Fully automatic dual-channel feedback suppressor

Instructions for use

V1.0

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Chapter 1 Introduction

Thank you for trusting and selecting our products! This device is a high-performance dual-channel feedback suppressor equipped with 2 analog balanced inputs and 2 analog balanced outputs. It is designed for sound reinforcement for high-quality sound reinforcement. Provide professional feedback suppressor effects, and patented frequency shift + wave limiting algorithm to achieve feedback suppression effects with high sound quality and low noise. The operation is simple and clear, and is equipped with an RS-485/USB interface for rapid configuration, remote debugging and monitoring.

Application

    □ Meeting Room □
    Court □ Auditorium
    □ Multi-functional
    hall □
    Performance

Function Features: □ High-performance professional audio processor with DSP technology □ 32-bit floating-point DSP, 24-bit AD/DA, 96K sampling frequency □ Device provides RS-485/USB connection management function □ 2 balanced inputs, 2 balanced outputs □ Shift frequency ±10Hz adjustable □ Built-in 48 notch filters, 12 static notch filters + 12 dynamic notch filters per channel □ Fully automatic feedback suppression function, 5 preset levels □ Input and output provide compressor and noise gate functions □ Each channel provides 7-band PEQ and high/low pass settings □ One-button BYPASS, panel button lock function
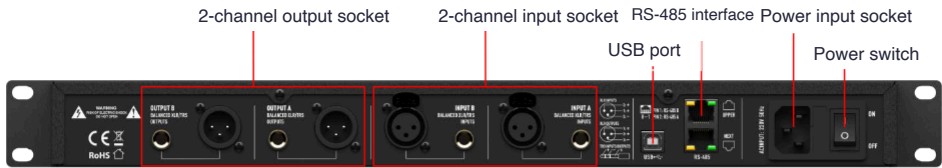
Technical parameters

Signal processing	32-bit fixed/floating-point DSP
Audio system delay	<1.9ms
Digital to analog conversion	24-bit
Sampling rate	96khz
Frequency response range	20Hz~20kHz
Total harmonic distortion	< 0.014% THD+D
Signal-to-noise ratio	108dB (A weighted), 106dB (no weighted)
Dynamic range	110dB
Input interface	2-channel XLR / 2-channel 1/4"TRS (female) balanced input
Input impedance	Balanced 50Ω, unbalanced 10KΩ
Output interface	2-channel XLR / 2-channel 1/4"TRS (female) balanced output
Output impedance	120
Maximum input level	2V RMS
Maximum output level	2V RMS
Function	Noise gate, frequency shift, notch, EQ, compression limiter
Feedback suppression method	Frequency shift + automatic wave limit, optional
Communication interface	RS-485 interface, USB Type-B
Display	LCD2002
Indicator light	Power supply, input and output audio signals, direct access
Power requirements	AC 220V-50Hz
Operating temperature	-20 °C ~+60 °C
size	482x44.5x265mm
Packaging size	550x80x395mm
net weight	3.2 kg
Gross weight	4.2 kg

Chapter 3 Functional structure

panel

Display indicator light   Function buttons

Back plate

2-channel output socket   2-channel input socket   RS-485 interface   Power input socket

USB port   Power switch

Chapter 4 Quick Use

1. Audio input and output connection

XLR socket connection instructions

输出   输入

PUSH

1 —— 2   2 —— 1

3   3

1：接地（屏蔽）   2：热端（信号+）   3：冷端（信号－）
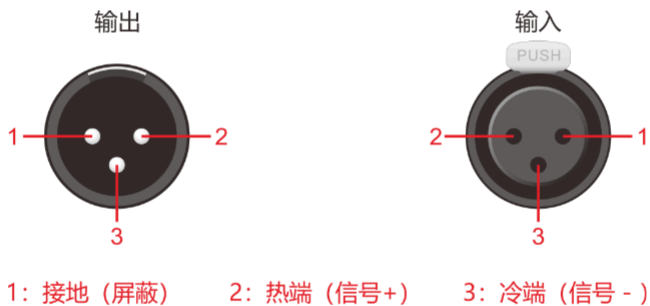
1/4" TRS socket connection instructions

+ −

2. RS-485 connected to this device RS-485 uses
dual RJ45 network ports for easy series connection

PIN 1: RS-485 B
8 ~ 1   PIN 2: RS-485 A

3. The MODE button on the feedback mode selection panel is used to switch the feedback suppression mode function. Five-speed modes are available, where MODE1, MODE2, and MODE3 are non-changeable preset modes. MODE4 and MODE5 can be set up and stored through dedicated PC software.

Mode switch button
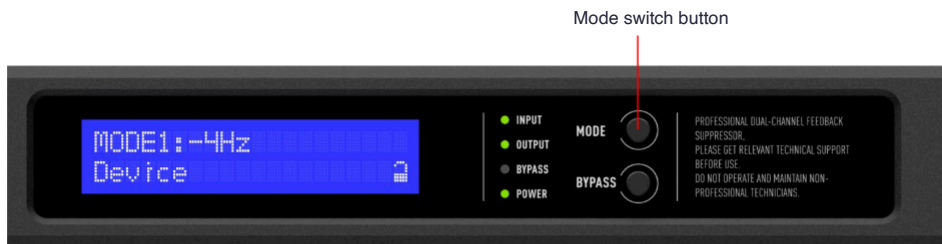
Note: The device will be muted for 3 seconds during mode switching!

4. Debug and reset notch In MODE3 or custom notch function mode, the upper right corner of the display will display the total number of notch set by dual channel/number of notch that has been effective. Debugging: Gradually increase the microphone gain to a whistle. After the device grabs the notch point, slowly increase the gain until all the set notch number is captured and the gain is appropriately reduced. Reset: When you need to re-debug the notch mode, press the "MODE" button for 3 seconds. The notch that has been active in the upper right corner of the screen will be reset and 00 will be displayed.

Total number of notchers set   Press and hold for 3 seconds to reset

Total number of notchers that have been in effect
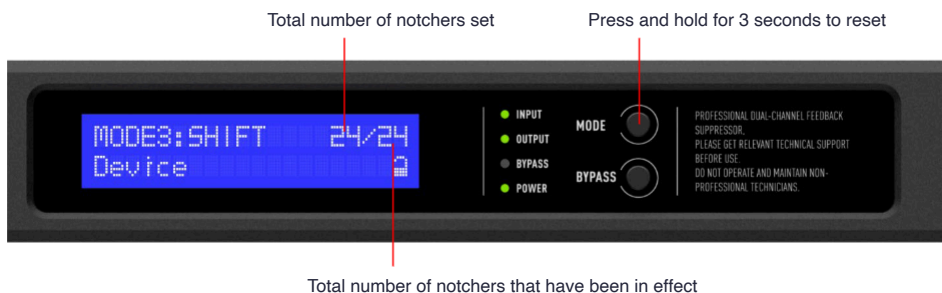
5. When direct-through is required during debugging, press the "BYPASS" button on the lower panel. The BYPASS red indicator light indicates that the current BYPASS direct-through state is in the BYPASS direct-through state. Pressing the "BYPASS" button again will turn off this function. Warning: All functions are suspended in BYPASS state and are in signal pass-through state. Pay attention to the system volume to avoid damaging the products in the system!

6. After the debugging is completed, the panel buttons can be locked as needed to avoid misoperation. Press "BYPASS" for 3 seconds to lock the panel button, and press again for 3 seconds to unlock.

Unlocked status

Locked state