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Fleck 7000 Softener Programming Guide

Steps to take:

Perform a Master Reset: Unplug the Fleck 7000 from the electrical wall outlet. Hold the Extra Cycle button while plugging in and powering up the unit. This resets all of the parameters in the unit.

Enter Master Programming Mode: Set the Time Of Day display to **12:01 P.M.** Press the Extra Cycle button once (to exit Setting Time of Day mode). Then press and hold the Up and Down buttons together until the programming icon replaces the service icon and the Display Format screen appears.

Note, that when the Master Programming Mode is entered, all available option setting displays may be viewed and set as needed. Depending on current option settings, some parameters cannot be viewed or set.

1. **Display Format (Display Code DF): Set display to GAL** (stands for U.S. Gallons), or change to Liters or Cubic Meters if out of the U.S. Press the Extra Cycle button to go to the next step.
2. **Valve Type (Display code VT): Set to DF2b.** This means it is set for standard Downflow mode. Press the Extra Cycle button to go to the next step.
3. **Control Type (Display Code CT): Set to Fd. This is the Meter Delayed option.** This tells the Fleck 7000 control to meter or keep track of the amount of water used, but then wait until the pre-set regeneration (backwash and rinse cycles) time, typically in the middle of the night. Press the Extra Cycle button.
4. **Unit Capacity (Display Code C): Set to 30 if you have a 30K grain capacity softener; 48 if you have a 48K grain softener, or 80 if you have an 80K grain softener.** Use this display to set the Unit Capacity. This setting specifies the treatment capacity of the unit. Press the Extra Cycle button to go to the next step.
5. **Feedwater Hardness (Display Code H): Set to your water hardness in grains per gallon.** This is the feed water hardness, that allows the meter to calculate the number of gallons between

backwashes. If your water hardness is 10 grains per gallon for example, set this to 10. If your water test shows the hardness in PPM or mg/L, then divide this number by 17.1 to reach grains per gallon. 1 grain per gallon = 17.1 ppm or mg/L of hardness.

6. **Reserve Selection (Display Code RS): Set to SF.**
7. **Safety Factory (Display Code SF):** Set to 20. This will allow the softener to regenerate 200 gallons sooner to avoid having the softener resin get totally exhausted before it needs to regenerate.
8. **Day Override (Display Code DO): Set to 7 to 14 .** Use the Up or Down arrows to change the setting. This will allow the softener to regenerate once every 7 to 14 days no matter how much water is used. This is optional (can be set to 0) but it can be useful if you have iron or other sediment to keep the softener clean.
9. **Regeneration Time: (Display Code RT): Set to 2:00 am** generally or sometime when no water is being used, and no other filter or softener is likely to be in a regeneration cycle. Press the Extra Cycle button.
10. **Regeneration Cycle Step Times:** Use this display to set the various minutes of each cycle. Some of the cycles will be set to 0. **Do not set any of the cycles to Off.** Use the Up or Down arrows to change the setting to the desired setting. Press the Extra Cycle button to accept the setting and move to the next parameter.
 - a. **B1 – Backwash: Set to 8 minutes.**
 - b. **BD - Brine Draw: Set to 60**
 - c. **B2 - 2nd Backwash: Set to 6 minutes.**
 - d. **RR - Rapid Rinse: Set to 6 minutes**
 - e. **BF - Brine Fill:** 30K grain softeners: set to 12 minutes. 48K grain softeners set to 20 minutes. 80K grain softeners: set to 32 minutes.
 - f. **SV - Service (meaning it is in Service or filtering mode) no setting is needed for this.** Press the Extra Cycle button
11. **Flow Meter Type (Display Code FM):** Set to t1.2 (which is standard Fleck 7000 meter). Press the Extra Cycle button.

12. Press the Extra Cycle button to save all settings and exit Master Programming Mode. Note that the control valve may take several minutes to re-home and re-set after the Master Programming steps, do not unplug the control during this process.

User Programming

It is all programmed now, but if you want to later, you can go into User Programming and make adjustments to the flow meter setting or Day Override setting. Use the User Programming to avoid having to go through the Master Programming for quick changes to these settings below:

1. Press the Up and Down buttons for five seconds while in service, and the time of day is NOT set to 12:01 PM.
2. **Day Override (Display Code DO): Set to 7 to 14**
3. **Regeneration Time (Display Code RT): Set to 2:00 am** generally or sometime when no water is being used, and no other filter or softener is likely to be in a regeneration cycle. Press the Extra Cycle button.
4. **Feed Water Hardness:** Use this setting to adjust the feed water hardness. Set for 20 for most applications. Press the Extra Cycle button.
5. **Fixed Reserve Capacity (Display Code RC): This allows you some reserve, in case the softener meter has counted down to zero at the beginning of the day.** Press the Extra Cycle button.
6. Press the Extra Cycle button to end User Programming Mode.

Diagnostic Programming Mode

Press the Up and Extra Cycle buttons for five seconds while in service. See the current flow rate in gallons per minute currently flowing through your system! Press the UP button to go between the diagnostic displays.

Abbreviation	Parameter	Description
FR	Flow Rate	Displays the current outlet flow rate
PF	Peak Flow Rate	Displays the highest flow rate last regeneration
HR	Hours in Service	Displays the total hours that the unit has been in service

VU	Volume Used	Displays the total volume of water treated by the unit
RC	Reserve Capacity	Displays the system's reserve capacity calculated from system capacity, feedwater hardness, and safety factor
SV	Software Version	Displays the software version installed on the controller

Some items may not be shown depending on timer configuration.

**The timer will exit Diagnostic Mode after 60 seconds if no buttons are pressed.
Press the Extra Cycle button to exit Diagnostic Mode at any time.**