SEM INC.

5500TX

Coin Timer

for

Campground Shower

and other

Multiple Uses

Introduction

We thank you for purchasing the Coin timer Model 5500TX. This device will allow you controlling multiple applications such as a campground shower, a tennis court lighting*, a car-wash vacuum cleaner*, or any other device requiring payment based on time.

The 5500TX is an enhanced version of our model 5500TS. The added features are an LCD display and a multi-coin electronic acceptor allowing to use any coins. The display also offers a full audit.

The housing of the 5500TX offers an added protection against vandalism compaRed to the previous Model 5000. The coin box was designed so that you do not need to remove the full face plate to access the money.

We believe this device will provide you with good service for many years to come with a minimum of care. If you have any questions, do not hesitate to contact us. Our service department is open from Monday to Friday, from 8AM till 4:30PM (Eastern Standard Timer) or by email at support@sem.ca

- A tennis court lighting, a car-wash vacuum cleaner, or any other high-voltage devices require adding an external relay (not included) as the contacts in the timer cannot withhold high voltage. The external relay is activated by the timer, which in turn activates the high-voltage device.
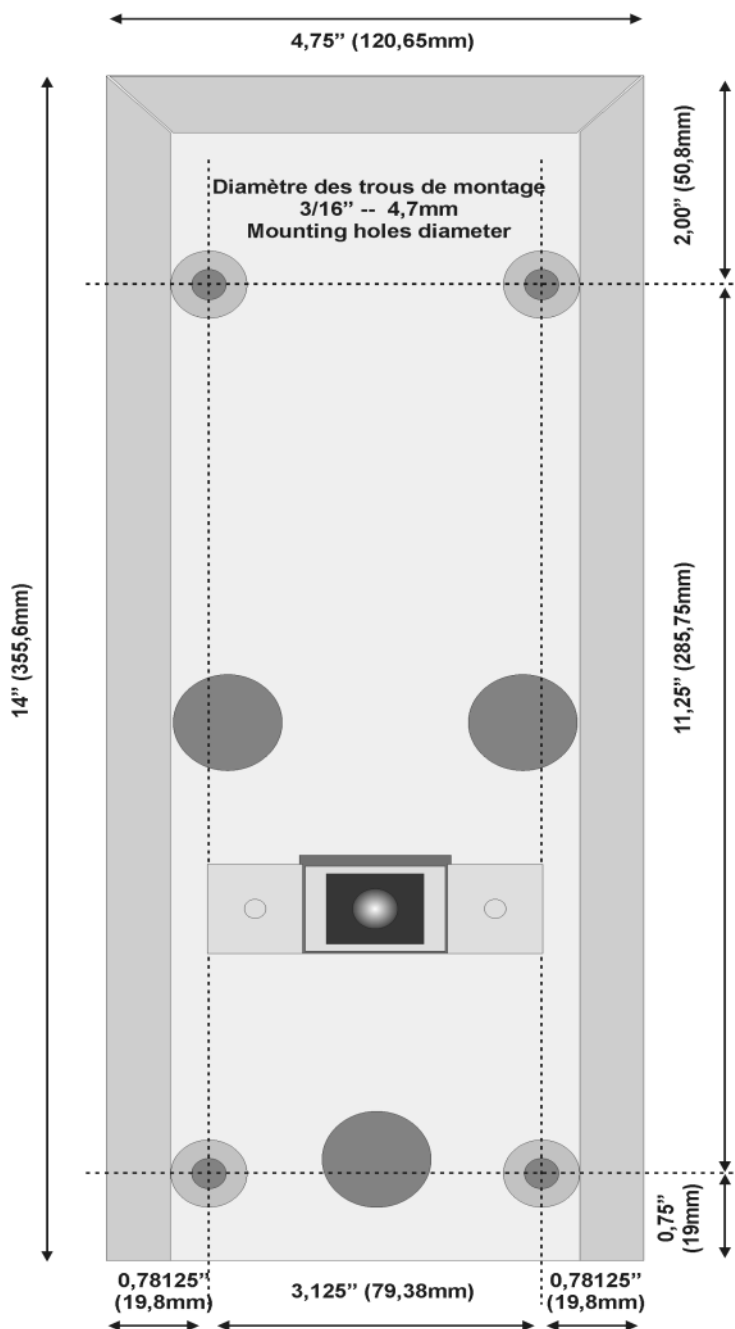
The 5500TX closed…

...and with its coin box re-moved; counter clockwise to open, clockwise to close...
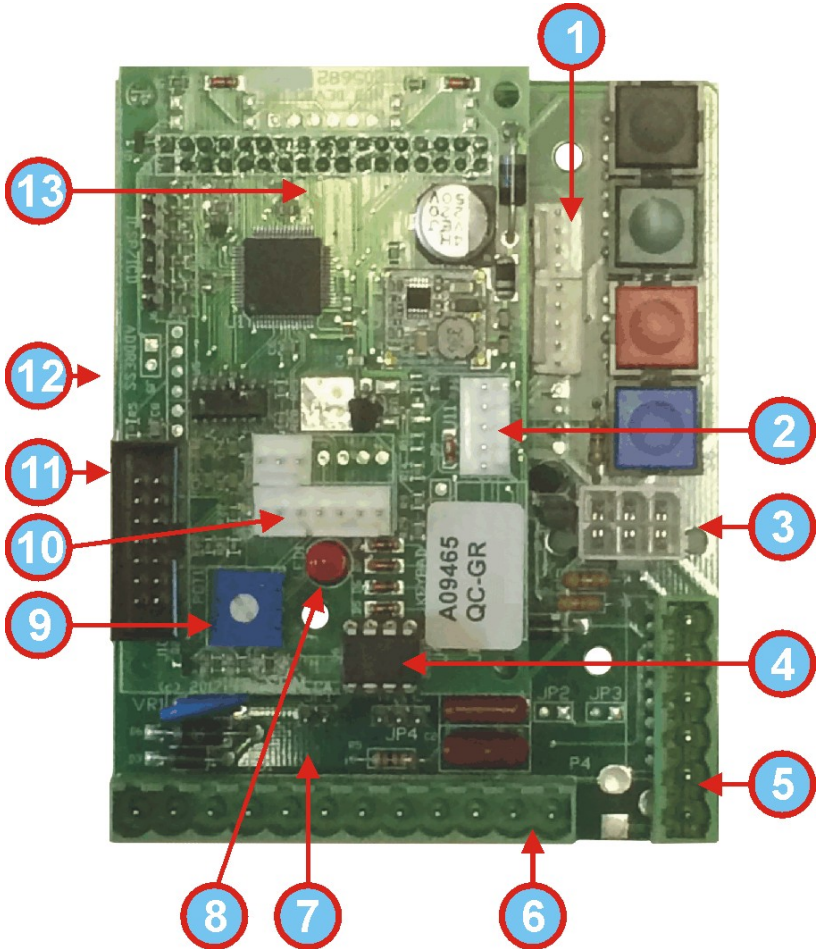
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Installing your timer

Use the proper anchoring system depending the type of wall your have. <u>It is your responsibility to make sure nobody can rip the timer off the wall.</u>

Make sure electrical connections meet the local electrical code. If you are not familiar with electricity, do not hesitate to contact a certified electrician to avoid electrical shocks and damages to the timer.

4,75" (120,65mm)

2,00" (50,8mm)

Diamètre des trous de montage
3/16" -- 4,7mm
Mounting holes diameter

14" (355,6mm)

11,25" (285,75mm)

0,75" (19mm)

0,78125" (19,8mm)

3,125" (79,38mm)

0,78125" (19,8mm)

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Description of the 5500TX circuit

The circuit of the 5500TX is located in the top right side of the internal housing and divides in two sections.

1. Connection for the SLB Module (Switch, Light, Beeper) 4 wires.
2. Connection for the mechanical coin acceptor.
3. Connection for the electronic coin acceptor (MDB).
4. Micro-chip containing the entire memory (parameters and audit).
5. Connection for auxiliary terminal block (6 screws).
6. Connection for main terminal block (12 screws).
7. Location of Jumper JP1 (absent on the image).
8. MCU red flashing LED.
9. Intensity adjustment for Blue display.
10. Connection for portable printer with proper adapter.
11. Connection for blue LCD display.
12. Fuse 2A 250 volts 2cm (not visible) on the main circuit.
13. Extension board piggybacked on the main circuit.

Description of the main and auxiliary terminal blocks

There are two terminal blocks on the circuit: one horizontal 12-screw and one vertical 6-screw. Both can be removed from the circuit. They may be hard to remove and that is normal as we do not want them to disconnect themselves under the effect of their own weight.

There is no indication on the block itself. Therefore, the image below will serve you as reference. On the big block, number 1 is on the left. The big block has 12 screws.
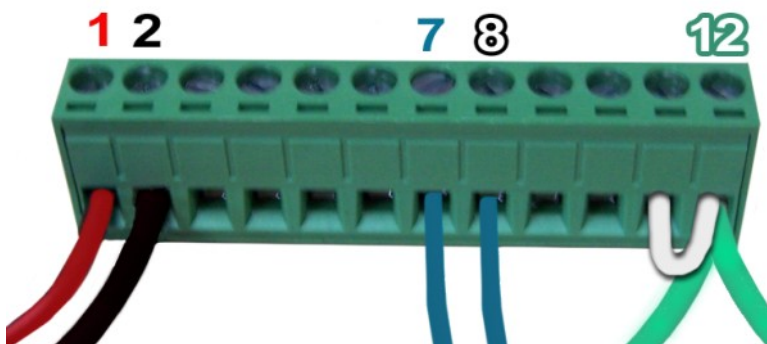
1. 24vac In.
2. 24vac In.
3. n/a
4. n/a
5. Dry contact NC (if jumper JP1 is REMOVED).
6. Dry contact C (if jumper JP1 is REMOVED).
7. Dry contact NO (if jumper JP1 is REMOVED).
8. 24vac output (if jumper JP1 is **IN PLACE**).
9. n/a
10. n/a
11. Accept Line Switch in your device (if applicable).
12. Ground. *Jumped to 11 if there is no Accept Line Switch in your machine as visible on the image.*

On the small block, number 1 is a the bottom. The small block has 6 screws.

6. n/a
5. Output + 24vdc auxiliary (i.e.: exhaust fan)
4. n/a
3. n/a
2. n/a
1. Output - 24vdc auxiliary
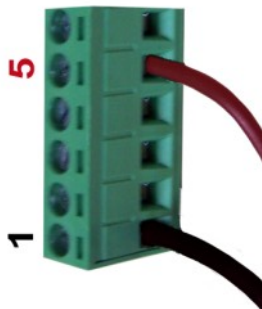
Typical wiring for a campground shower

This diagram shows the timer with an electronic multiple-coin acceptor and the SLB Module (Switch, Light, Beeper). The timer controls a water valve in a campground shower. The payment peripherals could be coins only, coins & bills, or coins, bills & credit card. The type of peripheral will not affect the wiring. There is also a small auxiliary output for an optional exhaust fan. Pins 12 & 11 are linked as there is no Accept Line Switch.

SLB Module
(Switch, Light, Beeper)

Fuse 2 AMP.
Fast-blo

DISPLAY

JP 1   JP 4   H L

EXIT CLEAR ENTER MENU

ACCEPTOR

¢ $ CC

+ 24 V a.c. in
-
AC
GND

Solenoid
water
valve

24 V. a.c.
2A max

Exhaust fan 24 vcc
(option)
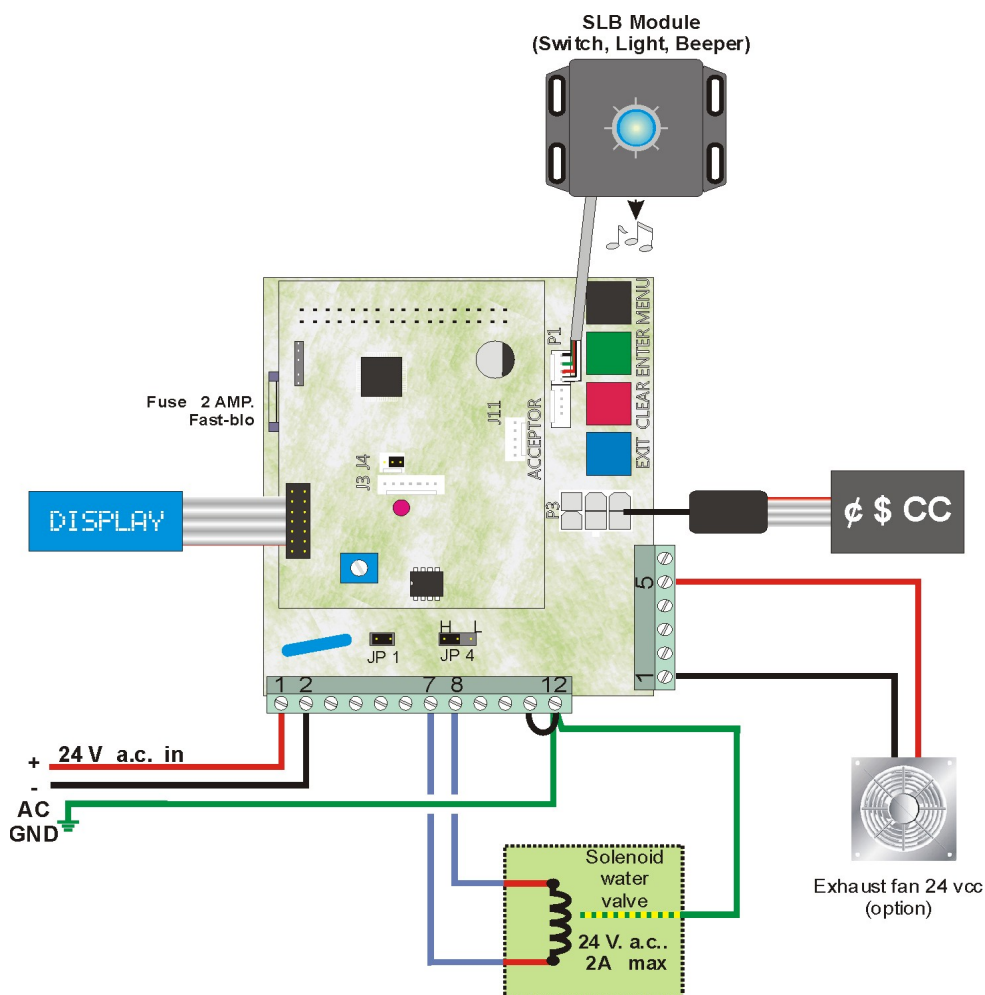
Programming your timer

The 5500TX timer is equipped with an LCD display allowing you to navigate easily in the programming. The four buttons on the circuit are:

Black   To scroll all the menus.
Green   To access the menu visible on the display.
Red   To modify the current setting or increase a number.
Blue   To modify the current setting or decrease a number.

Operator Mode
There are five menus accessible to any person opening the timer.

Audit	Gives you the accounting information
Currency setting	Allows you to decide which money to accept
Session length	Defines the length of the time session
Session rate	Defines the cost of the timer session
Session mode	Defines timing style

Technician Mode
There are two menus accessible in a hidden access.

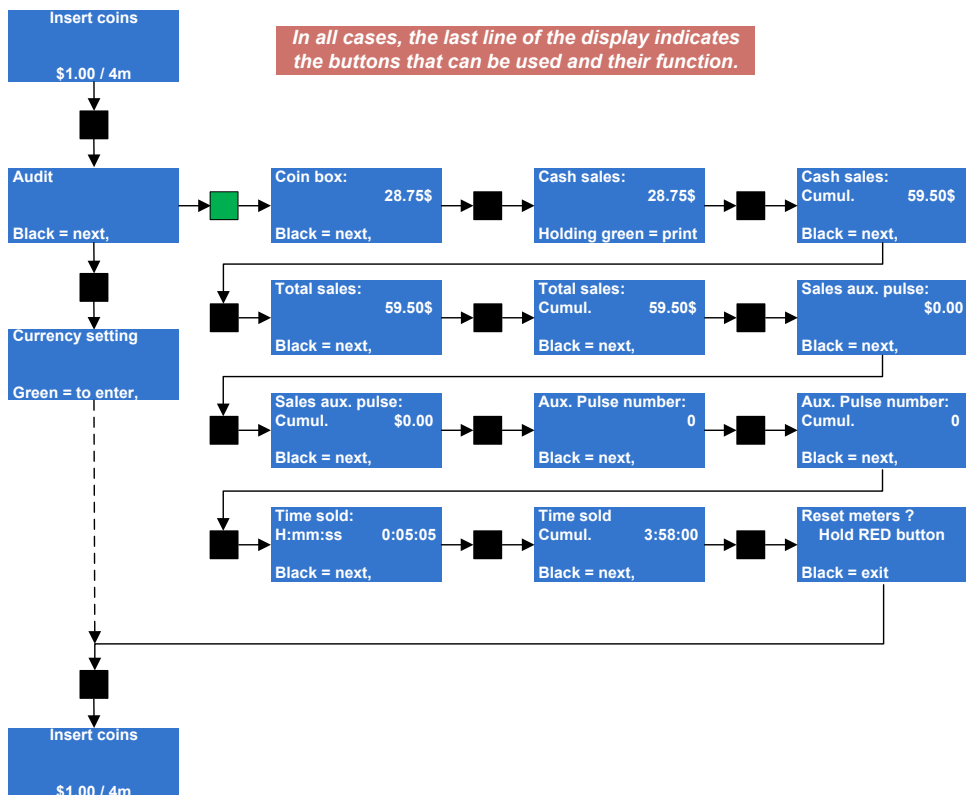|	
System setting	Programming the secondary parameters
Test Mode	Not available at the time of printing

Retrieving the accounting information

The X25TX circuit of the Model 5500TX offers you a full accounting description on sales and the money accepted. Press the Black button once. When **AUDIT** is visible on the display, press on the Green button. Then press on the Black button to scroll through the information (see flow chart below). The quantity of information available varies depending the payment peripherals attached to the X25TX controller. As an example, if you have a coin changer, you will then see the coin tube inventory. A bill acceptor will also bring you different information the same if a card reader is attached.

Many counters are double. In such a case, one can be erased, the other no. The abbreviation Cumul: indicates a cumulative non-erasable counter.

Note the last line of the display indicates you what button to use and the action resulting of it.

Operator Mode

Insert coins			
$1.00 / 4m			

In all cases, the last line of the display indicates the buttons that can be used and their function.

Audit		Coin box: 28.75$	Cash sales: 28.75$	Cash sales: Cumul. 59.50$
Black = next,		Black = next,	Holding green = print	Black = next,

Currency setting		Total sales: 59.50$	Total sales: Cumul. 59.50$	Sales aux. pulse: $0.00
Green = to enter,		Black = next,	Black = next,	Black = next,

Sales aux. pulse: Cumul. $0.00	Aux. Pulse number: 0	Aux. Pulse number: Cumul. 0
Black = next,	Black = next,	Black = next,

Time sold: H:mm:ss 0:05:05	Time sold Cumul. 3:58:00	Reset meters ? Hold RED button
Black = next,	Black = next,	Black = exit

Insert coins	
$1.00 / 4m	

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Programming your timer
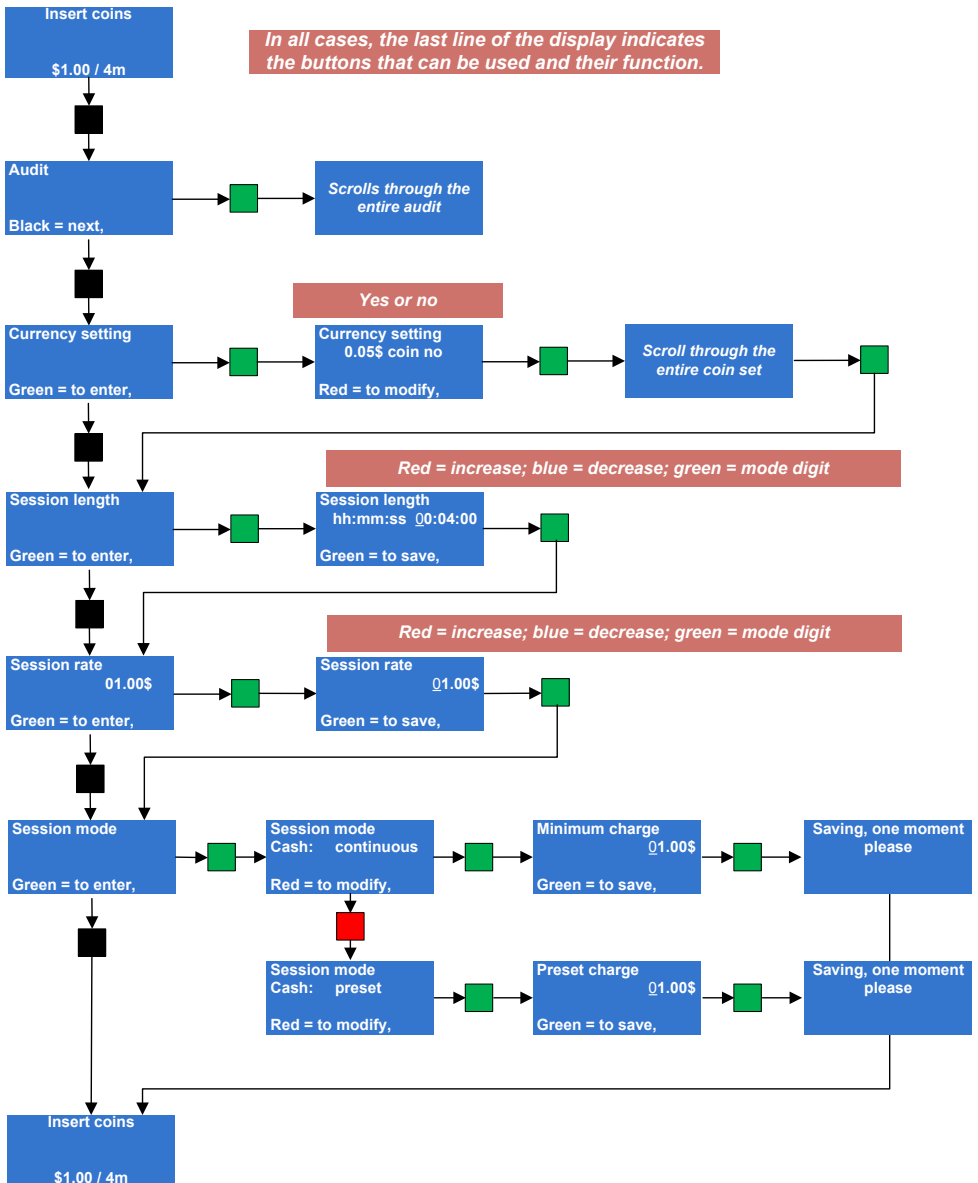
There are two sections for programming your timer:
- Operator Mode
- Technician Mode

The Operator Mode offers the accounting information as seen previously, the settings for the currency to accept, the time a session lasts, the rate of that time sessions, and finally the session style.

As for the Technician Mode, it allows programming parameters that are more technical and should be access by a competent person. As a matter of fact, accessing this section cannot be accidental. If you access this section it is because you want to access it.

You will find on the right the flow chart allowing you to navigate through the Operator Mode. In the following pages are the explanation of each parameters and the possible choices available to you.

Operator Mode

Insert coins

$1.00 / 4m

In all cases, the last line of the display indicates the buttons that can be used and their function.

Audit

Black = next,

Scrolls through the entire audit

Yes or no

Currency setting

Green = to enter,

Currency setting
0.05$ coin no

Red = to modify,

Scroll through the entire coin set

Red = increase; blue = decrease; green = mode digit

Session length

Green = to enter,

Session length
hh:mm:ss 00:04:00

Green = to save,

Red = increase; blue = decrease; green = mode digit

Session rate
01.00$

Green = to enter,

Session rate
01.00$

Green = to save,

Session mode

Green = to enter,

Session mode
Cash: continuous

Red = to modify,

Minimum charge
01.00$

Green = to save,

Saving, one moment please

Session mode
Cash: preset

Red = to modify,

Preset charge
01.00$

Green = to save,

Saving, one moment please

Insert coins

$1.00 / 4m

Currency setting

You can decide here what currency you wish your timer to accept (coins or bills). At power up, the peripherals detected will send their internal configuration to the circuit. From there, you can decide to accept or not the currency. In the Timer 5500TX, there is only a coin acceptor as you cannot fit a coin changer or a bill acceptor.

Press the Black button until *Currency setting* is visible. Press on the Green button to enter. The display will most likely show $0.05 coin YES (accepts 5¢ or NO (rejects 5¢). Press on the Red button to modify the setting. Press on the Green button to confirm the setting and move to the next currency. Repeat for all coins.

Session length

This is where you program the length of a time session. The maximal time a session can last is 99 hours, 59 minutes and 59 seconds. When Session length is visible on the display, press the Green button and it will show the current setting (i.e.: hh:mm:ss 00:04:00). Note the first digit is blinking. Press on Red to increase this digit of Blue to decrease. Once the good value reached, press the Green button to move digit. Repeat the process until all digit are programmed.

Session rate

This is where you program the price of the time session you just programmed on the previous step. When visible on the display, press the Green button and the current rate will be visible with the first digit blinking. Press on Red to increase this digit of Blue to decrease. Once the good value reached, press the Green button to move digit. Repeat the process until all digit are programmed.
This is the rate on which the timer will be calculated according the money inserted.
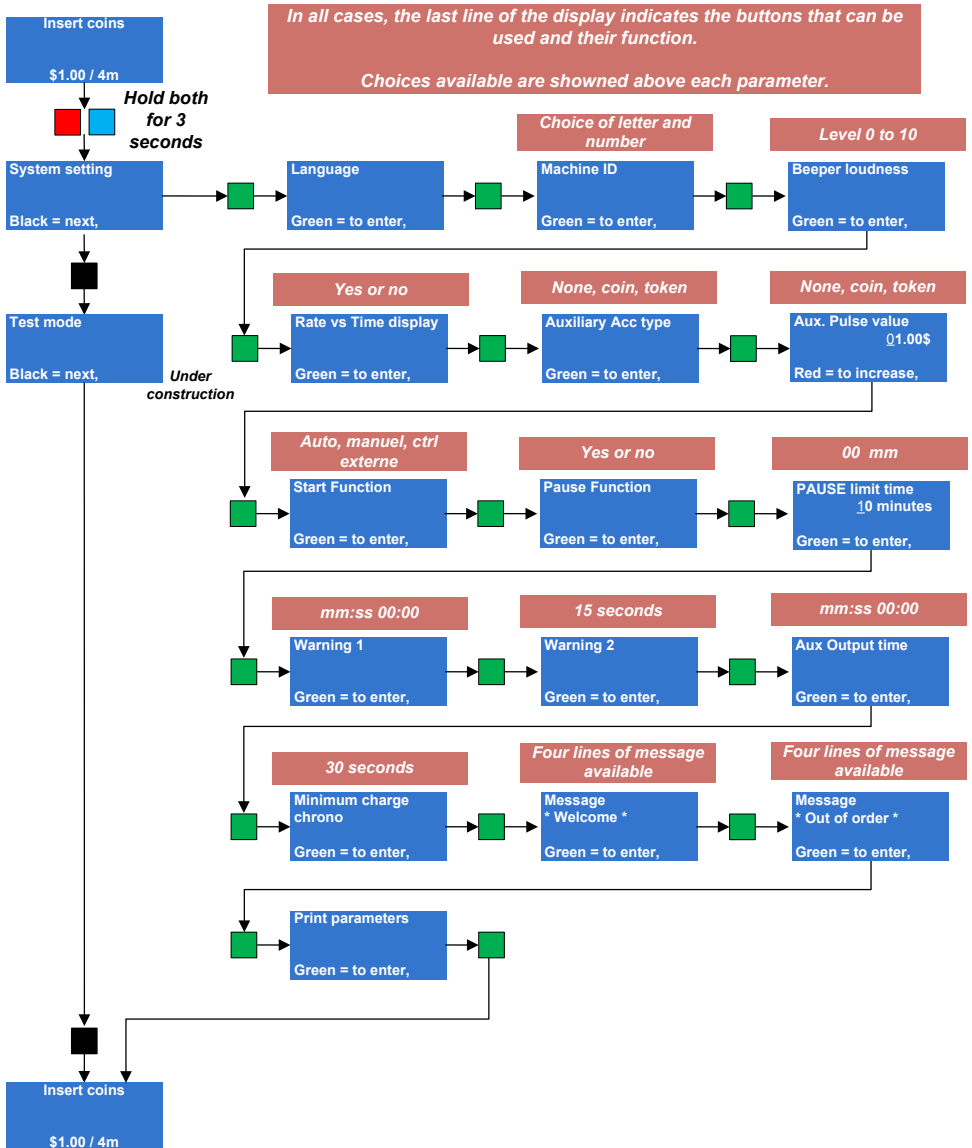
Session Mode

You have the choice between Continuous or Preset. When Session mode is visible on the display, press on the Green button to see the current setting. Press on Red to modify it.

In the case of the Continuous mode, it is possible to stop the time and get a refund of the unused portion of time paid if there is a coin changer in the timer. In Preset, the time bought must be consumed till the end. As there is no possibility to install a coin changer in the Coin Timer 5500TX, needless to program Continuous as no change can be given out.

After that, you must program an amount that will be a minimum amount required to start a time session. The amount programmed here does not need to be equal to the rate session. You can have a rate session of $2 but require only $1 to start the time session. Obviously, this $1 inserted will equal half the time programmed in session length. (i.e.: rate session $2; session length 2 minutes ; $1 inserted = 1 minute bought).

This concludes the Operator Mode.

Technician Mode

Insert coins

$1.00 / 4m

Hold both for 3 seconds

System setting

Black = next,

Test mode

Black = next,

Under construction

Language

Green = to enter,

Choice of letter and number

Machine ID

Green = to enter,

Level 0 to 10

Beeper loudness

Green = to enter,

Yes or no

Rate vs Time display

Green = to enter,

None, coin, token

Auxiliary Acc type

Green = to enter,

None, coin, token

Aux. Pulse value
01.00$

Red = to increase,

Auto, manuel, ctrl externe

Start Function

Green = to enter,

Yes or no

Pause Function

Green = to enter,

00 mm

PAUSE limit time
10 minutes

Green = to enter,

mm:ss 00:00

Warning 1

Green = to enter,

15 seconds

Warning 2

Green = to enter,

mm:ss 00:00

Aux Output time

Green = to enter,

30 seconds

Minimum charge chrono

Green = to enter,

Four lines of message available

Message
* Welcome *

Green = to enter,

Four lines of message available

Message
* Out of order *

Green = to enter,

Print parameters

Green = to enter,

Insert coins

$1.00 / 4m

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The Technician Mode is reserved for person having a technical skill. You can-not access this section by accident. To access it, press AND hold both the Red and Blue buttons for at least three seconds.

This section divides in two menus:
- System setting
- Test mode *(still in development)*

System setting:
The is where you will program some very specific parameters of your timer. Use the programming flow chart to the left to help you navigate in the parame-ters.

Language

The timer can display in English or in French but not both at the same time. When visible on the display, press on the Green button to see the current set-ting. Press on the Red button to modify it and Green to confirm your new set-ting.

Machine ID

If you are operating a fleet of timers, you can apply a specific ID to each of them. You can have numbers and letters as well as some special characters like ? or >. When visible on the display, press on the Green button and the first available space will blink. Press on the Red or Blue button to reach the desired character. Press on Green to move digit. If you keep the Green but-ton depressed, you will go back to the precious character. This machine ID will be visible at the top of each audit print-out.

Beeper loudness

This is where you will program the volume of the beeper located into the SLB Module. This beeper beeps 5 times when the remaining time is 30 seconds and for the last 15 seconds bought. There are 10 sound levels with level 0 being mute.

Rate vs time display

You can show or not the rate on the timer. The display will then toggle be-tween the coins accepted (i.e.: 25¢, $1 & $2), the minimum deposit (i.e.: Mini-mum deposit $0.50) if any, and the rate (i.e.: 1.00$ */ 4m). If you set it to NON, the rate will not be displayed.

Auxiliary Acc type:

It is possible to add an auxiliary acceptor to the main acceptor. In such a case, you need to instruct the timer if it is a coin acceptor, a token acceptor or NO acceptor at all. We are talking here about a mechanical-type acceptor that will send one pulse at the passage of a coin or a token.

Auxiliary pulse value:

At the previous step, you have selected the type of auxiliary acceptor., either coin or token. Here you will instruct the timer about the value each pulse generated by te passage of the coin or token. Press on the Green button to see the current value. Note the first digit is blinking. Press on Red or Blue to modify the digit and Green to move digit. Repeat the process for all digits. To move back, press and hold the Green button.

Start function:

You have three ways to operate your timer: Automatic, manual, or external control. The automatic mode starts a 5-second countdown once the minimum amount deposited and the display will show the amount and the time it gives. The manual mode requires the SLB module (Switch, Light, Button) and allows remote start. The External control will start the time through an external control device that will simulate someone pressing on a start button. If you have no SLB Module nor External control, you must then select Automatic start.

Pause function:

If you have selected Manual start, you can allow the user to pause the time while in use. Select Yes or No.

PAUSE time limit:

This parameter allows to program a maximum pause time at the end of which the timer will presume the customer has left and will then cancel the remaining paid time. Here is an example of how it works. The customer buys a 5-minute usage. After three minutes of use, he presses on Pause. An hidden countdown will then start. When the time limit will be reached (i.e. 10 minutes) the timer will start a 30-second warning countdown on the display with beeps warning the customer to restart the time. If the customer does not restart the timer, what's left of the time session (2 minutes) will be lost. This process repeats itself on every pause.

Warning 1

The timer offers two end-of-time warnings if you have the SLB module. The moment those warning will active is programmable here. The first warning last for 5 seconds only et will start at the moment you program here (i.e. 00:30). Therefore, when the time left reaches 30 seconds, the beeper will sound 5 times.

Warning 2

The second warning will last for the time you program here and last till the very end of the time cycle. If you program 15 seconds, the beeper will sound for the ultimate 15 seconds.

Aux. Output time:

The timer has an auxiliary output that will activate at the very end of the cycle and last for the timer programmed here. This output is located on the 6-screw auxiliary terminal block, at positions 1 and 5. A perfect example would be an exhaust fan expulsing humidity outside the shower. The maximum time it can run is 30:00. Note that the output voltage is 24vdc (see page 6).

Minimum charge chrono

Minimum Charge chrono is grace period following a time cycle where a customer can add credits to the timer without having to insert the minimum charge. This delay only applies if the timer has been set to Continuous in the Session mode (see page 12). The maximum time is 5 minutes or 300 seconds.

Message *Welcome*

It possible to program a personalized welcome message that will be visible on the 4-line display, alternating with the default messages. Each line has 20 characters, including spaces. Therefore, this message *Welcome to camping* has 18 characters. Use the Red or Blue buttons to navigate through the many characters available. They include accents, low-case and high-case letters and numbers.

Message *Out of order*

It possible to program a personalized welcome message that will be visible on the 4-line display, if the timer goes out of order. Each line has 20 characters, including spaces. Therefore, this message *Contact Front Desk* has exactly 18 characters.

Print parameters:

It is possible to print all the parameters on a small portable serial printer avail-
able in option from SEM. This print-out is very useful if you have a fleet of
timer to program. Note that this printer is the same you can use to print the
audit (see page 9).

This concludes the System setting section.

SEM INC. – WARRANTY AND LIABILITY CONTRACT

By issuing a Purchase Order or contracting with SEM Inc. to carry out the supply of products, clients are accepting the terms of this Warranty and Liability Contract.

SEM 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 accident, abuse, faulty installation, or improper operation and installation.

SEM Inc. shall not be liable for any direct, indirect and/or consequential damages or losses, including loss of use, revenue, profit incurred by the client, its customers and/or any third party as a result of the use of the work carried out by SEM 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. The client specifically waives any claim or recourse it may have against SEM Inc. in any of the above instances.

SEM 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, examination of which disclose to SEM Inc.'s satisfaction that the equipment, components, or parts thereof were originally defective.

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

Any unauthorized alteration of, or addition to, articles of the contractors manufacture 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.

This manual was written by our technical department. Even though the ut-most attention was given to writing this manual, errors may have slipped by unnoticed. Any comments, suggestions, or errors should be sent directly to: info@sem.ca

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