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(54) Title: A CIRCUIT ARRANGEMENT FOR SUSTAINING WATER IN CONTACT WITH A HEATING ELEMENT AT A SET TEMPERATURE OR RANGE WITHIN AN INSTANTANEOUS HOT WATER HEATER UNIT

(57) Abstract: An electronic circuit control arrangement to sustain water discharging from an instantaneous hot water heater at a set temperature or range having a proportional water temperature signal derived from a sensing arrangement in communication with water inlet and outlet ports so as to sense the respective temperatures at each port to provide a comparatively measureable proportional difference between the inlet and outlet temperatures set against referenced parameters, including a comparator that acts as an operable control of a switch adapted to couple and decouple an alternating current power source to the heating element through a duty cycle of highs and lows to provide a rate to generate and maintain the appropriate coupling and/or decoupling of the alternating current power source to and from the heating element to achieve the desired referenced temperature and/or range.

Figure 1(c)