



REPAIR KIT (PN #D149000) HEATER CONNECTION

IMPORTANT: Read complete instructions before beginning installation procedure.

This kit contains the necessary parts to replace the plug-in style connector for the heater with a strain relief bushing and terminals to connect the heater supply cord directly to the heater relay. (For SCM 0025000 or 8760000.)

CAUTION! FOLLOW THESE INSTRUCTIONS EXACTLY. FAILURE TO DO SO MAY CAUSE EVENTUAL CONDUCTOR OR COMPONENT FAILURE.

Contents of Kit: One strain relief (P/N C463000); one lock nut (P/N C539000); two spade terminals (P/N 4736000); three tie wraps (P/N 4822000).

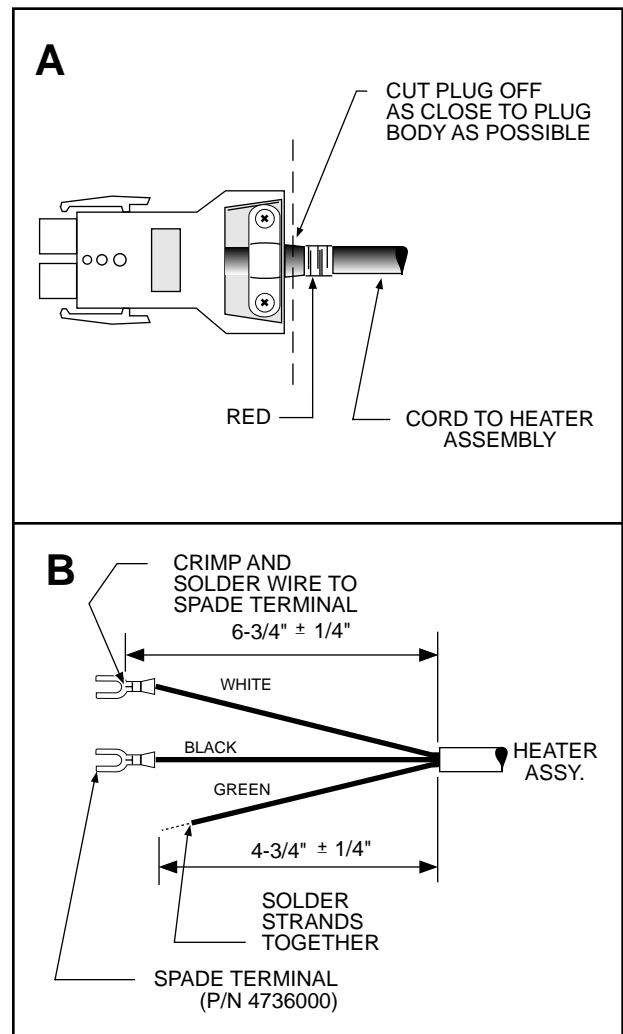
Preparation: Remove electrical power from spa. Locate the area of the System Control Module (SCM) where the heater power cord plugs into the SCM. Also locate the top right relay within the SCM whose right terminals have leads going to the heater power connector (see Figure C).

Preparing the Heater Cord End:

Refer to Figure A and Figure B as the following steps are done:

CAUTION: Solder must be suitable for electrical work. Do not use acid core solder or other fluxes.

1. As close to plug body as possible, cut plug off cord.
2. Strip outer jacket insulation from cord $6-3/4" \pm 1/4"$.
3. Cut green wire so that its length is $4-3/4" \pm 1/4"$.
4. Strip end of green wire $7/16" \pm 1/16"$.
5. The stripped wire strands of the green wire must lay together (no strands to be sticking out from the rest). Solder the stripped wire; solder must wet and wick into the wire strands.
6. Strip ends of white and black wires $5/16" \pm 1/32"$.
7. Crimp spade terminals to the white and black wires.
8. Solder exposed wire end to terminal. Solder must wet and wick into the wire strands. No solder should encompass area of terminals further than $1/16"$ from insulation sleeve. (This keeps any solder build-up away from the area that the terminal screw will contact.)



Install Strain Relief:

Refer to Figure C and Figure D as the following steps are done:

1. Remove the heater receptacle assembly. Note the location of the 3 wires when disconnecting them.
2. Install strain relief (P/N C463000) and locknut (P/N C539000).

Reconnect Heater Cord:

Refer to Figure E as the following steps are done:

1. Install the modified heater cord through the strain relief and tighten the strain relief on the cord. (See Diagram E).
2. Connect the green wire to the grounding block, where the previous green wire was removed from. Tighten the screw that secures this green wire.
3. Connect the white wire's spade terminal to the top right terminal of relay 3. This is where a wire was removed. Tighten the screw to $\pm 20 \pm 2$ in/lbs of torque.
4. Connect the black wire's spade terminal to the lower right terminal of relay 3. This is where a wire was removed. Tighten the screw to 20 ± 2 in/lbs of torque.
5. Neatly position the wires and secure them with three tie wraps (P/N 4822000).
6. Inspect your work and remove any debris. Close SCM door.

Test the spa:

Connect electrical power to the spa. Test and verify that all spa functions are operating.

