

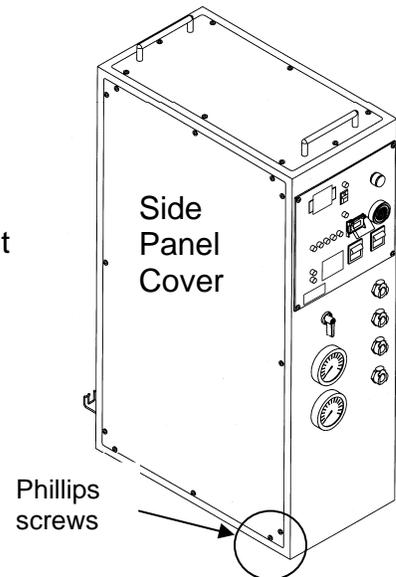
MILLENIUM MOTOR REPLACEMENT PROCEDURE

Tools and Materials Required

- Screwdriver (flat & Phillips)
- Nut driver 5/16 inch
- Wrench, open-end 13/16 inch or adjustable-type
- New Motor (3002168)
- Teflon Tape (ME60028)
- New fittings (optional)

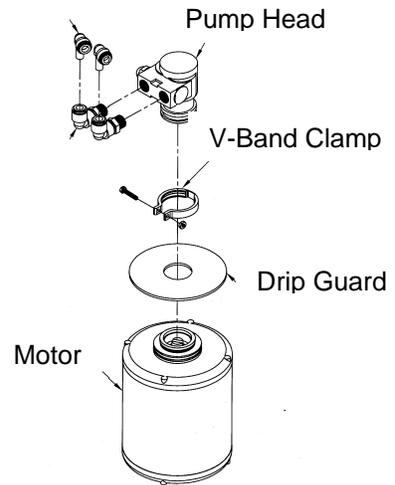
Initial Preparation

1. Turn off Millenium.
 2. Turn off water supply at source.
 3. Briefly turn ON the Inlet Water Valve switch. Allow system (including, if present, carbon tank(s), softener, pre-filter housing, etc.) to fully depressurize.
 4. Disconnect water lines: Product, Feed and Waste.
 5. Unplug power cord.
- WARNING:** Ensure power cord is disconnected to prevent risk of electric shock, which could result in injury or death.
6. Remove Millenium from cart.
 7. Remove large side panel cover (Phillips screwdriver).



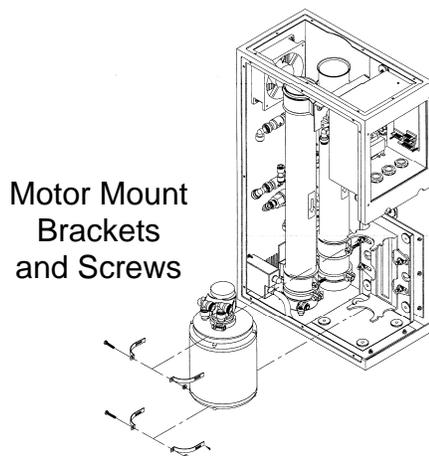
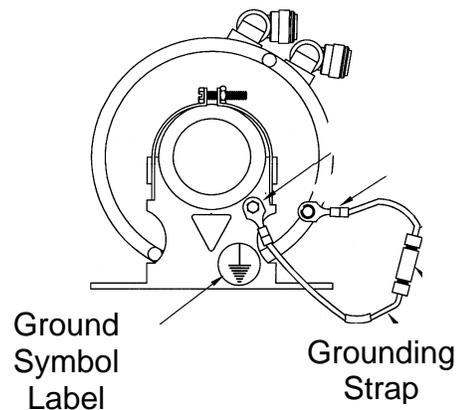
MOTOR REMOVAL / REPLACEMENT PROCEDURE

1. Un-screw the V-clamp (using 5/16 inch nut driver or flat blade screw driver) that is used to secure the pump head to the motor drive flange (pump mount). The screw must be almost completely removed to achieve adequate clearance to remove pump head.
2. Lift the pump head and drip guard off the motor. Retain the pump, V-band clamp and drip guard for re-assembly.

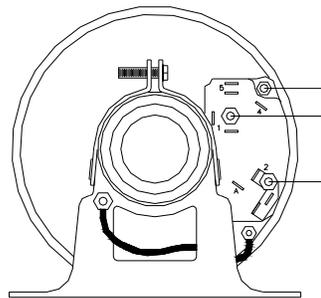


NOTE: If the pump is older-style, there will be a small, bronze 'pump-motor coupler' device, which may either remain attached to the motor shaft or the pump shaft. If it remains on the motor shaft, it must be removed and discarded. To remove the coupler from the motor shaft, simply grasp the coupler and pull.

3. Remove the ground wire/strap that connects the motor bracket to end of the motor housing.
4. Loosen the screws on the top and bottom motor mounts to release the motor mount brackets and remove the motor.



- Loosen the two screws that secure the access cover to the motor wiring connections, located on the end of the motor.



Ground (green)
Hot (black) Terminal 1
Common (white)

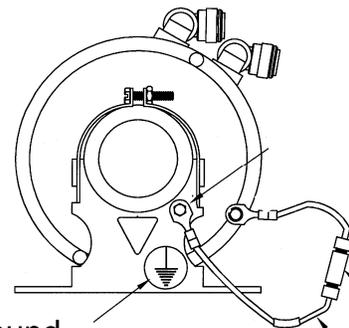
- Disconnect the motor power cord by removing the black (hot) wire from the motor terminal 1, the white wire (common) from terminal 2 and the green from the ground screw.
- Set old motor aside.

NEW MOTOR INSTALLATION

- Remove the new motor from box and discard packaging.
- Loosen two screws that secure the access cover to the [new] motor wiring connections, located on the end of the motor.

NOTE: The motor can be configured to operation on 110 VAC/60 Hz and 220 VAC/50Hz. Using the motor wiring diagram/label plaque on the side of the motor – verify the correct connections for your location.

- Connect the motor power cord, black (hot) to terminal T1 and the white wire (common) to terminal T2 and green (ground) to the ground screw.
- Replace the access cover to the motor wiring connections and tighten the two screws.
- Re-Install the grounding wire that connects the motor bracket to the end of the motor housing and tighten the Phillips head screw.
- Install the motor into the top and bottom motor mount bracket, verify alignment and tighten both top and bottom Phillips head screws.



Ground
Symbol
Label

Grounding
Strap

- Replace the drip guard over the motor.

15. If new tube fittings are to be installed on the pump –

- i) Remove old fittings from the pump.
- ii) Apply three wraps of Teflon thread tape in the clockwise direction over the threads of the new fittings.
- iii) Install new fittings into the pump inlet and outlet of the pump. Tighten until snug. Do not over-tighten.

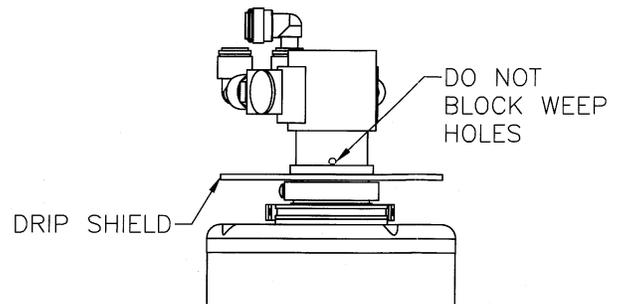
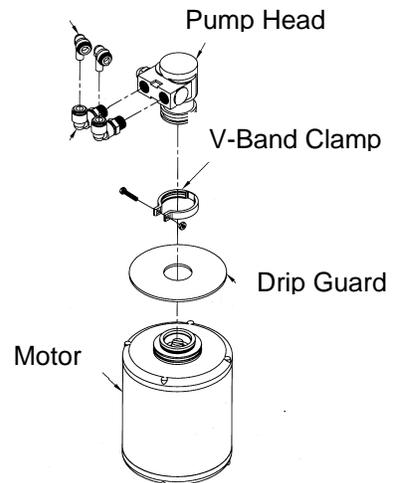
16. Position the pump head (shaft end) near the pump mount of the motor. Visually check the alignment of the pump shaft drive 'tang' with the motor shaft drive 'slot'. Rotate the pump tang and the motor shaft to align the parts before final placement.

17. Fit the pump 'V-band clamp' loosely around the pump flange (shaft end). Place the pump head onto the motor pump mount so that the pump drive tang fits securely into the motor shaft drive slot.

18. Make certain that the pump flange and the motor flange are butted closely together and begin tightening the clamp. **DO NOT BLOCK WEEP HOLES!** Before final tightening, rotate the pump head so that the inlet and outlet ports are properly oriented to connect to the tubing. As the clamp begins to tighten, verify that the pump flange and motor flange remain completely flush against each other.

19. Re-install the inlet and outlet water tubes by pressing the tubes firmly into the tube fitting.

20. Prepare for leak testing, restore water and power connections, and then reference:



Tech Note 207 - MILLENIUM START-UP PROCEDURE