

**whaledent<sup>®</sup>**

**Super-Dent<sup>®</sup> SD-2000**

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# Super-Dent<sup>®</sup>

## SD-2000

### Ultrasonic Cleaning Unit

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**TECHNICAL MANUAL**

**(Excerpt)**

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# Section 6

## Disassembly and Assembly

### Disassembly

To disassemble the Super-Dent® SD-2000, use the instructions in Table 5 located on page 6-4 and refer to the SD2000 Assembly Drawings (Figure 15 & 16) located on pages 6-2 and 6-3.

**Note:** Be sure to drain all fluid from the tank before performing the following procedures.



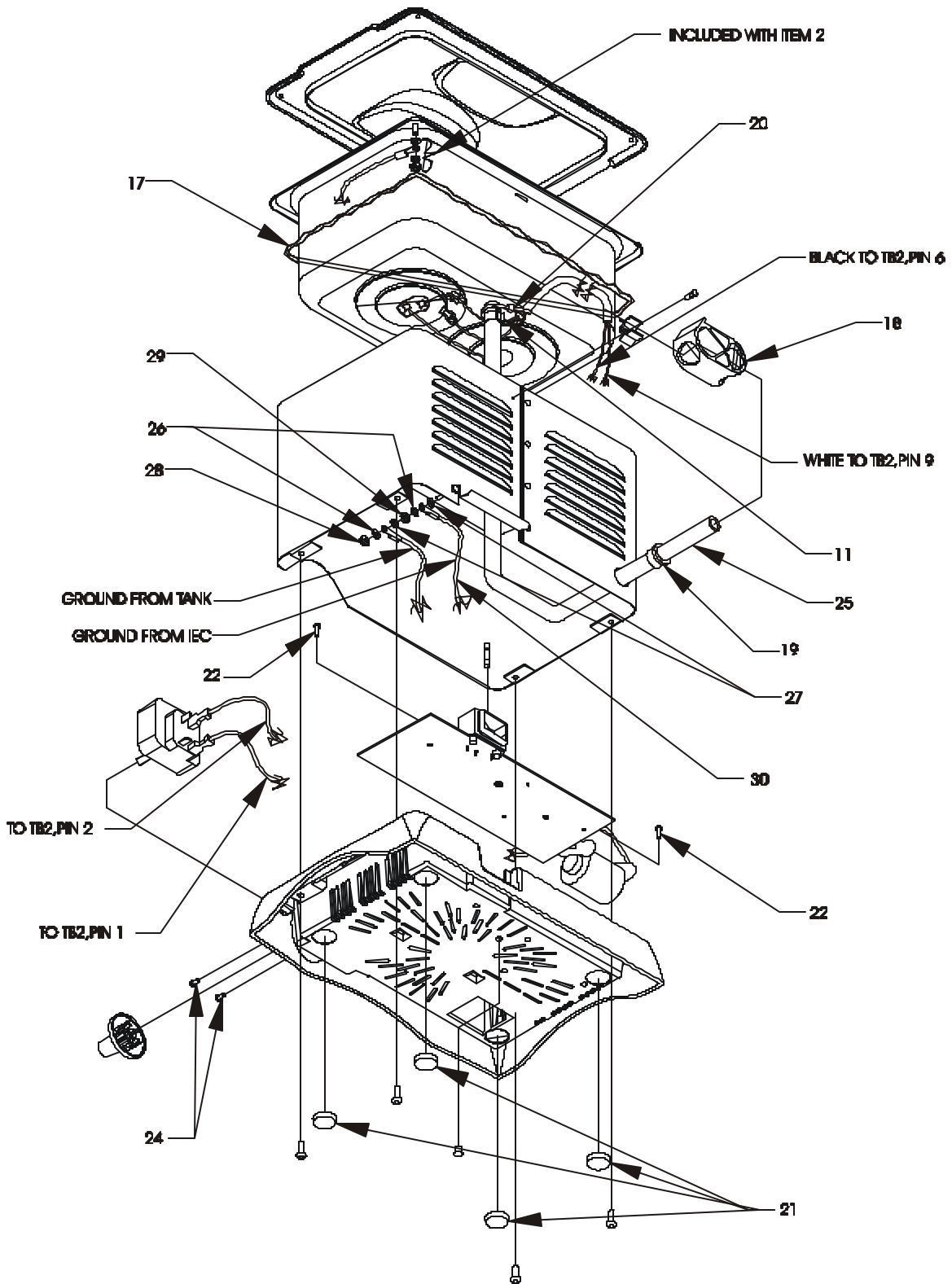


Figure 16 SD2000 Assembly (Below view)

**Table 5**  
**Disassembly Instructions**

To disassemble the...	Do this...
<p><b>Housing and Tank Assembly</b></p>	<ol style="list-style-type: none"> <li data-bbox="727 422 1461 489">1 Remove the four screws (Item 23) from the bottom of the unit (Item 4).  <b>Note:</b> It is not necessary to remove the timer knob, the timer, or the rubber feet from the unit.</li> <li data-bbox="727 600 1461 667">2 Separate the upper housing and tank assembly (2 &amp; 3) from the lower housing (4).  <b>Note:</b> Use caution when separating the upper housing from the lower housing. Crystal-connecting wires and ground wire are connected between the upper and lower housing.</li> <li data-bbox="727 852 1461 953">3 Remove the ground wire that connects from the Tank (Item 2) to the power receptacle on the circuit board (Item 5).</li> <li data-bbox="727 978 1461 1150">4 On the circuit board's terminal block (TB2), which is located at the bottom of the tank, remove the wires from the transducers. Release the black wire from pin 6 and the white wire from pin 9.  <b>Note:</b> PC boards have a modular, "finger grip" type terminal block. To remove wires from this connector, push a paper clip into the wire slot alongside the wire. Gently pull the wire out and remove the paper clip.</li> </ol>

To disassemble the...	Do this...
<p><b>Timer Assembly</b></p>	<ol style="list-style-type: none"> <li>1 Separate the upper housing and tank assembly from the lower housing. (Refer to the Housing and Tank disassembly procedure on the previous page).</li> <li>2 Remove two wires from the terminal block at connectors.</li> <li>3 Remove the timer knob (Item 7).</li> <li>4 Remove the two screws (Item 24) under the knob and then remove the timer assembly (Item 6).</li> </ol>
<p><b>Printed Circuit Board</b></p>	<ol style="list-style-type: none"> <li>1 Separate the upper housing and the tank assembly from the lower housing. (Refer to Housing and Tank disassembly procedure above.)</li> <li>2 Remove the Tuning Coil (Item 12) connections at the terminal block (TB2). Release the black wire from pin 7 and the black wire from pin 10. <b>Note:</b> PC boards have a modular, “finger grip” type terminal block. To remove wires from this connector, push a paper clip into the wire slot alongside the wire. Gently pull the wire out and remove the paper clip.</li> <li>3 Remove the two timer connections at the timer that lead from the terminal block (TB2) Pin 1 and Pin 2.</li> <li>4 Remove the two screws (item 22) located in the centre of the circuit board (Item 5) that holds the circuit board in place.</li> </ol>

To disassemble the...	Do this...
<b>Drain hose</b>	<ol style="list-style-type: none"> <li>1 Separate the upper housing and the tank assembly from the lower housing. (Refer to the Housing and Tank disassembly procedure).</li> <li>2 Release the hose clamp (Item 18) at the drain outlet and then remove the hose (Item 25) from the fitting on the tank.</li> <li>3 Remove the crimp clamp (Item 11) and slide the hose through the bushing (Item 19) on the tank housing, pulling the hose inside the tank housing.</li> </ol>
<b>Tuning Coil</b>	<ol style="list-style-type: none"> <li>1 Remove coil wires from pins 7 &amp; 10 of TB2 on the PCB  <b>Note:</b> PC boards have a modular, “finger grip” type terminal block. To remove wires from this connector, push a paper clip into the wire slot alongside the wire. Gently pull the wire out and remove the paper clip.</li> <li>2 Cut the sealant (item 15) such that the coil (item 12) and ferrite (item 13) can be removed from its cradle. Pull snaps gently apart as you remove the coil and ferrite from the cradle.</li> </ol>

**Note:** The transducers mounted on the tank are not serviceable and are considered an integral part of the tank assembly.

## Assembly

To assemble the Super-Dent® SD-2000, refer to the appropriate instructions for disassembly and perform all applicable the steps in reverse. Also, refer to the wiring schematics on pages 3-5, 3-7, 3-9, or 3-11 for proper wire connections.

To assemble the...	Do this...
<b>Tuning Coil</b>	<ol style="list-style-type: none"><li data-bbox="727 533 1476 604">1 Remove as much of the sealant as possible if reusing components.</li><li data-bbox="727 625 1476 842">2 Insert ferrite (item 13) into coil (item 12) and hold together in one hand. Make sure that the coil platform (item 14) is in place in the cradle portion of the lower housing. Gently press the assembly into place between snaps in lower housing.</li><li data-bbox="727 863 1476 934">3 Apply liberal amounts of silicone sealant (item 15) to the coil, ferrite, and snaps.</li></ol>