

# 3200ET Control Valve/Remote Meter Timer

## *Service Manual*



**IMPORTANT:** Fill in pertinent information on page 3 and page 6 for future reference.

# 3200ET Control Valve/Remote Meter Timer

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## *Table of Contents*

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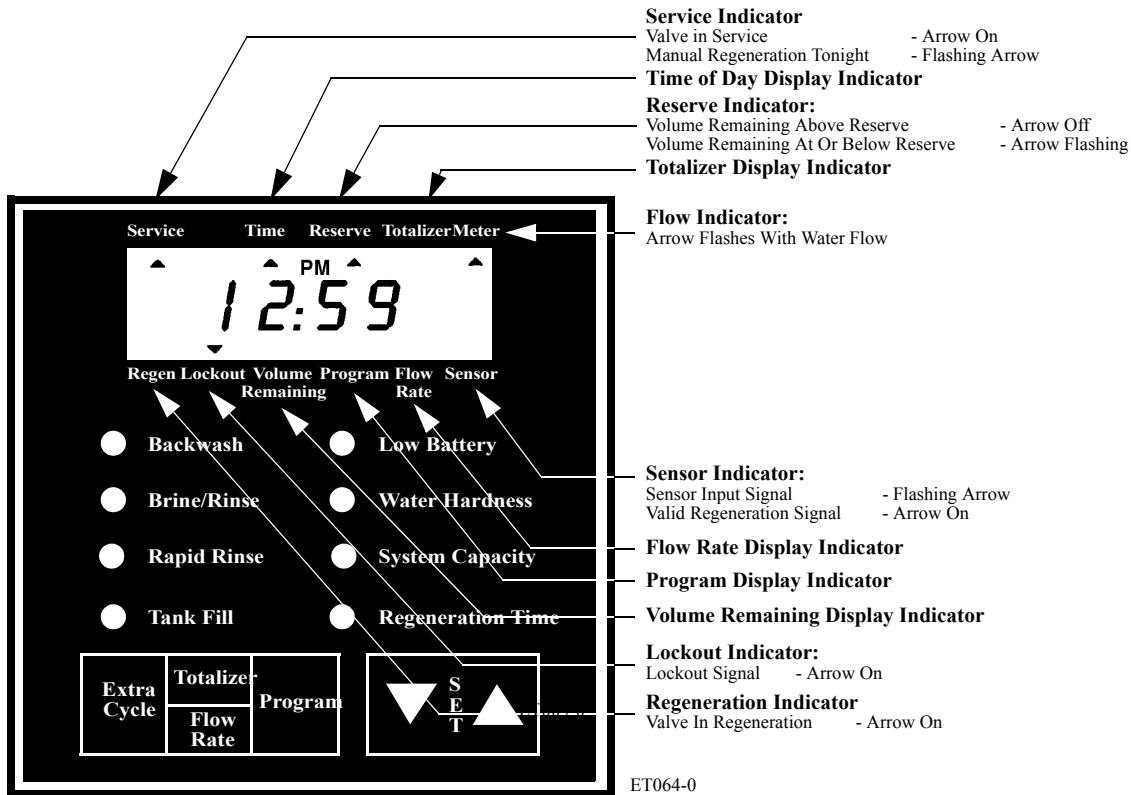
Timer Installation And Start-Up Procedures .....	3
Timer Start-Up Procedures (Cont'd.) .....	4
Remote Meter Installation And Start-Up Procedures .....	6
Remote Meter Start-Up Procedures (Cont'd.) .....	7
Timer/Remote Meter Control Operation .....	9
Timer/Remote Meter Control Operation (Cont'd.) .....	10
Timer/Remote Meter Control Operation During A Power Failure .....	11
Timer Control Operation During Regeneration .....	11
Remote Meter Control Operation During Regeneration .....	12
Timer/Remote Meter Control Operation During Programming .....	13
Timer/Remote Meter Lockout Input Operation .....	13
<b>3200ET Control Valve/Remote Meter Timer Assemblies .....</b>	<b>14</b>
<b>3200ET Control Valve/Remote Meter Timer Assemblies Parts List .....</b>	<b>15</b>
<b>3200ET Remote Meter .....</b>	<b>16</b>
<b>3200ET Remote Meter for 2900/3900 Multivalve System #7 .....</b>	<b>17</b>
<b>2750/2850/3150/3200ET System #4 .....</b>	<b>18</b>
<b>2900/3900/3200ET System #4 .....</b>	<b>19</b>
<b>2750/2850/3150/3200ET System #5 and System #6 Lead .....</b>	<b>20</b>
<b>2750/2850/3150/3200ET System #5 and System #6 Lag .....</b>	<b>21</b>
<b>2900/3900/3200ET System #5 and System #6 Lead .....</b>	<b>22</b>
<b>2900/3900/3200ET System #5 and System #6 Lag .....</b>	<b>23</b>
<b>2750/2850/3150/3200ET System #7 (4-Way Solenoid Output Lead) .....</b>	<b>24</b>
<b>2750/2850/3150/3200ET System #7 (4-Way Solenoid Output Lag) .....</b>	<b>25</b>
<b>2900/3900/3200ET System #7 Lead .....</b>	<b>26</b>
<b>2900/3900/3200ET System #7 Lag .....</b>	<b>27</b>
<b>9000/9500/3200ET System #4 .....</b>	<b>28</b>
Option Setting Level #1 Programming Chart for Standard Valves/Remote Meters .....	29
Option Setting Level #1 Programming Chart for Variable Brining Valves .....	30
Option Setting Level #1 - Installer Programming .....	31
Option Setting Level #2 Programming Chart .....	33
Option Setting Level #2 - Softener Manufacturer Programming .....	36



# 3200ET Control Valve/Remote Meter Timer

## Timer Start-Up Procedures (Cont'd.)

1. During cold weather it is recommended that the installer warm the timer up to room temperature before operating.



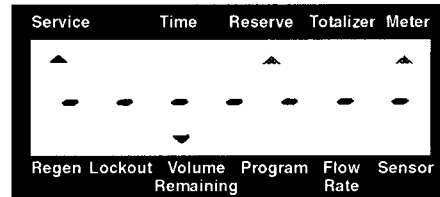
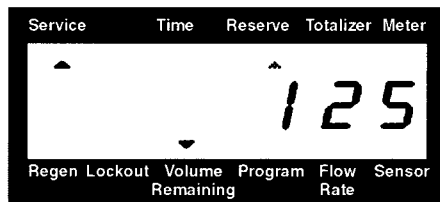
2. Once the timer has reached Service normal operation is resumed. In Normal Operation the Time Of Day and, if flow meter equipped, the Volume Remaining Displays will alternate being viewed. Set the Time Of Day Display by depressing the Up or Down Set Button to the correct time. (See above figure.)

**For Example:**  
12:59 P.M.  
(Valve in Service)



3. *Flow Meter Equipped Timer Only:* The Volume Remaining Display is the volume of water (in gallons) remaining prior to regeneration, including any reserve capacity. Without any water usage the Meter Arrow should be either off or on but not changing. Open a soft water tap. The Meter Arrow should begin flashing at a rate that varies with flow rate. Close the tap after 3 - 5 gallons of water flow.

**For Example:**  
125 Gallons Of Water Remaining  
(Valve in Service)  
(No water flow)  
(Volume is below reserve capacity, Reserve arrow flashing)



**For Example:**  
0 Gallons Of Water Remaining  
(Valve in Service)  
(Water flowing)  
(Volume is below reserve capacity, Reserve arrow flashing)

# 3200ET Control Valve/Remote Meter Timer

## Timer Start-Up Procedures (Cont'd.)

4. Manually initiate a regeneration cycle and allow water to run to drain for 3 to 4 minutes. Next, manually step the valve through a regeneration cycle checking valve operation in each step.

A. Initiating Regeneration (Depending on the timer regeneration type you have one or two (2) Options):

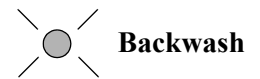
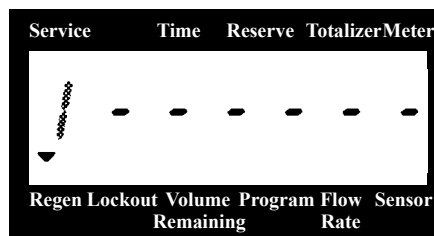
1. **Press and Release the Extra Cycle Button.** With Immediate Regeneration Timers the control will go into Regeneration immediately. With Delayed Regeneration Timers the Service Arrow will begin to flash immediately and a regeneration will occur at the preset regeneration time (i.e. 2:00 a.m.)
2. **Press and Hold for 5 seconds the Extra Cycle Button.** The control will go into Regeneration immediately.

B. Control Operation

1. During Regeneration: During Regeneration the control will display which regeneration step number the valve is advancing to, or has reached, and the time remaining in that step.

**For Example:**

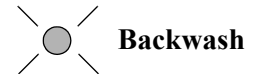
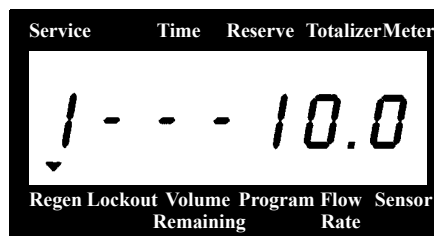
(Valve is advancing to Regeneration Step #1)  
(#1 flashing)  
(Regeneration arrow on)



2. When the first cycle step is reached, a red LED will turn on to indicate the current regeneration cycle step.

**For Example:**

(Regeneration Step #1 has been reached)  
(10.0 minutes remain in Step #1)  
(Regeneration arrow on)

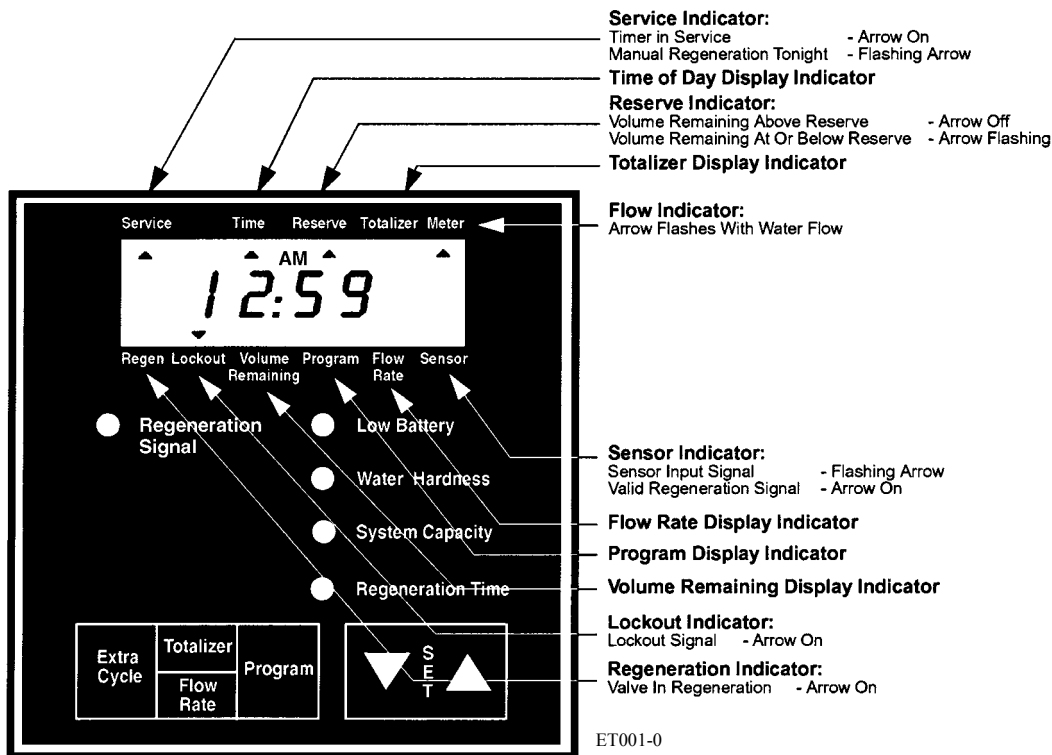


3. Pushing the Extra Cycle Button during a regeneration step will immediately advance the valve to the next regeneration step position.
  4. Pushing the Up or Down Set Button during a regeneration step will adjust the time remaining in that current regeneration step. Programmed regeneration step times **will not** be changed.
  5. Once all regeneration cycle steps have been completed the valve will return to Service and resume normal operation.
5. Manually step the valve to the Brine Draw position (see Step #14) and allow the valve to draw water from the brine tank until it stops. Note: The air check will check at approximately the midpoint of the screened intake area.
  6. Manually step the valve to the Brine Refill position and allow the valve to return to Service automatically.
  7. Make sure the brine refill time (salt dosage) is set as recommended by the manufacturer.
  8. With the valve in Service, check that there is about 1" of water above the grid in the brine tank, if used.
  9. Fill the brine tank with salt.
  10. A **9V Alkaline Battery** is recommended to be installed at all times for proper valve operation. The control will indicate when the battery needs to be replaced by turning on the Low Battery LED.



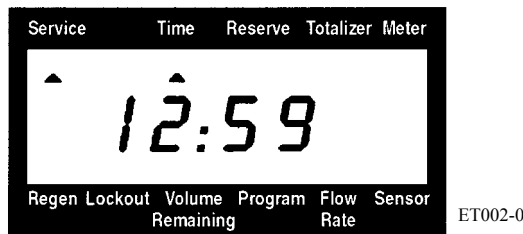
# 3200ET Control Valve/Remote Meter Timer

## Remote Meter Start-Up Procedures (Cont'd.)



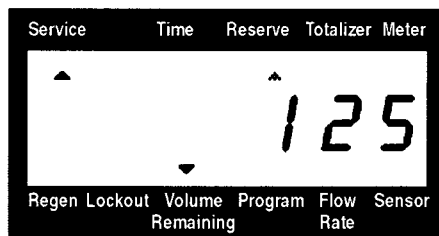
1. In normal operation the Time Of Day, and if flow meter equipped, Volume Remaining Displays alternate being viewed. Set the Time Of Day Display by depressing the Up or Down Set Button to the correct time. (See above figure.)

**For Example:**  
 12:59 A.M.  
 (Valve in Service)



2. The Volume Remaining Display is the volume of water (in gallons) remaining prior to regeneration, including any reserve capacity. Without any water usage the Meter Arrow should be either off or on but not changing. Open a soft water tap. The Meter Arrow should begin flashing at a rate that varies with flow rate. Close the tap after 3 - 5 gallons of water flow.

**For Example:**  
 125 Gallons Of Water Remaining  
 (Valve in Service)  
 (No Water Flow)  
 (Volume is below reserve capacity, Reserve Arrow Flashing)



**For Example:**  
 0 Gallons Of Water Remaining  
 (Valve in Service)  
 (Water Flowing, Meter Arrow Flashing)  
 (Volume is below reserve capacity, Reserve Arrow Flashing)

ET003-0

3. Manually initiate a regeneration cycle of all valves in the system through the remote timer. Allow water to run to drain on each valve for 3 to 4 minutes. Manually step each valve through a complete regeneration cycle checking valve operation in each

# 3200ET Control Valve/Remote Meter Timer

## Remote Meter Start-Up Procedures (Cont'd.)

step.

A. Initiating Regeneration (Depending on the timer regeneration type you have one or two (2) Options):

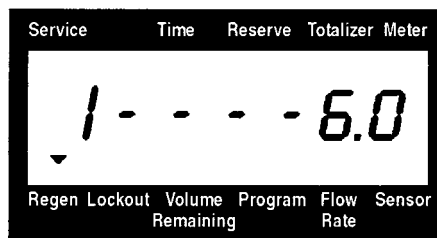
1. **Press and Release the Extra Cycle Button.** With Immediate Regeneration Timers the control will go into regeneration immediately. With Delayed Regeneration Timers the Service Arrow will begin to flash immediately and a regeneration will occur at the preset regeneration time (i.e. 2:00 a.m.)
2. **Press and Hold for 5 seconds the Extra Cycle Button.** The control will go into regeneration immediately. Delayed Regeneration Timers Only)

B. Control Operation While Sending A Regeneration Signal:

1. When sending a regeneration signal the control will display the remaining signal time.

**For Example:**

(Timer is sending a 6.0 minute regen. signal)  
(Regeneration arrow on)



ET004-0

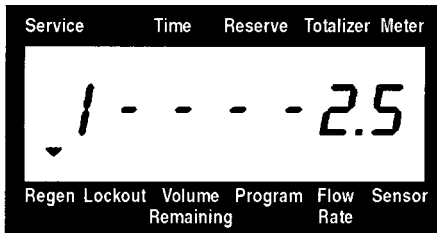


Regeneration Signal

2. A red LED will also turn on to indicate that a regeneration signal is being sent.

**For Example:**

(Timer has sent 3.5 min. of a 6.0 min. signal))  
(2.5 minutes of signal time remain)  
(Regeneration arrow on)



ET005-0



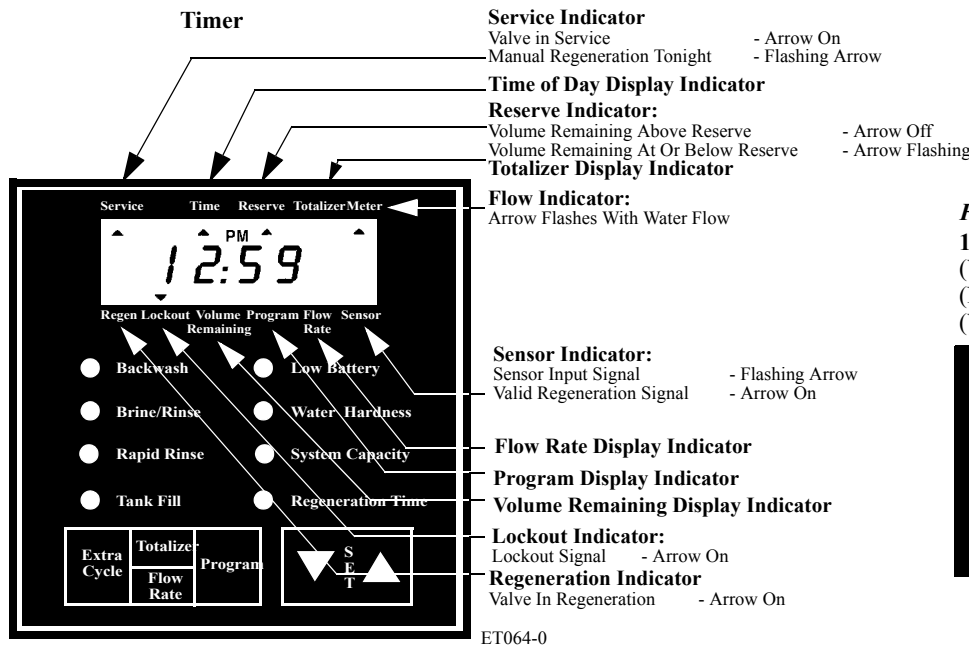
Regeneration Signal

3. Pushing the Extra Cycle Button during a regeneration signal will immediately advance the timer back to Service.
4. Pushing the Up or Down Set Button during a regeneration signal will adjust the signal time remaining. Programmed signal time **will not** be changed.
5. Once the Regeneration Signal has been completed the timer will return to service and resume normal operation.



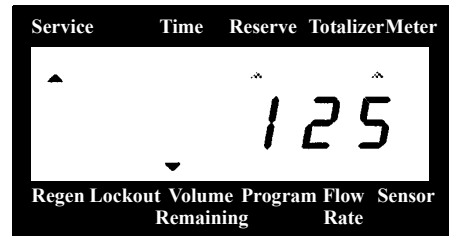
# 3200ET Control Valve/Remote Meter Timer

## Timer/Remote Meter Control Operation



*For Example:*

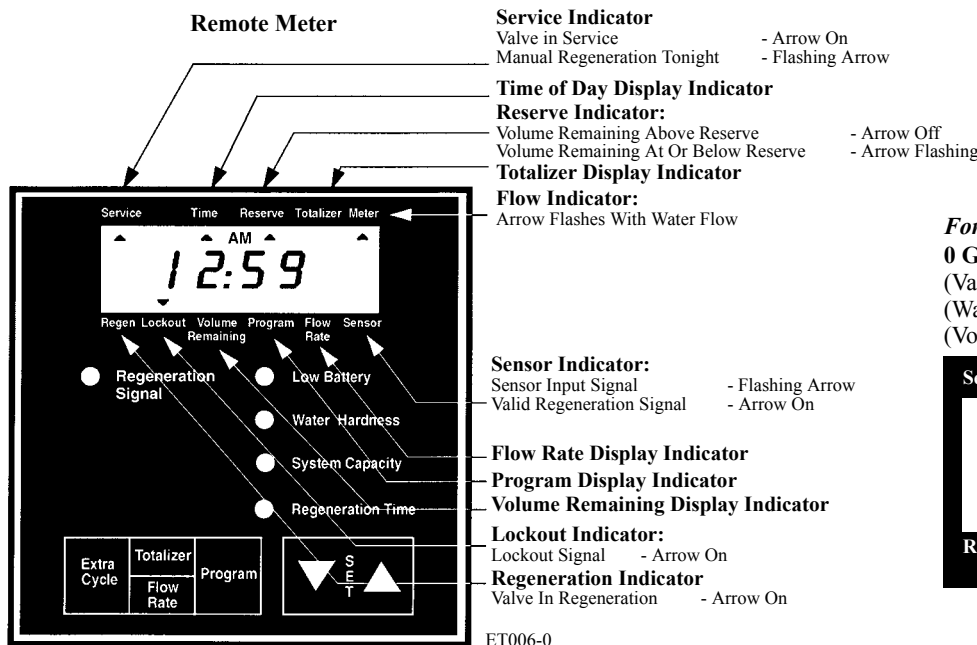
**125 Gallons of Water Remaining**  
 (Valve in Service)  
 (No water flow)  
 (Volume is below reserve capacity)



### Normal Operation

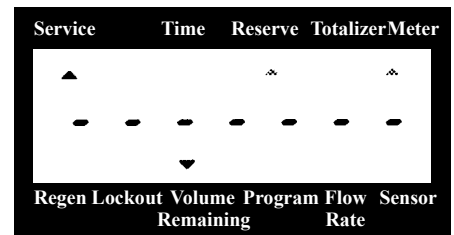
#### Flow Meter Equipped Delayed Regeneration Valves/Remote Meter Delayed Regeneration Systems -

In Normal Operation the Time Of Day Display will alternate being viewed with the Volume Remaining Display. Water flow through the unit is indicated by the Meter Arrow that will flash in a direct relationship to flow rate. As treated water is used, the Volume Remaining Display will count down from a maximum value to the calculated reserve capacity. Once this occurs, the Reserve Arrow will begin to flash as an indication that reserve capacity is being used. At the preset Regeneration Time, a regeneration cycle will then be initiated immediately.



*For Example:*

**0 Gallons of Water Remaining**  
 (Valve in Service)  
 (Water flowing, Meter arrow flashing)  
 (Volume is below reserve capacity)



# 3200ET Control Valve/Remote Meter Timer

## Timer/Remote Meter Control Operation (Cont'd.)

### Timeclock Regeneration Valves -

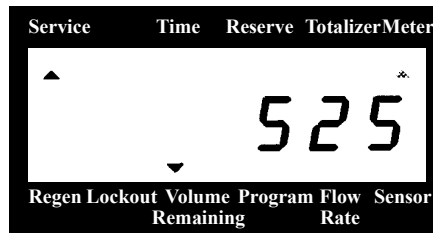
In Normal Operation the Time Of Day Display will be viewed at all times. The control will operate normally until the days since the last regeneration reaches the preset number of days. Once this occurs, a regeneration cycle will then be initiated immediately at the preset Regeneration Time.

### Flow Meter Equipped Immediate Regeneration Valves/Remote Meter Immediate Regeneration Systems -

In Normal Operation the Time Of Day Display will alternate being viewed with the Volume Remaining Display. Water flow through the unit is indicated by the Meter Arrow that will flash in a direct relationship to flow rate. As treated water is used, the Volume Remaining Display will count down from a maximum value to zero. Once this occurs a regeneration cycle will then be initiated immediately.

*For Example:*

**525 Gallons of Water Remaining**  
(Timer in Service)  
(Water flowing, Meter arrow flashing)



ET008-0

### Sensor Immediate Regeneration Valves -

In Normal Operation the Time Of Day Display will be viewed at all times. The control will operate normally until a valid sensor input signal is received. Once this occurs, a regeneration cycle will then be initiated immediately. The Sensor Input Arrow will flash until the signal is determined to be valid.

### Sensor Delayed Regeneration Valves -

In Normal Operation the Time Of Day Display will be viewed at all times. The control will operate normally until a valid sensor input signal is received. Once this occurs, a regeneration cycle will then be initiated immediately at the preset Regeneration Time. The Sensor Input Arrow will flash until the signal is determined to be valid. Then the Reserve Arrow will begin to flash as an indication that reserve capacity is being used.

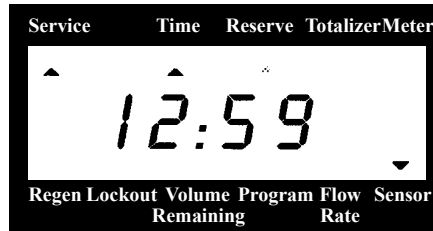
*For Example:*

**12:58 A.M. With Invalid Sensor Signal**  
(Timer in Service)  
(Sensor arrow flashing)



*For Example:*

**12:59 A.M. With Valid Sensor Signal**  
(Timer in Service)  
(Sensor arrow on)  
(Reserve arrow flashing) (Delayed Regen.)



ET009-0

### Immediate Regeneration Valves/Meters With Days Between Regeneration Override Set -

When the timer has reached its set Days Since Regeneration Override value a regeneration cycle will be initiated immediately. This event occurs regardless of the Volume Remaining display having reached zero.

### Delayed Regeneration Valves/Meters With Days Between Regeneration Override Set -

When the timer has reached its set Days Since Regeneration Override value a regeneration cycle will be initiated at the preset Regeneration Time. This event occurs regardless of the Volume Remaining display having reached the calculated reserve capacity.

# 3200ET Control Valve/Remote Meter Timer

## Timer/Remote Meter Control Operation (Cont'd.)

### TIMER/REMOTE METER CONTROL OPERATION DURING A POWER FAILURE

During a power failure all control displays will be turned off and regeneration cycles delayed. The control will otherwise continue to operate normally until line power is restored or battery backup power is lost.

1. If battery backup power is never lost during a power outage, the control will continue to operate normally, without the loss of data, until line power is restored.
2. If battery backup power is lost during a power outage, the control will store the current Time Of Day, Volume Remaining, Regeneration Cycle Status, and various diagnostic displays. These stored displays will then be used upon line power restoration until updated ones are created. To indicate this type of failure, the control will flash the current. Time Of Day Display to indicate that this display and the Volume Remaining Display may not be correct.

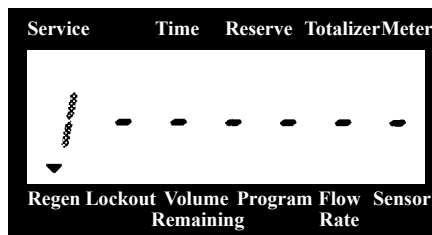
### TIMER CONTROL OPERATION DURING REGENERATION

In regeneration the control will display what regeneration step number the valve is advancing to, or has reached, and the time remaining in that step. Once all regeneration cycle steps have been completed the valve will return to service and resume normal operation.

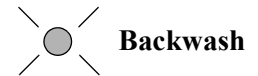
1. First the Regeneration Arrow turns on. Then the display below is viewed to indicate that the valve is advancing to the first regeneration cycle step.

**For Example:**

(Valve is advancing to Regeneration Step #1)  
(#1 Flashing)



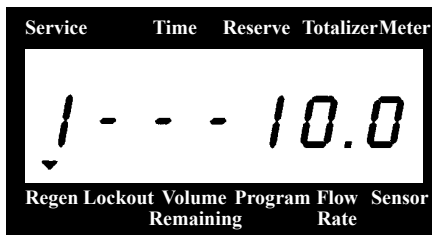
ET065-0



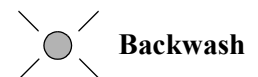
2. When the first cycle step is reached, the display becomes as shown below. As time passes the control will begin to decrement the step time in tenths of minutes until zero is reached. A red LED will also turn on to indicate the current regeneration cycle step.

**For Example:**

(Regeneration Step #1 has been reached)  
(10.0 minutes remain in Step #1)



ET067-0



3. Once the step time reaches zero, the valve drive motor will turn on and the Regeneration Time Remaining Display revert to all dashes until the next regeneration cycle step position is reached. Steps #2 and #3 will then be repeated until all regeneration cycle steps have been completed and the valve has returned to Service.
4. Pushing the Extra Cycle Button during a regeneration cycle will immediately advance the valve to the next cycle step position and resume normal step timing.
5. Pushing the Up or Down Set Button during a regeneration cycle will adjust the time remaining in a regeneration cycle step. Actual regeneration cycle step programming will not be changed.

# 3200ET Control Valve/Remote Meter Timer

## Timer/Remote Meter Control Operation (Cont'd.)

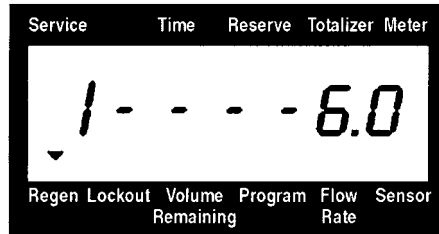
### REMOTE METER CONTROL OPERATION DURING REGENERATION

During Regeneration a special regeneration display will take the place of either the Time Of Day or Volume Remaining Display. This display will contain the number one (to indicate only one regeneration signal is being sent) and the signal time remaining.

1. First the Regeneration Arrow turns on. Then the display below appears to indicate that a Regeneration Signal is being sent and how long it will be.

**For Example:**

(Regeneration Signal has started)  
(6.0 minute regeneration signal to be sent)  
(Regeneration Arrow On)



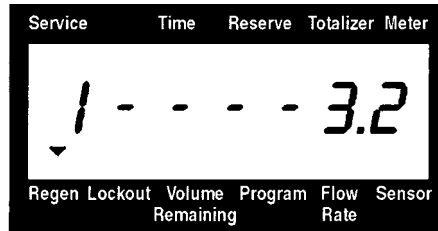
ET010-0



2. As time passes the countdown display will decrement in tenths of minutes until the time remaining reaches zero. When this occurs the control will return immediately to Service

**For Example:**

(Regeneration Signal has started)  
(3.2 minutes remain for signal)  
(Regeneration Arrow On)



ET011-0



3. Pushing the Extra Cycle Button during a regeneration signal will immediately return the control to Service.
4. Pushing the Up or Down Set Button during a regeneration signal will adjust the signal time remaining. Actual Regeneration Signal programming will not be changed.

# 3200ET Control Valve/Remote Meter Timer

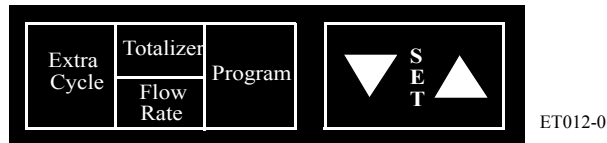
## Timer/Remote Meter Control Operation (Cont'd.)

### TIMER/REMOTE METER CONTROL OPERATION DURING PROGRAMMING

The control will only enter the Program Mode with the valve/meter in Service and operating on line power. While in the Program Mode the control will continue to operate normally monitoring water usage and keeping all displays up to date. Control programming is stored in memory permanently with or without line or battery backup power.

### TIMER/REMOTE METER LOCKOUT INPUT OPERATION

The Lockout Arrow will turn on whenever a Lockout Signal is being received by the control. Any requests for regeneration will be delayed until this signal is removed. Regeneration will then proceed normally.



### Keypad Operation

#### Extra Cycle Button

Pushing this button will initiate a regeneration cycle independently of actual valve conditions.

1. With immediate regeneration valves/meters this extra regeneration will occur immediately.
2. With delayed regeneration valves/meters this extra regeneration will occur at the set Regeneration Time. A regeneration cycle can be forced to occur immediately by pushing and holding in for 5 seconds this button.

#### Totalizer/Flow Rate Button

This button is used to view the Totalizer and Flow Rate Displays. Depressing the button once will display flow rate. Depressing the button again will display the total accumulation of water flow through the valve since it was last reset. Depressing the button once more will return the display to Time Of Day or Volume Remaining. The Totalizer display is reset by depressing and holding for 25 seconds this button. During the 25 seconds, the Totalizer Arrow will flash as an indicator to the operator that the display is being reset properly.

#### Program Button

This button is used by the installer to program those settings indicated on the front panel by red LEDs.

#### Up Set Button

This button is used to set the current time of day, adjust time remaining in a regeneration cycle step and in valve programming. The Up Arrow Button will increment a display setting.

#### Down Set Button

This button is used to set the current time of day, adjust time remaining in a regeneration cycle step and in valve programming. The Down Arrow Button will decrement a display setting.

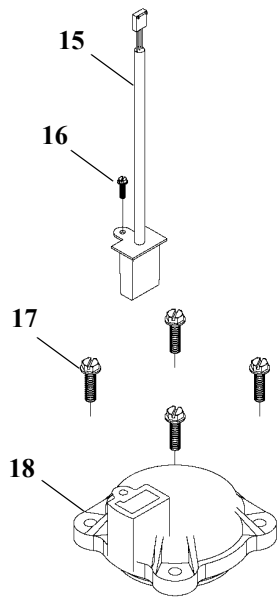
#### Low Battery Indicator



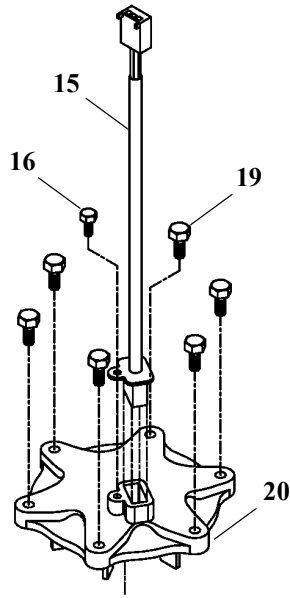
When the control is operating on line power, this red LED will turn on whenever the **9V Alkaline Battery** (Not Included) used for memory backup needs to be replaced. The battery is stored against the valve backplate. In the event of a power outage the battery will maintain current operating displays for approx. 24 hours at maximum battery capacity.

# 3200ET Control Valve/Remote Meter Timer

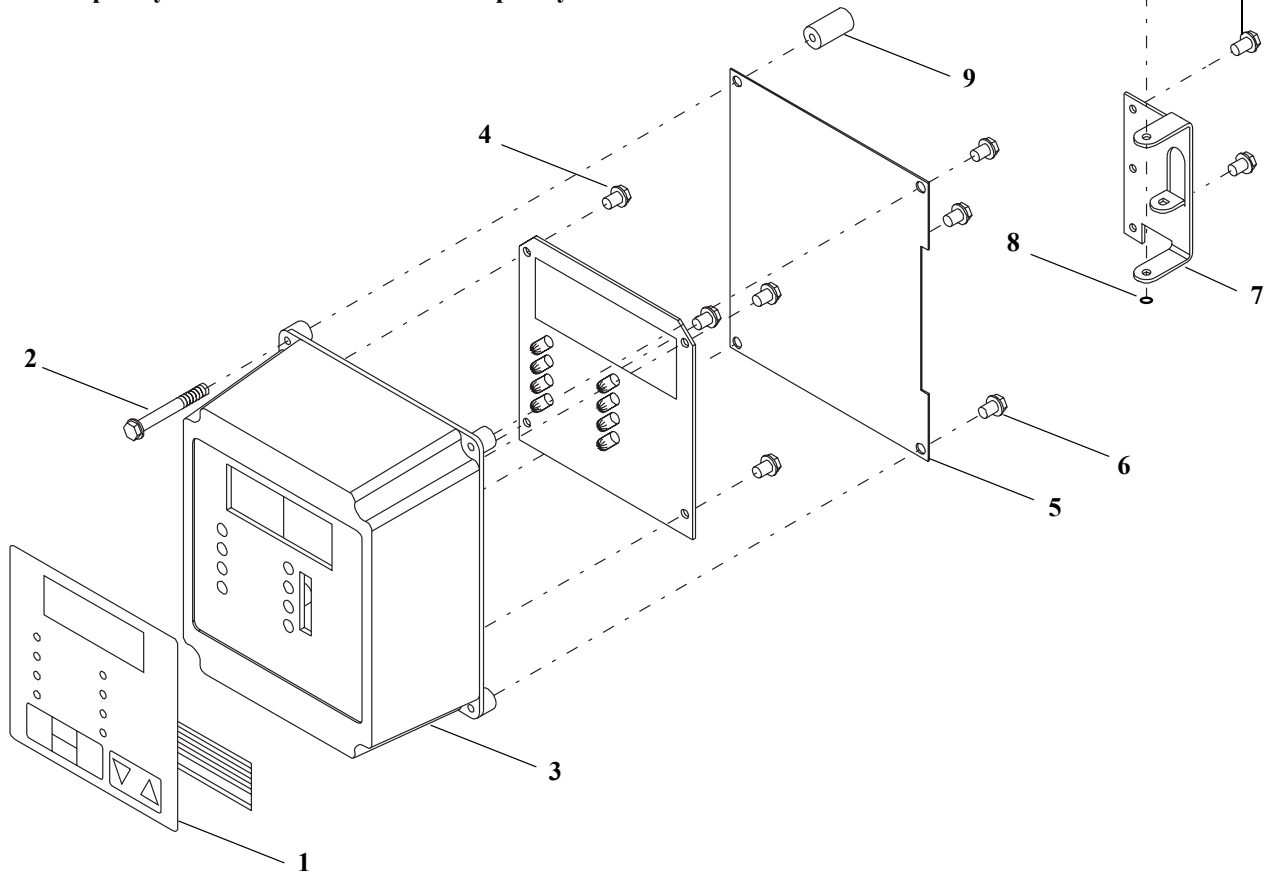
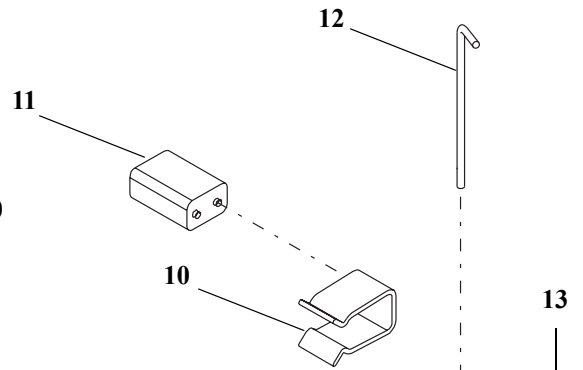
## 3200ET Control Valve/Remote Meter Timer Assemblies



Standard 3/4" To 2.0"  
Electronic Flow Meter  
Cap Assy.



Standard 3.0"  
Electronic Flow Meter  
Cap Assy.



# 3200ET Control Valve/Remote Meter Timer

## 3200ET Control Valve/Remote Meter Timer Assemblies Parts List

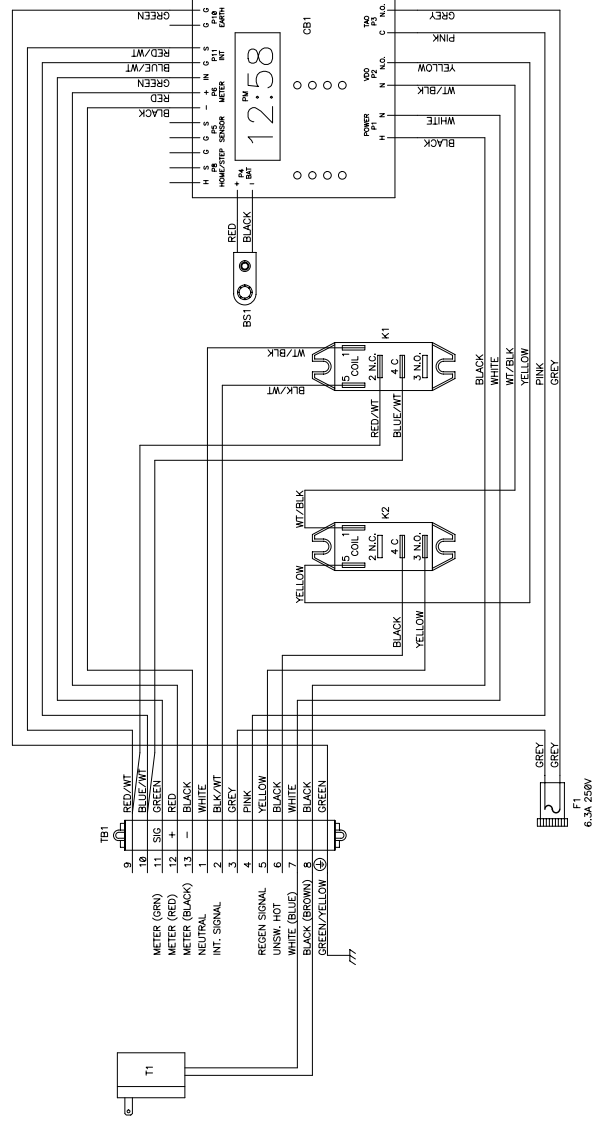
Item No.	Quantity	Part No.	Description
11	1	19144-01	Assembly, Switch Pad (3200ET Remote)
11	1	19144-02	Assembly, Switch Pad - Standard Downflow
		19144-06	Assembly, Switch Pad - Upflow Variable Brining
		19144-05	Assembly, Switch Pad - Upflow Brine First
		19144-04	Assembly, Switch Pad - Standard Upflow
2	1	18735	Screw, Hex Wash. #8 x 1 1/2
3	1	18741	Housing, Circuit Board - No Hinge
		18741-01	Housing, Circuit Board - Right Hinge
		18741-02	Housing, Circuit Board - Left Hinge
4	1	40679	24V 3200ET Circuit Board (Version 2.0 Software)
5	1	18764	Shield, Circuit Board
6	3	12758	Screw, Hex Washer #10 x 5/8
7	1	18749	Bracket, Hinge (Not Used With 18741)
8	1	15159	O-Ring .005
9	1	18814	Spacer, Elect. Housing (Not Used With 18741)
10	1	17831-01	Battery Clip
11	1		9V Alkaline Battery (Not Included)
12	1	14723	Pin, Timer Hinge
13	2	10300	Screw, Hex Washer #8 x 3/8
	1	17749-00	Relay, SPDT (24V) Remote Meter (2 Req.-24V)
	1	17749-01	Relay, SPDT (120V) Remote Meter (120V)
	1	17749-02	Relay, SPDT (230V) Remote Meter (230V)
	1	41054-05	Harness Low Voltage Remote Meter with 3200ET
	1	41052-04	Harness, Power Remote Meter with 3200ET
	1	40044	Harness, 3200ET, Remote, Delay
		41054-03	Harness Low Voltage 2750 with 3200ET 2510, 2750, 2850, 2900
		41054-04	Harness Low Voltage 3150 w/3200ET, 3150/3900
		41054-06	Harness Low Voltage 9000 w/3200ET, 9000/9500
		41052-01	Harness Power 2750/2900 w/3200ET, 2510/2750/2850/2900
		41052-02	Harness Power 3150/3900 w/3200ET
		41052-03	Harness Power 9000/9500 w/3200ET
		19589	Plug, Jumper - Home and Step Switch
		19891	Harness, Battery, All Valves

### Optional Electronic Flow Meter Cap Parts List

Item No.	Quantity	Part No.	Description
15	1	19121-02	Assy. Mtr. Cable 1.8 ft. 2500/9000/9500 System 4
		19121-03	Assy. Mtr. Cable 8 ft. All Valves (Optional)
		19121-04	Assy. Mtr. Cable 25 ft. All Valves (Optional)
		19121-05	Assy. Mtr. Cable 2.3 ft. 2750/2850/2900/3150/3900 Systems 4
16	1	17798	Screw, Hex Washer
17	4	12473	Screw, Hex Washer #10-24 x 5/8
18	1	14716	Meter Cap Assy., Electronic
19	6	12112	Screw, Hex Head
20	1	14716-01	Meter Cap Assy., 3.0" Electronic

# 3200ET Control Valve/Remote Meter Timer

## 3200ET Remote Meter



- TB1 - GREY POWER/ORANGE LOW VOLTAGE TERMINAL BLOCK
- CB1 - 3200ET CIRCUIT BOARD
- K1 - 24V/120V/238V SPDT RELAY
- K2 - 24V SPDT RELAY
- F1 - 6.3A 250V OUTPUT FUSE
- ES1 - 9V BATTERY SIGNAL
- T1 - 24V TRANSFORMER

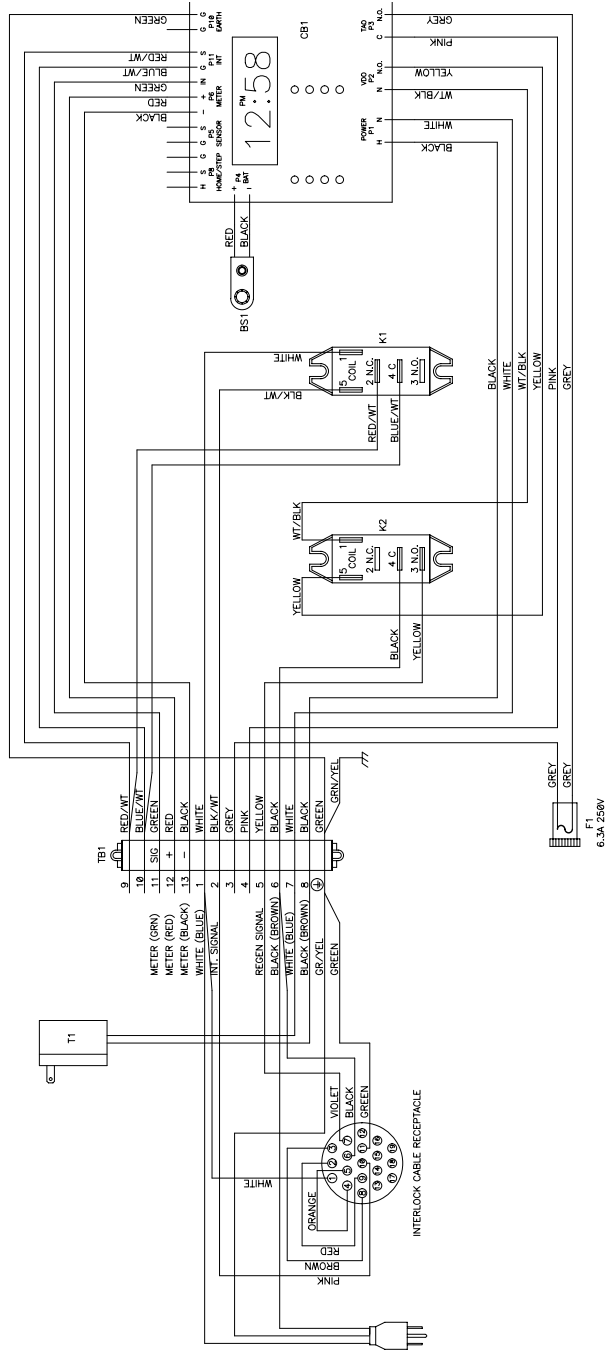
- WIRING NOTES:
1. WIRE TERMINAL BLOCK POSITION #1 TO LEAD VALVE NEUTRAL.
  2. WIRE TERMINAL BLOCK POSITION #2 TO INTERLOCKED POWER ON LEAD VALVE.
  3. WIRE TERMINAL BLOCK POSITION #5 TO LEAD VALVE START SIGNAL INPUT.
  4. WIRE TERMINAL BLOCK POSITION #6 TO LEAD VALVE UNLOCKED POWER.
  5. WIRE TERMINAL BLOCK GND POSITION TO APPROVED GROUND.

19222



# 3200ET Control Valve/Remote Meter Timer

## 3200ET Remote Meter for 2900/3900 Multivalve System #7



- TB1 - GREY POWER/ORANGE LOW VOLTAGE TERMINAL BLOCK
- CB1 - 3200ET CIRCUIT BOARD
- K1 - 24V/120V/230V SPDT RELAY
- K2 - 24V SPDT RELAY
- F1 - 6.3A 250V OUTPUT FUSE
- BS1 - 9V BATTERY SNAP
- T1 - 24V TRANSFORMER

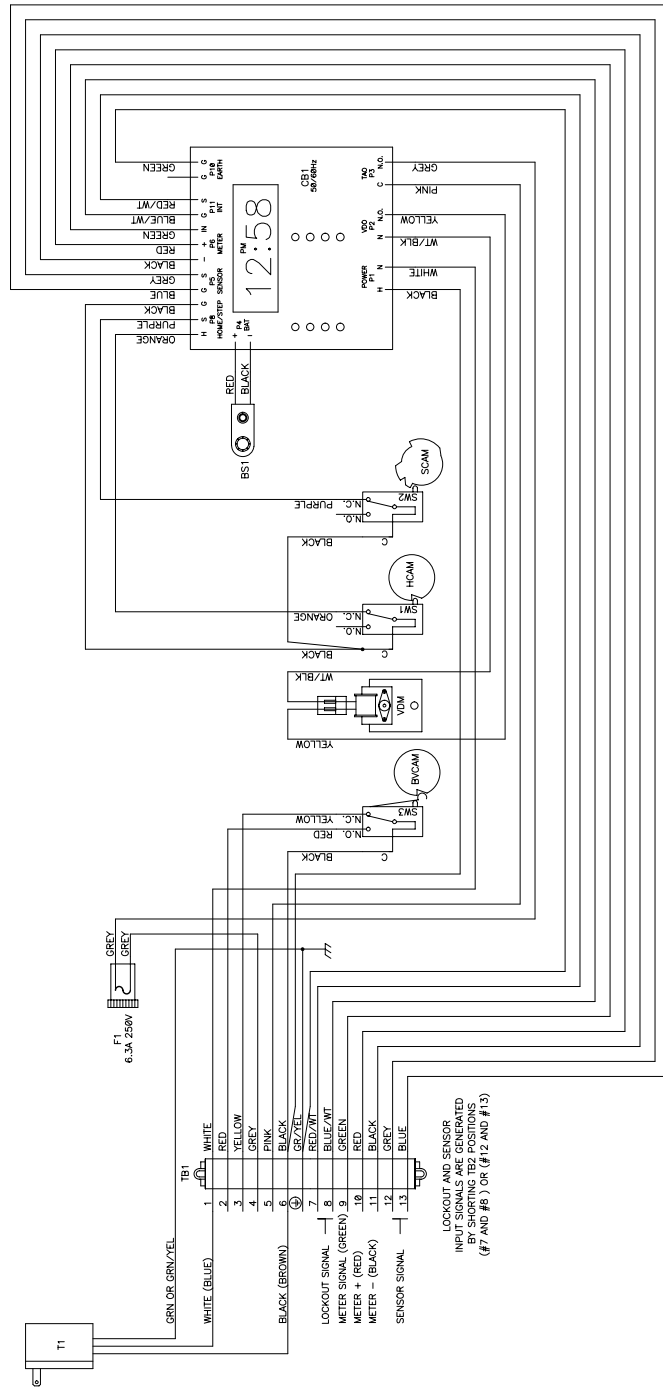
NOTE:  
 1. CONNECT LEAD VALVE INTERLOCK CABLE TO REMOTE METER INTERLOCK CABLE RECEPTACLE.  
 2. A PROPERLY SIZED EXTERNAL POWER SUPPLY (TB1 POSITIONS #1 AND #6) IS STILL REQUIRED FOR OPERATING A 24V VALVE SYSTEM.

19027

# 3200ET Control Valve/Remote Meter Timer

## 2750/2850/3150/3200ET System #4

2510ET/2750ET/2850ET WIRING



- T1 - GREY POWER/ORANGE LOW VOLTAGE TERMINAL BLOCK
- 3200ET - 3200ET CIRCUIT BOARD
- CB1 - 3200ET CIRCUIT BOARD
- F1 - 6.3A 250V FUSE
- VDM - VALVE DRIVE MOTOR
- SW1 - HOMING SWITCH
- SW2 - STEP SWITCH
- SW3 - BRINE CAM SWITCH
- SW4 - VALVE HOMING CAM
- SCAM - VALVE STEP CAM
- B/CAM - BRINE VALVE CAM

- NOTE:
1. RECLOCK/METER/SENSOR REGENERATION.
  2. COMMUNICATION BETWEEN TWO 3200ET EQUIPPED VALVES IS DONE BY WIRING T1 POSITION #7 TO THE OTHER VALVES #7, AND T1 POSITION #8 TO THE OTHER VALVES #8.
  3. WHEN LOCKOUT INPUTS ARE CONNECTED BETWEEN VALVES, NO ADDITIONAL EXTERNAL SIGNALS SHOULD BE APPLIED TO THESE INPUTS.
  4. VALVE SHOWN IN SERVICE.

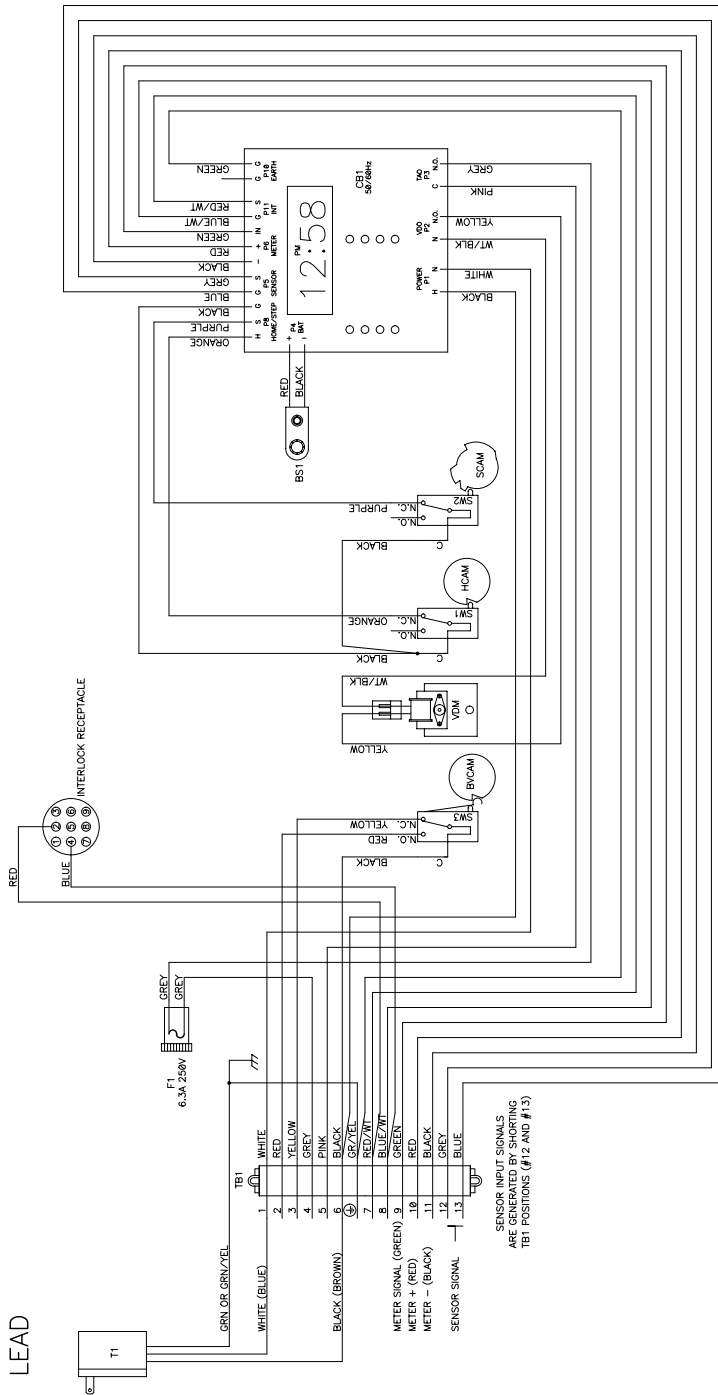
19132



# 3200ET Control Valve/Remote Meter Timer

## 2750/2850/3150/3200ET System #5 and System #6 Lead

2750ET/2850ET WIRING



- T1 - 24V TRANSFORMER  
 TBT1 - GREY POWER/ORANGE LOW VOLTAGE TERMINAL BLOCK  
 CB1 - 32RRE1 CIRCUIT BOARD  
 BS1 - 9V BATTERY SNAP  
 F1 - TIMED AUXILIARY OUTPUT FUSE  
 VDM - VALVE DRIVE MOTOR  
 SW1 - HOMING SWITCH  
 SW2 - STEP SWITCH  
 SCAM - VALVE STEP CAM  
 HCAM - VALVE STEP CAM  
 BV/CAM - BRINE VALVE CAM
- NOTE:  
 1. TIMECLOCK/METER/SENSOR REGENERATION.  
 2. SYSTEM #5 OPERATION - WIRE A FLOW METER/SENSOR INTO EACH VALVE.  
 3. SYSTEM #6 OPERATION - WIRE A FLOW METER/SENSOR INTO LEAD VALVE ONLY.  
 DO NOT WIRE A LOCKOUT SIGNAL INTO TBT1.  
 4. VALVE SHOWN IN SERVICE.

19214-01



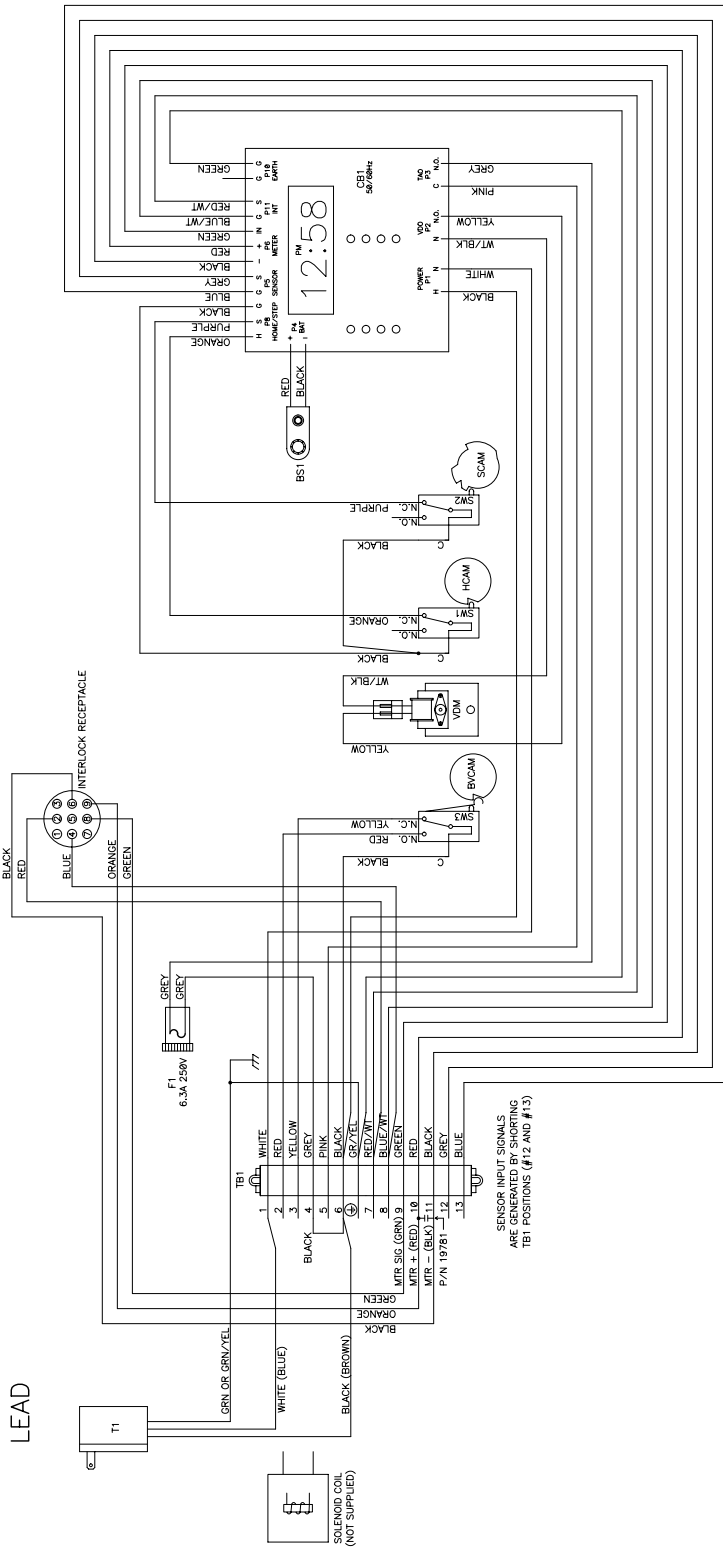




# 3200ET Control Valve/Remote Meter Timer

## 2750/2850/3150/3200ET System #7 (4-Way Solenoid Output Lead)

2750ET/2850ET WIRING



- T1 - 24V TRANSFORMER  
 TB1 - GREY POWER/ORANGE LOW VOLTAGE TERMINAL BLOCK  
 CB1 - 3200ET CIRCUIT BOARD  
 BS1 - 8V BATTERY SNAP  
 F1 - 6.3A 250V FUSE  
 VDM - VALVE DRIVE MOTOR  
 SCAM - VALVE STEP CAM  
 SW2 - STEP SWITCH  
 SW3 - BRINE CAM SWITCH  
 HCAM - VALVE HOMING CAM  
 MTR - VALVE STEP CAM  
 BYCAM - BRINE VALVE CAM
- NOTE:  
 1. SYSTEM #7 OPERATION - WIRE A FLOW METER INTO LEAD VALVE ONLY.  
 2. WHEN THE FLOW METER IS INSTALLED, THE SINGLE METER ALTERNATING IMMEDIATE REGENERATION.  
 3. TIMED AUX. OUTPUT SET TO TURN ON AT THE START OF BACKWASH FOR 5 MINUTES.  
 4. VALVE SHOWN IN STANDBY.

19637-01

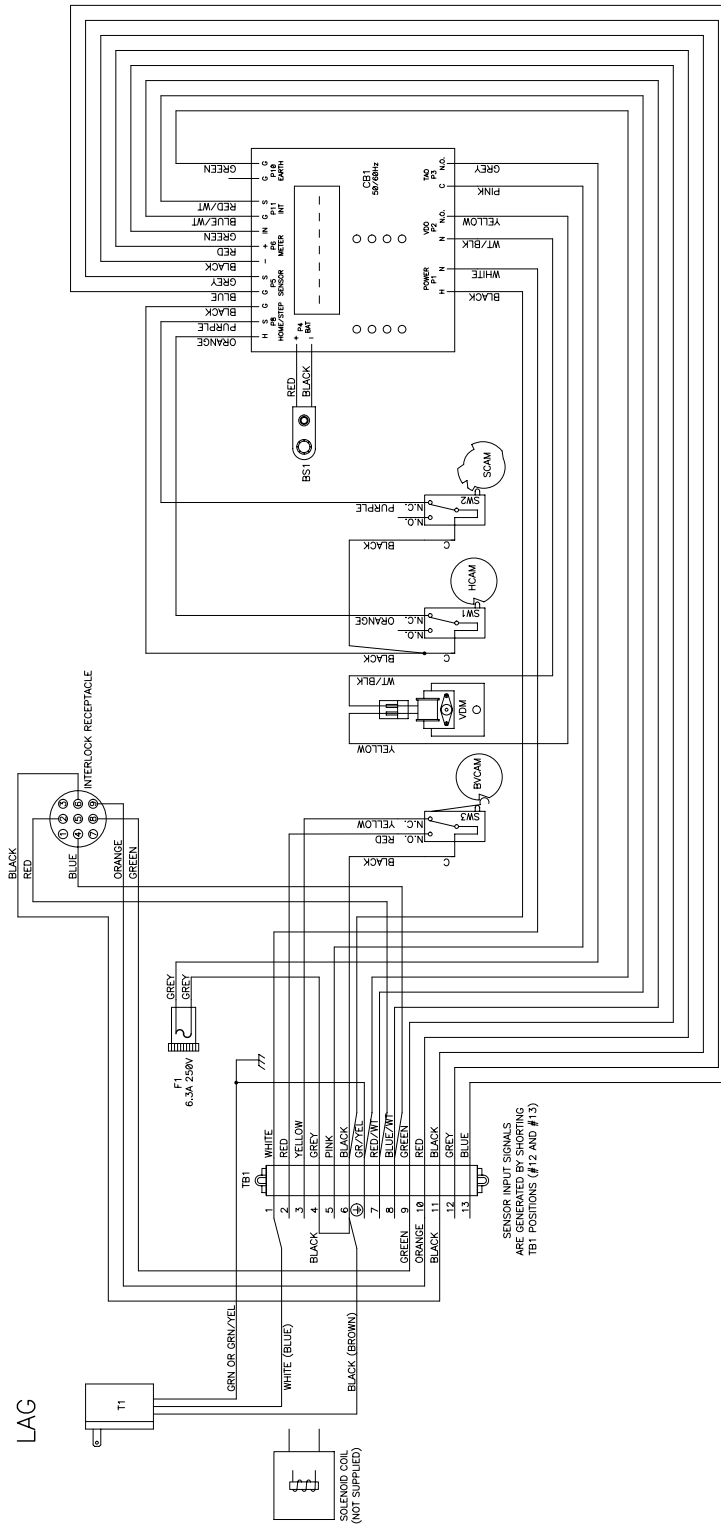


# 3200ET Control Valve/Remote Meter Timer

## 2750/2850/3150/3200ET System #7 (4 -Way Solenoid Output Lag)

2750ET/2850ET WIRING

LAG



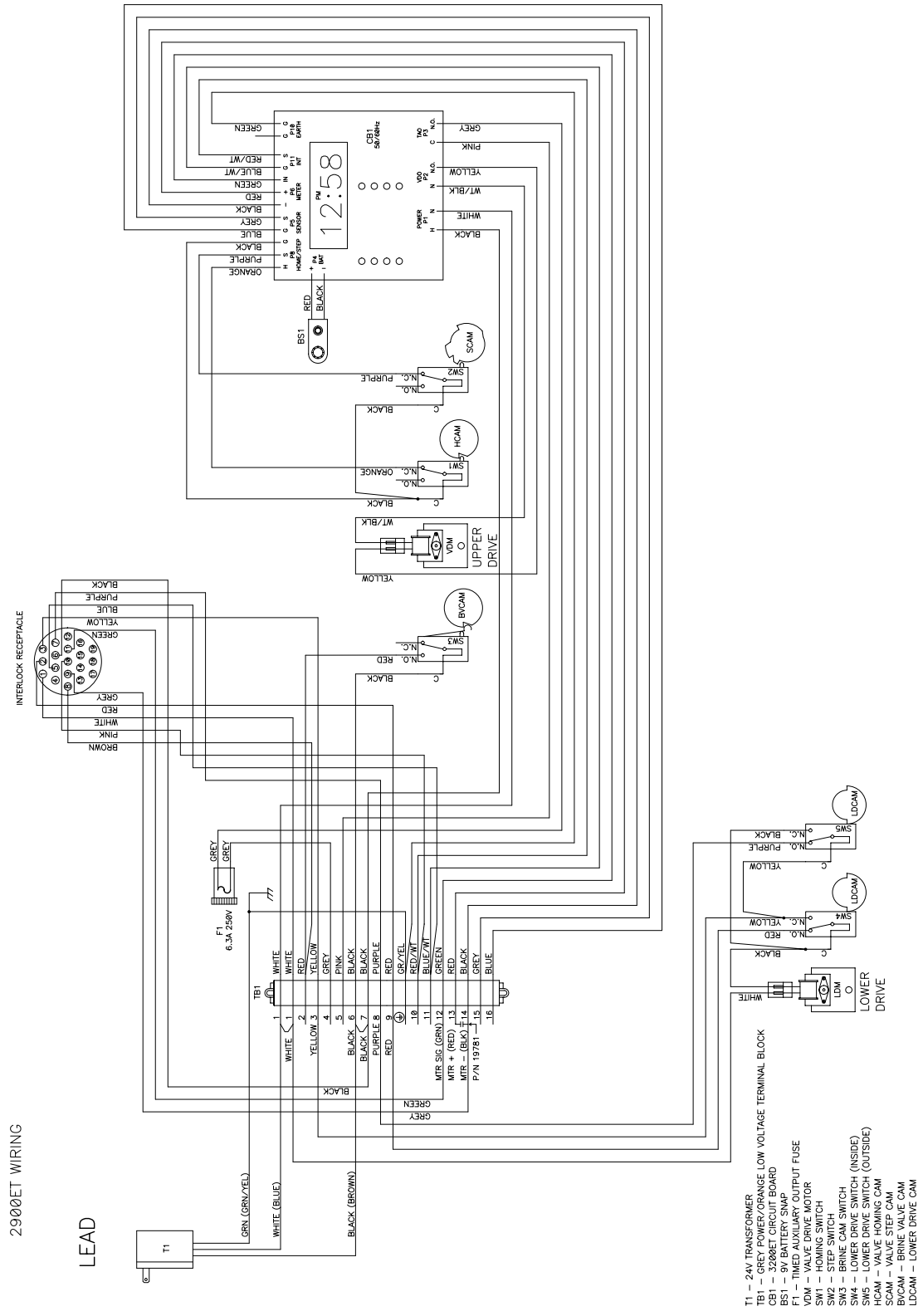
- T1 - 24V TRANSFORMER
- TBI - GREY POWER/ORANGE LOW VOLTAGE TERMINAL BLOCK
- CB1 - 3200ET CIRCUIT BOARD
- BS1 - 9V BATTERY BOARD
- VDM - VALVE DRIVE MOTOR
- SW1 - VALVE DRIVE MOTOR
- SW2 - HOMING SWITCH
- SW3 - STEP SWITCH
- HCAM - BRINE CAM SWITCH
- SCAM - VALVE HOMING CAM
- BCAM - VALVE STEP CAM
- BCAM - BRINE VALVE CAM

NOTE:  
 1. SYSTEM #7 OPERATION - WIRE A FLOW METER INTO LEAD VALVE ONLY. DO NOT WIRE IN A LOCKOUT SIGNAL. SINGLE METER ALTERNATING IMMEDIATE REGENERATION.  
 2. TIMED AUX. OUTPUT SET TO TURN ON AT THE START OF BACKWASH FOR 5 MINUTES.  
 3. VALVE SHOWN IN STANDBY.

19637-02

# 3200ET Control Valve/Remote Meter Timer

## 2900/3900/3200ET System #7 Lead



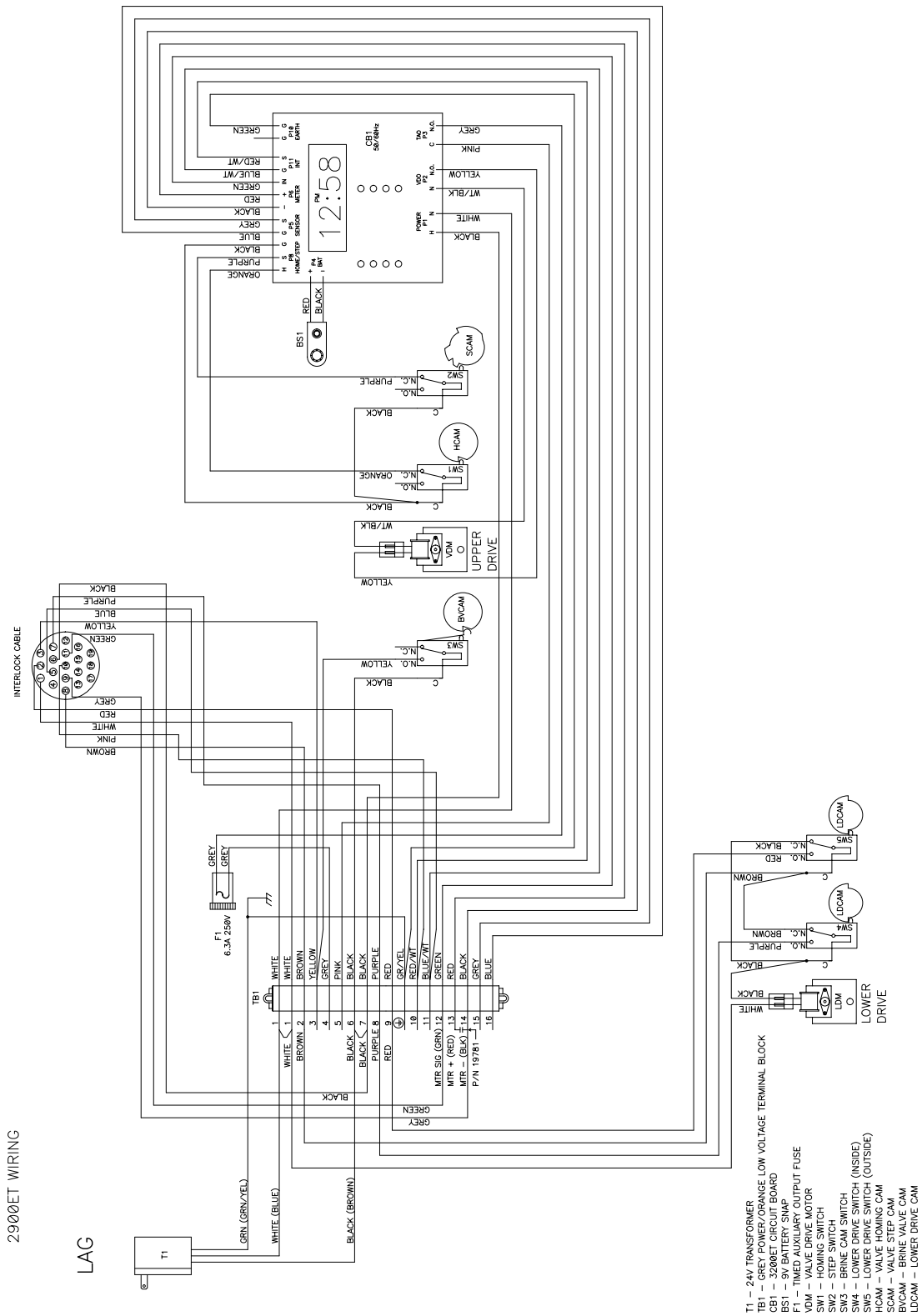
- T1 - 24V TRANSFORMER
- TB1 - GREY POWER/ORANGE LOW VOLTAGE TERMINAL BLOCK
- CB1 - 3200ET CIRCUIT BOARD
- BS1 - 9V BATTERY SNAP
- VDM - VALVE DRIVE MOTOR
- SW1 - VALVE DRIVE SWITCH
- SW2 - HOMING SWITCH
- SW3 - BRINE CAM SWITCH (INSIDE)
- SW4 - LOWER DRIVE SWITCH (INSIDE)
- SW5 - LOWER DRIVE SWITCH (OUTSIDE)
- HCAM - VALVE HOMING CAM
- BVCAM - VALVE STEP CAM
- LDCAM - BRINE STEP CAM
- LDCAM - LOWER DRIVE CAM

NOTE:  
 1. SYSTEM #7 OPERATION - WIRE A FLOW METER INTO LEAD VALVE ONLY. DO NOT WIRE IN A LOCKOUT SIGNAL. SINGLE METER ALTERNATING IMMEDIATE REGENERATION.  
 2. VALVE SHOWN IN SERVICE.

19613-01

# 3200ET Control Valve/Remote Meter Timer

## 2900/3900/3200ET System #7 Lag



19613-02



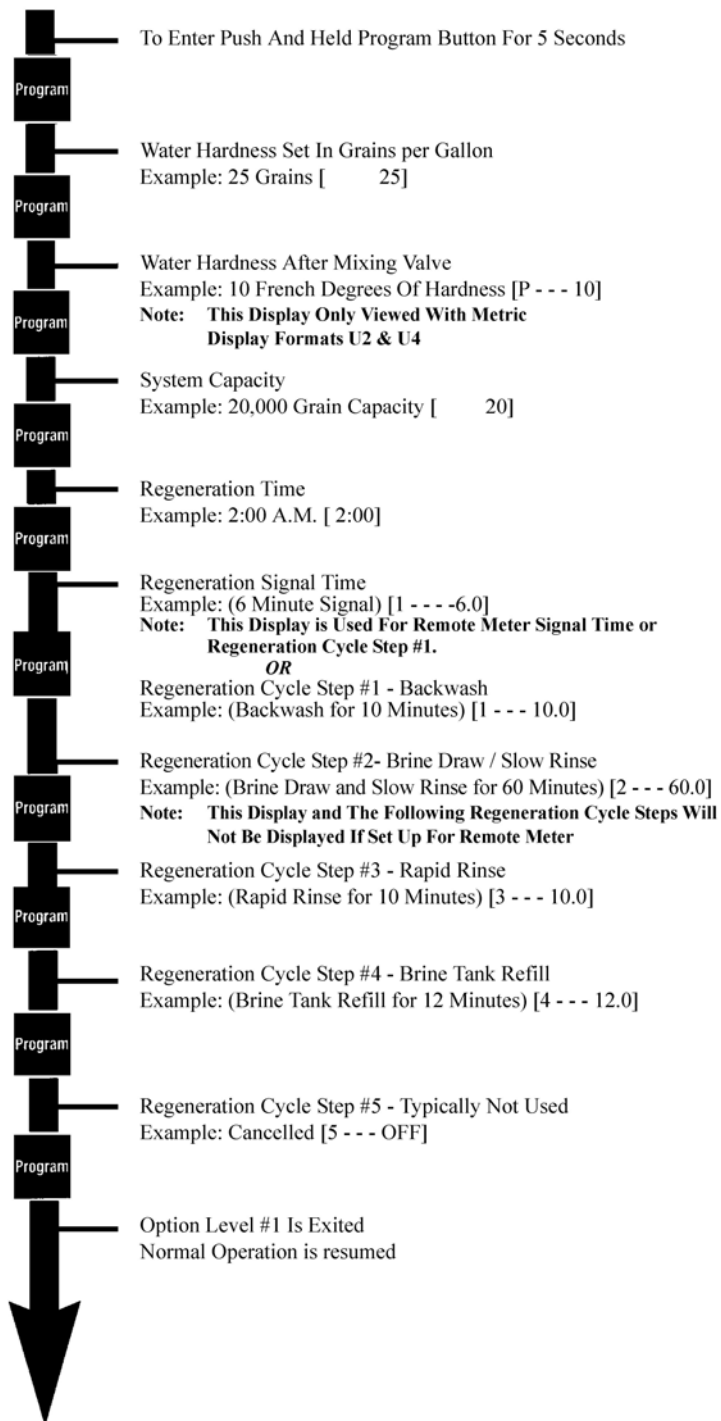
# 3200ET Control Valve/Remote Meter Timer

## Option Setting Level #1 Programming Chart For Standard Valves/Remote Meters

### Level #1

**Note:**

1. Push Program Button Once Per Display.
2. Option settings may be changed by pushing either the Up or Down Arrow Button.
3. Depending on current valve programming certain displays will not be able to be viewed or set.



**CAUTION: Before entering master programming, please contact your local professional water dealer**

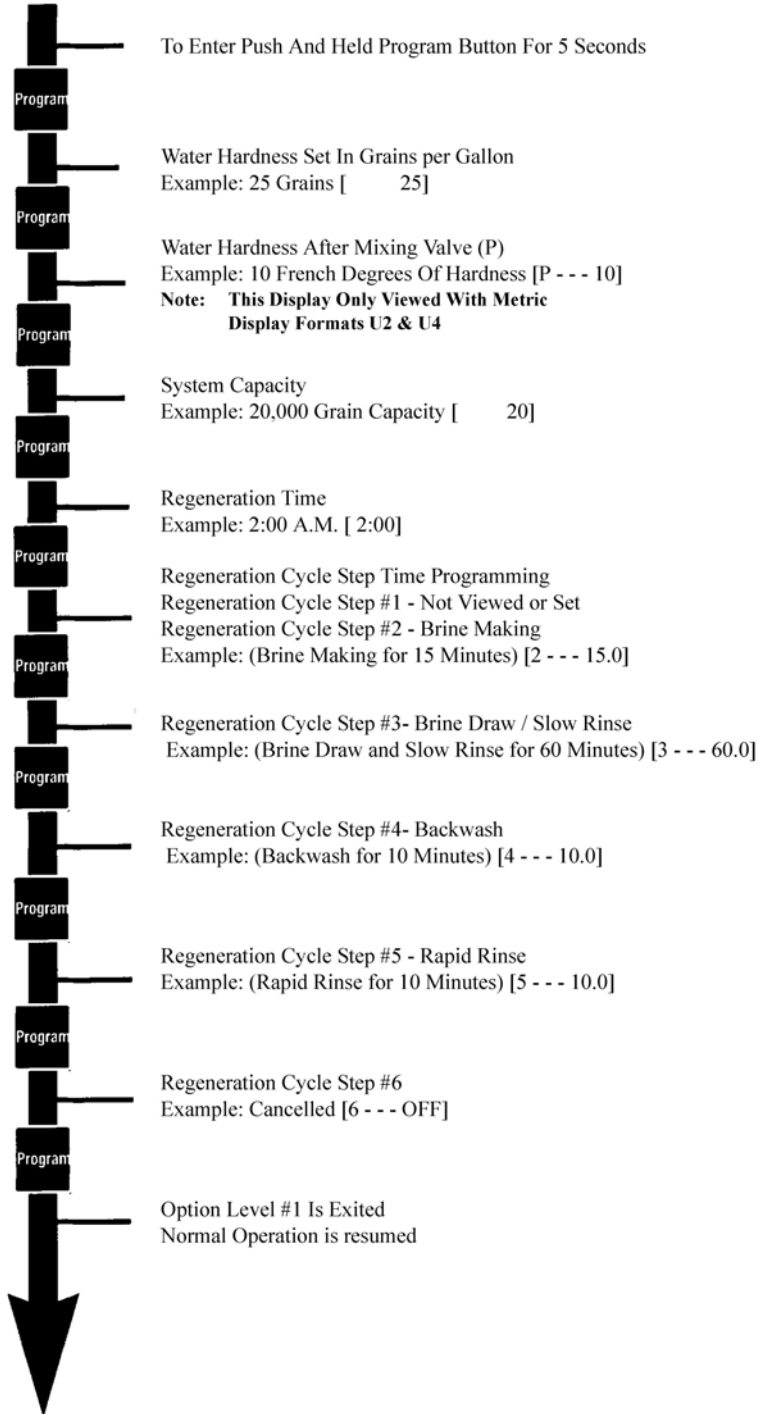
# 3200ET Control Valve/Remote Meter Timer

## Option Setting Level #1 Programming Chart For Variable Brining Valves

### Level #1

**Note:**

1. Push Program Button Once Per Display.
2. Option settings may be changed by pushing either the Up or Down Arrow Button.
3. Depending on current valve programming certain displays will not be able to be viewed or set.

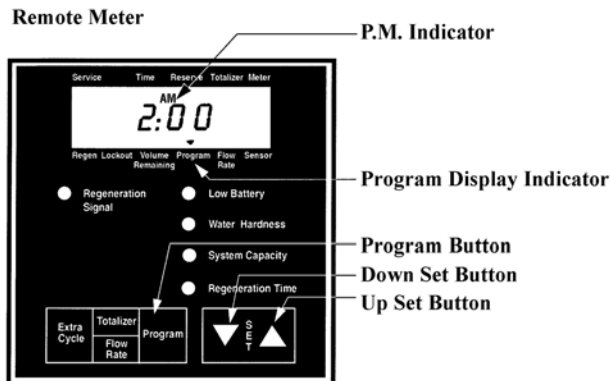
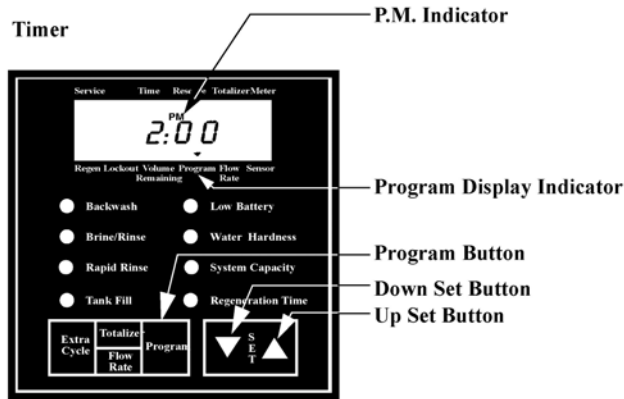


**CAUTION: Before entering master programming, please contact your local professional water dealer**

# 3200ET Control Valve/Remote Meter Timer

## Option Setting Level #1 - Installer Programming

This level includes the functioning parameters of the Timer, related to site conditions.



### Entering Option Level #1

Depress the Program Button for five seconds. The Program Arrow will turn on and the first display viewed is used to set the Inlet Water Hardness. Depending on current programming, certain displays or option settings will not be viewed.

#### 1. Water Hardness

The unit of measure used for this setting is grains/French degrees/P.P.M./German degrees. This option setting is identified by the red LED next to the Water Hardness label.

Example: 25 grains [ 25]

The UP and DOWN Set Buttons will adjust this value.

#### 2. Water Hardness After Mixing Valve (P)

Depress the Program Button. The next display viewed is the option setting for water hardness after the mixing valve. This option setting is identified by the letter P only. The unit of measure used for this setting is French degrees or P.P.M. This display will only be able to be viewed with US/metric Display Format set to U-2 or U-4 (metric formats).

Example: 10 French degrees of hardness [P - - - 10]

The UP and DOWN Set Buttons will adjust this value.

**CAUTION: Before entering master programming, please contact your local professional water dealer**

# 3200ET Control Valve/Remote Meter Timer

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## Option Setting Level #1 - Installer Programming (Cont'd)

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### 3. System Capacity

Depress the Program Button. The next display viewed is the option setting for Capacity. This option setting is identified by the red LED on next to the label System Capacity. The unit of measurement used for this setting is kilograms/French degree x m<sup>3</sup>/grams/German degree x m<sup>3</sup>. The total capacity of the softener is set with this display. If required, the control will calculate a reserve automatically.

Example: 20,000 grain capacity - [ 20 ]

The UP and DOWN Set Buttons will adjust this value.

### 4. Regeneration Signal Time/Regeneration Cycle Steps

#### A. Regeneration Signal Time

Depress the Program Button. The next display viewed is the option setting for Regeneration Signal Time. It is identified by the red LED on next to the label Regeneration Signal. The unit of time used for this display is minutes.

Example: 6.0 minute regeneration signal [ 1 - - - - 6.0 ]

#### B. Regeneration Cycle Step Programming (1) (2) (3) (4) (5) (6)

Depress the Program Button. The next 2 to 6 displays viewed are used to program the Regeneration Cycle. Up to 6 steps can be programmed. Each display is used to set the duration time in minutes of that specific step in a regeneration cycle. A red LED will turn on for the regeneration cycle step being programmed (except steps #5 & #6).

Examples: Regeneration Cycle Step #1 - 8.0 minutes - [ 1 - - - - 8.0 ]  
Regeneration Cycle Step #5 - 8 1/2 minutes - [ 5 - - - - 8.5 ]

Depress the Program Button once per display to advance through Regeneration Cycle Step Programming. Steps are cancelled by setting the display to 0. Remaining regeneration cycle is cancelled by setting display to OFF. The 6700 control has a separate brine tank fill cycle. Your desired salt setting must be calculated, using the blue (.25 gpm) or black (.5 gpm) rate of refill (in gpm) times your timer setting. Then using one gallon of fresh water dissolving approximately 3 lbs. of salt, calculate your refill time. Valves equipped for Variable Brining will not require a Brine Tank Refill setting. Brine Making time is typically set for 15 minutes for a gridless brine tank.

Example: lbs. salt ÷ 3 ÷ B.L.F.C. Size = refill time in minutes, 10 lbs. salt ÷ 3 ÷ .25 = 13.3 minute refill time

The UP and DOWN Set Buttons adjust these settings.

### 5. Regeneration Time

Depress the Program Button. The next display viewed is the option setting for Regeneration Time. It is identified by the red LED next to the label Regeneration Time as well as a non-flashing colon.

Example: 2 o'clock A.M. regeneration time - [ 2:00 ]

The UP and DOWN Set Buttons will adjust this value.

### Exiting This Option Setting Level

Depress the Program Button once per display until all option setting displays have been viewed.

---

### Installer Notes:

1. Control Calculations - With Delayed Regeneration Valves, the control is designed to automatically calculate its reserve capacity based on daily water usage. There is no need to program in a reserve capacity.
2. The System Capacity Option Setting should always be set to the resin bed manufacturers capacity recommendations for a given amount of salt to be used during regeneration.
3. System Capacity and Water Hardness displays will not be able to be viewed or set with non-metered systems.
4. Regeneration Time will not be able to be viewed or set with immediate regeneration valves.
5. Acceptable Voltage Range For Reliable Control Operation:  
24 Vac + or - 10% 50/60Hz

**CAUTION: Before entering master programming, please contact your local professional water dealer**

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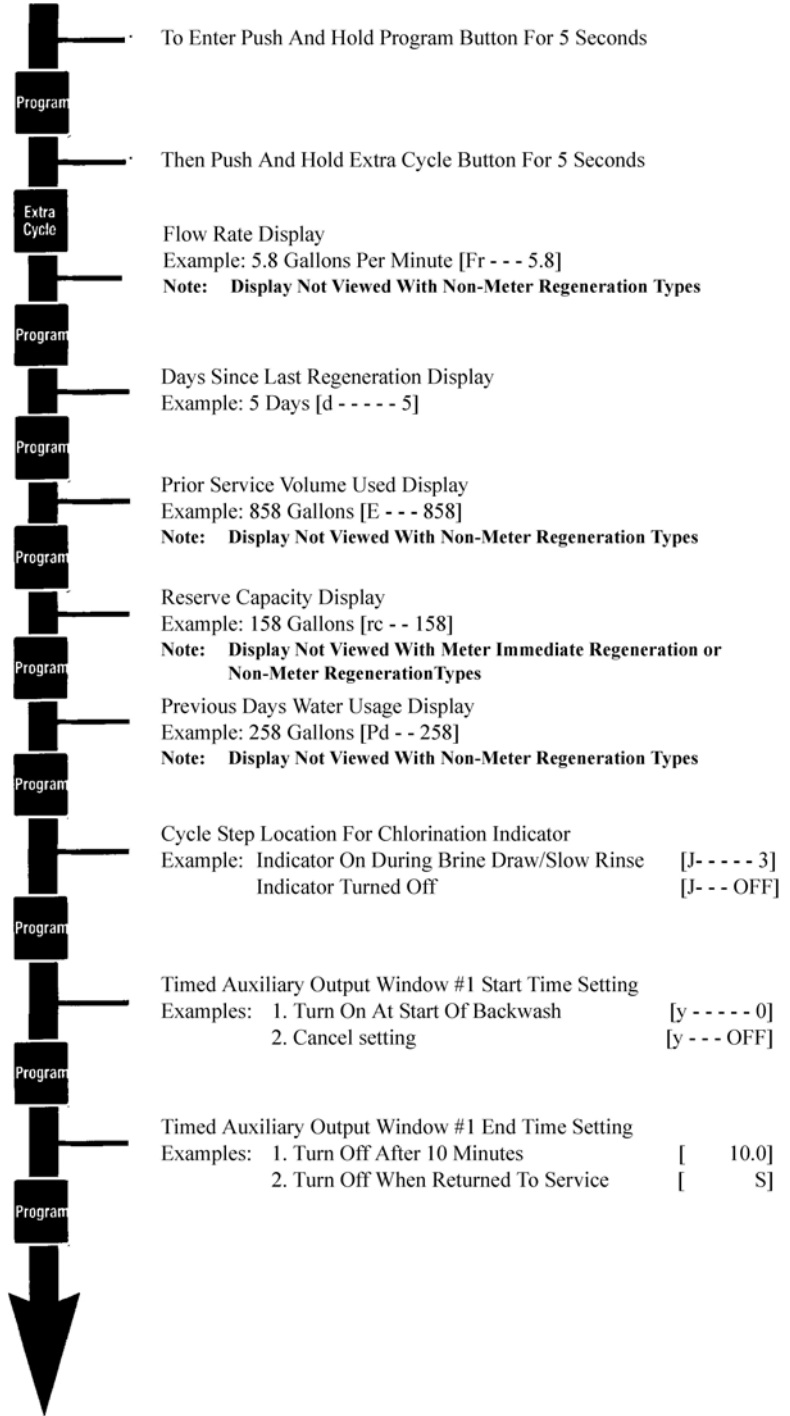
# 3200ET Control Valve/Remote Meter Timer

## Option Setting Level #2 Programming Chart

### Level #2

**Note:**

1. Push Program Button Once Per Display.
2. Option settings may be changed by pushing either the Up or Down Arrow Button.
3. Depending on current valve programming certain displays will not be able to be viewed or set.



Continued On Next Page

**CAUTION: Before entering master programming, please contact your local professional water dealer**

# 3200ET Control Valve/Remote Meter Timer

## Option Setting Level #2 Programming Chart (Cont'd)

### Level #2 - Continued

**Note:**

1. Push Program Button Once Per Display.
2. Option settings may be changed by pushing either the Up or Down Arrow Button.
3. Depending on current valve programming certain displays will not be able to be viewed or set.

Program	Timed Auxiliary Output Window #2 Start Time Setting Examples: 1. Turn On At Start Of Brine/Rinse [r --- 10.0] 2. Cancel setting [r --- OFF] <b>Note: Setting Not Viewed if Window #1 Is Cancelled</b>
Program	Timed Auxiliary Output Window #2 End Time Setting Examples: 1. Turn Off After 60 Minutes [ 70.0] 2. Turn Off When Returned To Service [ S]
Program	Chemical Pump Output On Time Setting Examples: 1. Turn On In Service For 1 Minute [n ---- 1.0] 2. Cancel setting [n --- OFF] <b>Note: Setting Not Viewed On Valves Without Meters</b>
Program	Chemical Pump Output Volume Count Setting Example: Turn On In Service Every 100 Gallons [ 100]
Program	Regeneration Day Override Example: Override Every 7 Days [A ----- 7]
Program	Volume Override Example: Regenerate Every 850 Gallons [b --- 850] <b>Note: Water Hardness and System Capacity Settings Not Used or Viewed Any Reserve Is Determined By the Installer</b>
Program	US/metric Display Format Examples: US Format [U ----- 1] European Format [U ----- 2] Standard Metric Format [U ----- 3] Cubic Meter Metric Format [U ----- 4] Japanese Metric Format [U ----- 5]
Program	Valve Type Examples: Option Typically Not Used [o ----- 1] Option Typically Not Used [o ----- 2] 2750/2850/2900/3150/3900 Valves [o ----- 3] 9000/9500 Valves [o ----- 4] Tank In Service Setting: Tank #2 [o - 4 - U2] <b>Note: Setting Not Viewed On Remote Meters</b>
Program	Regeneration Type Examples: Timeclock Regeneration [7 ----- 1] Meter Immediate Regeneration [7 ----- 2] Meter Delayed Regeneration (Standard Setting) [7 ----- 3] *Meter Delayed Variable Brining (Inc. 3 Settings) [7 ----- 4] Resin Bed Volume Setting - Example: 1.0 Ft <sup>3</sup> [7 r -- 1.0] Salt Dosage Setting - Example: 8 lbs per Ft <sup>3</sup> [7 d --- 8] BLFC Setting - Example: 0.25 gpm [7 b --- .25] Sensor Immediate Regeneration [7 ----- 5] Minimum Signal On Time Setting: 5 Minutes [7-5 -- 5.0] Sensor Delayed Regeneration [7 ----- 6] Minimum Signal On Time Setting: 8 Minutes [7-5 -- 8.0] Option Not Typically Used [7 ----- 7] Option Not Available [7 ----- 8] <b>*Note: Setting Not Viewed On Remote Meters</b>

Note: Setting Not Viewed On Remote Meters

Continued On Next Page

**CAUTION: Before entering master programming, please contact your local professional water dealer**

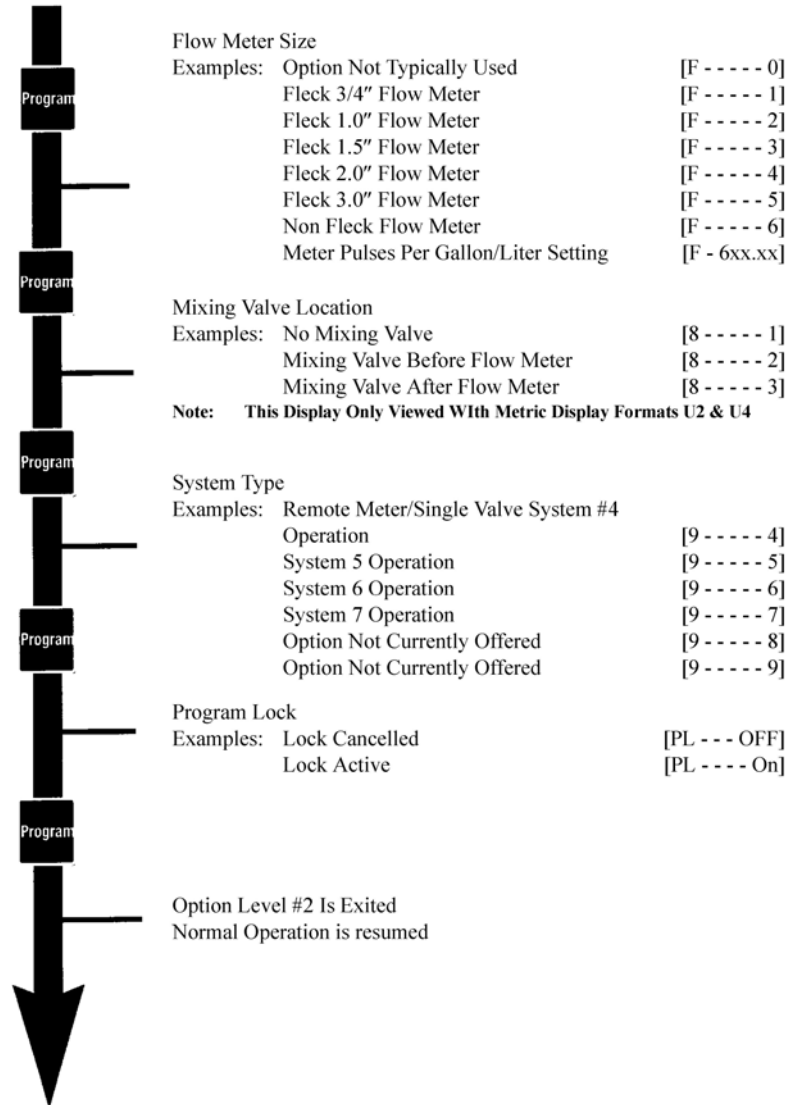
# 3200ET Control Valve/Remote Meter Timer

## Option Setting Level #2 Programming Chart (Cont'd)

### Level #2 - Continued

**Note:**

1. Push Program Button Once Per Display.
2. Option settings may be changed by pushing either the Up or Down Arrow Button.
3. Depending on current valve programming certain displays will not be able to be viewed or set.



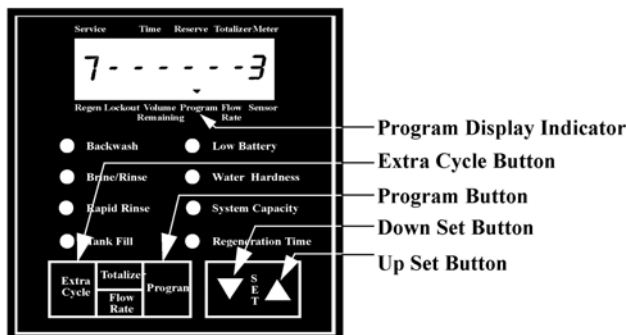
**CAUTION: Before entering master programming, please contact your local professional water dealer**

# 3200ET Control Valve/Remote Meter Timer

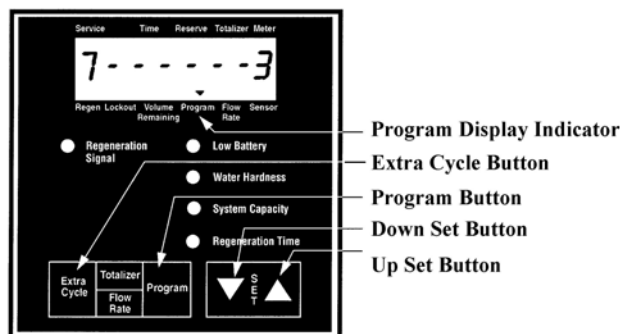
## Option Setting Level #2 - Softener Manufacturer Programming

Setting up the timer during manufacturing of the system requires access to the second level of option programming. This level includes the functioning parameters for the timer, related to actual system configuration.

### Timer



### Remote Meter



### Entering Option Level #2

Depress the Program Button for 5 seconds. The Program Arrow will turn on and the first display viewed is used to set the Inlet Water Hardness. Next, depress the Extra Cycle Button for 5 seconds. Depending on current programming, certain displays or option settings will not be viewed.

#### 1. Flow Rate Display (Fr)

The first display viewed is the current flow rate of treated water through the softener. The unit of measurement used is gallons/liters per minute.

Example: 8.5 Gallons Per Minute [Fr --- 8.5]

#### 2. Days Since Last Regeneration Display (d)

Depress the Program Button. The next display viewed is not an option setting. This display is used as an aid to the service person in diagnosing a valve malfunction. The number of days since the last regeneration is recorded in this display by the control. This display is identified by the letter d in the first digit.

Example: 4 days [d ----- 4]

#### 3. Prior Service Volume Used Display (E)

Depress the Program Button. The next display viewed is not a option setting. This display is used as an aid to the service person in diagnosing a valve malfunction. The amount a water used the last time the softener was in service is recorded in this display by the control. The unit of measurement used is gallons/liters/cubic meters.

Example: 850 Gallons - [E --- 850]

**CAUTION: Before entering master programming, please contact your local professional water dealer**

# 3200ET Control Valve/Remote Meter Timer

## Option Setting Level #2 - Softener Mfg. Programming (Cont'd)

### 4. Reserve Capacity Display (rc)

Depress the Program Button. The next display viewed is not a option setting. This display is used as an aid to the service person in diagnosing a valve malfunction. The calculated reserve capacity (in gallons/liters/cubic meters) for the present day is recorded in this display by the control.

Example: 277 gallons - [ **r c - - 277** ]

### 5. Previous Days Water Usage Display (Pd)

Depress the Program Button. The next display viewed is not an option setting. This display is used as an aid to the service person in diagnosing a valve malfunction. The previous days water usage (in gallons/liters/cubic meters) is recorded in this display by the control.

Example: 200 gallons - [ **P d - - 200** ]

### 6. Cycle Step Location For Chlorination Indicator (J)

Depress the Program Button. The next display viewed is an option setting. This display is used to set the desired regeneration cycle step where the chlorinator indicator (C) will turn on in the regeneration display. Actual control of power to a chlorinator (not supplied) is handled independently of this setting using a microswitch or Timed Auxiliary Output.

Examples: No Chlorinator Installed - [ **J - - - OFF** ]  
Chlorinator To Turn On During Step #2 - [ **J - - - - 2** ]

The **UP** and **DOWN** Set Buttons adjust this value.

### 7. Timed Auxiliary Output Programming (y) (r) (n)

Depress the Program Button. The next 3 displays viewed are part of a series of option settings used to program the optional relay output. These displays will not be viewed if the optional relay output is not installed. The first two settings (y and r) turn the output on / off during Regeneration only. The third (n) turns the output on during Service only, when a set volume of water used has accumulated. This setting will not be viewed on non-metered systems.

#### Note:

When more than one of these settings is used, it will be up to the operator to supply the switching logic necessary to operate two or three separate pieces of equipment at a time from a single relay output.

### 8. Timed Auxiliary Output Window #1 Setting (y)

This option setting consists of two displays. The first display is used to set the turn on time of the output, referenced to the start of Backwash. The second display is used to set the output turn off time, referenced again to the start of Backwash. An OFF setting cancels this setting. A set on time with a set off time of S will turn the output off at the start of Service. All settings are in minutes and output timing is synchronized with regeneration cycle timing.

Examples: Activate output at start of Step #1/Deactivate after 10 minutes - [ **y - - - - 0** ] (Start Time Display)  
[ **10.0** ] (Stop Time Display)  
Cancel setting - [ **y - - - OFF** ]

The **UP** and **DOWN** Set Buttons adjust these settings.

**CAUTION: Before entering master programming, please contact your local professional water dealer**

# 3200ET Control Valve/Remote Meter Timer

## Option Setting Level #2 - Softener Mfg. Programming (Cont'd)

### 9. Timed Auxiliary Output Window #2 Setting (r)

Depress the Program Button. This option setting consists of two displays. The first display is used to set the turn on time of the output, referenced to the start of Backwash. The second display is used to set the output turn off time, referenced again to the start of Backwash. A OFF setting cancels this setting. A set on time with a set off time of S will turn the output off at the start of Service. All settings are in minutes and output timing is synchronized with regeneration cycle timing.

Examples: Activate output 15 min. after the start of Step #1/Deactivate when in Service - [ r - - - 15.0 ]  
[ - - - - - S ]  
Cancel setting - [ r - - - OFF ]

The UP and DOWN Set Buttons adjust these settings.

### 10. Chemical Pump Output (in)

Depress the Program Button. This option setting consists of two displays. The first display is used to set the turn on time (in minutes) of the output. The second display is used to set the volume of water flow at which the output will turn on.

Examples: Activate output 1.0 min. after every 200 gallons - [ n - - - - 1.0 ]  
[ 200 ]  
Activate output 1 second after every 200 gallons - [ n - - - - -P ] (Pulse Mode)  
[ 500 ]  
Cancel setting- [ n - - - OFF ]

The UP and DOWN Set Buttons adjust these settings.

### 11. Regeneration Day Override (A)

Depress the Program Button. The next display is used to set the Regeneration Day Override Option Setting. The Regeneration Day Override Option Setting sets the maximum amount of days that the conditioner can be in service without a regeneration, regardless of water usage or the lack of a sensor signal. Regeneration begins at the set regeneration time or at the previous regen time. A OFF setting will cancel this option with all regeneration types except Timeclock Regeneration. A day override setting is required for timeclock regeneration valves.

Examples: Override every 7 days - [ A - - - - - 7 ]  
Cancel setting - [ A - - - - OFF ]

The UP and DOWN Set Buttons adjust this value.

### 12. Volume Override (b)

Depress the Program Button. The next display viewed is used to set the maximum amount of water that can be used before a regeneration cycle is called for. When this feature is used with delayed regeneration systems, it will be up to the programmer to determine a reserve capacity. The control will no longer keep track of the reserve capacity. This option is typically used to bypass standard reserve or capacity calculations made by the control.

Examples: Override every 700 gallons - [ b - - - 700 ]  
Override cancelled - [ b - - OFF ]

The UP and DOWN Set Buttons adjust this value.

**CAUTION: Before entering master programming, please contact your local professional water dealer**

# 3200ET Control Valve/Remote Meter Timer

## Option Setting Level #2 - Softener Mfg. Programming (Cont'd)

### 13. US/Metric Display Format (U)

Depress the Program Button. This display is used to set the desired display format for the timer to use. There are five possible settings:

*The U.S. Format* uses gallons for volume and gallons per minute for flow rate related data / displays with a 12 hour timekeeping format. Water Hardness units will be grains per gallon and Capacity in kilograms. Option settings P and 8 as well as Regeneration Types #7 and #8 will not be displayed.

Example: [U - - - - 1 ]

*The European Metric Format* uses liters for volume and liters per minute for flow rate related data / displays with a 24 hour timekeeping format. Water Hardness units will be French Degrees and Capacity in French Degree x m<sup>3</sup>.

Example: [U - - - - 2 ]

*The Standard Metric Format* uses liters for volume and liters per minute for flow rate related data / displays with a 24 hour timekeeping format. Water Hardness units will be French Degrees and Capacity in French Degree x m<sup>3</sup>. Option settings P and 8 as well as Regeneration Types #7-8 will not be displayed.

Example: [U - - - - 3 ]

*The Cubic Meter Metric Format* uses m<sup>3</sup> for volume and liters per minute for flow rate related data / displays with a 24 hour timekeeping format. Water Hardness units will be P.P.M. (mg/liter or g/m<sup>3</sup>) and Capacity in grams. Regeneration Types #7 and #8 will not be displayed.

Example: [U - - - - 4 ]

*The Japanese Metric Format* uses liters for volume and liters per minute for flow rate related data / displays with a 24 hour timekeeping format. Water Hardness units will be German Degrees and Capacity in German Degree x m<sup>3</sup>. Option settings P and 8 as well as Regeneration Types #7-8 will not be displayed.

Example: [U - - - - 5 ]

The UP and DOWN Set Buttons adjust this value.

### 14. Valve Type (0)

Depress the Program Button. The next display viewed is a option setting. This display is used to set the type of valve used with the control. There are four possible selections with #3 or #4 being the required setting:

Example: [ 0 - - - - 1 ] Option Typically Not Used.

*Valve.* When #3 or 4 is selected the control will operate properly and all LEDs will be used. The Volume Remaining Display will not be able to count down until the regeneration cycle is complete. In addition, if #4 is selected, a Tank In Service Display is viewed in normal operation. Set Current Tank In Service in next display.

Example: [ 0 - - - - 3 ] 2750/2850/2900/3150/3900 Value Operation

[ 0 - - - - 4 ] 9000/9500 Valve Operation

The UP and DOWN Set Buttons adjust this value.

[ 0 - 4 - - UX] Current Tank In Service

### 15. Regeneration Type (7)

Depress the Program Button. This display is used to set the type of regeneration initiation. There are eight possible settings:

*Timeclock Delayed.* The timer will determine that regeneration is required based on the set regeneration time and regeneration day override settings.

Example: [ 7 - - - - 1 ]

**CAUTION: Before entering master programming, please contact your local professional water dealer**

# 3200ET Control Valve/Remote Meter Timer

## Option Setting Level #2 - Softener Mfg. Programming (Cont'd)

**Meter Immediate.** The timer will determine that regeneration is required based on when the available volume of treated water drops to or below zero. Regeneration to begin immediately.

Example: [ 7 - - - - 2 ]

**Meter Delayed.** The control will determine that a regeneration is required based on when the available volume of treated water drops to or below the reserve capacity. Regeneration is to begin immediately at the set Regeneration Time only when service flow has not been detected. Regeneration is to be delayed, in two 10 minute sections, for up to an additional 20 minutes, with service flow. Regeneration then to begin immediately. There will not be a delay if the Volume Remaining is zero.

Example: [ 7 - - - - 3 ]

**Meter Delayed Variable Brining.** The control will determine that a regeneration is required based on when the available volume of softened water drops to or below the reserve capacity. Regeneration is to begin immediately at the set Regeneration Time only when service flow has not been detected. Regeneration is to be delayed, in two 10 minute sections, for up to an additional 20 minutes, with service flow. Regeneration then to begin immediately, there will not be any regeneration delay if the Volume Remaining Display is zero. The timer will automatically program Regeneration Cycle Step #1 (Brine Fill) Time, therefore this option setting display will not be viewed. This value will be determined by the remaining unused softening capacity and the precise amount of brine (salt) required to return the softener to full capacity. This setting is not viewed on Remote Meters.

Example: [ 7 - - - - 4 ] (This option is not typically used with downflow regeneration valves)  
[ 7 - - - - 1.0 ] 1.0 Cubic Feet or Liters Of Resin In Softener  
[ 7 - - - - 8 ] 8 Pounds Per Cubic Feet Or Grams Per Liter Salt Dosage  
[ 7 - - - - .25 ] .25 g.p.m. BLFC Size

### 16. Flow Meter Size (F)

Depress the Program Button. This display is used to set the size of the valve flow meter. This setting will not be viewed on non-metered valves.

Examples: [ F - - - - 0 ] Option Not Typically Used  
[ F - - - - 1 ] Fleck 3/4" Flow Meter  
[ F - - - - 2 ] Fleck 1.0" Flow Meter  
[ F - - - - 3 ] Fleck 1.5" Flow Meter  
[ F - - - - 4 ] Fleck 2.0" Flow Meter  
[ F - - - - 5 ] Fleck 3.0" Flow Meter  
[ F - - - - 6 ] Non-Standard Flow Meter  
[ F - 6XX.XX ] (Enter Pulses Per Gallon/Liter)

The UP and DOWN Set Buttons adjust this value.

### 17. Mixing Valve Location (8)

Depress the Program Button. This next display is used to set where the mixing valve is located, if any. It is viewed only with the U.S./metric Display Format set to U-2 or U-4. There are three possible settings:

Examples: [ 8 - - - - 1 ] No Mixing Valve  
[ 8 - - - - 2 ] Mixing Valve Before Flow Meter  
[ 8 - - - - 3 ] Mixing Valve After Flow Meter

The UP and DOWN Set Buttons adjust this value.

**CAUTION: Before entering master programming, please contact your local professional water dealer**





# 3200ET Control Valve/Remote Meter Timer

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## Option Setting Level #2 - Softener Mfg. Programming (Cont'd)

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### 19. Program Lock (PL)

Depress the Program Button. This display is used to prevent certain displays from being viewed or set. There are two possible settings:

Examples: [ **PL - - OFF** ] Lock Cancelled  
          [ **PL - - - ON** ] Lock Active

#### Settings Able To Be Reset With Lock Active -

Water Hardness  
Water Hardness After Mixing Valve  
Regeneration Time  
Time Of Day

#### Displays Able To Be Viewed With Lock Active -

Flow Rate Display  
Days Since Regeneration Display  
Prior Service Volume Used Display  
Reserve Capacity Display  
Previous Days Water Usage Display

#### Unlocking Programming -

The only way to deactivate this feature is to push and hold the Program Button for 25 seconds. This procedure will unlock the control and permit all valid program settings to be viewed and reset as needed.

The **UP and DOWN Set Buttons** adjust this value.

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### Exiting This Option Setting Level

Push the Program Button once per display until all have been viewed.

#### Resetting Permanent Programming Memory -

Push and hold the Program Button for 50 seconds. This procedure will erase this and **all** previous display settings and reset them to default values. Control programming will then have to be reset as necessary.

**CAUTION: Before entering master programming, please contact your local professional water dealer**

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*Notes*

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