

# dbx

# 208

## 8-channel simultaneous record & play professional tape noise reduction system

The dbx 208 is a classic compressor/expander (componder) tape noise reduction system. In recording, the system compresses the input signal by a factor of 2:1 which reduces the dynamic range of the program to fit conveniently within the limits of the tape recorder. High level signals are reduced so that the maximum recording level can be set well below the point of tape overload. Quiet passages are increased in level to place them on the tape well above the tape hiss level or electronic background noise floor of the equipment.

During playback, the expander recreates a precise mirror image of the original input, including preservation of full dynamic range, but without any of the hiss which normally accompanies the tape recording process. The dbx 208 is the most effective noise reduction system available, and contributes no unwanted audible side effects.

The dbx 208 professional tape noise reduction system consists of eight noise reduction modules, each containing independent record and playback electronics, mounted in a 5¼" standard rack panel, with a ninth (spare) module occupying a dummy slot for instant availability if a substitution should be necessary. Simultaneous record/playback capability permits the noise reduced, decoded program to be played back from tape through the monitors while recording is in progress and eliminates any switching of the noise reduction system when changing from the record to playback mode.

The dbx 208 is a self-contained system with a built-in power supply. Signal cables are supplied with 27 pin gold connectors, mating to the 208 system and XLR-3 connectors on other end. Supplied cables are 10 feet long. Inputs can be fed from any balanced or unbalanced source up to 5 k ohms. Outputs are unbalanced and will drive any line or load including standard 600 ohm lines and equipment. Screwdriver adjust record and play level controls are accessible at the front panel for convenient balancing of system levels.

Panel controls include power on-off switch, noise reduction or bypass switches on each channel, and LED function indicators. When the front panel switch is in the bypass position the noise reduction circuitry is hard-wired out of the system. Rear panel connectors permit direct bypassing by mating male and female connectors.

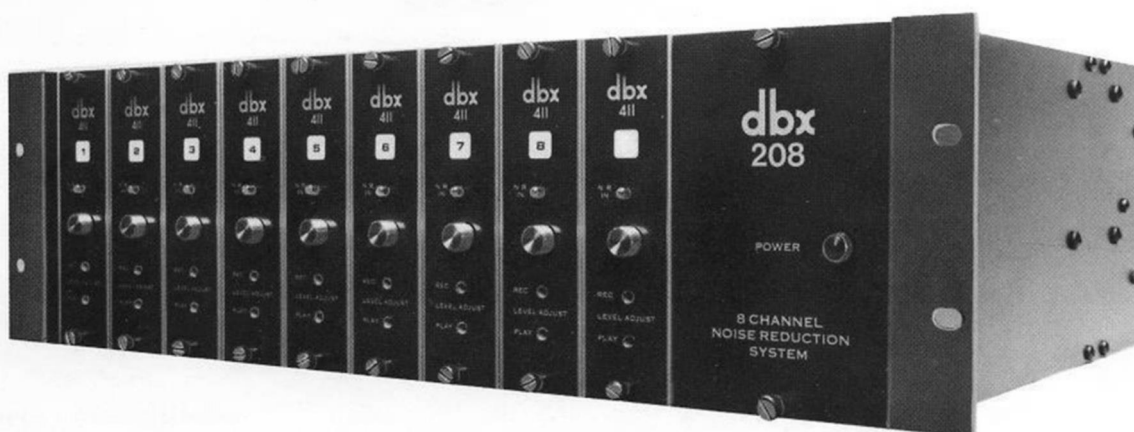
### Application

The dbx 208 is designed for use with any multi-track tape recorder. When properly used the 208 will permit the recordist to produce a master tape which fully preserves the dynamic range of the live music and is completely free of audible tape hiss and distortion due to tape overload.

The 208 tape noise reduction system is designed for installation between the mixer or microphone preamplifier outputs and the line level inputs to the tape recorder. It requires no controls or operating adjustments in use. It is compact and light in weight and can easily be taken into the field on remotes or on location jobs. Tapes recorded on the 208 may be played back on any dbx professional tape noise reduction system.

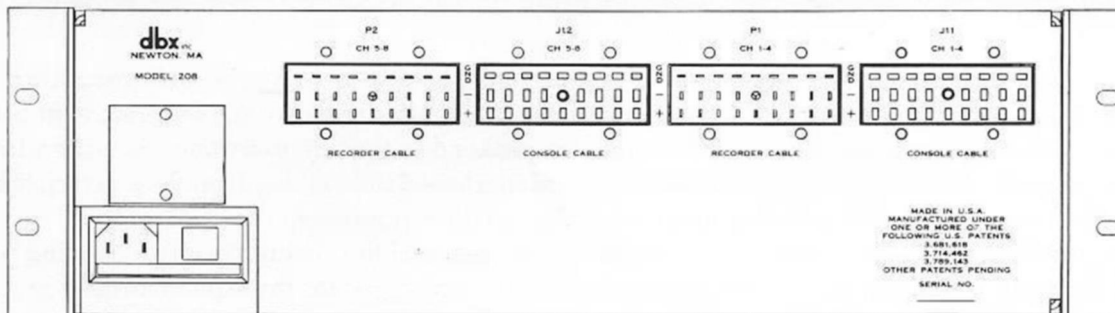
### Features

- fully compatible with all dbx professional studio noise reduction systems
- modular design with spare plug-in module to eliminate down-time
- more than 30 dB noise reduction
- 10 dB additional recorder headroom
- no level match tones required
- balanced inputs with 27 pin gold plated connectors, unbalanced outputs (same connectors)





front panel



rear panel

## Specifications

### Input impedance

20 k ohms balanced

### Input level

+26 dBm max. (15.5 V RMS)

### Equivalent input noise

-88 dBm 30-20,000 Hz  
(30 V RMS)

### Input unity level

adjustable; record  
(100 mV to 3V) -18 to +12 dBm;  
play (300 mV to 3V) -8 to +12 dBm

### Output impedance

25 ohms, unbalanced

### Output level

+26 dBm max. into 10 k ohms bridging;  
+24 dBm max. into 600 ohms

### Effective noise reduction

30 dB plus 10 dB of headroom

### Frequency response

±1 dB 30-20,000 Hz for the complete encode  
and decode cycle

### Distortion

0.3% THD code and decode;  
0.05% above 1 kHz

### Crosstalk isolation

Greater than 70 dB

### Connectors

27 pin gold plated connectors  
(4 channels per connector)  
arranged to permit bypassing by mating male  
and female connectors

### Dimensions F208 main frame

5¼" H × 19" W × 13⅛" D  
(13.3 cm × 48.3 cm × 33.3 cm)  
depth with connectors and wiring allowance  
= 16.50" (419.10 cm)

### Dimensions 411 Module

5¼" H × 1½" W × 9⅝" D  
(13.3 cm × 3.8 cm × 24.4 cm)

### Weight

with modules = 19.2 lbs. (8.71 kg)  
without modules = 11.6 lbs. (5.26 kg)  
module alone = 13.5 ozs. (383 g)

### Power line requirements

100, 120, 220, 240 VAC, 50/60 Hz externally  
switchable at rear panel

### Power consumption

40 watts nominal

### Warranty

dbx products are covered under a limited war-  
ranty (parts and labor) for two years from date of  
original purchase.

# dbx®

Professional Products Division  
dbx, Incorporated  
71 Chapel Street  
Newton, Mass. 02195  
617/964-3210

Specifications subject to change without notice. Manufactured under one or more of the following U.S. patents: 3,681,618; 3,714,462; 3,789,143; 4,101,849; 4,097,767. Other patents pending. dbx® is a registered trademark of dbx, inc.