

# User Manual: CABVM Timer Controlled WRAS Ball Valve

## 1. Product Overview

This CABVM timer valve allows automated opening and closing of a WRAS motor actuated ball valve at scheduled times, with a digital interface for configuration. It supports up to 9 ON/OFF time settings and includes power failure memory options.

## 2. Specifications

**Working Voltage:** AC 110–230V or AC/DC 9–24V

**Time Settings:** Up to 9 open/close time pairs (max 18 time points)

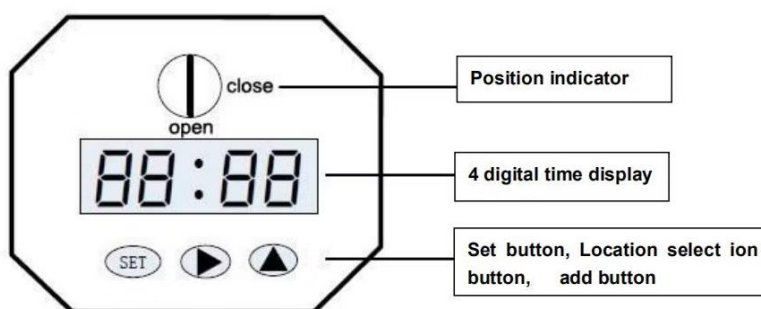
**Time Format:** 24-hour format (HH:MM:SS)

**Fail-Safe:** Auto-return to OPEN or CLOSE upon power failure (configurable)

## 3. Panel Overview

### Button/Icon Description

|                |                                  |
|----------------|----------------------------------|
| <b>SET</b>     | Enter/confirm settings           |
| <b>▲ / ▼</b>   | Navigate and adjust values       |
| <b>LEDs</b>    | Show valve position (Open/Close) |
| <b>Display</b> | 4-digit digital time display     |



## 4. Menu Functions

| Code  | Function                   | Details                |
|-------|----------------------------|------------------------|
| LO    | Set current time           | HH:MM:SS format        |
| PAR   | Set number of time pairs   | Range: 1–9 pairs       |
| TO1–9 | Open time for each pair    | HH:MM:SS               |
| TC1–9 | Close time for each pair   | HH:MM:SS               |
| PRT   | Power-off default position | OP (open) / CL (close) |

### ⚠ Important:

- Open and close times in the same pair must not be identical.
- If both are the same, CLOSE time takes priority.

## 5. Setting Up the Valve

### CABVM Step-by-Step Programming

1. **Enter Setup Mode:** Press and hold **SET** for 4 seconds.
2. **Set Current Time (CLO):** Use **SET** to enter, then adjust hours/minutes/seconds using **▲/▼**.
3. **Set Number of Time Pairs (PAR):** After setting time, screen shows **PAR**. Choose how many ON/OFF schedules to use (1–9).

**Set Each Time Pair: TO1:** Open time → press **SET** to enter and adjust.

**TC1:** Close time → press **SET** and adjust.

Repeat for **TO2/TC2** to **TO9/TC9** as needed.

4. **Set Fail Position (PRT):** Choose valve position when power fails: **OP** or **CL**.

## 6. Manual Operation (Testing Mode)

- Press ▲ + ▼ together:
  - Valve opens manually (screen shows OPEN)
- Press again:
  - Valve closes manually (CLOSE)
- Press **SET** to exit manual mode.

## 7. Normal Operation Display

- Screen displays countdown to next valve action.
- LED indicates **OPEN** or **CLOSE** status.
- Time format: HH:MM:SS

## 8. Error Codes & Troubleshooting

### Error Code Description

|             |                                            |
|-------------|--------------------------------------------|
| <b>ERR1</b> | Valve motor block problem                  |
| <b>ERR2</b> | Chip timing error (R27/R28 resistor issue) |
| <b>ERR3</b> | Driving chip failure (R27/R28)             |
| <b>ERR4</b> | Mechanical jam or stuck valve              |

### Reset Device:

Press ▲ + ▼ together to restore factory defaults.

## 9. Notes & Tips

- When multiple schedules are used, make sure open and close times do not overlap.
- If unsure about wiring or installation, consult a qualified technician.
- For power-fail behaviour, configure the **PRT** setting appropriately.

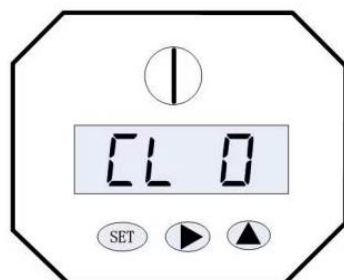


Figure 1.1 real time setting

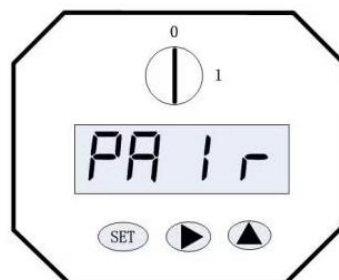


Figure 1.2 time setting PAIR

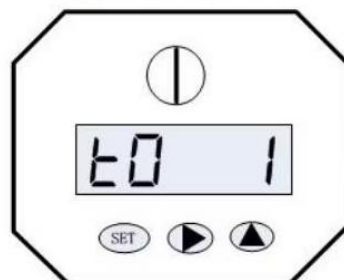


Figure 2.1 open time setting

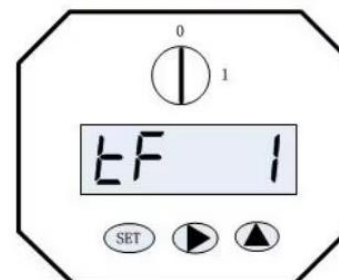


Figure 2.2 close time setting