Service Manual



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Timer Installation And Start-Up Procedures

Water Hardness: System Capacity: Regeneration Time: Regeneration Cycle Step Programming: Step #1 Step #2 Step #3 Step #4 Step #4 Step #5
Regeneration Time:
Regeneration Cycle Step Programming: Step #1
Step #1
Step #2
Step #3
Step #4 Step #5
Step #5
Notes:
Notes:
A



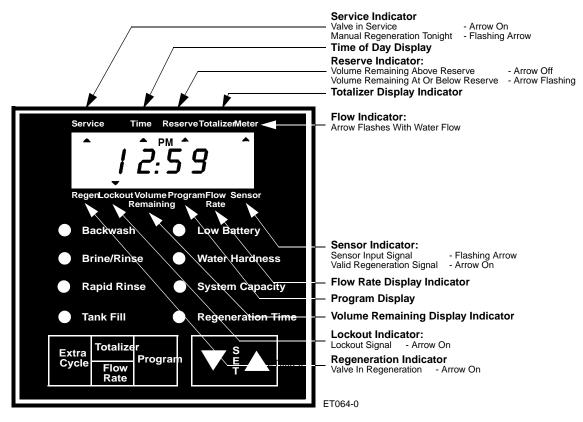
WARNING

Backplate must be grounded when voltages greater than 24V are used with valve.

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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.



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.)

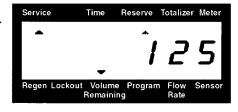
For Example: 12:59 P.M. (Valve in Service)

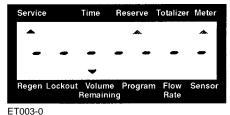


ET002-0

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)





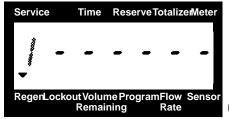
For Example:
0 Gallons Of Water
Remaining
(Valve in Service)
(Water flowing)
(Volume is below
reserve capacity,
Reserve arrow
flashing)

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)



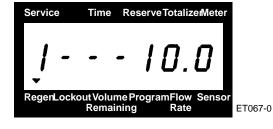


ET065-0

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.
- 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.

Remote Meter Installation And Start-Up Procedures

Remote Meter Timer Programming:		
Water Hardness:		
System Capacity:		
Regeneration Time:		
Regeneration Signal Time:		
Notes:		

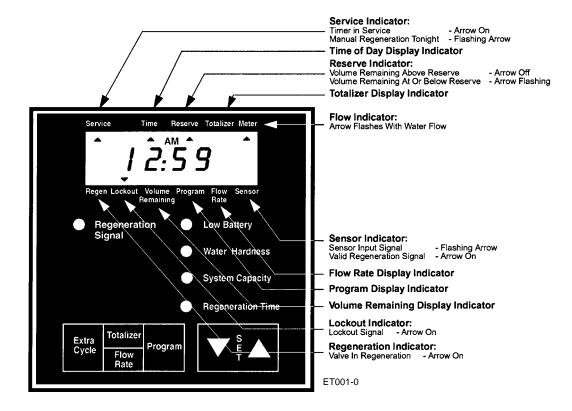
- 1. Follow the installation procedures contained within the remote meter service manual.
- 2. The remote meter/timer should be installed with the inlet and outlet and connections (if any) made in accordance with the manufacturer's recommendations and to meet all applicable plumbing codes.
- 3. Follow the installation and start-up procedures contained within each valve(s) service manual.
- 4. Referencing the wiring diagram furnished with each valve in the system, make the proper electrical connections to the remote timer. All electrical connections must be made in accordance with the manufacturer's recommendations and to meet all applicable electrical codes.
- 5. During cold weather it is recommended that the installer warm the remote timer up to room temperature before energizing.
- 6. Plug the remote timer into an approved power source. The valve(s) connected to the remote timer may then cycle themselves back to Service.



WARNING

Backplate must be grounded when voltages greater than 24V are used with remote meter.

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



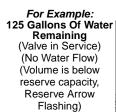
 In normal operation the Time Of Day, and if flow meter equipped, Volume Remaining Displays alternate being viewed. Set the Time Of Day Display by depressing the Up or Down Set Button to the correct time. (See above figure.)

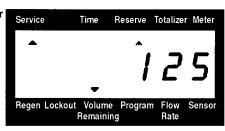
For Example: 12:59 A.M. (Valve in Service)

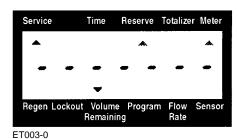


ET002-0

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.







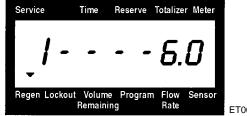
For Example:
0 Gallons Of Water
Remaining
(Valve in Service)
(Water Flowing, Meter
Arrow Flashing))
(Volume is below
reserve capacity,
Reserve Arrow
Flashing)

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

- 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 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)

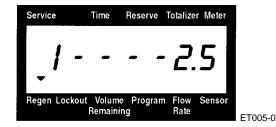




A red LED will also turn on to indicate that a regeneration signal is being sent.

For Example:

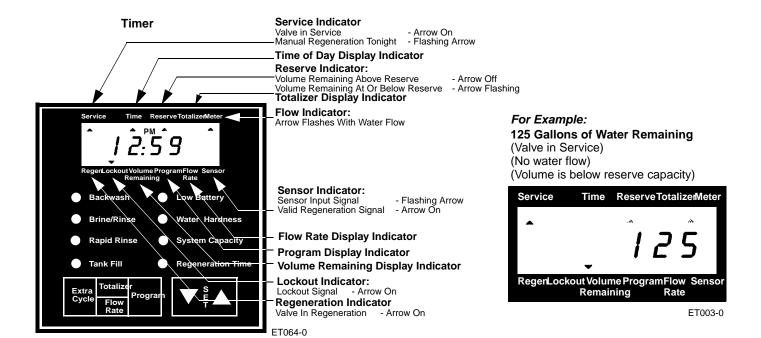
(Timer has sent 3.5 min. of a 6.0 min. signal))
(2.5 minutes of signal time remain)
(Regeneration arrow on)





- 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.

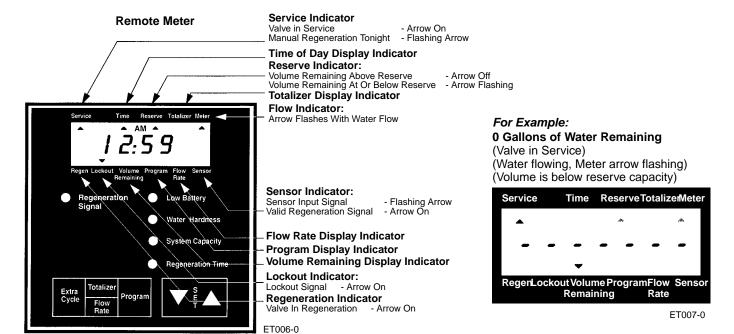
Timer/Remote Meter Control Operation



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.



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

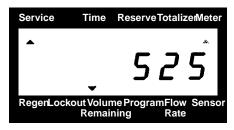
Timeclock Regeneration Valves -

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.

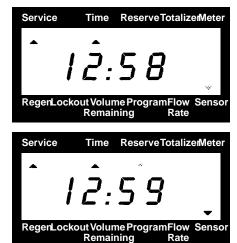
Sensor Delayed Regeneration Valves -

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 a 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.

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.

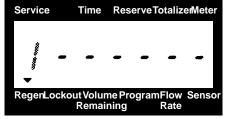
TIMER CONTROL OPERATION DURING REGENERATION

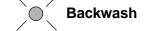
In regeneration the control will display what regeneration step number the valve is advancing to, or has reached, and the time remaining in that step. Once all regeneration cycle steps have been completed the valve will return to service and resume normal operation.

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)



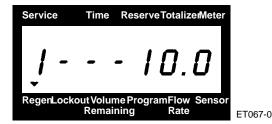


ET065-0

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)





- 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.

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

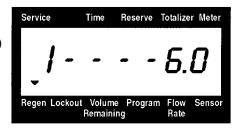
REMOTE METER CONTROL OPERATION DURING REGENERATION

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)



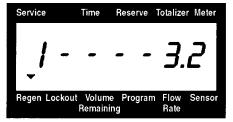


ET010-0

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.

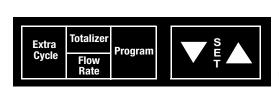
Timer/Remote Meter Control Operation (Cont'd.)

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

ET012-0

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

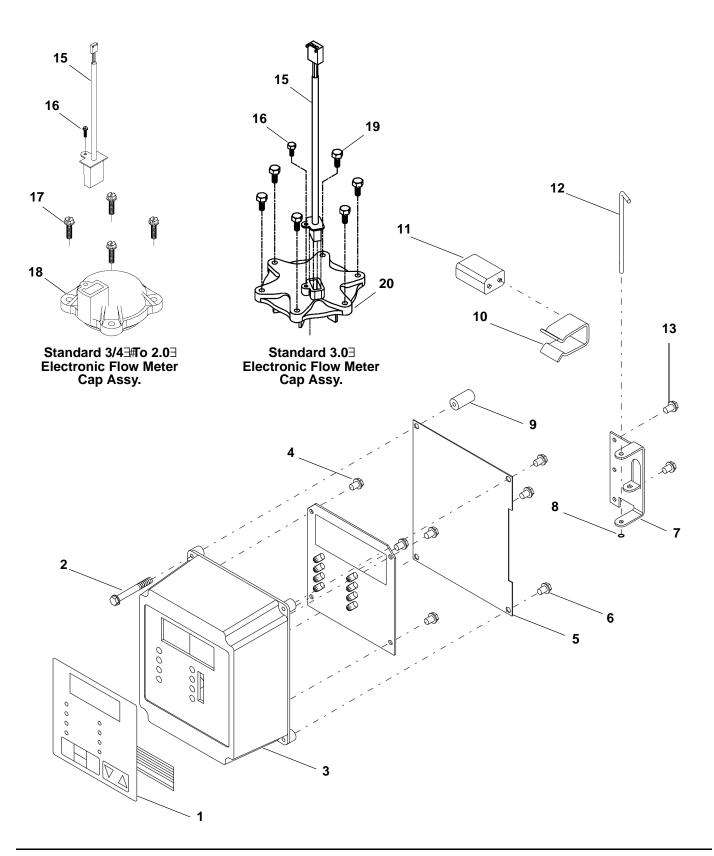
This button is used to set the current time of day, adjust time remaining in a regeneration cycle step and in valve programming. The Down Arrow Button will decrement a display setting.

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 Assemblies

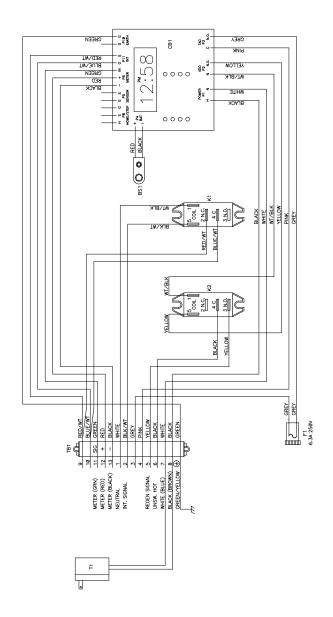


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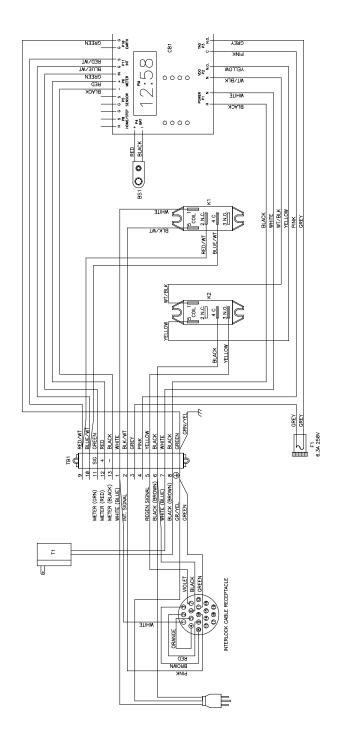
3200ET Control Valve/Remote Meter Timer Assemblies Parts List

11	Item No.	Quantity	Part No.	Description
1				
19144-06				
19144-05				• · · · · · · · · · · · · · · · · · · ·
19144-04 Assembly, Switch Pad - Standard Upflow				
2. 1 18735. Screw, Hex Wash. #8 x 11/2 3. 1 18741. Housing, Circuit Board - No Hinge				
3. 1 18741-01 Housing, Circuit Board - No Hinge 1 1 18741-02 Housing, Circuit Board - Right Hinge 4 1 40679 24 V3 200ET 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 0.00 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 1,723 Pin, Timer Hinge 13 2 10300 Screw, Hex Washer #8 x 3/8 14 1,7749-0 Relay, SPDT (24V) Remote Meter (2 Req24V) 15 1,7749-0 Relay, SPDT (24V) Remote Meter (20V) 16 1,41054-05 Harness Low Voltage Remote Meter (230V) 17 1,41054-05 Harness Low Voltage 3/50 with 3200ET 15 <	2	1		
1 18741-01 Housing, Circuit Board - Right Hinge 1 18741-02 Housing, Circuit Board - Left Hinge 4 1 40679 24V 3200ET Circuit Board - Left Hinge 4 1 40679 24V 3200ET Circuit Board - Left Hinge 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 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 Req24V) 1 17749-01 Relay, SPDT (120V) Remote Meter (210V) 1 1 17749-02 Relay, SPDT (120V) Remote Meter (210V) 1 1 41054-05 Harness, Power Remote Meter with 3200ET 1 41054-05 Harness, Power Remote Meter with 3200ET 1 40044 Harness, 200eT, Remote, Delay 41054-04 Harness, Low Voltage Remote Meter with 3200ET 2510, 2750, 2850, 2900 41054-04 Harness Low Voltage 3150 w/3200ET, 3150/3900 41054-04 Harness Low Voltage 3150 w/3200ET, 3150/3900 41054-05 Harness Low Voltage 3150 w/3200ET, 3150/3900 41052-01 Harness Power 3150/3900 w/3200ET, 3150/3900 41052-02 Harness Power 3150/3900 w/3200ET, 3150/3900 41052-03 Harness Rower 9000/9500 w/3200ET, 3150/3900 41052-04 Harness Rower 9000/9500 w/3200ET, 3150/3900 41052-03 Harness Power 3150/3900 w/3200ET 19589 Plug, Jumper - Home and Step Switch 19891 Harness, Battery, All Valves Optional Electronic Flow Meter Cap Parts List Description 15 1 19121-03 Assy. Mtr. Cable 18 ft. All Valves (Optional) 19121-04 Assy. Mtr. Cable 25 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 25 ft. All Valves (Optional) 19121-04 Assy. Mtr. Cable 26 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 27 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 27 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 37 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 27 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 27 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 38 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 37 ft. All Valves				
1				
4				
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 14. 17749-00 Relay, SPDT (24V) Remote Meter (2 Req24V) 15. 1 17749-01 Relay, SPDT (230V) Remote Meter (230V) 16. 1 17749-02 Relay, SPDT (230V) Remote Meter (230V) 17. 1 41052-03 Harness, 200V toltage Remote Meter with 3200ET 18. 1 41052-04 Harness, 200ET, Remote, Delay 19. 41054-03 Harness, 200ET, Remote, Delay 19. 41054-04 Harness Low Voltage 3150 w/3200ET, 350/3900 <t< th=""><th></th><th></th><th></th><th></th></t<>				
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 . 99 V 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 Req24V) 1 . 17749-01 Relay, SPDT (21V) Remote Meter (120V) 1 . 1 . 17749-02 Relay, SPDT (22V) Remote Meter (20V) 1 . 1 . 17749-05 Harness, Low Voltage Remote Meter with 3200ET 1 . 41054-05 Harness, Low Voltage 2750 with 3200ET 1 . 40044. Harness, Dewort Remote Meter with 3200ET 2510, 2750, 2850, 2900 41054-04 Harness Low Voltage 2750 with 3200ET 2510, 2750, 2850, 2900 41054-06 Harness Low Voltage 3150 w/3200ET, 3150/3900 41052-01 Harness Low Voltage 3150 w/3200ET 41052-02 Harness Power 3150/3900 w/3200ET 41052-03 Harness Power 3150/3900 w/3200ET 41052-04 Harness Power 3150/3900 w/3200ET 41052-05 Harness Power 3150/3900 w/3200ET 1 1 19121-05 Assy. Mtr. Cable 8 ft. All Valves (Optional) 19121-04 Assy. Mtr. Cable 2 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 2 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 2 ft. All Valves (Optional) 19121-04 Assy. Mtr. Cable 2 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 2 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 2 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 2 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 2 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 2 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 2 ft. All Valves (Optional) 19121-05 Assy. Mtr. Cable 2 ft. All Valves (Optional) 19121-06 Assy. Mtr. Cable 2 ft. All Valves (Optional) 19121-07 Assy. Mtr. Cable 2 ft. All Valves (Optional) 19121-08 Screw, Hex Washer #10-24 x 5/8 18 1 14716 Meter Cap Assy. Electronic				
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				
8. 1 15159 O-Ring .005 9. 1 18814 Spacer, Elect. Housing (Not Used With 18741) 10 1 1 77831-01 Battery Clip 11 1 1				
9.				
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Harness Low Voltage 2750 with 3200ET 2510, 2750, 2850, 2900				,
2510, 2750, 2850, 2900				
Harness Low Voltage 3150 w/3200ET, 3150/3900				
Harness Low Voltage 9000 w/3200ET, 9000/9500 41052-01			41054-04	
9000 w/3200ET, 9000/9500 41052-01				
2750/2900 w/3200ET, 2510/2750/2850/2900				
Harness Power 3150/3900 w/3200ET			41052-01	Harness Power
Harness Power 9000/9500 w/3200ET				2750/2900 w/3200ET, 2510/2750/2850/2900
19589			41052-02	Harness Power 3150/3900 w/3200ET
Description Description			41052-03	Harness Power 9000/9500 w/3200ET
Coptional Electronic Flow Meter Cap Parts List			19589	Plug, Jumper - Home and Step Switch
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 Screw, Hex Washer 16 1 17798 Screw, Hex Washer #10-24 x 5/8 17 4 12473 Screw, Hex Washer #10-24 x 5/8 18 1 14716 Meter Cap Assy., Electronic 19 6 12112 Screw, Hex Head			19891	Harness, Battery, All Valves
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 Screw, Hex Washer 16 1 17798 Screw, Hex Washer #10-24 x 5/8 17 4 12473 Screw, Hex Washer #10-24 x 5/8 18 1 14716 Meter Cap Assy., Electronic 19 6 12112 Screw, Hex Head			Optional Electronic I	Flow Meter Cap Parts List
15 1 19121-02 Assy. Mtr. Cable 1.8 ft. 2500/9000/9500 System 4	Item No.	Quantity		
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		-		<u>-</u>
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	10			
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				
16 17798 Screw, Hex Washer 17 4 12473 Screw, Hex Washer #10-24 x 5/8 18 1 Meter Cap Assy., Electronic 19 6 12112 Screw, Hex Head			10121-00	
17 4 12473 Screw, Hex Washer #10-24 x 5/8 18 1 Meter Cap Assy., Electronic 19 6 Screw, Hex Head	16	1	17798	
18				
19 6				
20				

3200ET Remote Meter



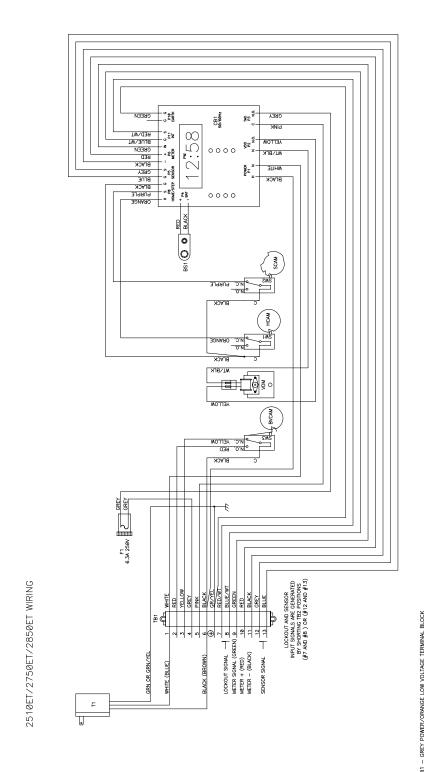
3200ET Remote Meter for 2900/3900 Multivalve System #7



9027

CONNECT LEAD VALVE INTERLOCK CABLE TO REMOTE METER INTERLOCK CABLE RECEPTACLE. A PROPERLY SIZED EXTERNAL POWER SUPPLY (TB1 POSITIONS ∯1 AND ∯6) IS STILL RECUIRED FOR OPERATING A 24V VALVE SYSTEN

2750/2850/3150/3200ET System #4



19132

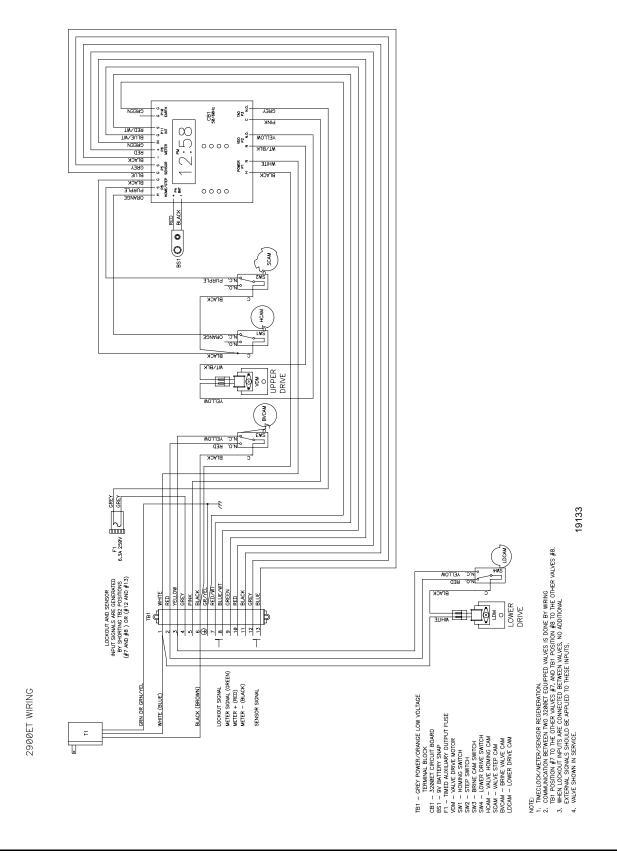
ECCLOCK/METEN/SENGNE RECENTARIANION.
POSITION BETWEEN TWO 22008ET EQUIPPED VALVES IS DONE BY WIRING
POSITION #F7 OF THE OTHER WALVES #F7 AND THE POSITION #F8 TO THE OTHER VALVES #8.
RAI OCKOLIT INDITES ARE CONNECTED BETWEEN VALVES WAS ADMITTOWN.

3VCAM - BRINE VALVE CA

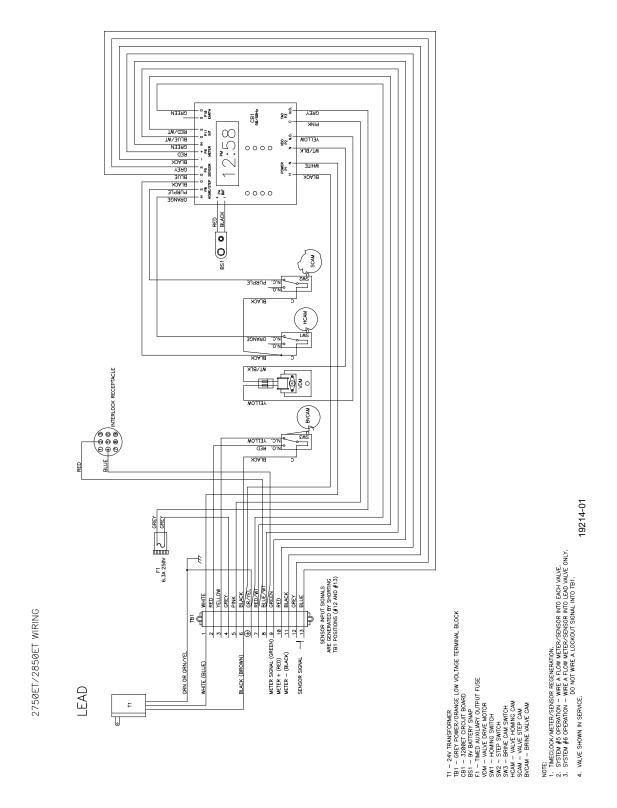
NOTE:

1. TIMECLOCK/A
2. COMMUNICAT
TB1 POSITION
3. WHEN LOCKO

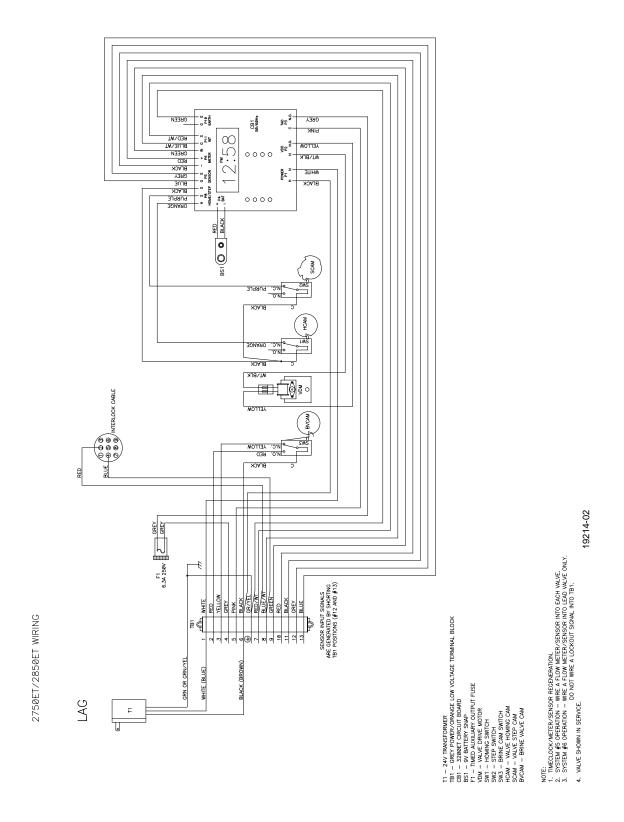
2900/3900/3200ET System #4



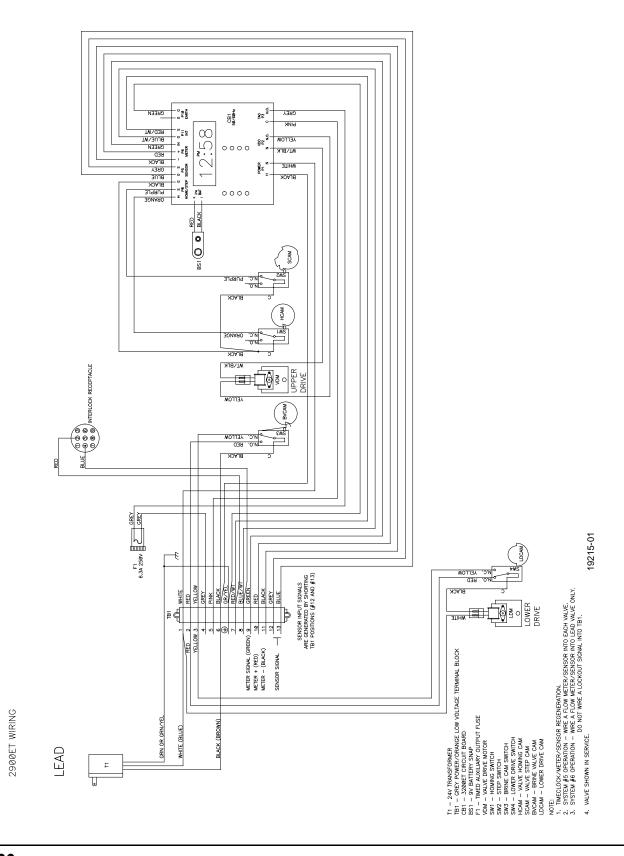
2750/2850/3150/3200ET System #5 and System #6 Lead



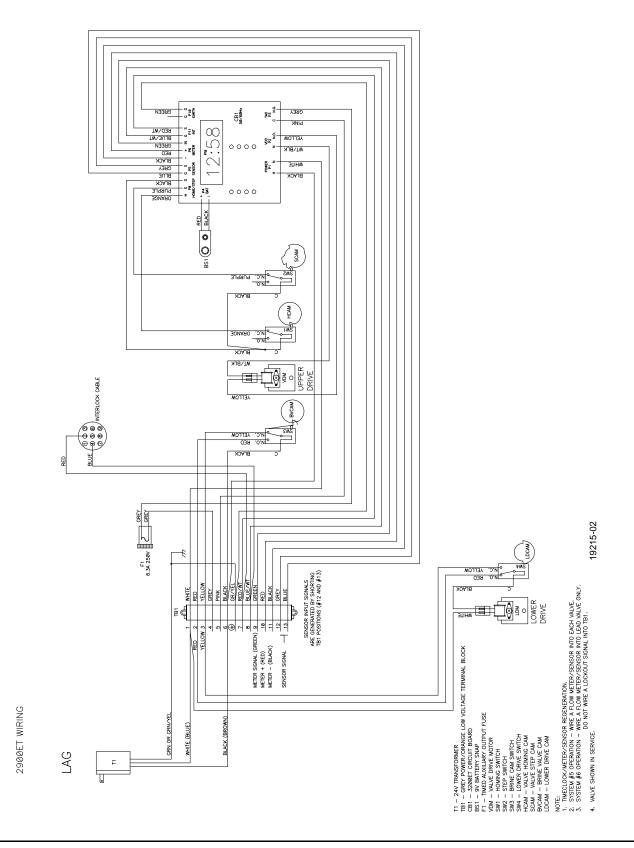
2750/2850/3150/3200ET System #5 and System #6 Lag



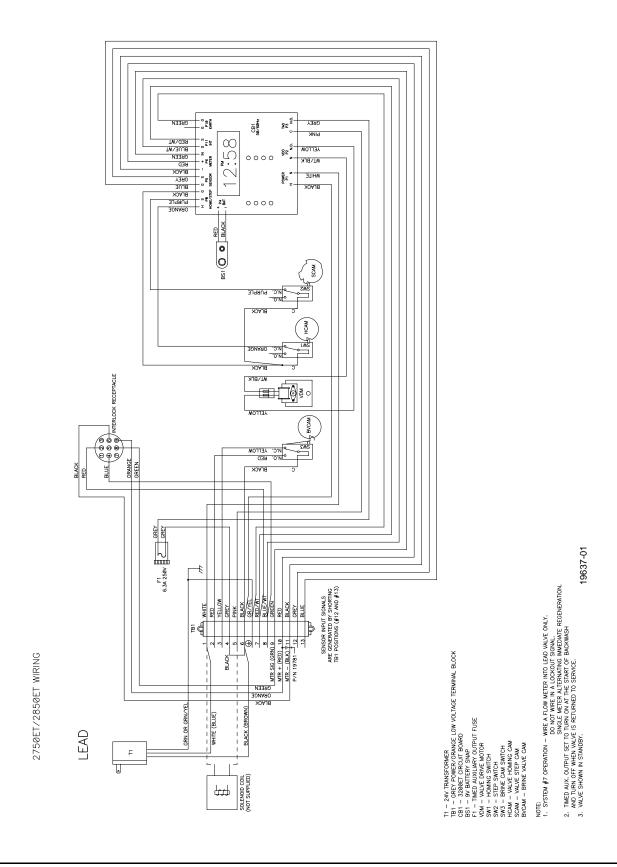
2900/3900/3200ET System #5 and System #6 Lead



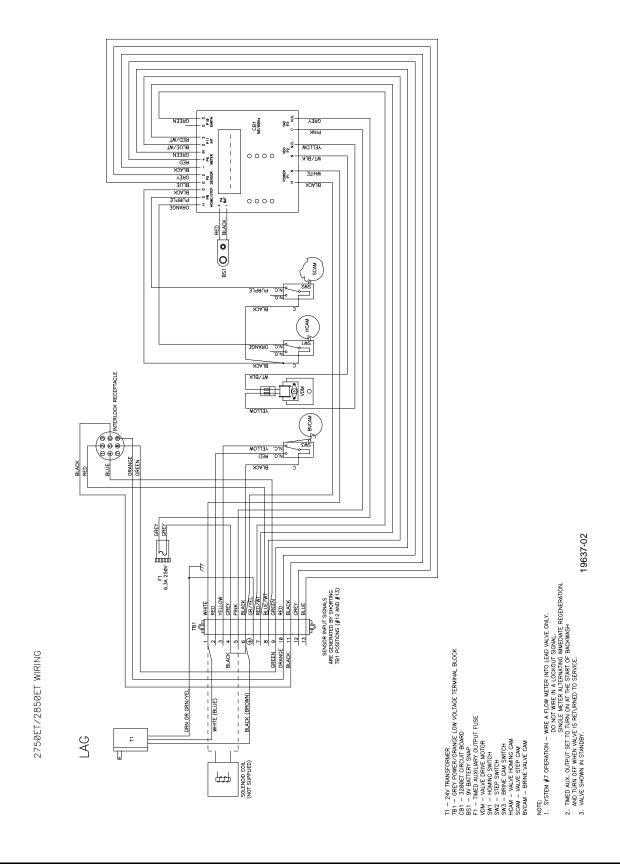
2900/3900/3200ET System #5 and System #6 Lag



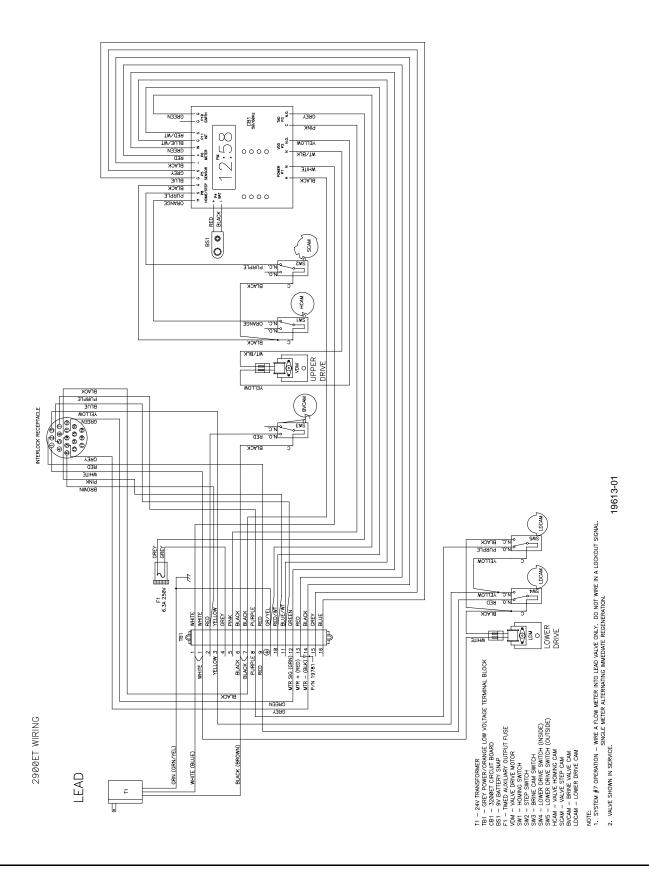
2750/2850/3150/3200ET System #7 (3-Way Solenoid Output Lead)



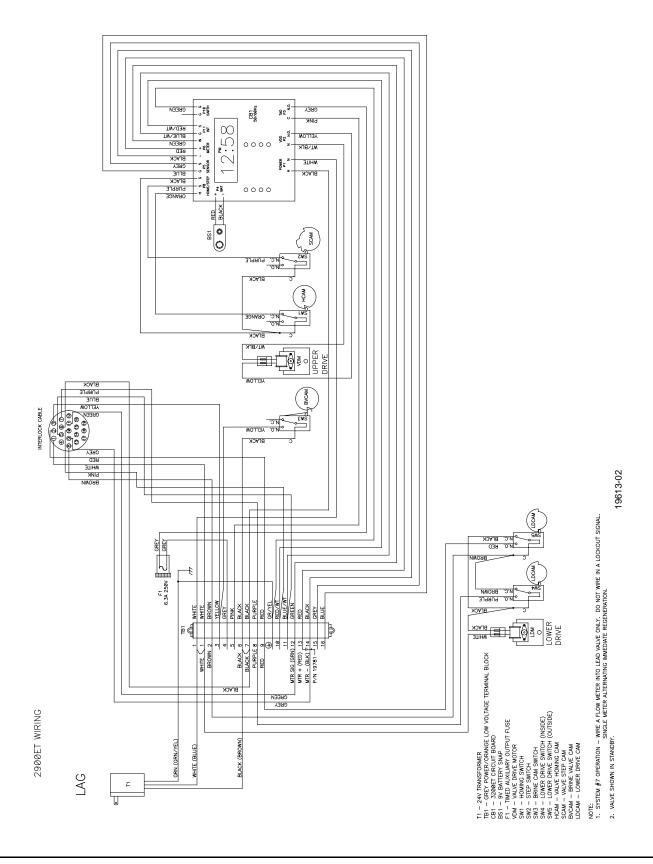
2750/2850/3150/3200ET System #7 (3-Way Solenoid Output Lag)



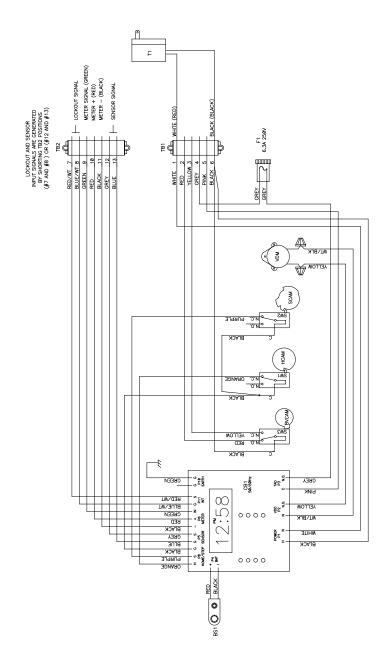
2900/3900/3200ET System #7 Lead



2900/3900/3200ET System #7 Lag



9000/9500/3200ET System #4



RRINE VALVE CAM NAWAW METER IMMEDIATE ALTERNATING REGENERATION.

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Notes			

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