

Biologa Demand Switch „NEFA 20-plus 1P“

Issue 01.01.2014

Installation Guide

The demand switch NEFA 20-plus Standard must be installed by a licensed electrician according to the electrical code of each Province (Canada) or State (USA).

The NEFA 20-plus standard is designed for single circuit use only.

The purpose of the automatic disconnection/demand switch NEFA 20-plus is to shut off electricity

(voltage) in a particular wiring circuit and therefore eliminating the ac-electric field. The switch is added to an existing circuit just after the circuit breaker and switches the hot, or black wire, of that circuit. The switch is mounted in its own, separate approved electrical box. Please note that the circuit will still be protected by the circuit breaker. The switch is by no means a circuit breaker replacement but an additional in-line device. Each switch controls a single circuit. If a GFI is required in this circuit, it has to be installed between the fuse and the demand switch. (i.e. an onsite bathroom is on the

same circuit) For faultless performance of the NEFA 20-plus, no load (or phantom load) must be in the dedicated (monitored) circuit. If the NEFA 20-plus does not shut off the AC voltage there are one or more loads in the circuit. They must be found and either be unplugged or disconnected (note: a switchable power bar can be used for switching off a load). Examples for loads: Dim switches, TV, VCR, radio clock, antenna amplifier, thermostates, motion sensor, battery charger, etc.

Yellow Potentiometer: The sensitivity of the switching threshold (ON/OFF) is adjustable. For normal operation it should be set at the black dot. We recommend very much to keep the conditions in a Demand switch controlled circuit electrically clean.

Installation:

1. Turn off the breaker of the desired circuit
2. Install the NEFA 20-plus in a separate electrical box according to the above shown wire diagram and electrical code.
3. Plug in the controllight (included in scope of supply) into a visible receptacle in the monitored circuit
4. Stick the red warning sticker with breaker number and circuit name on the fuse box and on the box where the demand switch is installed.

Warranty: We grant a 5 year long term warranty on the NEFA 20-plus Standard.

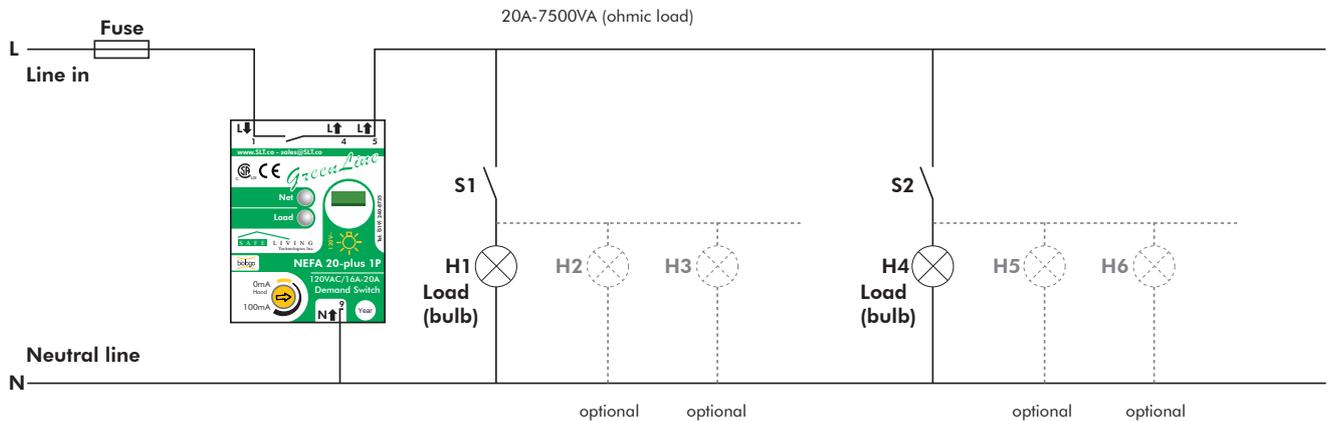
Technical Data

Operating Voltage:	120VAC	Turn- on delay:	0,1 sec
Continuous load:	20 Amp	Control light:	green = monitoring, red = load Power „ON“
Own consumption:	<1,6 Watt	In case of failure:	Manual switching without electronics
Size:	1.34 Inch x 2.36 Inch x 3.54 Inch WxHxL	Long term warranty:	5 Years
Monitoring Voltage:	9 VDC	Mounting:	Separate electrical box beside the breaker panel
Sensitivity:	0 - 100 mA adjustable 0mA = permanently „ON“		
Turn- off delay:	4 sec		

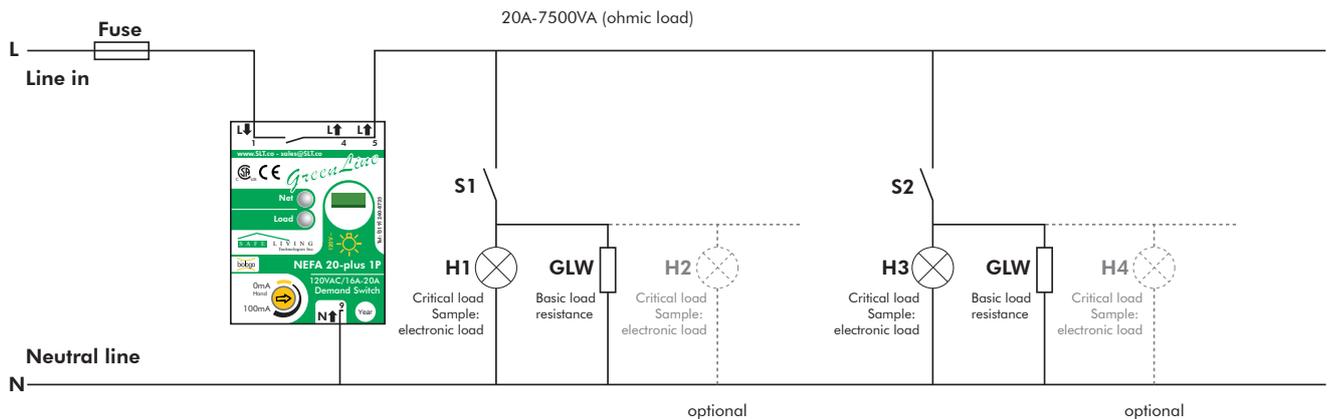
Circuit schemas „NEFA 20-plus 1P“

Ausgabe 01.01.2014

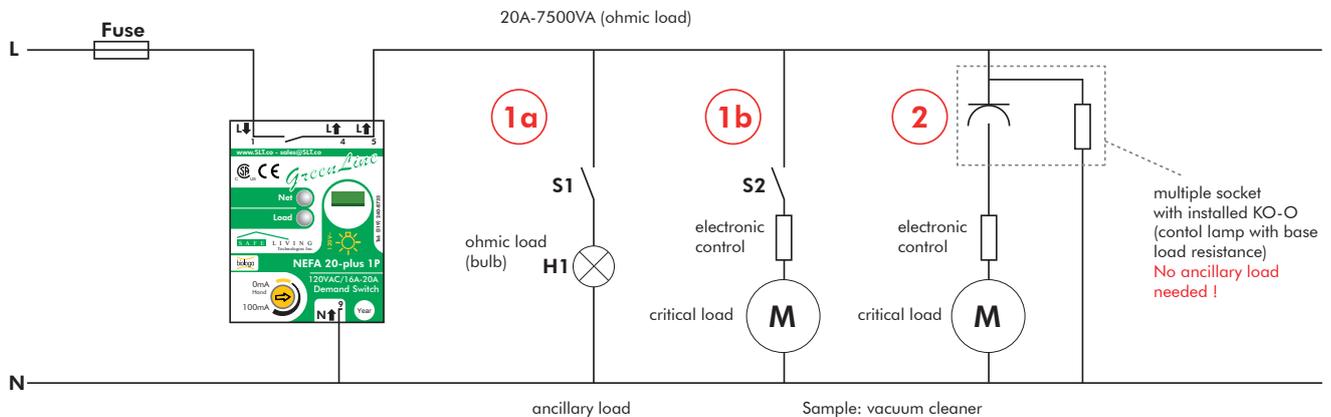
Installation with conventional loads (ohmic loads)



Installation with electronic loads (electronic power supply unit)



Installation and initiation with a ancillary load (Sample: vacuum cleaner)

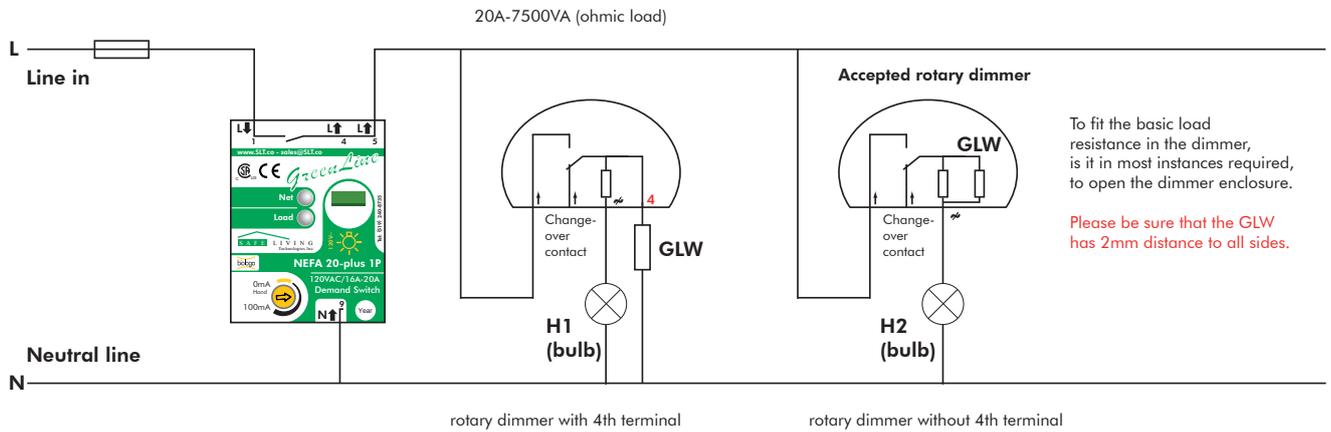


Sample: To switch on a vacuum cleaner in a disconnected room is it normally necessary to switch on a ohmic load first (bulb 1a) After this is it possible to switch on the critical load (vacuum Cleaner 1b). If the critical load is on, the ohmic load can be power down. Another comfortable alternative is put a KO-O with integrated basic load resistance (GLW) in a for sample 4-fach multiple socket (STL4) so it can plugging the critical load aside. **With this variant it is not necessary to switch on the ohmic load first (2).**

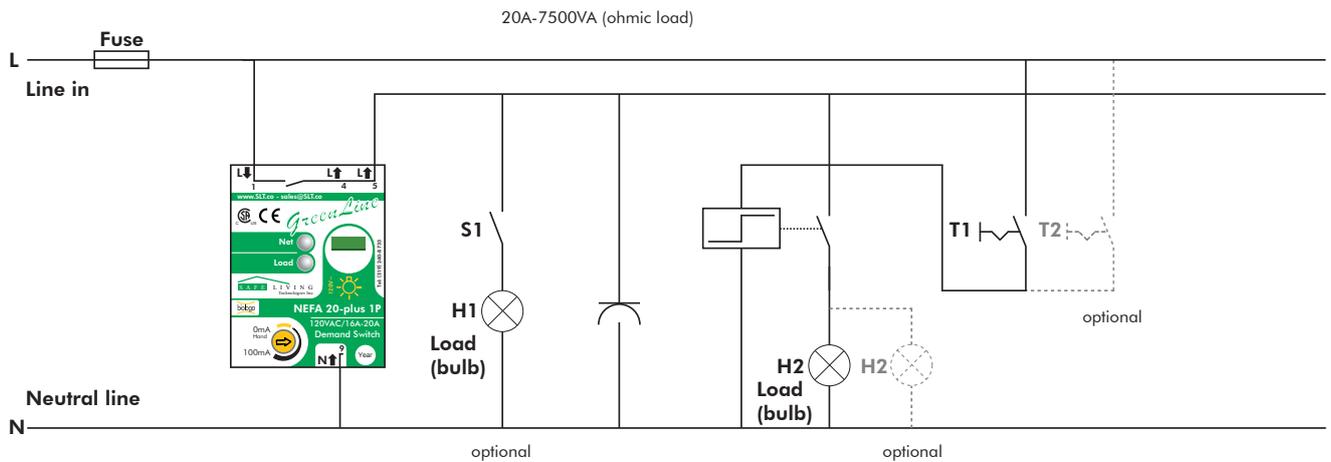
Circuit schemas „NEFA 20-plus 1P“

Ausgabe 01.01.2014

Installation with dimmer



Installation with latching relay (Option 1)



Installation with latching relay (Option 2)

