

Troubleshooting



Before starting work on the pump, make sure that the electricity supply has been switched off and that it cannot be accidentally switched on.

| Problem | Cause | Remedy |
|--|--|--|
| 1. pump does not start | a. No power supply | Connect the electricity supply |
| | b. Too low/high voltage | Check if supply voltage is within $\pm 10\%$ |
| | c. Wrong Voltage connection | Change the correct voltage |
| | d. Inlet pressure is higher than factory preset start pressure | Improve inlet pressure lower than factory preset start pressure, or adjust pressure switch by professional technician. |
| | e. Shaft jammed | Place a screwdriver against the shaft end of the motor to check if the rotor will spin freely, and contact your pump supplier. |
| 2. Pump cuts out during operation | a. Shaft jammed | Same as above |
| | b. Overloaded motor | Turn off the power supply and restart or contact your pump supplier. |
| | c. Poor water supply | Check if pump suction inlet is blocked. |
| | d. Water outage occurs | a. Turn off the power in case drying running continuously. b. Check water source from water company or storage tank. c. Make sure water source recover, then turn on the power, to restart the pump. |
| | a. CPU Controller failure | Replace CPU controller by professional |
| 3. Pump starts when no water is consumed | a. Existing pipe is leaking | Fix the leakage. |
| | b. Defective check valve | Clean or replace with a new valve. |
| | c. Pipe suck in air. | Check the suction pipe and water supply. |
| 4. Pump starts and stops too frequently | a. Leakage in suction pipe or air in the water. | Check the suction pipe and water supply. |
| | b. Discharge flow is too low. | Set your tap on a higher water flow. |
| 5. Electric shock | a. Ineffective grounding | Reactivate grounding. |
| 6. Pump does not stop when water is not consumed | a. Poor water supply or air suck in. | 1. Turn off the power supply and open the refilling plug to release the air. Then restart. 2. In case of long suction pipes, turn off the power and make sure if water supply is adequate. |
| | d. Flow controller failure | Replace Flow controller |
| | c. CPU controller failure | Replace CPU controller by professional |
| 7. Pump runs normal but with very low discharge flow | a. Impeller damage during long term operation. | Replace impeller by professional |
| | b. Poor water supply | check if water supply is adequate and if the suction pipe is blocked. |



EVERGUSH®
SINCE 1969

EMVH-SERIES

Electronic Auto Booster Pump Instruction Manual

Hot Water use

- Stable water pressure provided.
- Small size for saving space.
- CPU controlled, dry running shutdown



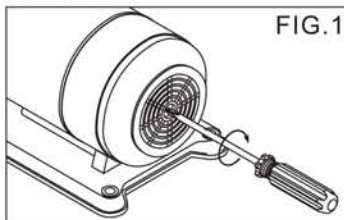
Auto boosting water pressure to the house, apartment, heater, washing machine, toilet, garden sprinkler, etc.

ASIA AUTOMATIC PUMP CO., LTD
<http://www.evergushpump.com.tw>

ISO9001 CERTIFIED

MADE IN TAIWAN

Operation



1. Make sure of using the right voltage.
2. Prime water inside the pump before running. It's recommended that the plumber/installer provides a proper draining system to avoid damage in case of leakage, particularly when installed indoors.
3. Insert a screw driver cross into the shaft slot, and turns the shaft 2-3 rounds to check if the pump runs normally, then open one faucet on the delivery side, then turn the power switch ON. (FIG. 1)
4. After the power switch on, the motor should turn immediately. After a few seconds, the water should be delivered.
5. If the water does not be delivered immediately, turn the power OFF. Repeat step 2 and set power ON/OFF continuously to make the suction piping be filled with water.
6. Once the water is pumped out, close the faucets on the delivery side to check the automatic stopping and pumping operation

Important Notes

1. Use the right voltage and wiring by the connecting diagram. Motor must be grounded in compliance with applicable electrical code to avoid accident.
2. Please use a sturdy foundation and bolt the pump to it securely.
3. Be sure to arrange earthing or circuit breaker against electric leakage.
4. The pump should be supplied through a residual current device(RCD) having a rated residual operating current not exceeding 15mA.
5. The pump should be installed as close as to the reservoir or well avoid the low efficiency due to the long suction pipe.

6. The location must be dry with good ventilation and adequate space.
7. Do not run without water actually pumping.
8. Be careful not to allow the foreign matter (chips, dirt, sand, glue, etc) into the pump, or they will damage and shorten the life of pump.

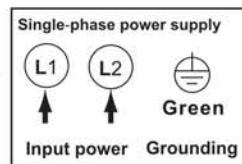
9. Piping joints should be fitted carefully to prevent leakage.
 - A. Leakage in the suction piping will cause the pump does not function well.
 - B. Leakage in the discharge piping will cause a high frequency ON /OFF motor operation while all the faucet and valves are closed.
10. Keep the faucets opened fully to get more efficient operation. Never keep continuous operation under the condition of half open.
11. If the supply cord is damaged, it must be replaced by a special cord or assembly availa
12. No water inflow occurs, pump will auto-shutdown in 1 minute, CPU will auto detect the pump water status and restart the pump within 1 hour. If user want to actuate during the period, please turn off first power sources, then supply power sources again.
12. To avoid your furniture damage, do not install the pump on ceiling, carpet or any place close to electrical appliance, outdoor installation must be covered by tent.

Piping

1. When used on a suction lift, a foot valve should be fitted on the suction line, below the liquid level.
2. To minimize pressure drop, the discharge pipe should be at least the same size as the discharge port of the pump.
3. For long suction pipes or high suction lifts over 4M, the suction pipe should be of greater diameter than the suction port.
4. Ensure all connections are completely sealed using thread tape only.

Wiring Diagram

Risk of Electric shock-
The pump is supplied with a grounding conductor. To reduce the risk of electric shock, be certain that it's connected to a properly grounded.

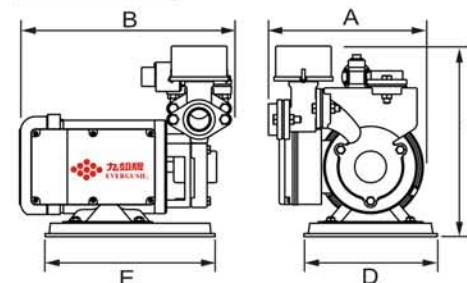


Specification

| Model | Power HP | Inlet/Outlet | | Pole P | Phase Ø | Voltage V | Pressure set | | Std. Head M | Std. Flow LPM | Max. Head M | Max. Flow LPM |
|---------|----------|--------------|----|--------|---------|-----------|--------------------------|---------------------------|-------------|---------------|-------------|---------------|
| | | Inch | mm | | | | On (Kg/cm ²) | Off (Kg/cm ²) | | | | |
| EMVH200 | 1/4 | 3/4" | 20 | 2 | 1 | 110/220 | 1.2 | 2.4 | 17 | 20 | 30 | 30 |
| EMVH400 | 1/2 | 1" | 25 | 2 | 1 | 110/220 | 2.0 | 3.2 | 20 | 30 | 35 | 50 |

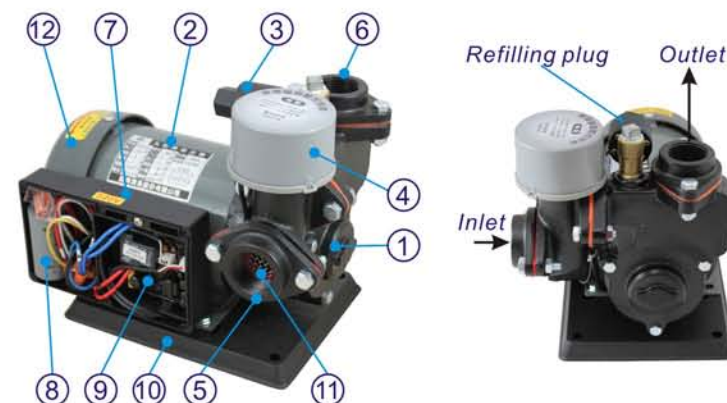
Factory Preset activation (start) pressure: EMV200: 1.2 kg/cm²; EMV400: 2.0 kg/cm²

Dimension



| Model | Dimension (mm) | | | | | N.W (KG) |
|---------|----------------|-----|-----|-----|-----|----------|
| | A | B | C | D | E | |
| EMVH200 | 260 | 160 | 250 | 165 | 210 | 8.8 |
| EMVH400 | 280 | 160 | 250 | 165 | 210 | 10.0 |

Main Parts



| | |
|--------------------|------------------|
| 1. Pump casing | 7. Control box |
| 2. Motor | 8. Capacitor |
| 3. Pressure switch | 9. CPU board |
| 4. Flow controller | 10. Base |
| 5. Inlet flange | 11. Inlet filter |
| 6. Outlet flange | 12. Back cover |

Performance Curve

