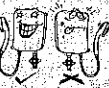


**IMPORTANT**

- This heater is a single point system and heater outlet can only be fitted to the PVC hose and hand shower set provided. No control valve or fittings can be fitted to the water outlet.
- Metallic / chromed hose and conductive control valve shall not be used.



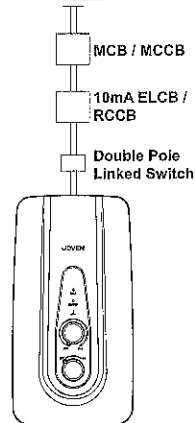
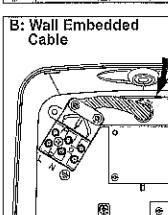
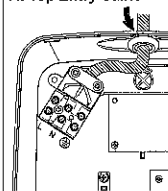
- Connect SVF valve to the water inlet by tightening the plastic nut & washer. Make sure the arrow facing upwards.
- Connect the incoming water plumbing end to SVF valve (1/2" BSP).
- Turn on the mains water supply and SVF valve to maximum volume to allow water flow into heater tank and drain out any plumbing particles through the outlet. Turn off the SVF valve.
- Connect the PVC hose to the water heater outlet and the hand shower. Be sure to insert the washers to the outlet connection and the hand shower, otherwise water will leak at the connector ends.
- Hook the hand shower to the hand shower holder and adjust to your ideal position.
- Turn on the SVF valve and check for any water leakage.

3.4 ELECTRICAL CONNECTION**IMPORTANT**

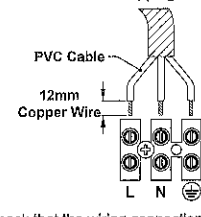
- All plumbing works must be completed and heater tank filled with water before proceeding to electrical connections. This will prevent any damage to the appliance.
- Ensure that the electrical supply is single-phase at 220 to 240 V a.c.
- This appliance must be permanently earthed. The use of plug & socket is not recommended.
- It is recommended to use an approved current operated type Earth Leakage Circuit Breaker (ELCB) / Residual Current Circuit Breaker (RCCB) of 10mA sensitivity and higher than rated current. (Refer to table)
- It is recommended to use an approved type Miniature Circuit Breaker (MCB) or Molded Case Circuit Breaker (MCCB) of higher than rated current. (Refer to table)
- This appliances must be permanently connected to the electrical supply through a double pole linked switch above rated current (Refer to table) and having contact separation of at least 3 mm in all poles incorporated in the fixed wiring. The switch must be out of reach from user in the bathroom.
- Do not share the electrical supply with other appliances.

Table: Electrical Loading Table

HEATER ELECTRICAL LOADING			MINIMUM CONDUCTOR SIZE			RATED CURRENT FOR CIRCUIT BREAKER / DOUBLE POLE LINKED SWITCH (A)
Voltage (V a.c.)	Power (kW)	Current (A)	Conductor (mm ²)	Conduit Cable (No. / Ømm)	Flexible Cable (No. / Ømm)	
220 50 / 60 Hz	2.2	10	2.5	7 / 0.87	50 / 0.25	16
	3.3	15	2.5	7 / 0.87	50 / 0.25	20
	3.5	16	4.0	7 / 0.85	56 / 0.30	20
	4.4	20	4.0	7 / 0.85	56 / 0.30	25
	4.5	21	6.0	7 / 1.04	-	25
	5.2	24	6.0	7 / 1.04	-	32
230 50 / 60 Hz	5.5	25	6.0	7 / 1.04	-	32
	3.0	13	2.5	7 / 0.87	50 / 0.25	20
	3.3	15	2.5	7 / 0.87	50 / 0.25	20
	3.6	16	4.0	7 / 0.85	56 / 0.30	20
240 50 / 60 Hz	4.8	21	6.0	7 / 1.04	-	25
	3.6	15	4.0	7 / 0.85	56 / 0.30	20
	5.2	21.8	6.0	7 / 1.04	-	25

Recommended Electrical Connection**A: Top Entry Cable****B: Wall Embedded Cable**

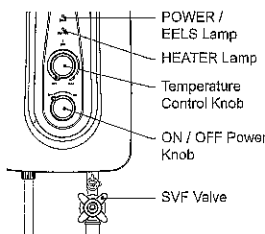
- Switch off the electrical mains.
- Refer to table for correct cable size.
- Insert the cable through 'A' for top entry or 'B' for wall embedded cable by cutting a hole through the wire grommet or breaking the 'Knock Out' point at heater base.
- Connect electrical wire as follow:
Brown or Red to L (LIVE)
Blue or Black to N (NEUTRAL)
Green or Green/Yellow to ⚡ (EARTH)

Recommended Stripping Length

- Check that the wiring connections are correct and properly tightened.
- Replace the cover.

4 OPERATING PROCEDURE**IMPORTANT**

- Make sure the heater tank is filled with water before switching on the electrical supply. Failure to do so will damage the appliance and void the warranty.
- This appliance is not intended for use by young children or infirm persons without supervision.
- Do not switch on if there is a possibility that the water in the heater is frozen.
- This appliance must be switched off after use.

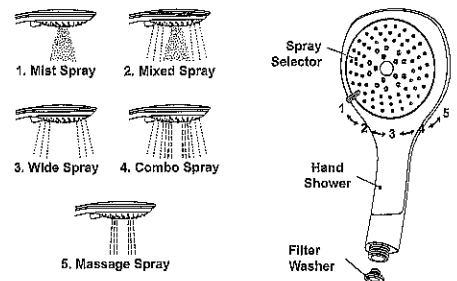
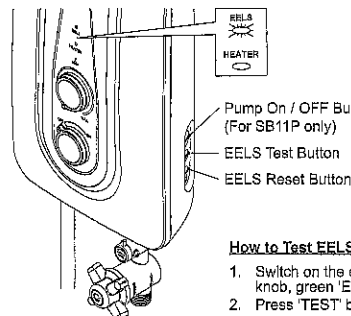


- Switch on the electrical supply. Then turn on the ON / OFF power knob, green 'POWER / EELS' light will turn on.
- Turn on the SVF valve in counter clockwise direction and water will flow through the hand shower.
- For hot shower, turn on the temperature control knob. Red 'HEATER' light will turn on. Adjust the temperature knob for comfortable shower temperature.
- After shower, turn off the SVF valve and ON / OFF power knob. Then switch off the electrical supply.

5 5 SPRAY PATTERN HAND SHOWER**How to Select**

Turn the spray selector clockwise or counter clockwise until you get the desired flow pattern.

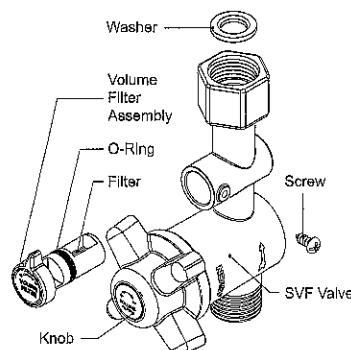
Note: The hand shower should be descaled regularly.

**6 EELS MAINTENANCE (For SB11e & SB11P only)****How to Test EELS?**

- Switch on the electrical supply. Then turn on the ON / OFF power knob, green 'EELS' light will turn on.
- Press 'TEST' button, green light will turn off.
- Press 'RESET' button, green light will turn on again.

**WARNING**

- It is recommended to test the built-in EELS once a month.
- If the 'EELS' light does not go off each time the 'TEST' button is pressed or does not come on when the 'RESET' button is pressed, please contact the nearest service centre or your sales agent for repair. DO NOT TRY TO REPAIR IT YOURSELF.

7 CLEANING SVF VALVE

This innovative and compact SVF valve helps to control and filter the inlet water. Turning the knob counter clockwise will turn on the water flow while turning the knob clockwise will stop the water flow. Clean the filter inside the SVF valve if there is a sign of inlet water blockage. This can be done by removing the screw and pulling out the volume filter assembly. Clean it with a soft brush.

Note:

- Make sure to turn off the incoming water supply before proceeding.
- Make sure volume filter assembly knob is pointing up before removing or installing back the assembly.
- This has to be done more regularly in areas where the inlet water supply is dirty.

8 TROUBLESHOOTING

- Check the following points for better performance:

SYMPTOMS	POINT TO CHECK FOR REMEDY
A. No water coming out of the heater	- Check whether all stop valves are opened. - Check whether the water supply is there. - Clean the filter washer and spray selector of hand shower if it is clogged by dirt. - Clean the SVF valve and filter if it is clogged by dirt.
B. Heater is not working	- Check whether electrical supply is switched on. - Check whether water supply pressure is sufficient. (Heater requires minimum pressure of 1.45 psi or water flow rate of 2 litres per minute)
C. Shower not hot enough	- Adjust the temperature control to higher setting. - Check whether water flow is too strong. Reduce the water flow for hotter shower. (Less water, more hot) - Shower could be at combo spray, turn to wide spray.

- If any of the following abnormalities are present during usage, please contact the nearest service centre or your sales agent immediately:
 - Water leakage
 - Insufficient water running
 - Water temperature cannot be controlled
 - 'POWER / EELS' and 'HEATER' lamp does not light up
 - EELS continuously tripping (For SB11e & SB11P only)

**IMPORTANT**

NEVER TRY TO REPAIR THE UNIT YOURSELF. SPECIAL SKILL IS REQUIRED.

9 PRODUCT WARRANTY**WARRANTY VOID**

- This warranty does not cover lightning, natural disaster, pest attacks, fire, negligence, misuses, 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.

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

Manufactured by **JOVEN ELECTRIC CO.**





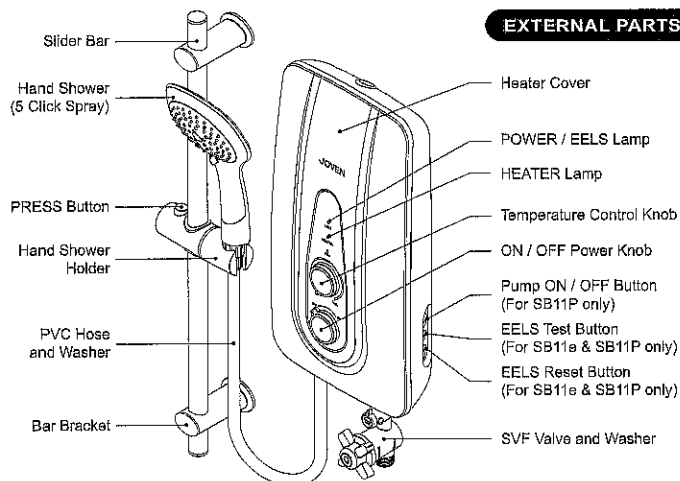
Thank you for selecting JOVEN instant water heater. Please read this manual before installation and be sure to keep it handy for your future reference.



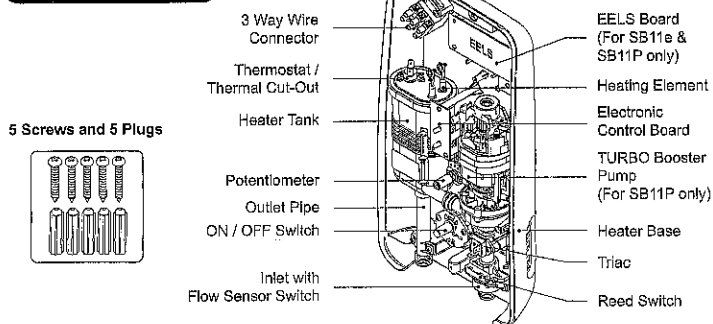
SAFETY PRECAUTION

This sign warns of serious injury, damage to property and potential death. Before operating, please read the following 'Safety Precautions' carefully.

1 PARTS IDENTIFICATION



INTERNAL PARTS



2 SPECIFICATION

Electrical Loading	2.2 kW	10.0 A	220 V.a.c.	50 / 60Hz
	3.3 kW	15.0 A	220 V.a.c.	50 / 60Hz
	3.5 kW	16.0 A	220 V.a.c.	50 / 60Hz
	4.4 kW	20.0 A	220 V.a.c.	50 / 60Hz
	4.5 kW	21.0 A	220 V.a.c.	50 / 60Hz
	5.2 kW	24.0 A	220 V.a.c.	50 / 60Hz
	5.5 kW	25.0 A	220 V.a.c.	50 / 60Hz
	3.0 kW	13.0 A	230 V.a.c.	50Hz
	3.3 kW	15.0 A	230 V.a.c.	50Hz
	3.6 kW	16.0 A	230 V.a.c.	50 / 60Hz
	4.8 kW	21.0 A	230 V.a.c.	50 / 60Hz
	3.6 kW	15.0 A	240 V.a.c.	50 / 60Hz
	6.2 kW	21.8 A	240 V.a.c.	50 / 60Hz
	6.2 kW	21.8 A	240 V.a.c.	50 / 60Hz
Min. Water Pressure	10 kPa / 1.45 psi / 0.1 bar			
Max. Water Pressure	380 kPa / 55 psi / 3.8 bar			
Min. Water Flow	2 Litres per Minute			
Max. Water Flow	8 Litres per Minute			
Water Temp. Control	Stepless Electronic Power Control			
Inlet / Outlet Connection	Ø15 mm (1/2" BSP) - Single Point System			
ABS Casing	Splash Proof Casing IP25			
Built-in EELS System (10mA Sensitivity)	Model: SB11e & SB11P only			
Dimensions	213 x 405 x 81 mm			
Weight	SB11: 2.7 kg, SB11e: 2.9 kg, SB11P: 3.7 kg SB11(RS): 4.0 kg, SB11e(RS): 4.2 kg & SB11P(RS): 5.0 kg			

FEATURES

- Electronic Power Control**
This continuous variable electronic power control with temperature control knob selection from 'OFF' to 'MAX' enables you to select to your ideal shower temperature. Thus saves your electric power consumption.
- Safety ON / OFF Power Knob**
This feature allows user to conveniently turn off the unit when not in use.
- Built-in TURBO Booster Pump (For SB11P only) PAT. PEND.**
This is specially designed to overcome the low water pressure problem for those direct connections to the gravity water tank. It boosts the outlet water flow to provide you an optimum invigorating shower.
- Safety Thermostat / Thermal Cut-Out**
It prevents the heater from overheating and thus eliminates the dangers of scalding to the user.
- Auto Flow Sensor Switch**
It operates the heater only when there is sufficient water flow and turns off the heater when the shower is off, thus no power wastage. In case if the water outlet gets blocked, it automatically cuts power to the heater, thus avoids the danger of scalding.

- Built-In EELS System with Surge Protector (For SB11e & SB11P only)**
This extra safety feature with 10mA sensitivity will cut off the electrical supply to the heater in the event of current leakage from the heater, thus prevents the user from fatal electric shock. It also incorporates a surge protector to prevent damage to the electronic circuit in case of sudden power surges.
- Stop Volume Filter Valve (SVF Valve)**
This innovative valve helps to control and filter the inlet water.
- Slider Bar Set**
It is designed as a 'hand's free' shower concept for the convenience of the user. The height and direction of hand shower holder can be easily adjusted to your desired position.
- 5 Spray Pattern Hand Shower**
5 Ideal shower mode spray pattern can be selected just by turning the spray selector, so easy!

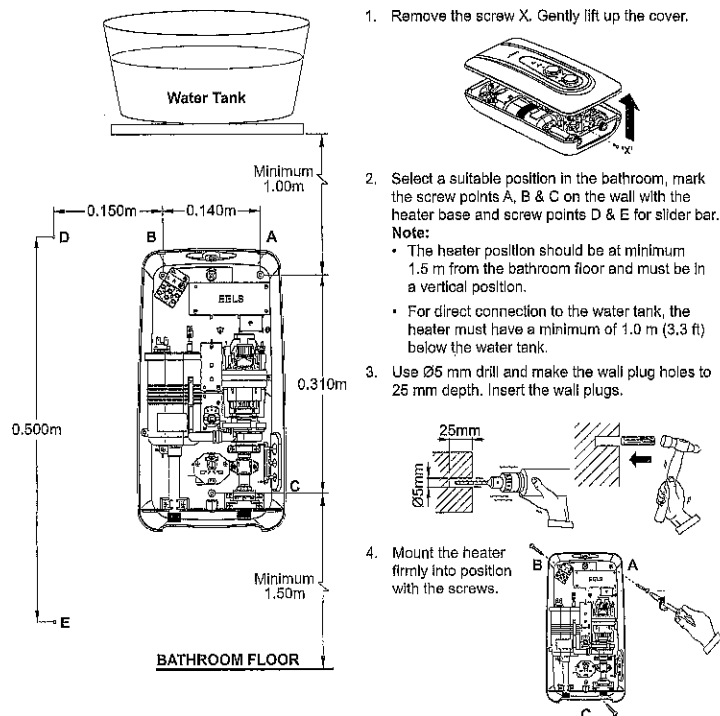
3 INSTALLATION INSTRUCTION

3.1 HEATER INSTALLATION

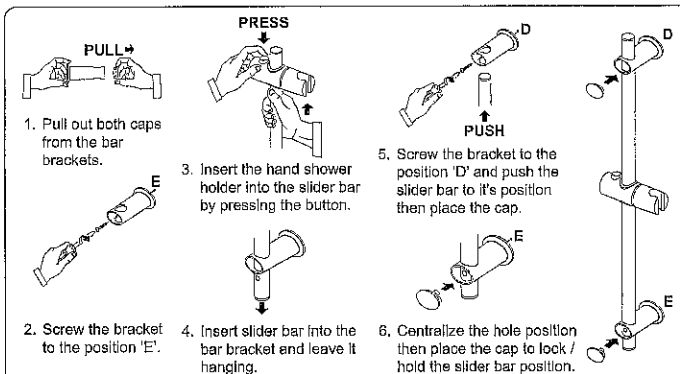


IMPORTANT

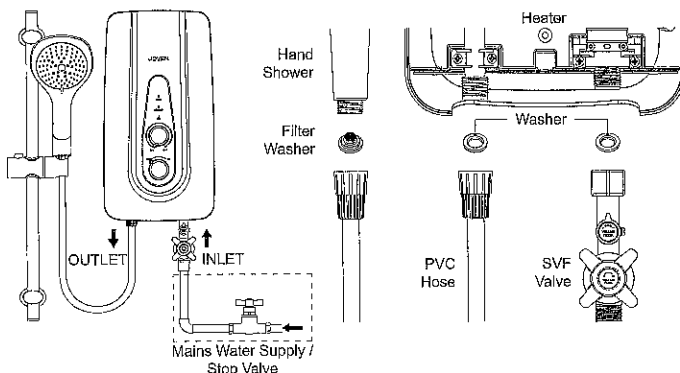
- Installation should be carried out by qualified personnel with close reference to the instruction manual and in compliance to the local authority.
- This appliance must be installed indoor only.



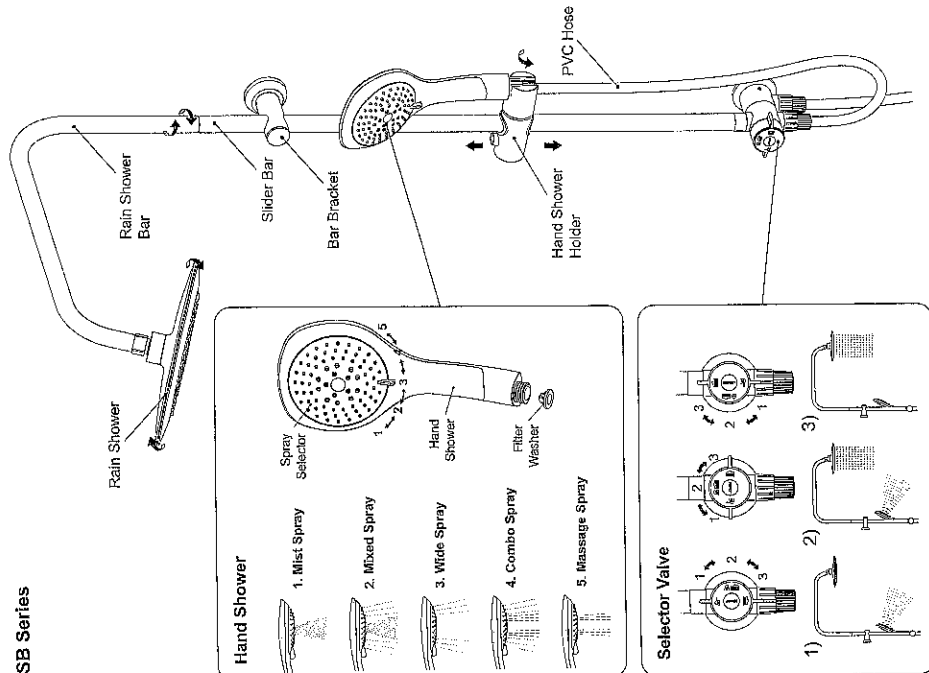
3.2 SLIDER BAR SET INSTALLATION



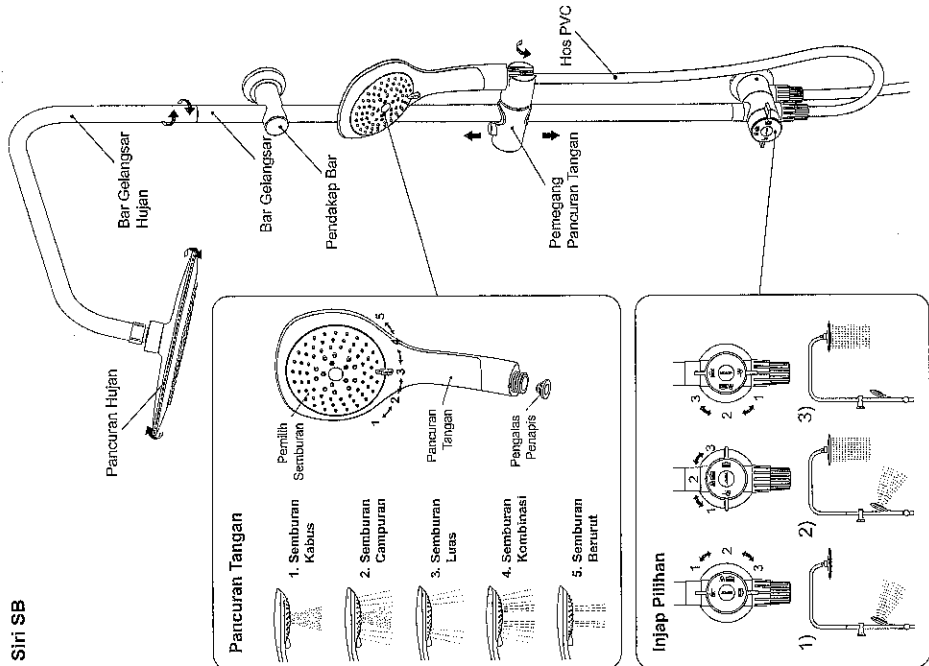
3.3 PLUMBING CONNECTION



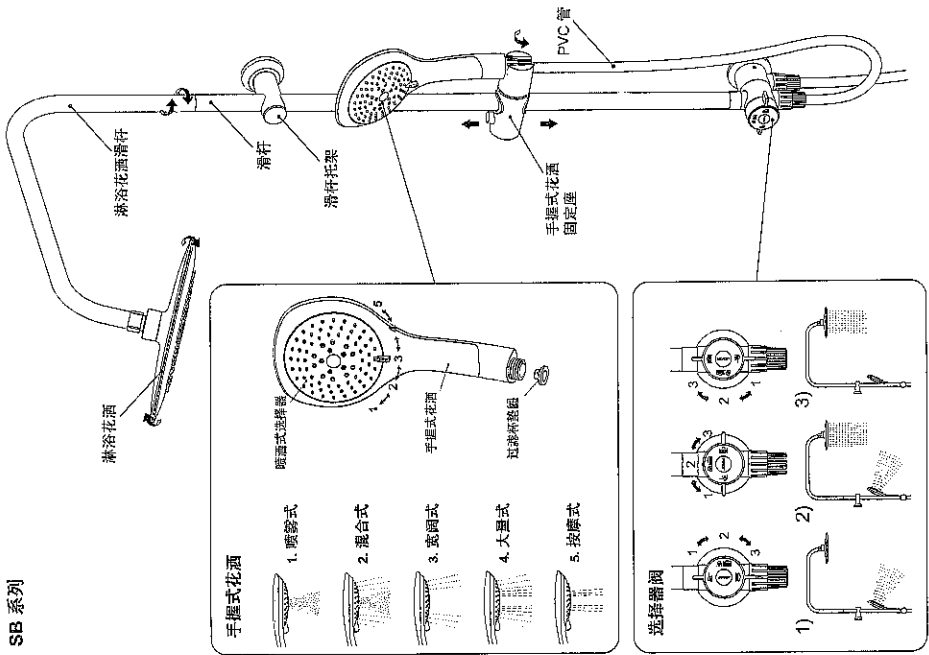
SB Series

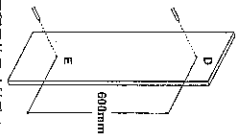


Siri SB

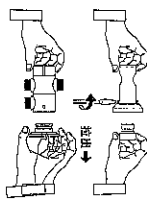


SB 系列





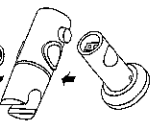
1. 根据图面所示的尺寸钻孔 (D & E)。钻好洞孔后塞入塞管。



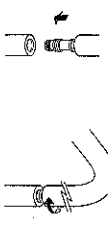
2. 松开滑杆托架和选择器阀芯 (顶部和底部), 取出托架塞管和侧阀底座。



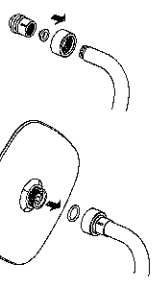
3. 将托架塞管和侧阀底座锁紧在 'D' & 'E' 的位置上。



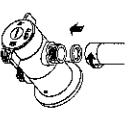
4. 将手握式花洒固定座和滑杆托架插入滑杆内。



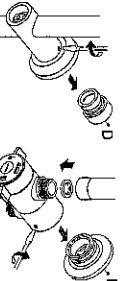
5. 将淋浴花洒滑杆接头插入滑杆内, 及以顺时针方向旋转至初始状态为止。



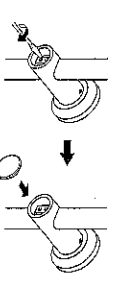
6. 将过墙杯盖圈及接头一起安装到淋浴花洒滑杆, 并将淋浴花洒锁紧在接头上。



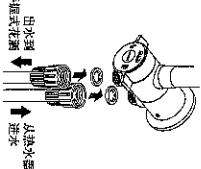
7. 将内置盖圈滑杆锁紧在器网上。



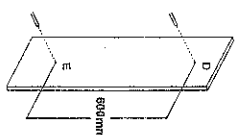
8. 将侧阀和滑杆托架塞入在 'D' & 'E' 的位置上, 并锁紧螺丝。



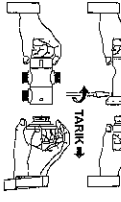
9. 将滑杆托架螺丝锁紧在滑杆以固定其位置。并盖上托架盖子。



10. 将热水器出水口的内置盖圈 PVC 管连接到选择器阀式花洒的内置盖圈 PVC 管, 并选择器阀。



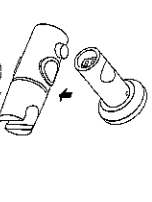
1. Buai lubang berdasarkan dimensi yang ditunjukkan (D & E). Masukkan plug dinding pada lubang tersebut.



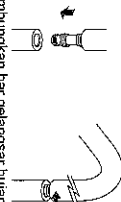
2. Longgarkan skru pendakap bar dan injap (Atas & bawah) dan keluarkan sesendel dan tapak injap.



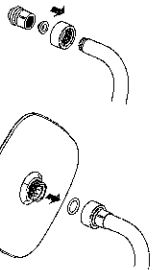
3. Skru sesendel dan tapak injap pilihan tersebut pada posisi D & E.



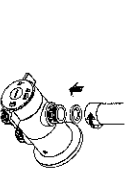
4. Masukkan pemegang pancuran tangan dan pendakap bar pada bar gelangkar.



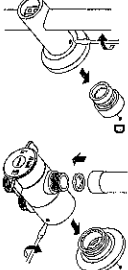
5. Sambungkan bar gelangkar hujan ke bar gelangkar dengan memasukkan bahagian yang lebih kecil ke dalam bar sehingga rapat.



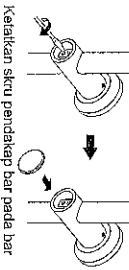
6. Pasangkan sesendel dengan pengalas panapis pada bar gelangkar hujan dan ketatkan pemegang hujan pada sesendel.



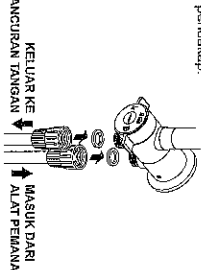
7. Ketatkan bar gelangkar dengan pengalas pada injap pilihan.



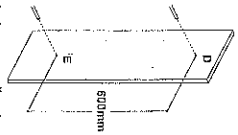
8. Letakkan injap dan pendakap bar pada kedudukan 'D' & 'E' dan ketatkan skru.



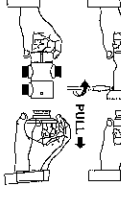
9. Ketatkan skru pendakap bar pada bar gelangkar untuk mengunci kedudukan bar pendakap. Pasangkan semula penutup pendakap.



10. Sambungkan hos PVC dengan pengalas dan salutan keluar air panapis dan hos PVC pancuran tangan pada injap pilihan dengan pengalas.



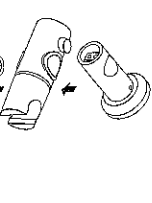
1. Drill the holes according to dimensions as shown (D & E). Insert wall plug to the hole after drilling.



2. Loosen bar bracket and valve screws (Top & bottom) and remove bracket bush and valve base.



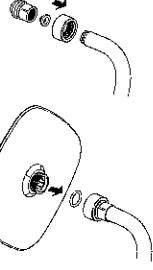
3. Screw the bracket bush and valve base to the position D & E.



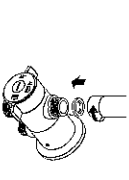
4. Insert the hand shower holder and bar bracket into the slider bar.



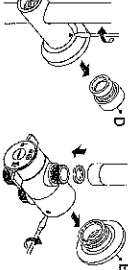
5. Connect the rain shower bar to slider bar by inserting the narrow and rain shower bar to the slider bar and rotate in clockwise direction until fully closed.



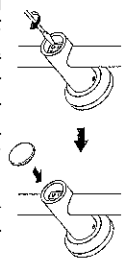
6. Assemble the bush together with filter cup washer to rain shower bar and tighten the rain shower to the bush.



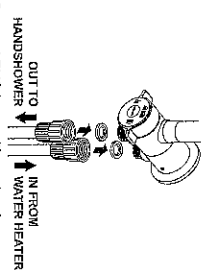
7. Tighten slider bar together with washer to valve.



8. Place valve and bar bracket to position 'D' & 'E' and tighten screws.



9. Tighten the bar bracket screws to shower bar to lock it in position. Place the cap.



10. Connect PVC hose with washer from water heater outlet and hand shower PVC hose with washer to the selector valve.