Sentinel M24
Wiring for 24 Volt DC Inputs and Outputs
With 120 or 230 VAC Supply Power
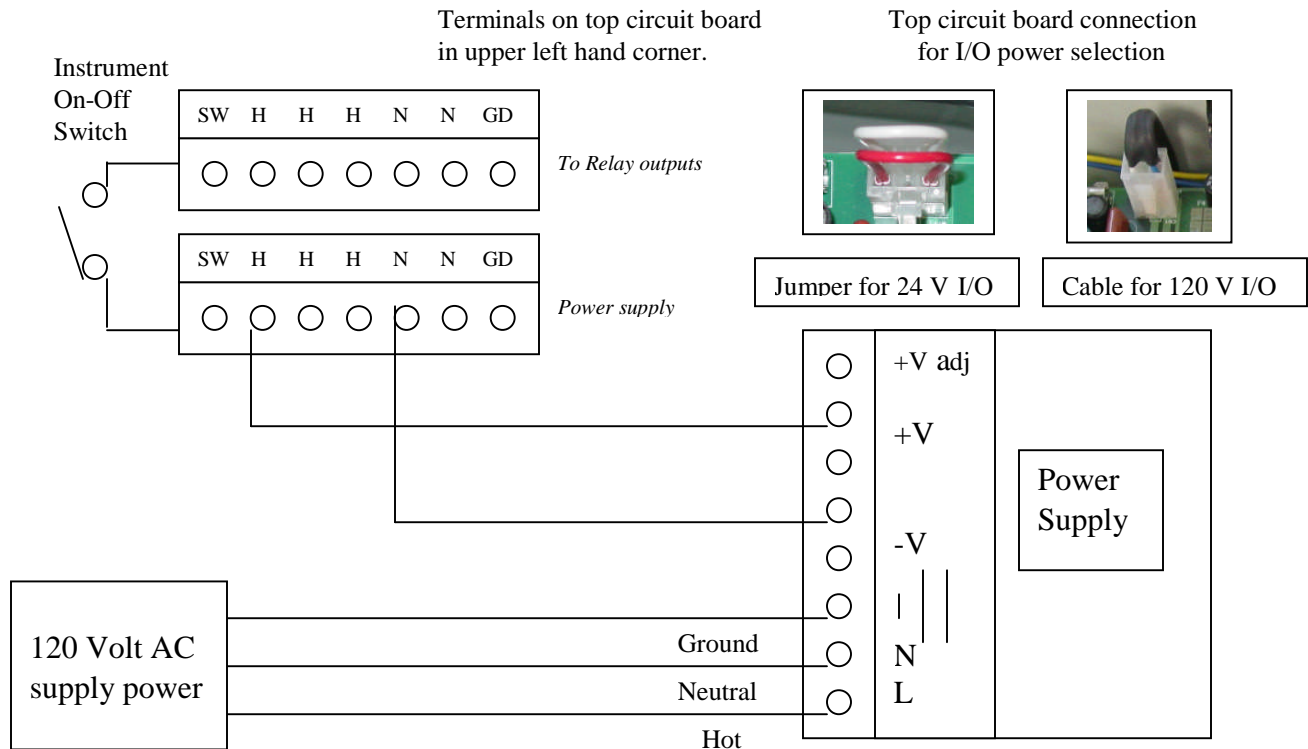
The Sentinel M24 can be supplied with an internal power supply that is powered by either 120 VAC or 230 VAC and have the digital input and output terminals operate with 24 volt DC.

120 Volt Wiring

For the 120 volt option the wiring (hot, neutral and ground) are connected directly to the L-hot, N-neutral, and (ground symbol) – ground terminals.   The instrument power switch is wired through power switch supply and power switch return on the main power entry terminals located in the upper left corner of the top circuit board. The 24 volt supply voltage (+V and –V) from the power supply are wired to the main power entry terminals located in the upper left corner of the top circuit board to terminals Supply Hot from +V and Neutral from -V. If originally supplied for 120 volt I/O, remove the cable wiring from the power supply to the top circuit board and replace with a jumper connector on the top circuit board connection.

Terminals on top circuit board in upper left hand corner.

Top circuit board connection for I/O power selection

Instrument On-Off Switch

SW	H	H	H	N	N	GD
○	○	○	○	○	○	○

To Relay outputs

SW	H	H	H	N	N	GD
○	○	○	○	○	○	○

Power supply

Jumper for 24 V I/O   Cable for 120 V I/O

○ +V adj
○ +V
○
○ -V
○
○
○ N
○ L

Power Supply

120 Volt AC supply power

Ground
Neutral
Hot

For the 230 volt option one leg of 230 volt wires goes directly to the L terminal on the power supply. The second 230 volt leg goes through the power on-off switch to terminal N on the power supply and the neutral or ground wire goes to ground. A jumper wire is connect between the power switch supply and power switch return terminals located in the upper left corner of the top circuit board. The 24 volt supply voltage (+V and –V) from the power supply are wired to the main power entry terminals located in the upper left corner of the top circuit board to terminals Supply Hot from +V and Neutral from –V.

Terminals on top circuit board in upper left hand corner.

SW	H	H	H	N	N	GD
○	○	○	○	○	○	○

To Relay outputs

SW	H	H	H	N	N	GD
○	○	○	○	○	○	○

Power supply

+V adj

+V

-V

N

L

Power Supply

230 Volt supply power

Instrument power switch

Neutral

Hot

Hot