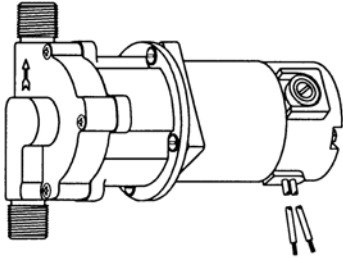




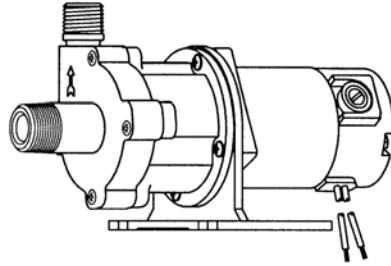
# MARCH PUMPS

1819 PICKWICK AVE., GLENVIEW, IL 60026-1306, U.S.A  
 PHONE: (847) 729-5300 - FAX: (847) 729-7062  
 WWW.MARCHPUMP.COM

## 809-HS 12 & 24 VDC "MAGNE-BOOST" HOT WATER PUMPS



809-BR-HS  
 809-PL-HS  
 Inline Housing



809-BR-HS-C  
 809-PL-HS-C  
 Center Inlet Housing

### ABBREVIATIONS:

Pump Housing:  
 BR is Bronze  
 PL is Polysulfone Plastic  
 C is Center Inlet

### DESCRIPTION:

Your March hot water booster pump is a non-self priming unit built to handle liquid transfer in heating and cooling operations. Applications include home heating systems, solar heating systems, heat recovery systems and recirculating water in domestic and commercial hot water tanks. Contact the factory for applications other than those listed, and for liquids other than water.

### INSTALLATIONS:

The 809-HS Series pump is assembled and ready for installation. The pump housing should be installed with the arrow on our housing pointing in the direction of the water flow within the system. If the arrow indicating water flow is not in the direction you require when the motor is in position, remove the four round housing screws (Item 1) holding the housing to the motor assembly and rotate the housing assembly as required. Replace the four screws and tighten. The pump is made up of two basic sub-assemblies. They are the Wet End Assembly and the Motor/Bracket/Drive Magnet Assembly. To separate the 2 assemblies, simply remove the 4 round head screws (Item 1). The pump will then separate into the 2 sub-assemblies. The water will still be contained within the Wet End assembly unless you loosen the screws on the rear of the Wet End Assembly.

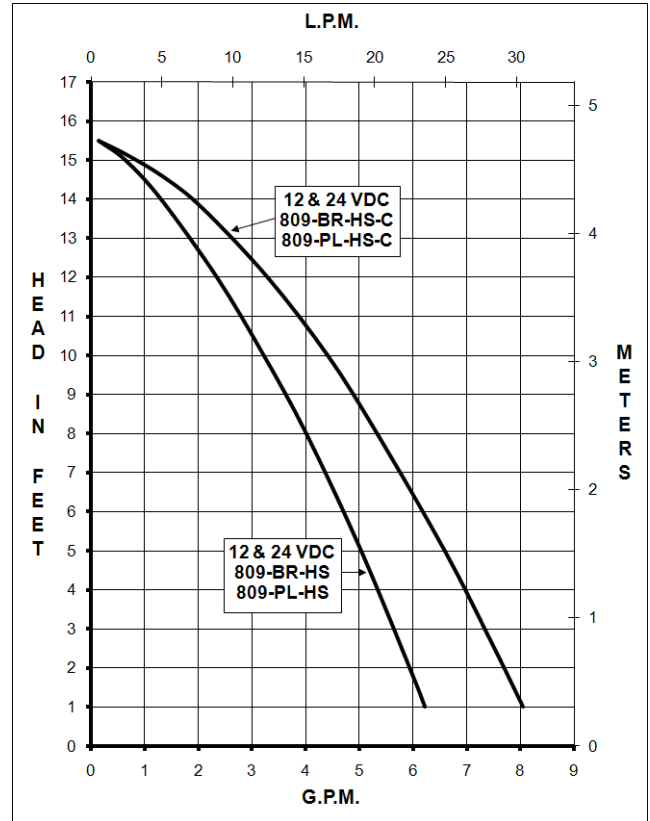
### GENERAL SAFETY INFORMATION:

Follow all local electrical and safety codes, and the Occupational Safety and Health Act (OSHA). Make certain that the power source conforms to the requirements of your equipment. Always disconnect power source before performing any work on or near the electric motor. Caution must be exercised to relieve any pressure in the system and in draining hot water from the pump or the system.

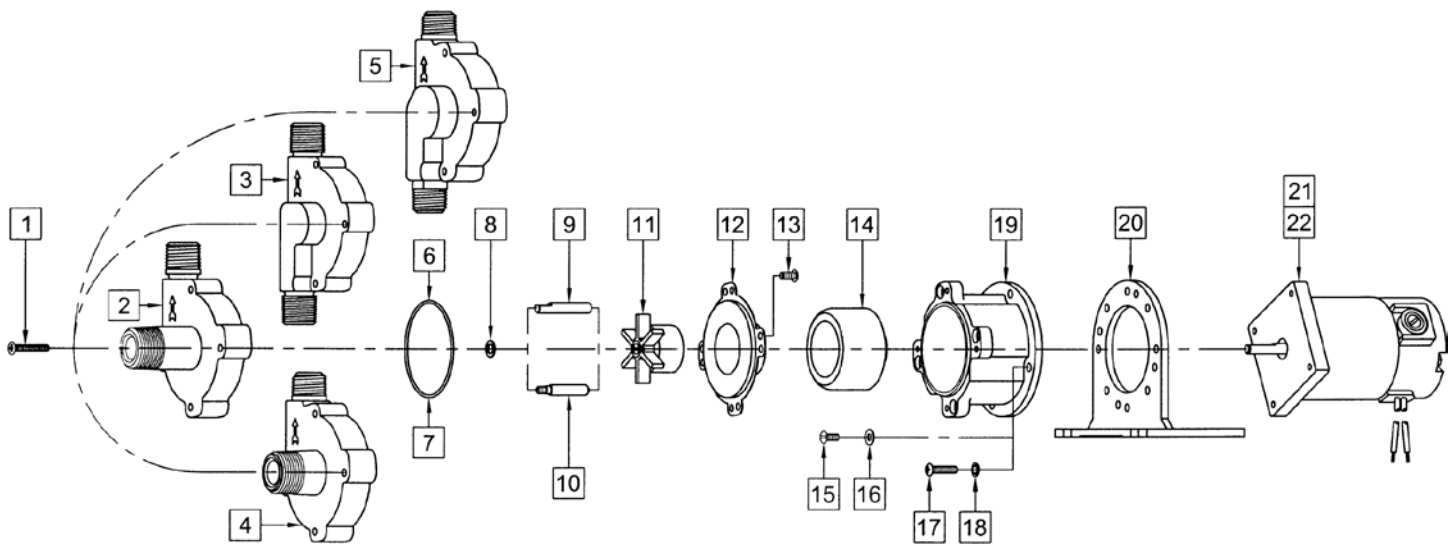
California Law, Bill #1953, states that any item, which provides water for human consumption, shall contain no more than 0.2% lead. March cannot recommend the 809 series out of bronze; instead use the plastic or stainless steel housing

### NOTES:

All specifications & data are based on pumping water and are intended for use as a guideline only. Ratings & dimensions may vary depending on the current motor being used.



| SPECIFICATIONS                   |          | 809-BR-HS (12V)<br>809-BR-HS (24V) |      | 809-PL-HS (12V)<br>809-PL-HS(24V) |      | 809-BR-HS-C (12V)<br>809-BR-HS-C (24V) |      | 809-PL-HS-C (12V)<br>809-PL-HS-C (24V) |      |
|----------------------------------|----------|------------------------------------|------|-----------------------------------|------|--|------|--|------|
| Max Flow                         | lpm      | 22.7                               |      | 22.7                              |      | 30.2                                   |      | 30.2                                   |      |
|                                  | gpm      | 6                                  |      | 6                                 |      | 8                                      |      | 8                                      |      |
|                                  | m        | 4.7                                |      | 4.7                               |      | 4.7                                    |      | 4.7                                    |      |
| Max Head                         | ft (psi) | 15.5 (6.7)                         |      | 15.5 (6.7)                        |      | 15.5 (6.7)                             |      | 15.5 (6.7)                             |      |
|                                  | Inlet    | 1/2" MPT                           |      | 1/2" MPT                          |      | 3/4" MPT                               |      | 3/8" FPT & 3/4" MPT                    |      |
|                                  | Outlet   | 1/2" MPT                           |      | 1/2" MPT                          |      | 1/2" MPT                               |      | 1/2" MPT                               |      |
| Max Internal Pressure            | psi      | 150                                |      | 50                                |      | 150                                    |      | 50                                     |      |
|                                  | bar      | 10                                 |      | 3.4                               |      | 10                                     |      | 3.4                                    |      |
| Max Liquid Temperature           | °F       | 250                                |      | 250                               |      | 250                                    |      | 250                                    |      |
|                                  | °C       | 121                                |      | 121                               |      | 121                                    |      | 121                                    |      |
| Packed Weight                    | kg/lbs   | 2.5/5.5                            |      | 2/4.5                             |      | 2.5/5.5                                |      | 2/4.5                                  |      |
| Motor Type                       |          | DC<br>12V and 24V                  |      | DC<br>12V and 24V                 |      | DC<br>12V and 24V                      |      | DC<br>12V and 24V                      |      |
|                                  | Volts    | 12                                 | 24   | 12                                | 24   | 12                                     | 24   | 12                                     | 14   |
|                                  | Watts    | 43                                 | 43   | 43                                | 43   | 43                                     | 43   | 43                                     | 43   |
|                                  | Amps     | 3.5                                | 1.8  | 3.5                               | 1.8  | 3.5                                    | 1.8  | 3.5                                    | 1.8  |
|                                  | Hp       | 1/25                               | 1/25 | 1/25                              | 1/25 | 1/25                                   | 1/25 | 1/25                                   | 1/25 |
|                                  | Kw       | .029                               | .029 | .029                              | .029 | .029                                   | .029 | .029                                   | .029 |
|                                  | Rpm      | 3650                               | 3650 | 3650                              | 3650 | 3650                                   | 3650 | 3650                                   | 3650 |
| Electrical Connection            |          | leads                              |      | leads                             |      | leads                                  |      | leads                                  |      |
| Overall Pump Dimensions (Inches) | Height   | 4.87                               | 4.87 | 4.88                              | 4.88 | 4.69                                   | 4.69 | 4.56                                   | 4.56 |
|                                  | Width    | 3.31                               | 3.31 | 3.38                              | 3.38 | 4.50                                   | 4.50 | 4.50                                   | 4.50 |
|                                  | Length   | 6.94                               | 6.94 | 6.94                              | 6.94 | 8.33                                   | 8.33 | 7.83                                   | 7.83 |
| Overall Pump Dimensions (cm)     | Height   | 12.3                               | 12.3 | 12.3                              | 12.3 | 11.9                                   | 11.9 | 11.5                                   | 11.5 |
|                                  | Width    | 8.4                                | 8.4  | 8.5                               | 8.5  | 11.4                                   | 11.4 | 11.4                                   | 11.4 |
|                                  | Length   | 17.6                               | 17.6 | 17.6                              | 17.6 | 21.1                                   | 21.1 | 19.8                                   | 19.8 |



### REPAIR PARTS LIST

| ITEM | DESCRIPTION                          | MATERIAL            | QTY | PART #         | 12VDC     |           |             |             | 24VDC     |           |             |             |   |
|------|--------------------------------------|---------------------|-----|----------------|-----------|-----------|-------------|-------------|-----------|-----------|-------------|-------------|---|
|      |                                      |                     |     |                | 809-BR-HS | 809-PL-HS | 809-BR-HS-C | 809-PL-HS-C | 809-BR-HS | 809-PL-HS | 809-BR-HS-C | 809-PL-HS-C |   |
| 1    | Screw #8-32 x 1" Long                | Steel               | 4   | 0923-0003-1000 | S         | S         | S           | S           | S         | S         | S           | S           | S |
| 2    | Pump Housing w/Center Inlet          | Bronze              | 1   | 0809-0142-0000 |           |           | S           |             |           |           | S           |             |   |
| 3    | Pump Housing (Inline)                | Bronze              | 1   | 0809-0013-0000 | S         |           |             |             | S         |           |             |             |   |
| 4    | Pump Housing w/Center Inlet          | Polysulfone         | 1   | 0809-0179-0100 |           |           |             | S           |           |           |             |             | S |
| 5    | Pump Housing (Inline)                | Polysulfone         | 1   | 0809-0079-0100 |           | S         |             |             |           | S         |             |             |   |
| 6    | "O" Ring .070 CS x 2.441 ID          | Silicone            | 1   | 0809-0165-1000 | S         |           | S           |             | S         |           | S           |             |   |
| 7    | "O" Ring 1/16" CS x 2-3/8 ID         | Silicone            | 1   | 0809-0027-1000 |           | S         |             | S           |           | S         |             | S           |   |
| 8    | Thrust Washer                        | Teflon              | 1   | 0809-0043-1000 | S         | S         | S           | S           | S         | S         | S           | S           | S |
| 9    | Shaft                                | Stainless           | 1   | 0809-0161-1000 | S         | S         | S           | S           | S         | S         | S           | S           | S |
| 10   | Shaft (Left-Hand Thread) (Old Style) | Stainless           | 1   | 0809-0008-1000 | O         |           |             |             | O         |           |             |             |   |
| 11   | Impeller (1-11/16" Dia.)             | Ryton/Teflon/Carbon | 1   | 0809-0005-0200 | S         | S         | S           | S           | S         | S         | S           | S           | S |
| 12   | Rear Housing                         | Stainless           | 1   | 0809-0012-1000 | S         | S         | S           | S           | S         | S         | S           | S           | S |
| 13   | Screw #8-32 x 3/8" Long              | Stainless           | 4   | 0135-0040-1000 | S         | S         | S           | S           | S         | S         | S           | S           | S |
| 14   | Drive Magnet Assy                    |                     | 1   | 0125-0083-0100 | S         | S         | S           | S           | S         | S         | S           | S           | S |
| 15   | Screw #8-32 x 1/2" Long              | Stainless           | 4   | 0150-0015-1000 | S         | S         |             |             | S         | S         |             |             |   |
| 16   | Washer                               | Stainless           | 1   | 0858-0004-1000 | S         | S         |             |             | S         | S         |             |             |   |
| 17   | Screw #8-32 x 3/4" Long              | Stainless           | 4   | 0210-0036-1000 |           |           | S           | S           |           |           |             | S           | S |
| 18   | Lockwasher                           | Stainless           | 4   | 0620-0010-1000 |           |           | S           | S           |           |           |             | S           | S |
| 19   | Motor Bracket                        | Plastic             | 1   | 0809-0058-1000 | S         | S         | S           | S           | S         | S         | S           | S           | S |
| 20   | Base                                 | Plastic             | 1   | 0125-0106-1000 |           |           | S           | S           |           |           |             | S           | S |
| 21   | Motor (DC) 12V                       |                     | 1   | 0809-0101-1000 | S         | S         | S           | S           |           |           |             |             |   |
| 22   | Motor (DC) 24V                       |                     | 1   | 0809-0103-1000 |           |           |             |             | S         | S         | S           | S           | S |

NOTE: Contact Factory for other materials and/or parts not listed.

Legend: S = Standard, O = Optional

### DISASSEMBLY AND REASSEMBLY:

- 1—The motor can be removed from the Wet End assembly without having to drain the liquid out of the system.
- 2—Remove four screws (Item 1) and slide the motor assembly away from the Wet End assembly.
- 3—If you must replace parts inside the wet end assembly, then first close off the valves that supply water to the heating system or to the hot water tank. Drain the system to relieve any pressure.
- 4—After the system is drained and cool enough to handle, then remove the four screws on the rear of the housing.
- 5—The rear housing can now be removed. It may be snug fit into the pump housing and it may be necessary to pry evenly, under the four ears to loosen it.
- 6—Remaining pump parts can now be lifted out in sequence as shown on the exploded view. Replace any worn or damaged parts. Replace the "O" ring anytime the rear housing is removed.

### LIMITED WARRANTY:

March pumps are guaranteed only against defects in workmanship or materials for a period of one year from date of manufacture pumping water. On all other solutions, contact the factory for application assistance. March Pump Application Worksheet 0750-0130-1000 is available for additional warranty information.