

Supplemental User Guide

SUPPLEMENTAL GUIDE FOR UPDATING FIRMWARE ON Z-MAXTM LIGHTING CONTROL RELAY PANELS WITH MASTER CONTROL MODULE

Software revision 1.00 an up

| 📕 Tera Term - | сомз ут | |
|---|---|---|
| <u>Eile Edit Setup</u> | C <u>o</u> ntrol <u>W</u> indow <u>H</u> elp | |
| ** Leviton Z | -MAX Boot CLIF V0.06** | ^ |
| Boot [USB]: HELP CLS GET PUT PGM ERASE UER FLASH SEEW SEER SEED TIME EXIT Boot [USB]: | HELP This Command! Clear the screen. GET <f!e> <a:cid> <f=flash, a="A11," c="Code," d="Data)<br" e="EEPROM,">PUT IA1 (A=Program Code & Data, C=Program Code Only, & Reboot) PGM <a:cid> (Program Flash from EEPROM A=A11, C=Code, D=Data) ERASE <f!e> <a:cid> (F=Flash, E=EEPROM, A=A11, C=Code, D=Data) UER <f!e> (Uersion of code in F=Flash, E=EEPROM) FLS <r:w> <b:w:l> <address> [<val>] (Flash only) <address> (data) [R] (Serial EEPROM Write, R=repeat for testing] <address> (Serial EEPROM Read) Read Serial EEPROM IDs Displays Time Exit the boot application.</address></address></val></address></b:w:l></r:w></f!e></a:cid></f!e></a:cid></f=flash,></a:cid></f!e> | > |
| | | Y |

Updating Firmware

On occasion, it may be necessary to update the Z-MAX's operating system. This can be accomplished via a PC running a terminal program connected to the controller board inside the cabinet via USB.



The terminal programs settings are as follows:

- COM Port set to port number of the USB port.
- Baud Rate 115200
- Data 8 Bit
- Parity None
- Stop Bits 1
- Flow Control Hardware
- **Step 1:** To set up Tera Term, first start the program. You will be asked to select a connection type. Select Serial along with the COM port assigned to USB port and click OK.

| ○ <u>T</u> CP/IP | H <u>o</u> st: | myhost.mydomain | ~ |
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| | | | |
| Serial | Po <u>r</u> t: | СОМЗ | |

Step 2: To setup the serial port, select the Setup item from the menu bar and click on Serial Port.

| 📕 Tera | Term - COM3 VT | |
|-----------|--|---|
| File Edit | Setup Control Window He | |
| | Terminal Window Font Keyboard | |
| | Serial port | |
| | TCP/IP | |
| | General | |
| | Save setup | |
| | Restore setup | |
| | Load key map | |
| | | |
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Step 3: Enter in the parameters listed above.

| Port: | COM3 | - | ОК |
|--------------------|----------|---|--------------|
| <u>B</u> aud rate: | 115200 | - | |
| <u>D</u> ata: | 8 bit | • | Cancel |
| P <u>a</u> rity: | none | • | |
| <u>S</u> top: | 1 bit | • | <u>H</u> elp |
| Elow control: | hardware | • | |
| – Transmit dels | NV | | |

Once you have the terminal program configured you should be able to communicate to the Z-MAX cabinet.

Step 4: Tap Enter on the PC's keyboard and you should see a prompt appear on the terminal program's text window.

| Elle Edit Setup Control Window Help Z-MAX [USB]: |
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| Z-MAX [USB]: |
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Since you will be replacing the operating system of the control board, you must jump out of the main operating system that is managing the communications and into a boot section of code that will perform the file transfer.

Step 5: To enter the boot system, type EXIT followed by Enter at the prompt.

| Eile Edit Setup Control Window Help | |
|-------------------------------------|---|
| Z-MAX (USB): EXIT | ^ |
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The prompt will now be "Boot" instead of "Z-MAX".



Only a few commands are necessary to load the operating system. To see all commands available, type HELP.

| 🖳 Tera Term - COM3 VT | |
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| <u>Eile Edit S</u> etup C <u>o</u> ntrol <u>W</u> indow <u>H</u> elp | |
| ** Leviton Z-MAX Boot CLIF V0.06** | ^ |
| Boot [USB]: HELP HELP This Command! CLS Clear the screen. GET GET (FIE) (AlCID) (F=Flash, E=EEPROM, A=All, C=Code, D=Data) PUT PUT IAl (A=Program Clode & Data, C=Program Code Only, & Reboot) PGM PGM (AlCID) (Program Flash from EEPROM A=All, C=Code, D=Data) ERASE ERASE (FIE) (AlCID) (F=Flash, E=EEPROM, A=All, C=Code, D=Data) UER UER (FIE) (AlCID) (F=Flash, E=EEPROM, A=All, C=Code, D=Data) UER (FIE) (Uersion of code in F=Flash, E=EPROM) FLASH FLS (RiW) (BIWIL) (address) [(val)] (Flash only) SEEW (address) (data) [R] (Serial EEPROM Write, R=repeat for testing) SEEN (address) (Serial EEPROM Write, R=repeat for testing) SEEN (address) Ine EXIT Exit the boot application. Boot [USB]: | , |

- **NOTE** Many of the commands listed are for trained personnel and used improperly could render the Z-MAX cabinet inoperable. Therefore, only use those commands listed below as described.
 - **Step 6:** To transfer the new operating system file, issue the PUT command. In most cases you will only want to upgrade the operating system. In this case, use the "C" parameter following the PUT command. If it is desired or necessary to also return all user programming to factory defaults, use the "A" parameter.

| 💻 Tera Term - COM3 VT | |
|--|---|
| <u> File Edit Setup Control Window H</u> elp | |
| ** Leviton Z-MAX Boot CLIF V0.06** | ^ |
| Boot [USB]: PUT C | |
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Step 7: Tap Enter. You will be prompted to begin the transfer from your terminal program.

| 🕮 Tera Term - COM3 VT | |
|---|---|
| Eile Edit Setup Control Window Help | |
| ** Leviton Z-MAX Boot CLIF V0.06** | ~ |
| Boot [USB]: PUT C Start Time 14:59:25.97 Erasing main code & data in serial eeprom: Erasing sector 8, address:0x80000, counter:0x0. Verified. Erasing sector 9, address:0x80000, counter:0x0. Verified. Erasing sector 11, address:0x80000, counter:0x0. Verified. Erasing sector 12, address:0x60000, counter:0x0. Verified. Erasing sector 13, address:0x80000, counter:0x0. Verified. Erasing sector 13, address:0x60000, counter:0x0. Verified. Erasing sector 13, address:0x60000, counter:0x0. Verified. Erasing sector 13, address:0x60000, counter:0x0. Verified. Erasing sector 14, address:0x60000, counter:0x0. Verified. Erasing sector 15, address:0x60000, counter:0x0. Verified. Finish Time 14:59:33.18 Load a file to be programmed. Send file at any time. Press ⟨ESC⟩ to cancel.∎ | |
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Step 8: To transfer the file using Tera Term, select the "send file..." item from the File menu.

| 📕 Tera Term - | сомз ут | | |
|---|-----------------------------------|--|----------|
| <u>Eile E</u> dit <u>S</u> etup | Control <u>W</u> i | ndow <u>H</u> elp | |
| New connection | n Alt+N | CLIF V0.06** | ^ |
| Log | | | |
| Send file | | | |
| Transfer | | ta in serial eeprom: | |
| Change directo | ry | ess:0x80000, counter:0x0. Verified. ess:0x90000, counter:0x0. Verified. | |
| Print | Alt+P | ress:0xH0000, counter:0x0. Verified. | |
| Disconnect | | ress:0x00000, counter:0x0. Verified. | |
| Exit | Alt+Q | ress:0xE0000, counter:0x0. Verified. | |
| Finish Time Load a file Send file a | 15:22:53 to be pr at any ti | .64 ogrammed. me. Press <esc> to cancel.∎</esc> | Z |

Step 9: Then select the file from the dialog box.

| Tera Term: Send file | ? 🛛 |
|---|--------------|
| Look in: 🗁 Z-MAX 💽 🗲 🔁 | r≣ * |
| SFW-32785_100_PcA_SMALL_NETWORK.sx | |
| | |
| | |
| | |
| | |
| File name: SFW-32785_100_PcA_SMALL_NETWORK.sx | <u>O</u> pen |
| Files of type: all | Cancel |
| | Help |
| Option | |
| J <u>B</u> inary | |

The new operating system will then be transferred.

| 📕 Tera | Term - COM3 VT | | | |
|---|---|--------------------------|--|----------|
| Ele Edit ** Lev Boot Start | Setup Control Window Help iton Z-MAX Boot CLIF V | 0.06** | | <u> </u> |
| Erasi Erasi Erasi Erasi Erasi Erasi Erasi | Filename: Bytes transfered: | AALL_NETWORK.sx 45400 | rified. rified. erified. erified. erified. erified. erified. | |
| Erasi Finis Load Send Start Loadi Line | Close Pau ng file 587 | se Help | erified. | |

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When the transfer is complete, the new system will start and boot mode will be exited.

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| | 1 |
| (1) LCD/KBD Manager Thread Loon Starting Slot=003 - | |
| 2) WatchDog Manager Thread Loon Starting Slot=001 | |
| ask (03) LCD/KBD Manager Registered With 30.0 Second(s) Time Ou | t. |
| 3).MemoryManager Thread Loop Starting | |
| ask (05) Memory Manager Registered With 30.0 Second(s) Time Ou | t.\ |
| 4).MMI Manager Thread Loop Starting Slot=004 | |
| ask_(04) MMI Manager Registered With 30.0 Second(s) Time Ou | t. |
| 5).Relay Manager Thread Loop Starting | |
| ask (06) Relay Manager Registered With 30.0 Second(s) Time Ou | t. |
| b).Scheduler Hanager Ihread Loop Starting Slot=007 | 28 C |
| ask (07) Scheduler Manager Registered with 90.0 Second(s) lime Ou | τ. |
| (7) Network manager Inread Loop Starting Slot=007 | 4 |
| ask (07) Network Hanayer Registered with 50.0 Second(s) fine Ou | L . |
| or (9) Discuste Manager Inreau holp starting Sidt-000 | + I |
| ash toby Discrete analysister a with solo becomes, fine on | |
| ask (02) Serial Port Manager, Registered With 60.0 Second(s) Time Ou | t. |
| | |
| IE III. 20 2004 04-00-59 | |

To verify the new code in the cabinet:

Step 1: Press the Menu button **Step 2:** Press **1** until the display reads:

| MAIN | MENU | SELECT |
|----------|------|--------|
| SOFTWARE | | BUILD |

Step 3: Press Select/Save

The display will now show you the version of firmware the unit is running.