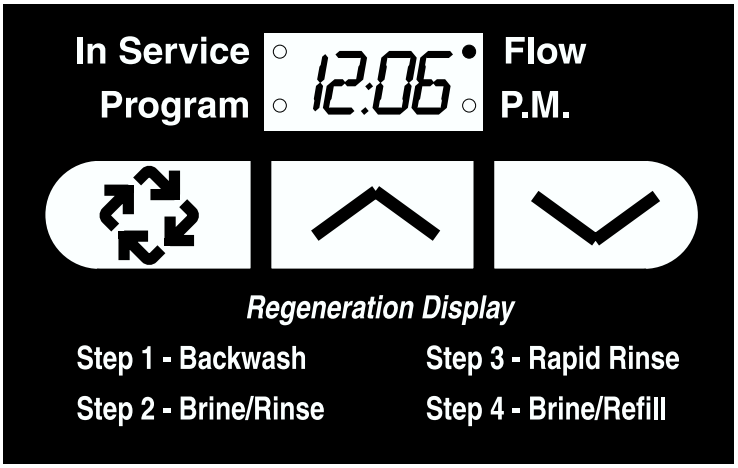
# SE TIMER

## *Supplemental Service Manual*

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# SE TIMER

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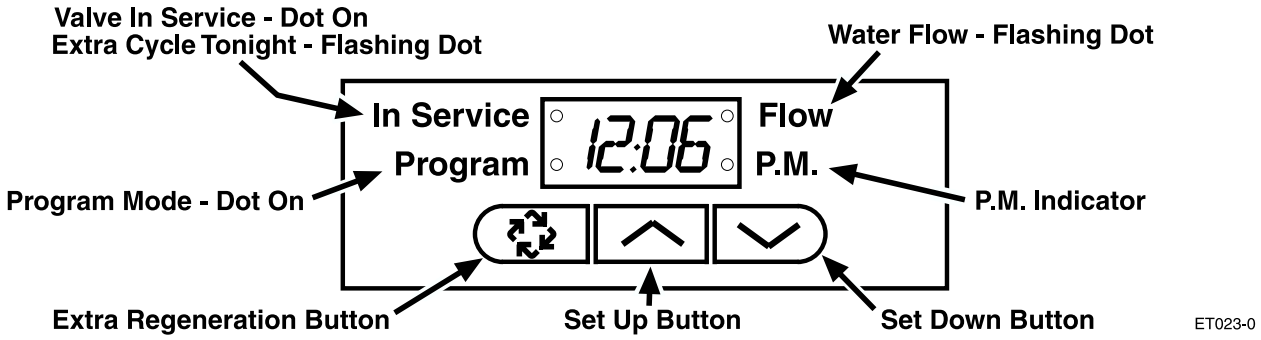
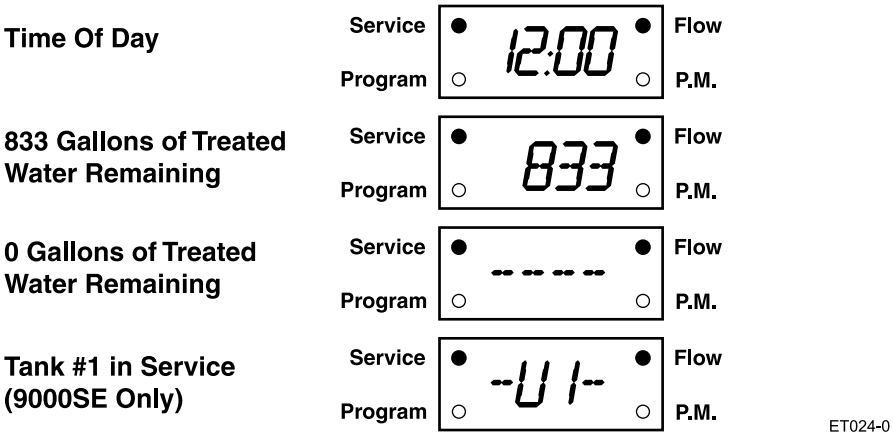
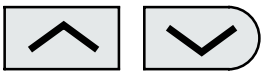
## Display




In normal operation the **Time Of Day** display alternates with **Volume Remaining** and Tank in Service displays (*9000SE Timer* only). As treated water is used, the **Volume Remaining** display counts down (in gallons) from a maximum value to zero or (----). Once this occurs a regeneration cycle initiates immediately or delayed to the set **Regeneration Time**. Water flow through the valve is indicated by the flashing **Flow Dot Indicator**.

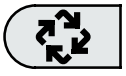



## Set Time of Day




When the valve is **In Service**, push either the **Set Up** or **Set Down** button once to adjust the **Time Of Day** by one digit. Push and hold to adjust by several digits.

## Start an Extra Regeneration Cycle




Push the **Extra Regeneration** button to start an extra regeneration tonight. Push and hold the **Extra Regeneration** button for 5 seconds to start an **Extra Regeneration** immediately.



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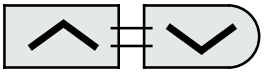
## *Control Start-Up Procedures (Cont'd.)*

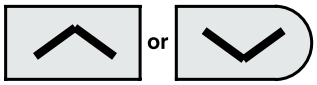
### Set Control Programming

1. Push and hold both the **Set Up** and **Set Down** buttons for 5 seconds.


ET027-0

2. Set the Treated Water Capacity. Using the **Set Up** or **Set Down** buttons, set the amount of treated water to flow through the unit before a regeneration is required.

**650 Gallons Capacity**



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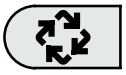
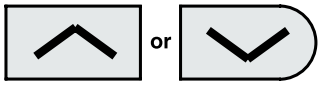
3. Push the **Extra Regeneration** button.


ET026-0

4. Set the **Regeneration Time**. Use the **Set Up** or **Set Down** buttons to set the desired time of day for regeneration to occur.

**2:00 A.M.**
**Regeneration Time**



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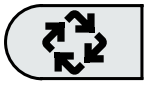
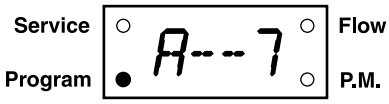
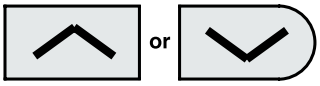
5. Push the **Extra Regeneration** button.


ET026-0

6. Set **Regeneration Day Override**. Use the **Set Up** or **Set Down** buttons to set the maximum number of days before a regeneration cycle must occur.

**Regenerate Every**
**7 Days Minimum**



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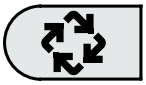
7. Push the **Extra Regeneration** button to exit the program.*


ET026-0

***NOTE: If setting up the system for the first time, perform the following Fast Cycle Regeneration:**

1. Push the **Extra Regeneration** button for 5 seconds to force an extra regeneration immediately.
2. Once the valve reaches Regen Step #1, let water run to drain for approximately 5 minutes.
3. Push the **Extra Regeneration** button once to advance valve to Regen Step #2.
4. Push the **Extra Regeneration** button once to advance valve to Regen Step #3 (if active).
5. Push the **Extra Regeneration** button once to advance valve to Regen Step #4 (if active).
6. Push the **Extra Regeneration** button once to advance valve to Regen Step #5 (if active)
7. Push the **Extra Regeneration** button once more to advance the valve back to **Service**.



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## Immediate Regeneration Valves With Days Between Regeneration Override Set

When the valve reaches its set **Days Since Regeneration Override** value, a regeneration cycle initiates immediately. This event occurs regardless of the **Volume Remaining** display having reached zero gallons.

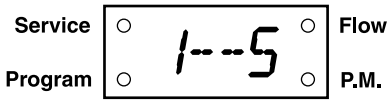
## Delayed Regeneration Valves With Days Between Regeneration Override Set

When the valve reaches its set **Days Since Regeneration Override** value a regeneration cycle initiates at the preset **Regeneration Time**. This event occurs regardless of the **Volume Remaining** display having reached zero gallons.

## Control Operation During Regeneration

In Regeneration the control displays a special Regeneration display. In this display the control shows the current regeneration step number the valve is advancing to, or has reached, and the time remaining in that step. The step number that displays flashes until the valve completes driving to this regeneration step position. Once all regeneration steps are complete the valve returns to **Service** and resumes normal operation. For Example:

**Less Than 6 Minutes Remaining in Regen Step #1**

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Pushing the **Extra Cycle** button during a regeneration cycle immediately advances the valve to the next cycle step position and resumes normal step timing.

## Control Operation During Programming

The control only enters the **Program Mode** with the valve **In Service**. While in the **Program Mode** the control continues to operate normally monitoring water usage and keeping all displays up to date. Control programming is stored in memory permanently. There is no need for battery backup power.

## Control Operation During A Power Failure

During a power failure all control displays and programming are stored for use upon power re-application. The control retains these values for years, if necessary, without loss. The control is fully inoperative and any calls for regeneration are delayed. The control, upon power re-application, resume normal operation from the point that it was interrupted. An indication that a power outage has occurred is an inaccurate **Time Of Day** display.



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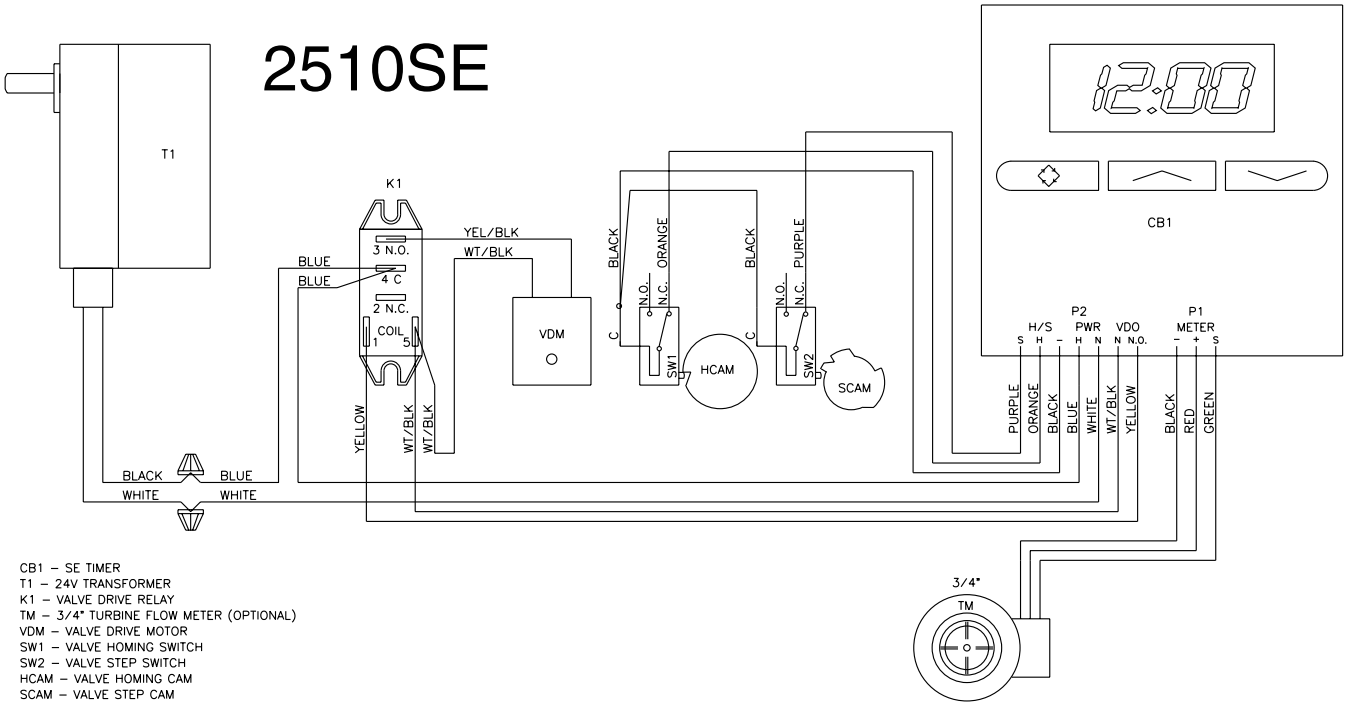
# SE TIMER

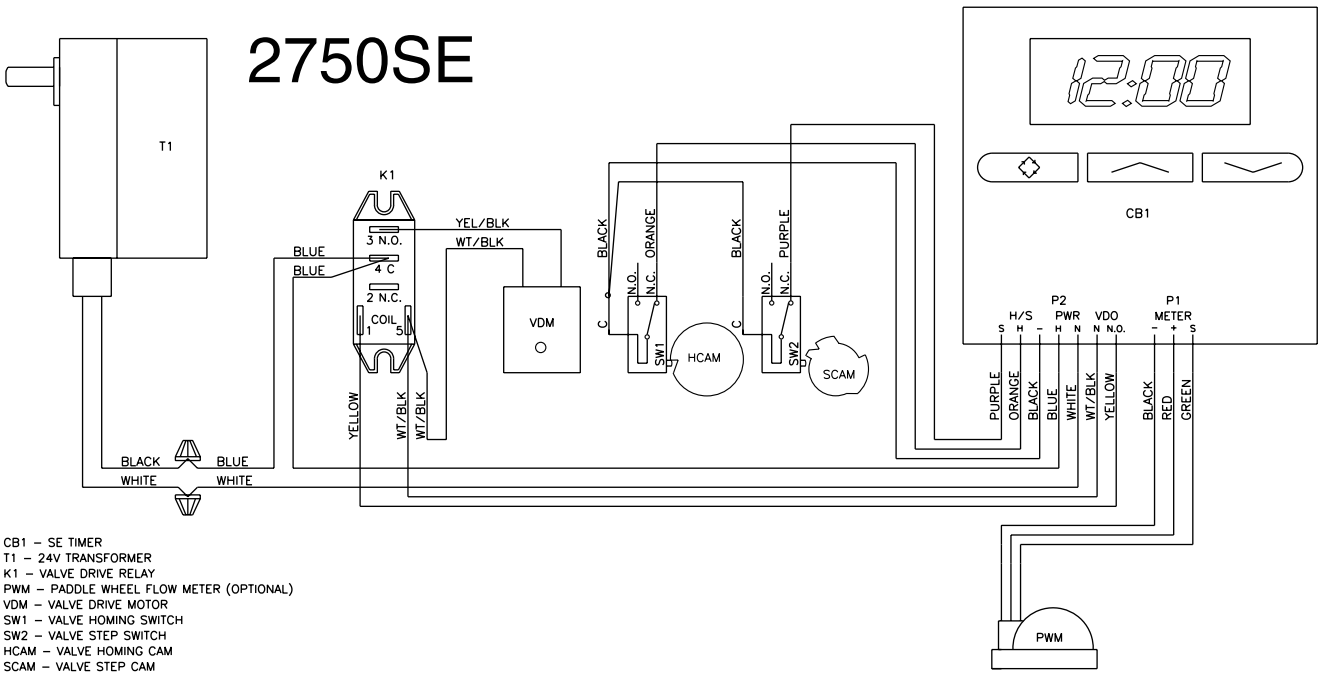
## *2510SE Timer / 2750SE Timer Valve Wiring*




CB1 – SE TIMER
T1 – 24V TRANSFORMER
K1 – VALVE DRIVE RELAY
TM – 3/4" TURBINE FLOW METER (OPTIONAL)
VDM – VALVE DRIVE MOTOR
SW1 – VALVE HOMING SWITCH
SW2 – VALVE STEP SWITCH
HCAM – VALVE HOMING CAM
SCAM – VALVE STEP CAM

NOTE:
DEPENDING ON APPLICATION, VALVE STEP CAM APPEARANCE WILL VARY.
REGARDLESS OF CAM TYPE USED, WIRING TO SWITCHES SW1 AND SW2 WILL REMAIN AS SHOWN.

ET033-0




CB1 – SE TIMER
T1 – 24V TRANSFORMER
K1 – VALVE DRIVE RELAY
PWM – PADDLE WHEEL FLOW METER (OPTIONAL)
VDM – VALVE DRIVE MOTOR
SW1 – VALVE HOMING SWITCH
SW2 – VALVE STEP SWITCH
HCAM – VALVE HOMING CAM
SCAM – VALVE STEP CAM

NOTE:
DEPENDING ON APPLICATION, VALVE STEP CAM APPEARANCE WILL VARY.
REGARDLESS OF CAM TYPE USED, WIRING TO SWITCHES SW1 AND SW2 WILL REMAIN AS SHOWN.

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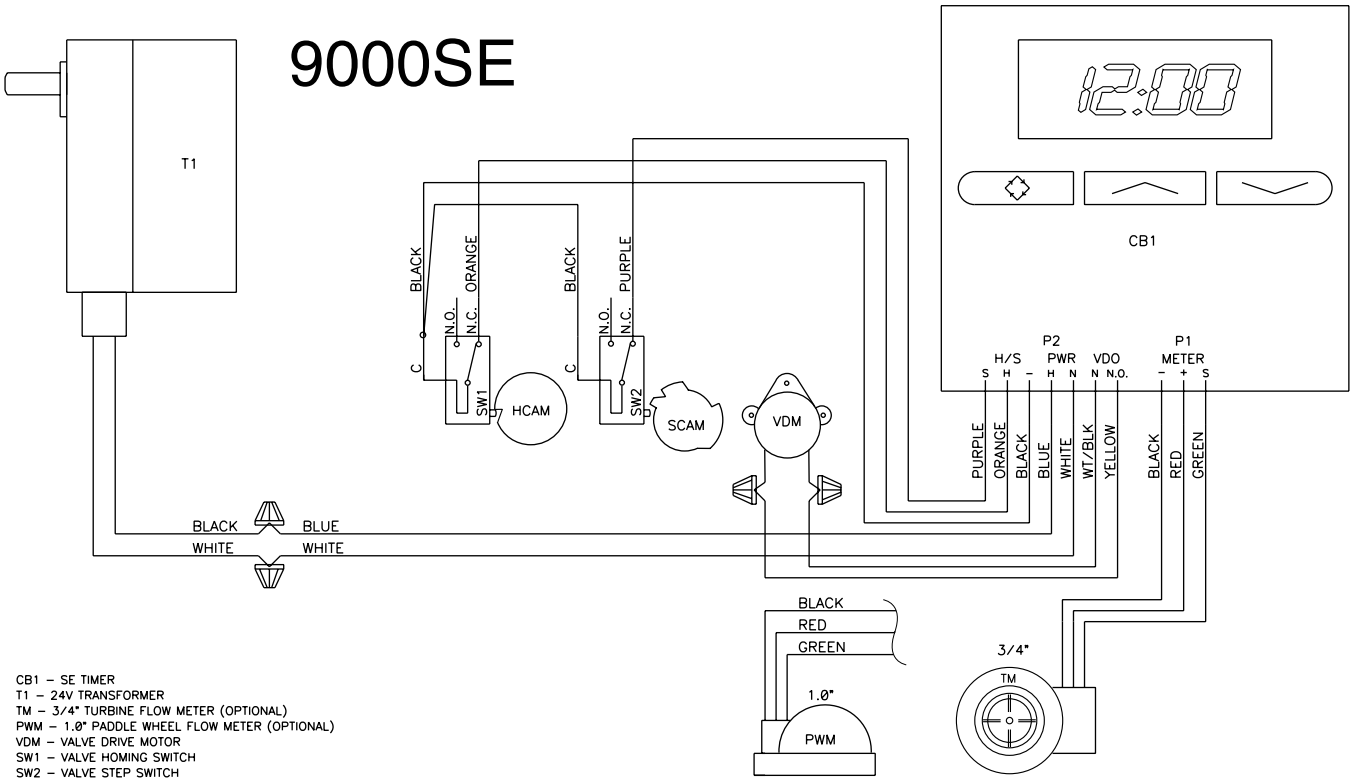


CB1 – SE TIMER
T1 – 24V TRANSFORMER
TM – 3/4" TURBINE FLOW METER (OPTIONAL)
PWM – 1.0" PADDLE WHEEL FLOW METER (OPTIONAL)
VDM – VALVE DRIVE MOTOR
SW1 – VALVE HOMING SWITCH
SW2 – VALVE STEP SWITCH
HCAM – VALVE HOMING CAM
SCAM – VALVE STEP CAM

NOTE:
DEPENDING ON APPLICATION, VALVE STEP CAM APPEARANCE WILL VARY.
REGARDLESS OF CAM TYPE USED, WIRING TO SWITCHES SW1 AND SW2 WILL REMAIN AS SHOWN.

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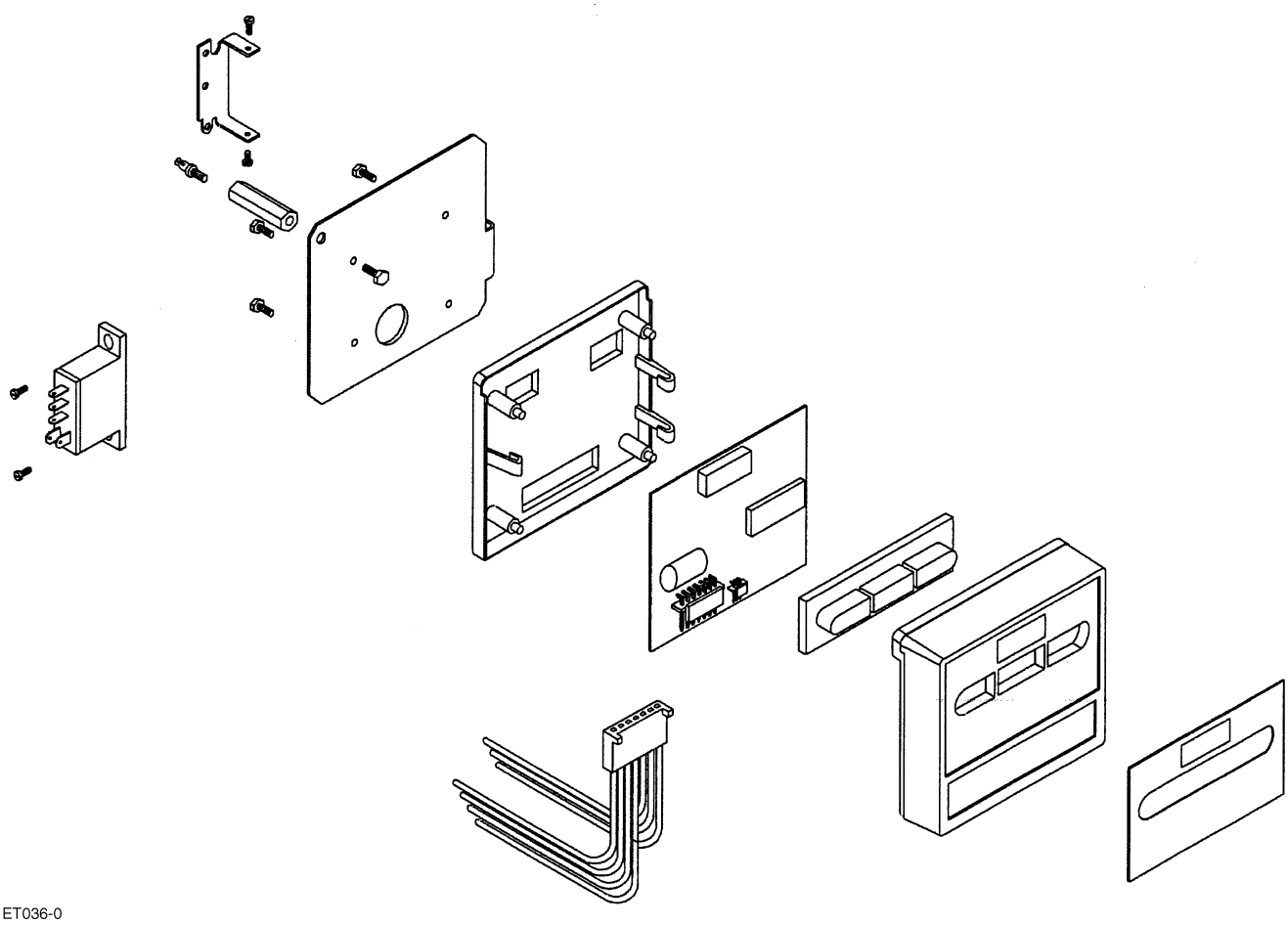
## *2510SE Timer / 2750SE Timer Assembly*



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| Item No. | No.Req'd | Part No. | Description |
|---|---|---|---|
| 1 | 1 | configured item | assembly, 2510SE Timer / 2750SE Timer |



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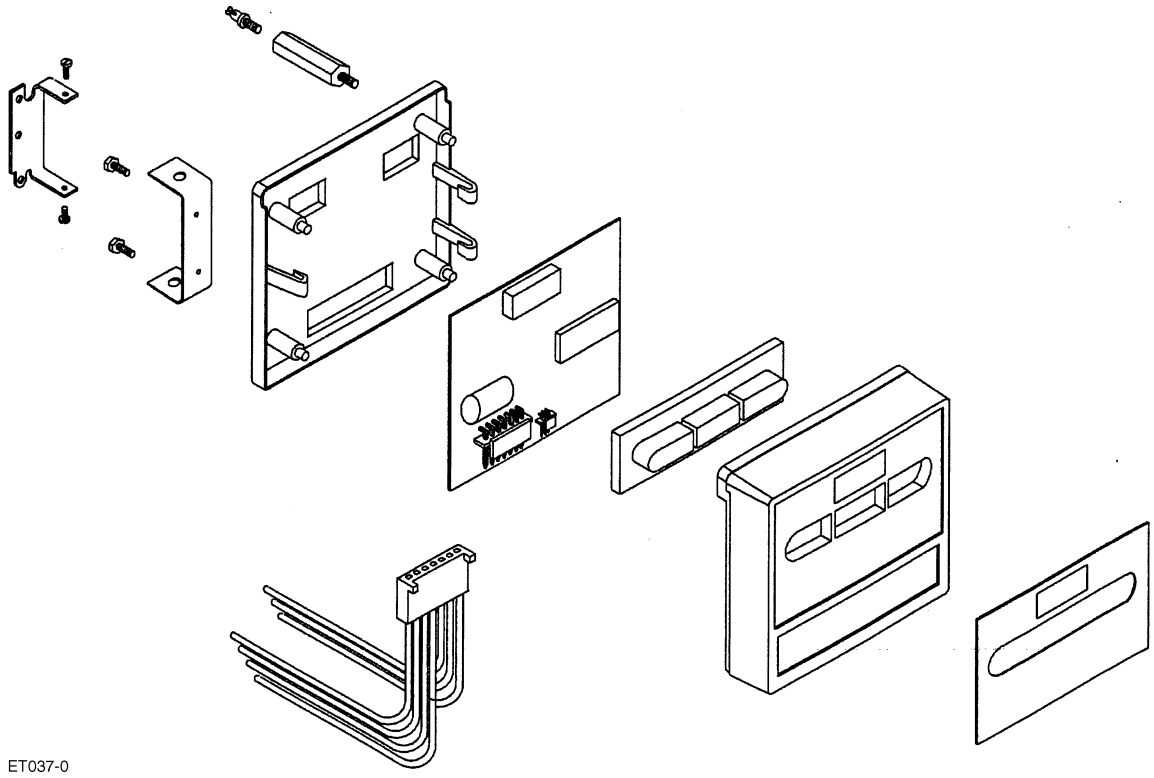
# *9000SE Timer Assembly*

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| Item No. | No.Req'd | Part No. | Description |
|---|---|---|---|
| 1 | 1 | configured item | assembly, 9000SE Timer |



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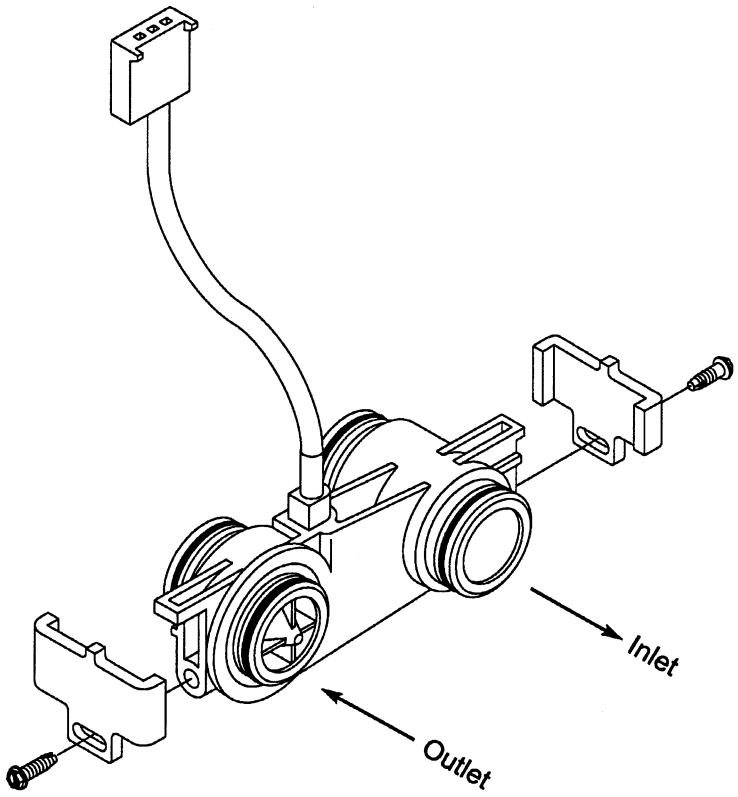
# SE TIMER

## *3/4" Turbine Meter Assembly*

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| Item No. | No.Req'd | Part No. | Description |
|---|---|---|---|
| 1 | 1 | 60626 | assembly, meter without harness |
| 2 | 1 | 60626-01 | assembly, meter with harness |



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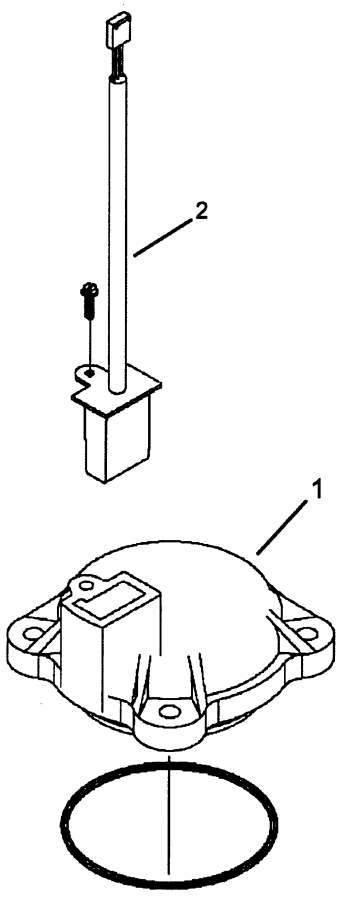
## *3/4" or 1" Paddle Wheel Meter Cap Assembly*

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| Item No. | No.Req'd | Part No. | Description |
|---|---|---|---|
| 1 | 1 | 14716 | assembly, meter cap |
| 2 | 2 | 19121-01 | harness assembly, flow meter |



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