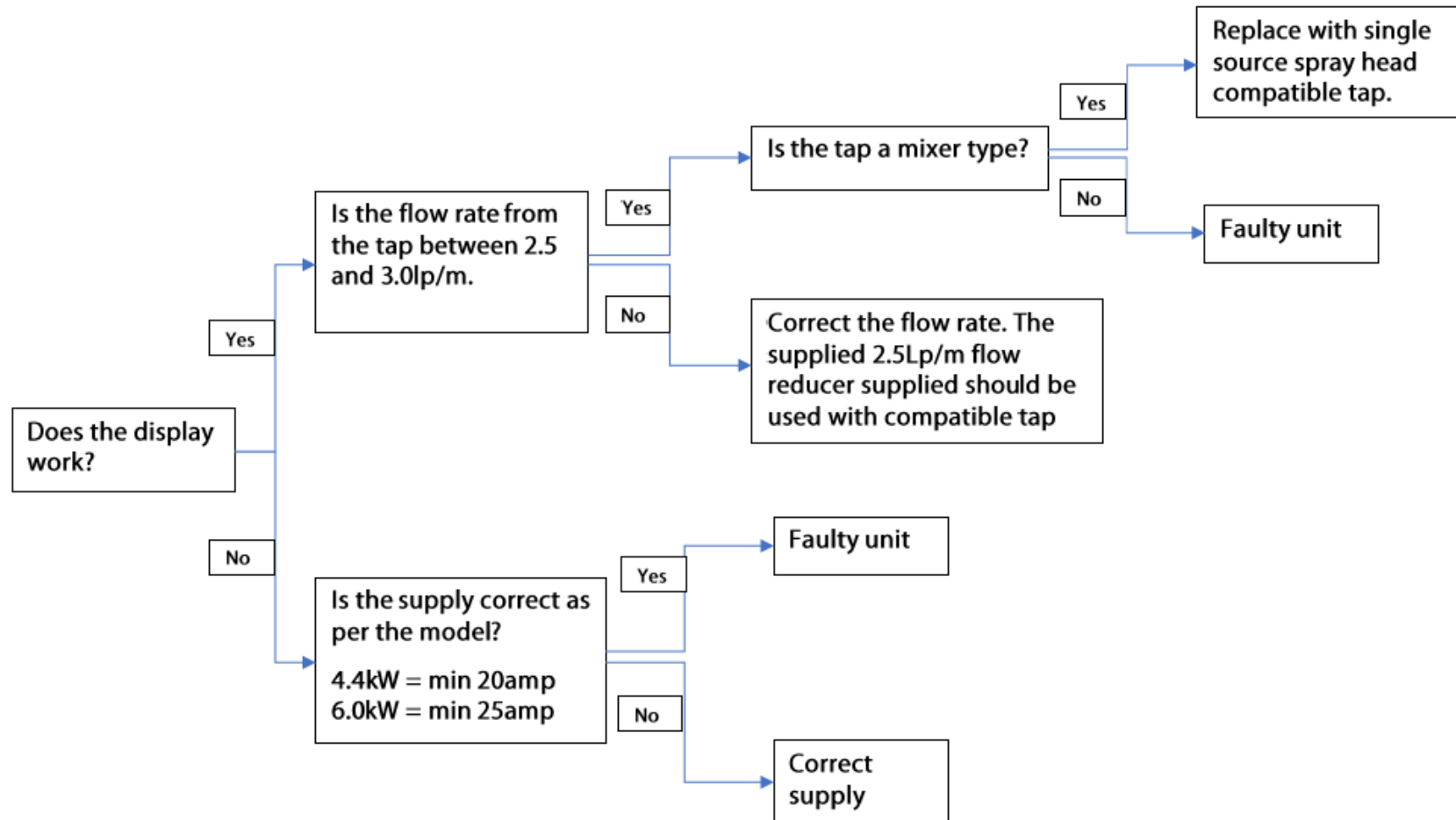


Rho Instantaneous Inline Water Heater 4.4, 6.0 kW Fault Diagnostic Guide



Instantaneous Inline Water Heater

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Display explained - When the unit is idle the display will go into sleep mode. Press the on button and the current target temperature will be displayed. The temperature can be adjusted to suit using the up/down buttons.

When the unit detects a flow greater than 2.5 Lp/m through it the heater will start to work. When the heating element is activated, in addition to the target temperature, a circle will also be displayed (see image below). After a few seconds the outlet water should reach its set temperature, if the temperature display on the unit begins to flash this is an indication that the unit does not have enough power to reach the target temperature at the current flow rate.



Element on indicator

Target temperature (flashes when unachievable)

Checking the flow rate - All models are supplied with a spray head flow reducer that should be fitted (see 'flow restrictor and compatible tap') as it guarantees flows will never exceed 2.5 Lp/m from the tap. Non-mixer taps that are compatible with the flow restrictor device should be specified for use with this product range to ensure correct performance.

Flow rate too low - If the unit performance is erratic and the temperature is fluctuating between warm and cold the flow rate should be checked to ensure that the minimum flow requirement of 2.5 Lp/m is being met. One way to verify this is by using a stop watch and a container with a known volume, for instance, a 1 L container should fill in no less than 24 seconds. If the flow falls below this then the unit may be coming in and out of operation.

Flow rate too high - If the water temperature achieved at the outlet is too low then the flow rate should be checked to ensure it is not too high. Anything over 3 Lp/m through the unit is likely to produce water temperatures that are unacceptably low. One way to verify this is by using a stop watch and a container with a known volume, for instance a 1 L container should fill in no quicker than 20 seconds. If the flow goes above this then the unit is unlikely to provide water that is not much above 30°C (may vary based on the season and model).

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Mixer taps – Mixer taps should not be used with this range of products. Since the maximum flow out of the tap should be set to 2.5 Lp/m, any attempt to mix cold through it will result in the hot flow from the unit dropping below the total flow rate and will lead to intermittent performance problems as per “Flow rate too low” previous section of this document.

Note: the outlet temperature is dictated by both the incoming water temperature and the flow rate through the unit, the maximum outlet temperature can be affected by seasonal variations in incoming temperatures.

Typical Performance

Summer performance (incoming 17°C) 4.4 kW at 2.5 Lp/m flow = 42°C
6.0 kW at 2.5 Lp/m flow = 48°C

Winter performance (incoming 7°C) 4.4 kW at 2.5 Lp/m flow = 32°C
6.0 kW at 2.5 Lp/m flow = 41°C

Flow restrictor and compatible tap



2.5Lp/m flow restrictor (green band)



Compatible tap example