

Foreword

The purpose of this document is to describe how to install and configure Neets Switching Relay – 2 with build-in power supply.

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CHANGES - Neets reserve the right to change the specification and functions of this product without any notice.

Questions, AFTER reading this manual, can be addressed to your local dealer or:

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by E-Mail: Support@Neets.dk
or you may use our contact form at www.neets.dk

Revision list

This document (no: 306-0007-002) has the following revision changes:

Author: Date	Description	Pages	Rev
SDV 24-09-09	New design	All	2.00
SVL 11-11-09	Change output voltage ADd recommended screen size	4,5 4	3.00
SDV 18-12-09	New pictures added	3,5,6	4.00
DB 09-03-12	New company address	1	5.00
MH 02-07-14	New photos of the Switching Relay 2	5,7,9	6.00
MH: 02-09-2015	News design according to Neets Design Guide	All	7.00
MH: 18-02-2016	Dimensions and weight has been corrected	1	8.00

Important Safety Instructions

Caution:

Read these instructions:

Read and understand all safety and operating instructions before using the equipment.

Keep these Instructions:

The safety instructions should be kept for future reference.

Heed all Warnings:

Follow all warnings and instructions marked on the equipment or in the user information.

Avoid Attachments:

Do not use tools or attachments that are not recommended, because they may be hazardous

Warning!:

- This equipment should be operated only from the included power supply.
- To remove power from the equipment safely, remove all power cords from the rear of the equipment, or the desktop power module (if detachable), or from the power source receptacle (wall plug).
- Power cords should be routed so that they are not likely to be stepped on or pinched by items placed upon or against them.
- Do not defeat the safety purpose of a polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. There are no user-serviceable parts inside. To prevent the risk of shock, do not attempt to service this equipment yourself because opening or removing covers may expose you to dangerous voltage or other hazards. Contact your local Neets reseller or distributor.
- If the equipment has slots or holes in the enclosure, these are provided to prevent overheating of sensitive components inside. These openings must never be blocked by other objects.
- Do not use this equipment near water.
- To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture and objects filled with liquids.
- Unplug the product before cleaning. Clean only with a dry cloth and not cleaning fluid or aerosols. Such products could enter the unit and cause damage, fire, or electric shock. Some substances may also mar the finish of the product.

FCC Class A Notice:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation. The Class A limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

FCC regulations state that any unauthorized changes or modifications to this equipment, not expressly approved by the manufacturer, could void the user's authority to operate this equipment.



The lightning bolt triangle is used to alert the user to the presence of uninsulated "dangerous voltages" within the unit's chassis that may be of sufficient magnitude to constitute a risk of electric shock to humans.



The exclamation point triangle is used to alert the user to presence of important operating and service instructions in the literature accompanying the product.

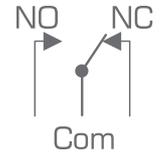
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Description

The Neets Switching Relay - 2 with build-in power supply gives you 2 dry contact relays that each can be controlled by a control input¹ (Supported by all Neets Control systems). The Neets Switching Relay - 2 can be used in either low voltage or high voltage (230VAC) mode, and never at the same time (When using the "Screen" connector).

On each of the two relays you have access to both the NO (Normal open contacts) and the NC (Normal close contacts). This gives you the opportunity to use it according to your needs. When using the Neets Switching Relay – 2 you have the benefit of selecting what type of voltage you want used at installation time.



The flexibility of the Neets Switching Relay – 2 offers you the possibility to control high voltage or low voltage (Please note that high and low voltage cannot be used simultaneously). If you want to connect a 230 VAC controlled screen or lift to the Neets Switching Relay – 2 box, the "screen mode" gives you easy and safe way to connect your screen or lift.



Note that the Neets Switching Relay – 2 from factory is configured to control a 230 VAC screen or lift. Using the "Screen" connector and therefore you must not use the "Relay 1" and "Relay 2" connectors.

If you do not want to use the "Screen" connector, please remove fuse F1 and F3. Read the section "Controlling an electrical screen or lift" on page 7 for further details.

¹ "Control inputs" is the name used in this manual for the 2 inputs (RE-1 and RE-2) that allows the Neets control system to control the Neets Switching Relay - 2

Specifications

Technical details

Power supply	230 VAC
Relay load max AC1	1150 Watt
Relay load max AC15 (230VAC)	500 Watt
Relay Single-phase motor rating (230 VAC)	370 Watt
Relay max voltage	230 VAC
Maximum screen size (Recommended)	2,5 meter
Control inputs	Active when connected to ground
V+	12 V Dc/300 mA

Dimensions

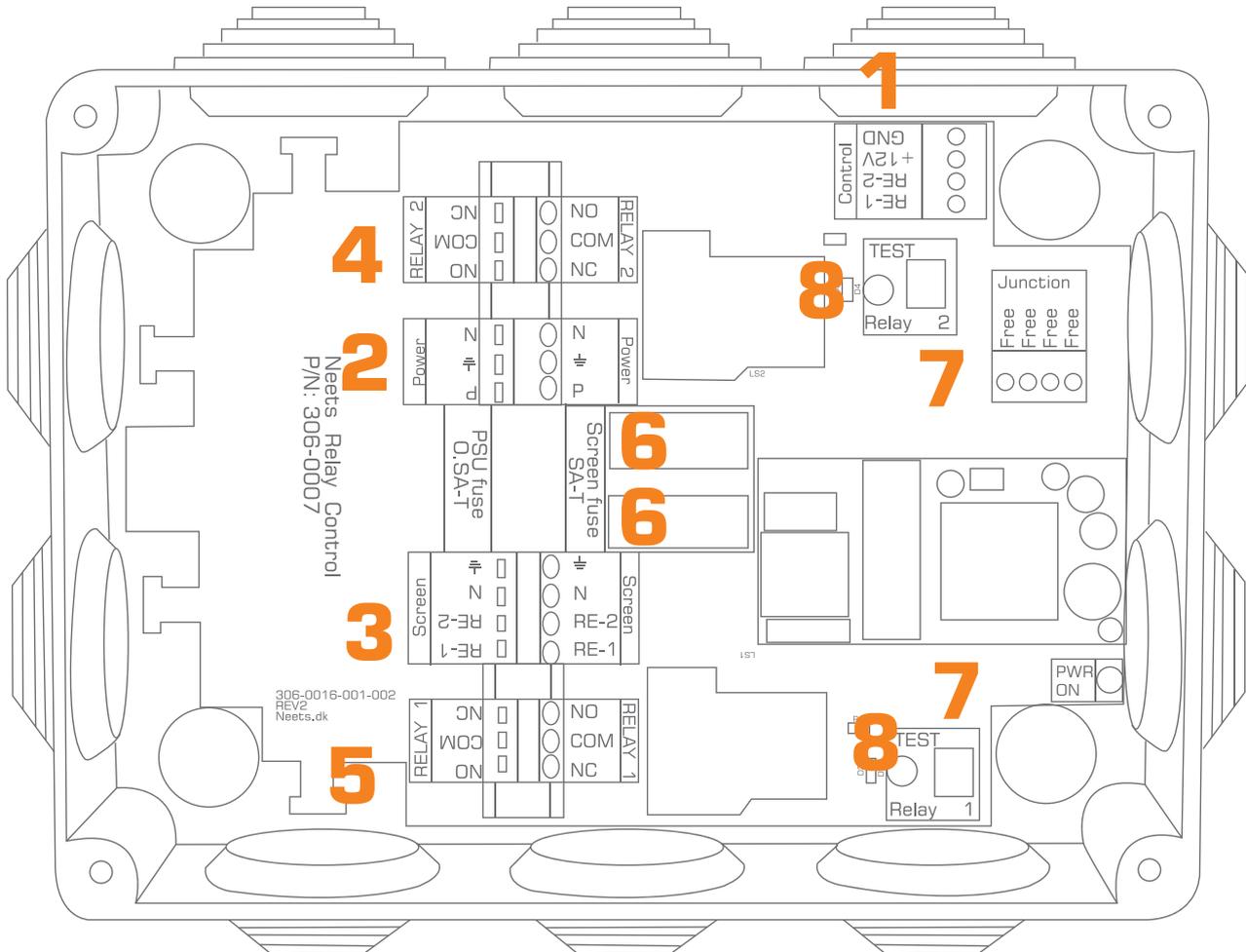
Width	210 mm
Depth	165 mm
Height	82 mm
Width	8,3 inches
Depth	6,5 inches
Height	3,22 inches

General

Weight	0,6 Kg/ 21,16 oz
Shipping dimensions (W/D/H) in mm	165 mm / 210 mm 82 mm
Shipping dimensions (W/D/H) in inches	8,3 inches / 6,5 inches / 3,22 inches

How to find

This section contains information about the connections and controls on the Relay - 2.



Number	Description
1	Power for any Neets Control system and relay control.
2	230 VAC power connector.
3	Easy connection of screen or lift.
4	Relay connectors if not "screen".
5	Tab to secure the cables.
6	Enable screen control. Fuse must be removed if relays are controlling low voltages.
7	LED for indication of the relay state.
8	Test buttons for manual activation of a relay.

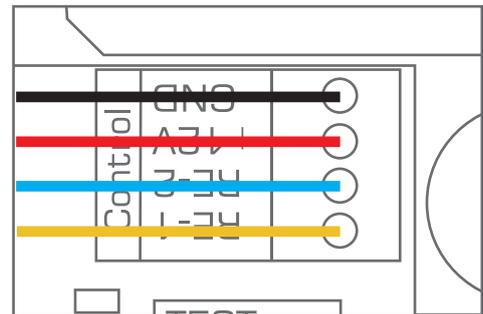
How to connect it?

This section will cover how to connect the Neets Control – Echo, EU with the Neets Switching Relay - 2. It will also give some examples on how to connect an external device to the Neets Switching Relay - 2, please note that there are several other ways to use the Neets Switching Relay – 2 than described in this guide.

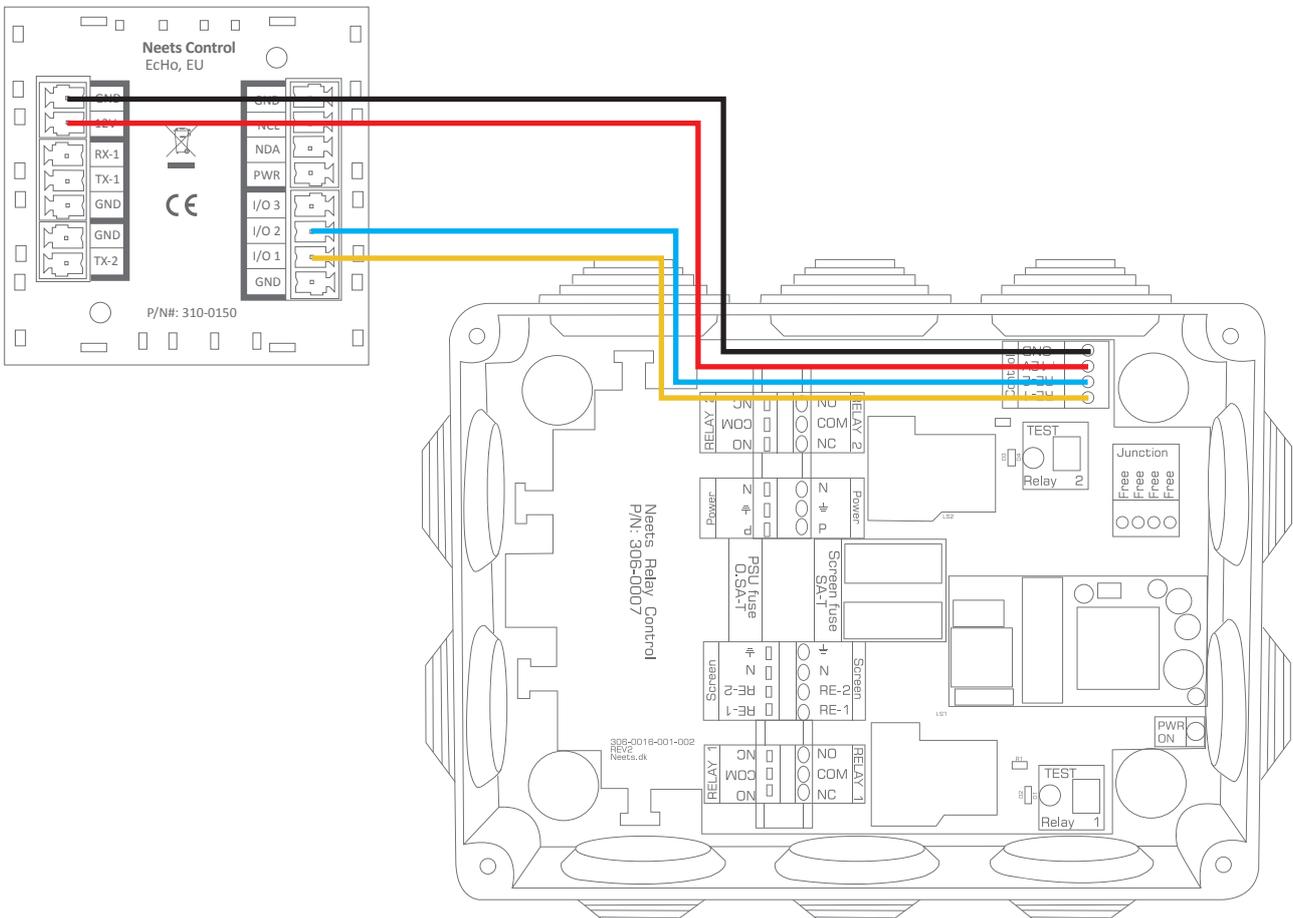
ALWAYS be sure that 230 VAC is disconnected when installing/changing ANYTHING.

Connecting the Neets Switching Relay – 2 to the control system

Pin name	Description name
GND	Ground.
V+	12 V Dc positive supply, can be used to supply the control system.
RE-2	Control input for Relay - 2. Relay is activated when pin is GND.
RE-1	Control input for Relay - 1. Relay is activated when pin is GND.



When controlling the Neets Switching Relay – 2 from the Neets Control – Echo, EU you can connect it like this.



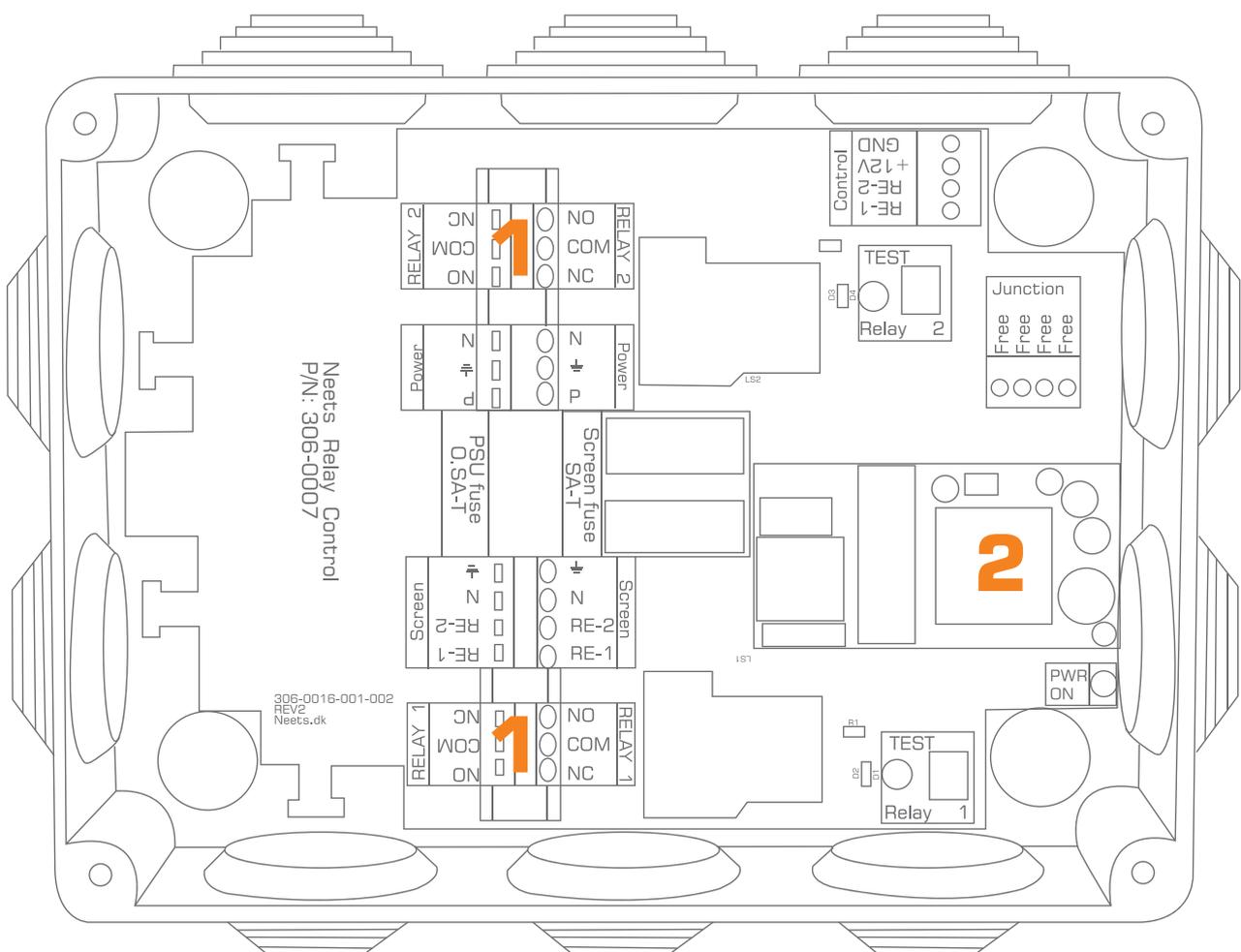
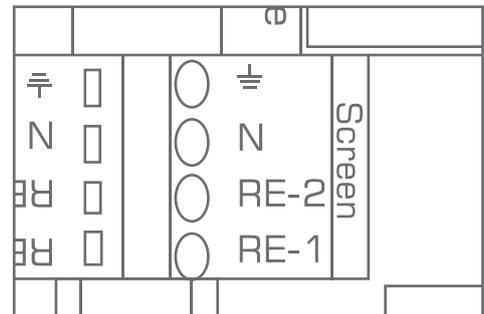
Controlling an electrical screen or lift

The Neets Switching Relay – 2 offers you easy connection of a 230 VAC electrical screen or lift.

By using the screen terminals you get an easy connection of your screen and even more the high security mode prevent you from accidentally making short circuit. The Relay 1(RE-1) is now controlling the screen in one direction, and there is ONLY power to the screens other direction (RE-2) when Relay 1(RE-1) is “Released”.

Be sure to set up the software to fit this hardware configuration.

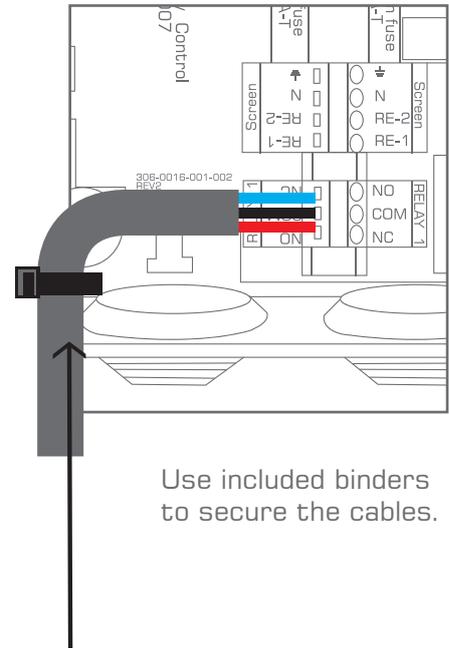
To enable screen mode insert fuse F1 and F3.



Number	Description
1	When using the screen connector, you MUST NOT USE the “Relay 1” and “Relay 2” connector also.
2	Enable screen control. Fuse F1 AND F3 must be removed if relays are controlling low voltages.

Cable in/out of the Neets Switching Relay - 2

The Neets Switching Relay – 2 comes with rubber grommets, that allow you to use any cable size you want, and the taps inside the Neets Switching Relay - 2 gives you a good and flexible way of safely fixating the cable. Use the included binders to tie the cables like below or what fits your installation.



Use included binders to secure the cables.