while wiring. Take care not to strip too much insulation from the leads to avoid shorting of neighboring screw terminals. Screw the terminals down tightly. Do not use excessive force while tightening the terminal screws.

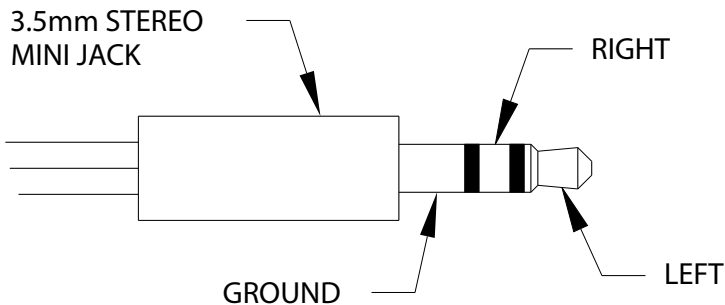
Always check for cable clearance while mounting to avoid pinched cables and shorting. Use the supplied screws to mount the interface to the IPS wall plate or rack frame. There are tapped holes on the mounting plate to accept the supplied screws..

Plug the cables for the audio source into the input connector(s).

Plug in the power supply (included) and test the insert. The LED indicator will light while the unit is powered.

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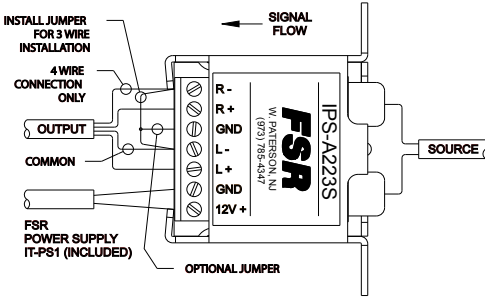
## TYPICAL 3.5mm STEREO PLUG PINOUT FOR IPS-A511S INSERT



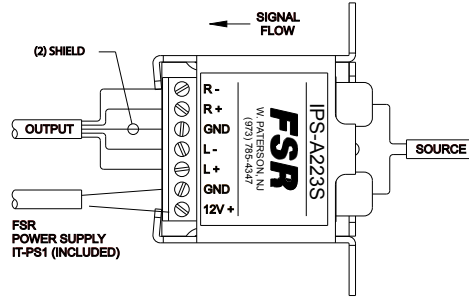
# IPS-A223S/IPS-A511S AUDIO OUTPUT CONNECTOR WIRING

(IPS-A223S SHOWN BELOW)

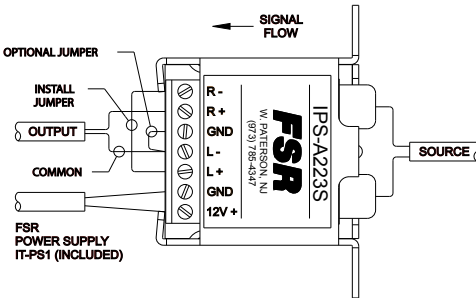
## TO A STEREO UNBALANCED PREAMP INPUT



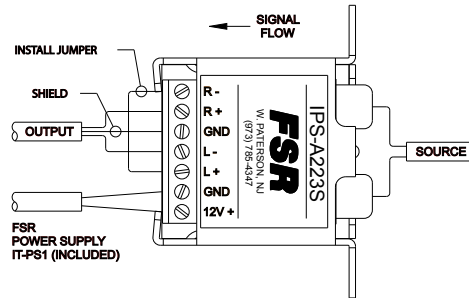
## TO A STEREO BALANCED PREAMP INPUT



## TO A MONO UNBALANCED PREAMP INPUT

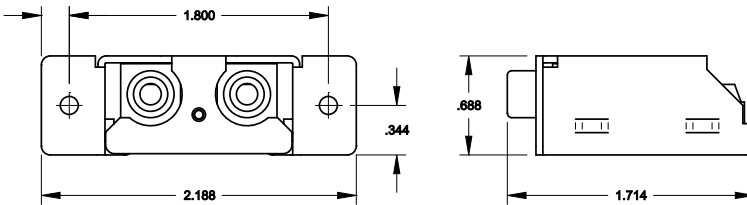


## TO A MONO BALANCED PREAMP INPUT

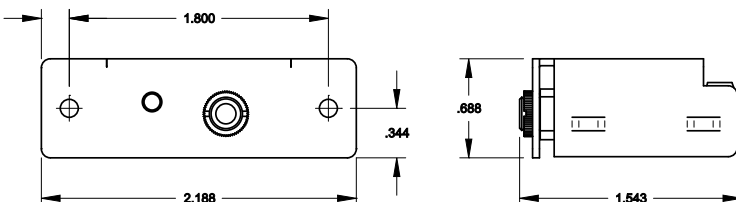


## MECHANICAL DIMENSIONS

### IPS-A223S General Dimensions



### IPS-A511S General Dimensions



# TECHNICAL SPECIFICATIONS

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| AUDIO                     |  |
|---------------------------|--|
| Gain                      | +6 dB balanced or unbalanced $\pm 0.2$ dB into 600 $\Omega$ load |
| Frequency response        | 20 Hz to 20 kHz $\pm 0.25$ dB                                    |
| THD + Noise               | 0.02% @ 1 kHz, 7V RMS  |
| Noise floor               | -92 dBm 20 kHz BW  |
| Stereo channel separation | IPS-A511S: >74 dB @ 1 kHz  |
|                           | IPS-A223S: >85 dB @ 1 kHz  |
|                           |  |
| AUDIO INPUT               |  |
| Number / signal type      | One stereo unbalanced, line level                                |
| Connectors                | IPS-A511S: One 3.5mm female stereo mini jack                     |
|                           | IPS-A223S: One pair of RCA female jacks                          |
| Impedance                 | 10 k $\Omega$ unbalanced, AC coupled                             |
| Nominal level             | 0 dBm 0.775 V RMS  |
| Maximum level             | +20 dBm 7.75 V RMS   |
|                           |  |
| AUDIO OUTPUT              |  |
| Number / Signal type:     | One stereo, balanced / unbalanced                                |
| Connector                 | Captive screw connector, 7 position                              |
| Impedance                 | 50 $\Omega$  |
| Maximum level             | +26 dBm balanced into 600 $\Omega$                               |
|                           | +20 dBm unbalanced into 600 $\Omega$                             |
|                           |  |
| POWER                     |  |
| Input requirements        | 12VDC @70mA with full signal (20mA quiescent)                    |
| Power supply              | FSR IT-PS1 12VDC@1A (Included)                                   |
|                           |  |
| MECHANICAL                |  |
| Overall dimensions        | IPS-A511S: 2.188"W X 0.688"H X 1.543"D                           |
|                           | IPS-A223S: 2.188"W X 0.688"H X 1.714"D                           |
| Shipping weight           | 1 lb.  |
| Operating temperature     | 0 to +45°C 10% to 90% non-condensing                             |

## REGULATORY COMPLIANCE

FSR'S ELECTRONIC PRODUCTS have been tested for compliance with: FCC Class A and CE The Power Adapter has been tested for compliance with: UL, CSA and CE.

## WARRANTY POLICY

This product is warranted against failures due to defective parts or faulty workmanship for a period of one year after delivery to the original owner. During this period, FSR will make any necessary repairs or replace the unit without charge for parts or labor. Shipping charges to the factory or repair station must be prepaid by the owner, return-shipping charges, via UPS / FedEx ground, will be paid by FSR.

This warranty applies only to the original owner and is not transferable. In addition, it does not apply to repairs done by other than the FSR factory or Authorized Repair Stations.

This warranty shall be cancelable by FSR at its sole discretion if the unit has been subjected to physical abuse or has been modified in any way without written authorization from FSR. FSR's liability under this warranty is limited to repair or replacement of the defective unit.

FSR will not be responsible for incidental or consequential damages resulting from the use or misuse of its products. Some states do not allow the exclusion of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Warranty claims should be accompanied by a copy of the original purchase invoice showing the purchase date (if a Warranty Registration Card was mailed in at the time of purchase, this is not necessary). Before returning any equipment for repair, please read the important information on service below.

## SERVICE

Before returning any equipment for repair, please be sure that it is adequately packed and cushioned against damage in shipment, and that it is insured. We suggest that you save the original packaging and use it to ship the product for servicing. Also, please enclose a note giving your name, address, phone number and a description of the problem.

NOTE: All equipment being returned for repair must have a Return Authorization (RMA) Number. To get a RMA Number, please call:

FSR Service Department (973-785-4347).

Please display your RMA Number prominently on the front of all packages.

### Contact Information:

FSR Inc.

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E-Mail: [sales@fsrinc.com](mailto:sales@fsrinc.com) · Web: <http://www.fsrinc.com>