User's Manual

PL12-1097EN

03/29/2017

Electronic Counter

For additional product information visit our website at http://www.clecotools.com/tulman

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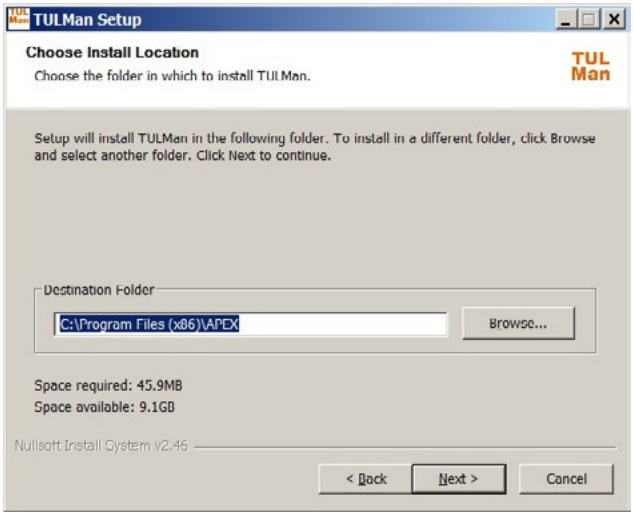
Cleco® TULMan™ Software Installation:

1. Free WEB download at http://www.clecotools.com/tulman
2. Launch the executable file and follow the on screen instructions: TULMan +Setup. exe

   Click “Next” to continue.

3. **Choose Install Location** screen

   Click “Next” to continue.



4. **Choose Start Menu Folder** screen

   Default start menu folder: APEX

   Click “Install” to continue.

5. **Installation Complete** screen

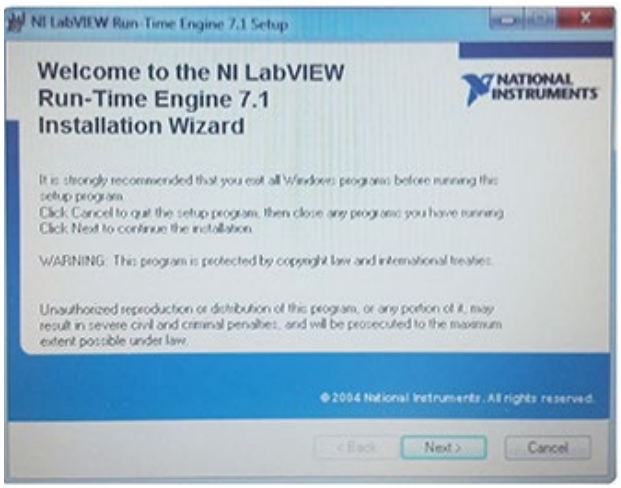
   Click “Next” to continue.

NOTE: Required drivers to access the Cleco® TULMan™ product will also be installed, accept installation of these drivers and follow the on screen instructions.

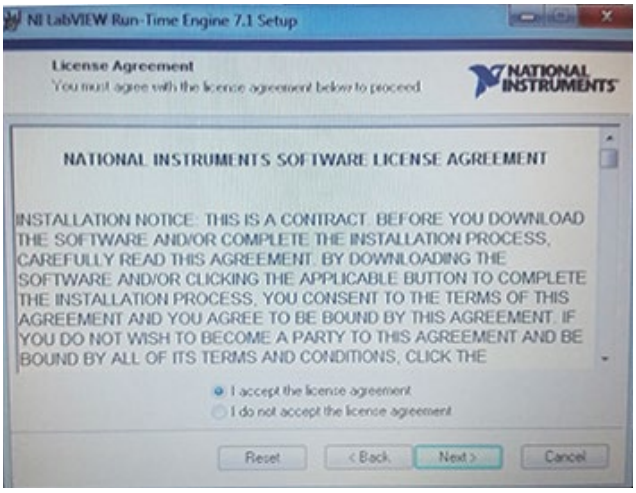
Installation of NI Labview Runtime may also be required - Accept this install.

Windows Security

NI LabVIEW Run-Time



NI LabVIEW Run-Time License Agreement



6. **Installation Complete** screen

Connect Cleco® TULMan™ using a micro USB cable:

Starting the Program

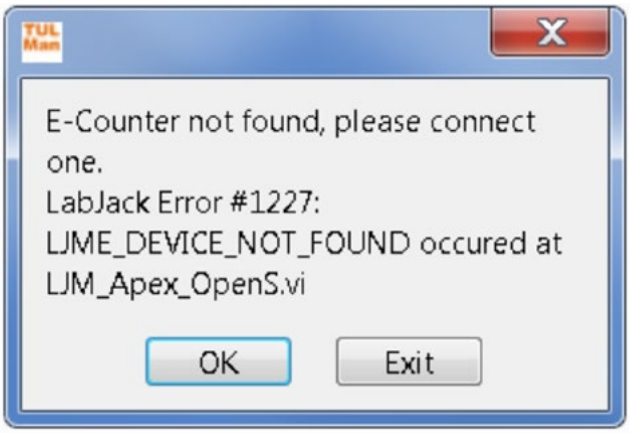
1. Connect the Cleco® TULMan™ to a computer using a USB-Micro USB cable.
2. Open the Cleco® TULMan™ software.

   The connection error, shown to the right, will appear if the software fails to detect the Cleco® TULMan™. This can be caused by one of the following conditions:

   - Opening the software prior to connecting the Cleco® TULMan™ to the computer
   - Damaged USB-Micro USB cable
   - Cleco® TULMan™ driver not installed

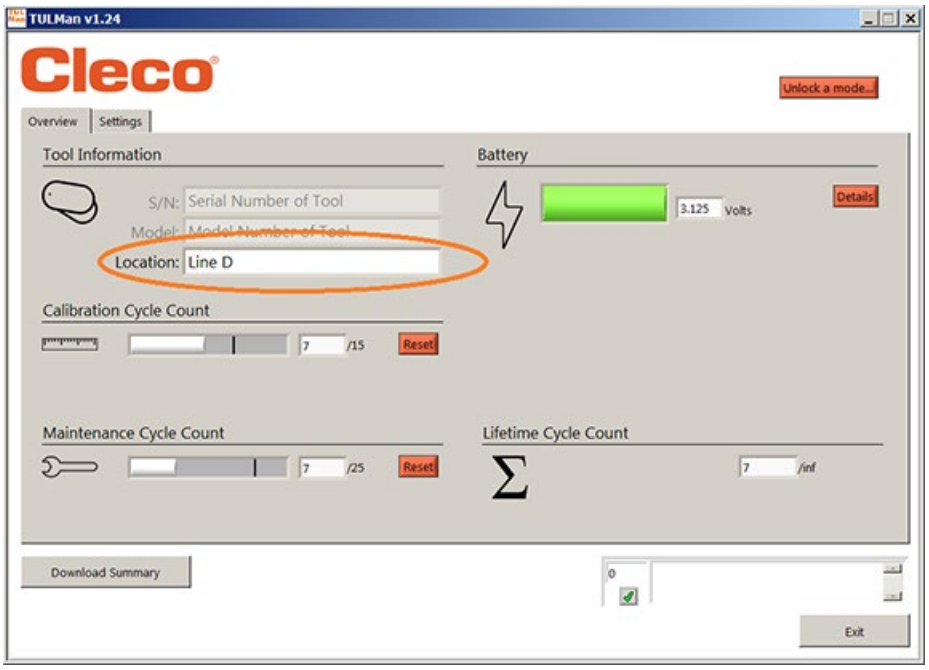
   The error message will disappear after connection between the Cleco® TULMan™ and the computer has been established.

   Click OK

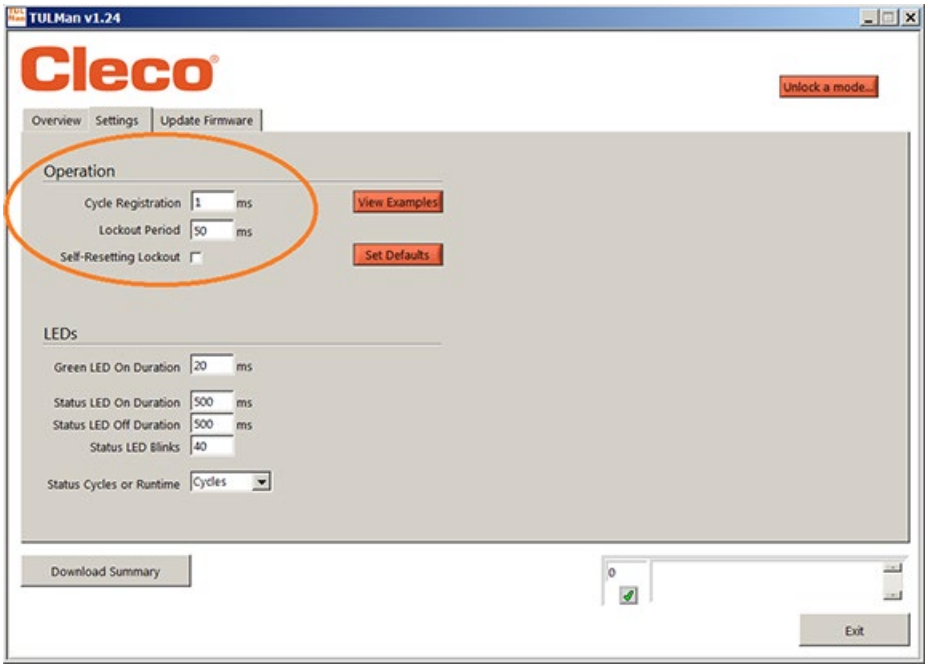


3. Click OK and you can view the data on the counter.

   Overview Tab

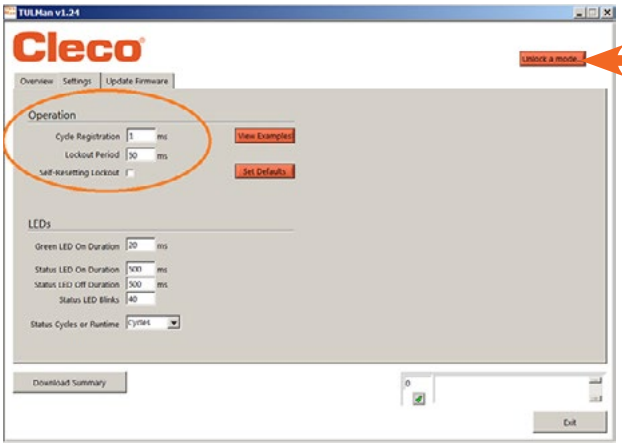


   Settings Tab



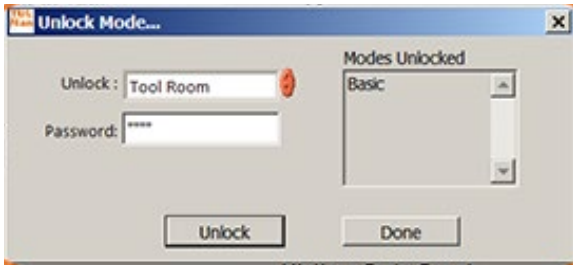
4. Unlock a Mode

   On the settings tab you can unlock one of the 3 modes.

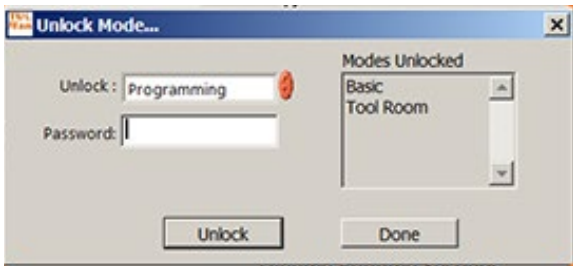


Note: There are 2 additional modes for factory use only; Advanced and Factory.

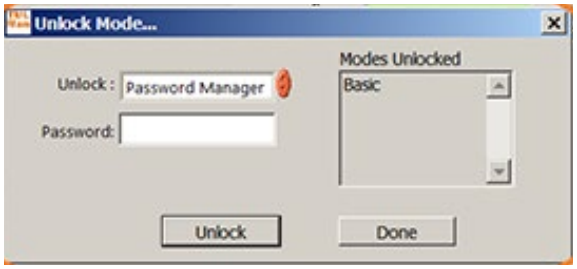
Tool Room - Default PW - Tool



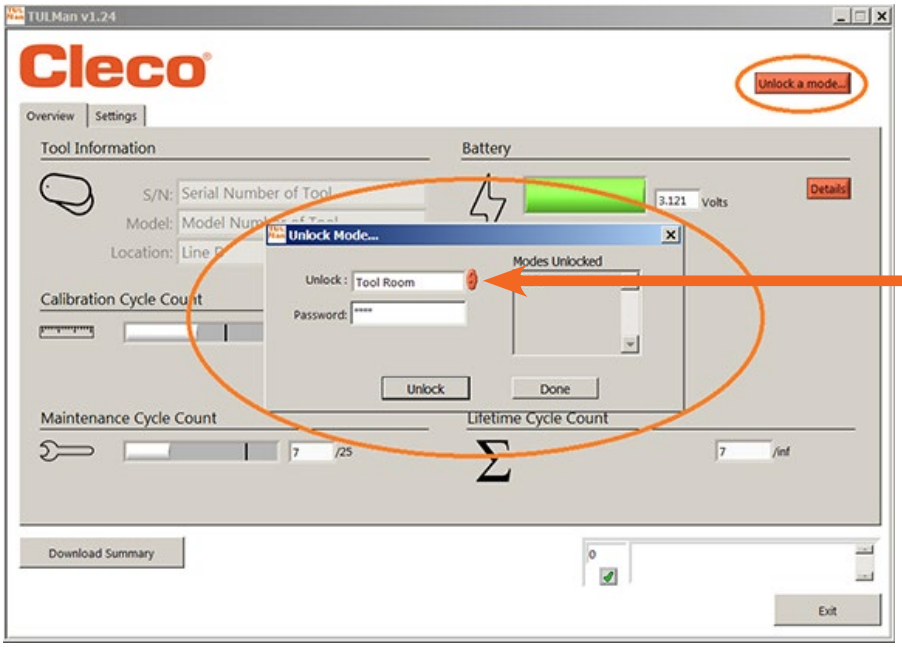
Programming - Default PW - Programming



Password Manager - Default - Password



5. Password Mode

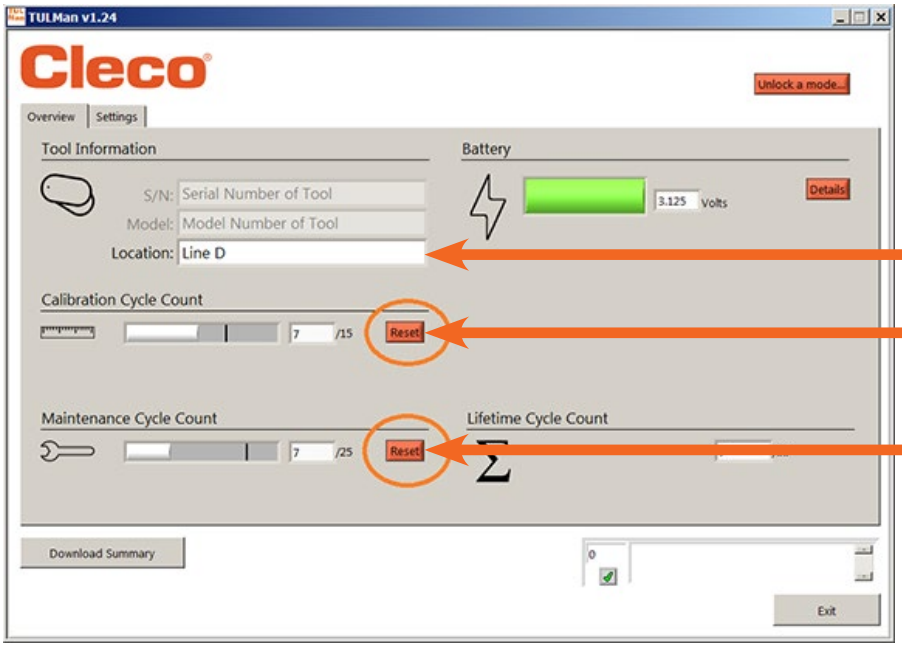


Allows Passwords to be changed for:
- Password Manager
- Tool Room
- Programming

IMPORTANT: Maintain a record of the passwords set. If a password is forgotten it is NOT possible to recover.

Note: The passwords can not be changed for the factory use only modes; Advanced and Factory.

6. Tool Room Mode

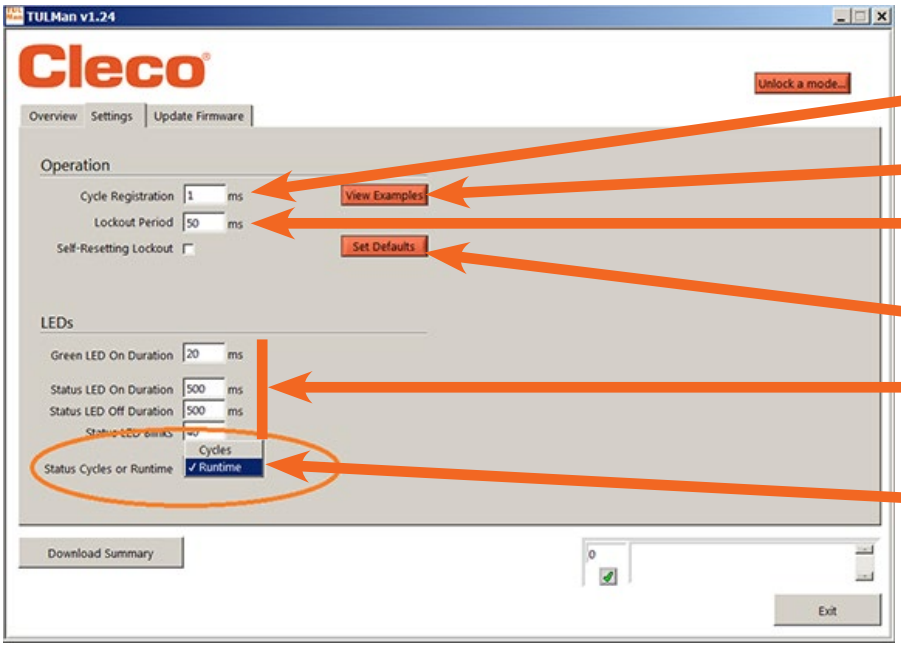


Allows tool location to be changed

Allows Calibration Cycle/ Run Time Count to be reset

Allows Maintenance Cycle/ Run Time Count to be reset

7. Programming Mode - Settings



Set minimum time for a cycle

See examples of cycle setting

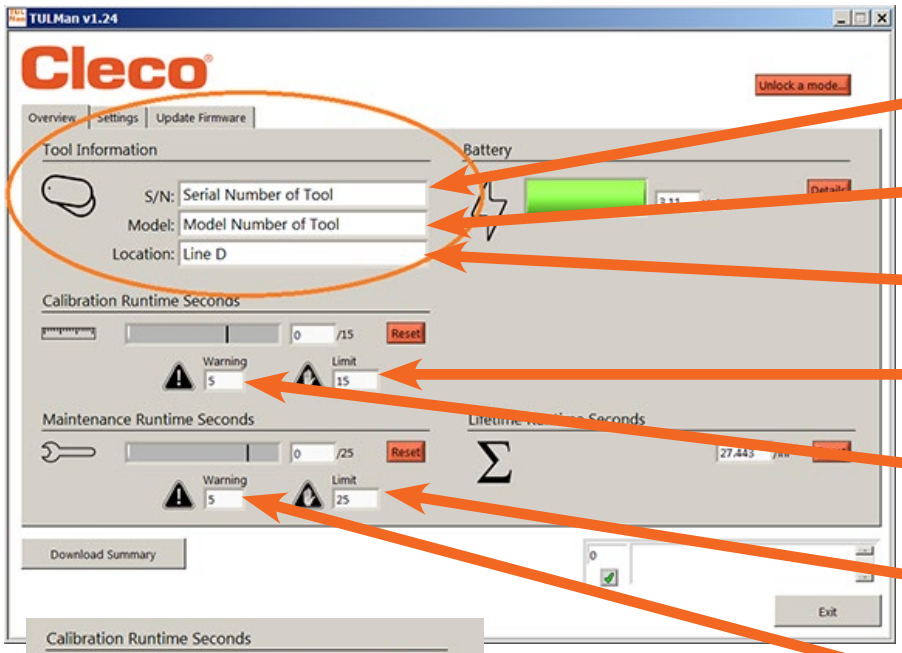
Set minimum time between cycles

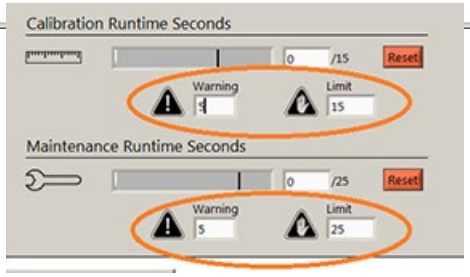
Reset to factory defaults

Set LED behaviour
NOTE: Keeping LED's on for too long can reduce battery life.

Set Count by Cycles or Runtime

8. Programming Mode - Overview





Set Serial Number of the tool that counter is mounted on

Set Model Number of the tool that counter is mounted on

Set Location in the plant tool is used

Set Limit for RED light for Calibration LED

Set Warning for YELLOW light for Calibration LED
This is Cycles Remaining

Set Limit for RED light for Maintenance LED

Set Warning for YELLOW light for Maintenance LED
This is Cycles Remaining

NOTE: With Runtime selected on the settings tab data will be input in seconds.

9. Quick Guide to Programming

   On the settings tab select Cycle or Runtime.

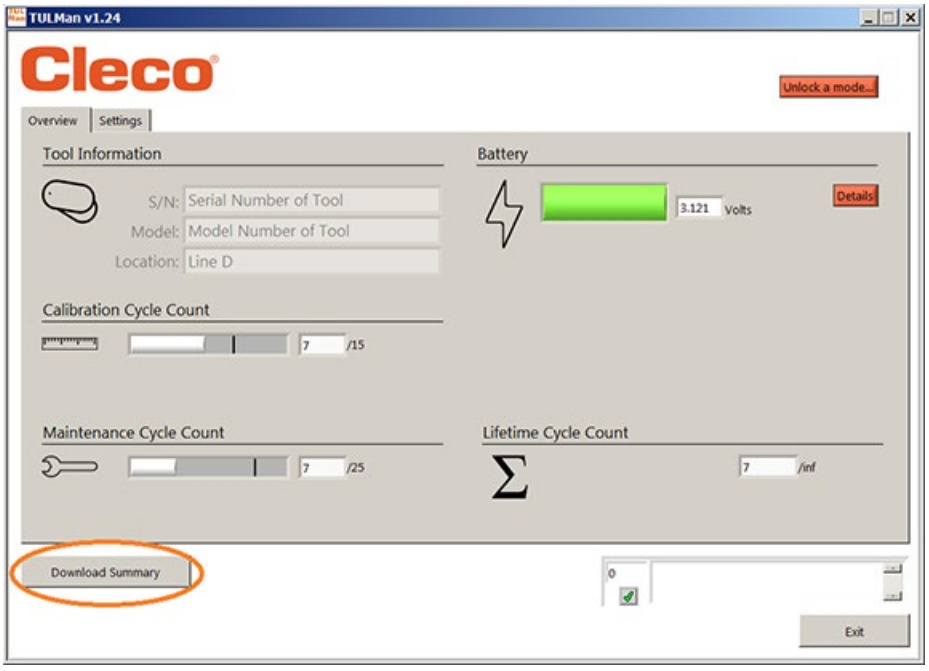
   - Use Cycle for torque controlled Screwdrivers with clutches.
   - Use Runtime for varying cycle time tools such as Drills or Sanders.

   In Cycle mode additional settings can be used for a more accurate cycle count, these are NOT used with Runtime. Refer to the examples in the Software or in Appendix. Consult the tool manufacturer or use previous data to establish warnings and limits for the Calibration and Maintenance setting. It is recommended that the warning is at least one shift before the limit.

   In Runtime mode time should be input in seconds. Consult the tool manufacturer or use previous data to establish warnings and limits for the Calibration and Maintenance setting. It is recommended that the warning is at least one shift before the limit. For hours to seconds conversion see Appendix Runtime Calculator.

10. File Download

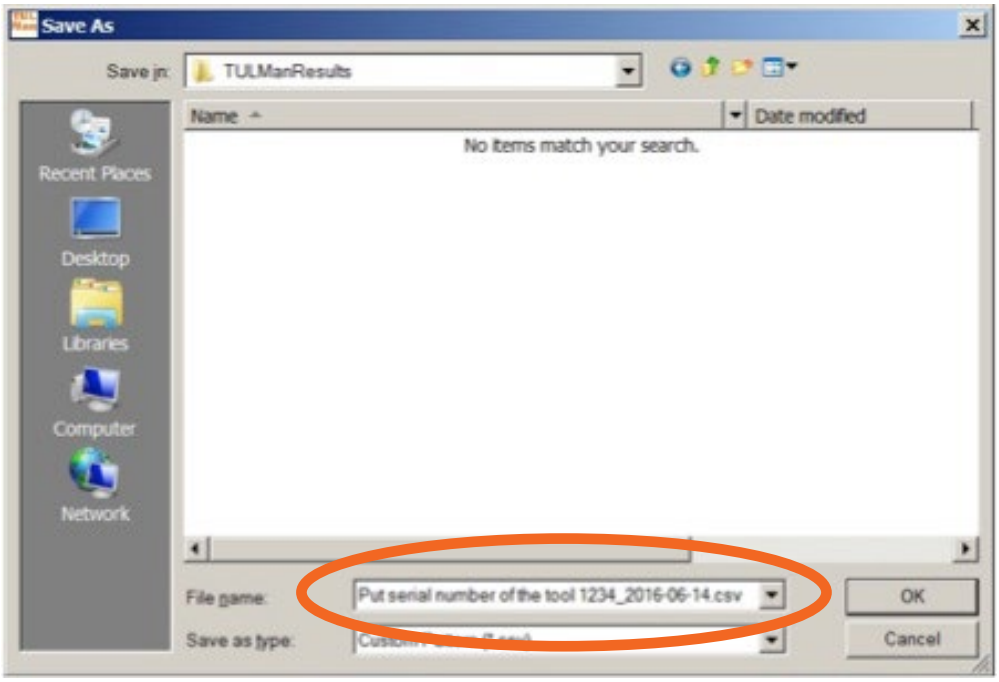
    File download is allowed in any Mode. Click the Download Summary box on the Overview tab.



A dialog box will open to save the file with a default file name of:

Tool serial number_year_month_day.csv

Select a location on your computer to save the .csv file. It is recommended that you create a folder specifically for the results files.



The csv file can be opened in Microsoft Excel either through file open, select file type .csv or locating the file in windows explore and double clicking the file.

The csv file contains all information for the counter for cycles and run time.

Tool Model No	Tool S/N	Tool Location	Apex ID	Electronics S/N	Date	Time
Put the model number of the tool 19RAA	Put serial number of the tool 1234	Put Location in the plant	LJ ID_0003	224000003	6/14/2016	11:18:29

Since Last Calibration	Limit LED D2 (red)	Warning LED D2 (yellow)	LED D2 Association	Runtime Counter A	Since Last Maintenance
6	20	5	Runtime Counter A	19.184	6

Limit LED D3 (red)	Warning LED D3 (yellow)	LED D3 Association	Runtime Counter B	Lifetime Cycles	Lifetime Runtime	Battery Voltage
40	10	Runtime Counter B	19.184	24	62.584	3.087

Cycle Registration Period	Lockout Period	Self-Reset Lockout?	Cycle Counter C	Runtime Counter C	Cycle Counter D (Factory)	Runtime Counter D (Factory)	Oscillator interruptions	Status LEDs Cyc or RT
1	50	Disabled	1092	967.588	1092	967.588	1	Runtime

Counter A = Calibration Counter, LED 2 Counter B = Maintenance Counter, LED 3
Counters C and D are Factory Use Only

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Appendices

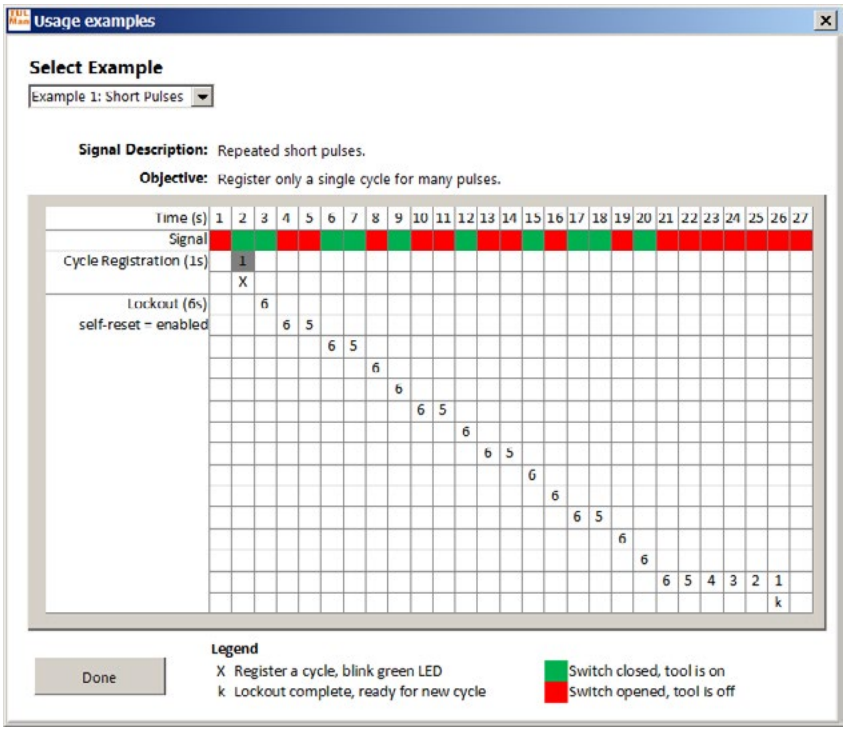
- Appendix 1: Runtime Calculator
- Appendix 2: Cycle Count Examples
- Appendix 3: End User License Agreement

Appendix 1: Runtime Calculator

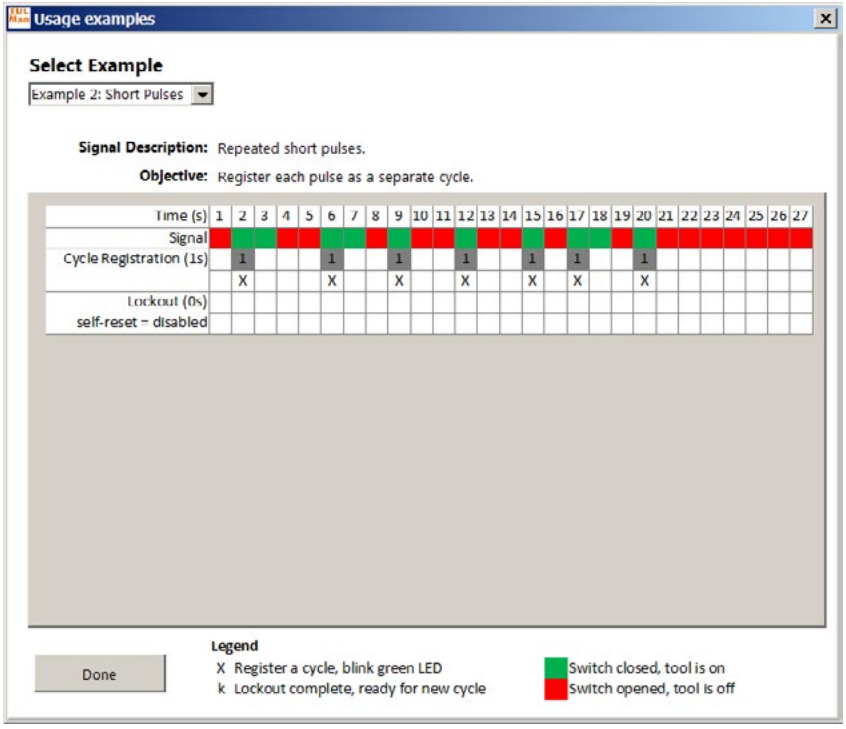
Hours	Seconds
1	3600
8	28800
16	57600
24	86400
50	180000
100	360000
200	720000
300	1080000
500	1800000
1000	3600000

Appendix 2: Cycle Count Examples

Example 1: Short Pulses

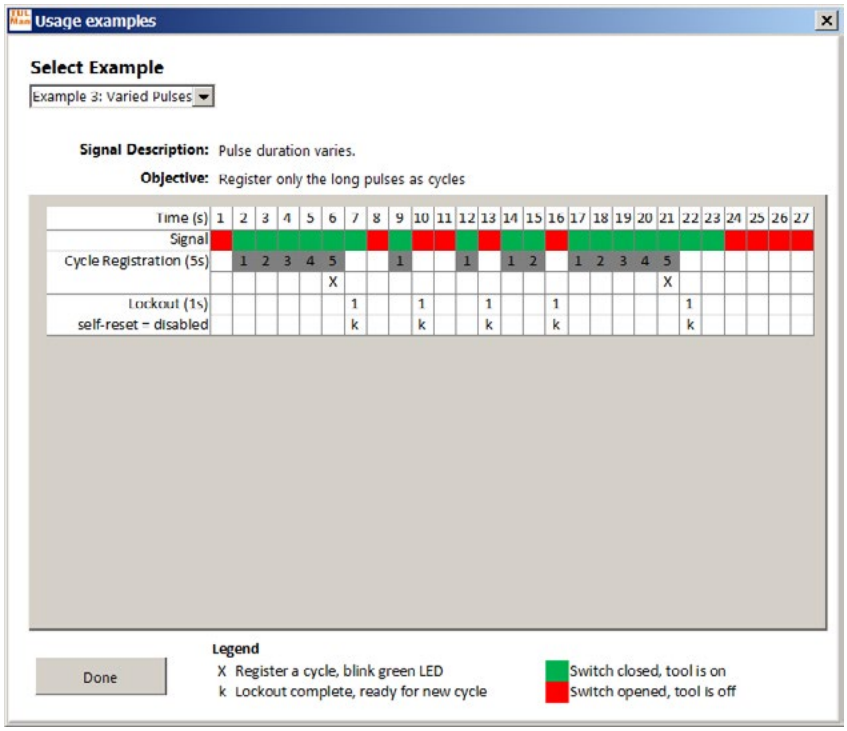


Example 2: Short Pulses

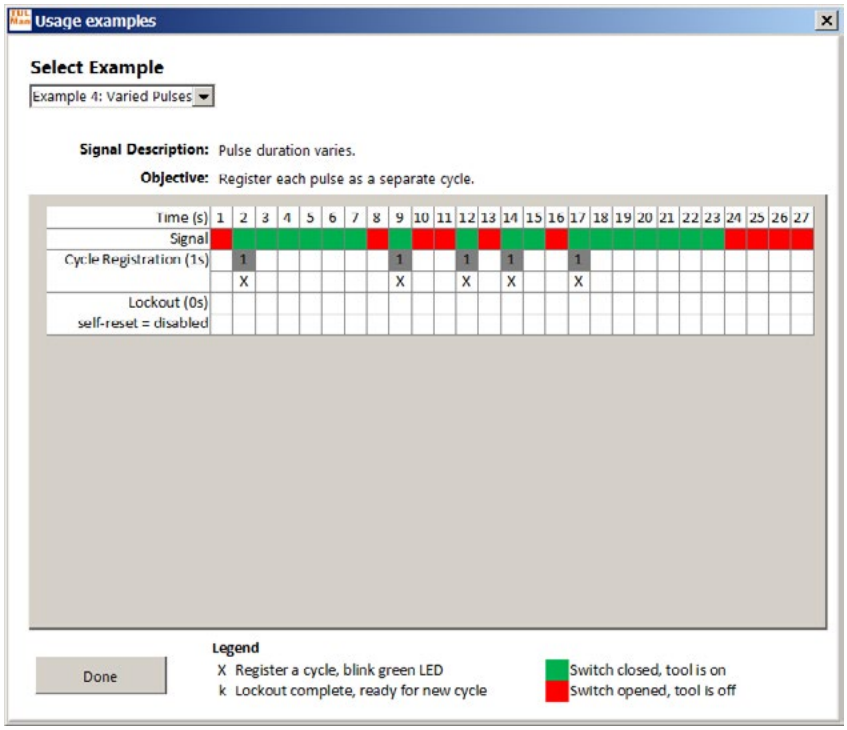


Appendix 2: Cycle Count Examples (continued)

Example 3: Varied Pulses

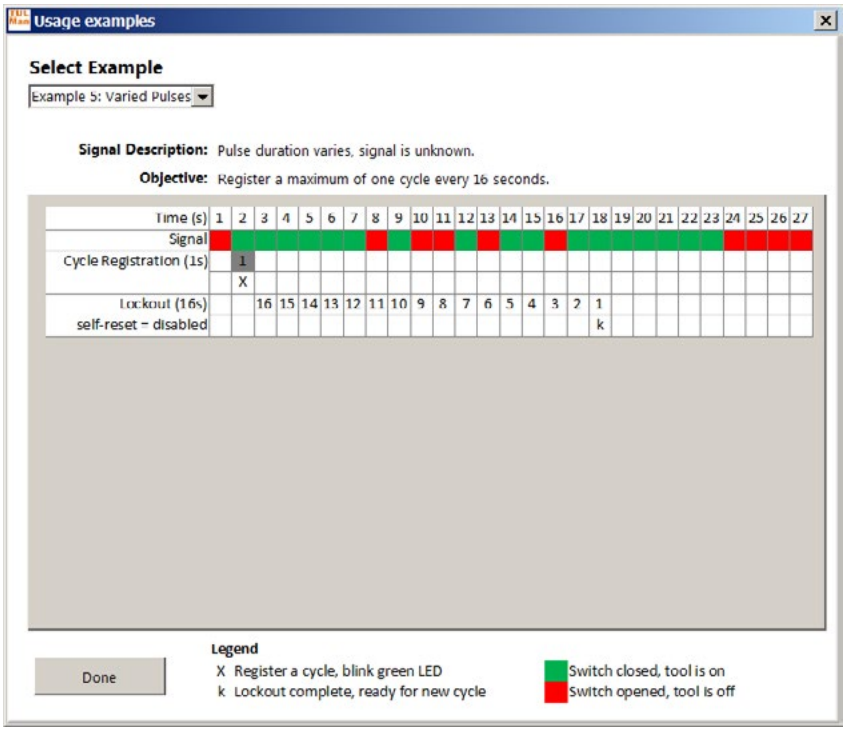


Example 4: Varied Pulses



Appendix 2: Cycle Count Examples (continued)

Example 5: Varied Pulses



Appendix 3: End User License Agreement

END USER LICENSE AGREEMENT

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Safety

Personal Protective Equipment

The electronic counter is an add-on accessory for small pneumatic tools. Wear proper personal protective equipment required for operation the pneumatic tool which the electronic counter is connected to.

Designated Use

The electronic counter is designed exclusively to be used with small pneumatic tools.

- Do not modify the circuit board
- Do not modify the electronic counter assembly

Operating Condition

Maximum Pressure: 100 Psi (700 Kpa)

Operating and storage temperature:

-22°F to 140°F (-30°C to 60°C)

Battery

- CR1632 battery only
- Do not recharge

Product Description

- Electronic counter
- E-Counter
- Cleco® TULMan™ Device
- Counter

Counter Assembly

Tool Integration

The electronic counter can be easily integrated to common small pneumatic tools. Other than adaptations designed for a specific tool, the following configurations are also available.

Tool Air Inlet Thread:

The Cleco® TULMan™ thread is 1/4” NPT. To connect to other thread sizes use either a solid adapter or a whip hose adapter.

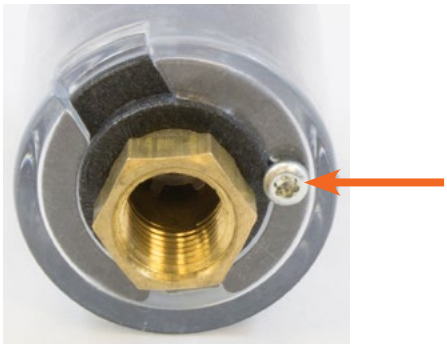
Connection Method: Whip Hose

Connection Method: Pipe Nipple

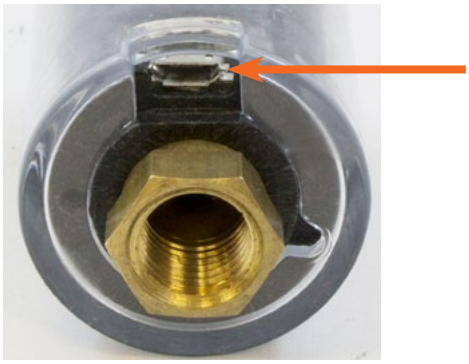
Connect to Computer

The counter can be connected to a computer using the micro-USB port built into the counter circuit board. Refer to the Software User's Instructions in this manual for details regarding the software interface. Following are the steps required for connection.

Step 1:
Remove the screw securing the counter cover.



Step 2:
Rotate the cover to expose the micro-USB port.

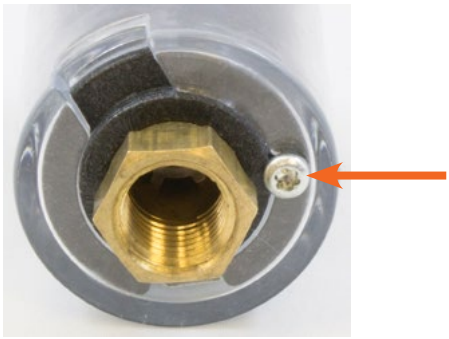


Step 3:
Connect the mico-USB cable to the counter.

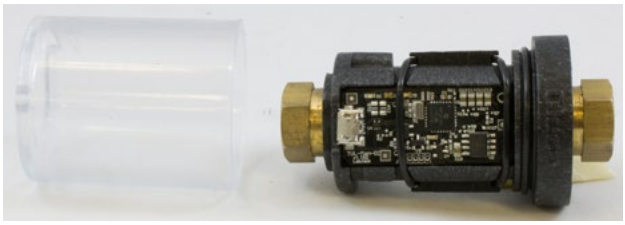
Battery Replacement

Battery life can be monitored using the software. Refer to the Software User's Instructions in this manual. Following are the steps required to replace the battery.

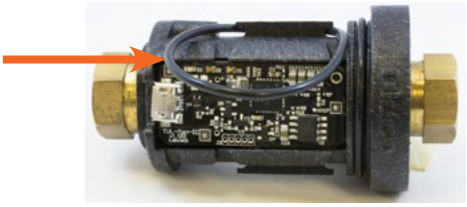
Step 1:
Remove the screw securing the counter cover.

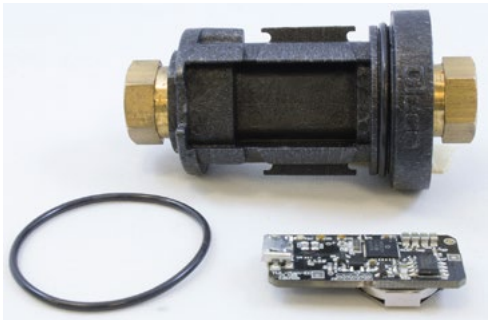


Step 2:
Remove the counter cover.



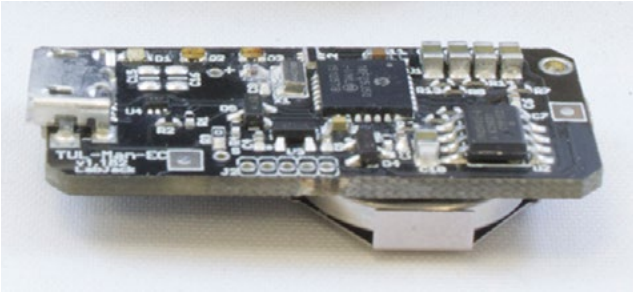
Step 3:
The circuit board is held down by an O-Ring. Slide the O-Ring away from the circuit board.



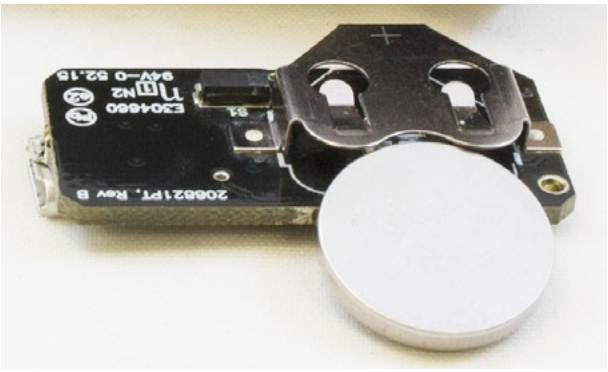


Battery Replacement (continued)

Step 4:
Remove the circuit board from the counter body.



Step 5:
Replace the battery as shown.



Step 6:
Reverse the previous steps to reassemble the counter.

POWER TOOLS SALES & SERVICE CENTERS

Please note that all locations may not service all products.
Contact the nearest Apex Tool Group Sales & Service Center for the appropriate facility to handle your service requirements.

Sales Center
Service Center

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