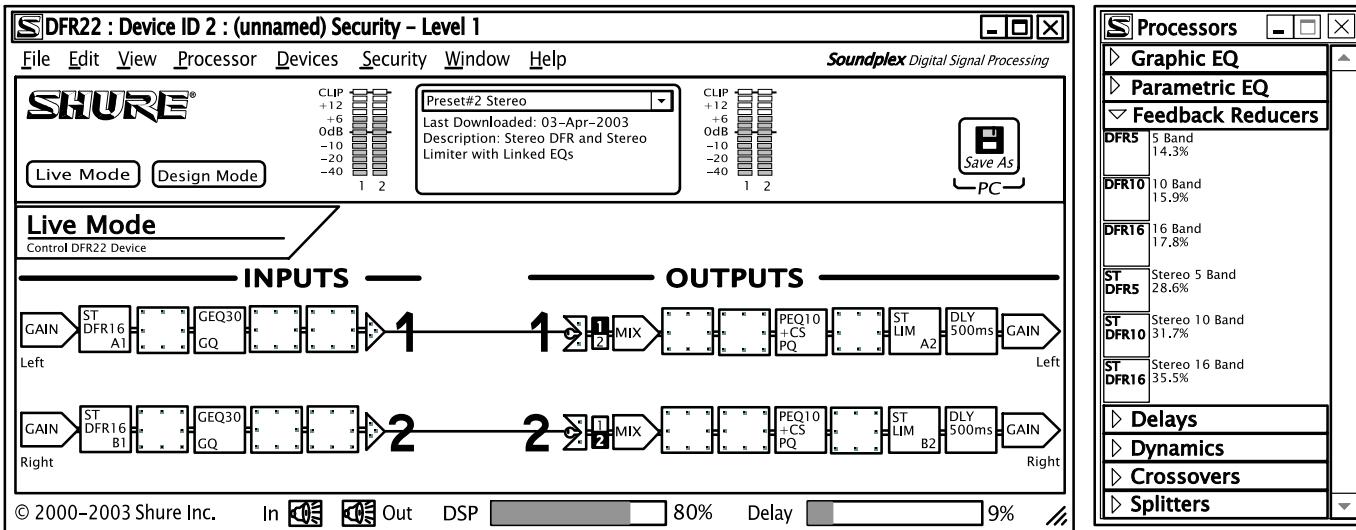


DFR22 AUDIO PROCESSOR

DESCRIPTION

The DFR22 is a full-featured 2x2 audio processor featuring Shure's patented automatic feedback reduction. It also includes equalization, dynamics processing, delay, matrix mixing, and a 2-way crossover. It is configurable using Shure's intuitive drag-and-drop software interface. It also functions as an out-of-the-box two channel feedback reducer that does not require a computer for configuration.

SOFTWARE FEATURES



The primary interface for the DFR22 is a Windows-based software program that mimics the functional block diagrams used in sound system design. Unlike many other DSP products that constrict freedom with preset templates, the processing blocks in the DFR22 can be applied in any order, to any input or output. Processing blocks can be copied and pasted to duplicate processors across multiple channels. They can also be linked for more efficient stereo or global control.

With the DFR22, the entire system can be designed, saved to disk, and loaded at the job site for easy set up. The DFR22 also allows real-time design changes, so processing blocks can be added, removed or changed during system tuning. The security options allow complete lock of the system to prevent undesired tampering or to restrict user access to certain parts of the system. Control input pins allow connection of potentiometers, contact closures, and Shure's DRS10 for remote control of preset changes, volume, and muting.

PROCESSORS

DFR Automatic Feedback Reduction

- 5-, 10-, and 16-filter single-channel and stereo modules
- Frequency resolution: 0.1 Hz
- Filter width: 1/10 to 1/70 per octave

EQ and Shelving

Cut/Shelf Equalizer

- High/low shelf filters: 6 and 12 dB/octave slopes, 18dB boost/cut
- High/low cut filters: 6, 12, 18, and 24 dB/octave slopes
- High/low cut filter types: Butterworth, Bessel and Linkwitz-Riley

Graphic Equalizers

- 10- and 30-band modules
- Combining and non-combining

Parametric Equalizers

- 3, 5, 7, and 10 filter modules, plus cut/shelf filters
- Bandwidth: 1/70 to 4 octaves
- Filter depths: up to 18dB

Crossover

- Independently adjustable slopes
- Butterworth, Bessel & Linkwitz-Riley up to 24 dB/octave

Dynamics Processing

Automatic Gain Control

- Maximum boost: 12dB

Compressor/Limiter

- Selectable soft knee or fixed hard knee
- Single-channel or stereo
- Peak Stop (look-ahead) limiter

Ducker

Gate and Downward Expander

Delay

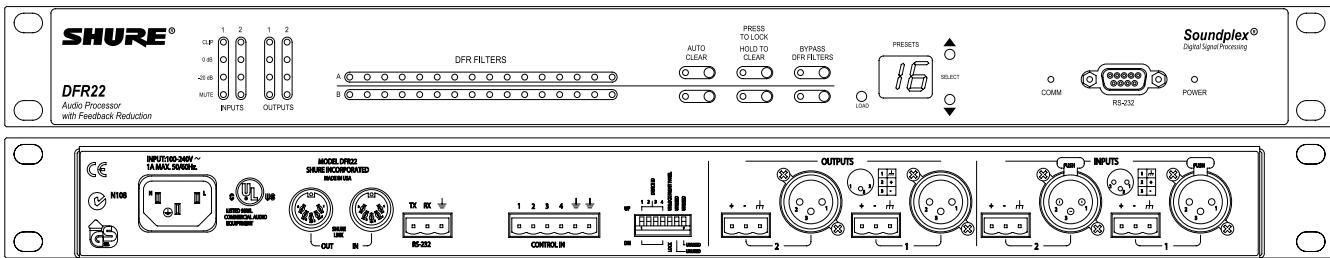
- 10 seconds of available delay memory
- 20 microsecond resolution

Matrix Mixer

- Routes any input to any output
- Independently adjustable crosspoint gain, muting, and polarity

DFR22 AUDIO PROCESSOR

HARDWARE SPECIFICATIONS



Frequency Response

20 Hz to 20 kHz +/- 1dB

Dynamic Range

110 dB minimum, A-weighted, 20 Hz to 20 kHz

Digital-to-Analog, Analog-to-Digital Conversion

24 bit

Impedance

Input: 10 kΩ

Output 120 Ω

Input Clipping Level

+24 dBu minimum

Output Clipping Level

+24 dBu

+12 dBu with 12 dB pad engaged

+6 dBu with 18 dB pad engaged

Total Harmonic Distortion

< 0.05%, +4 dBu, 20 Hz to 20 kHz

Propagation Delay

< 1.5 ms. Processing blocks add no latency

Polarity

Input to output: non-inverting (inverting optional)

Operating Voltage

100-240 VAC, 50/60 Hz (auto-switching), 1 A, maximum

Maximum Power Drain

45 W

Temperature Range

Operating: -7° to 49° C (19° to 120° F)

Storage: -29° to 74° C (-20° to 165° F)

Dimensions:

482.6 mm x 247.7 mm x 44.4 mm

(19 in. x 9.75 in. x 1.75 in.)

Weight

2.83 kg (6.25 lbs.)

Furnished Accessories

Power Cable (DFR22)	95A8389
Power Cable (DFR22E)	95A8247
5-pin DIN Shure Link Cable	95A8676
Hardware Kit	90AJ8100
4 Block Connector Terminals, 3-pin (for audio inputs and outputs)	
1 Block Connector Terminal, 6-pin (for control input)	
4 Rack mount Screws and Washers	

Optional Accessories

DRS-10 wall plate unit with 10-position rotary switch for preset control

Certifications

cULus. Listed and cUL Listed to UL 6500 and CSA E60065. Authorized under Verification provision of FCC Part 15 as a Class B Digital Device.

This Class B digital apparatus complies with Canadian ICES-003.

Conforms to European Union Directives, eligible to bear CE marking. Meets European Union Low Voltage Requirements: TÜV GS-Certified to EN 60065. Meets applicable tests and performance criteria in European Standard EN55103 (1996) parts 1 and 2, for residential (E1) and commercial and light industrial (E2) environments.

Note: EMC conformance testing is based on the use of supplied and recommended cable types. The use of other cable types may degrade EMC performances.

EMC conformance testing is based on the fact that the computer is used for setup purposes only and disconnected during EMC testing.

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