PRODUCT SUPPORT BULLETIN
BULLETIN NO. 310

DATE: **August 7, 2000**

MACHINE: **Super B Spike Driver**
Super B-2 Spike Driver
Model 44 Spike Driver
Hydra-Hammer Model A, B, B-2 Spike Driver
Anchor Remover
Anchor Applicator Model E

SERIAL NUMBER(S): **Spike Drivers – All with Proximity Switches**
Anchor Removers - All
Anchor Applicators - Through s/n 680264

SUBJECT: **12-Volt Power Supply Filter - 50180016**

There have been instances of some of these machines intermittently not working or working erratically due to too low a voltage being supplied to the proximity switches. The main logic boards have a built-in nominal 9-volt regulated power supply. Due to component tolerances, some boards produce lower voltages than other boards. This may cause erratic operation of the proximity switches and the machine.

To solve this problem, the switches are supplied with 12-volt power. However, if voltage spikes over 15 volts are applied to the switches, damage to the logic board can result. Since voltage spikes produced by the alternator can exceed 15 volts, the 12-volt supply to the switches must be filtered.

Filter p/n 50180016 has been designed to eliminate these voltage spikes. It is easily installed in all of these machines in only a few minutes. Simply connect the filter black wire to a 12-volt wire that is controlled by the master switch, the green wire to any ground point and the red wire to the power wires for the proximity switches. The filter is installed in a similar manner on all machines, but the wire numbers vary between the different types. Follow the installation instructions for your particular machine. Please note that due to field repairs and modifications, individual wires may not be in the exact locations shown.

This filter will supply filtered 12-volt power to all of the proximity switches on these machines and will prevent harmful voltage spikes from reaching the logic board. **Note that the hand controllers will still be using the 9-volt power supply from the logic board. Do not connect the hand controllers to the filter output, as this will damage the filter.**

Anchor Applicator Model E

1. Refer to Figure 1. Remove the #9 wire coming from the Logic Board from TB1. Tape the end of this wire to prevent short circuits.
2. Connect the **BLACK** filter wire to any #6 terminal on TB1.
3. Connect the **GREEN** filter wire to any #2 terminal on TB1
4. Connect the **RED** filter wire to the #9 terminal on TB1. This is the same terminal where the logic board wire was originally connected.
5. Turn on the electric power to the machine and turn on the Automatic mode. Verify that there is 12-volt power on all of the #9 wires.

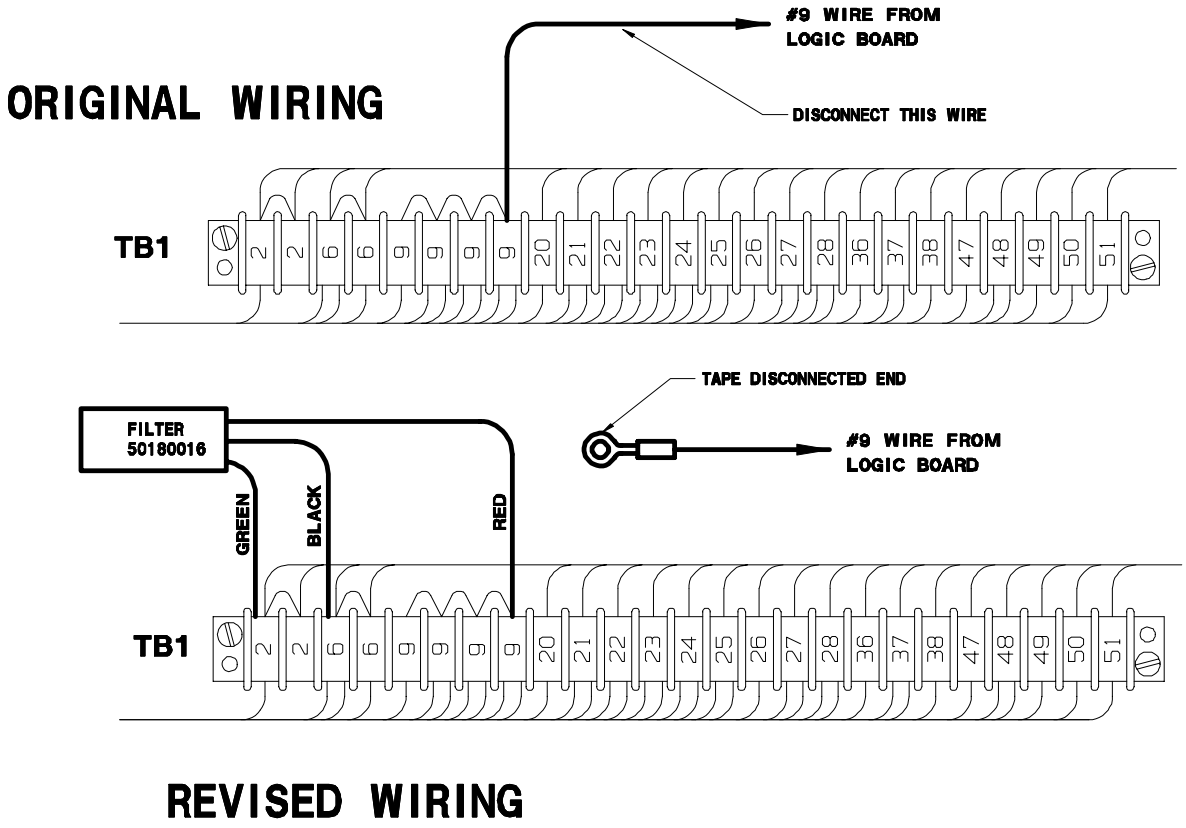

Figure 1

Anchor Remover, Super B and Super B-2 Spike Driver, Model 44 Spike Driver and Hydra-Hammer Model B & B-2 Spike Driver

1. Refer to Figure 2. Remove the jumper from TB3 connecting the two #49 wires from the Left and Right Proximity Switch Harnesses to the rest of the #49 wires. There is one #49 wire for each harness. Both proximity switch wires should be connected together, but not to any other wires. There should be continuity between the proximity switch wires and Terminal 1 of the proximity switch connectors. Check with a continuity tester to verify you have isolated the correct wires. Renumber these wires #600.
2. Connect the **RED** wire of the filter to the two #600 wires from the proximity switches.
3. Connect the **BLACK** wire of the filter to any #6 terminal on TB6.
4. Connect the **GREEN** wire of the filter to any #2 terminal on TB5 or TB6.
5. Turn on the electrical power to the machine and verify that there is 12–volt power to Terminal 1 of the proximity switch connectors. There should be 9-volt power going to the hand controllers.
6. Secure the filter to the wires inside the box with wire ties.

Remember that due to field modifications that may have been made to these machines, the Proximity Switch Harness wires may not be located in the exact position shown. **It is very important that only the proximity switches receive 12-volt power or damage to the filter may result.**

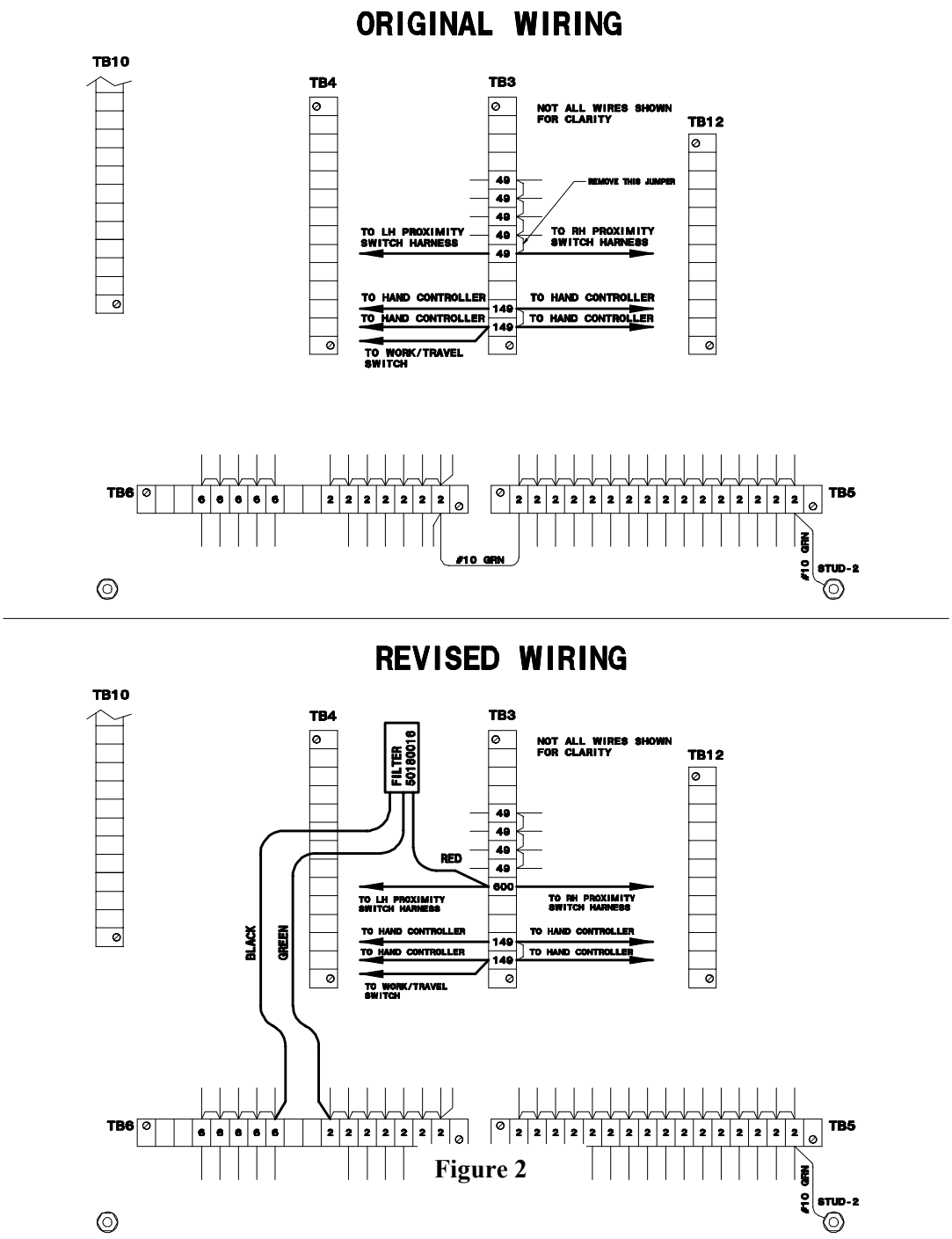

Figure 2