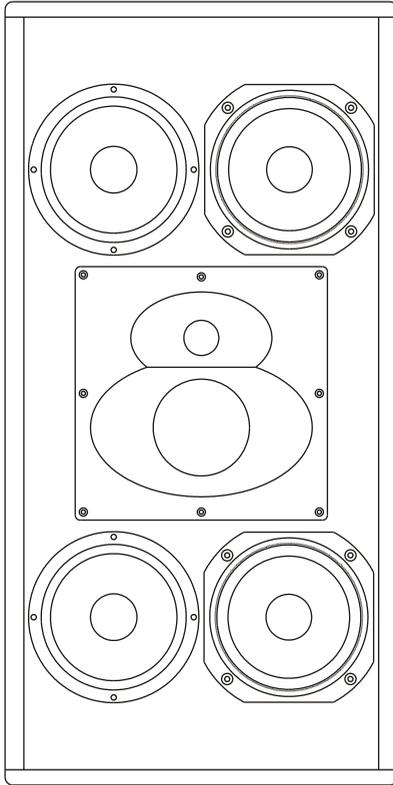


SRT 301/ SRT 301V

triamplified loudspeaker | owners manual



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INTRODUCTION

The SRT 301 and SRT 301V are 3-way triamplified shallow-profile speaker systems. The SRT 301 is designed for horizontal mounting, such as a center speaker, while the SRT 301V designed for vertical mounting, such as main speakers. It consists of the following:

1. Speaker, packed in one carton
2. Matching amplifier, and connectors for speaker to amplifier, packed in a second carton
3. Mounting brackets and hardware for speakers, packed in a third carton

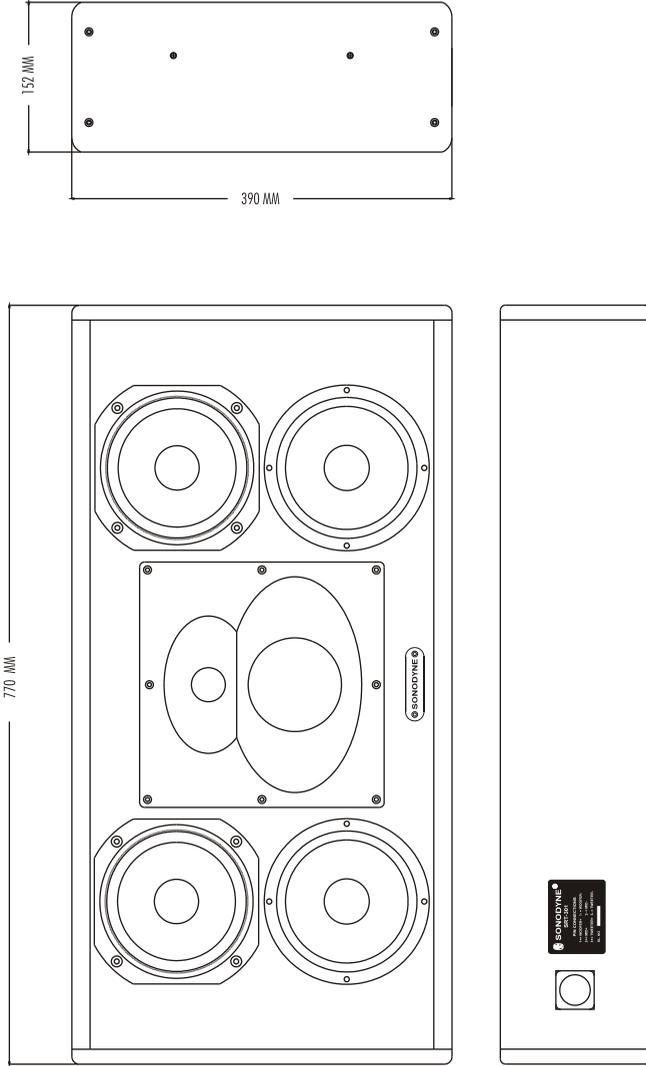
DESCRIPTION

This is a 3-way speaker system with the top end consisting of a 1" silk-dome tweeter and a 4" Kevlar cone midrange, mounted in a composite proprietary waveguide. This allows for a wide horizontal dispersion resulting in a wider sweet-spot and a controlled vertical dispersion, to prevent reflections. The low end is catered to by 2 x 6" Kevlar cone woofers with 2 x 6" passive radiators. The passive radiators allow extended low frequency response from a shallow cabinet, at the same time, preventing air-flow noise caused by ports. The shallow depth of 6" allows it to be flush-mounted on a wall. Supplied mounting brackets permit easy installation. The SRT 301V can be angled in the horizontal plane by fixing the wall brackets to a different set of holes on the cabinet. The SRT 301 angle is fixed at 90° to the wall, and parallel to the floor.

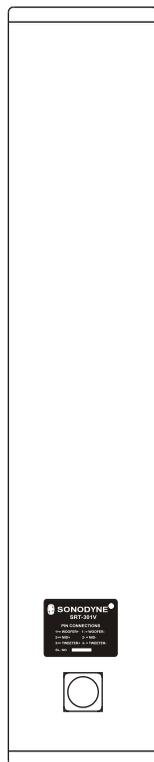
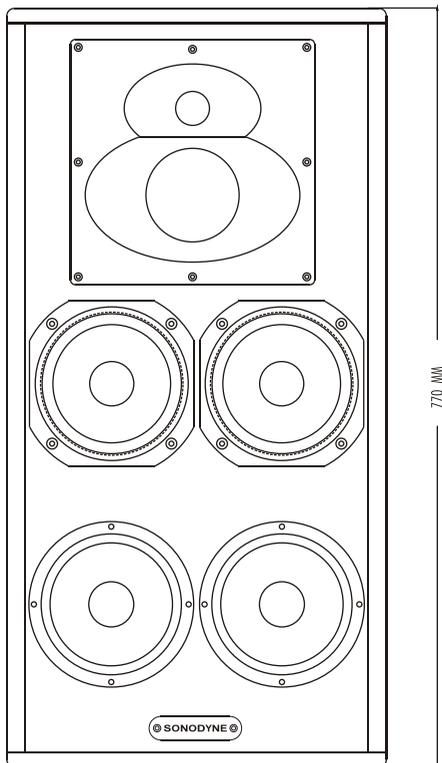
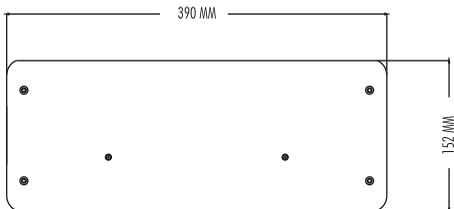
UNPACKING

To unpack the unit, place the unit vertically and cut open the straps which hold the top and bottom tray and the sleeve together. Lift the top tray. Next hold the sleeve with both hands, and slide it up. Inside you will find one SRT 301 speaker wrapped in a protective bag and resting on buffers to prevent damage to the speaker. Inspect the speaker for any sign of damage. Please retain all packing materials in case you have to transport the unit in future.

• SRT 301 dimensions •

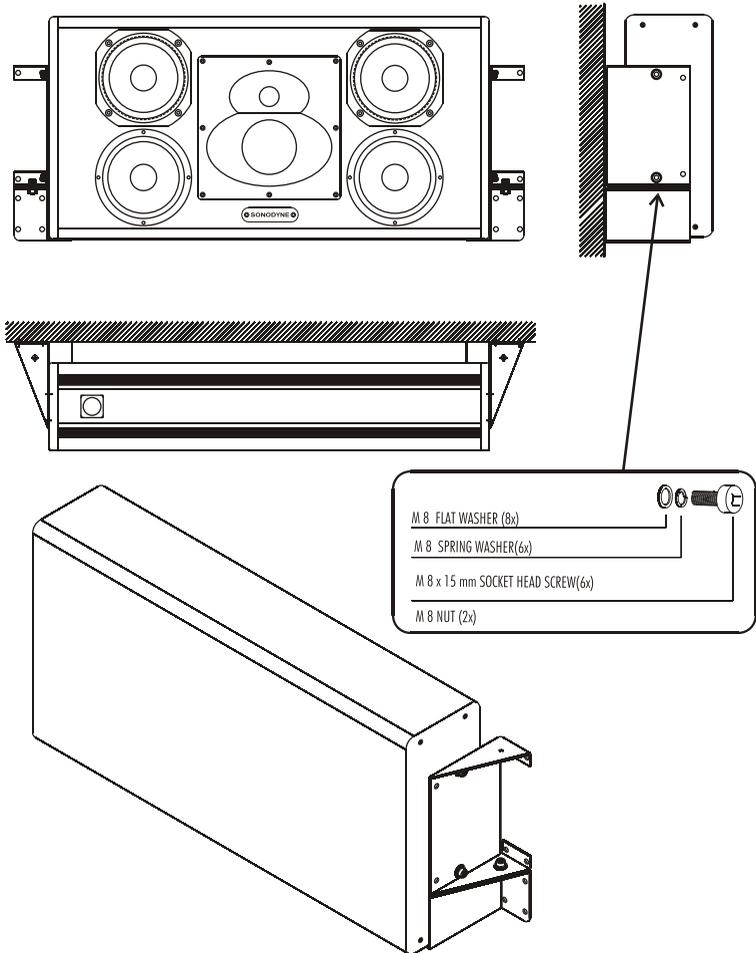


● SRT 301V dimensions ●

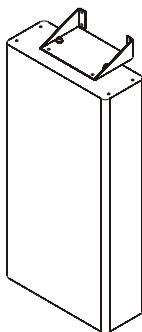
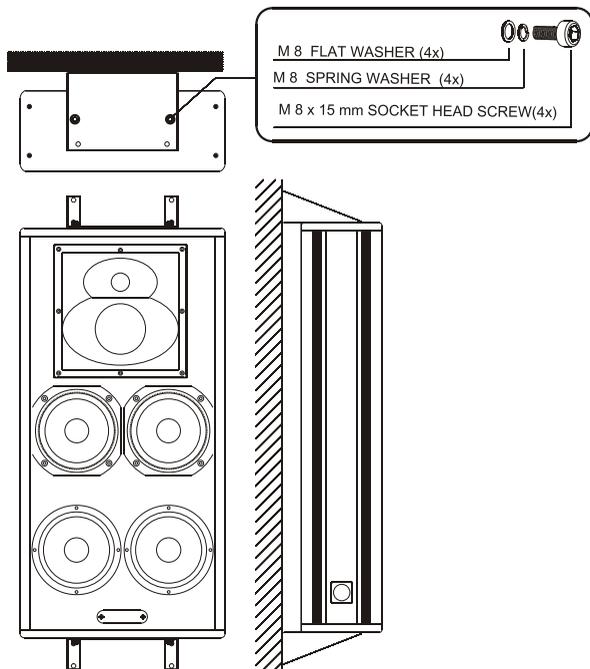


● SRT 301 mounting ●

The SRT 301 speakers are mounted using the supplied brackets and hardware. First, the brackets are fixed to the speakers using the supplied hardware. Next, the speaker with brackets is fixed to the wall as shown below.

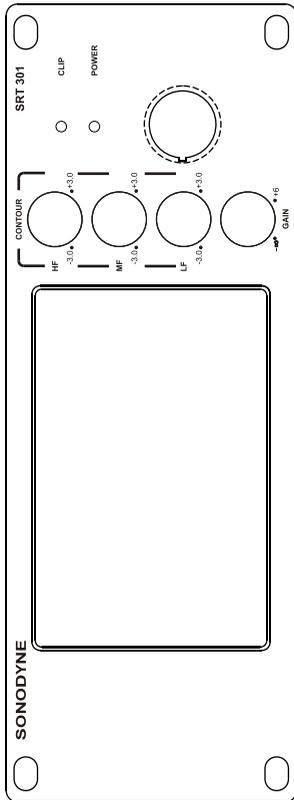


• SRT 301V mounting •



The SRT301V is similarly mounted. The sketches illustrate the mounting procedure

• connections • SRT 301 amplifier •



The SRT 301 speaker has a 8-pole socket mounted on the top panel. Matching connector is supplied with the speaker, packed inside the amplifier carton. Connections are printed on a sticker fixed near the connector, and are:

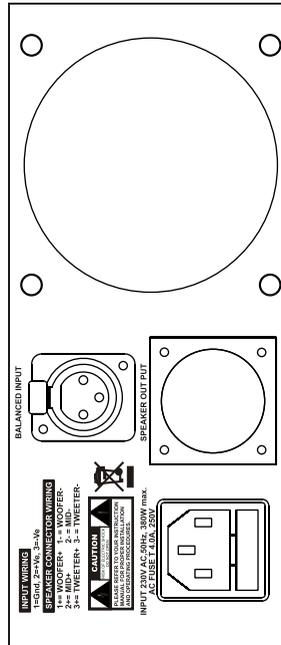
1+, 1-, woofer, 2+, 2-, midrange, 3+, 3-, tweeter

For cable selection, use the following chart to arrive at the proper gauge of cable depending upon the length of the connection. A 6-core or 6 single-core cables are required .

Upto 5 m - 23/36 multi-strand copper wire (23 strands of 36 SWG wire), equivalent to 0.65 square mm

5-10 m - 40/36 multi-strand copper wire (40 strands of 36 SWG wire), equivalent to 1.16 square mm

10-20 m - 70/36 multi-strand copper wire (70 strands of 36 SWG wire), equivalent to 2.08 square mm



● SRT 301 amplifier ●

DESCRIPTION

This is a 3- channel amplifier with built-in active crossover for driving the SRT 301/SRT 301V speaker. Connection to the speaker is through a 8-pole socket on the rear panel. The built-in active crossover and equaliser is DSP-based which provides accurate control of the woofer, midrange and tweeter. 3 controls with calibrated gains labeled contour allow for shelving type equalisation in the low, mid and high frequency band. Each control has 9 steps which allow for ± 3 dB control. A built-in limiter prevents amplifier overload. The amplifier is cooled by a 3-step speed-controlled very low-noise fan. At idling or low power levels, the fan noise is virtually inaudible. Extensive protection measures are built-in. Input is through a fully balanced XLR socket.

UNPACKING

To unpack the unit, open the carton by cutting along the edge of the flaps. Push the flaps wide open. Inside you will find

- 1 x SRT 301 amplifier wrapped in a protective bag and resting on buffers
- 1 x IEC mains cord
- 2 x 8-pole connectors. Carefully lift the unit from the EPE buffer. Inspect the unit for any sign of damage.

RACK MOUNTING

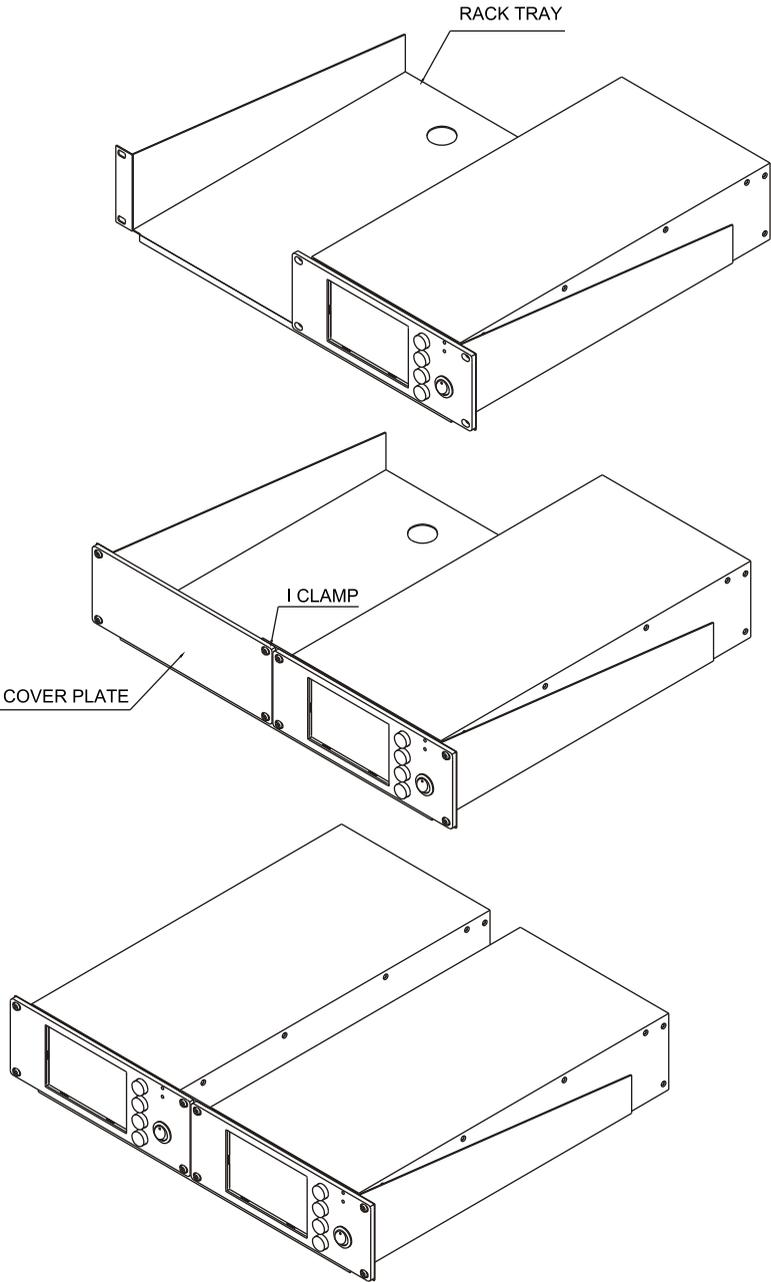
If you want to rack-mount, please procure the SRT RMK sold separately.

The amplifier front panel has protrusions on each side along with 2 slots per side which permit it to be mounted in a full size rack. In the RMK is:

- a rack-mounting tray
- a cover plate
- an I-clamp and hardware

Place the amplifier on the rack tray as shown and fix to rack using the standard rack-mounting hardware. The rack tray is designed to hold 2 amplifiers side by side, as shown in the last figure. In case you are using one amplifier, use the cover plate to hold the amplifier properly in the rack tray as shown in the second figure. The hardware for fixing 2 amplifiers to one I-clamp or one amplifier and one cover plate to I-clamp, are supplied.

● SRT rack mounting ●



● statutory information ●



The lightning flash with an arrowhead symbol is intended to warn the user that there is uninsulated (dangerous) voltage inside the unit.

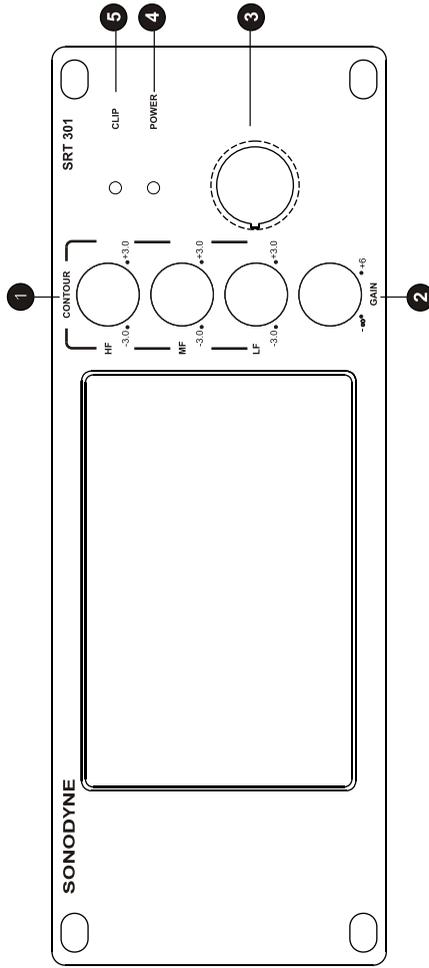


The exclamation mark within an equilateral triangle symbol is intended to alert the user of presence of important operating instructions in the owner's manual accompanying the product.

IMPORTANT SAFETY INSTRUCTIONS

1. The unit should be connected only to a wall outlet providing the correct mains voltage and frequency as printed on the product.
2. Connect the unit to the mains only with the mains cable supplied with the unit.
3. Ensure that the wall outlet is properly earthed, that is, the earth must be connected to a earth bus-bar which connects to other audio equipments and is not shared by noisy equipments like computers, air-conditioners, lighting appliances etc. The earth connection must be checked and certified by a qualified electrical engineer.
4. Do not cover the unit or block the ventilation holes on the back and front which may cause it to heat up and malfunction.
5. Do not open the unit or attempt to service it yourself. There is no user-serviceable part inside. Refer servicing to qualified service personnel only.
6. Replace only with the same type and rating of fuse as printed on the product.
7. Do not overload wall outlets that provide power to this unit.

- installation: front panel controls ●



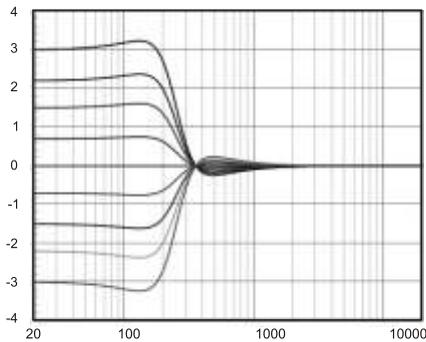
1. CONTOUR CONTROLS

There are 3 types of equalisers built-into the SRT 301 amplifier - a low shelving EQ, a high-shelving EQ and a bell EQ. These can be set with the help of the controls provided for each EQ type.

● installation: front panel controls ●

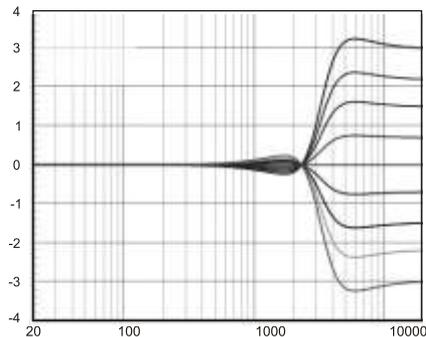
LOW SHELVING EQ

This EQ boosts or cuts the frequency band from 50 Hz ~ 250 Hz by an amount set by the control. It has 9 positions, 4 on either side of the center position and allows you to choose a cut from -3 dB to 0 dB, in steps of 0.75 dB, (when turned counter-clockwise from center) or a boost from +3 dB to 0 dB, in steps of 0.75 dB, (when turned clockwise from center). The cut is required if you are using the SRT 301s for a mix and have mounted the monitor on a console which can create reflections creating boost in the low to low-mid frequency band. The boost may be used to fine-tune the particular frequency band for a certain application.



HIGH SHELVING EQ

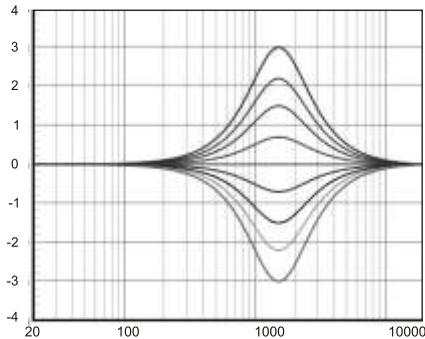
This EQ boosts or cuts the frequency band from 4 kHz ~ 20 kHz by an amount set by the control. It has 9 positions, 4 on either side of the center position and allows you to choose a cut from -3 dB to 0 dB, in steps of 0.75 dB, (when turned counter-clockwise from center) or a boost from +3 dB to 0 dB, (when turned clockwise from center).



● installation: front panel controls ●

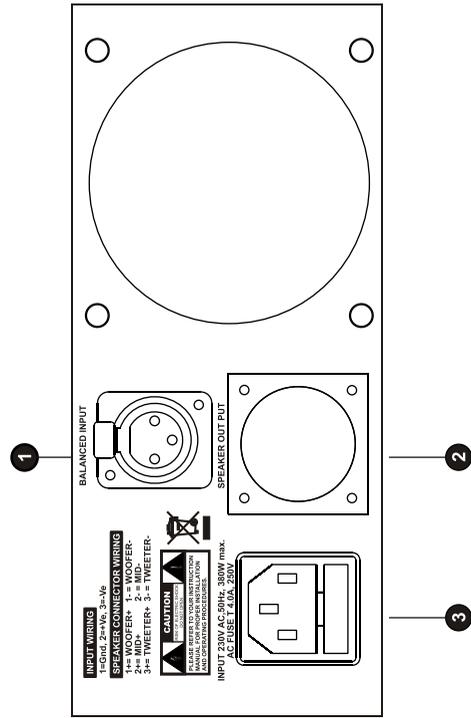
BELL EQ:

This EQ has a center frequency of 1.5 kHz and a Q of 0.7. The control allows you to set the amount of cut or boost. It has 9 positions, 4 on either side of the center position and allows you to choose a cut from -3 dB to 0 dB, in steps of 0.75 dB, (when turned counter-clockwise from center) or a boost from +3 dB to 0 dB, in steps of 0.75 dB, (when turned clockwise from center). Since the Q of this EQ is fairly low, it can be used to lay back the mids if they are too forward-sounding, or bring them forward, in case of a reverse situation.



- 2. GAIN:**
This control adjusts the gain of the amp. At the extreme anti-clockwise setting, the gain is $-\infty$, and the output is virtually muted. At the extreme clockwise setting, it is +6 dB. At the centre detent position, the gain is 0 dB.
- 3. POWER:**
This is a rocker type power switch which turns on power to the system. The ON position is indicated with a dot mark on the switch.
- 4. POWER:**
This indicator glows green when power is switched on.
- 5. CLIP:**
This indicator glows red when the internal power amplifier goes into overdrive. The unit must not be operated with the indicator glowing red most of the time, so as not to cause damage to the drive units.

● installation: rear panel controls ●



1. **INPUT SOCKET**
 This is a fully balanced XLR input socket. Pin connections are 1 ground, 2 hot or positive, and 3 cold or negative.

2. **SPEAKER CONNECTOR**
 This is a 8-pole socket mounted on the top panel. Connections are printed on the rear panel, and are as follows.
 1+, 1-, woofer, 2+, 2-, midrange, 3+, 3-, tweeter

3. **IEC AC SOCKET**
 This is a fused 3-pin IEC AC receptacle for connecting to a wall outlet with the cable supplied. Ensure that the wall outlet is properly earthed, that is, the earth must be connected to a earth bus-bar which connects to other audio equipments and is not shared by noisy equipments like computers, air-conditioners, lighting appliances etc. The earth connection is also required in the interests of your own safety, should any fault occur. Please check that the wall outlet is capable of providing the current requirement of the product, printed on the back panel near the IEC AC socket.

● operation ●

Connect the output of the preamplifier/ processor to the input (XLR female connector) of the SRT 301 amp using balanced cable which is a 2-core screened cable with XLR connectors on either end. Pin connections are:

- 1 ground
- 2 hot or positive
- 3 cold or negative.

If the output of your source equipment is unbalanced, (which however is not recommended because of noise pick-up problems), short pin 3 to pin 1.

Check that the utility outlet for powering your SRT 301 amp is of matching voltage and frequency printed on the back panel. Also ensure that it is capable of providing the required power, as printed on the back panel, and the earth of the IEC socket is connected to the safety earth of the premises through a separate conductor so that it does not share the earth with noisy equipments such as air-conditioning, lighting equipment or computers.

Connect the mains cable of the SRT 301 amp supplied with the unit, to the utility wall outlet after you have connected all other equipments. Switch on the console or source equipment first. Switch on power to the SRT 301 amp last. That way, you will not hear any nasty turn-on thumps which may be damaging to your ears and equipment.

A green indicator on the front of the unit will light up. This indicates that your unit has powered up and is ready for operation.

Keep all equaliser controls to mid-position initially. Leave the gain control also at mid or 0 dB position.

Play some recorded source material. Depending on the placement of your speaker and your personal preference, you may want to adjust the equaliser controls, which are explained in details under FRONT PANEL CONTROLS AND SWITCHES.

● troubleshooting ●

SYMPTOM: No power (Green indicator does not light up)

POSSIBLE REMEDIES:

1. Check that the mains cable is properly plugged into the wall outlet.
2. Check that correct voltage is available from the wall outlet.
3. Check that the fuse in the IEC AC socket has not blown. Replace with spare fuse inside the fuse cover if fuse has blown.
4. Check that the power switch is turned on.

SYMPTOM: No sound

POSSIBLE REMEDIES:

1. Check that input cable is plugged in.
2. Check that level control of source equipment is not turned all the way down.
3. Check that signal is present at the output sockets of console or other source equipment.
4. Check that cable connection is OK- there should be continuity for each of the pins between one end and the other.

SYMPTOM: Distorted sound

POSSIBLE REMEDIES:

1. Check whether output level from console or source equipment too high, causing overload of input stages
2. Check for loose cable contacts.

SYMPTOM: Buzz/hum

POSSIBLE REMEDIES:

1. Unplug the input cable or cables one by one, till the buzz disappears. If buzz does not disappear, your monitor unit is faulty.
2. Check that the cable contacts are OK- replace with a cable that is known to be good.
3. If you are using an unbalanced connection, make sure that pin2 is connected as the live terminal and pin2 and pin3 are tied together at the source end.

● specifications ●

DESCRIPTION	3-way tri-amped large format home theatre active speaker system
TRANSDUCER COMPLEMENTS	LF: Magnetically shielded 2 x 6" Kevlar cone woofer MF: Magnetically shielded 4" Kevlar cone midrange with waveguide HF: 26mm silk dome neodymium magnet tweeter with waveguide
ENCLOSURE TYPE	Bass- reflex, through twin front-firing 6" passive radiators
SYSTEM	
OVERALL FREQ. RESPONSE	55 Hz ~ 22 kHz, (± 2 dB)
USEABLE FREQ. RESPONSE	50 Hz ~ 25 kHz
MAX. LONG TERM SPL, HALF SPACE	115 dB
HORIZONTAL BEAM WIDTH	85° (averaged between 5 ~ 16 kHz)
VERTICAL BEAM WIDTH	65° (averaged between 5 ~ 16 kHz)
THD (@95 dB SPL)	80 Hz ~ 200 Hz < 3%, > 200 Hz < 1%
INPUT CONNECTOR (Speaker)	8 pole Neutrik Speakon socket
AMPLIFIER & CROSSOVER	
AMP. POWER BEFORE CLIPPING	LF: 200 W, MF: 75 W, HF: 50W
S/N RATIO (AT UNITY GAIN)	> 90 dB, referred to full output
AMPLIFIER THD @ RATED POWER	< 0.04 %
INPUT	Fully balanced through XLR socket
INPUT LEVEL FOR 90 dB SPL AT 1M	-5 dBu
GAIN CONTROL RANGE	$-\infty$ to +6 dB, 0 dB at center position
CMRR	> 65 dB, 1 kHz
SUBSONIC FILTER	45 Hz
CROSSOVER	1 kHz, 4 kHz
OUTPUT CONNECTOR (Amp)	8 pole Neutrik Speakon socket
EQS	
BASS TILT (low-shelving)	50 Hz ~ 250 Hz, -3 dB to +3 dB in 0.75 dB steps
TREBLE TILT (high-shelving)	4 kHz ~ 20 kHz, -3 dB to +3 dB in 0.75 dB steps
MID EQ	-3 dB to +3 dB, 1.5 kHz, Q=2, in 0.75 dB steps
CONTROLS	Power switch, Gain control, Low shelving, High shelving, Mid EQ
INDICATOR	Power(green) and clipping(red) indicator on front
PROTECTION	Over current, Overheat, RFI, Switch on/ off transients
POWER REQUIREMENT	230 V AC, ± 10 %, 50 Hz
POWER CONSUMPTION	380 W max
MECHANICAL	
SPEAKER CABINET MATERIAL	MDF, with extruded aluminum corners
FINISH	Black Painted
DIMENSIONS (H x W x D) mm	SRT301 390 x 770 x 152 SRT301V 770 x 390 x 152
MOUNTING OPTIONS	Wall-mounting brackets Rack mount for amplifier (optional)
AMPLIFIER FINISH	Black powder coated
AMP. DIMENSIONS (HxWxD) mm	88 x 241 x 425

Due to continuous improvements, all specifications are subject to change



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