

Specifications:

Input Contacts:	Up to 99,999,999 dry contact switch closures. Transient and static voltage protected. Optional Optical or Hall Effect device input
Enclosure:	NEMA 4 rated
Display:	16 character 2 row backlit LCD
Input Power:	120 VAC 60Hz via GFI
Output Signal:	Four independently isolated dry contact relays, 3 Amp max, Resistive
Counting Speed:	Up to 20 Contacts/Second– 20Hz
Memory:	Non-volatile solid state



CARLON METER, INC. • PRODUCT WARRANTY

Carlon Meter, Inc. (hereinafter Carlon or "the company") warrants products of its manufacture to be free of defects in material or workmanship. Liability under this warranty extends for twelve (12) months from the date of purchase. Liability is limited to repair or replacement of any failed product or assembly proven to be defective in material or workmanship upon manufacturer's examination. Removal and installation costs are not included under this warranty. Manufacturer's liability shall never exceed selling price of the meter or assembly in question. Carlon disclaims all liability for damage its products caused as the result of improper installation, maintenance, use or attempts to operate products beyond their intended functionality, intentionally or otherwise. Carlon is not responsible for damages, injuries or expenses incurred through the use of its products. The above warranty is in lieu of all other warranties, either expressed or implied. No agent of the company is authorized to alter or otherwise revise this warranty.

For complete specs visit our website: www.carlonmeter.com

PROGRAMMING and OPERATION MANUAL

PCT4

Programmable Quad Timer



Leaders in water measurement and control

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Grand Haven, MI 49417

Ph: (616) 842-0420

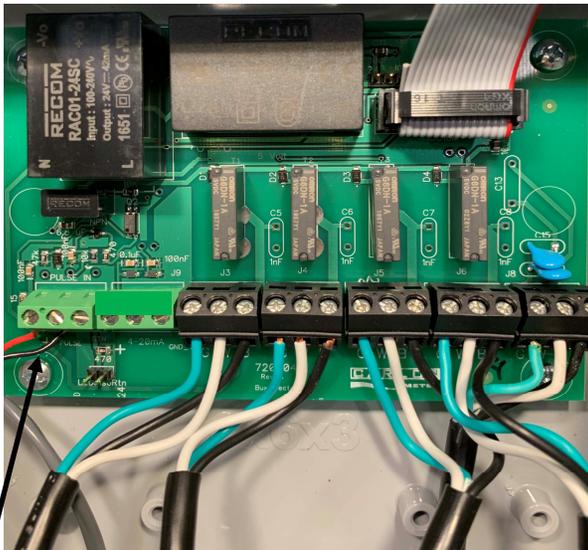
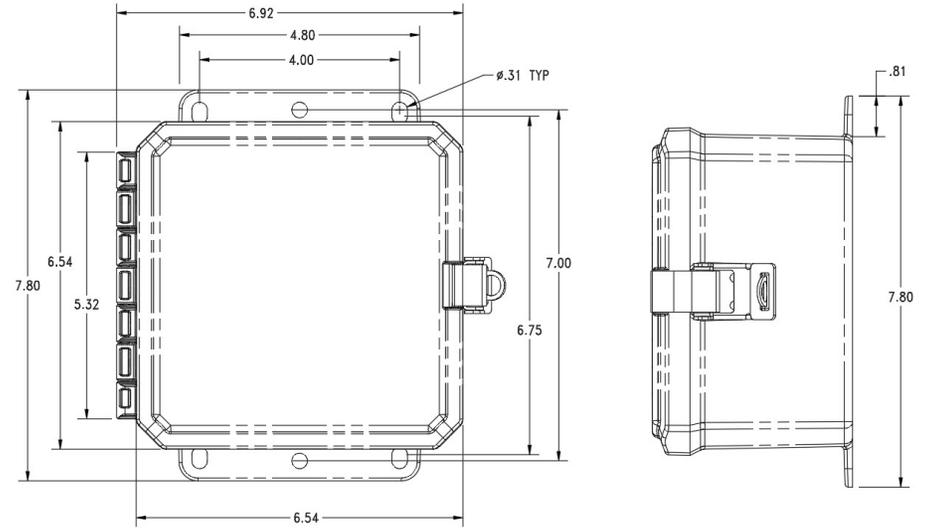
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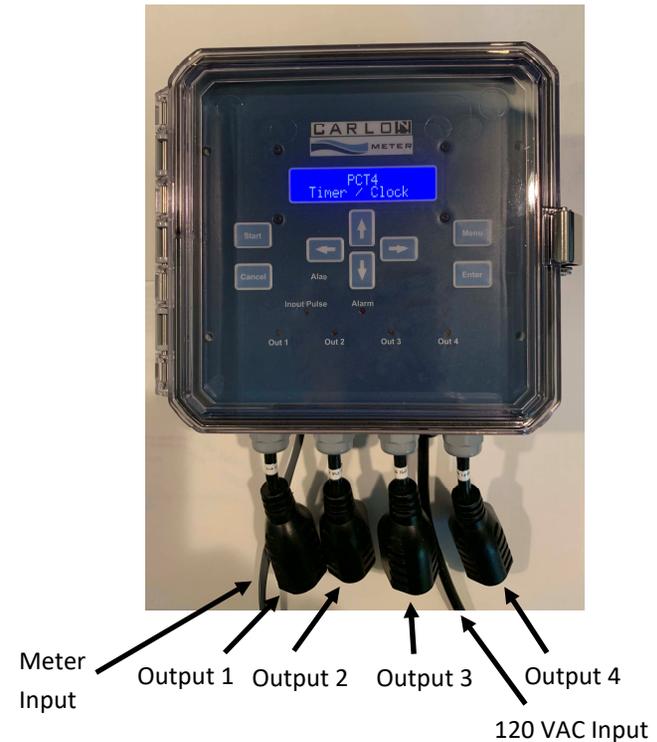
INSTALLATION INSTRUCTIONS:

1. Install the control in the desired location, noting accessibility to power outlets. Mount and keep unit in an area free from dust, moisture, and extreme temperatures. (*Do not plug in at this time*).
2. Remove the 4 screws securing the front panel of the Car-Logger and carefully push the left & right upper corners of the front panel with your thumbs exposing the terminal attachment blocks. Connect the meter signal wires providing a flow volume signal pulse to the terminal block on the left side of the circuit board. For a typical dry contact switch, use the two left-most terminals. No polarity needs be observed as the inputs are optically isolated.
3. Replace front panel and secure with front panel screws
4. Plug the male power cord into a 120 volt, 60 cycle, **GFI outlet**.



METER
INPUT

2.



11.

A time value of 0:0 will not turn on the output for that channel. If the 'Initial Counts' is set to 0, the corresponding channel immediately turns ON for the set amount of time.

Save the value by pressing 'Enter' which also advances to the total accumulated counts set up.

Total accumulated input pulses may be adjusted to any desired value. As new inputs arrive, they are accumulated from the set value after exiting **Setup**. Use the Left/Right & Up/Down arrow buttons to access and modify the digit. Pressing 'Enter' saves the value and advances to the next setup parameter.



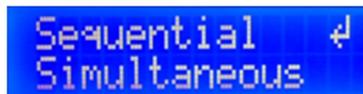
In setup of **Timer Mode**, the PCT4 returns to the **Home screen** at this point.

CALENDAR MODE SETUP:

In the **Calendar Mode**, channels 1 and 2 are to be set up in the **Timer Mode**. Channels 3 and 4 are activated when the day and time of day setting is met. Channels 3 and 4 are independent and are activated for time set. No pre-count is associated with channels 3 and 4.

With the selection of **Calendar Mode**, two options are displayed. Selecting 'Sequential' activates the Output 1 and 2 sequentially in **Run**: pre-count timer 1 is followed by ON time set up for timer 1, until the set time is expired then pre-count timer 2 count down to zero is followed by ON time set up for timer 2. Both channels reset and repeat.

Selecting 'Simultaneous' activates Channels 1 and 2 at the same time. As each pre-count reaches zero the corresponding output is activated supplying 120VAC for the set time entered.



PROGRAMMING/OPERATION INSTRUCTIONS:

Connect the power plug to 120VAC. The display shows the initial screen:



Pressing the **START** button immediately initiates the **RUN** mode using the currently stored settings.

Pressing **MENU** key allows selection of one of three modes:

1. Setup
2. Run
3. Stored values



Use the Up/Down keys to position the Enter Key prompt. Pressing 'Enter' activates the selected mode.

SETUP MODE:

Selecting **Setup** from the **MENU** screen allows selection of one of two modes: **Timer Mode** or **Calendar Mode**.



TIMER MODE SETUP:

With the selection of **Timer Mode**, two options will be displayed — Sequential and Simultaneous. There will be up to four timed outputs available to be programmed.

Pressing the 'Enter' button after selecting one of the two modes, moves to Timer 1 activation time set up. Selecting 'Sequential' activates all outputs sequentially in **Run** mode. In Sequential mode, each input contact closure decreases Timer 1 pre-count to zero followed by the Channel 1 output turning on until the time setting decreases to zero. When the set time for Timer 1 expires, the pre-count for Timer 2 is decreased followed by Channel 2 outputting 120VAC for the amount of time set up for channel. Once the time has expired Channel 3 is activated, etc.



Sequential ←
Simultaneous

Selecting 'Simultaneous' activates all programmed channels at the same time, each decreasing the corresponding pre-count to zero then activating the corresponding output for the time set. Once all channels are completed, the cycle repeats.



Timer 1 Set
02:02

Time format is Minutes:Seconds. Pressing the 'Enter' button stores the time selected to the non-volatile memory and advances to allow entry of the number of input pulses from the water meter that precedes the ON timing for channel 1. Use the Up/Down buttons to increase or decrease the number of input pulses required prior to starting the timer. All four channels are set up in the same manner.



Timer 1 Initial
Counts: 2

4.

As in the **Timer Mode**, channels 1 and 2 are to be setup next.

After Timer 2 is set up, the time durations for Timers 3 & 4 are similarly set (without an Initial Counts setting).



Timer 1 Set
02:02



Timer 1 Initial
Counts: 2

Up to ten separate triggers per week may be set for Outputs 3 or 4 by specifying the trigger time (24hr format, HR:MIN) and day of the week.

First enter the number of triggers for output 3. Selecting '0' deactivates the channel.



of T3 Triggers
Per week: 3

For each trigger select a day from the list using the Up/Down arrow buttons.



select a day
Sunday_

Then enter a trigger time pressing the Enter button to store the value.



1) Sunday
14:04

Repeat entering the day and time for each T3 trigger.

The sequence is similar for T4 and Output 4.

6.

Pressing the Up/Down arrows sequences through **Stored values**.



Timer 1 Setting
02:02



Timer 1 Initial
Counts: 2

Followed by Timers 2, 3, and 4. Then the settings for seven-day trigger points and their associated timers, designed T3 and T4. The chronological order in which the triggers will activate is indicated by the number in the upper left corner of the display.



2) T3 Monday
03:03

After displaying the calendar settings, **Timer Mode** (channels 1&2) activation sequencing is shown.



Output Order
Simultaneous



Accumulated
Counts: 1234

Accumulated count is a 'live' display showing the current count. This increments with each input contact closure.

A live display of the current day and date follows flow rate.



Monday
11-19-2018

Enter the current date and time.



Set Date
11-19-2018



Set Current Time
20:51

Pressing Enter stores the value and advances to total accumulated counts.



Accumulated
Counts: 1234

Total accumulated input pulses may be adjusted to any desired value. As new inputs arrive, they are accumulated from the value set up here after exiting **Setup**.

Pressing Enter saves the value and advances to the next setup parameter.

RUN MODE:

Pressing Enter with **Run** selected in the **Home screen** briefly displays which of two modes has been selected.



CALENDAR
MODE



TIMER
MODE

In **Timer Mode** the stored selection Simultaneous or Sequential is also briefly displayed.

This is followed by a prompt to press the 'Start' button.



In **Timer Mode** all four channels are in **Timer Mode**; Count down of initial counts followed by activating/deactivating outputs as the set times count down. The cycle repeats without re-entering the 'Start' button command.



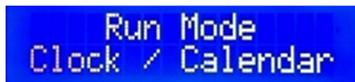
In **Calendar Mode**, channels 1 and 2 function in an independent **Timer Mode**. Channels 3 & 4 display the set times and become activated as the set trigger points for day/time are reached. The cycle repeats each seven days. While channel 3 or 4 are active channels 1& 2 outputs are inhibited.



At any time during **Run** press and hold the 'Cancel' button to abort **Run**, turning OFF all outputs and returning to the **Home screen**.

STORED VALUES:

Entering **Stored values** displays the selected **Run mode** of operation.



Additional information displayed is serial number, manufacture date and software version.



The next press of the down arrow button returns to the **Home screen**.

POWER LOSS:

1. The PCT4 is equipped with a battery backup that will maintain calendar & programming settings for up to 24 hours.
2. When power is re-stored, the PCT4 will automatically reset waiting for the signal(s) to arrive and will return to the programmed settings.
3. An _ (underline) will appear next to the time number. Press the down arrow key to remove the underline.