

# HAYDON

## 24VDC Switch Mode Boxed PSU

HAY-PSU24V1ASMSP & HAY-PSU24V2ASMSP &  
HAY-PSU24V4ASMSP

### Features :

- Mains input voltage 170-264Vac.
- Output voltage DC24V regulated.
- High efficiency electronics for reduced running costs and lower operating temperature.
- Full electronics short circuit and overload protection.
- Lid-tamper detection.
- Green Mains present LED.
- Red Fault LED.
- Selectable NO / NC input for Relay
- External DC24V voltage input for Relay

### Input Specification:

Input Voltage 170-264Vac, 47-63Hz  
Mains Input Fuse 3.0A 250V

### Output Specification:

Output Voltage DC24V1A or 2A or 4A (Subject to the model)  
Ripple 150mV pk-pk max.  
Load Output Fuse 1A or 2A or 4A (Subject to the model)  
Overload Protection Electronics shutdown until overload or short circuit removed.

**Box Size:** 200Wx240Hx75D mm removable Hinge

### Environmental:

Working Temperature -10°C~+40°C Storage Temperature -20°C ~+60°C  
Humidity 95% RH non-condensing

### Terminals:

DC-OUT x 2	+/- voltage O/P to load equipment
SW x 2	Switch for controlling Output ON/OFF
24V EXT x 2	+/- external voltage for controlling Output ON/OFF
Tamper x 2	Tamper volt-free contact

### Compliance:

This power supply unit meets the essential requirements of the following European Directives:

**Low Voltage 2006/95/EC EMC 2004/108/EC**  
**WEEE 2002/96/EC RoHS 2002/95/EC**

## GENERAL INFORMATION

**This unit is intended for use by qualified personnel only. There are no user serviceable parts inside hence no regular maintenance is required. Other than making sure all cables are securely fixed without any sign of damage.**

### Normal Operation:

During normal operation observe the following:

- 1) The green LED indicates Mains present.
- 2) The red fault LED indicates that the output fuse has blown or the output is off due to the contact switching at terminals **SW** or **24V EXT**(see diagram).
- 3) The red LED under the output fuse indicates that the output is on.
- 4) Lid Tamper: contact close when lid closed.(N/O volt-free contact)

### Fault Diagnosis(No DC output):

- 1) Ensure **SW** & **24V EXT** settings are correct for the application(refer to diagram)
- 2) Output fuse blown.

**Note:** Some equipment can draw more current on power up which is in excess of manufacturers current rating (Electro-magnetic locks can be a particular problem.)  
Fuse must be **Quick Blow** at power supplying rating...

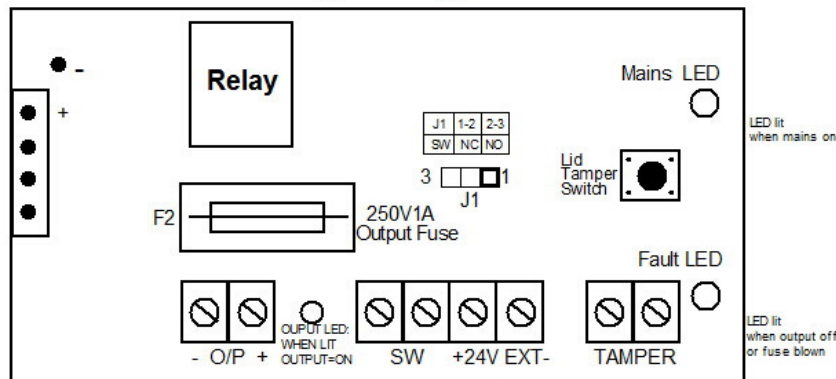
## INSTALLATION INSTRUCTIONS

This unit is only suitable for installation as permanently connected equipment

**This unit is NOT SUITABLE for outdoor installation. EQUIPMENTS MUST BE EARTHED.**

This unit should be installed according to all relevant safety regulations applicable to the application.

### Wirings Diagram



#### NOTE:

The function of SW can be altered by moving the J1 Jumper as indicated below:  
When positioned on 2-3 (default), the Output will remain ON until SW contacts are CLOSED.  
When positioned on 1-2, the Output will remain on until SW contacts are OPENED.

When N/O or N/C chosen, Output will drop off  
Apply external 24VDC, Output will drop off

### Mounting:

- 1) Mount the box on a flat vertical surface in correct orientation. This unit should be installed to allow maximum air movement where possible. Avoid areas that are subject to high temperatures or humidity.
- 2) Connect a suitable mains supply with an external disconnect device. This must be a 3amp fused unswitched spur installed by a qualified electrician certified to Part B.

- 3) Removed mains fuse from the fuse block.
- 4) Connect the load and all associated wiring. The DC24V terminals are marked – **DC-OUT +**. The cable size for the load should be rated to carry the load current for all devices connected to this

If required, connect an external switch to the terminals marked **SW**.

Subject to the settings (see diagram): Opening or Closing the switch will turn on or off output.

If required, connect an external supply to **24 EXT** terminals (see diagram). Pay attention to the correct polarity.

Application of a DC24V to these terminals will turn off the output

- 5) Mains and low voltage cables should be routed through separate knock-out holes. Where entry/exit holes are used in the box, a closed fitting cable protective rubber ring should be used. All cables should be securely fastened within the box with suitable cable ties.
- 6) Refit the mains fuse
  - A) Confirm GREEN mains LED is lit.
  - B) Confirm RED output is lit.
  - C) Ensure voltage across DC-OUT terminals: 24-27VDC ok.
- 7) Ensure GREEN/YELLOW earth lead is connected to lid earth tab. Close the lid and secure the box with screws supplied.

**INSTALLATION COMPLETED.**