

**Olsbergs**

*MultiDrive 2*  
*Relay Box*  
2012



*Technical description*

 *English*

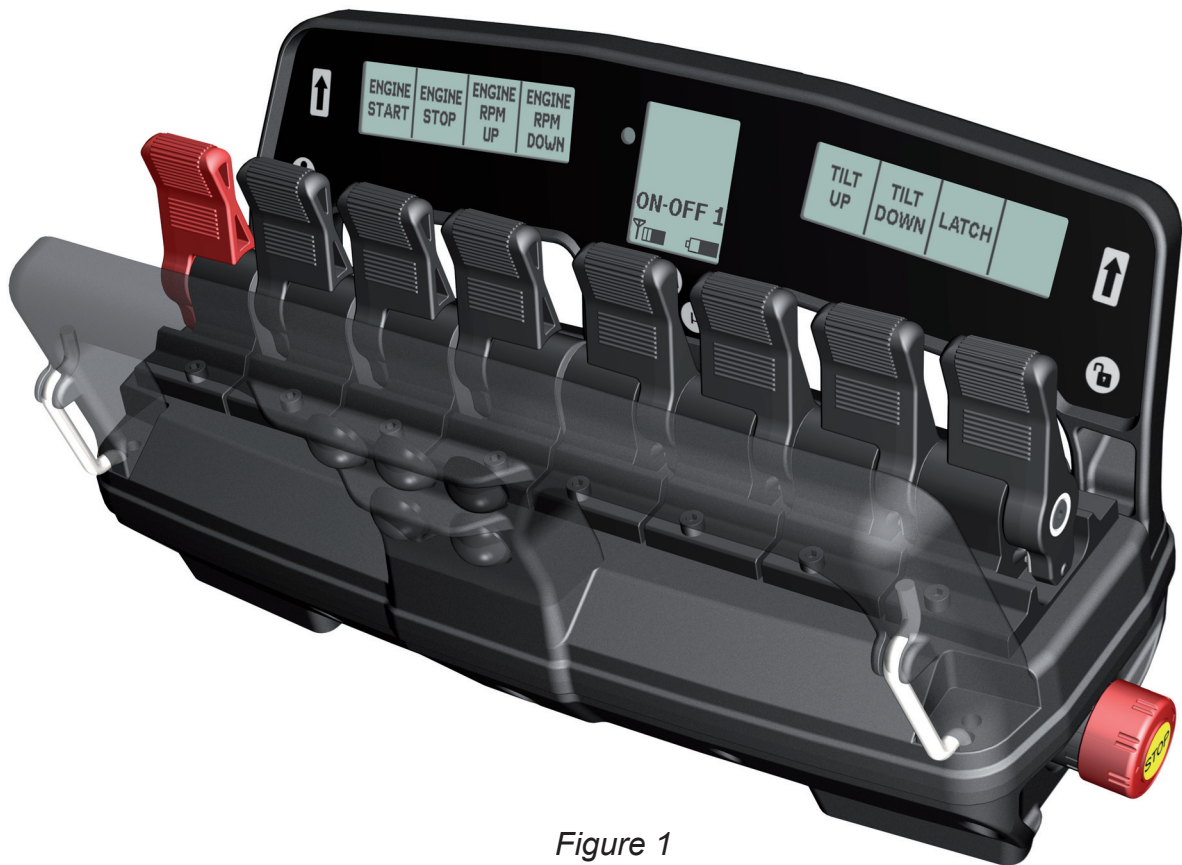


Figure 1

## CONFIGURING THE RELAY BOX

Each relay box has 8 outputs and all of them are individually configurable. The outputs are configured via a program in a PC or alternatively from a configuration unit that is unique to the customer.

An output is normally activated by pulling a lever in an ON-OFF menu on the controller. A text describing the function is displayed in a position corresponding to the lever. (Figure 1)

However, a relay box output may also follow a lever in any menu. There is an option to activate different outputs depending on whether the lever is moved away from or towards the operator when used in proportional menus.

In addition to this the output can be configured to become active at a specific action in the system.

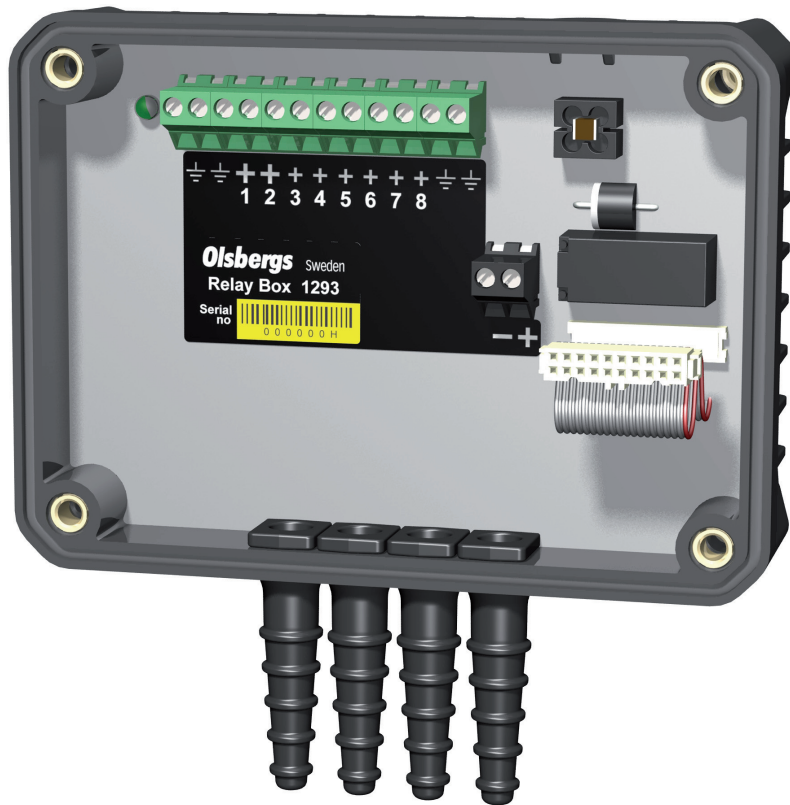
Safety relevant functions must not be connected to outputs that are configured to remain on even if the stop button is pressed. The safety philosophy of the system relies on that an output is deactivated automatically if some malfunction is detected, or if the emergency stop button is pressed.

The output can be configured to be active in various ways.

Some examples:

- Momentary - Active as long as a lever is pulled. (monostable)
- Alternating - Active until the lever is pulled the next time. Every other time on and every other time off (bistable).
- Memory - An output that is active when the controller is stopped is reactivated automatically when the controller starts over.
- Retention - An output remains active even after pressing the stop button on the controller.

Next page summarizes all configuration options for the relay box outputs. Olsbergs' relay box provides great flexibility.



Funktionstyp	Momentary	Alternating	Memory	Retention	Delayed switching on/off	Selectable position for switching on/off	Different function in each lever direction	Reversed function
Levers in ON-OFF menu	X	X	X	X	X			X
Levers in proportional menu	X	X	X	X	X	X	X	
Menu controlled	X				X			
System status	X				X			X

## OLSBERGS' RELAY BOX

Olsbergs' Relay box is part of our modular system of boxes with different functions.

The relay box is normally positioned together with the Decoder, where the Decoder constitutes the cover and the relay box the bottom. (Figure 1)



Figure 1



Figure 2

If more relay functions are required, additional Relay boxes can be added to the system.

A cover-mounted Relay box with an empty bottom is used for one additional Relay box. (Figure 2)

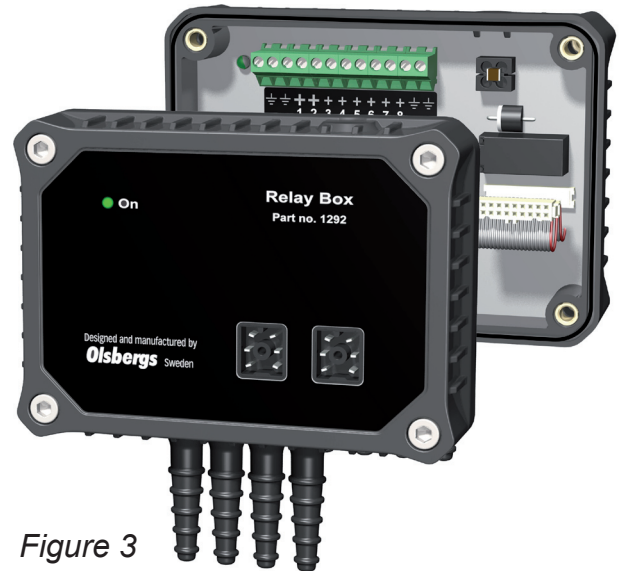


Figure 3

With two additional Relay boxes a cover and bottom module is fitted together. (Figure 3)

If the system contains one or more additional Relay boxes, it is important to connect it/them before the Decoder. This is because the E0854 strapped plug has to be connected in the Decoder. (Figure 4)

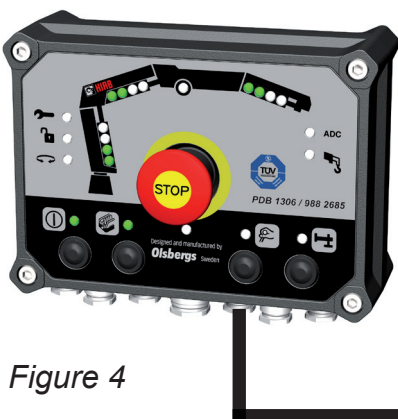


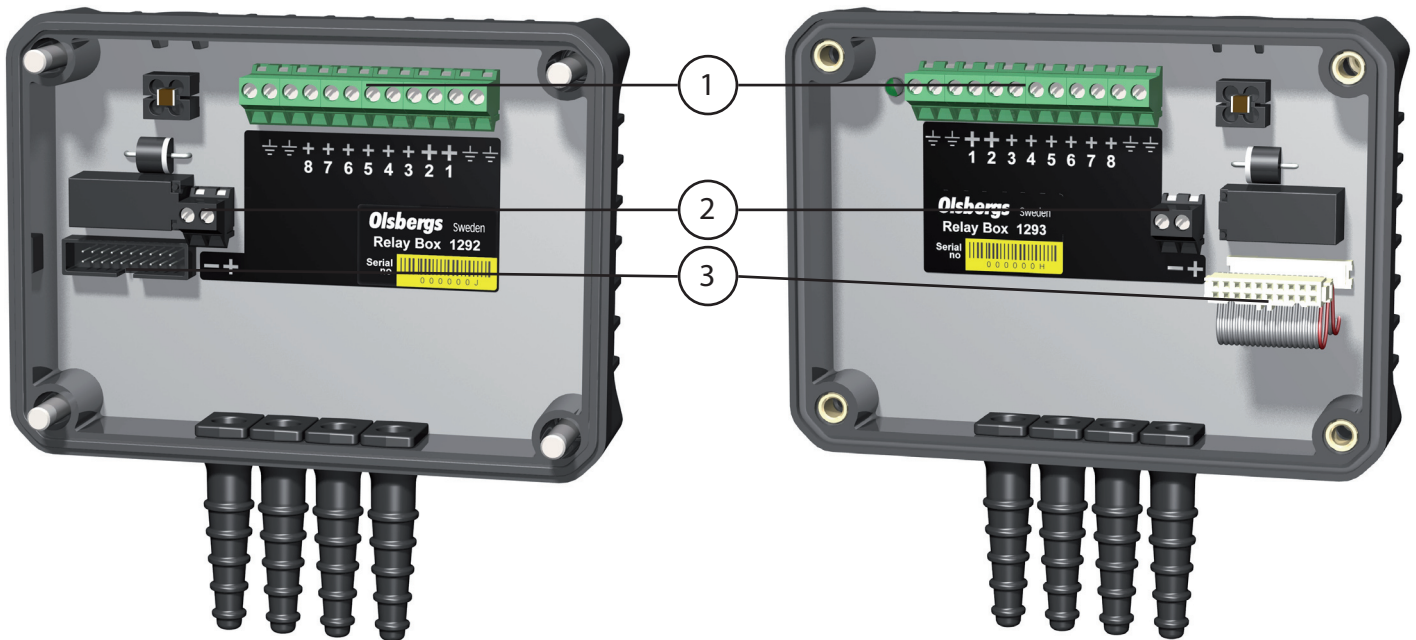
Figure 4





## Top module - COVER

## Bottom module - BOTTOM



### 1 Terminal block



**Ground**

The ground is connected here for functions that require that both +24 V and ground are connected. There are 4 ground terminals.

**1 - 8 +24 V**

There are 8 outputs in each Relay box.  
Outputs 1 and 2 can drive 2.5 A /output.  
Outputs 3 - 8 can drive 1 A /output.

However, the total load for the relay box must not exceed 10 A.

Output 1 is normally intended for connecting a horn. The relay box is configured for this from the factory. With two or more Relay boxes, output 1 can be reconfigured to an optional function.

Xenon lights should be connected to outputs 3-8 due to their characteristics. If the nominal current consumption of the light exceeds 1 A, two or more outputs may be used in parallel to provide sufficient power.

### 2 Terminal block

External +24 V supply is connected here.

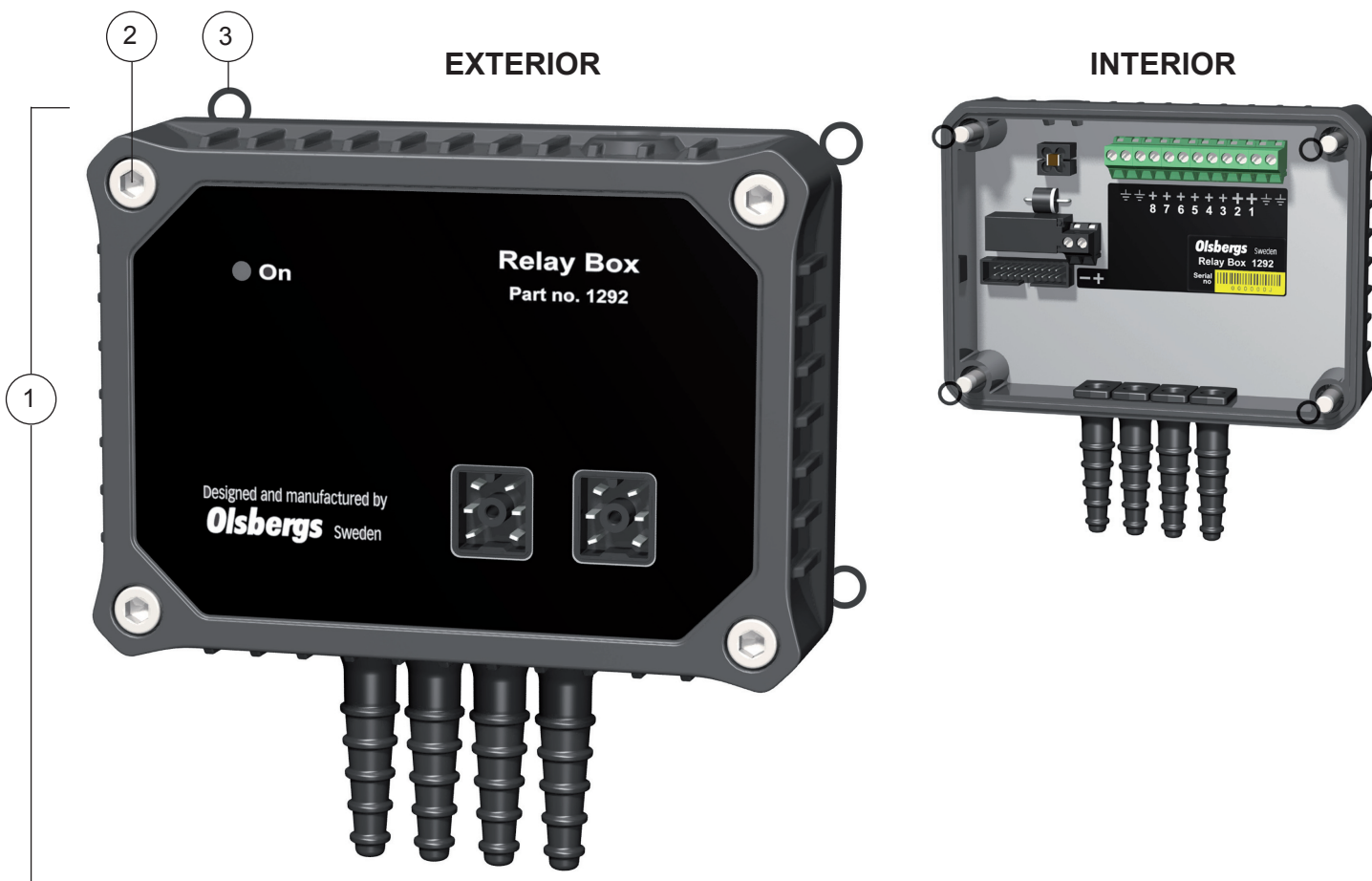
As the relay box can supply 10 A, this should be taken into account when dimensioning cables.

### 3 Ribbon cable connector

Interconnection between cover and bottom.

# Relay Box PLUS, Top module

## Spare parts



Pos	Part N°	Description	Note
1	1292	Relay Box PLUS Top	
2	S3152	Screw M6x40 MC6S	A4
3	S2556	O-ring Ø5,28x1,78	NBR 70

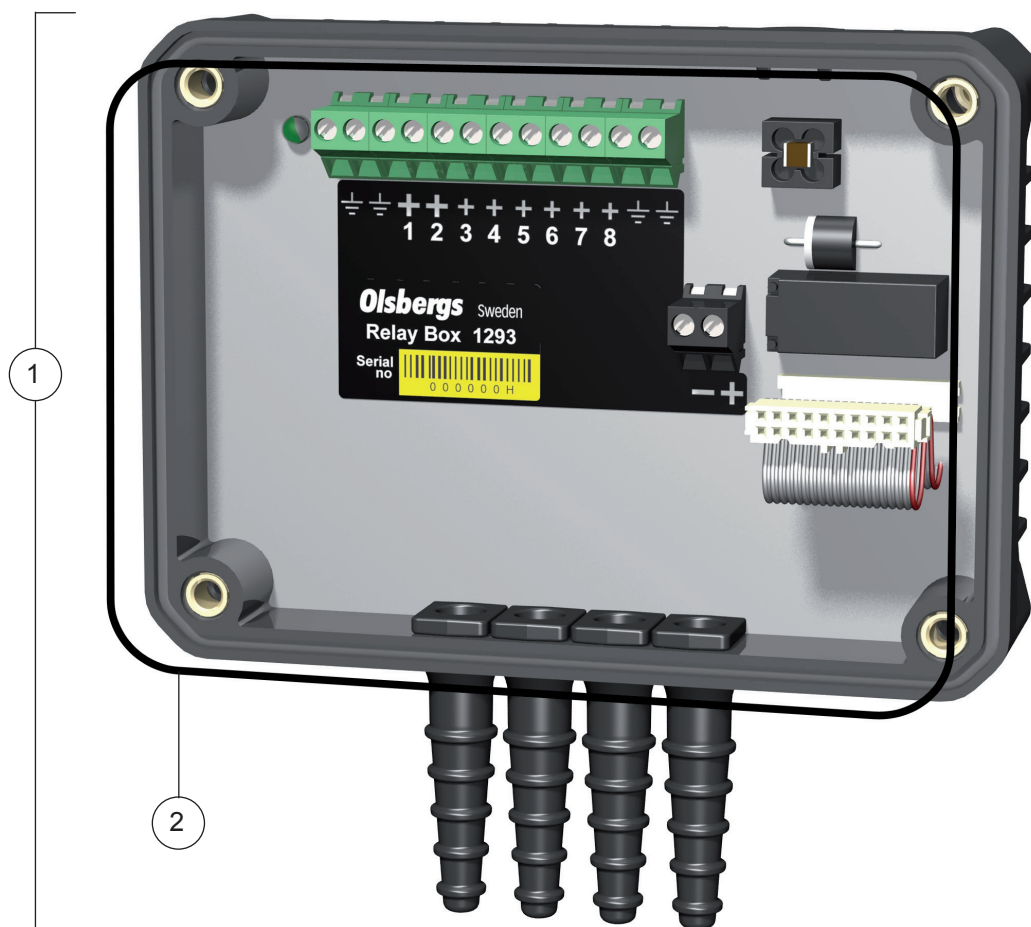
### Possible bottom modules

Pos	Part N°	Description	Note
	E1431	Bottom box, high	incl. o-ring
	1293	Relay Box PLUS, Bottom	incl. o-ring

# Relay Box PLUS, Bottom module

Spare parts

INTERIOR



Pos	Part N°	Description	Note
1	1293	Relay Box PLUS Bottom	incl. o-ring
2	S3151	O-ring Ø150,0x2,0	70 Shore Gapi

## Possible top modules

Pos	Part N°	Description	Note
	1296	Decoder / Radio MD2,	incl. aerial
	1292	Relay Box PLUS, Top	

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