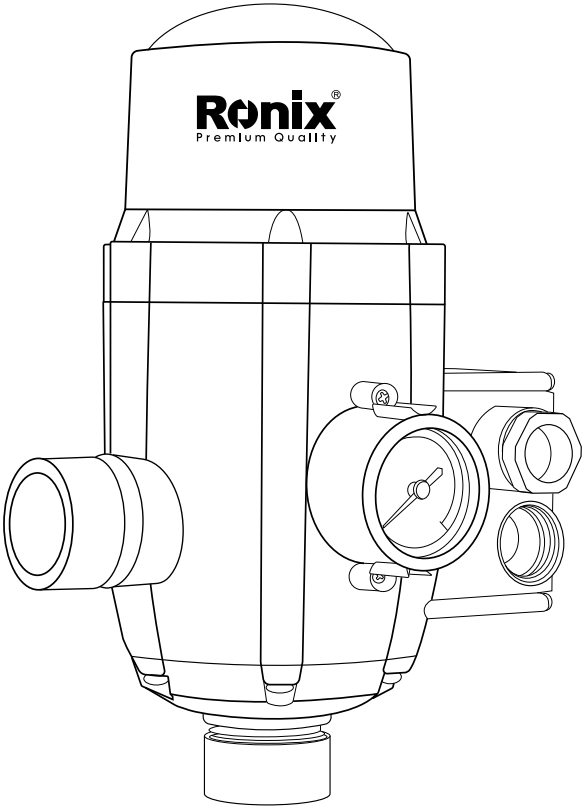
Ronix®
Premium Quality

# PRESSURE CONTROL

# RH-4045

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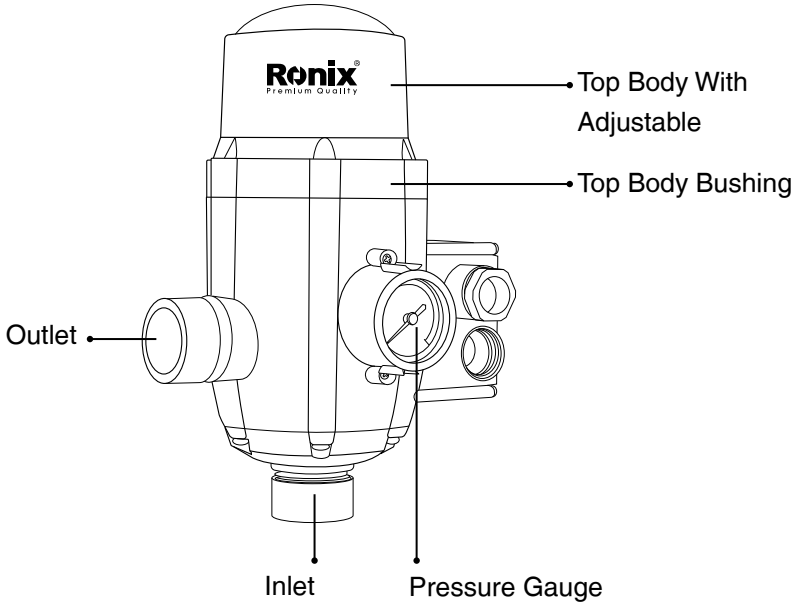
# SPECIFICATION

| | |
|---|---|
| Model | **RH-4045** |
| Voltage | 220-240V |
| Frequency | 50Hz |
| Current | 10A |
| Power | 1.1KW |
| Starting Pressure | 1.2Bar or 1.5Bar or 2.2Bar |
| Max Pressure | 10bar |
| Max Working Temperatuer | 55 °C |
| Body Material | ABS + Nylon |
| Dimension | 152×128×232mm |
| Cord Length | 1Meter |
| Weight | 1.41Kg |

## PART LIST




## OPERATION

The electronic controller orders the automatic start and stop of the water pump when opening or closing any tap or valve of the system. The controller can keep a constant pressure and water flow in the system as long as any tap in the system is open during the pump's operation.

### ▪CAUTION

The electronic controller can be used either for drinking water or non drinking water system. In installations where both types of water are present, make sure that drinking water is not mixed with non-drinking one.

## CONSTRUCTION CHARACTERISTICS

- Inlet: male 1”
- Outlet: male 1”
- Special non return valve to avoid surges
- Security system avoiding the possibility for the machine to work without water
- Pressure gauge
- Manual start switch (RESET)
- Tension LED (POWER)
- Pump-working LED (ON)
- Security system LED (FAILURE)

## INSTALLATION OF THE PRESSURE GAUGE (Fig.1)

The pressure gauge is provided with an O-ring, two fixing screws and a screw cap. The pressure gauge can be mounted on any side of the controller by introducing the cylindrical connector with the O-ring into the hole in the body of the device and fixing it by means of the two supplied screws. The screw-tap is to be located on the opposite side’s pressure gauge vent (without O-ring or Teflon).

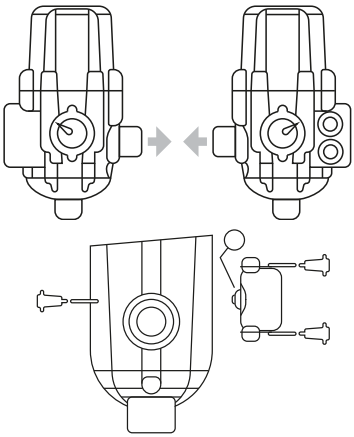


Fig.1

## HYDRAULIC CONNECTION (Fig.2)

Before proceeding with hydraulic connection, it is essential to prime the pump correctly. The controller should be installed always in a vertical position, thus connecting the inlet opening (male 1”) directly to the pump outlet and the lateral outlet (male 1”) to the network. Avoid outlet non-return valves.

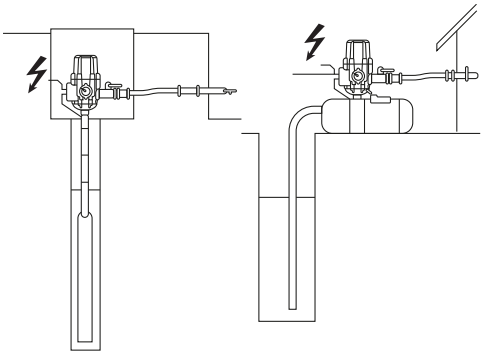


Fig.2

## FUNCTION DETAILS -THE MODEL WITH TIMER CONTROL ONLY

Except all ordinary function, it with timer can reset the pump automatically without water. When the pump stops without water failed in the water supply system, the indicator light will be twinkled regularly. In definite time, the controller reset pump every 15mins 1 time to test whether the water source get right. If water source gets right, the controller will exit this state. If in those time, no water suction, the control will keep without-water state, and after start the pump 4times every 15mins, the control will reset pump in every 1h.

## ELECTRIC CONNECTION (FIG.3)

Check the power refer to nameplate, First disconnect the power supply, then dismount the cover 1 of the electronic circuit and make the connections as per diagram on plate 2. The controller can be also used for three-phase or single-phase pumps with intensities higher than 10A by means of an auxiliary contact. In this case, the connections will have to be made according the scheme in Fig4.

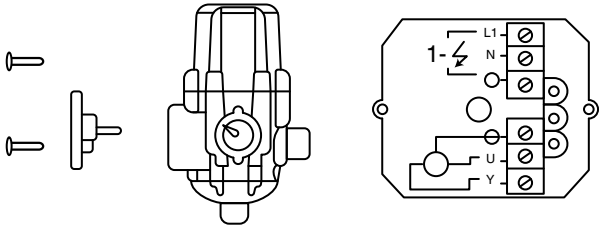



Fig.3

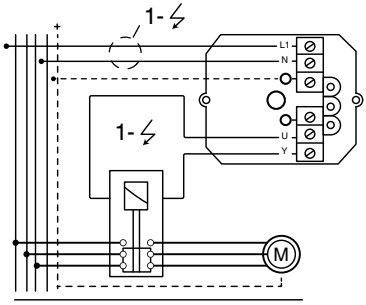



Fig.4

### ⚠ Warning!

Bad connections may spoil the electronic circuit.

## STARTING

1- Be sure that the pump is correctly primed, and then gently open the tap.
2- Connect the controller to the electric supply. The tension LED will

light (POWER)

3- The pump starts working automatically and within a period of 20-25 seconds the pressure gauge will reach approximately the maximum pressure provided by the pump. During its working the corresponding LED(ON)will be on.

4- Close the tap indicated on point 1. After 7-9 seconds the pump will stop. The tension LED (POWER)will be the only one to remain on. Any problem after this procedure will be due to defective pump priming.

## ▪ATTENTION (Fig.5)

Please confirm the starting pressure and voltage of the controller before installation (please refer to nameplate and packaging, etc. The controller must be installed vertically, and if the starting pressure is 1.5 bar, the height from the controller to the highest tap shall not exceed 13m, and the pressure produced by the pump must be 0.8 bar higher than the starting pressure. If use the controller with adjustable, the height and starting pressure and minimum pump pressure should match the following figure:

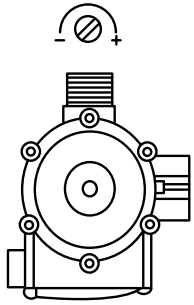



Fig.5

| STARTING PRESSURE (BAR) | USING HEIGHT (M) | MINIMUM PUMP PRESSURE (BAR) |
|---|---|---|
| X | H ≤ 10X- 2 | P=X+0.8 |
| 1.5 | 13 | 2.3 |
| 2.2 | 20 | 3 |

This operation only adjusts the starting pressure, not the working pressure which only depends on the pump feature. It will be easier to proceed with the adjustment if a tap of the installation is opened. that will reduce the internal pressure of the control.

## ▪POSSIBLE PROBLEMS

1- Pump doesn't stop:

a) Water leakage higher than 1.2 L/min at some point check the system, the tap, etc.

b) Manual start switch (RESET) is blocked press it for several times. Consult your dealer if the problem persists.

c) Breakdown on the electronic board proceed to its substitution

d) Incorrect electric connection on electronic boards check the connections according to Fig.3.

2- Pump doesn't start:

a) Not enough water supply, the security system has been activated and the LED (FAILURE) is on check the water supply and restart the pump through the reset switch (RESET)

b) Pump is blocked:

LED (FAILURE) is on and the security system is activated. When we act on the manual start switch (RESET) the LED (ON) is activated but the pump doesn't work consult your dealer.

c) Failure in the electronic circuit switch off power supply, wait a few seconds and turn it on again. If the pump doesn't start immediately then replace the circuit.

d) No electrical supply check the proper electric feeding. The tension LED (POWER) should be on.

e) Nat enough pump pressure the security system has been activated and the corresponding.

LED (FAILURE) is on. Check that the pump pressure is 0.8bar higher than the starting pressure of the controller.

f) Air in the pump aspiration the pressure gauge will indicate a pressure lower than the nominal or constant oscillations. The security system will

act by stopping the pump and the LED (FAILURE) will be on Check the sealing of connections and O-ring of the aspiration conduct.

3- The pump start and stops repeatedly.

a) Small leakage in some point of the installation verify possible tap of tank leakages and repair them.

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