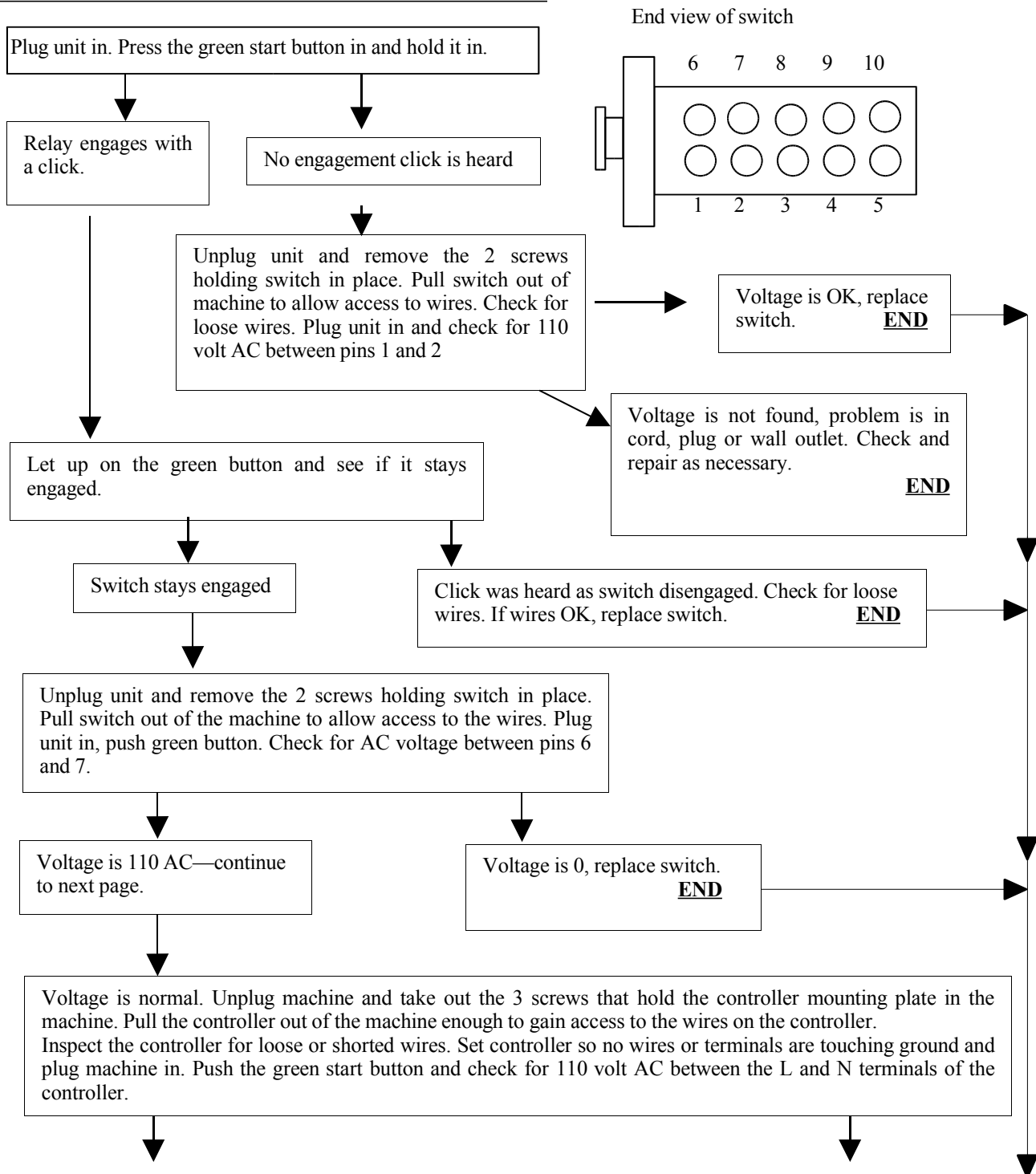


TROUBLESHOOTING THE ELECTRICAL SYSTEM OF THE GN1324 & GN1340

MOTOR WILL NOT RUN

Troubleshooting of the Granite machines can be accomplished with a simple volt/ohm meter that is available from most discount stores for under \$10.00. A 12-volt power supply such as a car battery or an automotive battery charger can be used to test the motor. A 110 volt electric light bulb with test leads attached can be substituted for the volt meter. **MAKE SURE THE MACHINE IS UNPLUGGED WHEN BEGINNING ANY MAINTENANCE OR REPAIRS ON ANY MACHINE!** A wiring diagram, controller replacement sheet and controller adjustment sheet are also needed with these instructions.

TESTING OF THE AC INPUT AND THE ON/OFF SWITCH.



MOTOR WILL NOT RUN (CONTINUED)

Normal 110 volts AC, turn the speed control dial to max and check for DC voltage between A and A/F on the controller. This voltage can range from 90 volts down to 9 volts and be normal. A 110 volt light bulb can be used as a voltage tester between terminals A and A/F. The bulb brightness can be varied by the speed dial if the controller is functioning properly.

No voltage, problem is in the wires between the switch terminals 1&2 and the controller terminals L & N Repair wires.
END

No DC voltage, replace the controller and also go to the last step to check motor. NEVER INSTALL A NEW CONTROLLER ON AN OLD MOTOR WITHOUT CHECKING MOTOR FIRST. A BAD MOTOR CAN DESTROY A NEW CONTROLLER AND VOID THE CONTROLLER WARRANTY!!!

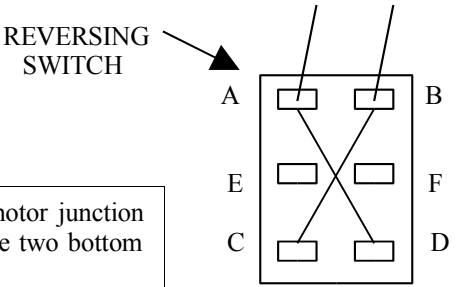
DC voltage is present, go to the reversing switch and check for DC voltage between the two center terminals on the reversing switch.

No voltage at reverse switch, the problem is in the wires that go from the controller to the reversing switch. Repair wires as needed.
END

DC voltage is present, check for DC voltage between the two terminals on the reversing switch that have 2 wires on each terminal.

No voltage, replace the switch.
END

DC voltage is present, check wires going to motor. .



UNPLUG THE MACHINE. Remove the cover from the motor junction box. Plug the machine in and check for voltage between the two bottom terminals on the motor.

DC voltage is not present, repair wires going to motor.
END

If voltage is present, remove the two top wires from the motor. There should be continuity between the two motor terminals but NOT to ground. A simple test of the motor is to hook a 12 volt power source such as a car battery or an automotive battery charger to the two top motor terminals.. The motor should run on 12 volts, not very fast but it should run. If it does not run, replace the motor.
END

When replacing the switch, it is advisable to test the rest of the system to be sure there is not any other problems. It is possible to bypass a bad switch in order to troubleshoot the rest of the system. Unplug the machine. Disconnect the wires from L and N at the controller. Connect an AC chord to the L and N terminals of the controller. When the chord is plugged into an outlet, the machine will come on instantly if the rest of the electrical system is OK. You should be able to vary the motor speed with the normal control knob. **Do not plug the machine chord into the outlet during these tests.** Again be careful because when you plug in the chord you have attached to the controller for testing, there is no on/off switch! The machine will come on as soon as the plug is inserted into the socket.
END