



RMG AUTOMATION

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Wireless Automatic Water Level Controller with Indicator

Model : WAWLCI -TS



User Manual



1. INTRODUCTION

Water saving is much important in this busy world to keep our generations water sufficient. RMG Automation introduces its latest model of wireless automatic water level controller with indicator gives a way to implement controlling water level and free us from hassles of lengthy wiring. WAWLCI-TS is a Radio Frequency Based Wireless Water Level Controller with four level Indicators for each tank. It also has low voltage, high voltage and dry run protection.

WAWLCI-TS is suitable for underground tank(Sump) to overhead tank setup in which device TURNS ON the motor when overhead tank is empty by ensuring underground tank has enough water. It TURNS OFF the motor when overhead tank is full or underground tank is empty. Both transmitter & controller are indoor units and need AC power supply for it to work. The transmitter units are placed near the water tanks. If power source for transmitter is not available at the tank, and if it has to be kept at some distance, we can use communication cable (6 core), if necessary between the sensors and transmitter. The controller unit can be placed near the motor pump control switch/starter location.

2. DESCRIPTION

2.1 CONTROLLER / RECEIVER

- **Power ON/OFF switch** – used to ON/OFF the controller.
- **Start/Stop button** - for pairing the controller with transmitter. Also for manual ON/OFF of the motor
- **POWER ON LED** – shows ON/OFF status of controller.
- **MOTOR ON LED** – It indicates the motor ON/OFF status.
- **L/H VOLT LED** - shows HIGH/LOW voltage indication. If the LED glows motor will not run and protect from voltage fluctuations.
- **SIGNAL LED** – shows the RF Transmit or Receive signal status. When it blinks the communication between transmitter & controller is good. When it is continuously glowing, it means there is no communication.
- **Level indicator LEDs** - These LEDs shows the water levels of the tank. There are 4 level indications 25%,50%,75% and 100% for both tank and sump.

2.2 TRANSMITTER

- **Power ON/OFF switch** – used to on/off the transmitter.
- **POWER ON LED** – shows the on/off status of transmitter.
- **Pairing soft key**– used to pair the transmitter with controller.
- **SIGNAL LED** – shows the RF Transmit or Receive signal status.

3. TOOLS REQUIRED

- | | |
|---|--|
| <ul style="list-style-type: none">• Drill gun• Simple hammer• Wooden gattas• Screws for mounting units on wall• Line tester | <ul style="list-style-type: none">• Wire stripper• 1.5Sq.mm Wire for power & control wiring• Insulation tape |
|---|--|
- 1• Cable

4. INSTALLATION PROCEDURE

Caution: Switch off the main power while doing the Power Connection.

Note: Before taking the transmitter to the tank areas, give Input AC Supply to controller and transmitter and join the sensors lines in each transmitter and identify the tank transmitter and sump transmitter.

Step 1: Wall mount the Controller unit nearby motor pump switch/starter location. The location chosen should be near the window or in open space to ensure good signal strength.

Step 2: As per the model purchased, check the label and connect AC supply (AC 230/440V) to 1st and 2nd terminal of the controller (Refer figure 1 or figure 2).

Step 3: For switch or MCB, connect the blue pair wire to the switch in parallel as shown in figure 1.

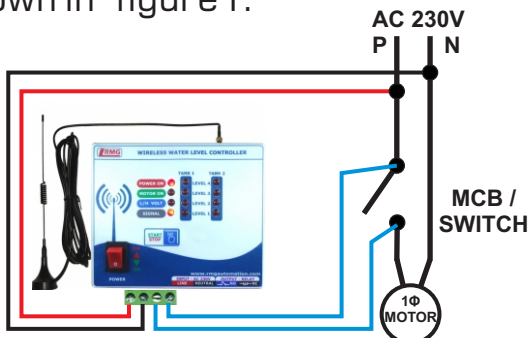


Figure1: 1Φ SWITCH/MCB

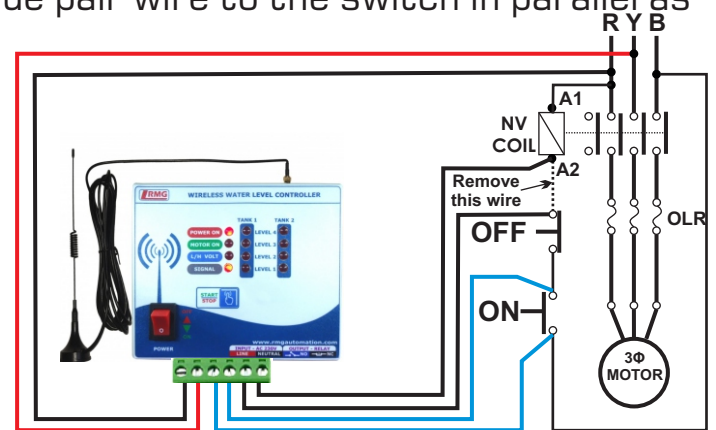


Figure2: 3Φ Starter

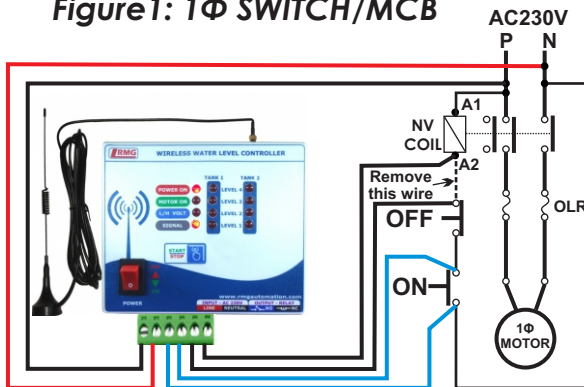


Figure3: 1Φ Starter

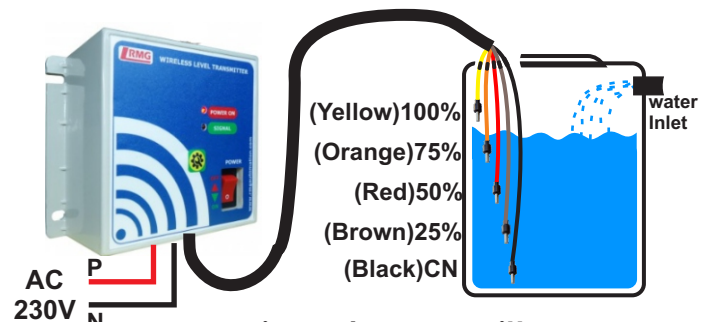


Figure4: Transmitter

Step 4: For starter, connect blue pair wire to ON button in parallel and black pair wire to OFF button in series. (Refer to figure 2 & Figure 3). In case of other types of connections or doubt what's app to 9940594413 or call 044-43180017

Step 5: Take the transmitter near the respective tanks and place it where good signal strength is available. Connect Phase and Neutral (230V) to red and black wire of transmitter unit.

Step 6: Turn ON the controller and transmitter units. Now, Power ON LED in both transmitter and controller will glow. Wait until RF Signal LEDs in both transmitters and controller blinks every 16 seconds once. This ensures the perfect communication between them.

Step 7: Now power off the controller and transmitter unit. **Contact type sensor connection:** Take the sensors and cut them according to the levels of the tank and join them with the sensors lines of transmitter as per color coding. (Refer figure 4). **Magnetic float sensor connection:** These sensors has 2 wires. Use any one wire in each sensor as common. Other wire left in each can be used for levels.

Step 8: Immerse the sensors in the water tank at Common, 25%, 50%, 75%, 100% level. Similarly in the sump tank also. This completes the installation..

5. OPERATING PROCEDURE

- Switch ON Power button of both controller and transmitter units, now POWER ON LED will glow in the both units. SIGNAL LEDs in both units blinks in every 16 seconds confirming that proper communication is established.
- Depending upon the water levels in each tank, the level indication LEDs are ON. furthermore, the levels of each tank will get updated in every 16 seconds.
- If the water level goes low, controller automatically TURNS ON the motor during this time MOTOR ON LED glows. This occurs only when water is available in the sump. When the tank becomes full or sump level is low, controller unit automatically TURNS OFF the motor.

- **PAIRING PROCEDURE:** The units are generally paired and dispatched. In case of any trouble at the time of installation, users can pair the units once again.
- Press the START/STOP button and do not take the finger out while doing this. Turn ON the controller. All the tank level LEDs will blink. It means the device is ready for pairing.
- **SUMP TRANSMITTER** - In transmitter there is a yellow PAIRING soft key. Press the key and without taking out the finger from it, power ON the device. Now the SIGNAL LED of transmitter blinks one time and all the TANK 1 level LEDs goes off in the controller unit. Thus pairing is completed for sump transmitter.
- **TANK TRANSMITTER** – The blinking of receiver shifts to TANK 2 levels and repeat the same procedure and power on the transmitter using the pairing key as described above. The TANK 2 level LEDs goes OFF. Thus pairing is completed for tank transmitter.

NOTE: Do not cover the transmitter and controller with metal enclosure. It may disturb / loss the RF communication.

6. TROUBLE SHOOTING METHODS

S.No.	Error	Solutions
1	No communication between controller and transmitter .	Check whether any obstrucles are there in between transmitter and receiver units like large trees, buildings etc (repeaters can be added if necessary)
2	Tank level indicator LEDs are off	If one or all the level indicator LEDs are not glowing, a. Check common sensor connection is correctly made. If any loose contacts correct it. b. Check all the sensor connections are having any loose contacts.