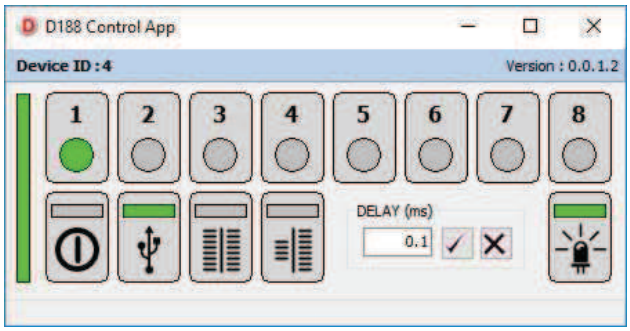
D188 Remote Electrode Selector

Overview

The D188 Remote Electrode Selector can be used to direct electrical stimuli from a single electrical stimulator to one of up to eight pairs of stimulation electrodes. It is particularly useful in applications where a stimulus needs to be presented to several stimulation sites, one site at a time, but only one electrical stimulator is available. A minimum of four TTL compatible digital inputs are required to permit external control of channel switching events, while the D188 can also be manually controlled via the supplied Windows compatible software. A pair of touch-proof stimulus input sockets is provided for connection to a compatible electrical stimulator and there are eight pairs of touch-proof stimulus outputs (channels), numbered from 1 to 8, each associated with a green LED to show when they are active. These LED's can be turned off for situations where it is important that the subject or operator should not know which channel is active.

High Voltage Compatibility

The D188 has been designed for safe use in humans with our range of isolated constant current stimulators, including the DS7A and DS5 and as a result has been specified to operate with stimulus sources of up to 400V. However, the D188 is not a medical device and use should be restricted to research applications.



Example screenshot of the D188 Virtual Front Panel Software

Digital or Manual (PC) Control

The D188 is supplied with virtual front panel software which allows the device to be configured and controlled manually using a PC keyboard or mouse. The D188 can also be controlled by TTL compatible digital inputs applied to a socket at the rear. The D188 allows for 1:1 or 4:8 control which requires 8 or 4 digital inputs respectively, to switch between the 8 channels. An application programming interface (API) is available to allow third party software to control the D188. Details relating to the API are available upon request.

D188

PC running
Windows 7
or higher

USB Cable
(supplied)

USB Cable

Data Acquisition Interface
e.g National Instruments

Digital Control Cable
(supplied)

USB Cable

BNC Cable

BNC Cable

Trigger to DS8R Stimulator

Analogue Voltage to DS8R Stimulator (allows current amplitude control)

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Electrical Stimulator
e.g. Digitimer DS8R

D185-HB4 - Output Adaptor Cable

D188-09 - 1.5mm TP female (200cm)
D188-10 - 1.5mm TP female (50cm)

OR

D188-12 - 4mm TP male to 1.5mm TP female (50cm)

Pairs of 1.5mm DIN42802 output extension cables are available in 1m (D188-13) or 2m (D188-14) versions to increase electrode lead length

D188

Specifications Overview

Maximum Stimulus Input Voltage:	400V
Maximum Stimulus Input Current:	1A
Minimum Switching Interval:	<1ms (stimuli must not be applied during switching process)
Digital Input Requirements:	TTL Logic (5V)

Front Panel Connections:

Stimulus Input (COM) Connection: One red, one black 1.5mm DIN 42802 touch-proof male sockets
Electrode Connection Outputs: 8 pairs of red and black 1.5mm DIN 42802 touch-proof male sockets

Appropriate cables for electrode and stimulation connection are available for purchase from Digitimer.

Rear panel Connections:

USB Input (Type B Socket) for Win PC software control and/or setup
Power Supply Input Socket (DC 12V)
Digital Communication Socket (15-way Female "D" Connector)

Indicators:

8 Green LEDs – One per channel used to indicate the active channel

Control Software:

Supplied on USB drive. Compatible with Windows 7 (32/64bit) or higher

Weight & Dimensions:

Size: 152 x 55 x 178 mm (w x h x d)
Weight: 500g (approx.)

Environmental:

Operating Range 10°C to 40°C 30 to 75%, non-condensing
Storage Range -40°C to 70°C 10 to 100%, non-condensing
Transport Range -40°C to 70°C 10 to 100%, non-condensing

Supplied Accessories:

12V Power Supply for 100-240V input with UK, North American or European plug adaptor(s)
USB Cable for host PC connection
Operator's Manual
Windows Compatible D188 Control App Software (supplied on USB Stick)
Digital Communication Cable (1m long, 15-way "D" connector to 10 tinned wires)

Optional Accessories:

Digitimer supplies a range of cables for connection to our electrical stimulators, as well as D188 output extension cables, which can be used to increase the length of electrode lead wires. Please contact us to request pricing.

The Digitimer D188 is NOT a medical device and use is currently limited to human research applications

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