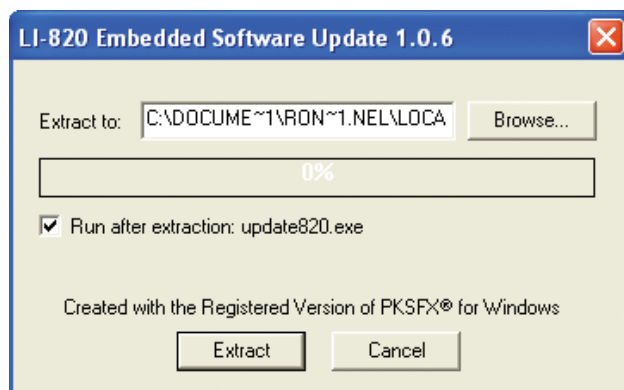


LI-820/LI-840 Gas Analyzers

Installation Instructions for Embedded Software

To update the embedded software in either the LI-820 CO₂ Analyzer, or LI-840 CO₂/H₂O Analyzer, you must open the instrument case and install a programming jumper on the circuit board, and then run a software update utility to re-program the instrument's flash memory. Follow these steps to update the software:

1. Disconnect the power supply from the analyzer. Remove the top cover by unscrewing the 6 spring-loaded screws with a Philips head screwdriver.
2. Locate the 2-pin link labeled **LK3** on the circuit board; it is located near the optical bench, just above the LI-COR logo, as shown in the photo on the next page. Note that there may or may not be a black connector on one of the pins at LK3. If a connector is present, it will be placed over only *one* pin (the one located on the right side, as the instrument faces you).
3. If there is no black connector at LK3, you will need to temporarily use a jumper from another location on the board; make note of which jumper you "borrow" so that you can replace it after this procedure is completed. There are 2-pin connectors located at links LK1 and LK2, as shown in the photo below; use one of these, if necessary. Gently pull the jumper straight up and off of the pins.
4. Cover **both** of the pins at LK3 with the jumper. Disconnect the detector ribbon cable at the location shown in the photo on the next page.
5. Connect the analyzer to your computer using the RS-232 cable included with the instrument.
6. Power the instrument on.
7. Run the LI-820/LI-840 Instrument Embedded Software update utility (download at http://www.licor.com/env/Products/GasAnalyzers/li820/820_software_download.jsp for LI-820, or http://www.licor.com/env/Products/GasAnalyzers/li840/840_software_download.jsp for LI-840)
 - a. The file is compressed (zipped); you can choose to save the file to your computer, or run the program from the web page and extract to your computer.
 - b. You will be prompted to extract the program; make sure the 'Run after extraction' check box is enabled, as shown below. After extraction, click Yes to run the program.



- c. Choose the COM port to which the analyzer is connected to the computer, and click the Update Software button. The update is complete when 'update successful' is displayed.

8. After the update utility has completed, power off the instrument and replace the jumper. If a jumper was present at LK3, cover only the one pin on the right side (as the instrument faces you); if you borrowed a jumper from LK1 or LK2, replace it.
9. Re-assemble the analyzer case.

If you have any questions about this procedure, contact LI-COR at envsupport@licor.com.

