

READ ME FILE for CTC Software "e-Timer"
Version 10.10.13

Cla-Val CTC Electronic Battery-Powered Timer Control Valve Software download from www.cla-val.com
Cable Driver: Multi-USB_V1.34.exe
Software: e-Timer_V1.19.exe
Firmware hex file: e-Timer_V2.05.hex

INTRODUCTION

The Cla-Val CTC is a self-contained 1/4" NPT Battery-Powered Timer Control Valve. It consists of a bi-stable, two-way solenoid and battery-powered control electronics contained in a single IP-68 rated waterproof enclosure. Cla-Val p/n 20740101F

This software program does the following: 1) creates a time sequence ("set of rules") for opening and closing the CTC, 2) downloads this program to the control electronics inside CTC. The software also updates the internal clock and calendar inside the CTC.

This software is only compatible with Windows 98/2000/XP operating systems.

To program CTC you MUST USE Cla-Val USB programming cable between PC computer and CTC.
- ORDER Cla-Val p/n 20519203A (1 meter long, orange)

INSTALLATION STEPS

A) FIRST - INSTALL Cla-Val Multi-USB cable DRIVER
Software: Multi-USB_V1.34

Step one: From Cla-Val.com website download file. On file download security warning window, click save file to download Cla-Val Multi-USB Setup V1.34.exe to computer.

Step two: Install CTC communication cable in computer USB port BEFORE launching driver installation.
- Cable should not be attached to CTC at this time.
- This connection allows computer operating system to properly recognize USB cable as it installs driver.

Step three: Install driver software by clicking run Multi-USB Setupv134.exe from website download or from saved file. Select manually install if Windows does not automatically install driver.

Step four: Verify presence of "Cla-Val Multi-USB interface" after driver installation is complete. Check in computer by: click on Start: Control Panel: System: Device Manager: Universal Serial Controller file. USB Cable must be plugged in.

B) SECOND - INSTALL CTC PROGRAMMING SOFTWARE
Software: e-Timer_V1.19.exe

Step one: From Cla-Val.com website download file. On file download security warning window, click save file to download e-Timer_V1.19.exe to computer.

Step two: Install e-Timer software by clicking run e-Timer_V1.19.exe from website download or from saved file. Software will install on computer with new e-Timer Setup folder inside Cla-Val folder in Program Files on C: drive. A desktop shortcut "e-Timer" is also created.

NOTE: Must be installed on computer AFTER Cla-Val Multi-USB cable driver is installed.

CTC SOFTWARE SET UP

A) INITIAL SET UP

CTC software must be closed and USB cable not connected.

Set up Cla-Val USB cable installation between computer and CTC

- First, install cable in computer USB port where Cla-Val Multi-USB driver was installed. Wait 10 seconds for computer to recognize USB cable with audible signal or pop-up window.

- Second, remove top of CTC and carefully extend connector wires and attach cable to three-pin connector. You may have to remove battery from enclosure to do this. If battery is missing or exhausted replace with fresh 9 VDC Lithium battery, size U9VL-J. Other size 9 volt batteries may not fit correctly between the slots inside CTC enclosure.

- These two steps must be in this order so that Windows will properly recognize the cable and CTC.

- Third, click on desktop shortcut to open e-Timer program.

- Fourth, e-line list window will have only one e-Timer on list, for example: {e-Timer(12)2.05→90805074}. CTC serial number is last eight digits of listing and is also found on CTC. Select CTC e-Timer and double click to open program.

- If CTC timer/serial number is not displayed in e-line window, then CTC is not connected to computer properly or battery is low. Click on "cancel" to open e-Timer program anyway. You will then be able to only create and save new rule sets. All other parameters will not change until CTC is connected correctly. Consult factory for help.

TO USE CTC SOFTWARE, Part ONE

CTC must be properly connected to computer and e-Timer software opened correctly.

A) SET LANGUAGE DISPLAYED

Click on down arrow next to center window to select: Francais, English, Italiano, or Espagnol. Highlight and click on desired language display. Wait until software finishes changing labels.

B) CHECK FIRMWARE VERSION

- Click on Read Parameters button, then read firmware version in Information area (below logo). Version should be (12)-2.05. If firmware version is not correct, then use software to download firmware update.

C) UPDATE FIRMWARE

Step one: From Cla-Val.com website, download e-Timer firmware hex file (e-Timer_V2.05.hex) and save in new folder on computer. We suggest locating folder inside "e-Timer" folder.

Step two: Click Parameters menu item at top left (not Read Parameter button) and select Firmware Update. Click "Yes" on next window. In next window, browse to folder where you saved firmware hex file (e-Timer_V2.05.hex) and click on the file. After a few seconds the new firmware will install in CTC and notify that it is finished. This has no effect on any programming settings.

D) CHECK CTC CONDITION INFORMATION

Click on Read Parameters button to display CTC data. Information Area (below logo) will display: CTC firmware version; serial number; last programming date; battery level, and voltage; and date (when Reset Time button was last used). Also, current CTC program rules values will be displayed when Program button is clicked.

E) SET TIME, DATE AND DAYLIGHT SAVINGS TIME VALUES

Click on Reset Time button to synchronize CTC software clock and calendar with computer clock. Click OK to close window. Click on Read Parameters button to verify values.

For locations using Daylight Savings Time, In Daylight Saving box check Enable to set. Click Get Official Date to synchronize software calendar and computer calendar for daylight savings time changes. Use Start and End windows to edit if needed. Format is month/day/year. Highlight with mouse and enter new numbers or click on down arrows to open calendars to navigate to desired start and end DST dates.

TO USE CTC SOFTWARE, Part TWO

D) CREATE NEW CTC TIMER RULES SET

A set of rules are used by CTC to sequence the opening or closing of the integral solenoid valve through seven days in one week. This set of rules or “program” is then repeated weekly. Maximum of eight (8) rules are accepted.

To begin, click on Program tab to open output programming window. NOTE: When Read Parameters button on Main window is clicked, currently active Rules Set will be displayed and is ready for editing when Program window is opened.

- 1) In default value area, SET output to Latch, and select CLOSE. This is state of CTC before starting rules sequence and position CTC goes to when battery is depleted.
- 2) In rules area, the three rules area buttons (Add, Save, and Delete) allow editing rules and their order. First, click on Add a rule. Rules appear in Conditions window and are automatically numbered as they are added.
- 3) Each rule defines the state of CTC solenoid output (either open or closed) at the end of the previous time sequence. Select desired Latch output value for each rule.
- 4) Each rule is assigned a daily schedule for one to seven days during week. In the Daily Timing window, select from drop-down menu desired day or combination of days for each rule.
- 5) Each rule starts at the time set in hh:mm:ss window. The start time is set using 24 hour notation. Enter start time as hh = hours, mm = minutes, and ss = seconds. Use mouse to highlight and change time values with keypad or use up/down arrow keys.
- 6) NEW FEATURE (with software: e-Timer_V1.19). In the Daily Timing window the last selection is Date/Time. This option sets rule for activation on single desired day using drop-down calendar, and single desired time as hh = hours and mm = minutes. This rule is a one time event and not repeated weekly.
- 7) Previously saved Rules Sets can be reused by clicking on Read Program button and navigate to desired Rules Set file to open.
- 8) Completed Rules Set can be saved by clicking on Save Program button. Enter new file name in small white window. Rules file will be saved in e-Timer Setup folder by default or can be saved to new folder on computer.
- 9) Completed Rules Set can be printed for review by clicking the Print Program button.
- 10) After desired Rules Set file is open, click on Exit Program button to close Program window.

E) SEND RULES PROGRAM TO CTC

11) In Main window, click on Write Parameters button to download selected Rules Set file to CTC memory. Then CTC is ready to perform open/close operations from rules sequence sent in download. Also, CTC time and date are updated. Click on Read Parameters to verify download - note updated time and date in Information box.

12) Click on Exit to close program and begin CTC timer functioning.

13) Finally, carefully remove cable from CTC connector to prevent damage. Reinstall cover hand-tight using O-ring seal to retain IP-68 watertight rating.

MANUAL OVERRIDE OPERATION

- To manually open or close CTC while connected to computer, first check box for Stop Program in Output Control area. Select Open or Close in Latch Output window, then click Activate button. Uncheck Stop Program box to return to normal program. A slight click sound may be heard for each CTC activation and this is normal.

- To manually open or close CTC during normal operation without computer connection for short time periods, position red magnet for about 3 seconds on outside of CTC above outlet to activate. This manual override will last for the time (seconds) set in the window for Manual Action Delay. A slight click sound may be heard for each CTC activation and this is normal. For CTC manual override operation use Cla-Val red-coated magnet, order p/n 20031606K.

- CTC will go to programmed default position when battery is low.

TROUBLESHOOTING

<u>Problem</u>	<u>Check</u>
The software opens but not working with CTC	- Must use Windows XP or 2000
CTC connected to PC and CTC not show in e-line list window or e-Timer missing message	- Check for Cla-Val Multi-USB driver properly installed - Check battery voltage (must be 7.2 volts or more) - Disconnect cable at PC and connect again - Restart program then reconnect to CTC
CTC connected to PC and Read Parameters information not showing	- Check software and firmware versions and update. - Disconnect cable at PC and connect again - Restart program then reconnect to CTC
When CTC is connected to battery or cable is disconnected from CTC solenoid activates once or twice	- This is normal

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There are known issues with e-Line software/firmware running on Windows Vista or Windows 7. All e-line software/firmware is ONLY Windows XP and 2000 compatible. E-line software/firmware is now being developed for Windows 7 and is scheduled for release during fourth quarter 2010.

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