



PSR1212 Digital Matrix Mixer

The PSR1212 is a highly-advanced 12x12 digital matrix mixer with audio processing. It uses an internal macro language and 32 user-definable presets to quickly adapt to a variety of sound reinforcement and room-combining applications.

The PSR1212 facilitates local and remote PC setup and diagnostics. Microphone inputs can be individually customized to gate on and off as you wish, while automatic gain control keeps the overall sound level consistent.

All microphone mixing parameters can be customized and any combination of inputs can be routed to any combination of outputs, allowing flexibility in accommodating different applications and customer requirements.

Adjustments in routing, level, and other functions can be made through an RS-232 serial interface or buttons connected to the rear panel.

Basic operational functions can also be controlled remotely with the optional ClearOne Select Control Panel or Volume Control Panel.

The PSR1212 features eight audio processing buses. Each bus has 15 filters which can be configured as parametric, high pass, low pass, CD horn, high shelving, low shelving, all pass, or crossover. Each bus also includes delay and compressor functions. This allows you to tailor the PSR1212's audio response to optimize the audio quality and fidelity characteristics of a wide variety of sound reinforcement systems.

Macro Pro, a scripting language, enables sophisticated control without the need for an expensive external control system. This gives you real-time flexibility to meet a variety of audio reinforcement and room-combining requirements.

A digital audio and control bus allows up to eight PSR1212s to be connected and controlled as a single unit.



The PSR1212 quickly adapts to a variety of sound reinforcement and room-combining applications.

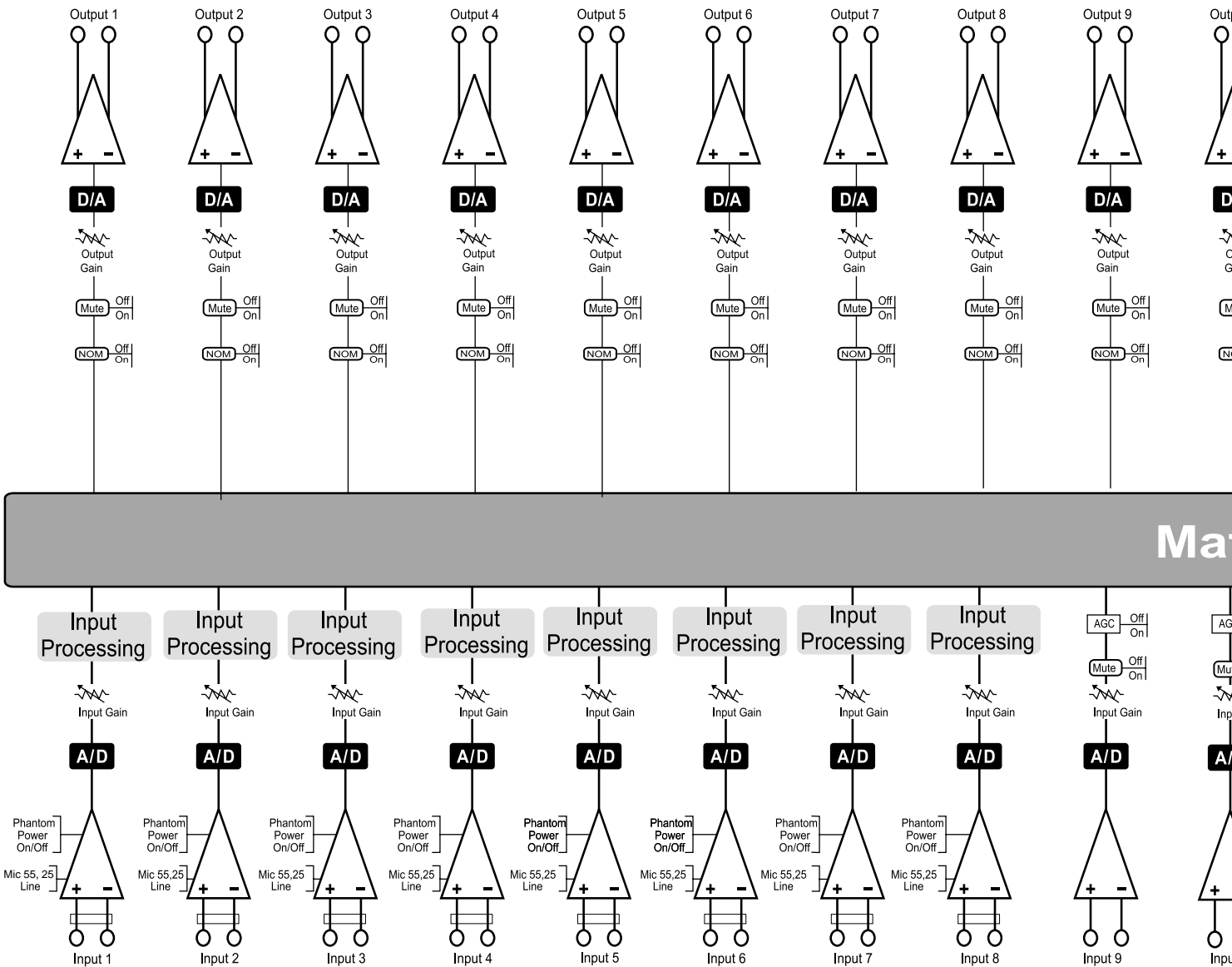
Features and Benefits

- 12x12 matrix with level control at the cross points
- Eight audio processing buses that can be placed anywhere within the matrix mixer audio path
- Eight-channel automatic microphone mixer with four line inputs. The mixer operates across linked units
- Input gain, configurable audio processing, muting, and automatic mixer are programmable per input channel (inputs 1–8 only)
- All interconnected devices can be accessed, controlled, and programmed via a single RS-232 connection
- Program, operate, and diagnose with a connected PC (direct or via modem) or other serial remote-control device
- Front panel control of gain and mute
- RAMP serial command for greater control over gain adjustments
- Clear Matrix button makes it easy to clear cross points
- 32 programmable presets for instant configuration changes
- Allows grouping of mics across four automatic mic mixers within a single PSR1212
- Internal room-combining capabilities

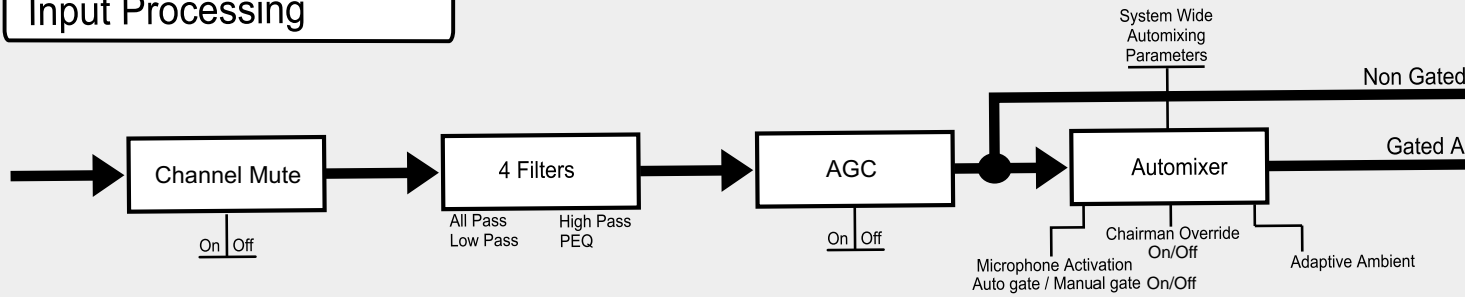
Applications

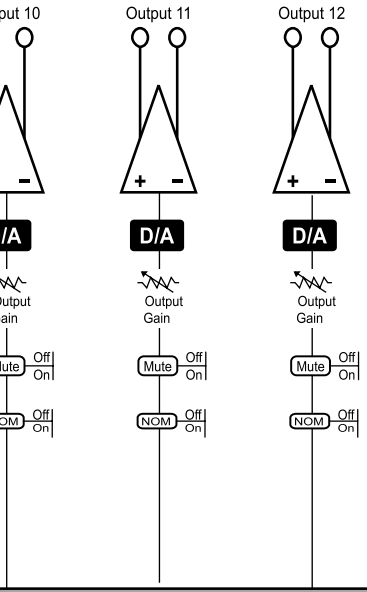
- Hotels and Convention Centers
- Auditoriums
- Stadiums
- Conference Rooms
- Houses of Worship
- Theaters

The PSR1212 is manufactured and marketed by ClearOne, formerly Gentner.

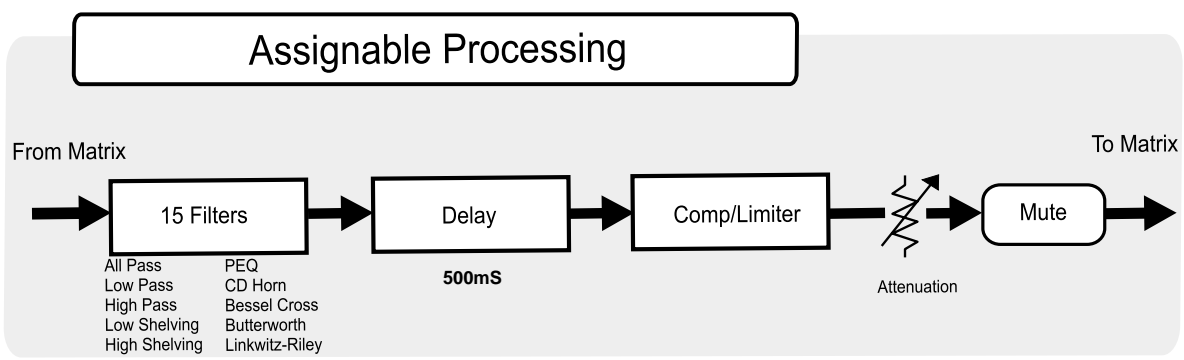
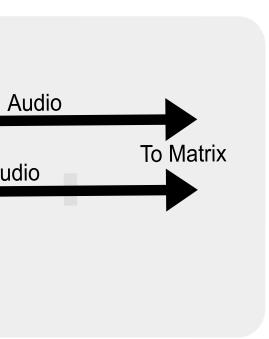
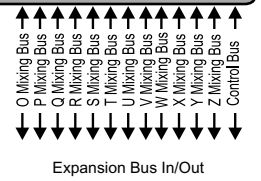
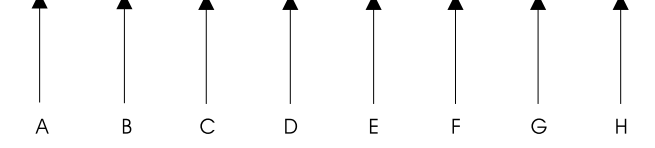
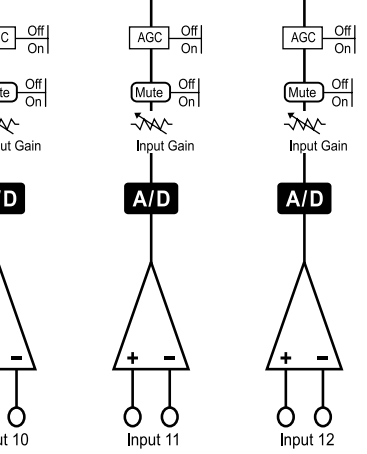
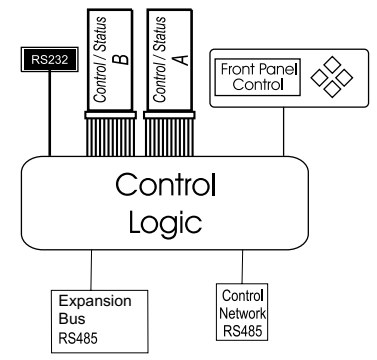
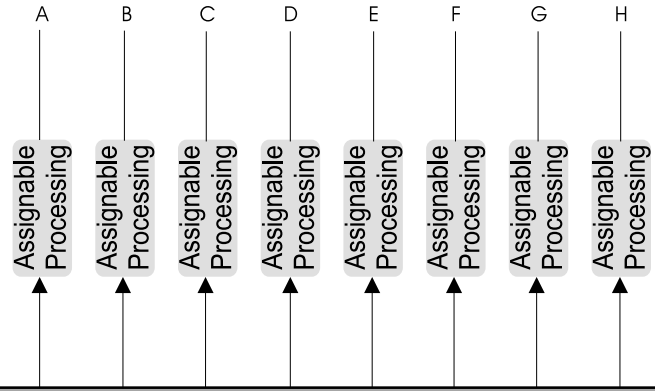


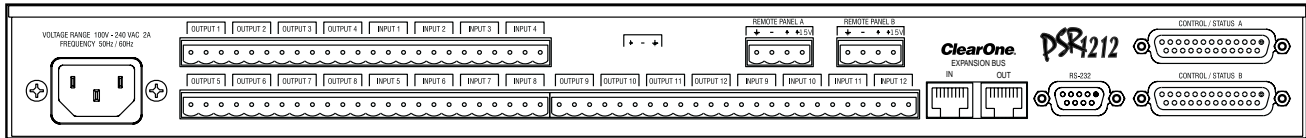
Input Processing





Processing outputs are looped back to matrix





Specifications

Dimensions (LxDxH)

17.25" x 10.25" x 1.25"
43.8 x 26 x 4.5 cm

Weight

7 lb/4.5 kg dry
12 lb/5.9 kg shipping

Operating Temperature

32–100° F/0–38° C

Humidity

15% to 80%, non-condensing

Power Input Range

Auto-adjusting
100–240VAC; 50/60Hz

Power Consumption

30W typical

Expansion Bus In/Out

Proprietary Network
RJ-45 (2), 115.2kbps, 110k Ω impedance
Category five twisted-pair cable
80' (24 meters) maximum cable length
between any two PSR1212s, XAP 800s or
XAP 400s

RS-232

DB-9 female
9,600 /19,200/38,400 (default)/57,600
baud rate; 8 bits, 1 stop, no parity
Hardware flow control on (default)/off

Control / Status

DB25 female A/B (2)
Inputs A/B: active low (pull to ground)
Outputs A/B: Open collector, 40VDC max,
40mA each
+5VDC pins (2) (300mA over-current
protected)

Remote Panels A/B

4-pin push-on terminal block
RS-485 proprietary protocol

Cat five twisted-pair cable

1 pair data, 1 pair power and ground
+15VDC (300mA over-current protected)

Mic/Line inputs 1-8

Push-on terminal block, balanced, bridging
Impedance: 5k Ω
Nominal Level: adjustable -55dBu, -25dBu,
0dBu
Maximum Level: -35dBu, -5dBu, +20dBu
Phantom Power: 24V, selectable

Line Inputs 9-12

Push-on terminal block, balanced, bridging
Impedance: > 10k Ω
Nominal Level: 0dBu
Maximum Level: 20dBu

Outputs 1-12

Push-on terminal block, balanced
Impedance: 50 Ω
Nominal Level: 0dBu
Maximum Level: 20dBu

Audio Performance

Conditions: Unless otherwise specified all
measurements are performed with a 22Hz
to 22kHz BW limit (no weighting).
Frequency Response: 20Hz to 20kHz
 \pm 1dB
Noise (EIN): -126dBu, 20kHz BW, max
gain, $R_s=150\Omega$
THD+N: <0.02%
SNR: 80dB re 0dBu, (A-weighted)
Dynamic Range: 100dB (A-weighted)
Crosstalk <-91dB re 20dBu @ 20kHz
channel to channel

Approvals

FCC, CSA, IC, CE, NOM, ACA, SABS, JATE

Assignable Processing Blocks

Filters:
All pass
Low pass
High pass
Low shelving

High shelving

Parametric EQ

Notch

CD Horn

Crossovers:

Bessel

Butterworth

Linkwitz-Riley

Compressor

Delay adjustable up to 500ms

Matrix Mixing Parameters

32x32 matrix
12 analog in/out
12 expansion bus in/out
8 assignable processing blocks in/out

Auto Mixer Parameters

Number of Open microphones (NOM)
PA Adaptive Mode
First Mic Priority Mode
Last Mic Mode
Maximum # of Mics Mode
Ambient Level
Gate Threshold Adjust
Off Attenuation Adjust
Hold Time
Decay Rate

Microphone Input Configuration

Input Gain Adjust
Mic or Line Level
Phantom Power on/off
Filters
All Pass
Low Pass
High Pass
Notch
PEQ
Mute on/off
Chairman Override on/off
AGC on/off
Auto Gate/Manual Gate
Adaptive Ambient on/off

Set-up Software

G-Ware™