



With S26T Controller (February 2026)



## INTRODUCTION

Thank you for purchasing the S.E.M. Model 4500TS coin-operated timer. This high-quality device allows you to control and collect fees based on the time of use of a service, such as a public shower or other applications.

Its 4500's sturdy stainless steel housing provides excellent protection against corrosion.

The reliable S26T electronic controller is simple to use and features a protective coating against moisture.

Like all SEM products, this device will last for many years with minimal maintenance. For technical questions, please contact us at support@sem.ca.

## INSTALLING YOUR TIMER

The following instruction refers to a timer controlling a shower. Your application may differ but the installation will roughly be the same. SEM offers several options and accessories for many other types of applications.

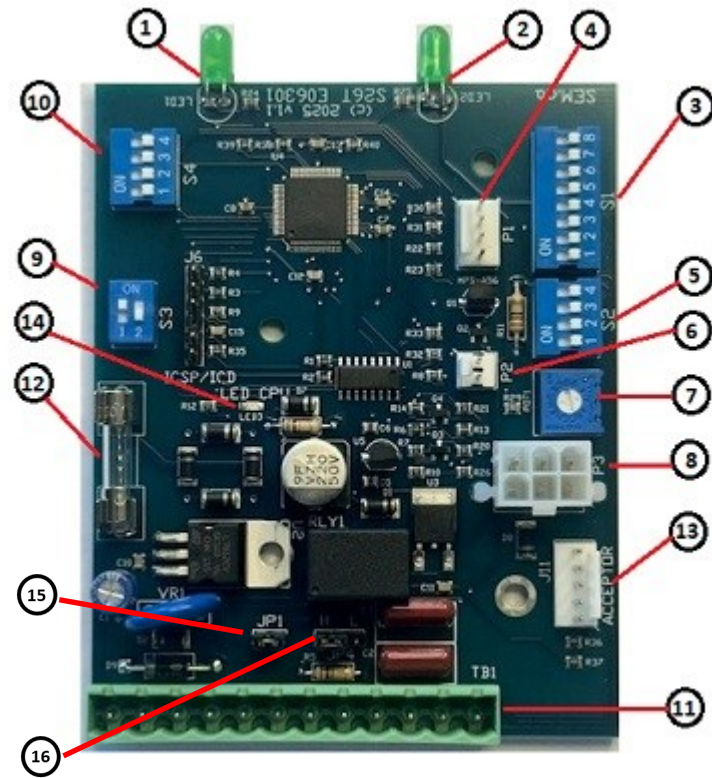
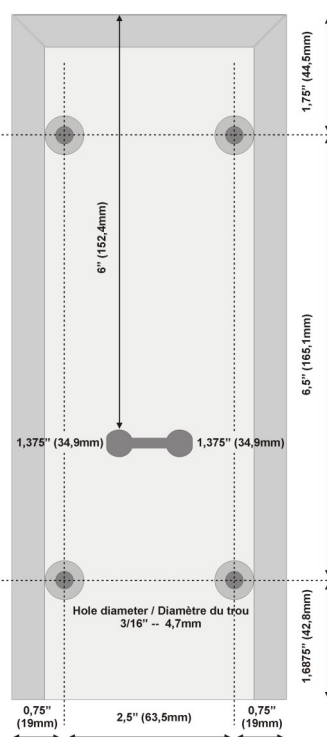
Even though the cabinet is stainless steel made, install it so that water does not flow on it. Your timer can be installed outdoor if needed. The cabinet is very easy to install.

Remove the coin box to gain access to the locking screws (*Phillips or slot*). Remove but **do not discard**. Lift and pull out the bottom of the faceplate to access the interior of the cabinet. Once removed, notice the coin acceptor harness going to the main circuit board. Unplug it.

With the coin box and faceplate out, you will see the four mounting holes.

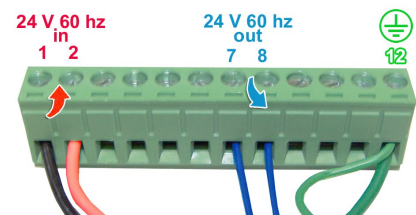


Make sure the cabinet is mounted on a solid perfectly flat wall. Plan the holes by which the cabling will pass (power, valve, start button).



## CIRCUITS DESCRIPTION:

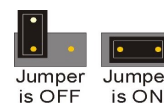
1. LED ready to accept  $\phi$  when lit
2. LED in session
3. S1 Block Time programming
4. SLB connector P1
5. S2 Block Functions programming
6. Coin counter option connector P2
7. Warning beeper volume (SLB)
8. Electronic coins acceptor (MDB)
9. S3 Block
10. S4 Block
11. TB1 Terminal block
12. Fuse 2A Fast Blow
13. Mech coin acceptor J11
14. LED OK status (Flash quickly)
15. JP1
16. JP4



## MAIN BLOCK TERMINAL PIN-OUT

1. 24-volt a.c. Live input
2. 24-volt a.c. Common input
3. Output + 24-volt d.c. 60ma (old style)
4. Output - 24-volt d.c. 60ma (old style)
5. Vend contact N.C. 2A, 24 V.a.c. max.
6. Vend contact common 2A, 24 V.a.c. max.
7. Vend contact N.O. 2A, 24 V.a.c. max.
8. Output 24 V. a.c. Common 2A 24 V.a.c.
9. Input Start button (old style)
10. Input Start button (old style)
11. Not used
12. Ground

Flashes according to S1 #8  
Flashes according to S1 #8  
Depending on JP1 setting  
Depending on JP1 setting  
Depending on JP1 setting  
S4 #1 must be OFF  
S4 #1 must be OFF



## CIRCUIT DESCRIPTION AND JUMPER POSITION

Jumpers are important in the timer operation. They are: JP1 and JP4.

**JP1** enables you to transfer the 24-volt a.c. input to terminals # 7 & 8 when a coin is inserted. If the jumper is OFF, the terminals will then operate as a dry contact relay between #5 (NC), #6 (Common), and #7 (NO). No voltage will be sent to the valve.

**JP4** Snubber electrical output protection. Normally on H position for valves and L position for relays.

## PROGRAMMING YOUR S26T TIMER

Programming the timer is achieved by using the small dipswitches located on the S26T circuit board. There are four blocks of switches.

### S1 block (8 positions):

S1 block is to program the time for each coin inserted. The value of each switch will depend on the setting of switch #1 on S2 block.

Seconds Minutes

DIP Sw 8\* warning signal programming

DIP Sw	Seconds	Minutes
DIP Sw 7	64	32
DIP Sw 6	32	16
DIP Sw 5	16	8
DIP Sw 4	8	4
DIP Sw 3	4	2
DIP Sw 2	2	1
DIP Sw 1	1	0.5

If using an electronic acceptor, the programmed time applies to the base coin (25¢). The \$1 and \$2 coins will provide a multiple of the time programmed for the 25¢ coin.

You can use more than one switch to set your time. For example, switches #4 & #2, when in seconds, will give a total time of 10 seconds per coin. In minutes, it will give 5 minutes.

The maximum time (all switches ON) will give 127 seconds per coin when in second-basis ( $64+32+16+8+4+2+1 = 127$ ) and 63.5 minutes when in minute-basis ( $32+16+8+4+2+1+0.5 = 63.5$ ).

\*Warning signal programming — only with the optional SLB module

Switch #8 is used to set the warning beeper at the end of a session. OFF, the warning will start 2 minutes before the end of the time of the session. ON, it will start 15 seconds before the end.

### S2 block (4 positions):

**DIP Sw 4** OFF for dual-coin acceptor 25¢/\$1  
ON for dual-coin acceptor \$1/\$2 (Canada only)  
Effective only when Sw. #1 of S3 block is ON. (Dual coin acceptor enabled)

**DIP Sw 3** OFF enables to start upon the first coin inserted  
ON enables to start upon the second coin inserted.

**DIP Sw 2** OFF enables Start/Stop feature  
ON Start only, no pause feature.  
Effective only when Sw. #1 of S4 block is OFF. (Start/Stop button enabled)

**DIP Sw 1** OFF Seconds basis (refer to S1 block Time setting)  
ON Minutes basis.

### S3 block (2 positions): (Other settings for coin acceptor)

**DIP Sw 2** OFF allows adding money while in use. Cumulating mode.  
ON one single coin per session. Not cumulating mode.  
(Need optional coin reject coil or electronic coin acceptor model)

**DIP Sw 1** OFF Single-coin acceptor,  
ON Dual-coin acceptor (Must also set S4-sw2 = Off)

### S4 block (4 positions):

**DIP Sw 4** N/A

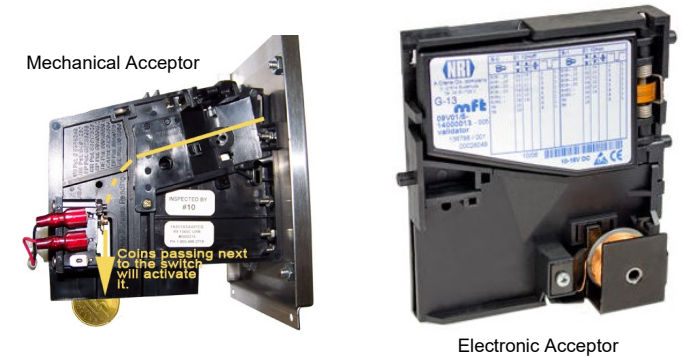
**DIP Sw 3** ON enables ECOswitch mode with SLB, S4 #1 should be OFF  
(Timer becomes a FREE push button valve control)

**DIP Sw 2** ON accept line enabled (By default setting)  
OFF accept line controlled by terminals 11&12 of TB1  
(OFF is also the default position for a Dual coin acceptor)

**DIP sw 1** ON Automatic Start after inserting coin(s)  
OFF Start with button (SLB module)

## THE COIN ACCEPTOR

The single mechanical coin acceptor accepts only one coin type: 25¢, \$1, \$2, or tokens. The dual version allows 25¢/\$1 or \$1/\$2. These coin acceptors do not reject coins in the event of a power failure. Make sure the timer remains powered at all times. The electronic acceptor can accept 25¢, \$1, \$2 and accumulate coins, and reject coins when disabled or unpowered. Properly configure the S3 block dipswitches according to your coin acceptor.



## Water valve:

The 24-volt a.c. water valve is energized by the circuit board when a coin is inserted. The valve connects to terminals 7 & 8, and 12 for the ground. Jumper JP1 must be ON so that 24 volts are sent to the valve when money is inserted. The water valve in 1/2" N.P.T. Be sure to respect the water flow direction indicated on the valve itself. if you weld, make sure not to damage the valve or sink tin inside.



## OPTIONAL SLB Start/Pause/Beeper button:

The SLB button generally goes near the shower cabin. The module includes a blue interactive LED button and a beeper. Make sure you place the button so that the beeper hole is facing down. The SLB module has its own connector at position P1. Beeper volume level is adjustable with the potentiometer located on the controller. This button enables users to pause the time (see Switch settings on S2 block). When using the button, sw1 of S4 must be set to OFF



## Mechanical coin counter:

Small mechanical counter located just above the coin box. It connects to the small two-pin plug (P2) near the beeper volume. It goes up by one, each time a coin goes in, notwithstanding the value of that coin. Upon delivery, the coin counter will be short of the zero position as seen below. This allows for some tests.



**WIRING EXAMPLE**

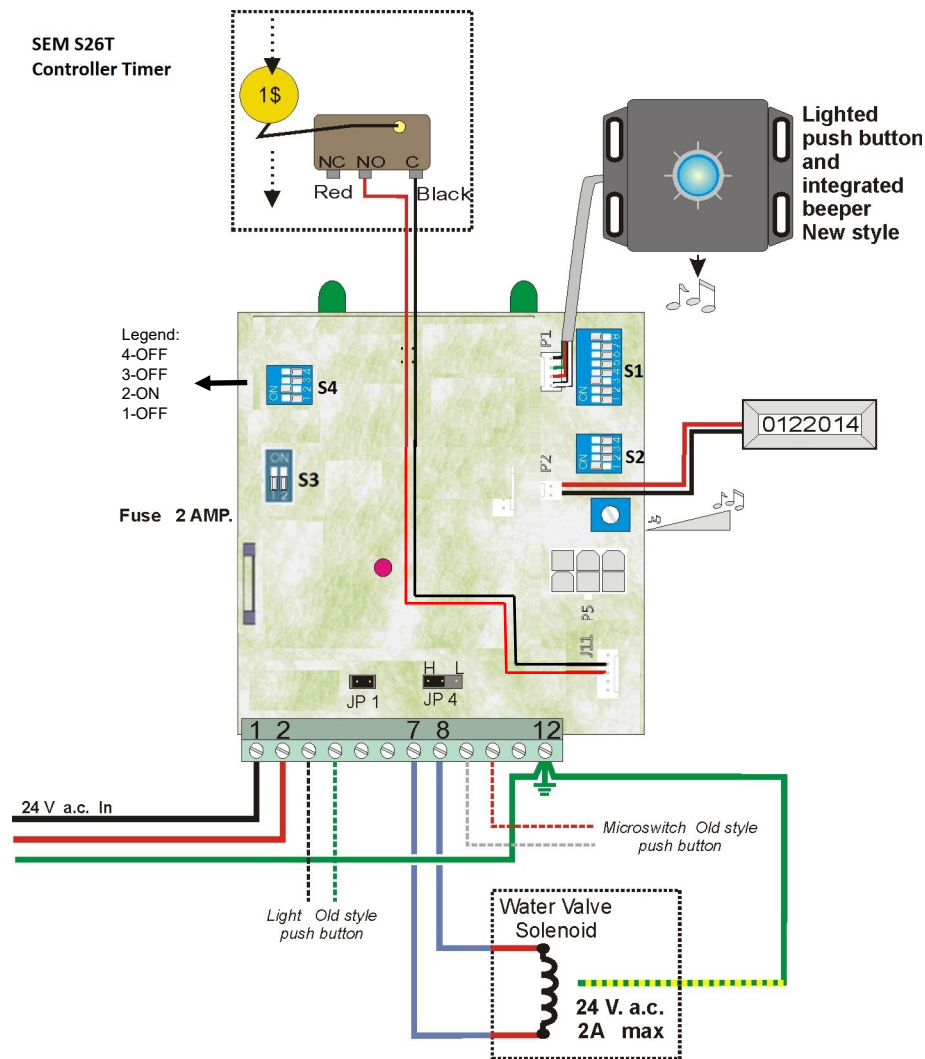
Below is a wiring example you can use. If you are not familiar with electricity, refer to your local electrician to avoid damages and/or electrical shock.

**Timer to control access to a shower**

- Your timer controls access to a public shower (campground, fitness center, etc.).
- The coin acceptor is mechanical and accepts only \$1. It gives 2 minutes per coin inserted.
- A Start/Stop button enables the user to start and pause the time.
- A beeper will start when 15 seconds remain before end of timer
- Each coin inserted will activate a mechanical counter that increases by one for each coin.
- The water valve is 24-volt a.c.

You need the following items:

- SEM timer Model 4500TS with its power transformer, accepting \$1 only.
- Optional Start/Stop button with built-in beeper.
- Optional 24-volt a.c. water valve.
- Optional coin counter.
- Low-voltage door-chime style wiring (16 or 18 awg) available from SEM or at your local hardware store.



Please note: Actual wire colour may vary .

**TROUBLESHOOTING**

Here is a quick guide of the most common problems you may encounter with your timer.

My timer rejects all the coins inserted.	<ul style="list-style-type: none"> <li>• Wrong type of coin acceptor. Coin acceptor works only with one type of coin. Replace.</li> <li>• Defective coin acceptor.</li> </ul>
Upon insertion of a valid coin, nothing happens, the green LED does not go on.	<ul style="list-style-type: none"> <li>• Check to see if the coin activates the small wire on the coin switch located at the base of the coin acceptor. A coin may pass without activating it. Make the adjustment if needed.</li> <li>• Coin acceptor harness unplugged from circuit board at J11 (see pin-out on reverse).</li> <li>• Main fuse 2 Amps burnt. Replace with <b>same value</b> fuse. (see Circuit description on reverse) or no power.</li> <li>• Make sure Sw#3 on S2 is OFF. If ON, the timer starts on 2nd coin. (See on reverse)</li> </ul>
Upon insertion of a valid coin, green LED on but nothing else happens (i.e. no water coming out of valve).	<ul style="list-style-type: none"> <li>• Make sure water valve is properly connected on terminals 7 &amp; 8 on terminal block.</li> <li>• Make sure your water valve is indeed a 24-volt a.c. valve, especially if the valve was there before the timer was installed (i.e. The timer replaced an older one)</li> <li>• Check to see if JP1 is ON. If JP1 is OFF, there will be no transfer of voltage on terminals 7 &amp; 8.</li> <li>• Check the wire between the timer and the water valve.</li> <li>• Check with an ohmmeter if the solenoid of the valve is still good.</li> </ul>
Time last shorter or longer than what I programmed.	<ul style="list-style-type: none"> <li>• Make sure you are on the proper time basis with Sw#1 on S2 Block. You may be on second-basis instead of minute-basis or vice-versa.</li> <li>• You may have entered the wrong switch setting. Make sure you understand the principle of the switch on S1 Block. Each one doubles the value of the preceding, except for Sw #8.</li> </ul>
The water flows all the time without putting money.	<ul style="list-style-type: none"> <li>• Unplug the valve or shut-down the power of the coin timer. If the water stills flow, the problem originates from the valve which might be defective. Rebuild or replace it.</li> </ul>
Time stops (green LED goes OFF) at any given time and the water stops as well.	<ul style="list-style-type: none"> <li>• Circuit board in timer may have been reset somehow. Check to see if the power transformer of the timer is securely plugged in the wall outlet.</li> <li>• Check that the wires coming from the power transformer and going to terminals 1 &amp; 2 on the terminal block are secured. If power goes off even for a fraction of second, the time will stop.</li> </ul>

**PERSONAL NOTES:**

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**S.E.M. INC. – WARRANTY AND LIABILITY CONTRACT**

By purchasing a product from S.E.M. Inc., clients are accepting the terms of this Warranty and Liability Contract.

S.E.M. Inc. warrants all parts of new equipment for one (1) year, from date of invoice against DEFECTIVE MATERIAL or WORKMANSHIP, but not against damage caused by vandalism, accident or improper operation and/or installation.

S.E.M. Inc. shall not be liable for any direct, indirect and/or consequential damages or losses, including loss of revenue or any other consequences as a result of the use of the work carried out by S.E.M. Inc. for the client, including any loss resulting from equipment failure or malfunctions, design or programming errors or any other use of the work carried out in this contract.

S.E.M. Inc.'s obligation under this warranty is limited to correcting, or at its option replacing, without charge at its factory any equipment, components or parts thereof which are returned to its factory (transportation charges prepaid) within one year after date of invoice. The part (s) returned under this warranty that are found without any problem after examination may be object of fees not covered under this warranty.

Any changes in design or improvements added to the line of S.E.M. equipment shall not create any obligation to upgrade or modify free of charge equipment previously sold and delivered to the client.

Any unauthorized alteration or wrong use of the equipment voids this warranty.

Equipment or components returned for Warranty repair must be accompanied by a copy of the original invoice as verification of purchase date. Equipment or components returned without a copy of original invoice will be charged to the customer at the regular repair rates.

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