

ELECTRICAL RECOMMENDATIONS FOR AIR MACHINES

DeVilbiss compressors have much more power and therefore more electrical demand than most customers are used to. Because of this, often the size of the wire to the unit is inadequate to allow enough current for the motor to start. When the switch is first closed, there is a very high current demand (inrush current) when the motor is not turning (locked rotor condition). This massive current is momentary and several times greater than running current.

MINIMUM WIRE SIZES FOR COMPRESSORS

50 feet from service panel – 12 gauge for 1 1/2 hp
100 feet from panel – 10 gauge for 3 hp

50 feet from service panel – 9 gauge for 3 hp
100 feet from panel – 7 gauge for 3 hp

SYMPTOMS WHEN WIRE SIZE IS TOO SMALL

- The motor never gets up to full speed and, after a few seconds, the circuit breaker triggers.
- The compressor runs in a loping pattern, sounding like an irregular gallop.
- The motor gets hot immediately.
- The compressor runs but never gets any air pressure.

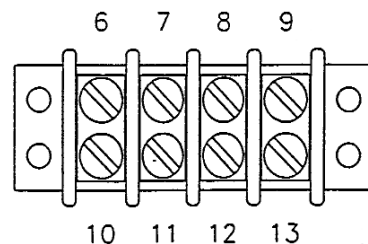
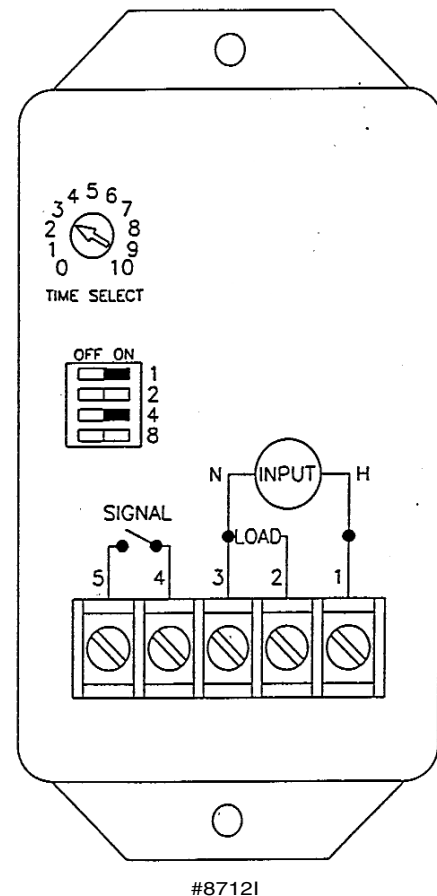
The same theoretical situation applies to the vacuums but the easier load of a fan compared to a piston allows the motor to get up to speed. If a customer complains that the vacuums run but the circuit breaker triggers often, it is usually the wire size to the unit.

WIRING FOR AIR MACHINES

- A white wire must run from terminal 3 to terminal 7.
- A black wire must run from terminal 1 to terminal 9.
- The Power On Light (the left light when you are facing the cabinet) connects to terminals 7 and 9.
- The In Service Light (the right light when you are facing the cabinet) connects to terminals 2 and 8.
- The Air Dump Solenoid connects to terminal 2 and 8.

- The Compressor's white wire connects to terminal 3 (the white wire connects to terminal L2 on compressor). The black wire connects to terminal 2 (the black wire connects to terminal L1 on compress). The green wire connects to terminal 6 (the green wire connects to the case of the motor).
- The Micro Switch connects to terminals 4 and 5.
- The Coin Counter (optional) connects to terminal 2 and 3.

From Power Source, attach Green wire to terminal 10, White wire to terminal 11, and Black wire to terminal 13.



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