

# D400

# Digitimer

## D400 Multi-channel Mains Noise Eliminator

50/60Hz & Harmonics • 2, 4 & 8 Channel Versions • No waveform distortion



### Mains Noise Removal without Distortion

The Digitimer D400 is a multi-channel, standalone, mains noise eliminator for real-time removal of 50/60Hz mains interference from electrophysiological or other analogue voltage signals, prior to data acquisition. The D400 is unique as a multi-channel, standalone noise eliminator, as it does not require a specific acquisition system or software.

### 50Hz or 60Hz and Harmonics

Not only does the D400 remove mains noise in the 50Hz to 60Hz frequency, but it is also highly effective at removing associated harmonics of these frequencies. Unlike standard mains Notch filters, this method of noise removal is not detrimental to signals of interest that lie within the 50 to 60Hz frequency range.

### Rapid Realtime Removal of Mains Related Interference

Noise removal occurs in real-time through the construction of a “noise template” which constantly evolves, so that any changes in the amplitude or other characteristics are corrected for. Importantly, the signal pathway throughout the D400 is analogue, preserving data integrity.

### 2,4 & 8 Channel Units with Independent Signal Channels

The D400 is now available in 2,4 and 8 channel variants, with each channel operating completely independently from the others and using its own, unique noise template.

### Software control of individual channels or global front panel control

Manual controls on the D400 provide global adjustment of all channels, however, the D400 also features a USB connection and is supplied with Windows compatible software, allowing settings to be adjusted on a per channel basis.



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## D400 Specifications Summary

**Number of Channels:** 2 (D400-2), 4 (D400-4) or 8 (D400-8)

**Input voltage range:**  $\pm 10V$

**Output Voltage Range:**  $\pm 10V$

**Frequency Response:** DC to 1MHz

### Front Panel Controls:

- **Clear** - Erases existing noise templates
- **Pause** - Freezes existing noise templates
- **Bypass** - Pass-through of raw signals to outputs

### Front Panel Indicators:

- Power (Green)
- Signal (Green) & Template (bi-colour Green or Amber)

### Inputs/Outputs

- BNC input and output sockets (one pair per channel) (D400-2 and D400-4 only)
- Combined signal inputs/ outputs via pair of 9-way "D" connectors
- Equipotentiality Connector
- USB socket for connection to host PC
- Mains power inlet socket

### Supplied Accessories:

- Mains Lead
- Windows Software supplied on USB flash drive
- 9-way "D" to multiple BNC input cable
- 9-way "D" to multiple BNC output cable
- USB cable

**Operating Voltage Range:** 100V - 240V

**Dimensions:** 200mm (W) x 275mm (D) x 110mm (H) **Weight:** 2.5kg

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