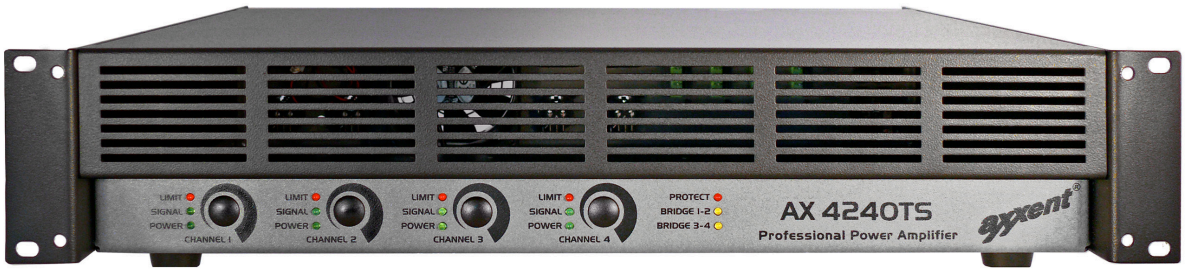
professional 4 channel amplifier

models AX4120TS / AX4240TS



User manual

Introduction

We are pleased that you have decided to purchase this axxent high power amplifier. Please read the following manual carefully, to reach best results.

Important Features

axxent „T“ or „TS“ series amplifiers have isolated constant voltage outputs for loudspeakers or loudspeaker lines with audio transformers. The model 4120TS and 4240TS may also be used with low impedance outputs.

Four discreet audio channels with a common power supply feature low impedance outputs down to four ohms, as well as constant voltage outputs of 50-, 70-, or 100 volts.

On the following pages please find important operational hints like the controls and knobs on the front- and the connectors on the rear side of the amplifier.

contents

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Front controls

There are four knobs on the left side. These are the gain controls. It is possible to remove the knobs and to cover the holes with caps that are supplied with the amplifier to prevent use by unauthorized personnel.

Each gain control has three LED's: 2 green and a 1 red one. When switched on, the lower green LED lights. The middle green LED shows existing audio input. The red LED indicates excessive input audio level and that the automatic limiter starts limiting the output signal.

To the right of the control knobs you find another three step LED indication: yellow, yellow and red. The lower two yellow LED's indicate bridge mode of channels 1+2, or 3+4. Bridging mode almost doubles the maximum power of the AX4120TS of two channels and results in approximately 200 watt at 8 ohms impedance. The AX4240TS has approximately 400 watts per output pair in bridging mode. Please note that this bridging mode is possible only with low impedance and not with the constant voltage outputs.

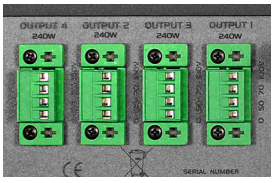
The upper red LED shows that the amplifier is in protect mode. When this LED is on, the amplifier is switched off and only after a remedy of the cause it will operate again. Please call your service engineer and do not try to open the amplifier.

It had been our intention to limit the amount of front panel controls to avoid a possible misuse of the control elements.

Amplifier controls and connections, rear side

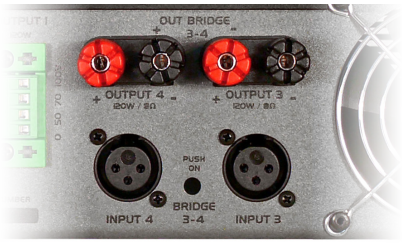
At the very left you see the robust **power switch** with on/off indication. Below the power switch an IEC power connector with integral fuse holder. The amplifier has no directly connected power cable to facilitate easy removal of the power amplifier in case of failure. The power cable is delivered with the power amplifier. In case of failure, i.e. if no LED lights, the fuse may be defective. Please call your service engineer then, or, when you have a fuse 6.3 amp slow blow with size of 5 by 20 mm available, you may try to change it. Please switch off the amplifier first!

Output connectors, constant voltage



To the right of the power switch you find four so-called "**Euro-Bloc**" connectors. These are for operation of 50 v, 70 v, or 100 v constant voltage. In most European countries, 100 v operations are standard. The "Euro-Bloc" connectors may be removed from their respective socket and cables with a small screwdriver screwed on.

Output connectors, low impedance

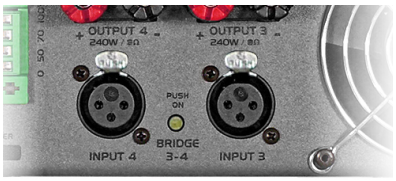


At the very top of the amplifier you note black and red so-called **binding posts**. These are the low impedance connectors. You may connect loudspeakers direct to these binding posts and the amplifier drives loads down to 4 ohms per output channel. We recommend at very demanding use, i.e. very high input signal to connect loads down to 8 ohms only. When you intend to use both constant voltage outputs and the low impedance output of a channel at the same time, we also recommend not to go lower than 8 ohms. At 8 ohms operations you have some power left for constant voltage operations.

When you operate the amplifier in bridge mode, please connect your cable to the indicated black and red posts (+/-).

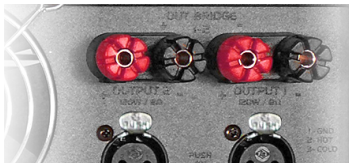
Input connectors

The input connectors are 3 pin xlr connectors, female. You find them at the lower right. Inputs are electronically balanced and have an input impedance of 20 kohms. All standard microphone cables may be used for connection. Between input 4 and 3, as well as between input 2 and 1, you find a recessed switch. These are used to activate bridge mode between these channels.

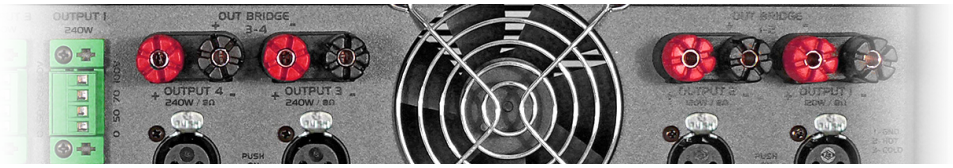


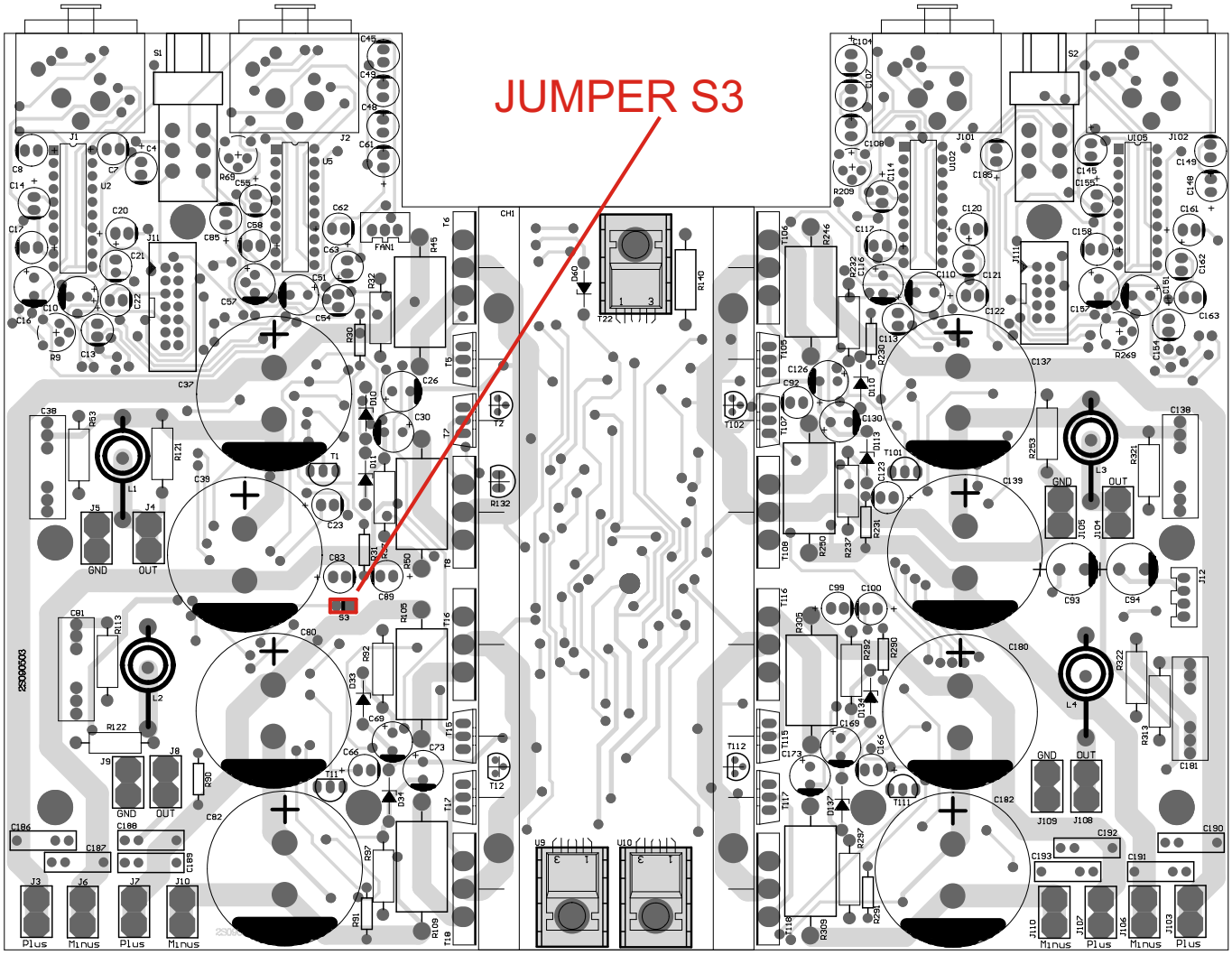
Bridge mode

Only the low impedance outputs of the amplifier may be used in bridge mode. In normal mode, the AX4120TS amplifier has an output power of 120 w r.m.s. If you need higher power, you may use, for example, channel 1+2 in bridge mode and therefore fore almost double the power. You will also double the impedance, i.e. instead of 4 ohms, you then will have approximately 200 w at 8 ohms available. In this mode, you may not use low impedance output and constant voltage outputs parallel. One of the advantages of bridge mode is: that with the AX-4120TS amplifier, you may have 200 w at 8 ohms from, for example, from channel 1 and 2, and two constant voltage lines with 120 w of power from channel 3 and 4. This is only one of many possible configurations of the amplifier.



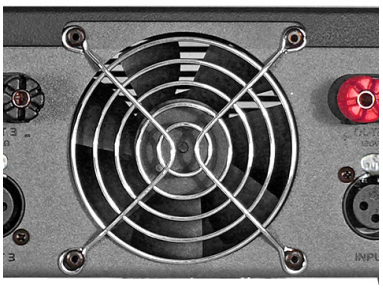
Model AX4240TS has exactly twice the power stated with the AX4120TS in all modes.





Switching to high speed fan mode is made by inserting a jumper connection inside the amplifier. High speed fan mode (fan is controlled by signal input) may be desired with ultra high and critical operational condition. Please find the location of this jumper S3 in the diagram above. Please note that we recommend the jumper removal by a qualified technician.

Fan ventilation



A fan is used to ventilate air from back to front and to cool internal components. In normal mode, the fan speed is controlled by the heat sink temperature. If no input signal is present, the fan is out or very low. If heat sink temperature is low, the fan is out or turns very slow. If the heat sink temperature becomes higher, then fan speed accelerates. This mode is recommended in all applications where low fan noise is required, such as in churches or conference rooms. If you feel that the operation in your application is very critical, such as with constantly very loud music, you may use the option of signal input control of the fan speed. See the diagram above.

CE Conformity Declaration

We herewith declare in sole responsibility, that this product conforms to the European EMC standard 89/336/EEC and to the requirements of the uniform standard EN-55013 and EN-55020.