



Technical Data Sheet

CANFORD MAINS DISTRIBUTION UNITS

MDU7QF AC MDU 12x Powercon out, Powercon loop-out in, sequence, filter

MDU7SQF AC MDU 12x Powercon out, Powercon loop-out in, switch, sequence, filter

MDU7QQF AC MDU 12x Powercon out, Powercon loop-out in, sequence on-off, filter

DESCRIPTION

This range of twelve-way, powercon outlet, AC mains power distribution panels, are housed in a compact 1U rackmount steel case. The loop-out feature provides an un-switched, direct loop-through power outlet to supply equipment that must remain powered when the MDU is switched off, or to supply to a second MDU. All versions have on the front panel an illuminated, power rocker switch or an un-switched, LED power-present indicator, fuse and bi-colour LED indication of power status for each of the output channels. Inlet and outlets are on the rear panel.

NOTE: Current drawn from the 'loop-output' must be included in the total current calculation. Care must be taken not to exceed the maximum total load of the MDU.

The fuses on the front panel have an adjacent bi-colour LED. Green illuminated indicates that the circuit is powered correctly. Red illuminated indicates that the fuse has failed.

Outputs are numbered front and rear for easy identification and a designation-strip holder with snap-on cover is fitted on the front panel. The paper strips supplied may be inserted before or after installation; 7.5mm of printable height is available. Templates for printing designation strip labels, available as a DWG file for AutoCAD and compatible applications, can be downloaded from the appropriate product page on the Canford website.

AVAILABLE VERSIONS

All versions have on the front panel an illuminated power rocker switch or an un-switched neon power present indicator, fuse and dual LED indication of power status for each of the output channels.

Sequential Switch-on (MDU7Q, MDU7SQ)

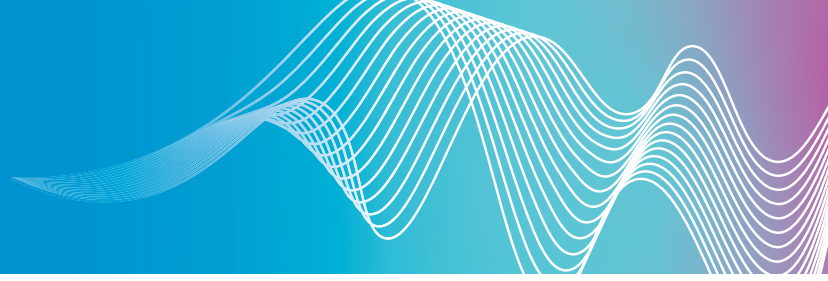
These are as the standard type but, in addition, to avoid overloading the supply, the outputs are sequentially switched on when power is applied. This delay is vital where a number of pieces of equipment drawing a high 'inrush' current, such as CRTs, power amplifiers or equipment fitted with switch-mode power supplies, are connected to a single MDU. This sequential solution may also be used to switch on equipment in an audio installation prior to the power amplifier to avoid 'clicks' and possible damage to loudspeakers.

The delay between successive outputs is preset at 300mS, but an internal control allows adjustment between approximately 30mS and 600mS. Outputs are switched using relays controlled from a microprocessor. The top cover is user-removable to access the sequential switch-on delay adjustment control. In the case of switched versions, if power is connected to the unit when the switch is 'off', no power is supplied to the outputs. If the switch is 'on', the outputs will be powered up sequentially as normal.

Sequential Switch-on And Switch-off (MDU7QQ)

Similar to the Sequential Switch-on types above, these also are based on the standard types, but have a control activating the 'start' or 'stop' sequence. The control is a latching rocker switch, but, it should be emphasised, does not switch the supply itself. When power is supplied to the MDU, an LED shows that power is present. If the control is in the 'stop' position, no power will be supplied to the outputs. Changing the control to the 'start' position will cause the outputs to be switched on sequentially. Once the sequence is complete, changing the control to 'stop' will cause the outputs to be switched off sequentially in the reverse order.

If the control is changed to 'stop' during the 'start' sequence, the sequence is stopped and the outputs which are on will be turned off, sequentially, in reverse order. If the



control is changed to 'start' during the 'stop' sequence, the outputs which have been turned off will be turned on again sequentially, in the usual 'start' order.

If power is applied to the MDU when the switch is in the 'start' position, say after a power cut, the outputs will be turned on, sequentially, in the usual order. If power is taken away from the MDU when outputs are turned on, either during a sequence or not, all outputs will turn off together. The delay between each successive output when switching on is preset at 300mS, but an internal control may be accessed by removing the top cover which allows an adjustment between approximately 30mS and 600mS. The delay between each successive output when switching off is the same as set for the switch-on delay.

Filtered (MDU7F, MDU7SF)

These are as the standard type with a high-performance filter, fitted internally, that helps to protect sensitive electronic components connected to the MDU against mains-borne interference and to reduce the audible effects of spikes and dips in the mains supply.

Sequential Switch-on plus Filtered (MDU7QF, MDU7SQF)

These versions combine the features of the Sequential switch-on and Filtered types.

Sequential Switch-on and Switch-off Plus Filtered (MDU7QQF)

These versions combine the features of the Sequential Switch-on and Switch-off and Filtered types.

Features by model

	Switched	Sequential	Filtered
MDU7			
MDU7S	•		
MDU7Q		ON	
MDU7SQ	•	ON	
MDU7QQ	•	ON/OFF	
MDU7F			•
MDU7SF	•		•
MDU7QF		ON	•
MDU7SQF	•	ON	•
MDU7QQF	•	ON/OFF	•

- 42-9672 CANFORD MDU7QF AC MDU 12x Powercon out, Powercon loop-out in, sequence, filter, green, black
- 42-9674 CANFORD MDU7QF AC MDU 12x Powercon out, Powercon loop-out in, sequence, filter, red, black
- 42-9676 CANFORD MDU7SQF AC MDU 12x Powercon out, Powercon loop-out in, switch, sequence, filter, green, black
- 42-9678 CANFORD MDU7SQF AC MDU 12x Powercon out, Powercon loop-out in, switch, sequence, filter, red, black
- 42-9876 CANFORD MDU7QQF AC MDU 12x Powercon out, Powercon loop-out in, sequence on-off, filter, green, black
- 42-9878 CANFORD MDU7QQF AC MDU 12x Powercon out, Powercon loop-out in, sequence on-off, filter, red, black

LACING BARS

A single-rod lacing-bar is fitted, which can be moved to an alternative fixing position if desired.

INSTALLATION

THIS EQUIPMENT MUST BE INSTALLED BY SUITABLY QUALIFIED PERSONNEL

WARNING

**HIGH LEAKAGE CURRENT
EARTH CONNECTION ESSENTIAL
BEFORE CONNECTING MAINS VOLTAGES
THIS EQUIPMENT MUST BE EARTHED.
DISCONNECT THE SUPPLY BEFORE REMOVING
TOP COVER.**

CE The CE mark is applied to this product in respect of the Low Voltage Directive. This apparatus complies with the safety requirements of this Directive when used as intended in domestic, commercial, light industrial and similar general indoor use. It must not be subjected to splashing or dripping.

Only remove top cover to adjust timing delay.

The distribution unit should be fixed firmly in a 19" rack using suitable hardware. Appropriate attention MUST be paid to protective earthing of the rack itself. Using a suitable, 2.5² mm cable, connect one end to the earthing post on the rear of the unit. Connect the other end to permanent independent earth.

POWER WIRING AND FUSING

Replacement mains fuses must be of a 250V rated European approved type with identical current and time characteristics.

The power outlets should be cabled to the equipment to be powered using cable to suit both the load and the outlet's fuse. The fuses supplied limit the maximum output from each connector to 10 amps. This fuse rating should not be exceeded, however, smaller values may be used. Before the fuses are changed, power to the unit should be disconnected. Replace fuses only with HBC ceramic types to BS EN60127. Fuse values should be chosen to protect the cable used to wire to the powered equipment.

The power inlet should be connected using 2.5mm² cable.

THIS EQUIPMENT MUST BE EARTHED

The distribution units should be provided with an adequate mains power supply.

FAULT CONDITIONS

Under normal operating conditions the "Power Input" LED or mains rocker switch should be illuminated. All channel "Output" LEDs should be green, whether or not a load is present.

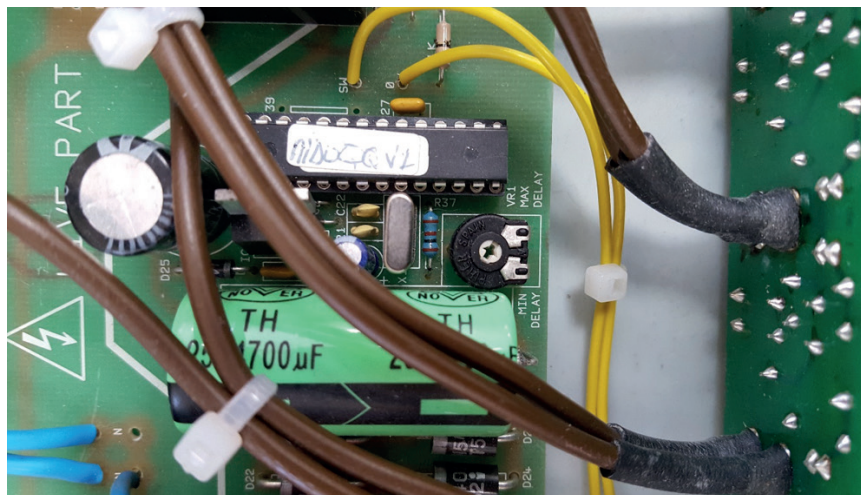
If a front panel fuse fails because of a fault with the connected equipment the LED will illuminate red. Remove the load and repair/replace the load equipment. Replace the front panel fuse with that stipulated (see Technical Specifications below.) Re-connect the load and check that the unit is functioning correctly.

Note that even if the panel fuse fails there will still be approximately 100V appearing on the output connector. This is limited to a few milliamps, however. It is essential that any connected equipment is removed before any repair work commences.

DELAY ADJUSTMENT

The delay between the outputs turning off or on can be adjusted between 30 and 600mS. The adjustment is made by turning a potentiometer with a screwdriver. This should be done by a competent person. First remove the unit from the rack and the mains supply. Remove the lid from the unit (six screws on the upper surface and two on each end.)

The position of the control can be found below:



MATING CONNECTORS

Mating connectors are NOT included and should be ordered separately as required.

Input connectors: Neutrik Powercon type, NAC3FCA, stock code 42-021.

Loop-out connectors: Neutrik Powercon type NAC3FCB, stock code 42-022.

Output connectors: Neutrik Powercon type NAC3FCB, stock code 42-022.

Moulded mains leads: A large range are offered, see AC Mains Power Leads.

Locking, moulded, mains leads: Patented, locking IEC leads, see AC Mains Power Leads - IEC-Lock.

MAINS CABLE

33-330 Flexible mains cable, 3 core, 1.25² mm, black arctic, pvc.

33-354 Flexible mains cable, 3 core, 2.5² mm, black arctic, pvc.

ACCESSORIES

Switch guard plates:

- 42-0001 Except QQ types, grey
- 42-0002 Except QQ types, black
- 42-0003 QQ types, grey
- 42-0004 QQ types, black

Additional Lacing Bar Kit: 42-0005



Fasteners:

16-023 to 16-085	Rack mount fasteners
16-087	M6 bolt
16-085	Plastic cup washer

Spare designation-strip inserts

Label	45-3082
Clear cover	45-3092

TECHNICAL SPECIFICATION

Input voltage:	198 – 254 VAC
Output load:	10A per outlet
Total load:	Switched load: 16A, loop-outlet 20A Un-switched load: 20A, loop-outlet 20A
Outlet fuses:	10A(T) HBC ceramic, to BS 60127
Max in-rush current:	100A for MDU-S versions
Input voltage:	198 – 254 VAC
Output load:	10A per outlet

Dimensions and weight:

	Depth excluding lacing-bar	Depth including lacing-bar	Weight (maximum)
Standard	130mm	230mm	1.7kg
Sequential	250mm	350mm	4.0kg
Filtered	250mm	350mm	4.0kg
Sequential & Filtered	250mm	350mm	4.0kg

All types are 1U, 19-inch rack mounting, 44 x 483 (h x w) mm.