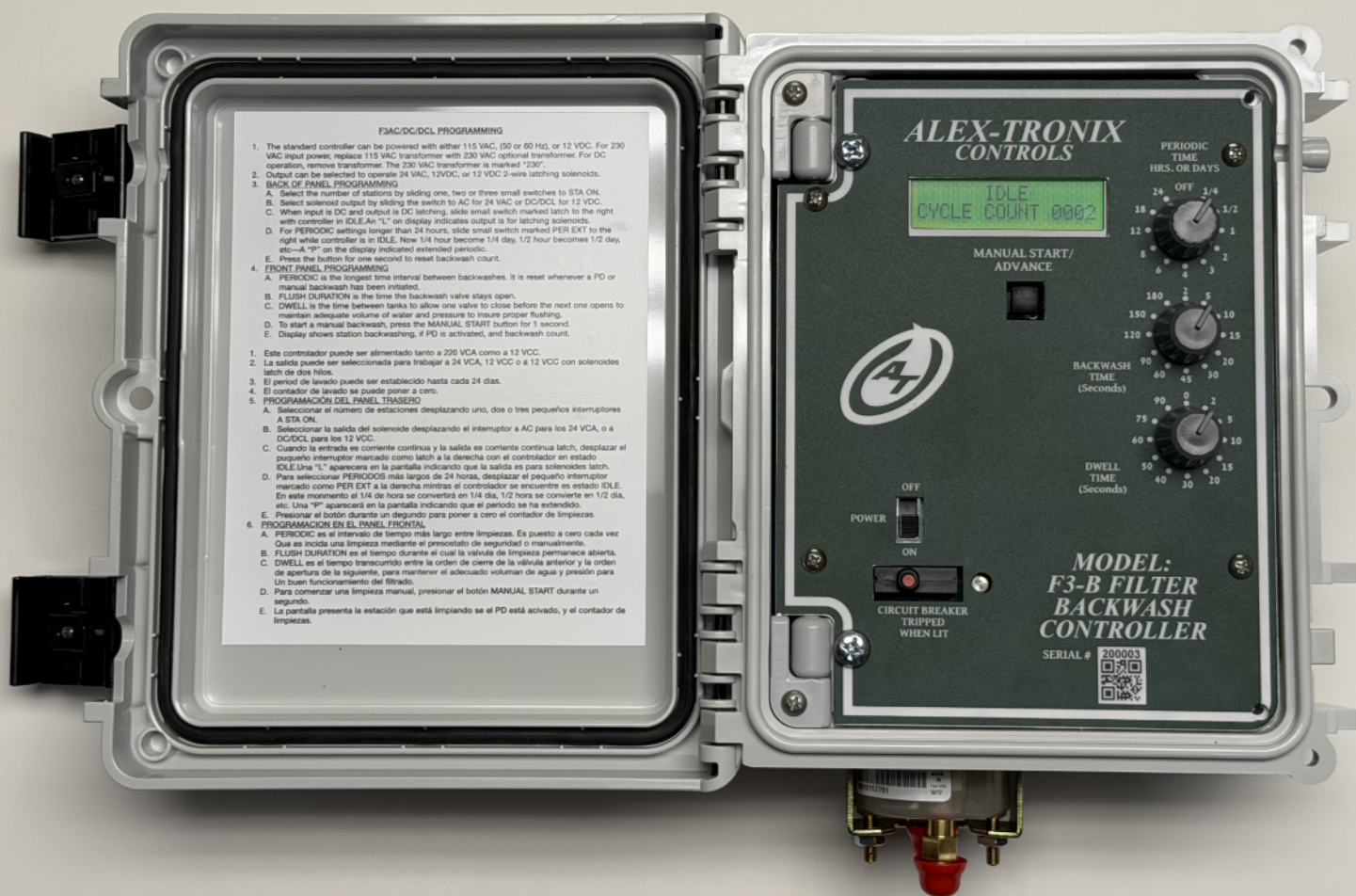




FILTER BACKWASH CONTROLLER

MODEL F3-B



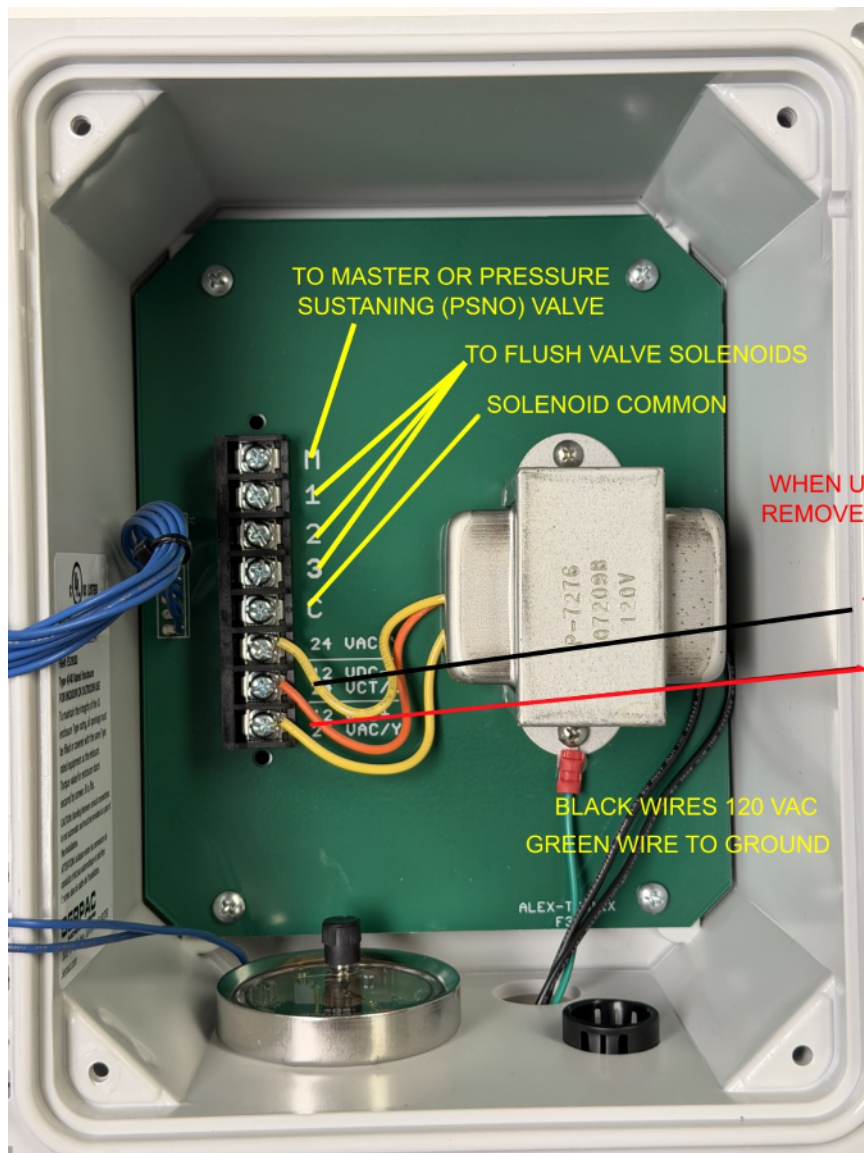
OWNER'S MANUAL

OVERVIEW

The F3-B filter controller can control up to 3 filters and will initiate a flush based on either the pressure differential loss across the filter system as measured by a Murphy pressure differential Switchgag and/or by fixed time since the previous flush cycle. It can operate from 120 volt AC, 12 to 16 volt DC, Solar Panel/Battery combination or optional 240 volt AC. The controller can drive 12V DC, 12V DC Latching, or 24 V AC solenoids.

WIRING

The standard F3-B comes with a 120 VAC input transformer and can operate 12 VDC, 24 VAC, or 12 VDC latching (Pulse) solenoids. The total output is limited by a 1.6 amp circuit breaker and a maximum recommended load of 1.5 amps should be observed. 240 volt input is also available. Please specify when ordering. The input voltage is stamped in the transformer housing. If more output current is required an optional HEAVY DUTY model can be specified.



Mains Connection

The standard power input is 120 volts AC 60- HZ at 50 watt maximum. Transformers for the 220 to 240 volt input range and 50 HZ are available upon request.

Mains wiring must be performed by a qualified electrician. Connecting a 120 Volt primary transformer to any source above 130 volts AC can cause damage to the controller. Power correction may be required at your location. Please consult your electrician or our factory if your input voltage range is not within the range of 110 to 125 volts AC.

12 Volt DC/Solar Power Connection

Failure to disconnect the transformer before connecting a DC or SOLAR power supply will cause the transformer to burn out. The controller can be run from a DC power supply of 12 to 16 volts. If a large battery is being used as a source such as a 12 volt starting battery from an engine driven pump, a fuse or circuit breaker with a recommended value of 5 amp must be provided in the positive line between the source and the controller to prevent fire or explosion in the even of a short circuit. If the Alex-Tronix solar panel system is being used. Connect the battery and panel wires in parallel to the positions indicated in the wiring compartment picture. Red and Red to the bottom 12 VDC+ terminal and black and black to the 12 VDC- terminal second from the bottom.

Regular (Steady) Solenoid Wiring. If standard 12V DC or 24V AC standard solenoids are used polarity is not critical. Ensure one wire of each solenoid is connected to the C (COMMON) terminal and the other wire from each solenoid to its respective terminal.

Latch (Pulse) Solenoid Wiring

If 12V DC latching or pulse solenoids are used then polarity is critical. Generally with typical filter application latching solenoids the black wire is connected to common with the red wire connected to it's respective output. This may need to be reversed depending on the solenoid plumbing configuration.

INSTALLATION SETTINGS PROGRAM SETTINGS

STATION SELECTION SWITCHES
SET SWITCHES TO THE RIGHT
POSITION TO ENABLE
CORRESPONDING FILTER
STATION OUTPUT

SET TOP SWITCH TO THE
RIGHT ONLY IF LATCHING
SOLENOIDS ARE USED

SET BOTTOM
SWITCH TO THE
RIGHT FOR
EXTENDED
PERIODIC OF
DAYS

OUTPUT
HARNESS
CONNECTOR

PD
CONNECTOR

SOLENOID OUTPUT VOLTAGE
SET SWITCH TO THE LEFT POSITION
FOR 12 VOLT DC OUTPUT AND TO THE
RIGHT FOR 24 VOLT AC

DEFAULT SETTINGS FOR A TYPICAL 3 FILTER SYSTEM

TOP GROUP OF 3 SWITCHES.

SET ALL TO THE RIGHT (ON)
POSITION TO ENABLE ALL
OUTPUTS

LOWER SET OF 2 SWITCHES

SET BOTH TO THE LEFT (OFF)
POSITION FOR STANDARD
SOLENOID USE AND PERIODIC
TIMING IN HOURS

SOLENOID OUTPUT VOLTAGE

SLIDE SWITCH AT THE BOTTOM
OF THE PANEL TO THE LEFT FOR
12 V DC OUTPUT

PRESSURE DIFFERENTIAL GAUGE

TURN THE KNOB ON THE FACE
OF THE PRESSURE GAUGE IN
THE BOTTOM OF THE ENCLOSURE
SO THE SHORT HAND IS IN THE
MIDDLE OF THE SCALE (7 PSI)

The F3-B controller has simple programming using three knobs.

PERIODIC TIME (Top Knob) is a fixed time between starts. This is selected in hours from ¼ hours through 24 hours. If more time is required the PER EXT switch can be selected on the back of the panel can be moved to the right (ON) position and the periodic will then be in days from ¼ to 24 days between flushes. A flush triggered by the PD (Pressure Differential Input) will reset the periodic timer.

BACKWASH TIME (Middle Knob) is the amount of time in seconds that each filter will flush for. The typical starting time for sand media filters is 120 or 90 seconds depending on water condition. Screen and disc filters generally require less time. Consult your filter manufacturers instructions. You may need to adjust this time based on your system pressure and water quality.

DWELL (Bottom Knob) is the amount of time the system will wait between the shut down of one station and the start of another. Most hydraulic valves take longer to close than to open. This allows time for the transition to ensure stable pressure for the next valve to open with. 10 seconds is a common amount of time but this will have to be determined in your actual application based on valve type and system pressure.

PD (Pressure Differential Gauge in bottom of enclosure) This device is plumbed to both the inlet and outlet of the filter system and measures the pressure difference between the two. The H or HI (Short) port in the center of the gauge is plumbed to the inlet of the filter system and the L or LOW (Long) port near the outside of the body of the gauge is plumbed to the outlet of the filter system. The pressure reading is indicated by the long hand (Orange) and has a measurement range of 0 to 15 PSI. The set point (Short Hand) is adjusted by turning the black knob on the gauge face. The pressure measured increases as the filter system gets dirty. As the indicator (Long Hand) rises it will come into contact with the set point (Short Hand) making an electrical connection and starting a flush cycle.

LIMITED WARRANTY AND LIABILITY AGREEMENT

Upon purchase, users of all Alex-Tronix products agree to the following terms, conditions, and limitations of warranty and liability coverage:

Alex-Tronix warrants its products to be free from original defects for two years from the date of original sale. The manufacturer will replace or repair, free of charge, any part found to be defective under normal use and service within guarantee period, provided the product is installed, used, and maintained in accordance with any applicable instructions or limitations issued by Alex-Tronix. Components supplied as replacement parts are warranted for 90 days from the date of shipment. The manufacturer assumes no liability for incidental or consequential damage sustained in the adoption or use of our engineering data, service, or products. Liability is therefore limited to the repair of the products manufactured by Alex-Tronix. No agent or representative of Alex-Tronix has the authority to waive or add to this agreement. Altered products or use of products in a manner not intended shall void this warranty.

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