

FSR

IT-AS411 SERIES

AUDIO SWITCHER / AMPLIFIERS

(COVERS MODELS IT-AS411, IT-AS411-25M70 AND IT-AS411-25S8)

INSTALLATION AND OPERATING GUIDE



(MODEL IT-AS411-25S8 pictured)

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. Removal of the top cover will expose dangerous voltages. To avoid personal injury, do not remove the top cover. Do not operate the unit without the cover installed.

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

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.

REGULATORY COMPLIANCE

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 three years 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:

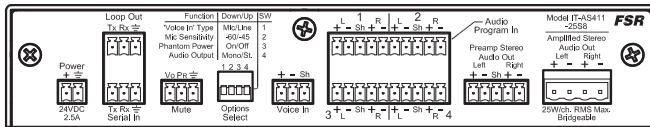
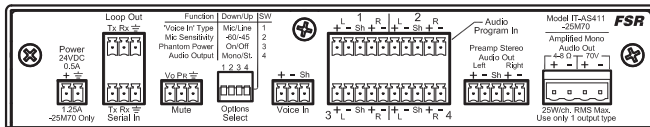
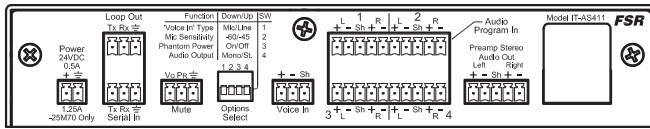
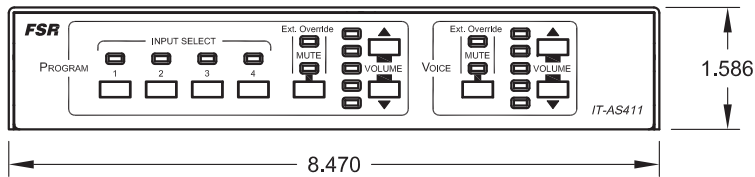
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DIMENSIONS

All models have the same front panel appearance.
The depth on all models is 6". Allow clearance for connectors and cables.



INTRODUCTION

The IT-AS411 Series Audio Switchers are 4x1 audio switchers that have an extra line/mic level input for a voice lift system or direct microphone input. All models have four switched line level inputs and an independent mic or line level input that is summed (mixed) with the selected active program audio. Automatic gain control and noise gating are incorporated to ensure consistent voice and program audio levels with a minimum of unwanted ambient noise.

All models have balanced or unbalanced input and output capability. DIP switches are provided to set the voice input level to mic or line, adjust microphone sensitivity, set phantom power and select mono or stereo operation. They also have adjustable volume control buttons and mute for both the program and voice inputs. Switching, muting and gain can be executed locally by front panel push buttons, muting by external dry contact closure and additional commands via RS-232 serial control. On board LED's monitor; input select, volume levels and muting status.

All models have line level inputs and outputs. They can be controlled by the front panel and via pass through RS-232 control.

The IT-AS411-A25M70 features a 25Wrms mono internal amplifier to drive either a 4 to 8 ohm speaker or a 70V line output.

The IT-AS411-A25S8 features a 25Wrms stereo output to drive a 4 to 8 ohm speaker.

FEATURES:

- Mic / line level voice lift input
- Program audio / voice lift mixing
- Program audio inputs and outputs
- Serial control with serial pass-through
- Terminals for remote muting of voice and/or program audio via dry contact closure
- On board LED's monitor; input select, volume level and muting status
- Current limited remote LED output terminal for program audio and voice (mute) status
- Integrated audio amplifiers on A25-M70 and A25-S8 models
- Program audio trim (gain)
- Automatic gain control and noise gating
- Preamp output

POWER REQUIREMENTS	IT-AS411	IT-AS411-25M70	IT-AS411-25S8
Power input requirement	24VDC @ 0.5A	24VDC @ 1.25A	24VDC @ 2.5A

MECHANICAL	Model	Dimensions (inches)	Shipping weight.
	IT-AS411	8.5 x 5.875 x 1.5625	4 lbs.
	IT-AS411-25M70		
	IT-AS411-25S8		

ACCESSORIES	DESCRIPTION
RK-1	Front accessible rack mount kit
RK-2	Shelf style rack mount kit

TECHNICAL SPECIFICATIONS

PROGRAM AUDIO INPUT	IT-AS411	IT-AS411-25M70	IT-AS411-25S8
Input	4, Stereo balanced/unbalanced		
Connector type	Pluggable screw terminal		
Maximum Input Level	7.5dBV		
Input Sensitivity	NA	-20dBv with 8Ω or 70V load	-20dBv with 8Ω load
Input Impedance	20kΩ balanced/unbalanced		

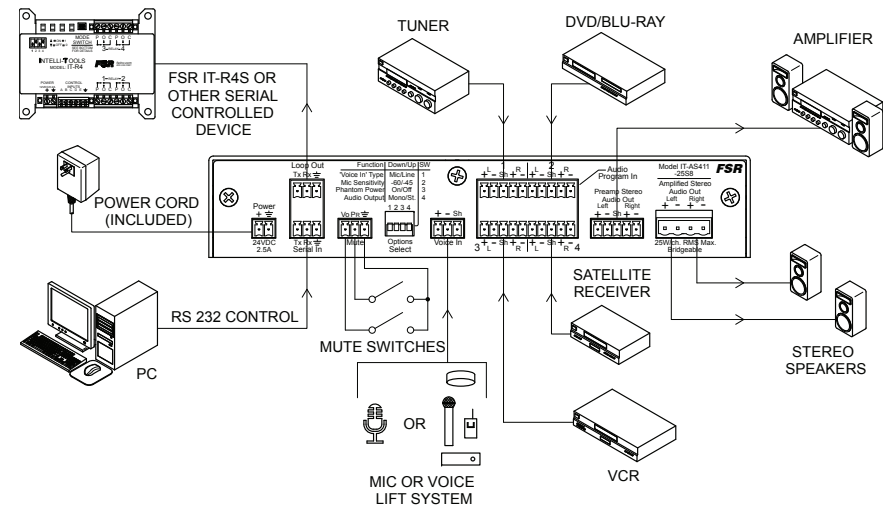
MICROPHONE INPUT	IT-AS411	IT-AS411-25M70	IT-AS411-25S8
Input	1		
Connector type	Pluggable screw terminal		
“Voice In” type	Microphone/Line		
Microphone Sensitivity	-43/-35dB		
Maximum Input Level	1dBV		
Low cutoff	200Hz		
Phantom power	24V		

PRE-AMP AUDIO OUTPUT	IT-AS411	IT-AS411-25M70	IT-AS411-25S8
Connector type	Pluggable screw terminal		
Number of outputs	1 Stereo or 2 Mono (L + R program audio input summed)		
Signal Output	Balanced/unbalanced		
Frequency Response	20Hz – 20kHz (+/- 0.5dB)		
THD + N	<0.09% @ 1kHz; 11dBV with 600Ω load (balanced)		
Signal to Noise Ratio	>80dB @ 1kHz; rated output (unweighted)		
Output Impedance	50Ω		

AMPLIFIER AUDIO OUTPUT	IT-AS411	IT-AS411-25M70	IT-AS411-25S8
Connector type	Pluggable screw terminal		
Number of outputs	NA	2 Mono ¹	Stereo or 2 Mono (L + R program audio input summed)
Frequency response	NA	100Hz – 20kHz (+0, -1dB) -3dB @ 50Hz	20Hz – 20kHz (+0, -1dB)
THD + N	NA	<0.8% @ 1kHz 25Wrms 70V <0.7% @ 1kHz 25Wrms 8 Ω	<0.7% @ 1kHz 25Wrms 8 Ω
Signal to Noise ratio	NA	>80dB @ 1kHz; rated output (unweighted)	
Load impedance	NA	4 to 8Ω or 70V	4 to 8Ω
Power output	NA	25Wrms @ 4 to 8Ω 25Wrms @ 70V	25Wrms @ 4 to 8Ω

¹ Use only one output type (4-8Ω or 70V) in a particular installation.

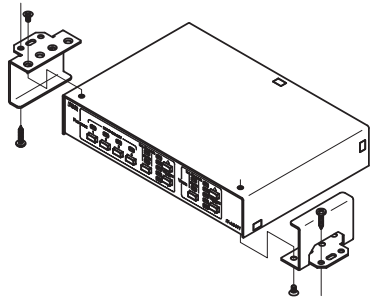
TYPICAL APPLICATION



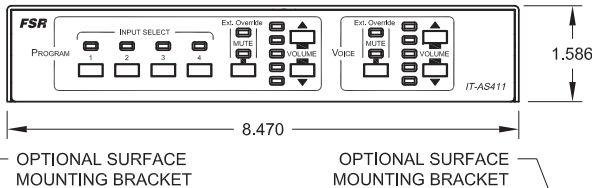
INSTALLATION AND OPERATION

All models have rubber feet attached and can be placed on a desktop. There is also a rack kit or surface mount kit available from FSR for stationary mounting. See “accessories” in the specification section for FSR part numbers and ordering information.

UNDER-SURFACE MOUNTING ORIENTATION



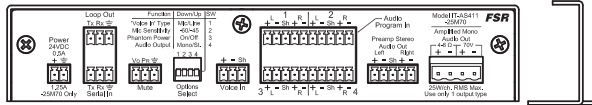
TOP-SURFACE MOUNTING ORIENTATION



OPTIONAL SURFACE MOUNTING BRACKET

OPTIONAL SURFACE MOUNTING BRACKET

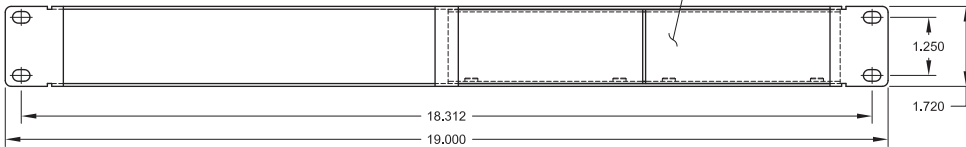
UNDER-SURFACE MOUNTING ORIENTATION



TOP-SURFACE MOUNTING ORIENTATION

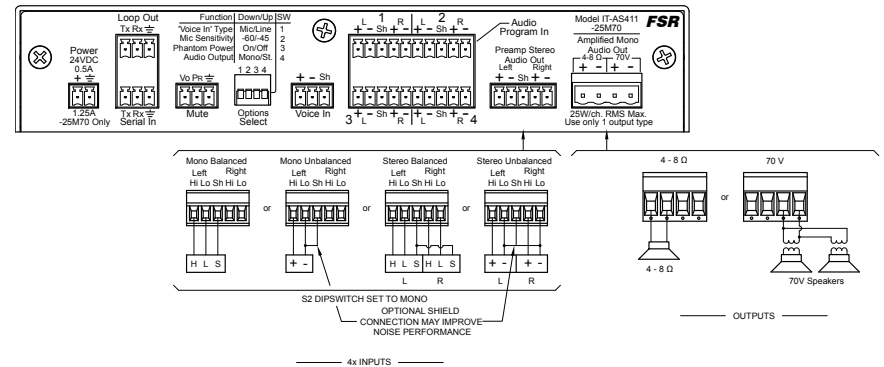
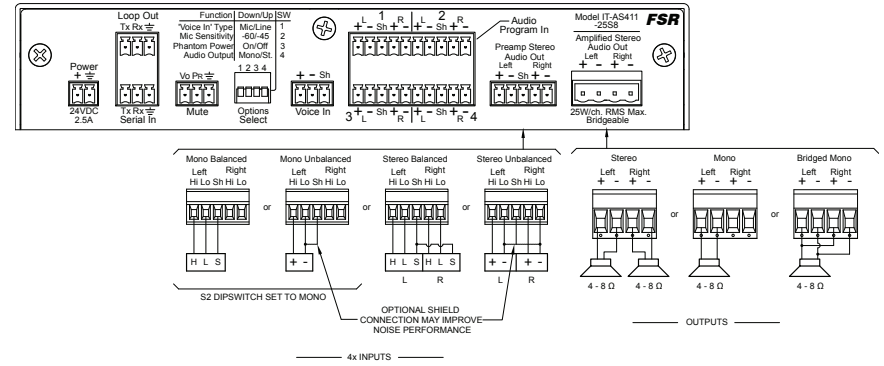
CHASSIS DEPTH INSIDE RACK IS 6.00 IN.

OPTIONAL BLANK SPACE FILLER



OPTIONAL RACK MOUNT KIT

AUDIO PINOUT



NOTE: When in MONO mode, either left or right inputs and outputs can be used.

FRONT PANEL

FRONT PANEL LED STATUS INDICATION	
INPUT SELECT	Indicates selected audio input source when each input button is selected
EXT. OVERRIDE	Indicates the muting state as controlled by the external mute input connector
MUTE	Indicates state of local muting when mute buttons are used
VOLUME BAR GRAPHS	Displays the current program and voice audio output levels in 10 dB increments.

REAR PANEL

Mute Switch Input:

Provide a dry contact or low leakage open collector closure to mute the amplifier. No connection, or an open circuit provides normal operation. The IT-AS411 switcher / amplifier provides pop-free transitions in and out of mute mode.

Audio Input:

NOTE: See Option DIP Switch table for proper settings and additional information.

Connect a balanced or unbalanced audio source to this point. Unbalanced signals should be connected between “Hi” and “Lo.”

- **For IT-AS411-25M70 only:**
Connect mono sources to the RIGHT or LEFT audio input terminals
- **For IT-AS411-25S8 only:**
Connect mono sources to the RIGHT or LEFT audio input terminals.

Audio Out:

- **For IT-AS411-25M70 only:**
Provides a choice of either 4-8 ohm or 70V mono output for flexibility in interfacing to the room speakers. Connections should be made to only one output type in a particular installation.
- **For IT-AS411-25S8 only:**
Provides connection to 4-8 ohm stereo speakers. Outputs may be bridged (connect + to + and connect - to - . When bridging, be sure to set front panel switch 2 to “mono” mode to double the output power. Use 4 ohm speaker, or parallel combination of 8 ohm speaker to achieve full power when bridging outputs.

Power Input:

Connect to supplied 24V external power supply

OPTION DIP SWITCHES AND INTERNAL JUMPER	
SWITCH 1 “VOICE IN” TYPE	Up= LINE Down= MIC
SWITCH 2 MIC SENSITIVITY	Up= -45dB Down= -60dB
SWITCH 3 PHANTOM POWER	Up= OFF Down= ON
SWITCH 4 MONO / STEREO	Up= Stereo Down= Mono When in Mono mode, the Left and Right audio inputs are actively summed together and fed to both the Left and Right output channels. When in stereo mode, Left and Right inputs are independent. NOTE: The IT-AS411-M70 mono version of the product requires this switch to be set to mono mode when using stereo sources. When operating the IT-AS411-S8 in bridged output mode, this switch should also be set to mono mode.
JP2 (INTERNAL JUMPER) USER MIC SENSITIVITY ADJUSTMENT	Open jumper: 0dB. mic sensitivity (default) Closed jumper: -6dB mic attenuation