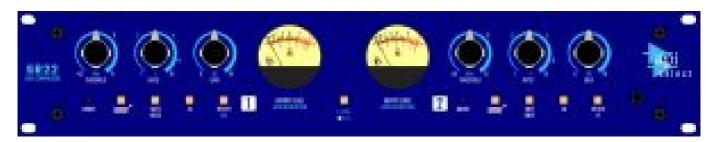


# **API Select SR22 Dual Channel Compressor User Manual**

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# 2 CHANNEL COMPRESSOR MODEL SR22 User Manual

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# **INTRODUCTION**

Thank you for choosing this API Select SR22 Compressor. The SR22 is a dual-channel compressor featuring two

channels of API's patented award-winning compressor circuit in a rack mount unit with an internal power supply. Each channel includes the patented THRUST switch to protect the sensitive high-frequency content of the audio signal even under the most vigorous of compression ratios. This is the same compressor circuit originally designed into all ATI Paragon mixing consoles. Audio Toys, Inc. (ATI) was founded in 1988 to manufacture audio equipment for live sound reinforcement use. The most revered product was the API Paragon P40 and later, its successor, the Paragon II mixing console. Paragons could be found on many of the top tours of the past 20 years. One of the many distinctive features of the Paragon was the inclusion of onboard dynamics processing – a gate and a compressor, both of which were the favorites of many of the top live engineers on the road. The compressor circuit from the Paragon is faithfully replicated in the API SR22.

ATI was able to acquire API In 1999. Today. the engineering approach and manufacturing processes of ATI have been incorporated into the company which has become API. The perfect companion to your SR24 EO. the SR22 compressor provides comprehensive easy-to-use control of the audio signal with custom VU metering of both output and gain reduction. While there are no Attack or Release controls, the SR22 uses an automatic timing circuit, which automatically varies the attack and releases characteristics in response to the audio signal passing through the unit. This results in very pleasing audio compression without the potential clicks and pops of either hard-edged attack or super-fast release Umes. The two channels can even be linked for use as a stereo compressor with two RMS power summing of the left and right signals.

#### **LAYOUT**

The API Select SR22 contains two identical channels of compression in a single chassis. sharing only a common ON/OFF switch.

Each channel features switches for the patented THRUST circuit. hard or soft knee. and bypass. Compressor controls are set via continuously variable potentiometers for threshold, compression ratio, and output makeup gain. The custom analog VU meter can be switched between monitoring output levels and gain reduction. with an additional LED to indicate when the input signal is above the set threshold level.

Rear panel connections include both balanced XLR connectors as well as balanced 114' jacks for both input and output.

# **FRONT PANEL CONTROLS**



(1 channel shown)

**POWER SWITCH** The front panel power switch turns power to the SR22 on and off.

**THRESHOLD** The Threshold control sets the signal level above which compression will occur and can be adjusted from .410dBu to +15d8u.

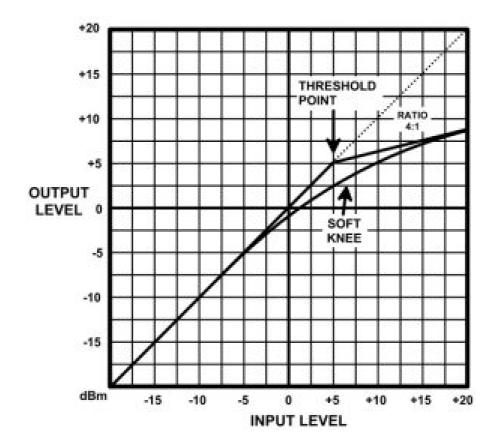
**ABOVE LED LED** will light when the input signal is above the set threshold level. Note that LED will light regardless of the state of the IN switch.

**RATIO** This control sets the compressor ratio, which is variable from 1:1 to 10:1.

**SOFT / HARD KNEE** When In the up 'Soft" setting. the compressor threshold knee is "rounded" (see graph).

THRUST OUTPUT LIVID. When the patented

THRUST circuit is engaged, a filter Is placed In front of the RMS detector. The result is preserved punchy bottom end while still compressing the overall signal.



# FRONT PANEL CONTROLS - continued



# GAIN

This control adds a variable OdB to +20d8 of make-up gain to compensate for compressor loss.

#### VII METER

The custom backlit analog meter shows either output VU level or gain reduction in dB. Note that the meter will always show output and gain reduction for the compressor controls in the circuit.

# **OUTPUT I GAIN REDUCTION**

This switch allows you to change each channel meter from output level to gain reduction. This switch is NOT linked as part of link mode, so you can monitor each channel how you would like.

# **IN! BYPASS**

When in the activated position, the channel is affected by the compressor controls. The bypass is a hard relay bypass. If the unit loses power, it will default to this hard relay bypass. This switch is NOT linked as part of the link mode, so you can still switch in and out of each channel independently.

**LINK** In link mode, channel A controls for threshold, ratio, gain. *THRUST*, and knee control are both channels. The audio signal from both channels is combined in true RMS power summing to create the compression control signal. Then the resulting compression is applied to both channels evenly for proper balance.

# **REAR PANEL**



#### **INPUT CONNECTORS**

The inputs to the SR22 can be either the 3 pin XLR-type balanced connector or the 1/4'' balanced (tip, ring, sleeve) jack. Note that if you were to connect to both connectors, the signal from the 1/4' jack takes priority. The input XLR connector is wired pin 2 hot (or +).

# **OUTPUT CONNECTORS**

The outputs of the SR22 can be taken from either the 3 pin XLR-type connector. or vla the 1/4" balanced TRS (tip, ring, sleeve) connector on the rear panel. Like the input, the output XLR connector is wired pin 2 hot (or +), and the 1/4" TRS connector is wired tip hot (or +). These two connectors are wired in parallel, so output audio will appear on both connectors.

#### **AC MAINS CONNECTOR**

The mains AC connector is the standard IEC-type 3 pin connector. The ground of this AC connector is Permanently internally connected to the chassis of the SR22 for safety. Be sure the Voltage Select switch is in the correct position for your country and the appropriate value fuse is in the holder before applying AC voltage to the SR22.

# **AC FUSE HOLDER**

When set to the 115V position use a 500mA GMA fuse with Slo-810 characteristics. At the 230V setting use a 250mA Sio-Blo fuse. It is important to change the fuse when changing the supply voltage.

#### AC VOLTAGE SELECT SLIDING SNATCH

For line voltages from 100y to 120V, set the switch to 115V. The 230V position is good for all line voltages from 200-240 Volts.

# **Technical Specifications – SR22**

Inputs: Balanced XLR (pin 2 hot) and 1/4" jack (wired by hot) (1/4' normalled priority) Outputs: Balanced XLR (pin 2 hot) and 1/4" (wired tip hot) parallel jacks Input Impedance: 15KOhms Balanced Bandwidth: +/- 0.5db. 20Hz – 50kHz THD+N @ 1kHz, +4dBu: <0.005% Maximum Level: +19dBu Signal-to-Noise Ratio: -88dBu (comp in), -92dBu (bypass). -106dB Crosstalk: <84dB @ 20kHz Stereo Link: True RMS Power Summing Meter: -20 to +3 VU Output Level, 0 to -15 dB Gain Reduction, switchable

**Compressor Controls:** Threshold Range: -40dBu to +15dBu Ratio Range: 1:1 to 10:1 Makeup Gain Range: OdB to +20dB Hard or Soft Knee switchable Flat or Thrust side chain filter switchable Attach Time: Program and Control Adaptive, 10mSec to 40mSec Release Time: Program and Control Adaptive. 30mSec to 400mSec Power Consumption: 12 Watts

Dimensions: 2U EIA 19" Rack Height: 3.5 Inches Width: 19 Inches Depth: 10 Inches Weight: 12 lbs (Specifications subject to change without notice)

# **API Limited Warranty and Service Information**

- a) Warranty Information: API products carry a one-year factory service and five-year parts warranty from the date of purchase. API (Automated Processes. Incorporated) does not covet dams for damage due to alteration anWor abuse This warranty Is limited to tenures during normal use. which are due to defects in material or workmanship. If arty defects are found in the materials prwcMnnnsho. or d Me product fails to function properly dump the applicable warranty period. API. al its option, wit repair or replace the product.
- **b) PLEASE NOTE**: The design Of Orkney of any non-authorized turd party service or vendor is behind my control of API. Therefore, use of NON-API VPR Alliance modules In any API product including consoles may VOID this warranty. Also, service or modification of any API unit except by an authorized API representative may VOID this warranty.
- c) API reserves the right to inspect any product mat may be the subject Of any warranty dawn before repair or replacement IS aimed Out Final determination Of warranty coverage lies solely with API.
- d) This warranty is extended to the original purchaser and to anyone who may subsequently purchase this

- e) For questions regarding the operation, interfacing, or service of your API product, please contact your API dealer Fran whom you purchased the unit. Many times, your authorized API dealer Is the fastest and most cost-effective way to maintain and service your product.
- f) The below steps are the best way to initiate the repair process or to submit a parts order request:

# Repair procedure:

- 1. FM out a Return AuthOrStatiOn(RA) ban at service.apiaudio.com.
- 2. Wart to receive an e-renal from API Audio with an RN&
- 3. Use the API original box to package the urns. Write the RAN large and legibly on the box (if the RAN is not clearly visible on the Pax, the wilt may be rejected by Our receiving department)
- 4. Maude copy of the RA form with the unit.
- Ship the product freight prepaid to:
  API SERVICE DEPARTMENT 8301 Patuxent Range Road Ste Al Jessup. MO 20794

# Parts Order procedure:

- 1. Fill out onine PO form (for parts and parts numbers not liSted online Meese MI out PO form with your name. email. contact phone and shipPIMaddrosa and describe the Pall you need).
- 2. Submit online PO form.
- 3. API will e-mail you back with pert numbers and procedure how to Order/pay
- g) This is your sole warranty. API does not authorize any thin( party, initialing any darter or sales representative. to assume MOHO on behalf Of API or SO Make any warranty For API.
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- i) This warranty provides specific legal rights and you may have other rights. which vary from Rate to state.



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# **Documents / Resources**



# API Select SR22 Dual Channel Compressor [pdf] User Manual SR22, Dual Channel Compressor, SR22 Dual Channel Compressor, Compressor

Manuals+,