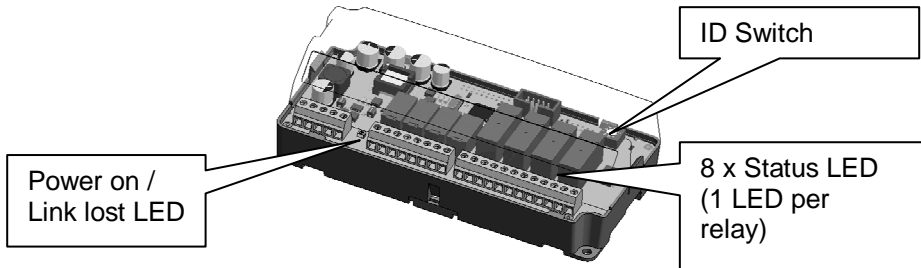DEEP SEA ELECTRONICS

2157 Output Expansion Installation Instructions

DSE®

Introduction

DSE2157 relay expansion module is used in conjunction with the DSE7000 series controllers to provide additional relay output functionality. The relay outputs are configured in the 'host controller', the DSE2157 module is not itself configured apart from the 'ID switch' detailed below.
For further details on configuring the 'host controller' you are referred to the relevant configuration software manual.

Controls and indications

ID Switch

Power on / Link lost LED

8 x Status LED (1 LED per relay)

LED Indications

Function	Colour	Action
Power on / Link lost	RED	Steady when DC supply is connected and data is being received from the host controller. Flashing when the DC supply is connected and the data connection to the host controller is not operating.
Status 1-8	RED	Lit when the corresponding relay is active

ID switch

The rotary ID switch is used to select the 'ID' of the 2157 expansion module as the host controller is capable of giving instructions to a number of 2157 expansion modules at the same time (consult relevant modules instructions for further details on number of supported expansion units).
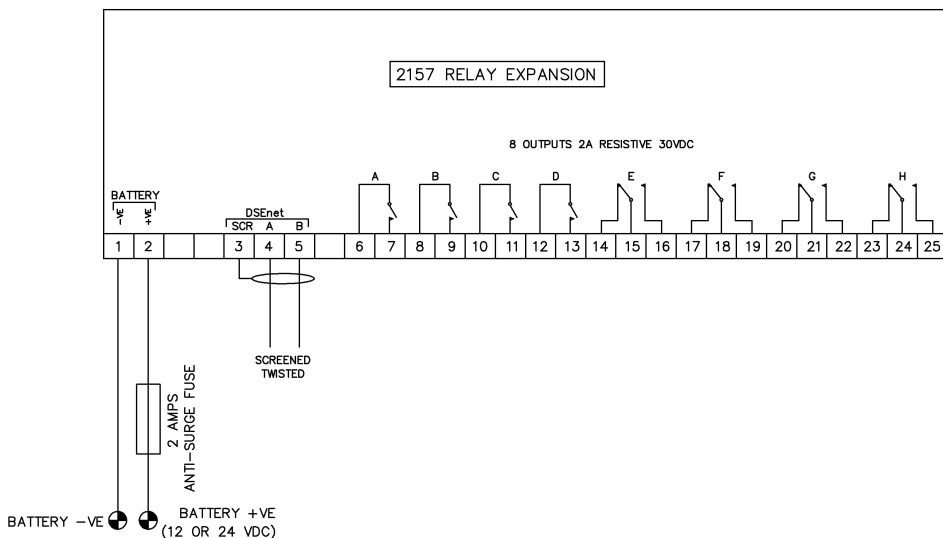
The enclosure cover must be unclipped and removed to gain access to the switch. The switch should be operated using a small screwdriver and set to match the required ID.

NOTE : The ID must be a unique number, different from the ID of any other 2157 module connected to the host controller.
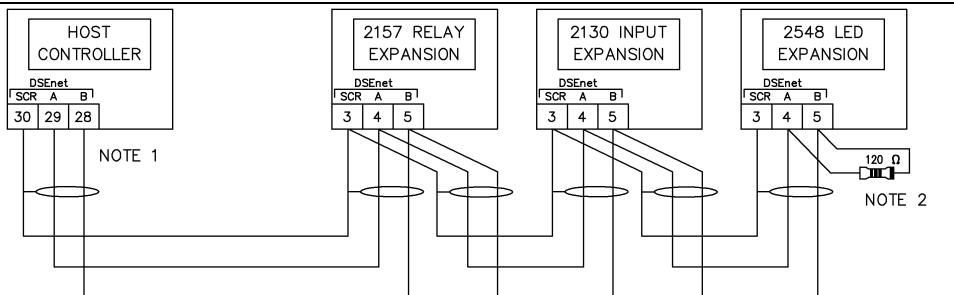**If two or more 2157 controllers are required to 'mimic' each other then they should be configured with different IDs, and both configured the same in the host controller.**

NOTE : The selection of the ID of other types of expansion modules WILL NOT interfere/clash with the ID of the 2548. For instance if the 2548 is set to ID 4, it is acceptable to have a different type of expansion module (for instance 2130) set to ID 4 also.

Typical wiring diagrams

```
                          2157 RELAY EXPANSION

                          8 OUTPUTS 2A RESISTIVE 30VDC

                          A      B      C      D      E      F      G      H

BATTERY        DSEnet
-VE  +VE       SCR A B
 1    2        3   4  5   6  7  8  9  10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

                          SCREENED
                          TWISTED

           2 AMPS
           ANTI-SURGE FUSE

BATTERY -VE      BATTERY +VE
                 (12 OR 24 VDC)
```

NOTE : Configuration of the outputs is performed in the host controller.

```
HOST               2157 RELAY          2130 INPUT          2548 LED
CONTROLLER         EXPANSION           EXPANSION           EXPANSION

DSEnet             DSEnet              DSEnet              DSEnet
SCR  A   B         SCR  A   B          SCR  A   B          SCR  A   B
30   29  28        3    4   5          3    4   5          3    4   5

     NOTE 1                                                         120 Ω

                                                                   NOTE 2
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NOTE 1
AS A TERMINATING RESISTOR IS
INTERNALLY FITTED TO THE
HOST CONTROLLER, THE HOST
CONTROLLER MUST BE THE
FIRST UNIT ON THE DSEnet

NOTE 2
A 120 OHM TERMINATION
RESISTOR MUST BE FITTED TO
THE LAST UNIT ON THE DSEnet

Dimensions

Overall size	164.6mm x 76.4mm x 48.9mm (6.48" x 3.01" x 1.93")
Mounting type	DIN rail or chassis mounting
Din rail type	EN 50022 35mm type only
Mounting holes	M4 clearance
Mounting hole centres	152.37mm x 64.50mm (6.00" x 2.54")