

LABCON-V FREQUENTLY ASKED QUESTIONS

Why is the CR display setting not compensated correctly when I enter the site barometric pressure reading?

The CR display value should be calibrated with reference to 29.92 inches Hg per ASTM D-2699 and D-2700. Proper CR calibration is accomplished by first disabling the barometric pressure transducer and then manually entering 29.92 as the set point. Next, CR calibration should be performed using the "CR Calibration" option. Once this is done, the LabCON CR reading should be identical to the uncompensated digital counter readout within one unit. After CR calibration the local barometer reading should be manually re-entered or re-calibrated to use the internal pressure transducer. The LabCON display will now show the correct compensated CR value.

My touchscreen is intermittent from power up to power up or is not working at all.

This happens when initial touchscreen handshaking fails due to random states at startup. This may occur on units shipped between April 1999 and August 2001 and is corrected by adding a parameter to the ELODEV driver statement. Exit to DOS by typing F3, F5, F1 from the main menu. The password to exit is 5226. Type EDIT AUTOEXEC.BAT [enter] and verify or modify the following statement to include the -p- parameter:

```
C:\TOUCH\ELODEV 2210,3,9600,11 -C416,3747,3540,592,1,255 -p-
```

Save the file and exit, restart the system and verify proper touch operation.

Why do I get "Diskette Error" on the display when powering up the LabCON-V computer?

LabCON computers shipped prior to July 1995 and from July 1995 to January 1999 both have an external floppy drive. If the BIOS is configured to look for this drive and it is not connected, the message "diskette error" will appear on the screen during the boot process. To eliminate this message you must disable the floppy disk drive in the BIOS.

I am getting "Error allocating main memory" errors. What is happening?

This is a software bug when seen in combination with operational error messages. LabCON version 4.03 fixes this problem. Check the LabCON V software release notes for more information. If version 4.03 does not fix the problem, check that the CONFIG.SYS file includes the line: DEVICE=C:\DOS\EMM386.EXE NOEMS or insert it as the second line.

How do I enter the BIOS setup on the LabCON-V computer?

If you are using a unit shipped prior to July 1995 then depress the keys [CTRL][ALT][S] simultaneously. This will start the BIOS setup program. Be sure

not hit these keys when running an active test.

If you are using a unit shipped post July 1995 and pre April 1999, during the boot process the word setup will appear on the screen, at this time touch the dot on the far left upper corner of the front panel. This action will start the BIOS setup mode.

If you are using a unit shipped post April 1999, during the boot process press [CTRL][ALT][ESC] simultaneously. This will start the BIOS setup program.

If you are using a unit shipped post March 2002 press the [DEL] key during the boot process to enter the BIOS.

I've finished rating a sample using the CR Method and my final Research CR is 757 but LabCON is reporting a final octane number of 92.0 instead of 92.1. Why?

This is the most common question asked to our technical support staff. LabCON can detect much smaller changes in KI than the human eye can see on the KI meter. So when LabCON controls the CR to move the sample's KI to the PRF setpoint it will not control to the exact KI setpoint. This is almost impossible to do. So LabCON will calculate (i.e. interpolate) the difference between the KI PRF setpoint and the sample KI and apply this difference to the final octane number calculation. This method of calculation will provide a much more accurate result than the human eye can see.

How do I set the LabCON screen saver?

This is done by entering the BIOS setup. See the faq "How do I enter the BIOS setup.." above. LabCON units using the PCS computer do not have a screen saver. The screen saver for computers with software version 4.04 or higher will have a screen saver menu selection to avoid interruptions during testing.

When I power up the LabCON computer I get the message "Fixed Disk Controller Failure" or "Missing Operating System". What is wrong?

More than likely your hard drive has failed. Contact our support department for a repair RMA number.

My hard drive in the LabCON computer has failed prematurely. Why?

Computer hard-drives are delicate instruments which don't particularly like vibration. Have you ever heard a record skip or a CD-Rom skip when playing your favorite song? The same theory can be applied to the hard drive which is mounted to the CFR engine which generates constant vibration. Although the drive is shock mounted, they have been known to fail prematurely. Starting in January 1999 we have started replacing failed hard drives with flash disk

replacements. These new "disks" have no moving parts and are impervious to vibration.

I just calibrated the compression ratio signal but the digital counter on the engine doesn't agree with the computer readout. Why?

LabCON has a cylinder height measurement device (CR Converter) mounted to the engine cylinder which measures the compression ratio. This device is a much more accurate measurement of compression ratio than the traditional digital counter. The digital counter is a mechanical gear driven mechanism and can have excessive "slop" in the mechanism. It would be impossible to have both of these indicators agree. The LabCON CR Converter device is a much more accurate compression reading than the digital counter and should be the only method used for reading the compression on an engine with a LabCON-V installed.

My CR Converter is failing prematurely. Why? The old style CR converter internally has a linear potentiometer which measures the cylinder height. This "pot" can wear excessively due to the engine vibration and heat. We have replaced the old style CR converter with an LVDT type device. This new style is impervious to vibration and engine heat. If you are interested in obtaining this retrofit please ask our sales department about P/N SA-11080.

I keep getting the error "Out of Fuel" on the LabCON screen.

This is probably due to bubbling of your sample fuel or due to an air bubble in the fuel flow rotameter. Before starting your sample, run the pump with the sample and open the rotameter valve wide open to flush any residual bubbles out of the rotameter. If a bubble is present in the rotameter valve, the fuel will appear to flow fine in to the carburetor but eventually the flow will drop off. Undoubtedly this will occur after you leave the room. In addition, running unchilled fuels with a higher vapor pressure will cause the fuel to bubble when it passes through room temperature components. Be sure to chill those fuels.