



CONTROL VALVE SERVICES

FT-1000

Self-Contained Programmable Flush Control Valve

Thank you for selecting FLOWTECH's FT-1000 self-contained programmable flush control valve. This unit has the latest technology and will provide many years of reliable service. Please read the following instructions and guidelines carefully to get familiar with important precautions, programming, operation and installation guidelines.

Battery Life

The FT-1000 is designed to operate on the factory installed battery for up to 10 years of normal use on the FLOWTECH valve. Actual battery life will depend on the number of cycles run per year, valve size, operating pressure and temperature. The battery is replaceable and is available as a service part.

Installation Guidelines

Prior to installation, flush the line to remove debris. Install valve horizontally "in line" (cover facing UP), so flow arrow matches flow through the line. Consult FLOWTECH prior to ordering if the installation is other than described. Install inlet and outlet isolation valves. **Note:** When using butterfly valves, insure disc does not contact control valve. Damage or improper valve seating may occur. Provide adequate clearance for valve servicing and maintenance. Turn the handle on the Closing speed control fully clockwise until fully closed. Then turn handle counter-clockwise 1/4 turn. Turn the handle on the Stem Limiter fully clockwise until it makes contact with the valve stem.

Protective Cover

To remove the protective cover from the digital controller squeeze the side tabs and lift. Always replace the cover for added protection.

Programming

Figure 2 shows the face of the Digital Controller.

Setting the Time of Day

Turn the Select dial to the **TIME** Position. Press the ▲▼ keys to scroll to the correct time. There is a P to indicate P.M.

Set Today's Date

Turn the Select dial to the **DATE** position. Press the ▲▼ keys to scroll to the current month and day.

Set the Year

Turn the Select dial to the **YEAR** position. Press the ▲▼ keys to scroll to the correct year. *Note:* When the date and year are selected the day of the week is automatically set. The FT-1000 is leap year compatible.

Changing from 12 to 24 hour clock and Month:Day to Day:Month format

Rotate Select Dial to the **TIME** or **DATE** position. Press both the ▲▼ keys at the same time. The PM indicator will disappear and the clock will change to 24hr time. Date will also be in the Day:Month format. Days of the week will change from SMTWTFS to 1234567 (Sunday = 1). To change back to 12 hour clock and Month:Day format, repeat the above steps.

Setting the Valve Schedule

The FT-1000 can be programmed to run 1 to 6 programs per day. This means that you can start and stop the valve from 1 to 6 in a 24 hr period. To set a schedule for program one turn the Select dial to Program 1 and then follow the steps below.

Set Start Time

Turn the Set dial to **Start Time**. Press the ▲▼ keys to select the desired START TIME for Program 1.

Set Stop Time

Turn the Set dial to **Stop Time**. Press the ▲▼ keys to select the desired STOP TIME for Program 1.

Set Schedule

For valve schedule you can either set DAYS (days of the week), ODD/EVEN, or INTERVAL. Choose one of the following 3 options.

Set DAYS

Turn the SET dial to the **DAYS** position. Press the ▲▼ keys to select the days you desire for valve to run for Program 1. '▲' will select that day for the valve to operate. '▼' will delete that day for the valve and that day will not be displayed in the days programming screen.

Set ODD/EVEN

Turn the SET dial to **ODD/EVEN** position. Use ▲▼ keys to select O or E.

Set INTERVAL

Turn the SET dial to **INTERVAL**. Use the ▲▼ keys to select an interval from 01-30. PROGRAM 1 will now open the valve per the interval you have selected starting today. For Example: An interval of one will open the valve every day, an interval for 3 will open the valve once every 3 days.

Set Additional Programs

If more than one program is desired, turn the SELECT dial to Programs 2,3,4,5 and 6 and repeat the START TIME, STOP TIME and SCHEDULE steps above. If no additional cycles are needed proceed to the next step.

Running your Valve's program

You can choose to run all six programs or select any one of the six. Turn the SELECT dial to your choice of **RUN ALL** to run all the programs that have been entered or select the individual PROGRAM number 1-6 that you wish to run. Turn the SET dial to the **RUN** position. The FT-1000 will open per the program or programs that you have selected.

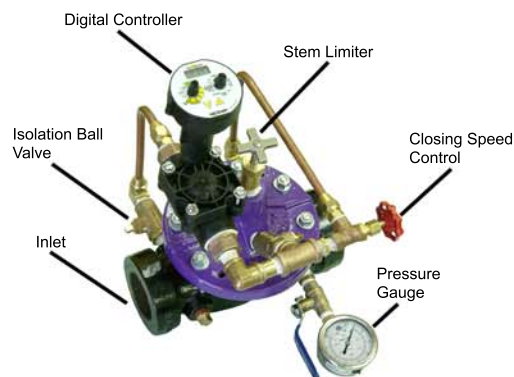


Figure 1 FT-1000 Control Valve

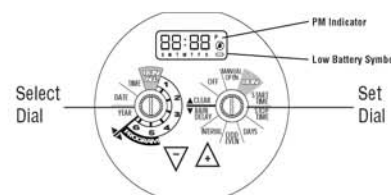


Figure 2 Digital Controller Face



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Reviewing and changing your valve's program

Turn the SELECT dial to the cycle you want to review. Select the **START TIME, STOP TIME, DAYS, INTERVAL** or **ODD/EVEN** positions on the SET DIAL. You can make changes in the program by changing any of the values.

Turning the FT-1000 Off

To disable the FT-1000 when the timer is in operation or to prevent automatic operation turn SET dial to the **Off** position. To return to automatic operation return SET dial to the **RUN** position.

Running the Ft-1000 Manually

To open the valve manually turn the SET dial to the **MANUAL OPEN** position. The LCD display will flash 10 minutes of run time. There is a 30-second delay to open or close the valve. You can adjust the desired run time from 1 minute to 6 hours by using the Δ/∇ keys, at any time during the manual run.

To return to automatic operation turn the SET dial to the **RUN** position after the manual run has started. The manual operation that you selected will finish and the timer will return to automatic operation as scheduled.

To stop manual operation rotate SET dial to the **OFF** position.

Clearing one or all the programs

To clear the programming in one of the six programs turn the SELECT dial to **PROGRAM 1, 2,3,4,5** or **6** and rotate the SET dial to **CLEAR** and press the ∇ key. To clear all programming turn the SELECT dial to the **RUN ALL** position and the SET dial to the **CLEAR** position and press both Δ/∇ keys at the same time. This will clear all programs.

MAINTENANCE

Battery Replacement

The long life 3.6 volt size AA Lithium battery is replaceable if necessary. Remove the two screws under the control housing and gently open the unit. Replace the battery. Carefully replace the housing and install the two screws. The battery is available has a service part from FLOWTECH.

Battery Warning: Do not damage the battery. Risk of Fire Explosion or Electric Shock. Replace with **FLOWTECH** supplied service part only. Dispose of used battery properly.

Plunger Cleaning

To clean the plunger and plunger tube gently remove the plastic plunger retainer with needle-nose pliers. Clean debris from the plunger and plunger tube. Then replace the plunger retainer.

LCD Display

If the LCD screen is blank or the LOW BATTERY symbol is flashing, replace the 3.6 volt size AA Lithium battery.

Controlling Backpressure

System pressure can be controlled with the use of the stem limiter. To set the stem limiter turn the handle fully clockwise while the valve is fully closed. Manually open the valve. When the valve is open slowly turn the stem limiter's handle counter clockwise while watching the Pressure Gauge. Stop turning the handle when desired pressure is reached. NOTE: Never try to turn the stem limiter's handle clockwise when the valve is open. Damage to the stem limiter and/or the valve stem may occur. Only adjust the stem limiter by turning counter clockwise while the valve is open and flowing water. If you overshoot your desired set-point, manually closed the valves and turn the stem limiter handle back fully clockwise.

Closing Speed Control

If the valve closes to quickly system surge could occur. To set the closing speed turn the Closing Speed Control handle fully clockwise. NOTE: Do not over tighten the Closing Speed Control handle clockwise, damage to the valve could occur. Turn the handle counter clockwise 1/4 turn. This setting should be enough for most operating pressures. If further adjustment is required, turn the handle counter clockwise to increase the speed the valve closes. A maximum of 4 fl Oz is required to fully close and seat the valve drip-tight. Depending on the stem limiter's setting, this amount can be greatly reduced.

Thank you for selecting **FLOWTECH** for you control valve needs. If you have any questions or comments please feel free to contact us.

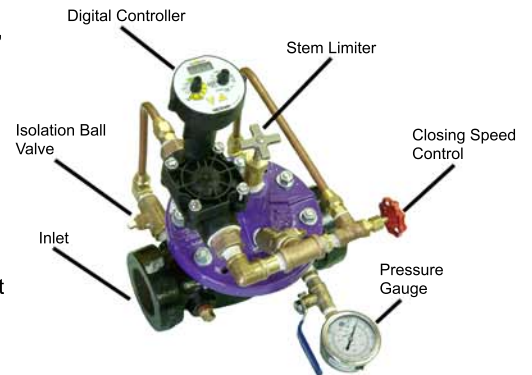


Figure 1 FT-1000 Control Valve

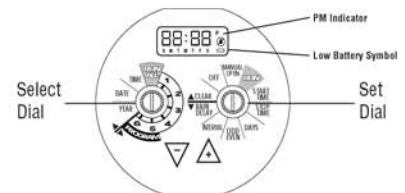


Figure 2 Digital Controller Face