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Find the *Digitimer NeuroLog NL900C* at our website: *Click HERE*

NL900D - Case and Power Unit



The NL900 NeuroLog module frame and power supply are housed in a fully finished, enclosed case. The case has carrying handles and is supplied with bolt-on rack mounting hardware so that it can be located either in the rack or on the bench top. The base is fitted with rubberised feet and the front pair may be extended so as to raise the front of the unit. These are easily removed, if required, for rack-mounting.

The NeuroLog case has an integral module retention system, consisting of a simple, slide action lever on the power supply panel. Thus fittings such as retained screws, D-Locks, etc., on individual module front panels are unnecessary; this simplifies the modules mechanical design, reduces their cost and greatly improves the ease with which rapid changes in module arrangements can be made.

The NeuroLog power supply produces three voltages (+15V, +5V and -15V), stabilised against line and load variations. The voltage outputs are rated at 650mA, 3.0A and 650mA respectively. All three supplies have internal "fold-over" current limiting; the 15V supplies and in addition, are protected with rear panel fuses. Each supply has less than 15mV line ripple at maximum load. The power supply transformer employs sectionalised Winding former for additional safety and complies with the safety requirements of BS EN 60601-1 but is NOT listed as a Medical Device. The power supply provides sufficient power for any mix of single width NeuroLog modules, plus up to 2 NL750 Averagers.

A unique feature of the NeuroLog power supply is a built-in monitoring circuit which indicates (by extinguishing the power supply indicator on the front panel) excessive loading of one or more of the three supply outputs. While it is expected that a power supply failure will never occur using NeuroLog modules, the fault indication is invaluable when testing custom circuits built in the NL50 Blank Module.

The NL900 is the heart of the NeuroLog system being the rack to house the modules as well as providing the power for them to function. It also has a unique interconnection system that allows adjacent modules, in most cases, to pass signals between each other without the need for external cables.

The NL900D is the latest in a long line of NL900's. The design changes over the years have been due to obsolescence of parts or specification changes - BUT, all modules ever made will fit and work in all racks produced.

Unpacking Your NL900D

Your NeuroLog™ System was delivered in a carton which was carefully designed to protect the NL900D case against damage in shipment. It would be advisable to keep your carton in case you need to relocate or return your NeuroLog™ System some time in the future.

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Before You Start

Before starting to use your NeuroLog System, we would urge you to thoroughly read the sections of the users manual which are relevant to your modules, as well as the general section entitled "**NeuroLog™ System Basics**". This will introduce you to the operation of the module retention system, internal communication methods and other important aspects of the equipment.

Mains Connection

The power lead should be connected to a suitable plug. The power lead is colour coded in line with international standards and must be connected as follows:

Insulation Colour	Function
Green/Yellow	Earth
Brown	Live / Line / Hot
Blue	Neutral

The Earth connection MUST be made.



Before the power unit is plugged into the mains, check that the voltage selector on the back of the case is set for the correct mains voltage. The appropriate voltage should be opposite the arrow. If incorrectly set, use a coin of appropriate size to rotate the centre of the voltage selector to align the arrow head with the correct voltage setting.

Supply range	Fuse Value and speed
100-120 V ac	T 2A L
200- 240 V ac	T 1A L

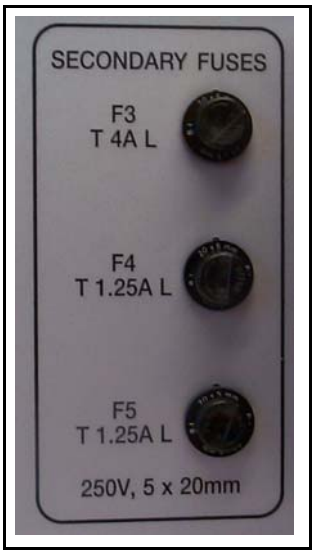
Changing the mains voltage will also require you to change the two fuses in the mains inlet. They must be "5 x 20 mm" in size and the value and speed shown here.

Grounding

The Earth or Ground connection in the mains lead is continuous with the ground points on all module connectors and with the case. No provision is made for opening the connection between the case ground system and the mains earth lead.

Power Unit Protection

The power unit supplies three stabilised voltages, +5V, +15V and -15V each of which is completely protected against excessive load with its own internal 'current fold-over' circuit which can sustain an indefinitely long short circuit.



Each of the supplies is also protected by fuses, fitted to the rear panel, which protect the power transformer against a gradually applied overload. A suddenly applied overload may not blow a fuse before the fold-over protection circuit acts.

Fuse Ref:	Supply Protected	Fuse Value and speed
F3	+5V	T 4A L
F4 & F5	±15V	T 1.25A L

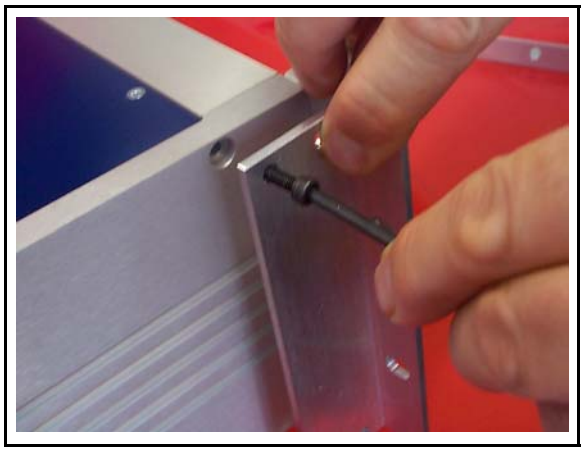
The indicator light on the case front panel is illuminated when all three power supplies in the power unit are operating with correct output voltages. If the indicator does not light when the mains power is switched on (POWER switch on the front panel), either one of the supplies is faulty or an overload condition exists.

A module malfunction or faulty circuits constructed on the NL50 Blank Modules may be the source of the excessive power unit load. Identify and remove the overload; if the indicator is still unlit, check the fuses.

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Rack Mounting Brackets.

A pair of rack mounting brackets are supplied, as standard, with each NL900D. These need only be fitted to the NL900D if you wish to mount the unit in a 19" rack.



To fit these brackets you should locate the two recessed screws on each side of the rack, near the front. You should now decide which bracket is going on each side by offering up the bracket to the two screws to see if they align.

The existing screws should be used to retain the bracket and an "Allan-key" is supplied with the brackets to remove and refit the screws.

When the brackets are fitted, ensure that the screws are fully tightened as they carry the weight of the whole unit when it is in the rack.

Support Feet

To raise the front of the unit when it is mounted on a bench-top, the front feet can be lowered. This is done by lifting the front of the case up by about 75mm and pulling down the leg.



When fitted into a 19" rack, you may wish to remove these feet totally. This is done by removing the rubber feet that would normally rest on a bench, then removing the screw that is fitted into the recess. The nut is fixed to the bottom plate and will not become loose. The feet should be kept safely in case they are needed later.

History

The NL900D is the latest in a long line of NL900 models. The design changes over the years have been due to unavailability of parts or specification changes - BUT, all modules ever made will fit and work in all racks ever produced. The different models can be identified from the Serial Number label and (usually) the printing on the rear panel.

Model	Case style.	+5V Power Supply
NL900	Original design with a pale blue top cover retained by four screws.	5A and regulated by transistors.
NL900A	Same case as above.	Regulated by 5A regulators.
NL900B	Same case as above.	Regulated by 3A regulators
NL900C	Second design of case. The top cover was a light grey colour with pale blue insert strips. Access from the top is NOT possible. The rack-mounting brackets fold flat to the side plates when not required.	Regulated by 3A regulators
NL900D	Third design of case. The top cover is royal blue with four retaining screws. This case has removable rack-mounting brackets.	Regulated by 3A regulators

We reserve the right to alter specifications and price without prior notification.

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