



LectroCount EZCommand™ Electronic Register Configurator

Flash Instructions



ESTABLISH COMMUNICATION

Establish Communication Overview

Before using any of EZCommand's functions, you will need to establish communication between your personal computer and the LectroCount register CPU board. The following items will be needed.

- LectroCount CPU Board
- Personal Computer with EZCommand or EZCommand Lite
- Flash Cable or DB9-pin male/female Serial Cable
- DC Power Source (if CPU board must be moved from primary power source)

To establish communication between a LectroCount CPU board and a personal computer:

1. Load EZCommand or EZCommand Lite onto the personal computer.
2. Connect the LectroCount register to the personal computer with a Flash Cable or DB9-pin male/female serial cable.
3. Open **Setup LCR Network**.
4. Test and confirm communication.

CONNECTING A PERSONAL COMPUTER TO A LECTROCOUNT REGISTER CPU BOARD

The LectroCount CPU board and a personal computer can be connected with a flash cable or a DB9-pin male/female Serial Cable. A flash cable can be ordered from the Liquid Controls factory (PN 81885) or you can assemble one on your own. See the Appendix for construction details. A DB9-pin male/female serial cable can be found at most electronics retailers. The DB9-pin serial cable requires a lap pad adapter (PN 81514).

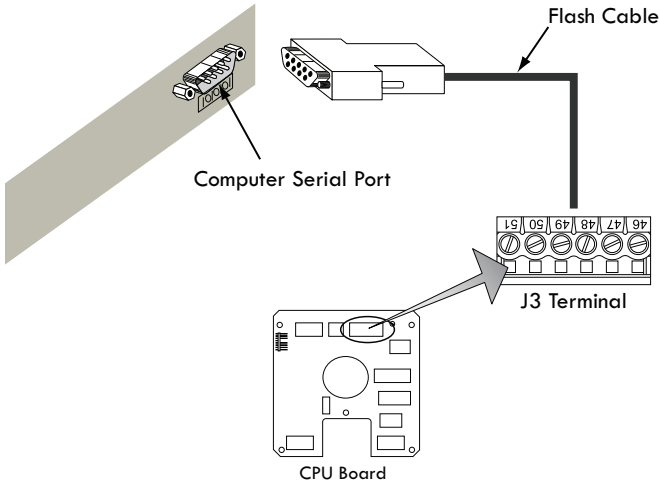
To connect the CPU board to a computer with a flash cable:

1. Open the door of the LectroCount register.
2. Disconnect the CPU board from the power source
3. Remove the J3 terminal block on the CPU board.
4. Attach the flash cable terminal block to the J3 terminal block on the CPU board.
5. Connect the flash cable's DB9-pin connector to a 9-pin male serial port on your computer.

Break the Seal

To use a flash cable with a register that has been in service, the Weights & Measures lead seal will need to be broken in order to open the LectroCount register door.

To disconnect the power from the CPU board, either turn off the power supply or simply unplug the J6 terminal (the power terminal to the board).



Flash Cable Connection to Computer Direct to Board

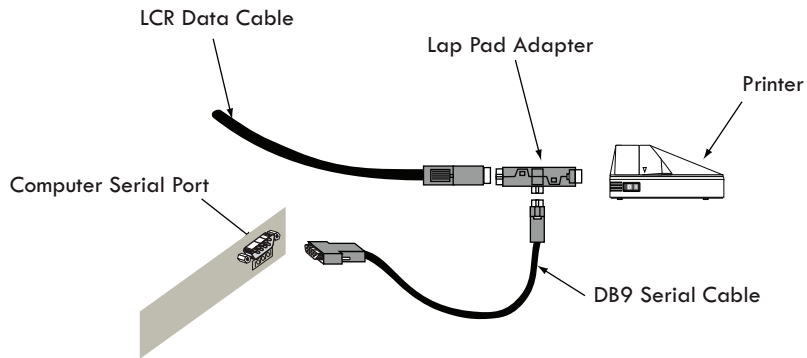
ESTABLISH COMMUNICATION

CONNECTING A PERSONAL COMPUTER TO A LECTROCOUNT REGISTER CPU BOARD - continued

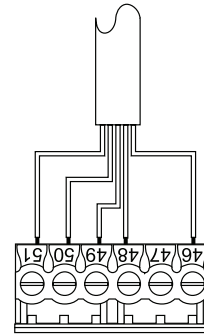
To connect the CPU board to a computer with a DB9-pin male/female serial cable and a lap pad adapter:

1. Open the door of the LectroCount register.
2. Disconnect the CPU board from the power source
3. Remove the J3 terminal block on the CPU board.
4. Attach the serial cable terminal block to the J3 terminal block on the CPU board.
5. Connect the flash cable's DB9-pin connector to a 9-pin male serial port on your computer.

To disconnect the power from the CPU board, either turn off the power supply or simply unplug the J6 terminal (the power terminal to the board).



Serial Cable Connection to Computer with Lap Pad Adapter



J3 Terminal Modified for Flashing

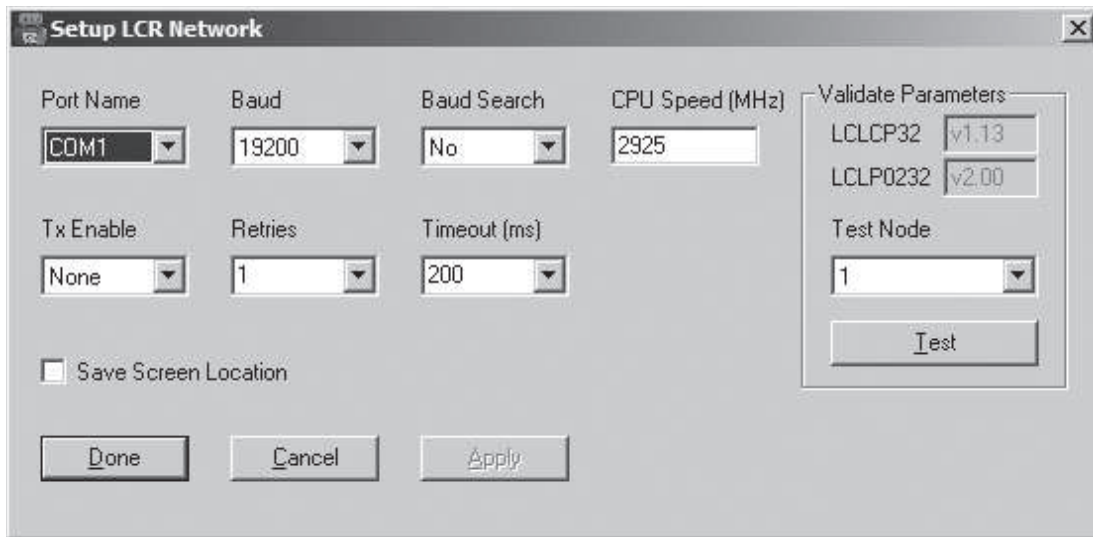
ESTABLISH COMMUNICATION - SETUP LCR NETWORK

Setup LCR Network Overview

After establishing communication between your personal computer and the LectroCount register CPU board, you can use the **Setup LCR Network** program to change communication settings and to test your communication setup and verify that the CPU board and your computer are talking. **Setup LCR Network** is an executable file with the filename **LCRSetup.exe**, which is loaded onto your computers hard drive along with EZCommand and EZCommand Lite.

To open Setup LCR Network and test communication:

1. Open **Setup LCR Network**.
The executable file's default location is *C:\Program Files\Liquid Controls\EZCommand (Lite)\LCRSetup.exe*.
2. Select the proper **Port Name** and **Test Node**. *Field descriptions are listed below.*
3. Click the **Test** button. A window will appear and report a successful or unsuccessful test.
- 4a. If the test is unsuccessful, check the settings in the **Setup LCR Network** window. *Field descriptions are listed below.*
- 4b. If the test is still unsuccessful, check the cable connections and the wiring to the J3 terminal on the CPU board.



Setup LCR Network Window

Port Name:

The PC port where the serial cable is plugged in.

COM1 is the default value.

Baud (Bits/Second):

The transmission speed.

19200 is the default value.

Baud Search:

If value is **Yes**, the connection will be tested at every available baud rate.

No is the default value.

CPU Speed:

The CPU processing speed. Only change this value if you are having difficulties with an older model desktop computer.

Default value populated according to the personal computer CPU speed.

TX Enable Bit:

Options for communication handshake techniques.

None is the default value.

Retries:

After an initial failed test, the additional number of tests Setup LCR Network will attempt.

1 is the default value.

Timeout (ms):

The time between transmission retries.

200 is the default.

Validate Parameters

The .dll versions of the **Setup LCR Network** executable file, **LCRSetup.exe**.

Display only.

Test Node:

The node number(1-250) assigned to the LectroCount register connected to the PC.

250 is the default value.

See the proper LectroCount register setup and operation manual for instructions to find the node address of the register.

FLASH INSTRUCTIONS OVERVIEW AND SETUP

Flash Instructions Overview

Flashing consists of loading LectroCount software onto the main CPU board inside LectroCount LCR, LCR-II, or LCR 600 electronic registers. Because this procedure programs a flash memory chip, it is commonly referred to as “flashing”.

EZCommand and EZCommand Lite are equipped to flash LCR, LCR-II, and LCR 600 software files onto 84040, 81920, 813902, and 81547 (81547-1 & 81547-2) LectroCount CPU boards. Flashing applications are located in the **Flash Software** tab.

There are three tabs inside the **Flash Software** tab: **LCR++**, **LCR/LCRII**, and **LCR600**. The flashing application inside the **LCR++** tab loads LCR-II software onto an 84040 CPU board. The flashing application inside the **LCR/LCRII** tab loads LCR and LCR-II software onto 81920, 813902, and 81547 (81547-1 & 81547-2) CPU boards. The flashing application inside the **LCR600** tab is loads LCR 600 software onto an 84040 CPU board.

LECTROCOUNT CPU BOARDS AND FLASH FILES

Before starting a flashing application, you will need to identify the LectroCount CPU board part number and obtain the proper flash files. A guide to identifying the part number of LectroCount CPU boards part is in the appendix. The appendix also includes a list of flash files and their compatibility. Flash files can be obtained from the Liquid Controls Service Department (800-458-5262 or 847-295-1050).

Necessary components for flashing software onto a LectroCount CPU board:

- LectroCount CPU Board
- Personal Computer with EZCommand or EZCommand Lite
- Flash Cable or DB9-pin Male/Female Serial Cable
- DC Power Source (if CPU board must be moved from primary power source)
- Proper Flash Files (81920, 813902, and 81547 (81547-1 & 81547-2 boards))

RETAINING REGISTER SETTINGS AND VALUES

Flashing software onto the CPU erases the settings and values on the LectroCount register. If you wish to retain the settings and values, you must record them before flashing. LectroCount register settings and values can be found in the General Setup, System Setup, and Calibration Setup screens on the register. Calibration tickets also contain many of these values and settings. A list of valuable settings and values is listed below.

To print a calibration (diagnostic) ticket:

1. Turn the LectroCount register’s selector switch to SHIFT PRINT for less than 2 seconds and turn the switch to PRINT.

GENERAL SETUP

Date _____ Time _____ Sale # _____ Ticket # _____ Unit ID _____
No-Flow Timer _____ Preset _____ Preset Type _____ Print Gross & Param _____

SYSTEM CALIBRATION

Meter ID _____ Printer _____ Units _____ Decimal _____
T Unit _____ Flow Dir _____

PRODUCT CALIBRATION

#^ _____ Code _____ Product Name _____ Prod Type _____
Compensation Type _____ Comp Param _____ Pulses/Unit _____
S1 Close _____

PRODUCT AND SHIFT INFORMATION

Gross Total _____ Net Total _____

FLASH LCR/LCRII - 81920, 813902, AND 81547

Flash Overview - 81920, 813902, and 81547 (81547-1 & 81547-2)

The following instructions are for flashing software onto 81920, 813902, and 81547 (81547-1 & 81547-2) CPU boards only. The flash application is located the LCR/LCRII tab.

To flash a 81920, 813902, or 81547 (81547-1 & 81547-2) CPU board:

1. Contact Liquid Controls Technical Support to obtain the proper software flash files (call 1-800-458-5262 or 847-295-1050). *The appendix includes a list of LectroCount flash files.*
2. Establish communication between the CPU board and a personal computer equipped with EZCommand or EZCommand Lite.
3. Configure the CPU board for flashing. See “Configuring the CPU Board” instructions below.
4. Flash the CPU board. See “Flashing 81920, 813902, and 81547 (81547-1 & 81547-2) CPU Boards” instructions on the following page.
5. Perform a Clear-All.

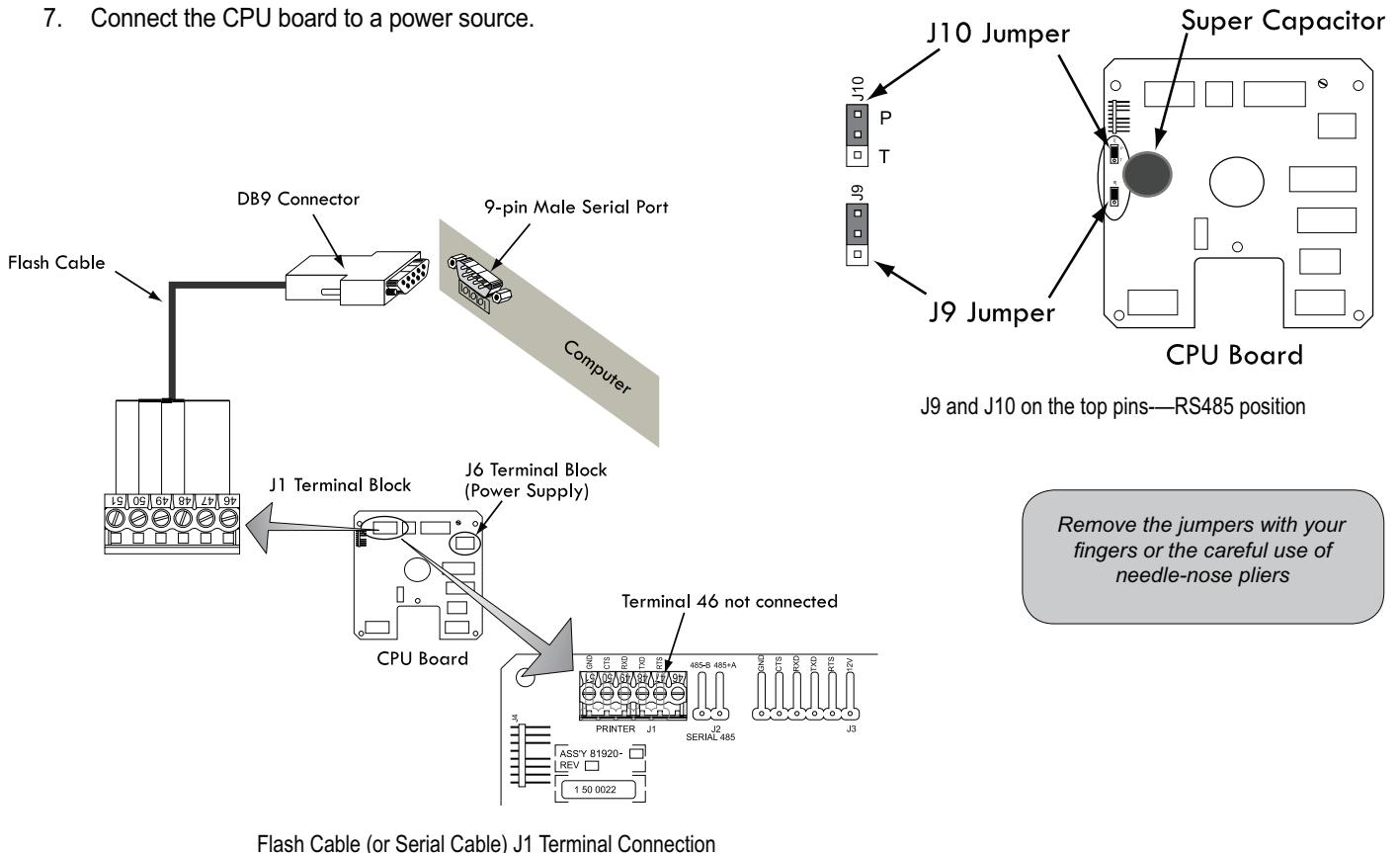
Configuring the CPU Board

81920, 813902, & 81547 (81547-1 & 81547-2) CPU boards have two jumpers, J9 and J10, between the left edge of the board and the super capacitor. By moving these jumpers, the CPU board can switch between RS232 and RS485 data communication. Before flashing, the jumpers must be moved to the RS485 position and the terminal block wired to the flash cable (or serial cable) must be moved to the J1 terminal.

To configure the CPU board for RS485 communication with the computer:

1. Disconnect the CPU board from the power source.
2. Move the flash cable (or serial cable) from the J3 terminal to J1.
3. Pull the J9 jumper off of the two lower pins of the J9 port.
4. Push the J9 jumper onto the upper two pins of the J9 port.
5. Pull the J10 jumper off of the two lower pins of the J10 port.
6. Push the J10 jumper onto the upper two pins of the J10 port.
7. Connect the CPU board to a power source.

To disconnect the power from the CPU board, either turn off the power supply or simply unplug the J6 terminal (the power terminal to the board).



FLASH LCR/LCRII - 81920, 813902, AND 81547

Flashing 81920, 813902, and 81547 (81547-1 & 81547-2) CPU Boards

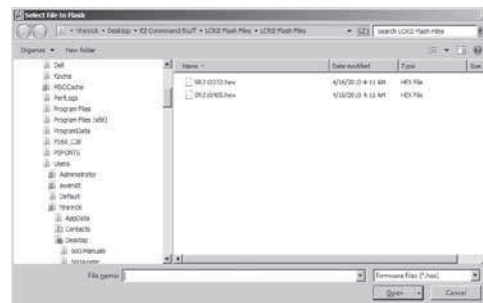
Before performing the following instructions, make sure to obtain the proper LectroCount software files and establish connection between the CPU board and your personal computer. LectroCount flash software is provided on request by the Liquid Controls Service Department at 800-458-5262 or 847-295-1050.

To flash a 81920, 813902, or 81547 (81547-1 & 81547-2) with LCR or LCR-II software:

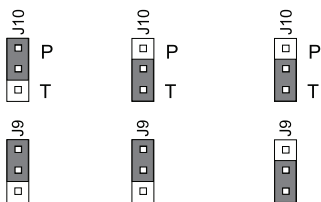
1. Open EZCommand.
2. Open the **Flash Software** tab.
3. Open the **LCR/LCRII** tab. *This screen contains details for configuring the CPU board for flashing.*
4. Click **Next**. *This screen contains details for configuring the CPU board for flashing.*
5. Click **Next**. *This screen contains details for configuring the CPU board for flashing.*
6. Click **Next**. EZCommand will connect to the LectroCount CPU board. The **Browse** button and **Files to Flash** field bar will activate.
7. Click **Browse**. The **Select File to Flash** window will open. Navigate to the SR2xx485.hex file you received from Liquid Controls and open the file.
8. Click **Next**. EZCommand will erase the existing SRxx485.hex files from the CPU board and program the new file onto the board. When finished programming, the LCR Status field will report "LCR update successful", and the next screen will open.
9. Disconnect the CPU board from the power source.
10. Pull the J10 jumper off of the two upper pins of the J10 port.
11. Push the J10 jumper onto the lower two pins of the J10 port. The CPU board is now configured for RS232 data communication.
12. Connect the CPU board to the power source.
13. Click **Next**.
14. Click **Browse**. The **Select File to Flash** window will open. Navigate to the SR2xx232.hex file you received from Liquid Controls and open the file.
15. Click **Next**. EZCommand will erase the existing SRxx232.hex files from the CPU board and program the new file onto the board. When EZCommand finishes programming, the LCR Status field will turn green and report "LCR update successful" and the next screen will open.
16. Pull the J9 jumper off of the two upper pins of the J9 port.
17. Push the J9 jumper onto the lower two pins of the J9 port. The CPU board is now configured for regular service.



LCR/LCRII Tab with Files to Flash: Field Activated



Select File to Flash Window



RS485 RS232 Standard

J9 and J10 positions

Flash New
The **Flash New** button returns the LCR/LCRII tab window to the first screen.

FLASH LCR++ - 84040 & 840404 (LCR-II)

Flash Overview - 84040 & 840404 (LCR-II)

The following instructions are for flashing software onto LectroCount LCR-II registers with the 84040 CPU board only. This flash application is located inside the **LCR++** tab.

To flash a LectroCount LCR-II with a 84048 CPU board:

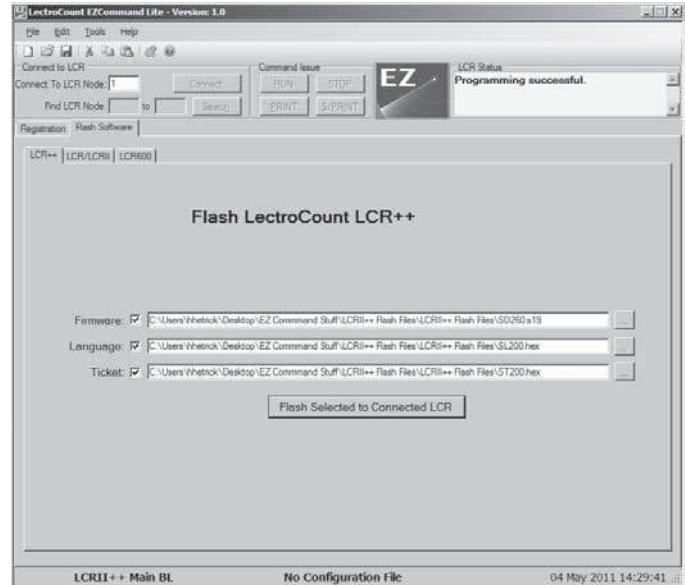
1. Contact Liquid Controls Technical Support to obtain the proper software flash files (call 1-800-458-5262 or 847-295-1050). *A list of LectroCount files is in the appendix.*
2. Establish communication between the CPU board and a personal computer equipped with EZCommand or EZCommand Lite.
3. Flash the CPU board. *See instructions below.*
4. Perform a Clear-All.

Flash the 84040 & 840404 Board (LCR-II)

Before performing the following instructions, make sure to obtain the proper LectroCount software files and establish connection between the CPU board and your personal computer. LectroCount flash software is provided on request by the Liquid Controls Service Department at 800-458-5262 or 847-295-1050.

To flash the 84040 CPU board with LCR-II software:

1. Open EZCommand.
2. Open the **Flash Software** tab.
3. Open the **LCR++** tab.
4. If you are flashing LCR-II firmware onto the CPU board, check the box next to **Firmware:**.
5. Click the button to the far right of the long **Firmware:** field. The **Pick LCR Board Firmware File** window will open. Navigate to the SR26x.s19 file you received from Liquid Controls and open the file.
6. If you are flashing LCR-II language software onto the CPU board, check the box next to **Language:**.
7. Click the button to the far right of the long **Language:** field. The **Pick LCR Board Language File** window will open. Navigate to the SL200.hex file you received from Liquid Controls and open the file.
8. If you are flashing LCR-II ticket software onto the CPU board, check the box next to **Ticket:**.
9. Click the button to the far right of the long **Ticket:** field. The **Pick LCR Board Ticket File** window will open. Navigate to the ST200.hex file you received from Liquid Controls and open the file.
10. Click the **Flash Selected to Connected LCR** button. When EZCommand finishes programming, the LCR Status field will turn green and report "LCR update successful"



LCR++ Tab with Files Selected

84040 & 840404 LED Status Key

Each 84040 board has an LED light on the backside of the board. The LED light indicates the status of the board as it pertains to the software contained on the CPU.

STEADY RED-the board has never been flashed.

SLOW FLASHING RED-the board is loaded with software. If the board is flashed the existing software will be overwritten.

FAST FLASHING RED-the board is corrupted. Contact Liquid Controls service for further instructions.

FLASH LCR600 - 84040 & 840404 (LCR 600)

Flash Overview - 84040 & 840404 (LCR 600)

The following instructions are for flashing software onto LectroCount LCR 600 registers. All LCR 600s use the 84040 CPU board. These instructions do not apply to LCR-II registers. This flash application is located inside the **LCR 600** tab.

To flash a LectroCount LCR-II with a 84048 CPU board:

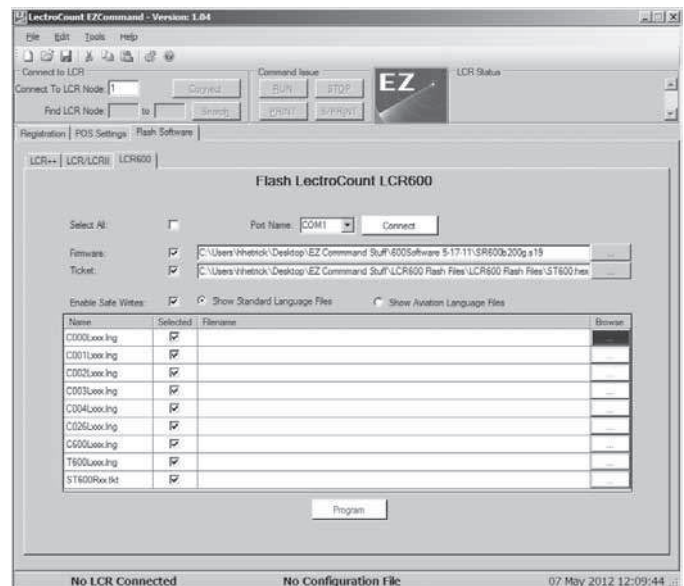
1. Contact Liquid Controls Technical Support to obtain the proper software flash files (call 1-800-458-5262 or 847-295-1050). A *list of LectroCount files is in the appendix.*
2. Establish communication between the CPU board and a PC equipped with EZCommand or EZCommand Lite.
3. Flash the CPU board. *See instructions below.*
4. Perform a Clear-All.

Flash 84040 & 840404 CPU Board (LCR 600)

Before performing the following instructions, make sure to obtain the proper LectroCount software files and establish connection between the CPU board and your personal computer. LectroCount flash software is provided on request by the Liquid Controls Service Department at 800-458-5262 or 847-295-1050.

To flash the 84040 CPU board with LCR 600 software:

1. Open EZCommand.
2. Open the **Flash Software** tab.
3. Open the **LCR600** tab.
4. If you are flashing LCR 600 firmware onto the CPU board, check the box next to **Firmware:**.
5. Click the button to the far right of the long **Firmware:** field. The **Pick LCR Board Firmware File** window will open. Navigate to the SR600xxxx.s19 file you received from Liquid Controls and open the file.
6. If you are flashing LCR-II ticket software onto the CPU board, check the box next to **Ticket:**.
7. Click the button to the far right of the long **Ticket:** field. The **Pick LCR Board Ticket File** window will open. Navigate to the ST200.hex file you received from Liquid Controls and open the file.
8. If you are flashing LCR-II language software onto the CPU board, check the boxes in the **Selected** column of the bottom window.
9. Click the button in the **Browse** column to the far right of the first language file. The **Pick LCR Board C000Lxxx.Ing File** window will open. Navigate to the C000Lxxx.Ing file you received from Liquid Controls and open the file.
10. Proceed to the next language file in the list, and open the correct file. Continue until each language file has the correct file in the **Filename** column.
11. Click the **Flash Selected to Connected LCR** button. When EZCommand finishes programming, the LCR Status field will turn green and report "LCR update successful"



LCR600 Tab with Language File Browse Button Highlighted

84040 & 840404 LED Status Key

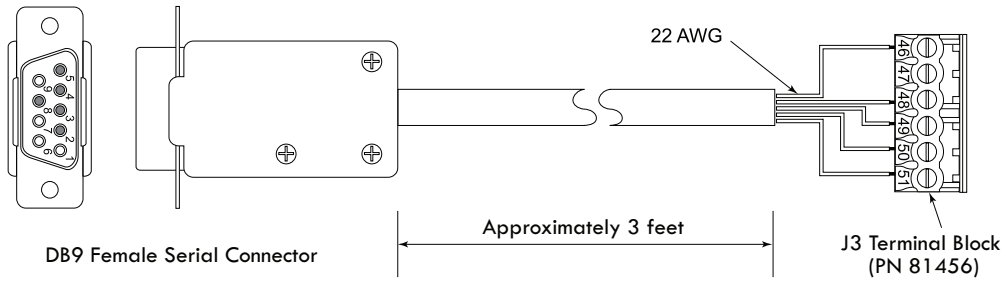
Each 84040 & 840404 board has an LED light on the backside of the board. The LED light indicates the status of the board as it pertains to the software contained on the CPU.

STEADY RED-the board has never been flashed.

SLOW FLASHING RED-the board is loaded with software. If the board is flashed the existing software will be overwritten.

FAST FLASHING RED-the board is corrupted. Contact Liquid Controls service for further instructions.

FLASH CABLE FOR LECTROCOUNT CPU BOARDS

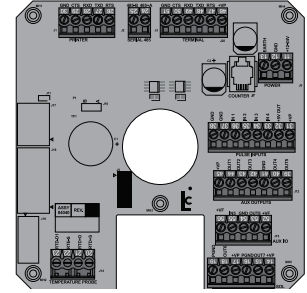
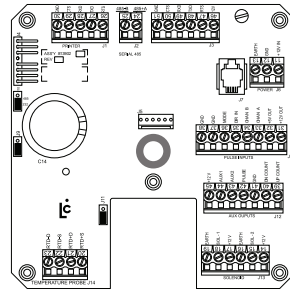
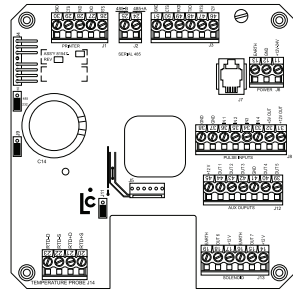
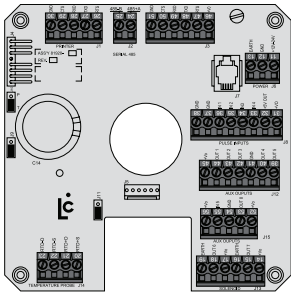


Flash Cable Wiring		
DB9 Connector	Function	Terminal
2	Receive Data	48
3	Transmit Data	49
4	Data Term Ready	50
5	Signal GND	51
8	12VDC	46

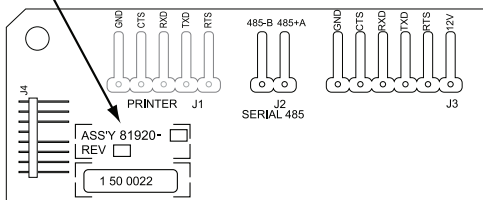
LectroCount CPU Boards and Software Compatibility

There are seven different models of CPU boards used in LectroCount LCR, LCR-II, and LCR 600 electronic registers: 81920, 813902, 81547, 81547-1, 81547-2, 84040 and 840404. Only the 840404 is still manufactured by Liquid Controls.

81920	81547 (81547-1 & 81547-2)	813902	84040 & 840404
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CPU Part Number



CPU Board Part Number Label

LectroCount CPU Board Software Compatibility

CPU Board	Software
813902	LCR
81547 (81547-1 & 81547-2)	LCR
81920	LCR & LCR-II
84040	LCR-II & LCR 600 (versions 1.14 and below)
840404	LCR-II & LCR 600

Clear-All Procedure - 81920, 81547, & 813902

After flashing a CPU board, Liquid Controls recommends performing a Clear-All procedure. The Clear-All procedure will return the configuration and calibration settings back to defaults. To perform a Clear-All you will need a lap pad (PN E403012), and you will need to call the Liquid Controls Service Department (800-458-5262) for an access code.

To run a Clear-All Procedure for 81920, 81547, & 813902

1. Make sure the last delivery ticket has been printed and is not pending.
2. Make sure you have written down all the LCR-II's settings and field values that need to be reentered after the Clear-All. Print a calibration (diagnostic) ticket. It contains many of these values. *See the Clear-All worksheet.*
3. Connect the lap pad keyboard to the flash cable (or the register data cable connected to the printer).
4. Remove the switch plate located on the front of the register and rotate the red switch to the calibration position (six o'clock).
5. Call a representative from the Liquid Controls Service Department at 800-458-5262 and ask for your access code.
6. In the **Security** menu on the lap pad, move the cursor to the most right field and press the ENTER key. The cursor will drop to the bottom line.
7. Type in the access code and press the ENTER key. The factory mode menu will appear.
10. Using the **↑** key, move the cursor to LCR RESET and press the ENTER key. The cursor will drop to the bottom line.
11. With the **↓** key, select the CLEAR ALL and press the ENTER key. After 5 seconds, the board will reset.
12. Press the M1 key to exit the factory menu.
13. Re-enter all the settings and values written on the Clear-All worksheet. See Setup and Operation Manual for assistance (EM100-11 or EM100-21)

Appendix

Clear-All Procedure - 84040 & 840404

After flashing a CPU board, Liquid Controls recommends performing a Clear-All procedure. The Clear-All procedure will return the configuration and calibration settings back to defaults. To perform a Clear-All you will need a lap pad (PN E403012), and you will need to call the Liquid Controls Service Department (800-458-5262) for an access code.

To run a Clear-All Procedure for LCR-II 84040 & 840404

1. Make sure the last delivery ticket has been printed and is not pending.
2. Make sure you have written down all the LCR-II's settings and field values that need to be reentered after the clear-all. Print a calibration (diagnostic) ticket. It contains many of these values. See *the Clear-All worksheet*.
3. Connect the lap pad keyboard to the flash cable (or the register data cable connected to the printer).
4. Remove the switch plate located on the front of the register and rotate the red switch to the calibration position (six o'clock).
5. Call a representative from the Liquid Controls Service Department at 800-458-5262 and ask for your access code.
6. In the **Security** menu on the lap pad, move the cursor to the most right field and press the ENTER key. The cursor will drop to the bottom line.
7. Type in the access code and press the ENTER key. The factory mode menu will appear.
10. Using the **↑** key, move the cursor to LCR RESET and press the ENTER key. The cursor will drop to the bottom line.
11. With the **↓** key, select the CLEAR ALL and press the ENTER key. After 5 seconds, the board will reset.
12. On the LCR-II display, you will be prompted to select the proper part number (The appendix includes a list of LCR-II firmware). Use the INCREASE **↕** key (on the LCR-II) to toggle through the software versions. Use the SELECT **↔** key to select a software version.



5r-260
LCR-II Software

The calibration ticket printed in step 2. The calibration ticket will show the part number previously used by the LCR-II.

13. Press the M1 key to exit the factory menu.
14. Re-enter all the settings and values written on the Clear-All worksheet.

If you select the wrong software version, you will need to repeat the Clear-All procedure in order to switch it to the correct software version.

To run a Clear-All Procedure for LCR 600 84040 & 840404

1. Make sure the last delivery ticket has been printed and is not pending.
2. Make sure you have written down all the LCR-II's settings and field values that need to be reentered after the clear-all. Print a calibration (diagnostic) ticket. It contains many of these values. See *the Clear-All worksheet*.
4. Remove the switch plate located on the front of the register and rotate the red switch to the calibration position (six o'clock).
5. Call a representative from the Liquid Controls Service Department at 800-458-5262 and ask for your access code.
6. In the Security screen, move the pointer **▶** to **Factory Key**: field and press the **ENTER** button to open the **Factory Key** field edit box.
7. Enter an access code into the **Factory Key** field edit box and press the **ENTER** button to open the Factory Setup screen.
8. In the Factory Setup screen, move the pointer **▶** to open **Reset Options**: list box.

```
FACTORY SETUP
LCR Serial ID:          9230055
New User Key:
R100.0:                8052.0
R128.6:                12835.0
Raw ADC:               9449
RTD Slope:             0.0155
RTD Offset:            -124.57
▶Reset Options:        NO
Reset Options
Clear All
▶No
Rebuild
```

9. In the **Reset Options**: list box, move the pointer **▶** to **Clear All** and press the **ENTER** button to complete the Clear-All procedure.
10. Re-enter all the settings and values written on the Clear-All worksheet.

LectroCount LCR 600 Firmware			
Part	Flash File	Description	CPU Board
SR600	SR600.s19	LCR 600 (NIST and Canada)	84040 & 840404
SR601	SR601.s19	LCR 600 for Aviation (US only)	84040 & 840404
<i>SR600.s19 includes POS. POS must be activated at the factory or with a special code</i>			

LectroCount LCR-II Firmware				
Part	RS-232 File	RS-485 File	Description	CPU Board
SR210	R210232.hex	R210485.hex	LCR-II (NIST and Canada)	81920, 81547, & 813902
SR211	R211232.hex	R211485.hex	LCR-II w/ Password Security on Pricing	81920, 81547, & 813902
SR212	R212232.hex	R212485.hex	LCR-II (OMIL)	81920, 81547, & 813902
SR214	R214232.hex	R214485.hex	LCR-II for Aviation (US only)	81920, 81547, & 813902
SR215	R215232.hex	R215485.hex	LCR-II for Aviation, Controlling Device Ignored	81920, 81547, & 813902
SR216	R216232.hex	R216485.hex	LCR-II w/ Saved Transactions	81920, 81547, & 813902
SR217	R217232.hex	R217485.hex	LCR-II No Pump & Print <i>Controlling Device Required</i>	81920, 81547, & 813902
SR219	R219232.hex	R219485.hex	LCR-II for the Test Lab	81920, 81547, & 813902
<i>The flash files that start with a SR21 can be loaded on 81547-1, 81547-2, and 81920 boards for use on an LCR-II only.</i>				
SR260	SR260.s19 (Flash File)		LCR-II (NIST and Canada)	84040 & 840404
SR261	SR260.s19 (Flash File)		LCR-II w/ Password Security on Pricing	84040 & 840404
SR262	SR260.s19 (Flash File)		LCR-II (OMIL)	84040 & 840404
SR264	SR260.s19 (Flash File)		LCR-II for Aviation (US only)	84040 & 840404
SR265	SR260.s19 (Flash File)		LCR-II for Aviation, Controlling Device Ignored	84040 & 840404
SR266	SR260.s19 (Flash File)		LCR-II w/ Saved Transactions	84040 & 840404
SR267	SR260.s19 (Flash File)		LCR-II No Pump & Print <i>Controlling Device Required</i>	84040 & 840404
SR269	SR260.s19 (Flash File)		LCR-II for the Test Lab	84040 & 840404
<i>SR260.s19 includes all LCR-II firmware. The specific firmware is selected during the Clear-All procedure.</i>				

LectroCount LCR Firmware				
Part	RS-232 File	RS-485 File	Description	CPU Board
SR100	B100232.hex	B100485.hex	LCR	81920, 81547, & 813902
SR200	B200232.hex	B200485.hex	LCR (NIST and Canada)	81920, 81547, & 813902
SR202	B202232.hex	B202485.hex	LCR (OMIL)	81920, 81547, & 813902
SR204	B204232.hex	B204485.hex	LCR for Aviation (US only)	81920, 81547, & 813902
SR205	B205232.hex	B205485.hex	LCR for Aviation, Controlling Device Ignored	81920, 81547, & 813902
SR209	B209232.hex	B209485.hex	LCR w/o W&M Security	81920, 81547, & 813902
<i>The flash files that start with a SR20 may be loaded on 81547-1, 81547-2, and 81920 boards for use on LCR only.</i>				

LectroCount LCR 600 Ticket & Language Software			
Part	Flash File	Description	CPU Board
SL600	SL600.hex	English	84040 & 840404
SGC600L000	C600Lxxx.Ing	Language File - LCR 600 Fields	84040 & 840404
SGC000L000	C000Lxxx.Ing	Language File - LCP Protocol	84040 & 840404
SGC001L000	C001Lxxx.Ing	Language File - LCP02 LCR Messages	84040 & 840404
SGC002L000	C002Lxxx.Ing	Language File - .sif Messages	84040 & 840404
SGC003L000	C003Lxxx.Ing	Language File - Edit Box Error Messages	84040 & 840404
SGC004L000	C004Lxxx.Ing	Language File - LCPF Error Text	84040 & 840404
SGC0026L000	C026Lxxx.Ing	Language File - LCR 600 Fields	84040 & 840404
SGT600L000	T600Lxxx.Ing	Language File -Ticket	84040 & 840404
ST600R00	ST600R00.tkt	Ticket Layout	84040 & 840404
SGC601L000	C601Lxxx.Ing	Language File (Aviation)	84040 & 840404
SGT601L000	T601Lxxx.Ing	Ticket Language File (Aviation)	84040 & 840404
ST601D00	T600LDxx.Ing	Delivery Ticket Header and Trailer (Aviation)	84040 & 840404
ST601R00	ST600Rxx.tkt	Delivery Ticket (Aviation)	84040 & 840404
ST601S00	ST600Sxx.tkt	Shift Ticket (Aviation)	84040 & 840404
	xx and xxx represents a number that specifies the language displayed on the LCR 600 screen and printed on the tickets. 00 and 000 - English 01 and 001 - Spanish 02 and 002 - French Canadian		

LectroCount LCR and LCR-II Language Software			
Part	Flash File	Description	CPU Board
SL200	SL200.hex	English	81920, 81547, 813902, 84040, & 840404
SL201	SL201.hex	Spanish	81920, 81547, 813902, 84040, & 840404
SL202	SL202.hex	French Canadian	81920, 81547, 813902, 84040, & 840404
SL203	SL203.hex	Portuguese	81920, 81547, 813902, 84040, & 840404
SL204	SL204.hex	Swiss/German	81920, 81547, 813902, 84040, & 840404
SL205	SL205.hex	Dutch	81920, 81547, 813902, 84040, & 840404
SL206	SL206.hex	Portuguese	81920, 81547, 813902, 84040, & 840404
SL207	SL207.hex	Swedish	81920, 81547, 813902, 84040, & 840404
SL208	SL208.hex	Polish	81920, 81547, 813902, 84040, & 840404
SL210	SL210.hex	Italian	81920, 81547, 813902, 84040, & 840404
SL211	SL211.hex	French/France	81920, 81547, 813902, 84040, & 840404
SL212	SL212.hex	Turkish	81920, 81547, 813902, 84040, & 840404
SL213	SL213.hex	English Deg. C/F	81920, 81547, 813902, 84040, & 840404

LectroCount LCR and LCR-II Ticket Software			
Part	Flash File	Description	CPU Board
ST200	ST200.hex	Standard Form	81920, 81547, 813902, 84040, & 840404
ST201	ST201.hex	English/French (Canada)	81920, 81547, 813902, 84040, & 840404
ST202	ST202.hex	Compressed Format	81920, 81547, 813902, 84040, & 840404
ST203	ST203.hex	Hand Held Computer Format	81920, 81547, 813902, 84040, & 840404
ST204	ST204.hex	Spanish	81920, 81547, 813902, 84040, & 840404
ST206	ST206.hex	Compressed w/ Subtotal Pricing	81920, 81547, 813902, 84040, & 840404
ST208	ST208.hex	No Multiple Delivery Message (US Only)	81920, 81547, 813902, 84040, & 840404
ST210	ST210.hex	Aviation Format	81920, 84040, & 840404
ST212	ST212.hex	English/French (Canada) - Double Spaced	81920, 81547, 813902, 84040, & 840404
ST213	ST213.hex	Brazilian Portuguese	81920, 81547, 813902, 84040, & 840404
ST214	ST214.hex	Swiss German	81920, 81547, 813902, 84040, & 840404
ST215	ST215.hex	Compressed Format w/ Price & Taxes	81920, 81547, 813902, 84040, & 840404
ST216	ST216.hex	Fixed Length, Short Form	81920, 81547, 813902, 84040, & 840404
ST217	ST217.hex	Dutch	81920, 81547, 813902, 84040, & 840404
ST219	ST219.hex	Railroad Unpriced	81920, 81547, 813902, 84040, & 840404
ST220	ST220.hex	German	81920, 81547, 813902, 84040, & 840404
ST222	ST222 .hex	Portuguese (Portugal)	81920, 81547, 813902, 84040, & 840404
ST223	ST223.hex	French - Soft Form Unpriced	81920, 81547, 813902, 84040, & 840404
ST224	ST224.hex	Spanish - Standard Priced	81920, 81547, 813902, 84040, & 840404
ST227	ST227.hex	Swedish	81920, 81547, 813902, 84040, & 840404
ST228	ST228.hex	Compressed w/ Price, w/o Multiple Message & Time	81920, 81547, 813902, 84040, & 840404
ST229	ST229.hex	Polish	81920, 81547, 813902, 84040, & 840404
ST230	ST230.hex	Italian	81920, 81547, 813902, 84040, & 840404
ST231	ST231.hex	Priced w/ Odometer - Spanish	81920, 81547, 813902, 84040, & 840404
ST232	ST232.hex	French (France)	81920, 81547, 813902, 84040, & 840404
ST234	ST234.hex	Turkish	81920, 81547, 813902, 84040, & 840404
ST236	ST236.hex	Short Form Unpriced w/ Totalizers	81920, 81547, 813902, 84040, & 840404
ST237	ST237.hex	German - Aviation	81920, 81547, 813902, 84040, & 840404
ST239	ST239.hex	English/French (Canada)	81920, 81547, 813902, 84040, & 840404
ST241	ST241.hex	Aviation with Ticket Header Available	81920, 81547, 813902, 84040, & 840404
ST242	ST242.hex	Spanish - Aviation Unpriced	81920, 81547, 813902, 84040, & 840404
ST245	ST245.hex	Polish - Standard w/o Price	81920, 81547, 813902, 84040, & 840404
ST246	ST246.hex	Double Spaced w/o Labels	81920, 81547, 813902, 84040, & 840404
ST247	ST247.hex	Standard Priced English w/ Temperature	81920, 81547, 813902, 84040, & 840404
ST248	ST248.hex	Brazilian Portuguese - Aviation	81920, 81547, 813902, 84040, & 840404
ST249	ST249.hex	Swiss German - Priced w/o Multiple Message	81920, 81547, 813902, 84040, & 840404
ST250	ST250.hex	Aviation with Differential Pressure	81920, 81547, 813902, 84040, & 840404
ST253	ST253.hex	India - Standard Priced	81920, 81547, 813902, 84040, & 840404
ST254	ST254.hex	Hebrew - Standard Priced	81920, 81547, 813902, 84040, & 840404
ST258	ST258.hex	Priced w/o Multiple Message	81920, 81547, 813902, 84040, & 840404
ST259	ST259.hex	Short Form French Canadian	81920, 81547, 813902, 84040, & 840404
ST260	ST260.hex	Aviation w/o Blank Lines	81920, 81547, 813902, 84040, & 840404
ST261	ST261.hex	Hebrew	81920, 81547, 813902, 84040, & 840404

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