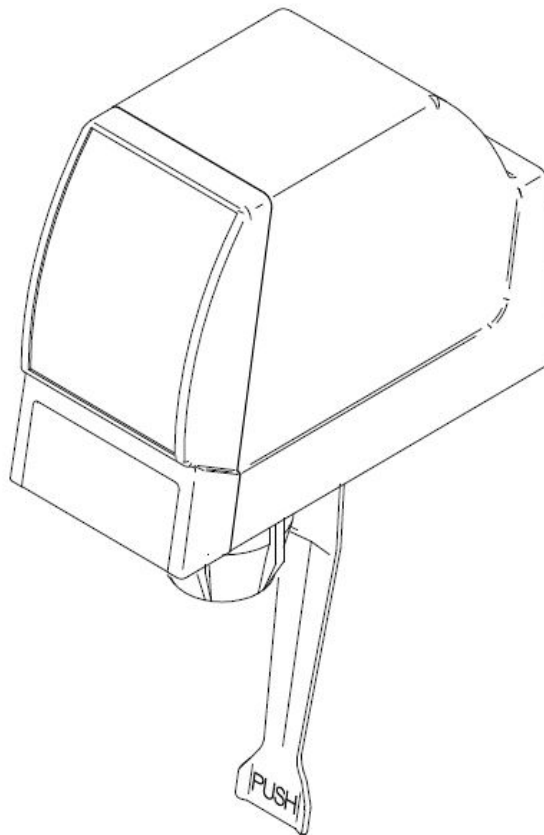


SFV-1™ VALVE

Owner's Manual



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The products, technical information, and instructions contained in this manual are subject to change without notice. These instructions are not intended to cover all details or variations of the equipment, nor to provide for every possible contingency in the installation, operation or maintenance of this equipment. This manual assumes that the person(s) working on the equipment have been trained and are skilled in working with electrical, plumbing, pneumatic, and mechanical equipment. It is assumed that appropriate safety precautions are taken and that all local safety and construction requirements are being met, in addition to the information contained in this manual.

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Contact Information:

To inquire about current revisions of this and other documentation or for assistance with any Cornelius product contact:

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This document contains the original instructions for the unit described.

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SAFETY INSTRUCTIONS

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

Safety Overview

- Read and follow **ALL SAFETY INSTRUCTIONS** in this manual and any warning/caution labels on the unit (decals, labels or laminated cards).
- Read and understand ALL applicable OSHA (Occupational Safety and Health Administration) safety regulations before operating this unit.

Recognition

<i>Recognize Safety Alerts</i>
 <p><i>This is the safety alert symbol. When you see it in this manual or on the unit, be alert to the potential of personal injury or damage to the unit.</i></p>

DIFFERENT TYPES OF ALERTS



DANGER:

Indicates an immediate hazardous situation which if not avoided **WILL** result in serious injury, death or equipment damage.



WARNING:

Indicates a potentially hazardous situation which, if not avoided, **COULD** result in serious injury, death, or equipment damage.



CAUTION:

Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury or equipment damage.

SAFETY TIPS

- Carefully read and follow all safety messages in this manual and safety signs on the unit.
- Keep safety signs in good condition and replace missing or damaged items.
- Learn how to operate the unit and how to use the controls properly.
- **Do not** let anyone operate the unit without proper training. This appliance is **not** intended for use by very young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with the appliance.
- Keep your unit in proper working condition and do not allow unauthorized modifications to the unit.

QUALIFIED SERVICE PERSONNEL



WARNING:

Only trained and certified electrical, plumbing and refrigeration technicians should service this unit. **ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES. FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY, DEATH OR EQUIPMENT DAMAGE.**

SAFETY PRECAUTIONS

This unit has been specifically designed to provide protection against personal injury. To ensure continued protection observe the following:

⚠ WARNING:

Disconnect power to the unit before servicing following all lock out/tag out procedures established by the user. Verify all of the power is off to the unit before any work is performed.

Failure to disconnect the power could result in serious injury, death or equipment damage.

⚠ CAUTION:

Always be sure to keep area around the unit clean and free of clutter. Failure to keep this area clean may result in injury or equipment damage.

SHIPPING AND STORAGE**⚠ CAUTION:**

Before shipping, storing, or relocating the unit, the unit must be sanitized and all sanitizing solution must be drained from the system. A freezing ambient environment will cause residual sanitizing solution or water remaining inside the unit to freeze resulting in damage to internal components.

CO₂ (CARBON DIOXIDE) WARNING**⚠ DANGER:**

CO₂ displaces oxygen. Strict attention **MUST** be observed in the prevention of CO₂ gas leaks in the entire CO₂ and soft drink system. If a CO₂ gas leak is suspected, particularly in a small area, **IMMEDIATELY** ventilate the contaminated area before attempting to repair the leak. Personnel exposed to high concentrations of CO₂ gas experience tremors which are followed rapidly by loss of consciousness and **DEATH**.

INTRODUCTION

The SFV-1™ valve provides the widest flow range capabilities required in today's business world; simplicity to provide dependability and ease of repair when needed and easy conversion to any of the available pouring formats.

Read this manual carefully to learn how to operate and maintain this valve. Failure to do so can result in loss of valve performance.

Consider this manual a permanent part of your equipment file.

SFV-1™ VALVES MODELS

NOTE: All SFV-1™ valve models are capable of flow rate of 1.5 to 3 ounces per second. The dispensing/cooling equipment that supplies syrup and water to the valves must be capable of providing enough 40°F water and syrup to permit this flow rate.

Cup Actuated Valve

Operate the cup actuated valve by pressing the cup against a lever until the cup is full; then release the lever.

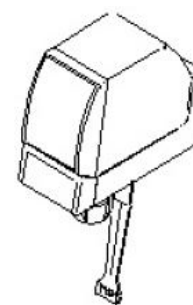


Figure 1.

Push Button

Operate the Self-Serve by pressing the "SYMBOL" switch and holding until the desired amount of product has been dispensed, then release the "SYMBOL" switch.

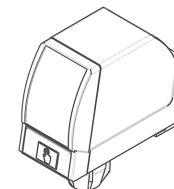


Figure 2.

Portion Control

The portion control valve will dispense four different size drinks by pressing the desired switch. The valve also has a manual dispense function. The Portion Control valve can be programmed to dispense four different drink sizes.

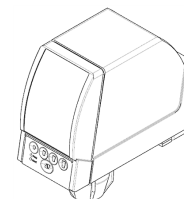


Figure 3.

Mounting Block

All SFV-1™ valves use the same mounting block. You can easily remove the valve from the mounting block by releasing the latch and depressing the top Dovetail. The water and syrup are now shut off and the valve is free to be removed. Pull the valve away from the block to remove. When installing the valve, place it on the mounting block and press the bottom dovetail upwards until the latch engages.

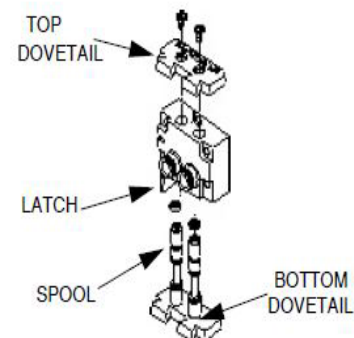


Figure 4.

ENVIRONMENTAL REQUIREMENTS

Operational temperature range: 0°C (32°F) to 60°C (140°F)

Operational relative humidity range: 20% to 100%

SFV-1™ Dispensing Valve Requires:

- 24VAC power supply connected to the dispenser chassis (see Installation Instruction for details)

INSPECT THE VALVE REGULARLY AND PERFORM ALL MAINTENANCE PROCEDURES

1. Check syrup supply regularly. Replace when necessary.
2. Check CO2 supply and water filters frequently. Replace when necessary.
3. Clean the valve as outlined in the maintenance section.
4. Sanitize the dispensing system as required for that model.
5. DO NOT abuse the valve.

ALTERNATE DISPENSING MODULES

SFV-1™ Manual Dispense (Push Button)

- Integrated styling with other control modules.
- Manual dispense “SYMBOL” for self-serve applications.

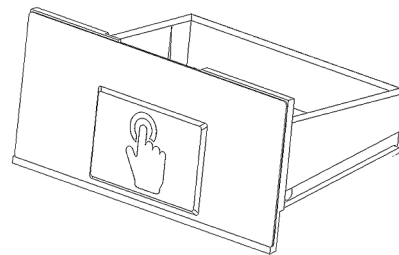


Figure 5.

SFV-1™ Portion Control

- Four dispense sizes and manual pour.
- Fully programmable from front panel with Hidden Switch.
- Integrated styling with other control modules.
- Fully waterproof design.

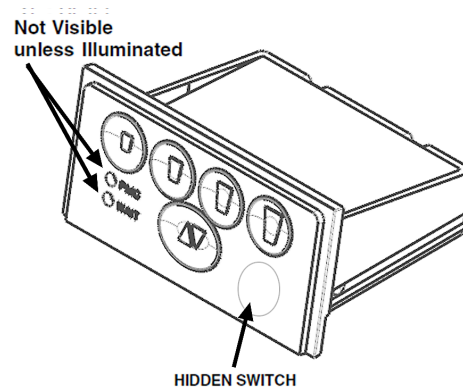


Figure 6.

OPERATION

SFV-1™ DISPENSING VALVE

SFV-1™ Electric Dispensing Valve

1. Press cup or glass against dispensing valve lever and dispense product until cup or glass is full. Then release lever.

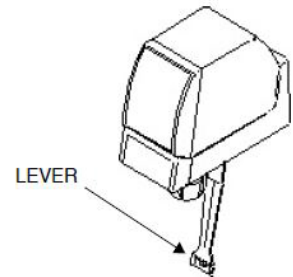


Figure 7.

Optional Water Lever

1. If water only is desired, place cup under a dispensing valve with the water lever. Press down on the water lever to dispense. Then release lever to stop dispensing.

NOTE: The water lever is an optional item. The water lever is available as a kit, refer to Illustrated Parts List for part number.

Optional Illuminated Cover

1. The downward lighting can be turned off by removing the access bushing on the back of the light module and changing the position of the selector switch.

NOTE: The illuminated cover is an optional item.

Refer to the illustrated part list for the kit number.

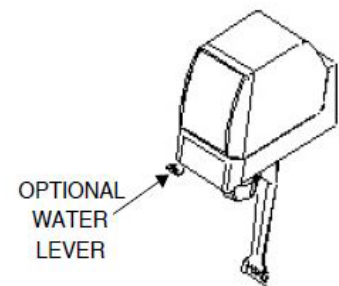


Figure 8.

SFV-1™ Dispensing Valve With Self-serve Dispense Switch

1. Place cup or glass under dispensing valve nozzle.
2. Press and hold the dispense switch until the cup or glass is full. Then release the switch.

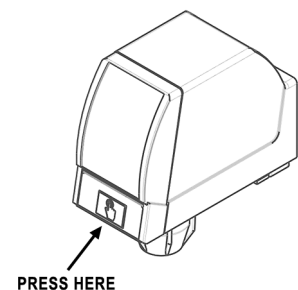


Figure 9.

SFV-1™ Dispensing Valve With Portion Control

1. Place cup under dispensing valve nozzle.
2. Momentarily press and release one of the four drink size switches to dispense the portion size programmed. Dispensing will stop at the end of the programmed portion cycle. Push the "Cancel/Pour" button to interrupt the pour cycle or to top off the drink after the cycle stops.

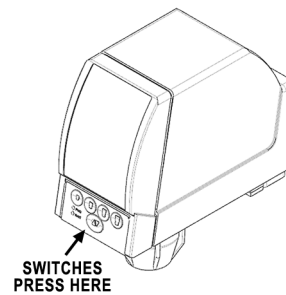


Figure 10.

PORTION CONTROL OPERATION

NOTE: You must momentarily depress one of the four drink-size switches, then release before the drink will dispense. You can use the cancel/pour switch for the following three separate dispensing functions.

1. You can cancel the portion control drink by depressing and immediately releasing the cancel/pour switch. Do NOT hold switch in depressed position as drink dispensing will continue manually.
2. You may also use the cancel/pour switch to dispense a non-portion controlled drink by merely depressing and holding the cancel/pour switch until desired quantity has been dispensed, then release switch.

NOTE: Each portion size is programmed at the factory and can be easily re-programmed in the field from the front control panel. The factory settings can be restored if necessary.

3. You may also use Cancel/Pour switch to exit any program mode.

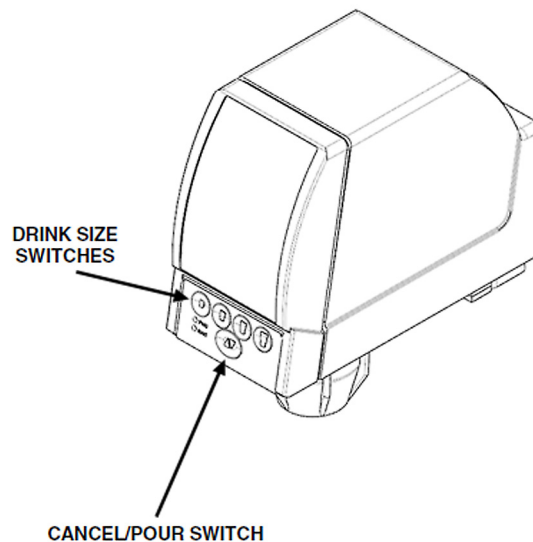


Figure 11.

ENTERING AND EXITING PROGRAM MODE

Location of hidden program button and LED

The dispense valve modules use a “hidden” program button to enter the program mode. It is located to the right of the “Cancel/Pour” icon directly below the “XL” icon. The “PGM” LED is located to the left of the “Cancel/Pour” Button, below the “S” icon.

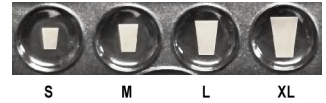


Figure 12.

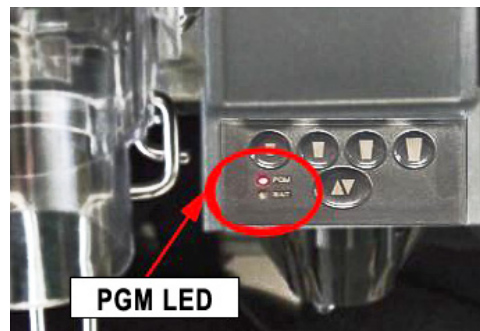


Figure 13.

To Enter Standard Program Mode

Hold the program button for 3 seconds until the “PGM” LED turns on.

To Enter Top-off Program Mode

Hold the program button and “S” icon together for 3 seconds until the “PGM” LED turns on and then release them. The “PGM” LED will start flashing.

NOTE: To avoid accidental pour, ensure the hidden program button is depressed slightly earlier than the “S” icon.

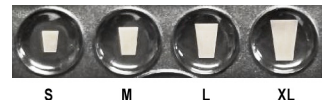


Figure 14.

To Enter Incremental Program Mode

Hold the hidden program button and “L” icon together for 3 seconds until the “PGM” LED turns on.

NOTE: To avoid accidental pour, ensure the hidden Program button is depressed slightly earlier than the “L” icon.

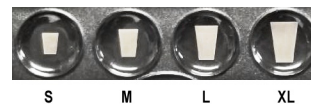


Figure 15.

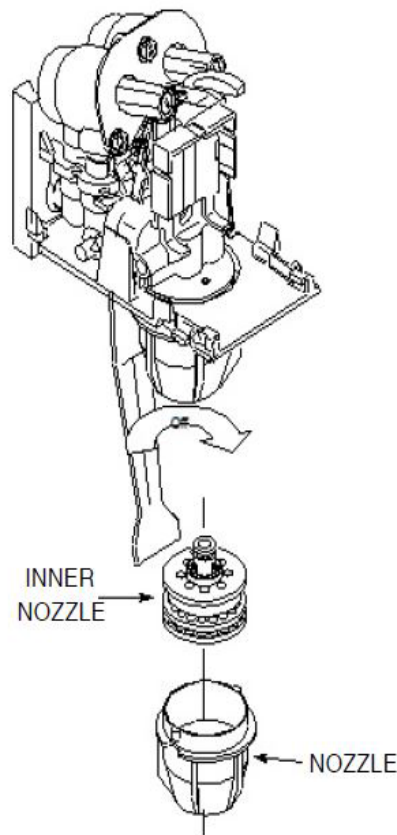
To Exit Program Mode

Hold the hidden program button for 3 seconds until the “PGM” LED turns off.

SERVICE AND MAINTENANCE

CLEANING DISPENSING VALVE

NOTE: THE SOLENOID IS NOT SHOWN TO PROVIDE A CLEAR VIEW. IT IS NOT NECESSARY TO REMOVE THE SOLENOID.



WEEKLY NOZZLE CLEANING PROCEDURE

This cleaning procedure must be performed each week or often if needed to maintain cleanliness of the nozzle and Inner nozzle.

1. Prepare a washing solution of 3 gallons of warm (120°F) and 1-ounce mild non-scented detergent.
2. Remove nozzle assembly (contains inner nozzle) from dispensing valve. Separate the inner nozzle from the nozzle and wash the two parts in the cleaning solution. It may be necessary to use a small stiff Nylon bristle brush to thoroughly clean the nozzles. Do not use a brush with metal Bristles.
3. Rinse the nozzle and the inner nozzle in potable water.
 - A. Inspect the two nozzle parts to be sure that they are clean. If any residue remains, return to step 2 and clean the parts again.
4. Return the inner nozzle to the nozzle and replace the assembly to the valve.

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