



RSC Mini System Controller

STARTUP MANUAL



It is the installer's responsibility to read, understand, and comply with these instructions. Please follow all OSHA safety regulations and local codes.

The RainFlo RSC Mini offers simple to use, all in one monitoring, automation, and control. For ease of use, each system controller includes a color touch screen human machine interface (HMI) for clear viewing and easy adjustments of functions and parameters. Follow the steps below to configure your RainFlo RSC Mini.

PLEASE NOTE: All images in this manual include a **default numerical nomenclature**. The numbers are placeholders and are not representative of the data that should be entered into the fields. The images are included for visual reference.

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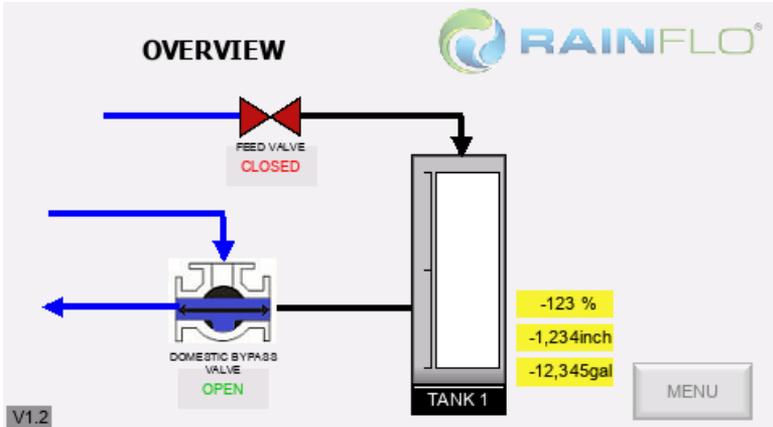
1. PLC VOLTAGES

The PLC is powered by 120VAC and 24VAC.

2. STARTUP INSTRUCTIONS

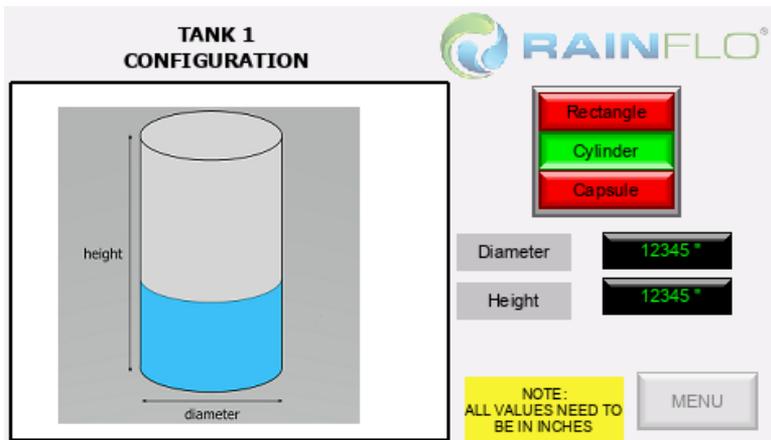
Overview Screen

When the PLC is powered on, an Overview screen will appear. Press the Menu button and go to Tank 1 Configuration.



Tank 1 Configuration Screen

Set the tank level for your storage tank.



Choose the tank style: Rectangle, Cylinder, or Capsule.

Once the tank style is chosen, input the tank parameters:

- Rectangle: length, width, and height
- Cylinder: height and diameter
- Capsule: length and diameter

Limits Configuration Screen

There are three low and high limits to set based on the application.

NOTE: These three configurations all function through manual mode.

| | LOW | HIGH |
|--|---------|---------|
| DOMESTIC BYPASS START/STOP LEVELS (%): | 123.4 % | 123.4 % |
| FEED VALVE START/STOP LEVELS (%): | 123.4 % | 123.4 % |
| TOTAL DRAIN STOP LEVEL (%): | 123.4 % | |

MENU

Domestic Bypass Start/Stop Level – low and high percentages determine operation of municipal water source

- Start (low)- Set the low level (%) for the system to switch to domestic backup water.
- Stop (high)- Set the high level (%) for the system to switch to reclaim water.

Feed Valve Start/Stop Level –

- Start (low)- Set the low level (%) at which the secondary source adds water.
- Stop (high)- Set the high level (%) at which the secondary source stops adding water.

Total Drain Stop Level – allows manual drain of the tank.

- NOTE: Total drain is a manual start command.

HMI Control Screen

Four manual override modes:



Domestic Bypass- press to manually switch to or from an alternate water source.

Feed Valve- press to fill up/top up the tank from an alternate water source.

- If the user is in top up mode and needs to transition to total drain, it is possible once total drain is started.

Total Drain- press to manually drain the tank. Tank will drain down to the level set in limits configuration screen.

- During manual drain, it is not possible to enter top up manual simultaneously.

Pre Filter Rinse- press start to manually rinse. Will manually rinse for the duration set in the pre filter rinse configuration.

Pre Filter Rinse Configuration Screen

Set the frequency (hour or day) and the duration (minutes) of the pre filter rinse function.

PRE FILTER RINSE CONFIGURATION

RAINFLO®

FREQUENCY

DURATION

PRE FILTER RINSE

-12 HOURS **-123 DAYS** **-123 MINS**

NOTE:
MUST CHOOSE
HOURS OR DAYS,
NOT BOTH

MENU

NOTE: Must choose hours or days. To enable rinsing on an hourly basis, set the hour frequency between 1 and 23 hours. To enable rinsing on a daily basis, set the desired number of days accordingly. Example: setting the frequency to 3 days will start a rinse cycle for the duration set every third day.

Duration: 1 min (suggested)

Maintenance Alerts Screen

There are three alerts this system displays on the main HMI Overview screen to indicate maintenance is needed. If applicable, input the desired maintenance frequency for the following items:

- System – 90 days (suggested)
- UV – 365 days (suggested)
- Filter – dependent on water quality

Once the maintenance is complete, press Reset to restart the alert timer.

| MAINTENANCE TYPE | FREQUENCY | RESET | ALERT |
|------------------|-----------|-------|------------|
| SYSTEM | -123 DAYS | RESET | NOT ACTIVE |
| UV | -123 DAYS | RESET | NOT ACTIVE |
| FILTER | -123 DAYS | RESET | NOT ACTIVE |

MENU

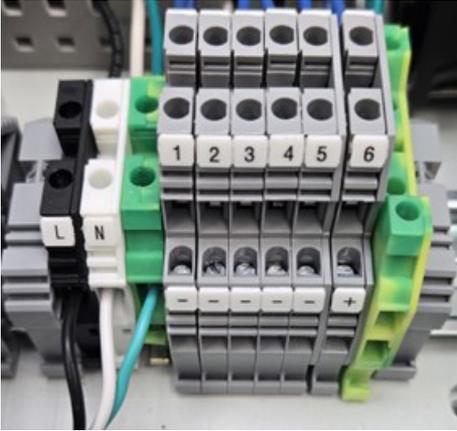
IO Configuration Screen

A quick overview of the PLC capabilities and the valve functions this system can offer. This is a display screen only.

| | |
|-----|------------------------|
| AI1 | TANK 1 LEVEL |
| DO1 | DOMESTIC 3 WAY VALVE |
| DO2 | PRE FILTER RINSE VALVE |
| DO3 | DRAIN VALVE |
| DO4 | TOP UP/FEED VALVE |

MENU

Wiring



TB-L: 120VAC L

TB-N: 120VAC N

TB-1: Domestic valve open from relay 24

TB-2: Domestic valve close from relay 22

TB-3: Pre filter-rinse valve 24VDC

TB-4: Drain valve 24VDC

TB-5: Feed valve 24VDC

TB-6: Tank level transducer 24VDC

Back Row Negative: 24VDC negative for valves

Back Row Positive: Tank level transducer 24VDC +

TROUBLESHOOTING

| Issue | Solution |
|-------------------------------|--|
| Basic functions | <ul style="list-style-type: none">• If system does not have power, check disconnect with multimeter to check power• If the domestic bypass, feed valve, or total drain are not starting and stopping at correct levels, check the limits configuration (page 2) |
| No reading on HMI | <ul style="list-style-type: none">• Ensure wiring at junction cable connector is tightened down. Positive goes to L, Negative goes to N, and Shield to ground• Ensure wiring at PLC is tightened down• Ensure tank configuration has been completed |
| Inaccurate tank level reading | <ul style="list-style-type: none">• Change level transducer height to match the suction height on tank |
| No or low pressure | <ul style="list-style-type: none">• Troubleshoot the pump• Check pipe for damage or debris |

WARRANTY

RainFlo products are covered by a one-year limited warranty from the date of purchase. The warranty only applies to materials and workmanship and does not cover incidental damage to other property. Warranty does not apply to incorrect handling, use, assembly, or installation. Within the warranty period, we will repair or replace the defective component at our discretion. Return shipping is not included. If failure is a defect in materials or workmanship, the product will be repaired or replaced and returned free of charge. Please refer to RainHarvest Systems' terms and conditions of sale for other applicable details and restrictions.

