



November 22, 2022

TECHNICAL BULLETIN TB-2022-11-01 Revision A

Re: CS200 Liquid Level Controller Firmware Update

Dear Distributor,

With regards to our recent communication concerning the issues with CS200 liquid level controller firmware version 2.17, version 2.20 firmware is now available and addresses all the level control issues discussed previously.

We strongly recommend the upgrading of all CS200 liquid level controllers with V2.17 firmware; individual distributors have been contacted with all relevant serial number information. As noted in earlier correspondence, a *ciSmartcom*® communications hub is required to update the controller(s) and install the new V2.20 firmware.

Attached to this bulletin are instructions and necessary information to perform the firmware revision & upgrade.

Should you have any issues, please contact:

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Release Date: 8-26-22
Equipment: CS200 Control
Firmware Version: V2.20

Enhancements:

- Additional range checking has been added to evaluate current settings (Low Alarm, Start Fill, Stop Fill, High Alarm) and change to default values if any level setting is out of range. Default: Low Alarm=2, Start Fill=3, Stop Fill=6, High Alarm=7.

Corrected Issues:

- The level control settings could be adjusted out of the range associated when used with the 8-thermistor sensor assembly. The range checking has been fixed to ensure the range cannot deviate outside the expected range.
- The level settings for thermistors increment / decrement in 1" units rather than the .1" increment introduced in the previous version.

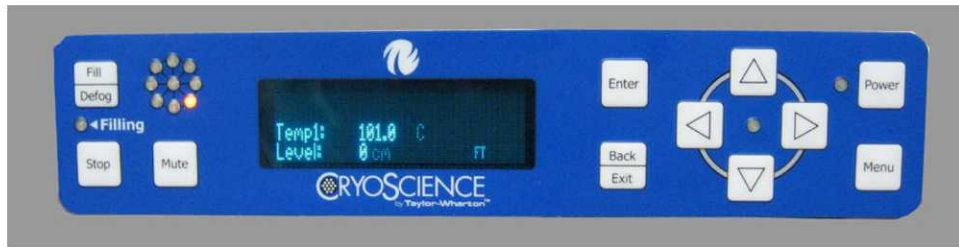
Recommended Action:

Any CS200 Control with firmware version V2.17 should be updated to V2.20.

Risk associated with delaying firmware update:

- High - This update should be done on all controls with firmware version V2.17 to eliminate the possibility of an overfill condition if the user were to set a stop fill level outside of the appropriate range.

Firmware update on the CS200



Required Equipment:

- 1 each ciSmart Com Communications Hub from CryoIntelligence
- 1 each power supply with country appropriate power cord
- 2 each Ethernet cable (1 white, 1 blue)

1. Plug the white Ethernet cable into one of the ports on the connector panel that is labeled "Cryowire Network". (Indicated with red arrows in the picture below). This is located on the back and is accessible through the connector box.



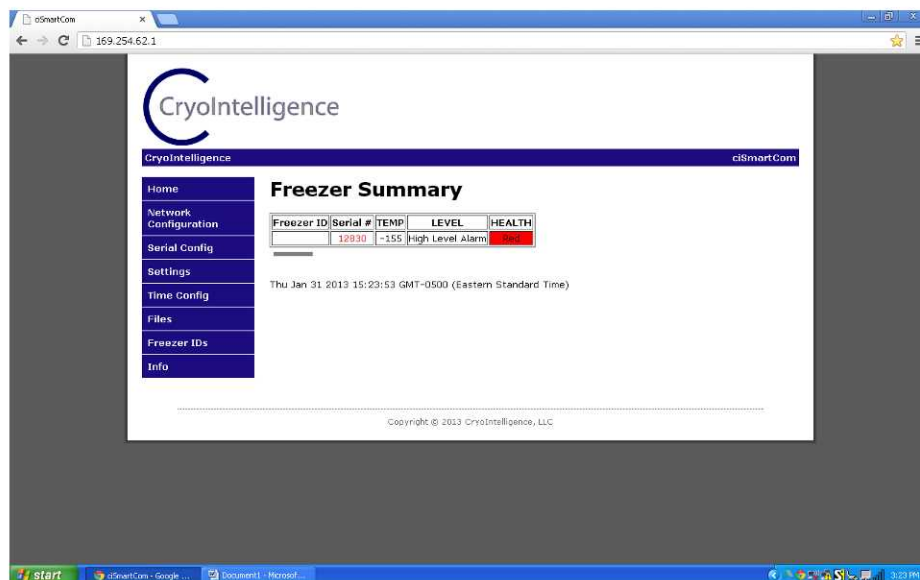
2. Connect the other end of the white Ethernet cable into the ciSmart Com Hub at the port labeled Cryowire #1 (the legend is on the bottom of the ciSmart Com Hub).



3. Connect the blue Ethernet cable into an Ethernet jack on a computer.
4. Connect the other end of the blue Ethernet cable into the ciSmart Com Hub at the port labeled "Ethernet". This is located next to the power plug



5. Connect the power supply into the ciSmart Com Hub.
6. Open a browser on the computer. It should be Chrome, Explorer 9 (or later), Firefox or Safari.
7. In the address bar enter the following: 169.254.62.1. The following screen will be displayed. The ciSmart Com hub will recognize the attached control and the control serial number will be displayed. It may take the computer and the ciSmart Com Hub a few minutes to establish a connection. If the computer and ciSmart Com do not connect, use the Discoverer utility to find the ciSmart Com hub. This utility can be downloaded at <http://cryointelligence.com/download.html>. (JAVA must be loaded on the laptop for the utility to run). Also, please note that the wireless transmitter may need to be turned off in the laptop so the utility will work through the hard wired port on the laptop.



- The screenshot shows the CryoIntelligence web application. The header is dark blue with the logo and navigation links. The sidebar on the left has a menu with 'Files' selected. The main content area features a table of files with the following data:

File Name	Size (Kb)	Time Stamp	Links
1-303-1-2	1	Tue Sep 10 2013	download graph
1-303-1-2	62	Tue Sep 10 2013	download graph
01400-1-2-1-1	1	Tue Sep 10 2013	download
01400-1-2-1-1	1	Tue Sep 10 2013	download
04707-1-2-1-1	1	Tue Sep 10 2013	download
02000-1-2-1-1	4	Tue Sep 10 2013	download
02000-1-2-1-1	14	Tue Sep 10 2013	download
01500-1-2-1-1	1	Tue Sep 10 2013	download
01500-1-2-1-1	21	Tue Sep 10 2013	download
01500-1-2-1-1	1	Tue Sep 10 2013	download
01500-1-2-1-1	1	Tue Sep 10 2013	download
01500-1-2-1-1	1	Tue Sep 10 2013	download

Below the table, there are sections for 'Delete Files', 'Upload File', and a copyright notice: 'Copyright © 2013 CryoIntelligence, LLC'.

- CryoIntelligence

CryoIntelligence

ciSmart Control

Home

Network Configuration

Serial Config

Settings

Time Config

Files

Freezer IDs

Tank Switcher

Devices

Info

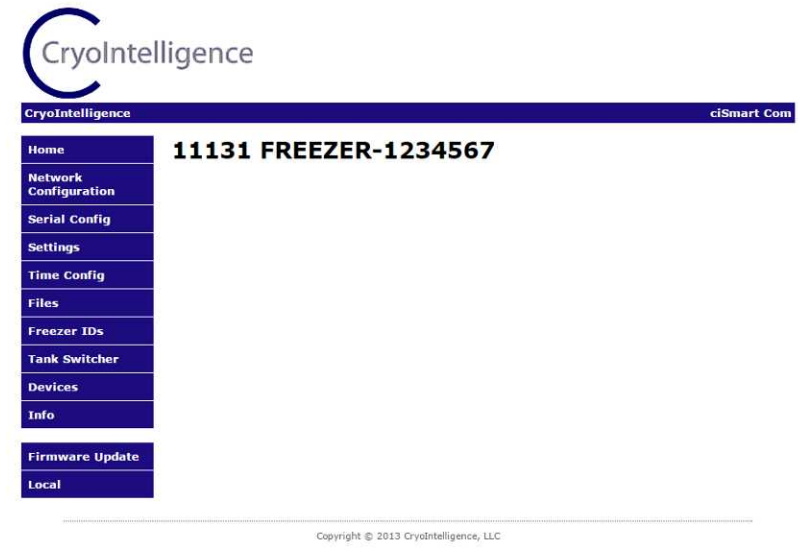
Attached Devices

Unit Address	Device	Counter
12056	FREEZERCONTROL	0
11909	FREEZER-1234567	0
11131	FREEZER-1234567	1183
12141	Gas Bypass	267
12054	FREEZERCONTROL	0

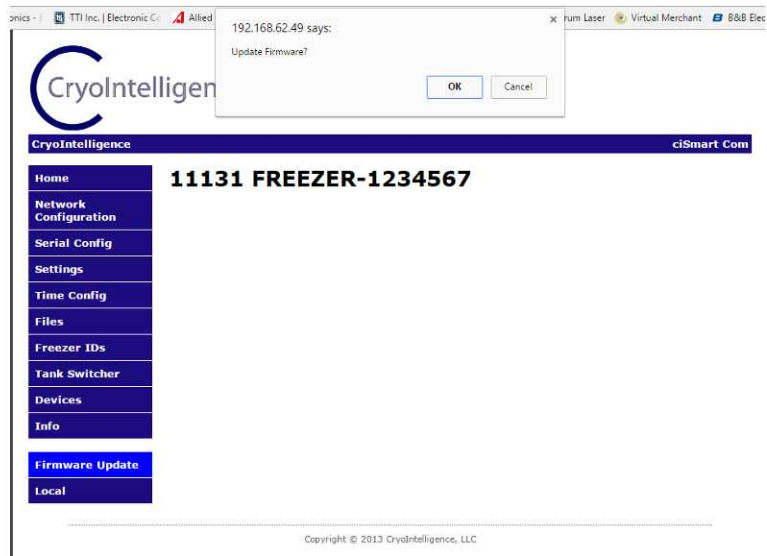
Fri Dec 09 2016 16:49:29 GMT-0500 (US Eastern Standard Time)

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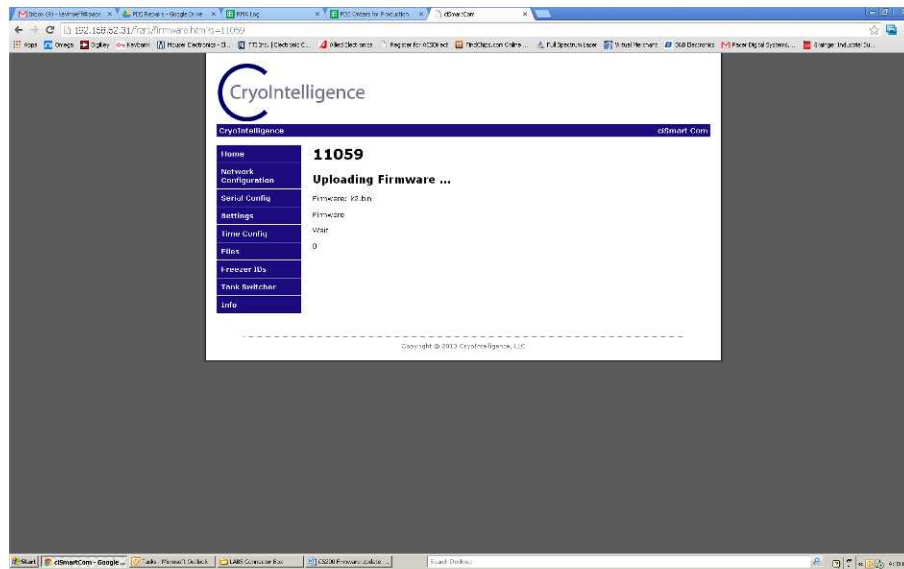
15. Point the mouse at the serial number of the control and press the left mouse button to select it. The following screen will be displayed.



16. Point the mouse at the Menu choice “Firmware Update” and press the left mouse button. The following screen will be displayed.



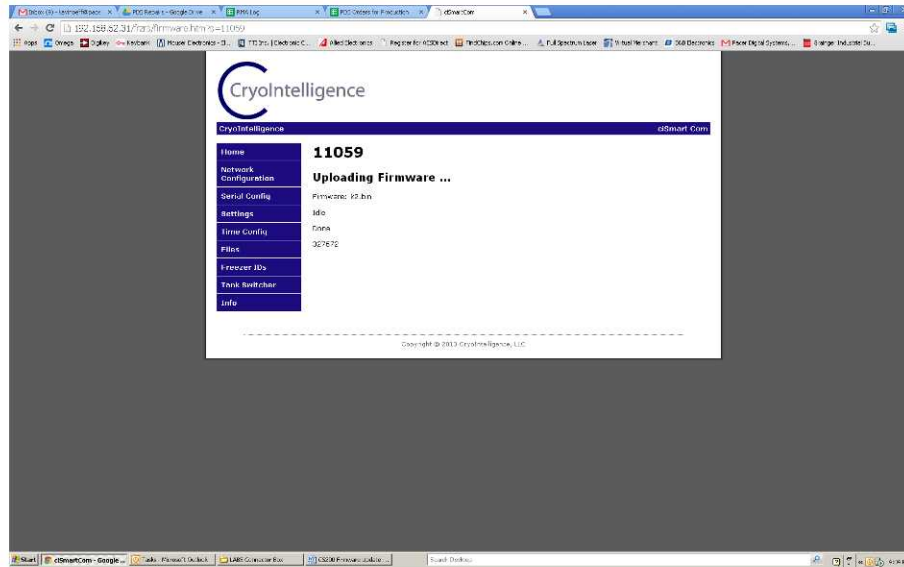
17. Select OK and the firmware will be updated. If asked for a user name and password, enter user0. Leave the password empty, point at the Log In button and press the left mouse button.



18. The ciSmart Com Hub will load the new firmware onto the control and then install it. While this occurs, the display on the control will show “LOADING” in the upper left corner of the display. A bar graph will show the progression on the lower line from left to right and a spinning baton will be displayed on the lower right side of the display.



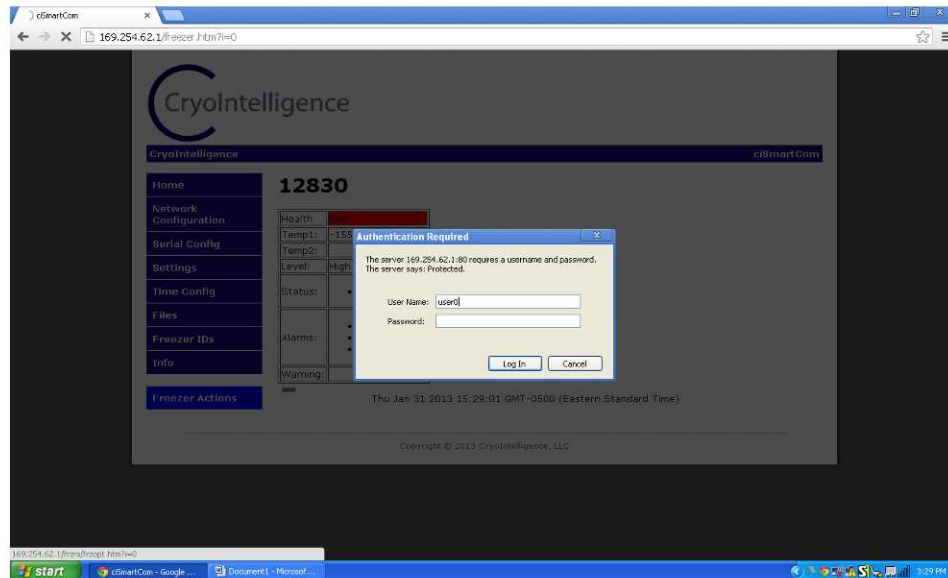
While the firmware is updated the following will be displayed on the computer. A timer will show the progression of the update as it occurs.



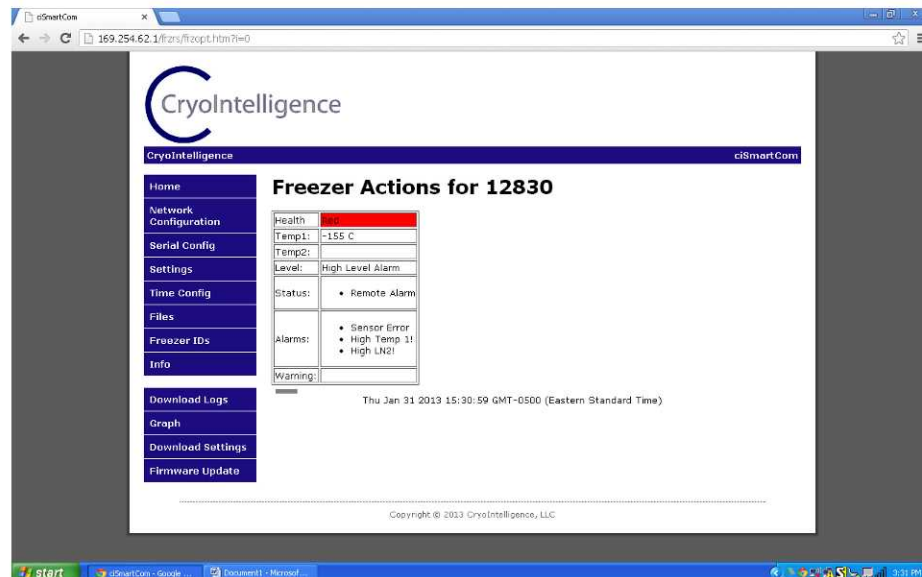
19. After receiving the message above, reboot the control by removing all power from the control (both AC power and battery power) and restoring it after waiting for 30 seconds.
20. After the control reboots, check valve operation by pressing the FILL button to open the valve and then pressing the STOP button to close the valve.
21. On the control, press the MENU button, scroll down to SYSTEM INFORMATION and press ENTER. Note the firmware version. It should match the firmware version information that was supplied with the update file. The firmware has been updated. The Ethernet cables and ciSmart Com Hub can be disconnected.

Internet Explorer 7 (IE7) Instructions

1. Enter URL 169.254.62.1 in your browser
2. If after waiting a few minutes no controls are listed, then very likely you have IE7.
3. Enter URL 169.254.62.1/frzrs/frzopt.htm?i=0 in your browser

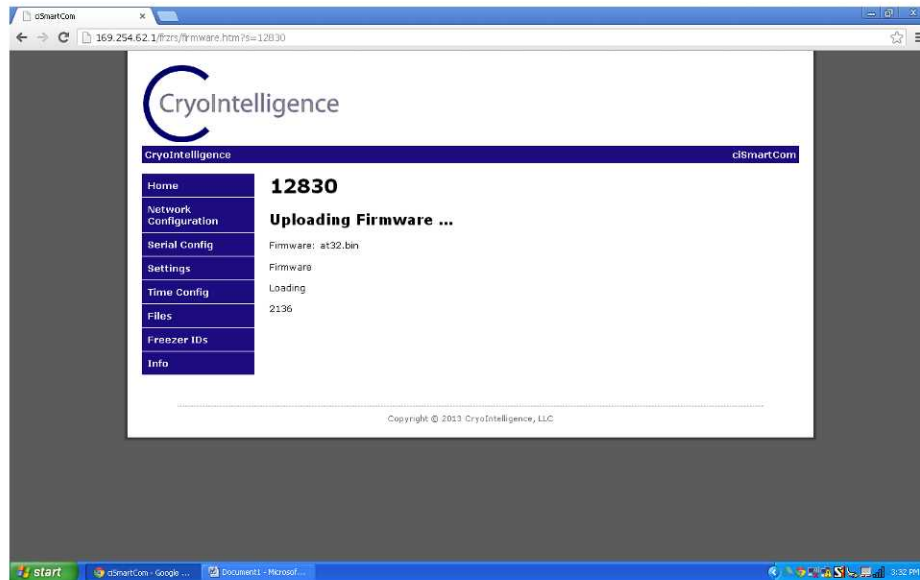


4. For the user name, enter user0. Leave the password empty, point at the Log In button and press the left mouse button. The following screen will now be displayed.



5. You should see a web page title Freezer Actions for <control serial number>. The serial number should match the control you are upgrading

6. Enter URL 169.254.62.1/frzrs/firmware.htm?file=bin&i=0. You will see a firmware upgrade page.

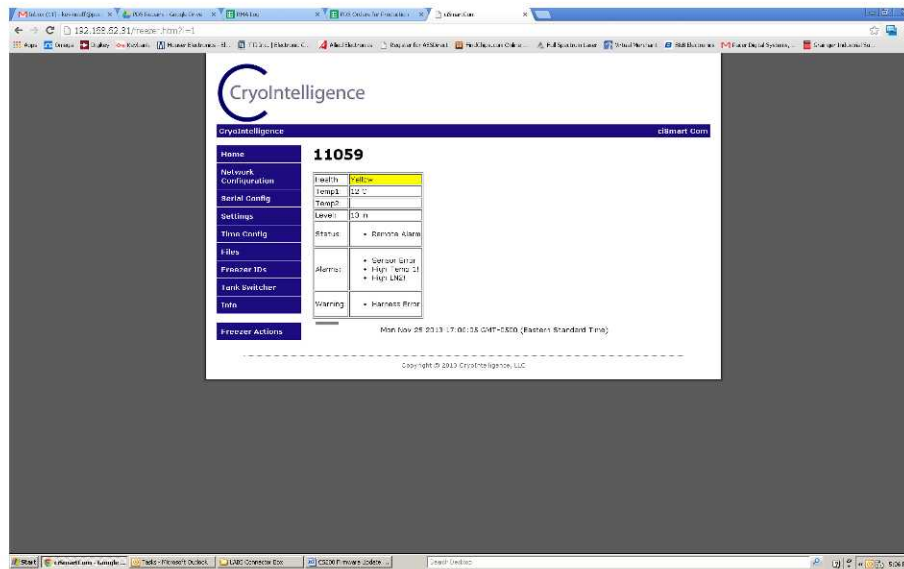


7. It will take a few minutes and the counter will begin to count.
8. The ciSmart Com Hub will load the new firmware onto the control and then install it. While this occurs, the display on the control will show "LOADING" in the upper left corner of the display. A bar graph will show the progression on the lower line from left to right and a spinning baton will be displayed on the lower right side of the display. After the firmware is updated the following will be displayed on the computer. After a few minutes the control will reboot.
9. After receiving the message above, reboot the control by removing all power from the control (both AC power and battery power) and restoring it after waiting for 30 seconds.
10. After the control reboots, check valve operation by pressing the FILL button to open the valve and then pressing the STOP button to close the valve.
11. On the control, press the MENU button, scroll down to SYSTEM INFORMATION and press ENTER. Note the firmware version. It should match the firmware version information that was supplied with the update file. The firmware has been updated. The Ethernet cables and ciSmart Com Hub can be disconnected.

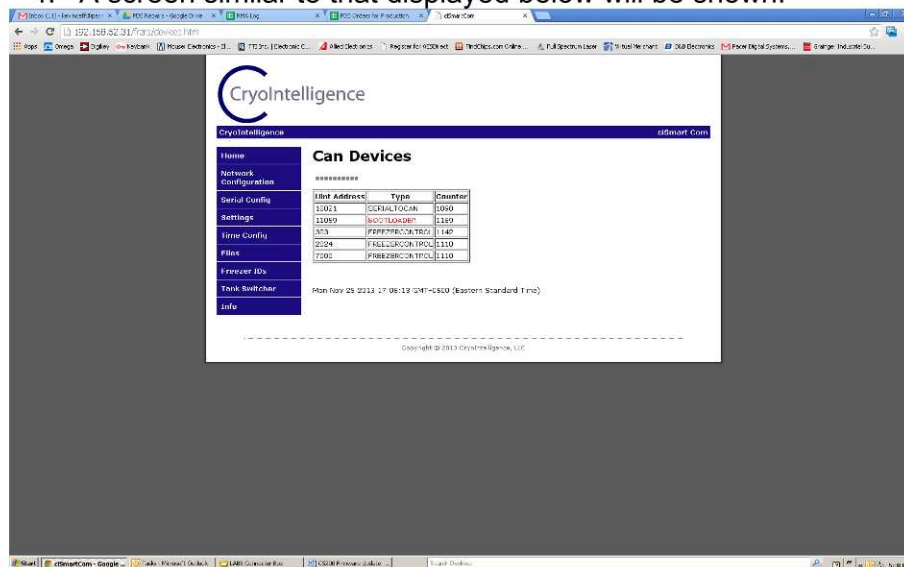
Alternate Firmware Update Instructions

If problems are encountered in updating the firmware, follow the instruction below to update the firmware.

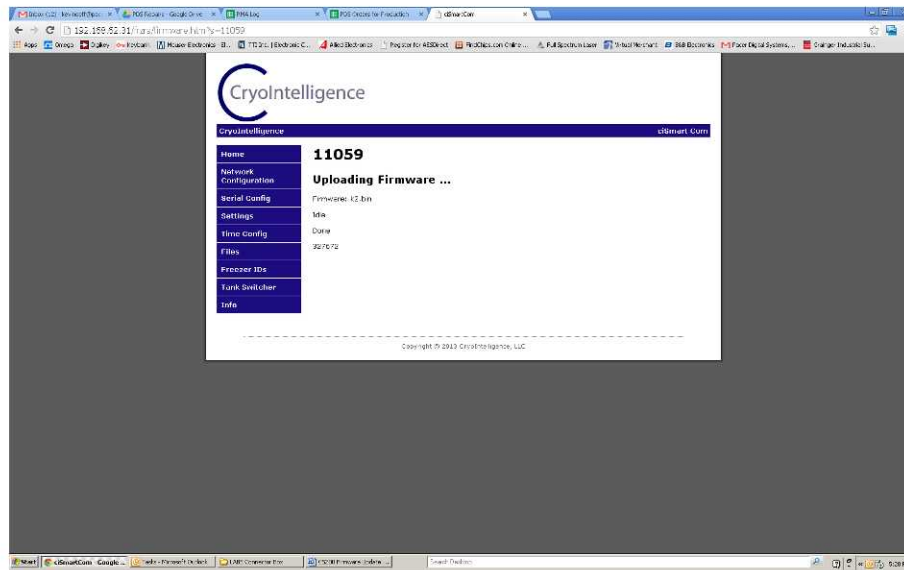
1. If the screen on the CS200 displays FIRMWARE ERROR, reboot the control by disconnecting power, waiting for 15 seconds and then plugging power back into the control.
2. The window on the computer may display a yellow status, meaning the control is not communicating with the ciSmart Com hub.



3. In the browser address line type in: 169.254.62.1/frzrs/devices.htm
4. A screen similar to that displayed below will be shown.



5. Find “bootloader” which is highlighted in red next to the control serial number and select it by pressing the left mouse button. The screen will indicate that the firmware update is occurring.



6. After receiving the message above, reboot the control by removing all power from the control (both AC power and battery power) and restoring it after waiting for 30 seconds.
7. After the control reboots, check valve operation by pressing the FILL button to open the valve and then pressing the STOP button to close the valve.
8. On the control, press the MENU button, scroll down to SYSTEM INFORMATION and press ENTER. Note the firmware version. It should match the firmware version information that was supplied with the update file. The firmware has been updated. The Ethernet cables and ciSmart Com Hub can be disconnected.