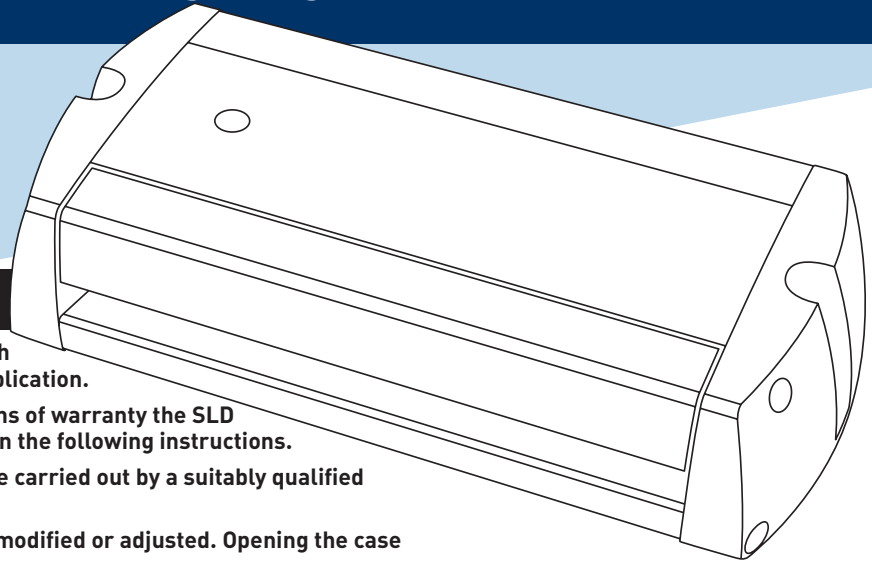


## INSTALLATION AND OPERATING GUIDE



### IMPORTANT

The SLD Lighting Dimmer must only be used in accordance with the directives and standards associated with the particular application.

In order to comply with the manufacturer's terms and conditions of warranty the SLD Lighting Dimmer must be installed and connected as detailed in the following instructions.

All wiring and connections to the SLD Lighting Dimmer must be carried out by a suitably qualified person according to sound electrical installation practices.

Under no circumstances should the SLD Lighting Dimmers be modified or adjusted. Opening the case by removing the screws will render the warranty void.

### APPLICATION

The SLD Lighting Dimmer is designed to be used on filament type lamps of the appropriate voltage ONLY (12 or 24VDC). Filament lamps include incandescent, halogen and xenon types. The SLD will NOT operate fluorescent lights and should NOT be used as a motor speed controller i.e. fans, blowers, wipers, etc. The maximum load ratings are depicted in the table below.

Model	For 12VDC Applications	For 24VDC Applications	Input Fuse Rating
SLD2040DC	200 Watts @ 13.0 VDC @ 30°C (86°F) max.	400 Watts @ 26.0 Volts DC @ 30°C (86°F) max.	20 Amps
SLD2550DC	250 Watts @ 13.0 VDC @ 30°C (86°F) max.	500 Watts @ 26.0 Volts DC @ 30°C (86°F) max.	25 Amps

### INSTALLATION

NOTE: Terminal Cover should be removed prior to mounting the SLD Lighting Dimmer. Using a small flat-headed screwdriver or similar tool, gently lever the terminal cover at the position(s) marked LEVER HERE. The terminal cover should click open without undue force. Select a suitable location where the SLD Lighting Dimmer can be mounted. It is important that the following conditions are adhered to:

1. The surface must be vertical, hard and flat. Do not install on an upholstered or insulated surface as the rear of the SLD must have clearance from the surface to ensure adequate heat dissipation.
2. Ensure the SLD is located in a well ventilated position, free from excessive moisture, dust, vibration and heat. A minimum of 50mm clearance should be allowed to other equipment at the top and bottom only (see diagram).
3. Ensure that the termination side of the SLD is facing downward and that there is adequate clearance to connect the wiring to the terminals.
4. Fix the SLD with appropriate fasteners ensuring both anchor holes are utilized. Do not overtighten.

### WIRING

In order to ensure safety, good service and long life the SLD Lighting Dimmer should be wired and connected according to the following method:

1. Disconnect the 12 or 24VDC supply at the source before attempting any connection to the SLD or lighting circuit.
2. Install an appropriately rated fuse or circuit breaker (see chart above) as the input protection for the 12/24VDC supply cable to the SLD.
3. Connect all circuits to the SLD as per the diagram overleaf. Ensure that the correct wire sizes are used for the model installed (consult your wire supplier for appropriate current ratings).
4. Ensure that the SLD is not reverse polarity connected. If the input connections are reversed damage can occur rendering the SLD inoperable.

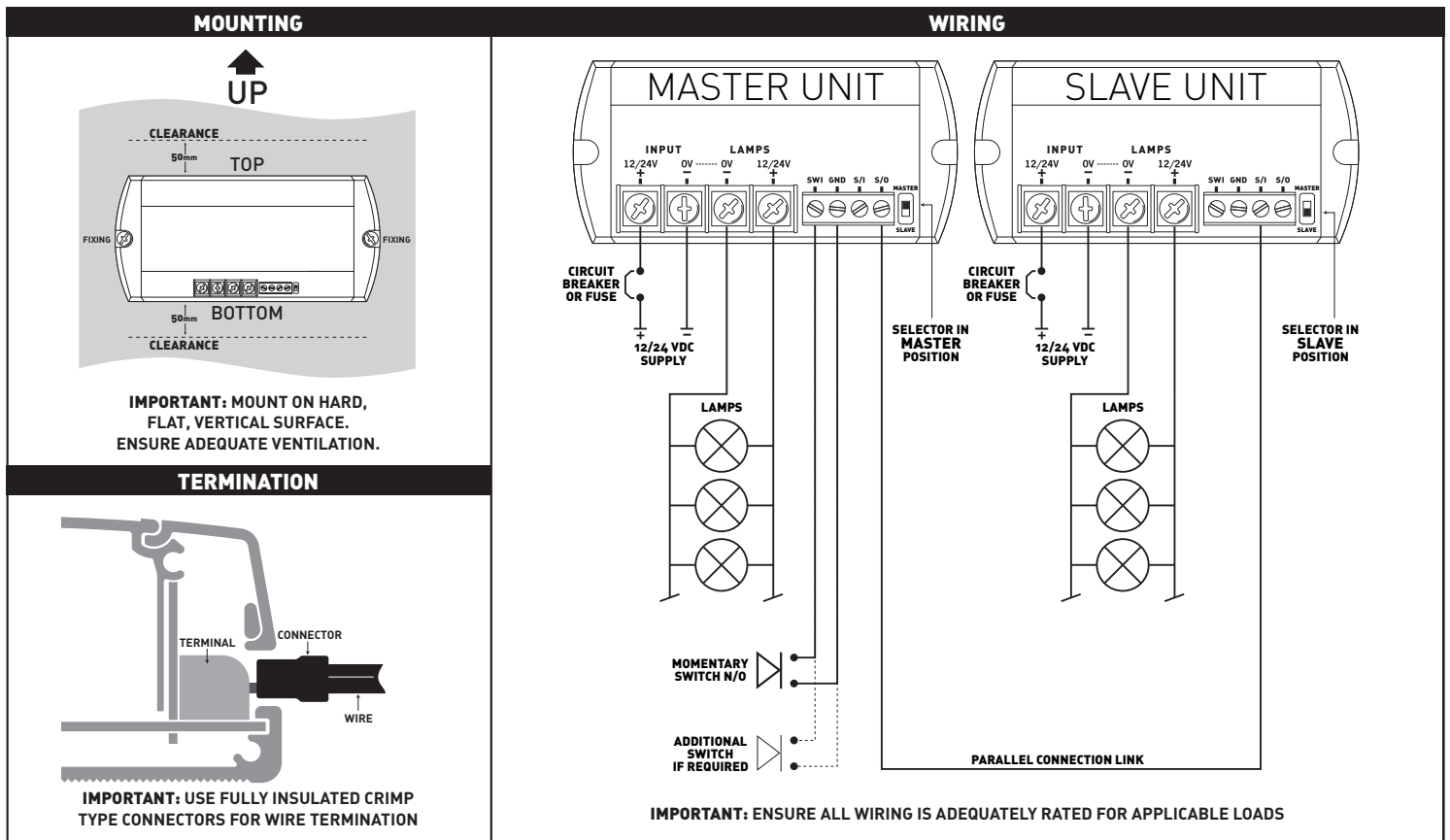
5. **It is important to note that all output wiring (lighting circuit) should NOT be routed alongside any communication, data, signal or speaker cables. Doing so MAY cause induced interference in the applicable equipment.**
6. A single, normally open, momentary, pushbutton switch can be used to operate the SLD. It is also possible to parallel as many switches as required so the SLD can be operated from various locations.
7. Re-connect the input supply at the source and turn on the circuit breaker or switch. The LED Diagnostic Indicator on the SLD should now be flashing green intermittently. This indicates the SLD is in standby mode and ready to use. The terminal cover can now be re-fitted. No tools are required – simply click in place by hand. If there is no indication refer to the fault finding section overleaf.

### OPERATION

Once properly installed and connected, operating the SLD Lighting Dimmer is a simple procedure. The steps are outlined below:

- After checking that the main circuit breaker/switch is turned on, push and hold the light switch (pushbutton). The lights will come on at the factory set level initially.
- Hold the light switch to ramp the level up or down. There is no need to ramp through the complete cycle to find the appropriate level. The direction can be reversed by simply removing your finger from the light switch and re-applying to change the level.
- Pushing the light switch again once will turn the lights off.
- When the light switch is pushed again the lights will come on at the same level as they were when last turned off (memory function).
- If the lights are not operating in the manner described above please refer to the fault finding section overleaf.





## PROTECTION

The SLD Lighting Dimmer is protected from a variety of connection and application errors by a range of built in devices. In most situations these errors are revealed by the diagnostic indicator and can be corrected without having caused damage to the SLD. The SLD is protected in the following situations:

- **Soft-Start.** Lamps are protected from high in-rush current on start-up by a purpose-designed circuit.
- **Thermal Overload.** In the event the SLD exceeds the factory preset temperature limit the output will be reduced by half. The output will be restored to normal when the temperature decreases to the appropriate level. This is an important safety feature as, rather than shut down the lighting circuit completely and leaving the user in the dark, the lights will stay dim in order to maintain visibility.
- **Output Short Circuit.** If the output (light circuit) is short circuited the SLD will be disabled. When the short circuit is fixed/removed, normal output supply will be restored.
- **Output Overload.** If the output (light circuit) is continually overloaded the SLD will go into thermal overload (see above).
- **Output Over Voltage.** The SLD is designed to control the output voltage from 10-98% of input voltage as an integral part of the soft start feature. As a result the output voltage is fully regulated.
- **Transient Input Voltage.** A purpose designed circuit will filter any undesirable spikes, surges and transient voltages.

## WARRANTY POLICY

interVOLT products are warranted for a period of 24 months against faulty materials and/or workmanship from date of last sale or a maximum of 36 months from the date of manufacture subject to the following terms and conditions:

- The goods must be installed and operated in accordance with the manufacturers recommendations and instructions set out within this guide.
- In the event of a claim the goods are returned to the original point of purchase with a copy of the merchant invoice or the relevant merchant invoice number.
- In the event of a claim any associated expenses including diagnosis, removal, and/or installation of the goods is the responsibility of the client including any freight costs.
- The warranty shall be void where the goods have been used for a purpose for which they are not intended, or altered in any way that is detrimental, or opened or tampered with by an unauthorized party, or damaged by mechanical abuse, or contaminated by water or other substances, or damaged by incorrect application.
- Save and except for the express warranty set out above and to the maximum extent permitted by law, all conditions and warranties which may at any time be implied by the common law, Trade Practices Act, Fair Trading Act or any other State or Federal Act are excluded. To the extent that these cannot be excluded and where the law permits, the manufacturer in respect of any such condition or warranty shall be limited at their option to the repair or the replacement of the goods or the supply of equivalent goods or refunding the cost of the goods.

## DIAGNOSTICS AND FAULT FINDING

Indication	Status	Cause	Remedy
Green – Pulsing	System Standby	N/A	N/A
Green – Steady	Lamp Load on	N/A	N/A
Amber – Steady	Thermal Overload	Lack of ventilation Exceeding maximum load rating	Check to ensure ventilation to SLD is adequate. Check loads to ensure they do not exceed rating of SLD
Red – Steady	Short Circuit	Short circuit on output (lighting circuit)	Remove load and check for short circuit
No Indication	Out Of Service	No input supply Internal fault	Check circuit breaker/switch to ensure circuit is on. Return to authorised service centre