



Flow Controlled[®]

ELECTRIC INSTANTANEOUS WATER HEATER

INSTALLATION GUIDE AND OWNERS MANUAL

WARNING

BEFORE ATTEMPTING INSTALLATION OF THIS UNIT OR MAKING ANY ADJUSTMENTS TO THE UNIT, ALWAYS BE SURE CIRCUIT BREAKER IS OFF TO PREVENT DANGER OF SERIOUS ELECTRIC SHOCK.

FAILURE TO GROUND THE SYSTEM MAY RESULT IN SERIOUS INJURY OR DEATH

INSTALLER/ CONSUMER RESPONSIBILITIES

1. READ THIS MANUAL CAREFULLY BEFORE ATTEMPTING TO INSTALL OR OPERATE THIS WATER HEATER. IF THE SAFETY RULES ARE NOT FOLLOWED, THE UNIT WILL NOT OPERATE PROPERLY AND IT COULD CAUSE DEATH, SERIOUS BODILY INJURY AND/OR PROPERTY DAMAGE.
2. WARRANTY OF THIS WATER HEATER DEPENDS ON THE PROPER INSTALLATION AND OPERATION.
3. THE WARRANTY WILL BE VOID IF THE DESIGN HAS BEEN ALTERED IN ANY WAY WHATSOEVER.
4. NEITHER THE MANUFACTURER NOR THE DISTRIBUTOR OF THIS HEATER WILL BE LIABLE FOR ANY DAMAGES AS A RESULT OF YOUR FAILURE TO COMPLY WITH THE INSTALLATION AND OPERATING INSTRUCTIONS OUTLINED ON THE FOLLOWING PAGES.

THE INSTALLATION MUST CONFORM TO THE INSTRUCTIONS SET OUT IN THIS MANUAL AND WITH ALL LOCAL CODES.

THIS PUBLICATION IS AVAILABLE FROM YOUR NEW ZEALAND DISTRIBUTOR, QUADRIX ENERGY AND ON THE WEB AT [HTTP://WWW.QUADRIXENERGY.CO.NZ](http://www.quadrixenergy.co.nz)

OR BY WRITING TO:
UNDERWRITERS LABORATORIES,
333 PFINGSTEN RD.,
NORTHBROOK, IL. 60062

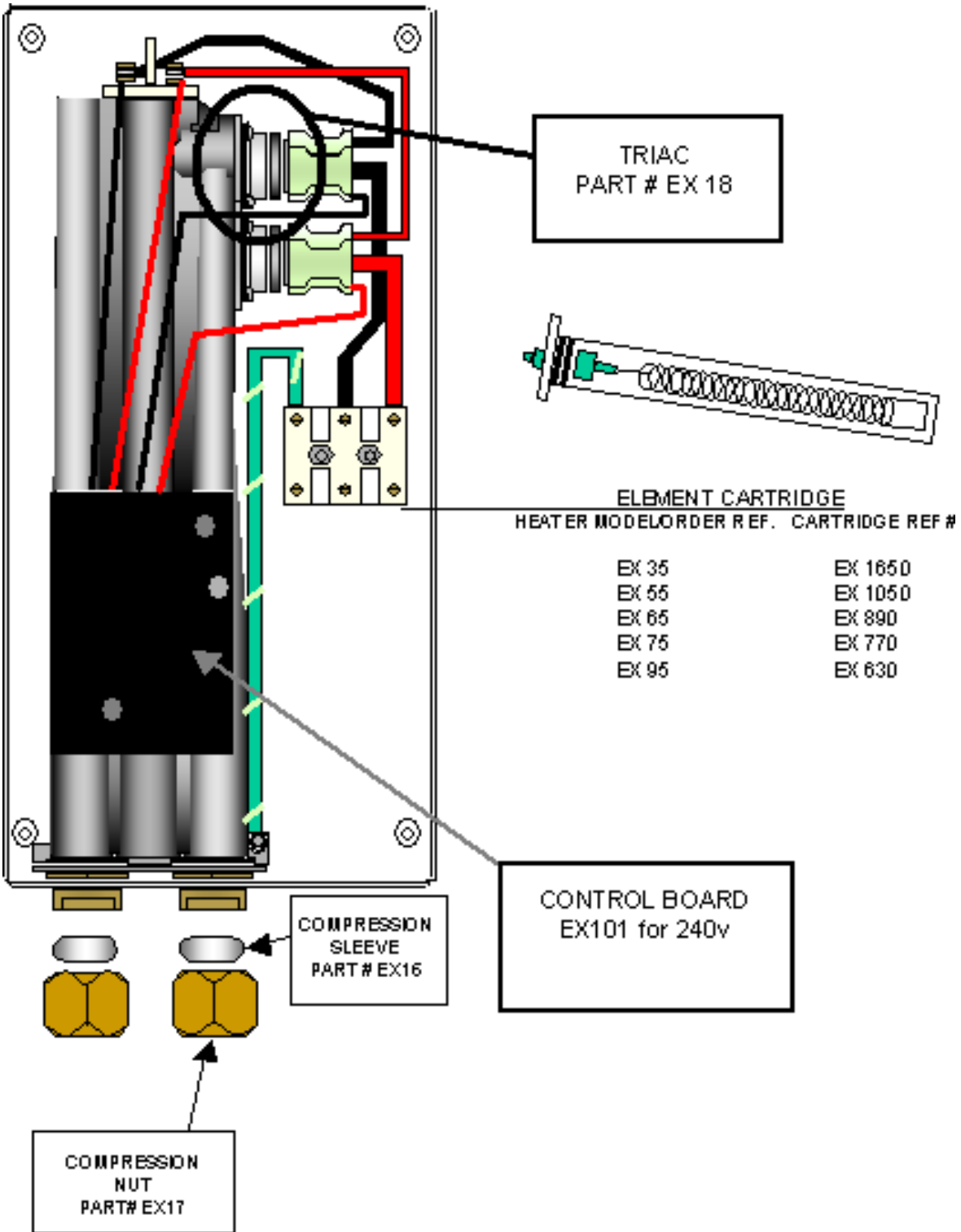
IF YOU REQUIRE HELP OR HAVE ANY QUESTIONS RELATING TO THE INSTALLATION OR PERFORMANCE OF THIS HEATER, PLEASE CALL OUR TECHNICAL SERVICE DEPARTMENT ON +64-9-411-7461. PLEASE HAVE THE INFORMATION LISTED BELOW BEFORE CALLING:

MODEL NO. _____ SERIAL NO. _____ INSTALLATION DATE _____



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Internal Parts Breakdown



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ELECTRIC INSTANTANEOUS WATER HEATER

GENERAL

The Eemax "Closed Outlet Flow Controlled" heater is specifically designed to take in cold water only and heat it to temperatures suitable for the normal domestic usage up to a maximum of 60°C.

To obtain optimum performance and energy savings, the unit should be located as close as possible to the point of use.

The unit is supplied with compression rings and nuts suitable for direct coupling to 1/2" copper or plastic piping.

Do not use additional screwed fittings or pipe dope. Doing so will void the warranty.

DO NOT SOLDER PIPES WHILE THE UNIT IS INSTALLED

(serious damage to the electronic flow switch will result).

This heater must have its own independent circuit, using a correctly rated breaker and wiring rated to operate at 75 °C or more

Failure to ground this system may result in death or serious injury.

1) MOUNTING THE UNIT

1) The unit should be mounted as close to the point of use as possible.

2) This unit must only be mounted in the vertical position with the water fittings at the bottom of the unit. Mounting other than in the vertical position WILL cause element burn out.

3) The cold-water inlet is on the right hand side and the hot-water outlet is on the left hand side. Under NO circumstances can these be reversed.

4) Leave a minimum of 200mm above the unit for easy replacement of the element.

5) The heater should be fixed to the wall using the four mounting holes at each corner of the back plate.

NOTE: The heater should be installed below the level of all hot water outlets serviced by this heater.

NOTE: PRESSURE RELIEF DEVICE

This unit is not required by UL to have a Pressure and Temperature safety relief valve (PTRV). You should check with local codes to find out if one is required in your area. If local codes require the use of temperature and pressure relief valve it should be installed on the outlet hot water pipe before the outlet ball valve.

2) PLUMBING HOOK-UP

1) The unit is supplied with compression fittings. **USE THESE: DO NOT USE THREADED PIPE FITTINGS. DO NOT USE PIPE DOPE OR TEFLON TAPE ON THIS INSTALLATION.** Ensure the inlet filter supplied with this unit is in place.

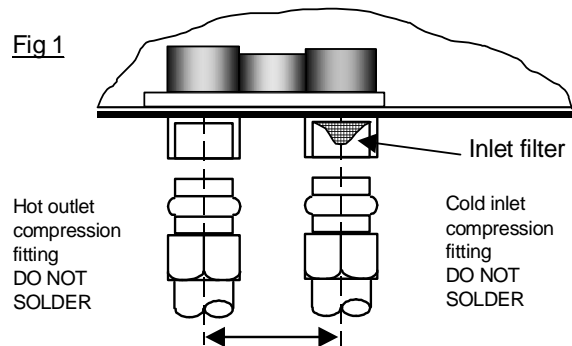
2) Take care to ensure that the pipes are correctly aligned with the inlet and outlet bosses in order to avoid excessive stress on the heater body molding. **NOTE: Run water through the supply pipe to remove all debris from the pipe before connecting the heater.** Failure to do so could damage the flow switch.

3) Install isolating valves (full flow ball valve type) on both inlet and outlet pipes. This allows unit to be isolated for maintenance purposes. (Fig. 2)

4) When all plumbing is complete, fully check the system for water leaks at all plumbing connections. If leak is present take corrective action. If leak is at the compression fitting, slowly tighten compression nut until it stops.

Fully open both inlet and outlet ball valves. Run all hot water outlets fed by this heater one at a time for a minute or two until the water flow is continuous, free from "gulping" and from all visible air pockets.

Fig 1



NOTE: ALL PLUMBING MUST BE COMPLETED BEFORE PROCEEDING WITH THE ELECTRICAL HOOK-UP

TEST THE INSTALLATION FOR LEAKS BEFORE CONNECTING THE ELECTRICAL SUPPLY.



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3) ELECTRICAL HOOK-UP

WARNING
BEFORE BEGINNING ANY WORK ON THE INSTALLATION
BE SURE THAT THE BREAKER IS "OFF"
TO AVOID ANY DANGER OF SHOCK.

Your Eemax heater must have its own independent circuit using insulated, UL listed, 3 wire cable of the appropriate size suitable for use up to 75°C protected by the correctly rated circuit breaker.

Model	Rated Voltage	Maximum Output at Rated Voltage	Amps Drawn	Temperature Rise °C		
				26	17	13
EX35	240	3500W	15	26	17	13
EX55	240	5500W	23	41	27	20
EX65	240	6500W	27	48	32	24
EX75	240	7500W	31		37	28
EX95	240	9500W	39		47	36

Heaters are rated at 240 Volts. If the voltage supplied is lower there will be a proportional drop in output.

- 1) Wire entry into the unit should be made through the lower right hand corner of the back-plate via one of the two "knockout" holes provided.
- 2) The "mains" wires should be connected to the slots in the terminal block marked L1 and L2 or N.
- 3) The ground lead **must** be connected to the slot marked with this symbol.



Failure to ground the system may result in death or serious injury

WARNING:
This water heater must not be switched "on" if there is a **possibility** that the water in the heater is frozen.

TROUBLE SHOOTING

SYMPTOM: NO HEAT INDICATOR LIGHT OFF

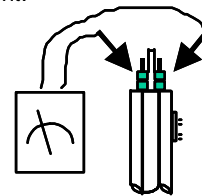
- 1) ELECTRIC SUPPLY IS OFF
Turn on the main breaker.
- 2) NO OR LOW WATER FLOW
Ensure that the minimum flow rate required to switch on your heater is met.

EX 95 minimum flow rate = 0.75 LPM
 EX75 minimum flow rate = 0.60 LPM
 EX65 minimum flow rate = 0.60 LPM
 EX 55 minimum flow rate = 0.50 LPM

Also check that the inlet filter screen is clear from any debris. This is located in the brass inlet boss.

- 3) WATER CONNECTIONS ARE REVERSED
Cold water inlet = right side, hot water outlet = left side.

- 4) ELEMENT BURNED OUT
TURN OFF THE breaker!
Using an ohmmeter test the resistance of the heating element across the two threaded termination rods on top of the element.



The resistance reading should be less than 10 ohms. If the resistance is much greater then a replacement element is required

SYMPTOM: NO HEAT OR LOW TEMPERATURE WITH INDICATOR LIGHT ON

- 1) WATER FLOW TOO HIGH
Reduce the water flow by using an outlet ball valve. See page 3 for temperature rise at various flow rates.

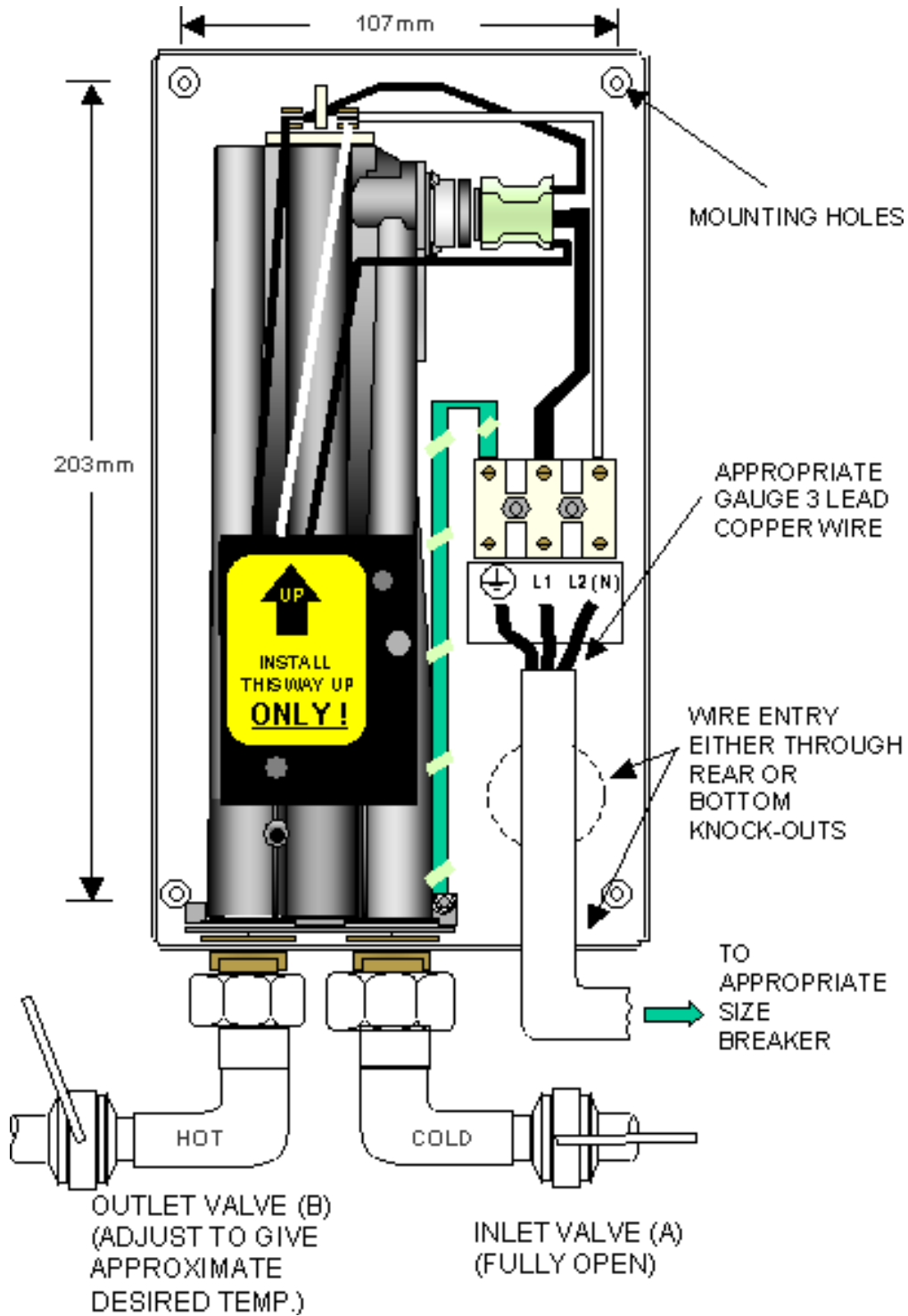
- 2) INCORRECT POWER SUPPLY
Make sure that the unit is connected to the voltage supply specified on the rating label on the front cover of the unit and no other.

- 3) ELEMENT BURNED OUT
TURN OFF THE breaker!
Repeat the steps from paragraph 4 above.



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Plumbing and Electrical Connections