94C-SERIES (OLED) VRD BACKWASH CONTROL PANEL

EVERFILT®

WATER FILTRATION SYSTEMS AND EQUIPMENT

WWW.EVERFILT.COM

CONTROL PANEL OVERVIEW

EXPANDABLE BACKWASH CONTROL PANELS FOR INDUSTRIAL & AGRICULTURAL FILTRATION SYSTEMS

ENGINEERED IN THE USA SINCE 1978

EVERFILT® 94C-SERIES (OLED) VRD BACKWASH CONTROL PANEL

The **94C-Series control panel** is a solid-state backwash filter control, capable of operating a **master valve** and **up to sixteen-stations** when properly equipped.

Individual station cards come in **four, eight, twelve, and sixteen station configurations** that allow the 94C-Series control panel to be upgraded at anytime when a new station module is added.

Dual valve mode will allow two consecutive stations to be energized during a backlash sequence. Backwash sequence is initiated after reaching a **predetermined time, manual input,** or by the **pressure differential switch** indicating a dirty filter condition. With a **main OLED display** indicating the total number of backwash cycles, time until next backwash, and the number of cycles that have been initiated by the pressure differential switch.

AVAILABLE CONFIGURATIONS

MODEL / 94C-4
FOUR STATION BACKWASH CONTROL

MODEL / 94C-8
EIGHT STATION BACKWASH CONTROL

MODEL / 94C-12
TWELVE STATION BACKWASH CONTROL

MODEL / 94C-16
SIXTEEN STATION BACKWASH CONTROL

** When properly equipped with a coordinating station module card.*

STANDARD FEATURES

- Expandable Station Capability
- Variable Language Display
- 12VAC / 12VDC Input

ELEVATE YOUR FILTRATION

EVERFILT® 94C-SERIES (OLED) VRD BACKWASH CONTROL PANEL

OPERATIONS

The 94C-Series control panel will begin timing the **backwash interval** when the power switch is turned on.

When the backwash interval time has expired, the control will initiate a **backwash cycle**. The **master valve** will energize and remain in this condition as each station is energized, de-energized, and allowed to pass through its **dwell period**.

At the end of each backwash cycle, the **master valve** will de-energize. The control continues to repeat this procedure until the power switch is turned off.

Note:

⚠ If the **P.D. on-off switch** is in the **"ON"** position, it will initiate a backwash cycle if the P.D. switch reaches its setting for approximately **15 seconds**.

SPECIFICATIONS

VOLTAGES

- Voltage Input *(power supply)* = 120-240 VAC 50-60 Hz.
- Voltage Input *(control panel)* = 12 VDC
- Voltage Output = 12 VDC

LOADING

- Control Panel Dormant = 100MA
- Sequencing = 110MA
- Master Valve = 1.0AMP
- Stations *(single valve mode)* = 1.0AMP
- Station *(dual valve mode)* = 2.0AMP

TIMING

- Backwash Interval = 0 hrs. - 168 hrs.
- Flush Time = 0 Sec. - 330 min.
- Dwell Time = 0 Sec. - 90 min.
- P.D. Delay = 0 Sec. - 360 Sec.

CAPACITY

- Master Valve = 1
- Stations *(single valve mode)* = 1-16
- Stations *(dual valve mode)* = 2-8

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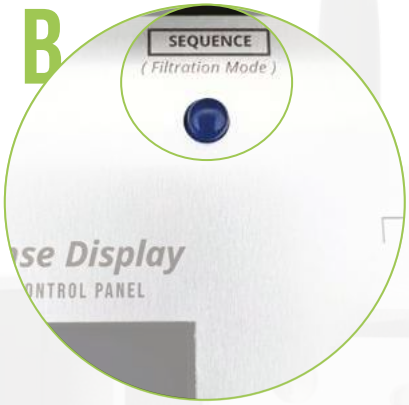
CONTROLS

A. RESET

Pressing the **Reset button** will reset the completed backwash cycle and P.D. trip quantity values.



B. SEQUENCE LAMP

This **lamp** is illuminated and flashing when the unit is in operation, and remains constant during the backwash sequence.

C. MANUAL START

Pressing the **Manual Start** button will initiate a complete backwash cycle, starting with station number one.

D. TEST

Pressing the **Test button** will initiate a rapid system check of control outputs, to solenoid valves. The Master Valve lamp will become illuminated and remain lit as each station light turns on and off. The master valve light will turn off after the last station light turns off. The test cycle will not reset the backwash interval timing.

E. DISPLAY

Pressing the **Display button** will allow users to rotate through active system features and characteristics *(reference below for added information on menu and features)*.

F. THE MAIN OLED DISPLAY

This **OLED screen** will provide the user with vital information in a digital format. Making adjustments/selections on manual knobs will reflect a digital display on the OLED screen *(more on Display below)*.

CONTROLS

G

G. CONTROL PANEL MODEL

The **94C-Series** is the control panel series; the number following indicates the **number of stations** the panel was originally equipped with. If additional **station modules** are purchased, a new **decal** will be supplied to coordinate with updated model.

H

H. MASTER VALVE

The **M.V.** is energized for the duration of each station, and the number for coordinating stations. The lamp is illuminated while **M.V.** is energized.

I

I. BACKWASH DISPLAY

The **OLED screen** will display a numeric value of the tank actively in backwash mode; 1-16 *(when properly equipped)*.

J

J. POWER SWITCH

Disconnects power to the control panel.

K

K. PRESSURE DIFFERENTIAL ON-OFF SWITCH

Disconnects P.D. switch circuit from control.

L

L. ANTENNA

The 94C-Series comes equipped with **GPS positioning capabilities**. This feature will allow the GPS coordinates of the control panel to be displayed on the **main OLED screen**, as well as provide accurate time information based on the unit's location *(added features to be released at a later date)*.

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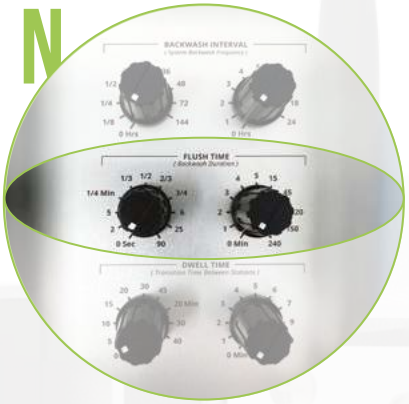
CONTROLS

M

M. BACKWASH INTERVAL

The amount of time between **backwash cycles**. The interval is determined by adding the settings of both knobs together. Range from **0hrs. - 168hrs**. Backwash set time will also display on the **main OLED screen** while being adjusted or set.

N



N. FLUSH TIME

The amount of time each individual filter will **flush**. The time is determined by adding the settings of both knobs together. Range from **0sec. - 330min**.

O

O. DWELL TIME

The amount of time between each individual tank **backwash**. The time is determined by adding the settings of both knobs together. Range from **0sec. - 90min**.

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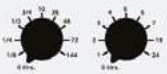
94C-SERIES CONTROL PANEL SETTINGS

BACKWASH INTERVAL:

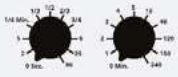


Time between backwash cycles *(add both knob settings)*.

Recommended: Every 4 hours, depending on water quality.

- **Dirty Water:** shorter intervals
- **Clean Water:** longer intervals

FLUSH TIME:



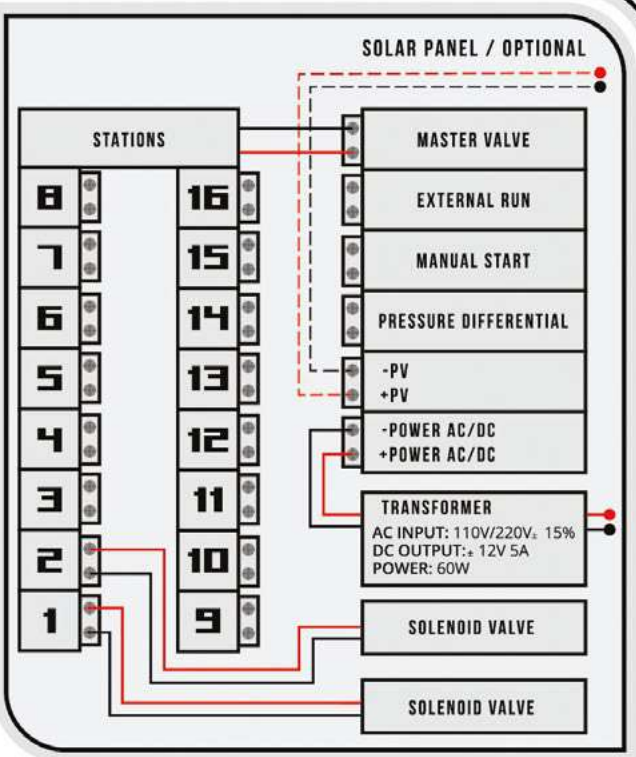
Duration each filter flushes *(add both knob settings)*.

Recommended: 3–4 minutes per tank.

DWELL TIME:

Time between each tank's backwash *(add both knob settings)*.

Recommended: 20 seconds.



PD SWITCH:

ON: *Starts* a backwash when pressure differential is **5–7 PSI.**
OFF: *Disables* automatic backwash from pressure differential.

CONTROLS:

TEST BUTTON

- Sends a quick signal to all solenoids.
- Working system produces an audible *"click"* from solenoids.

MANUAL START

- Immediately begins a backwash starting with Station 1.

LANGUAGE

- Multilingual display *(English / Spanish / Portuguese / French)*.
- **Adjust using switches on the back of the control panel.**

SOLENOID VALVE

Equipped with manual override knob:

- Rotate to initiate backwash.
- Arrow points to **C = Closed, O = Open.**
- For automatic systems, knob arrow must remain at C.

EXPANSION

- Supports up to **16 stations with additional station cards.**
- Contact your sales representative for details.

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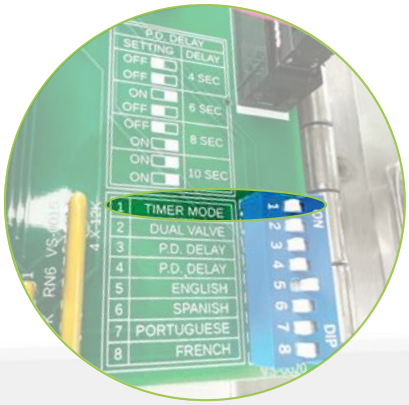
OPERATION OVERVIEW

When power is turned **ON**, the controller begins timing the **Backwash Interval**. Once the interval expires, a **Backwash Cycle starts:** the **Master Valve** energizes and stays active as each station flushes, then de-energizes during the dwell period. After all stations complete the cycle, the **Master Valve turns off**, and the process repeats until power is turned **OFF**.

⚠ CAUTION RISK OF ELECTRIC SHOCK ⚠

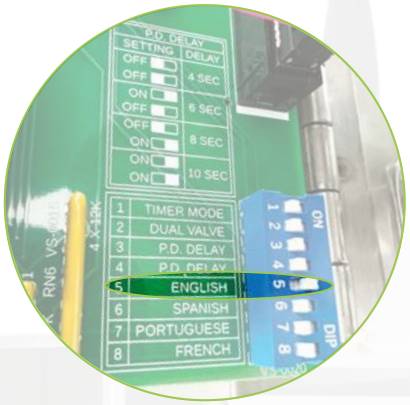
This equipment operates on electrical power and must be handled with care. Always disconnect power before servicing, wiring, or performing maintenance. Only qualified personnel should install or repair this unit. Failure to follow proper safety procedures may result in electric shock, serious injury, or equipment damage. Keep the control panel dry and ensure all covers are securely closed before operation.

ADDITIONAL FEATURES - DIP SWITCH SELECTION



TIMER MODE

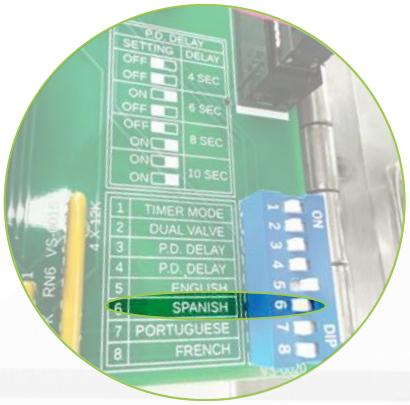
This **switch** will change the starting time of the backwash interval count. The **STD, "OFF"** position will allow the backwash interval to reset at the beginning of the backwash cycle. The **"ON"** position will allow backwash interval timing to restart at the end of the backwash cycle. The **"OFF"** position will not allow the cycle to "CREEP" to different times of the day. (*STD factory setting is "OFF"*)



ENGLISH

Dip switch in the **"ON"** position will display English on the main OLED display.

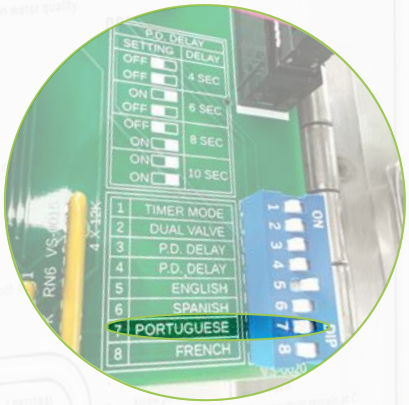
⚠ **Note:** Only one switch or language selection can be displayed at a time, and turning the power off during language selection or change is required. Once the language of choice is determined, power may be restored by placing the switch in the **"ON"** position.



SPANISH

Dip switch in the **"ON"** position will display English on the main OLED display.

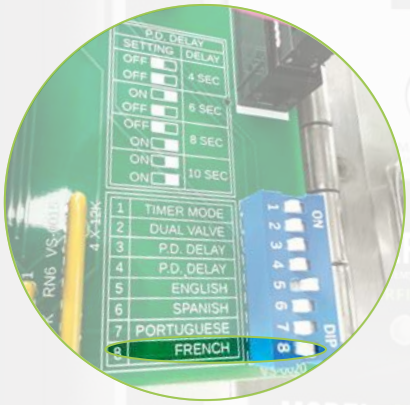
⚠ **Note:** Only one switch or language selection can be displayed at a time, and turning the power off during language selection or change is required. Once the language of choice is determined, power may be restored by placing the switch in the **"ON"** position.



PORTUGUESE

Dip switch in the **"ON"** position will display English on the main OLED display.

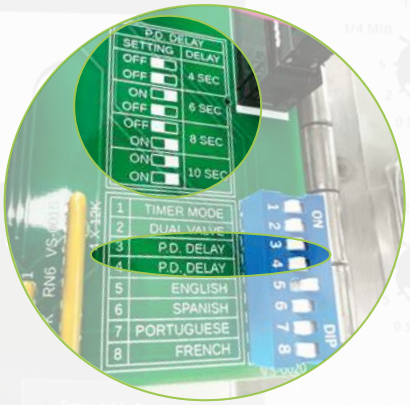
⚠ **Note:** Only one switch or language selection can be displayed at a time, and turning the power off during language selection or change is required. Once the language of choice is determined, power may be restored by placing the switch in the **"ON"** position.



FRENCH

Dip switch in the **"ON"** position will display English on the main OLED display.

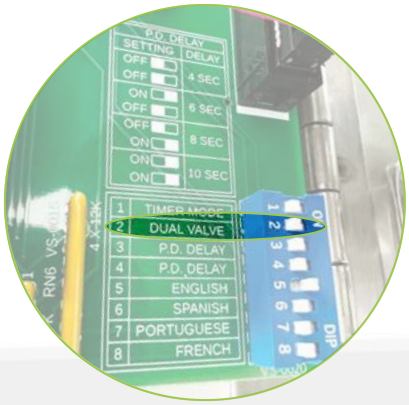
⚠ **Note:** Only one switch or language selection can be displayed at a time, and turning the power off during language selection or change is required. Once the language of choice is determined, power may be restored by placing the switch in the **"ON"** position.



PD SWITCH SELECTION

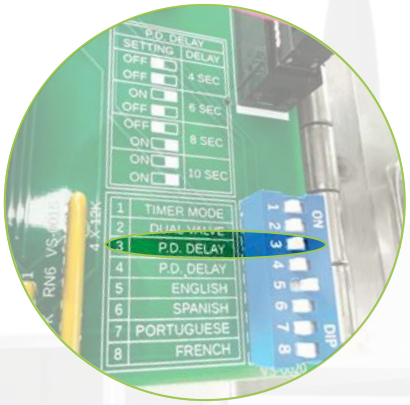
Using a combination of **"ON"** and **"OFF"** switches creates a delay in **P.D. switch** (backwash sequence) Initiation. This feature creates a delay and requires the contact inside the pressure differential to be consistent over a period of time. **P.D. Delay** prevents a premature backwash sequence from occurring due to a sudden, instantaneous pressure spike, often due to the pump tuning on, or the valve being opened or closed quickly. *(Consult with the manufacturer for additional info).*

ADDITIONAL FEATURES - DIP SWITCH SELECTION



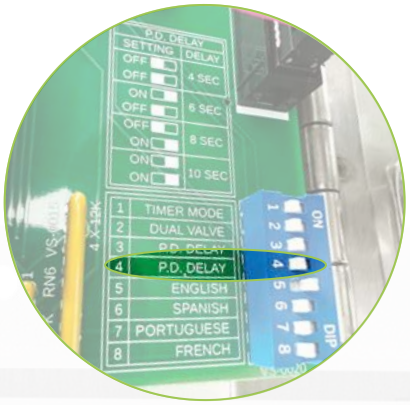
DUAL VALVE

The **dual valve feature** allows two consecutive stations to be energized simultaneously. **1-2 / 3-4 / 5-6**, etc.



P.D DELAY 1

A combination of switch placements creates **0-10 sec. delays**.



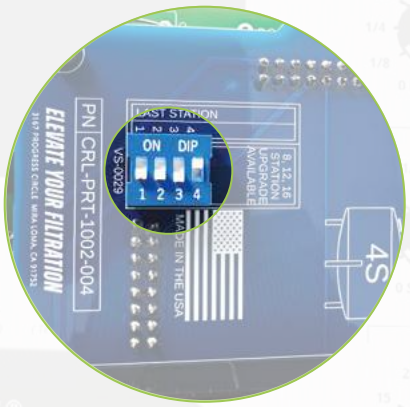
P.D DELAY 2

A combination of switch placements creates **0-10 sec. delays**.

MAIN TERMINAL STRIP

- **Station 1-16** = Solenoid valves.
- **Master Valve** = Energized during a backwash cycle for the pre-set flush time on each station.
- **External Run** = Energized during a backwash sequence. Most commonly used when connected to a pump can be paired with a normally closed or open relay.
- **Manual Start** = Initiate a backwash cycle remotely or by connected equipment or signal.
- **Pressure Differential** = Everfilt® equipped pressure differential switch connection point.
- **PV + / PV -** = photovoltaic *(solar panel)* connection point.
- **Power + / Power -** = Power from transformer.

P.D. LOCATION



LAST STATION DIP SWITCH SELECTION

This **switch** will stop the backwash cycle at the last tank. The switches correspond to the station as follows:

- **Switch #1 = Tank #1**
- **Switch #2 = Tank #2**

To set the switches, push the switch to the **"ON"** position, which corresponds to the number of tanks in the system. **Example:** two tanks in the system, switch number two will be in the **"ON"** position. Dip switches are located on each **expandable station card**.

- **Four-Station Card:** 1-4 dip switches.
- **Eight-Station Card:** 1-8 dip switches.
- **Twelve-Station Card:** 1-12 dip switches.
- **Sixteen-Station Card:** 1-16 dip switches.

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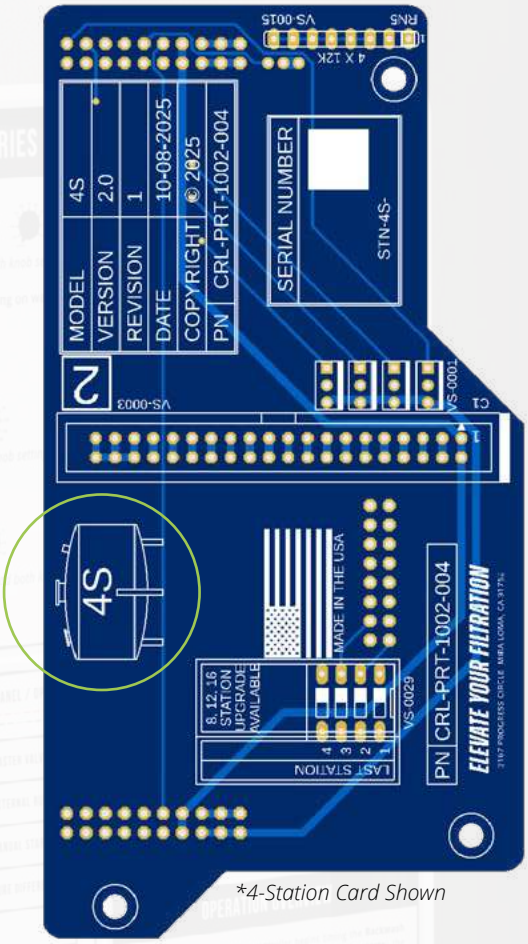
STATION CARD INTEGRATION & INFORMATION



*4-Station Card Shown

The Everfilt® 94C-Series is equipped with the ability to **increase station control** with the **simple replacement** of a specific station card. These unique station cards are available in 4 / 8 / 12 and 16-station configurations.

Four-station card will control 1-4 stations: *(ability to select specifics by placing dip switches in designated configuration)*

Eight-station card will control 1-8 stations: *(ability to select specifics by placing dip switches in designated configuration)*

Twelve-stations card will control 1-12 stations: *(ability to select specifics by placing dip switches in designated configuration)*

Sixteen-station card will control 1-16 stations: *(ability to select specifics by placing dip switches in designated configuration)*

- The station card is located on the back of each control panel. *(identifiable by locating the **"BLUE"** colored PCB board)*
- Place the control panel in the **"OFF"** position, and disconnect from power source before any modifications are made.
- Unplug necessary connections.
- Gently pull outward on the card, removing the card from base PCB.
- Locate the new staton card and align connection points.
- Press firmly, to ensure station card has completely seated on surface and plugs are completely connected.
- Locate station **"DIP"** switches, and place all of them in the **"Down"** position.
- Locate the number of stations the control panel will be controlling, and place the correlating **"DIP"** switch to the **"Up"** position.
- Once secured, secure faceplate, and connect power source.
- Turn control panel to **"ON"** postion.
- To confirm proper installation, cycle through the display, and locate the **"STATIONS"** menu. This will display the number of stations that can be controlled with a new Station Card, and **"DIP"** switch placement.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