

PORTABLE ELECTRIC DESOLDERING TOOL**ABSTRACT**

The present invention is directed to a self-contained desoldering gun (10) having a built-in vacuum pump. The vacuum pump is operated by a low voltage electric motor (50) which is electrically connected in at least partial series with a heating tip (34). According to an exemplary embodiment of the invention a full wave bridge rectifier (71) is used to supply power to the vacuum pump motor (50) and a built-in vacuum pump while using a half wave bridge rectifier to supply power to the heater (34). In exemplary embodiments, the vacuum pump is provided for drawing molten solder and when a trigger is activated the motor (50) is subsequently energized and the output of the heating tip (34) is increased.

FIG.3