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### How to update Z-MAX boot firmware

Product:	Z-MAX Product Family	Article ID: 040909-RL/AM-02
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**Date:** April 09, 2009

**Summary:** This article explains the method for updating Z-MAX boot firmware using Tera Term software.

Information: STEP 1: Open Tera Term (available at: www.leviton.com/software).



STEP 2: Choose com port, or for advanced users you may use ETHERNET connection.

Tera Term: New connection 🛛 🔀			
○ <u>T</u> CP/IP	H <u>o</u> st;	myhost.mydomain 🔻	
		✓ Telnet TCP port#: 23	
Serial	Po <u>r</u> t:	COM2 -	
	OK	Cancel <u>H</u> elp	

STEP 3: Setup com settings.

	[era ]	Ferm -	сом2 у	Т		
File	Edit	Setup	Control	Window	Help	
		Tern	ninal			~
		Wine	dow			
		Font				
		Keyl	board			
		Seria	al port			
		TCP	/IP			
		Gen	eral			

Once Set, Click OK.

# 

Tera Term: Serial port setup					
<u>P</u> ort:	СОМ2 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 💌 Help				
<u>F</u> low control:	hardware 💌				
Transmit delay 0 msec <u>/c</u> har 0 msec <u>/l</u> ine					

STEP 4: Enter password – 1234 and press enter.

🕮 Tera Term - COM2 VT	
<u> E</u> ile <u>E</u> dit <u>S</u> etup C <u>o</u> ntrol <u>W</u> indow <u>H</u> elp	
Z-MAX [USB][MAS]: Z-MAX [USB][MAS]: EXIT Please Wait. Rebooting. ** LEVITON Z-MAX LARGE PCA MASTER BOOT V1.20 BUILD:Nov 03 2006 17:10:55 **	~
Press'B' to enter boot loader. Or, press any other key to go to main application. Waiting5 Boot [USB]: PUT C Start Time 08:00:36.98	
Erasing main code & data in serial eeprom: Erasing sector 8, address:0x80000, counter:0x10000. Verified. Erasing sector 9, address:0x90000, counter:0x10000. Verified. Erasing sector 10, address:0x80000, counter:0x10000. Verified. Erasing sector 11, address:0x80000, counter:0x10000. Verified.	
Erasing sector 12, address:0x0000, counter:0x10000. Verified. Erasing sector 13, address:0xD000, counter:0x10000. Verified. Erasing sector 14, address:0xE0000, counter:0x10000. Verified. Erasing sector 15, address:0xE0000, counter:0x10000. Verified. Finish	
Time 08:00:44.60 Load a file to be programmed. Send file at any time. Press <esc> to cancel.</esc>	

**STEP 5**: Type exit and press enter.

STEP 5.1: Press 'B' to enter boot loader.

**STEP 5.2**: Type "PUT C" then press enter.

**STEP 6:** Once Tera Term informs you to send the file, go to File menu then Send File, locate appropriate boot file to send. Click Open.

Tera Term: S	Send file	?×
Look jn: 🔀	1.54 💌 🗢 🗈 💣 🎟 •	
@ 0R7100810	00121_U02_SMALL_BASIC_BOOT.sx	📼 OR
0R7100811	10154_U01_LARGE_MASTER.sx	📼 OR
0R7100812	20154_U01_LARGE_SLAVE.sx	📼 OR
0R7100813	80154_U02_SMALL_NETWORK.sx	🖂 FV
0R7100814	10154_U02_SMALL_BASIC.sx	
📼 0R7100815	50154_U01_LARGE_MASTER_BRAPP_FOR_BOOT_V0121.sx	
<		>
File <u>n</u> ame:	0R71008150154_U01_LARGE_MASTER_BRA	en
Files of <u>type</u> :	all Can	cel
	<u><u> </u></u>	lp
Option	Binary	

STEP 7: After BRAPP software has loaded, wait for panel to boot into application layer.

**STEP 8**: Type BRAPP and press enter. You will see the following message on the screen, follow prompts to replace boot loader.

Replace Boot With: 0R71008070121\_U01\_LARGE\_MASTER\_BOOT.sx

**STEP 9**: This command will cause the current boot to be replaced by a copy of a new boot that is contained within this application. Upon completion, the system will re-issue the prompt. You are expected to send the 'regular lighting management' application using the 'PC C' command in the application, or if you 'exit' to the Boot, to use the 'PUT' command.

Replace the Boot ('Y'es/'N'o)?

STEP 10: Enter "Y" to confirm.

You will be prompted a second time.

Are you sure ('Y'es/'N'o)?

**STEP 11:** Enter "Y" to confirm.

Your telnet screen should look like the following.

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🛄 Tera Term - COM2 VT	_ 🗆 🗙
<u>File E</u> dit <u>S</u> etup C <u>o</u> ntrol <u>W</u> indow <u>H</u> elp	
Are you sure ('Y'es/'N'o)?Y Programming New Boot. Please Wait.	^
<pre>Verifing that the CRCs are good! Seg Location StartAddEndAdd Size 32 bit CRC Calc'd CRC # 1 0x369687, 0x003e00-0x003f79, 378, 0xd0a5166c=0xd0a5166c # 2 0x369801, 0x004000-0x0040ad, 174, 0x4a530a5a=0x4a530a5a # 3 0x369861, 0x00da80-0x00dc2f, 432, 0xe7b7805c=0xe7b7805c # 4 0x369a5f, 0x00dd00-0x00ddfe, 255, 0xde29dae6=0xde29dae6 # 5 0x369b5e, 0x00de00-0x00fe00, 8193, 0x04843ebf=0x04843ebf # 6 0x36bb5f, 0x00ff8c-0x00ffff, 116, 0x1e5c8c2f=0x1e5c8c2f # 8 0x378000, 0x3d8000-0x3db9ba, 14779, 0xb7d412fc=0xb7d412fc # 9 0x36bb55, 0x3dbfc0-0x3dbfdf, 32, 0xa1c9d978=0xa1c9d978</pre>	
Programming FLASH!	
Finished Programming the Boot!	
Z-MAX BRAPP [USB]:	~

STEP 12.1: Type "Exit" and press enter.

STEP 12.2: Press 'B' to enter boot loader.

STEP 12.3: Type "Put C O" and press enter.

**STEP 13:** Once Tera Term informs you to send the file, go to File menu then Send File, locate appropriate application file to send. Click Open.

Tera Term: Send file	? 🗙
Look jn: 🧰 1.54 💌 🗲 🗈	-111 *
OR71008100121_U02_SMALL_BASIC_BOOT.sx     OR71008110154_U01_LARGE_MASTER.sx     OR71008120154_U01_LARGE_SLAVE.sx     OR71008120154_U01_LARGE_SLAVE.sx	III OR III OR III OR
OR71008130154_U02_SMALL_NETWORK.SX      OR71008140154_U02_SMALL_BASIC.SX      OR71008150154_U01_LARGE_MASTER_BRAPP_FOP_FOP_FOP_FOR_Type: SX     Size: 429	File KB
File name: 0R71008110154_U01_LARGE_MASTER.sx	<u>O</u> pen
Files of type: all	Cancel
	<u>H</u> elp
Option <u>B</u> inary	

**STEP 14:** Wait for unit to update and now you are finished.

**Contact:** If you have any questions or concerns, please call LMS technical support at (800) 959-6004.