

# FSC 22 Stereo Compressor

## General Description

The FSC 22 Stereo Compressor/Limiter is a two channel dynamic processor based on the successful and proven technology of the popular Rane DC 24 Dynamic Controller. The FSC 22 even enhances some of the DC 24's features and control. In addition to the Compressor's **RATIO** and **THRESHOLD** controls, the FSC 22 includes a **SYSTEM RESPONSE** pushbutton allowing selection of Fast/Slow attack/release times.

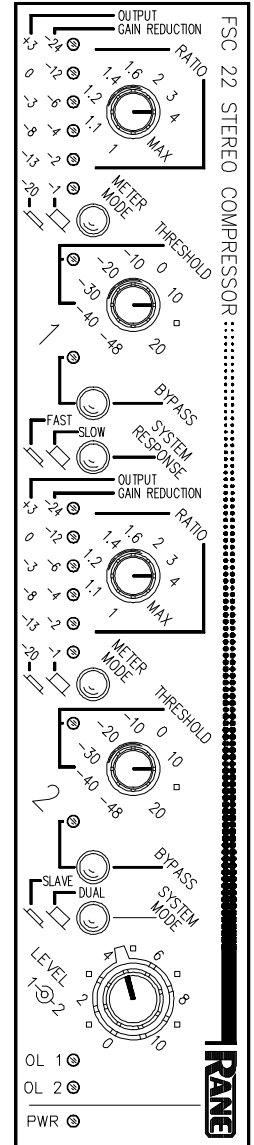
Using the FSC 22's unique **METER MODE** switch allows the **GAIN REDUCTION** meters to double as **OUTPUT LEVEL** indicators, a feature invaluable during set-up. Equally useful are the

**BYPASS** switches for comparing processed versus unprocessed signals. And being passive, should the power fail for any reason, engaging these pushbuttons restores the signal path.

As in the DC 24 the **DUAL/SLAVE** switch allows the FSC 22 to operate either as an independent two Channel (Dual mono) unit, or as a strapped stereo pair (Slave). In the Slave mode, either channel exceeding the threshold setting causes both Channels to compress equally. This preserves dynamic spectral balance and stereo imaging, a critical feature for recording. The rear-mounted Input Trim switch allows processing either -10dBV or +4dBu levels.

## Features

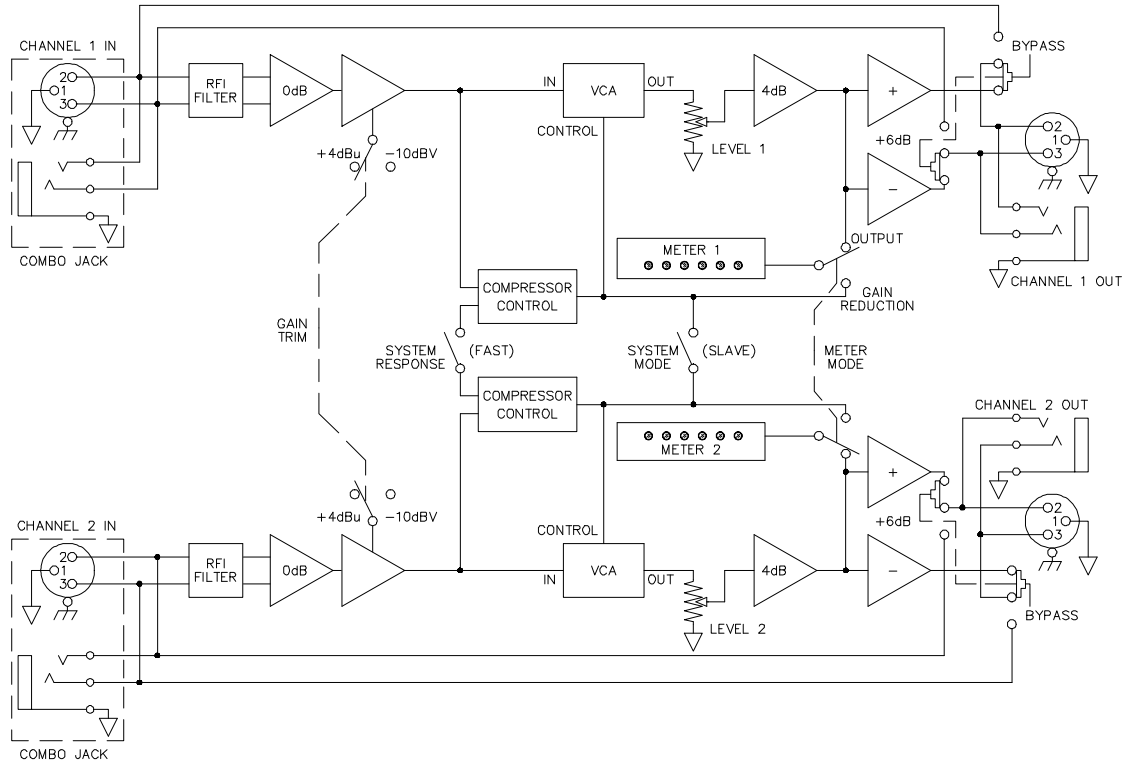
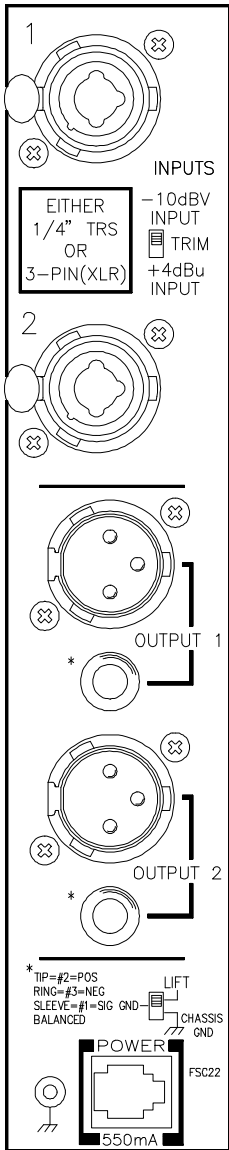
- **STEREO COMPRESSOR/LIMITER**
- **RATIO CONTROLS**
- **THRESHOLD CONTROLS**
- **FAST/SLOW RESPONSE SWITCH**
- **DUAL/SLAVE MODE**
- **PASSIVE BYPASS SWITCHES**
- **3-PIN & ¼" TRS BALANCED CONNECTORS**
- **DUAL MODE GAIN/OUTPUT METERS**
- **RFI INPUT FILTERS**
- **+10dB OVERALL SYSTEM GAIN**
- **OVERLOAD INDICATORS**
- **GROUND LIFT SWITCH**
- **-10dBV / +4dBu GAIN SWITCH**
- **UL/CSA/IEC REMOTE SUPPLY**



Parameter	Specification	Limit	Units	Conditions/Comments
Inputs/Outputs: Type	Active Balanced			
.....Connectors	3-Pin & ¼" TRS Combo			
.....Input Impedance	40k	1%	Ohms	Balanced; Instrumentation
.....Output Impedance	200	1%	Ohms	Balanced
.....Maximum Input Level	+26	1	dBu	
.....Maximum Output Level	+26 (+20)	1	dBu	2k (600) Ohms
Threshold Range	-48 to +20	5	dB	
Ratio Range	1:1 to Max (10:1)	10	%	
System Response	Slow: 0.5/0.1 (Attack/Release)	5%	dB/ms	1kHz 20dB change
	Fast: 2.0/0.5 (Attack/Release)	5%	dB/ms	1kHz 20dB change
Overall Gain Range	Off to +10	0.5	dB	
Overload Thresholds	4dB Below Clipping	1	dBu	
Frequency Response	20-20kHz	+0/- .5	dB	
	10-140kHz	-3	dB	
THD+Noise	0.05	.01	%	+4dBu, 20-20kHz
Signal-to-Noise Ratio	92 (Balanced Out)	2	dB	Unity Gain re +4dBu, 20kHz BW
Maximum Current	550		mA	RMS Current From Remote Supply

**Rear Panel**

**Block Diagram**



**Application Information**

Following standard tradition, the FSC 22 is referred to as a “Compressor/Limiter” because the range of the Ratio control on the Compressor is wide enough to accommodate both gentle compression and harder limiting effects. Not, however, simultaneously. You must make a choice between the two modes of operation.

Use as a Limiter simply requires setting the Ratio control fully clockwise to “Max,” and the Threshold control to the required level. The “Max” position guarantees a minimum of 10:1 compression, but typically runs about 20:1. So a 10dB increase in input level results in no more than a 1dB increase in output level.

For Compression, the Ratio control is set for the amount of desired gain reduction for all signals exceeding the Threshold setting. For example, if the Ratio is set to “2” (i.e., 2:1) then an increase in input level of 10dB results in an increase in output level of 5dB—2:1 compression.

Use the FSC 22 Meter Mode switch and dual silkscreened calibration marks as an aide in set-up. Engaging the pushbutton (Output Mode) allows you initially to watch output levels while setting the Input Trim and Level controls, then releasing the pushbutton changes the meter back to the Gain Reduction mode for monitoring purposes.