



Automatic Water Level Controller (WLC) with Magnetic Floats

Suitable for borewell (tubewell) single phase motor pump upto 1.5HP

Read thoroughly before installing and operating this device.

Salient Features:

- ◆ Saves precious water, electricity and time.
 - ◆ Fully automatic operation. If required, can be operated manually also.
 - ◆ When the level of water in over head tank goes to the preset lower level, our Automatic Water Level Controller (WLC) switches ON the motor pump automatically and fills up the tank with water.
 - ◆ When the level of water in the over head tank reaches the preset upper level, our WLC switches OFF the motor pump automatically and thereby saves water, electricity and time.
 - ◆ If the motor is not pumping water to the overhead tank within a stipulated time in AUTO mode, the WLC will switch OFF motor pump automatically to protect the motor.
 - ◆ If the mains voltage goes below or above the safe level in AUTO mode, this device will switch off the motor pump automatically to protect the motor.
 - ◆ If the usage of motor pump is not required for a very long time, it is possible to switch OFF this device by putting it's switch to OFF (middle) position.
- ◆ Our automatic Water Level Controller is warranted for a period of one year. Videon will not provide warranty to any other equipment connected to the Automatic Water Level Controller.
 - ◆ To claim warranty, customer should take their defective Automatic Water Level Controller to the dealer from whom they bought the same or to the nearest company service centre.

Accessories available while purchasing this device:

- | | |
|--|---|
| 1. Main unit - 1 number (picture-1) | 2. Stand Base - 1 number (picture-2) |
| 3. Magnetic Floats - 2 numbers (picture-3) | 4. Dry Run Sensing Probe - 1 number (picture-4) |
| 5. Solvent Cement - 1 bottle | 6. Brass Screws - 2 numbers |
| 7. Cable Tie - 2 numbers | 8. PVC Nipple / Adaptor (1/2 inch) - 1 number (picture-5) |

A 4-core cable (4 different coloured wires inside a single cable) is required to connect the floats and probe with the WLC (picture 10). This cable is not available while purchasing our WLC. It is to be purchased separately at extra cost. Use a good quality 4-core cable with multi strand copper wires for better performance.

WARNING:

Use of MCB/ELCB /Overload Relay/Fuse whichever is required at the installation site is mandatory.

- ◆ Only a technically qualified person with thorough knowledge in electricity is allowed to install this device.
- ◆ The person, who is installing this device should take necessary precautions to avoid electrical hazards.
- ◆ Make sure that all electrical connections are properly made and all wire joints are well insulated before connecting this device with electricity (230V, AC, 50 Hz, Single Phase).

Installation of floats and probe for overhead tank:

- ◆ Remove the lid of stand base by rotating it in anticlockwise direction.
- ◆ Fill the stand base with pebbles/sand/mettle (picture-6) and tighten the lid. This will prevent it from falling or tilting while putting inside the tank.

- ♦ Fix the PVC nipple (adaptor) on the stand base lid (picture-7).
- ♦ Take a ½ inch diameter PVC pipe used for plumbing purpose and cut it in a length as per the height of the water tank. Apply solvent cement at it's one end and fix it by inserting into the PVC nipple on stand base. (picture-8)
- ♦ Decide the lower level for water in tank where you need to switch ON the motor pump automatically and fix the lower float with green and black wires (Lower Float) on PVC pipe in that height using brass screws, facing the arrow () on the probe **towards down** (pictures 9 and 13).
- ♦ Decide the upper level for water in the tank (it should be below the overflow pipe), where you need to switch OFF the motor pump automatically and fix the upper float with red and black wires (Upper Float) on the PVC pipe in that height using brass screws, facing the arrow () on the probe **towards down** (pictures 9 and 13).
- ♦ Tie the dry run sensing probe at the end of water inlet pipe to the overhead tank using the cable tie, in such a way that the water flow from the pipe touches the two metal pins on probe (pictures 11 and 13).

The black wires of lower and upper floats and dry run sensing probe are to be connected to the black wire of the 4 core cable.

Connect the white wire of 4-core cable with the white wire of dry-run sensing probe, green wire with the green wire of the lower float and red wire with the red wire of upper float. Put the stand base with floats inside the water tank carefully. The other end of the 4-core cable is to be connected to the WLC. Connect the black wire at the other end of 4-core cable to the point 'C' of the connector named SUB TANK. Similarly connect the green, red and white wires at the other end of 4 core cable to the points 'L', 'U' and 'D' respectively to the connector named OH TANK (picture 13).

If you are pumping the water from a well instead of pumping it from a sump (sub tank), connect the connector points 'C' and 'L' of SUB TANK using a wire as shown in picture 12. If you are pumping the water from a sump (sub tank), it is not required to do like this.

Installation of floats for Sump (Sub Tank):

Normally we pump water from a well to our over head tank. But in some areas, it is pumped from a sump (sub tank), instead of pumping it from a well.

If the level of water in the sump goes below the foot valve of the motor pump, it may damage the foot valve due to air sucking. So if we are pumping water from a sub tank to the over head tank, the motor pump is to be controlled using necessary floats in sub tank also.

Floats and stand base for sub tank are not available while purchasing our WLC and they are to be purchased separately at extra cost, if needed.

Floats for the sub tank are to be installed on another stand base, just like how we installed the floats for the over head tank. The lower float for sub tank with black & green wires is to be fixed in a height just above the foot valve. The upper float for sub tank with red and black wires is to be fixed as per the height of the sub tank (picture 13). Connect the black wires of these floats in sub tank to the point 'C' of the connector marked SUB TANK. Similarly connect green wire of the lower float in sub tank to the point 'L' and red wire of the upper float in sub tank to the point 'U' of the connector named SUB TANK (picture 13). Use a 3-core or 4-core cable for this purpose. If you are using a 4-core cable for this purpose, no need to use the white wire and leave it idle. No dry sensor is required for the sub tank.

If you are pumping water from a sump(sub tank) to the over head tank, there is no need to connect the C & L connectors of SUB TANK using a piece of wire as shown in picture 12.

Connecting Automatic Water Level Controller with electricity:

Take necessary precautions to avoid electrical shock. Switch OFF the power to the starter and disconnect the Phase (Live) and Neutral wires of AC Mains from the points P and N of connector inside the motor starter. Then connect these Phase (Live) and Neutral wires of AC Mains to the connector points L IN and N of WLC respectively. Connect the L OUT and N of WLC with suitable wires to the points P and N of connector inside the motor starter. Connect the upper connector points of the push to ON switch to the connector points A

and A of WLC and connect the lower connector points of push to ON switch to the connector points B and B of WLC respectively using suitable wires.

Warning: Never interchange connections. Use good quality wires with required thickness for above connections, preferably 2.5mm square. Make sure that all the connections are properly made and all wire joints are well insulated. Now switch ON the power to the Automatic Water Level Controller.

Switch Positions:

The Water Level Controller's switch has 3 positions. When the switch is in middle (OFF) position, the WLC and motor will not function and there will be no indicator lights either. To switch ON the motor pump manually, put the switch manually towards up (MANUAL) to ON the motor pump and then put the switch to middle to switch OFF the motor pump manually.

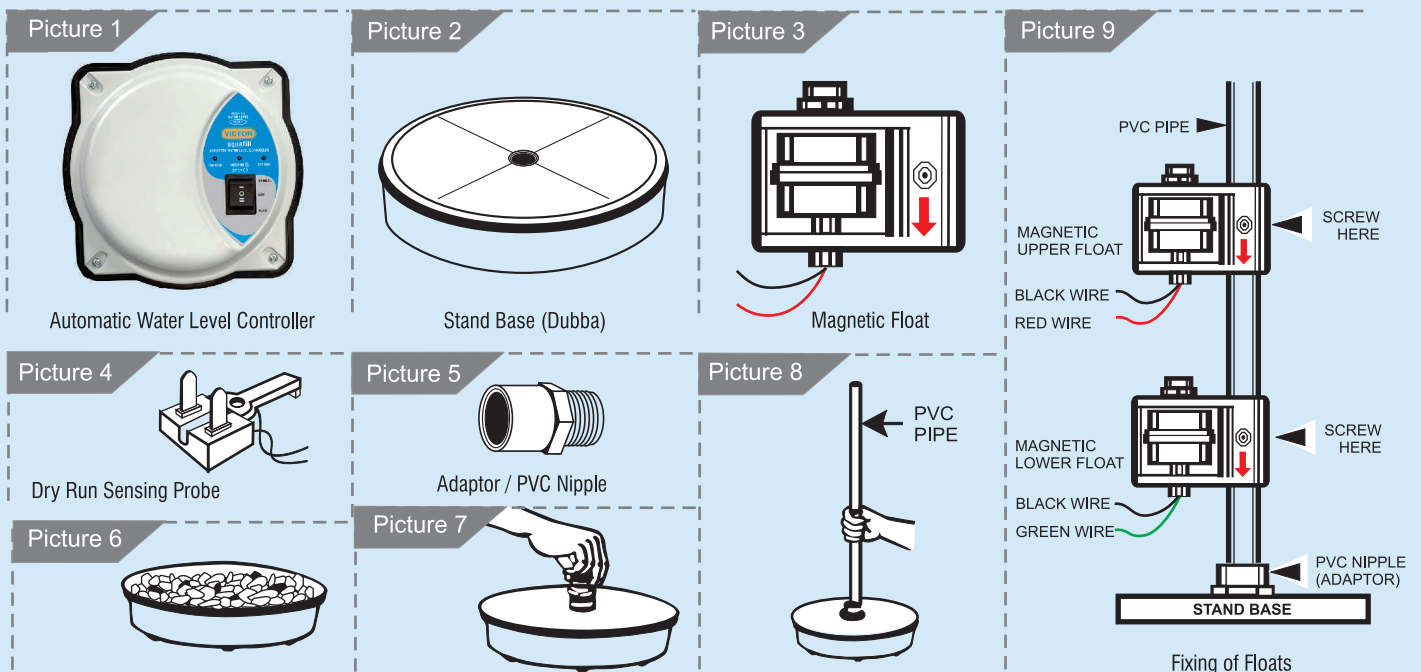
Auto Mode:

To operate the motor pump automatically, put the switch to the downward (AUTO) position. If electricity is present, the indicator marked as POWER IN will glow in this situation. When the level of water in the overhead tank goes to the lower preset level, this device will switch ON the motor pump automatically and the MOTOR ON indicator will glow in green colour. When the level of water in the overhead tank reaches the preset upper level, this device will switch OFF the motor pump automatically and the MOTOR ON indicator stops glowing. When the switch is in AUTO mode and the mains voltage is lower or higher than the safe level, this device will switch OFF the motor pump automatically and the MOTOR ON indicator will glow in red colour. Again this device will start functioning automatically when the mains voltage reaches safe level. If the motor is not pumping water within a stipulated time in AUTO mode, our WLC will switch OFF the motor pump automatically to protect the motor. The DRY RUN indicator will glow in this situation and the buzzer sounds alarmingly. Switch OFF the power & WLC in this situation and check the reason for pump dry run and rectify the complaint for the same. Then again switch ON the power and put the WLC's switch to AUTO mode, the device will start functioning automatically.

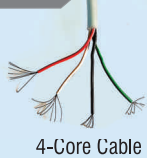
If you intend to be away from home and want to fill up the tank before going out, gently press RESET button once and the motor pump will start working and stops automatically once the tank is filled with water. This function will work in AUTO mode only.

Manual Mode:

If we want to operate the motor pump manually, we have to put the switch to upward (MANUAL) and after the usage, we have to put the switch to its centre position (OFF) to stop our motor pump. No indicator will light up in this situation.

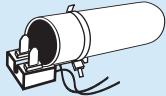


Picture 10



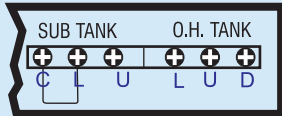
4-Core Cable

Picture 11



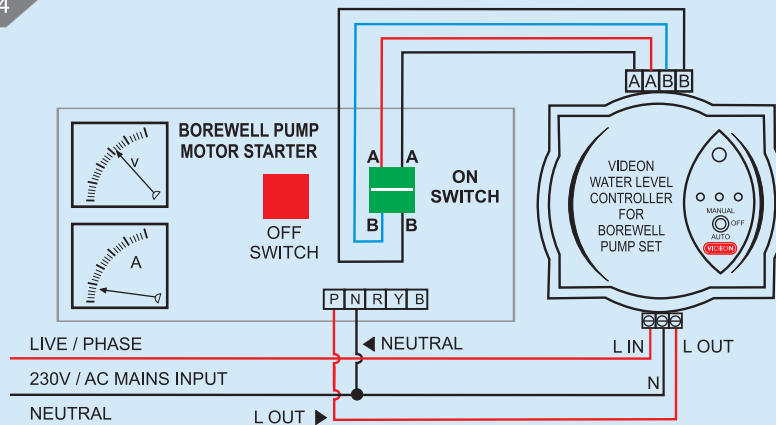
Fixing of Dry Run Sensing Probe

Picture 12



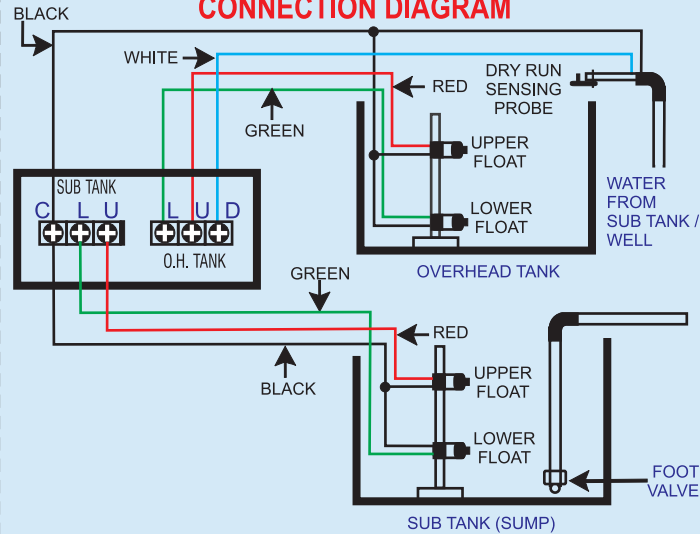
Required only for pumping the water from a borewell / tubewell

Picture 14



Picture 13

Borewell AUTOMATIC WATER LEVEL CONTROLLER CONNECTION DIAGRAM



Picture 15

