1. Select a suitable location for convenience of water and electrical supply as well as easier for future maintenance. Make sure the location is free from water splash.

2. In case the water supply is from the water tank, the water heater should be connected to a booster pump (minimum 0.15m³/min (100 l/min)), in order to have sufficient hot water flow.

3. For Horizontal Model (JH)
   a. Remove screw X and Y from the heater and position the mounting rings to the desired mounting position, according to the type of mounting position required. (Refer Figure 4.3)
   b. Mark and drill holes (11mm Dia, X 60mm depth) with dimension C and H. (Refer Figure 8.3)
   c. Insert the expansion bolts firmly to the holes and remove the nuts and washers.
   d. Mount the mounting rings in position to the expansion bolts.

   CAUTION: Ensure the inlet pipe is at the lower position. (Refer Figure 4.3)

4. For Vertical Model (JVA)
   a. Mark and drill holes (11mm Dia, X 60mm depth) with dimension C and H. (Refer Figure 8.4)
   b. Insert the expansion bolts firmly to the holes and remove the nuts and washers.
   c. Mount the mounting bracket in position to the expansion bolts.

   CAUTION: This water heater is designed for vertical mounting to the wall only.

   4. Securely fasten the washers and nuts, screw the screw X and Y.

   FIGURE A: MOUNTING RINGS POSITION FOR HORIZONTAL MODEL

1. TOP MOUNTING (ON CEILING OR FLOOR)
   a.螺丝 X 
   b.螺丝 Y

2. LEFT HAND SIDE MOUNTING (ON WALL)
   a.螺丝 X
   b.螺丝 Y

3. RIGHT HAND SIDE MOUNTING (ON WALL)
   a.螺丝 X
   b.螺丝 Y

4. HANGING MOUNTING (ON CONCRETE CEILING)
   a.螺丝 X
   b.螺丝 Y

   FIGURE B: INSTALLATION DIMENSIONS

1.3 WATER HEATER INSTALLATION

   IMPORTANT: Installation should be carried out by qualified personnel with close reference to the installation manual and compliance to the local authority.

   All plumbing works must be completed and heater tank fully filled with water before proceeding to electrical connections. This will prevent any damage to the Heating Element and Thermal Fuse.

   • The position of the check valve(s) must not be too close to the Pressure Relief Valve. A length of 500mm is good for thermal expansion.
   • The Pressure Relief Valve is for protection against excessive pressure in the heater tank and must not be removed or restricted. When the heating element operates, water for the drain valve can flow down through the check valve and valve ball to the drain valve.

   3.1 WATER HEATER INSTALLATION

   IMPORTANT: Installation should be carried out by qualified personnel with close reference to the installation manual and compliance to the local authority.

   All plumbing works must be completed and heater tank fully filled with water before proceeding to electrical connections. This will prevent any damage to the Heating Element and Thermal Fuse.

   • Do not use AISI or PVC plastic pipes for the inlet and outlet pipe connections. Use only recommended Stainless Steel, Copper or Polypropylene pipes which can withstand high temperature and pressure.

   • Do not mount the water supply EXCEED 20m³/Litre (20tons) OF CHLORIDE as this will cause corrosion to the stainless steel heater tank and void the warranty.
TO FILL HEATER TANK:
1. Open control valve in cold water supply line and all hot water faucets to allow trapped air to be vented out from the heater tank and piping.
2. Allow the heater tank to completely fill with water as indicated by a steady flow of water from the hot water faucets without switching on the electrical supply.
3. Turn off all hot water faucets. Check all pipe connections to ensure that they are properly sealed against leakage.

4. WIRING CONNECTIONS

**IMPORTANT** 
All electrical works must be completed and heater tank filled with water before proceeding to electrical connections. This will prevent any damage to the unit.
- Ensure that the electrical supply is single-phase at 220-240 VAC.
- It is recommended to install an approved type Earth Leakage Circuit Breaker (ELCB) or Residual Current Circuit Breaker (RCCB) of 10mA sensitivity and higher than heater rated current (Refer to Table 1).
- It is recommended to install an approved type Miniature Circuit Breaker (MCB) or Molded Case Circuit Breaker (MCCB) higher than heater rated current (Refer to Table 1).
- Ensure that the wiring can supply the necessary ampacity (Refer to Table 1 for correct cable size).
- This water heater must be permanently connected to the electrical supply through a Double Pole Link Switch above rated current (Refer to Table 1) and having contact separation of at least 3mm in all pole incorporated in the fixed wiring. The switch must be out of reach from users in the bathroom.
- Do not connect the electrical supply with other appliances.
- Do not switch on if there is a possibility that the water in the heater is frozen.
- This APPLIANCE MUST BE PERMANENTLY EARTHED.

This water heater is completely factory wired to 3-way Connector with [LIVE], NUEDEAL, and [EARTH] marking.
1. Switch off the electrical mains.
2. Remove installation cover screws of the heater.
3. Refer to Fig. 2, connect electrical wires as follows:
   - Brown to [LIVE]
   - Blue to N (NEUTRAL)
   - Green / Yellow to [EARTH]
4. Ensure that the copper wires are well comparer, tighten on 3-way Connector.
5. Replace the installation cover.
6. Provide sticker label if two heater ON/ OFF switches are used to control it.

**SYMPTOMS**
A. No water coming out of the heater.
   - Check whether all stop valves are opened.
   - Check whether the water supply is there.
   - Check whether the Pressure Relief Valve over-tension.
   - Check whether inlets water supply connected to Pressure Relief Valve.
B. Heater is not working.
   - Check whether power supply is on.
   - Is the main lamp on.
   - Is the heater lamp on.
   - Is the adjustable temp. control on (JVA model).
   - Is the mixer tap connected correctly.
   - The mixer tap is adjusted correctly.
   - The water heater is overloaded.
   - The water heater capacity is sufficient.
C. Water not hot enough.
   - Adjust the temperature control to higher setting (JVA model).
   - The mixer tap adjusted correctly.
   - Is the water heater given enough time to heat up. (If the temp. reaches the preset temp., the red heater lamp will go off automatically).
   - The water heater capacity is sufficient for the purpose.

2. If any of the following abnormalities are present during usage, contact our service centres nearest to you or your sales agent immediately.
A. Water leakage
B. Water temperature cannot be controlled (JVA model)
C. Heater lamp does not light up.

**IMPORTANT**
- NEVER TRY TO REPAIR THE UNIT YOURSELF, SPECIAL SKILL IS REQUIRED.

**PRODUCT WARRANTY**
- Warranty will cover lighting, natural disaster, pest attacks, fire, negligence, misuse, accidents, floods, pollution, abuse or neglect, improper installation, or improper maintenance and abnormal voltage or the usage of generator.
- Failure to follow the installation manual.
- Repair or attempted repair of this product by anyone not authorised by JOVEN.
- Any unit which has been modified or on which the serial number has been defaced, altered or removed.
- Water supply exceed 20m/gp (20ppm) Chloride.

**WARRANTY VOID**
- Warranty void.

**MANUFACTURED**
- JOVEN ELECTRIC CO.
- ISO 9001
- MALAYSIA
- SINGAPORE
- IP 21
- CERTIFIED WVR

*Note: Refer to your local distributor for warranty terms & conditions.