

Cryomech

Firmware Update Instructions

For Version 2.xxx to Version 2.xxx changes only

This whole process takes about 10 min and involves power cycling the panel several times.

You will need a clean USB thumb drive to perform this operation.

1. Copy down all the files provided and place them on an empty USB thumb drive.

Application.app

Applicatin.crc

update_button.bat

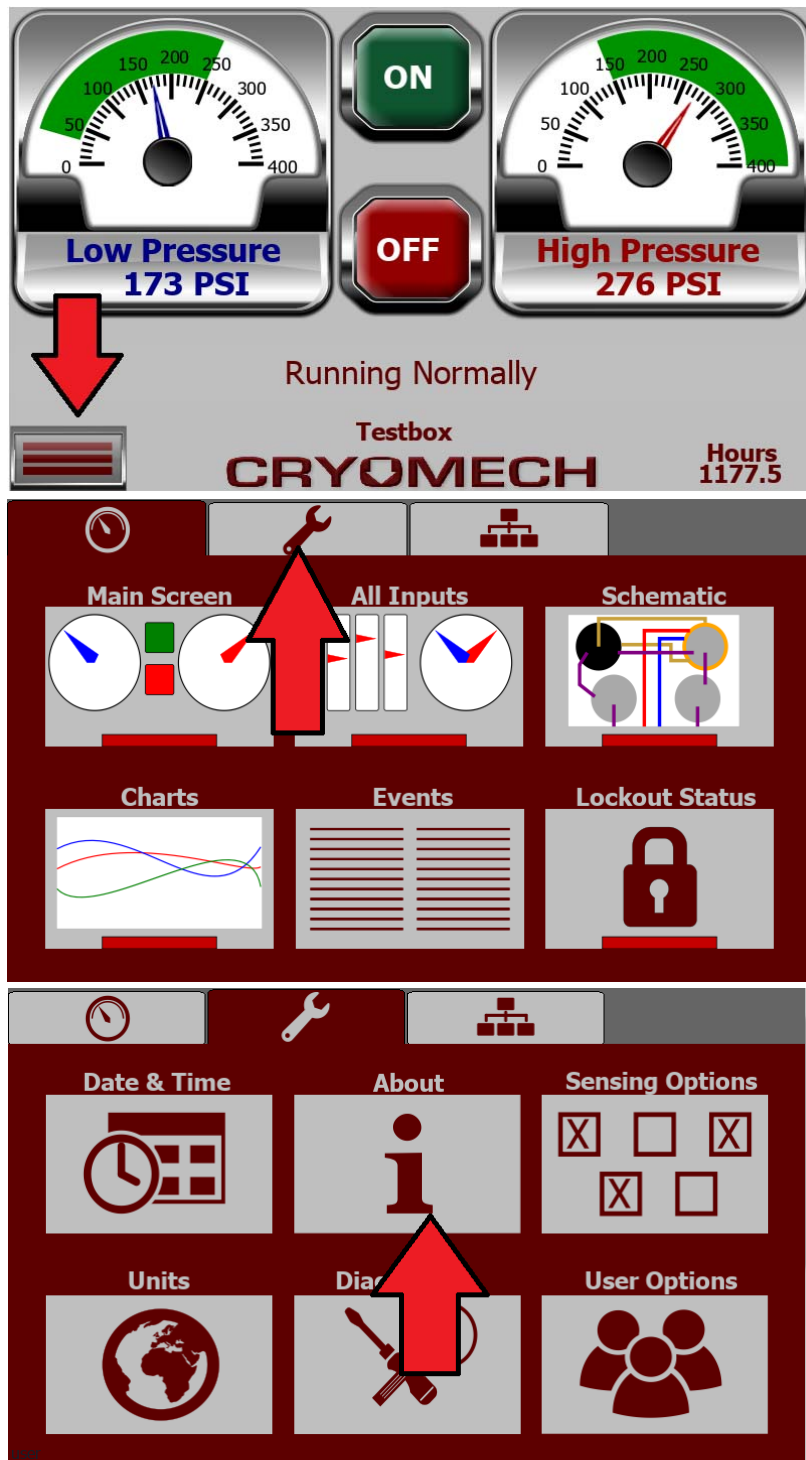
update_codesys.bat

UpdatePackage.zip

2. Place the drive into the USB port on the panel.

THE USB STICK MUST STAY IN THE USB PORT DURING THIS WHOLE PROCESS!

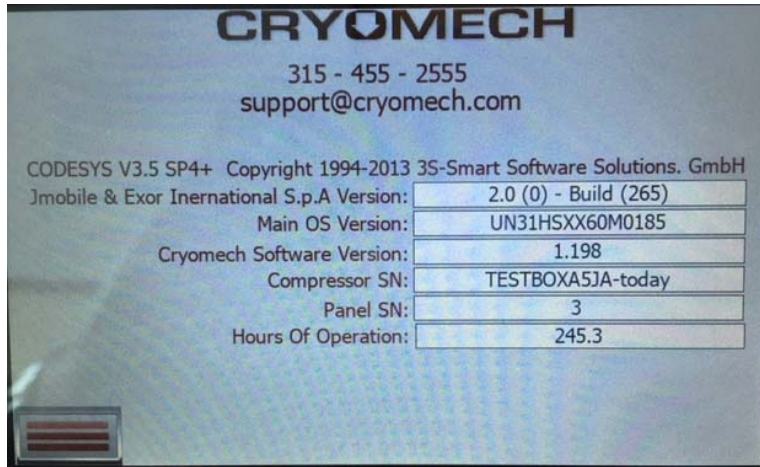
3. Navigate to the "About" screen. From the Main screen click on the menu button, then the Setup Menu tab followed by the About button.



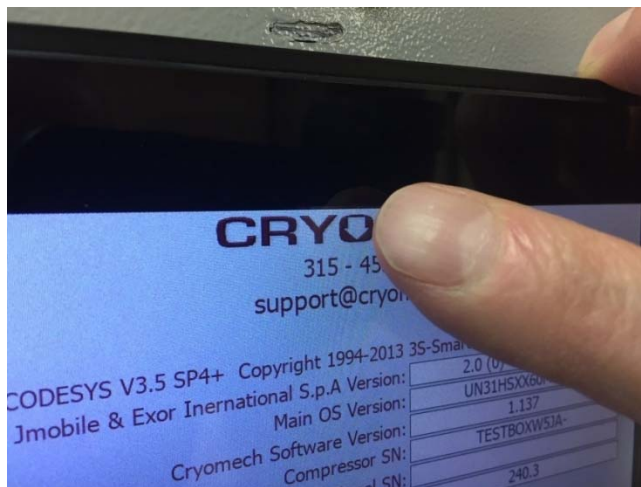
4. At this point note down all the version information.

Tip: Cell phone camera is very handy for this.

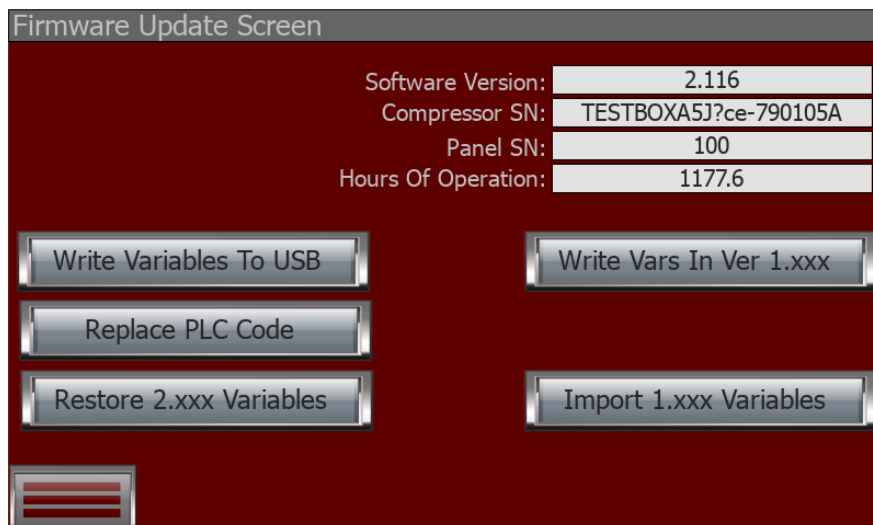
The important numbers are **Panel SN, Compressor SN & Hours of operation.**



5. Press and hold down on the 'O' in Cryomech logo until the Firmware update screen become visible. This will take about 6 seconds to happen.

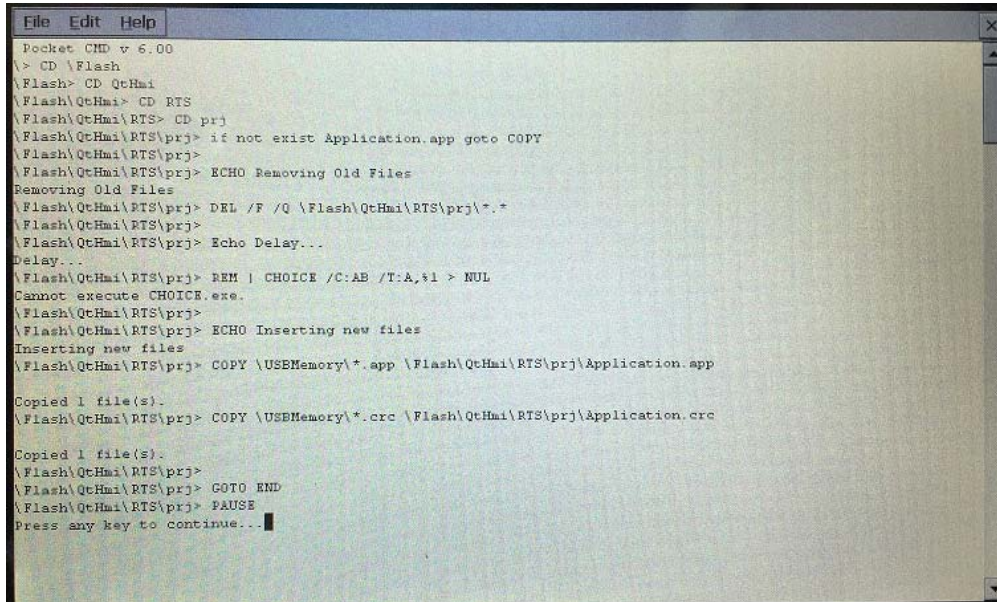


The Firmware Update screen will look similar to this.



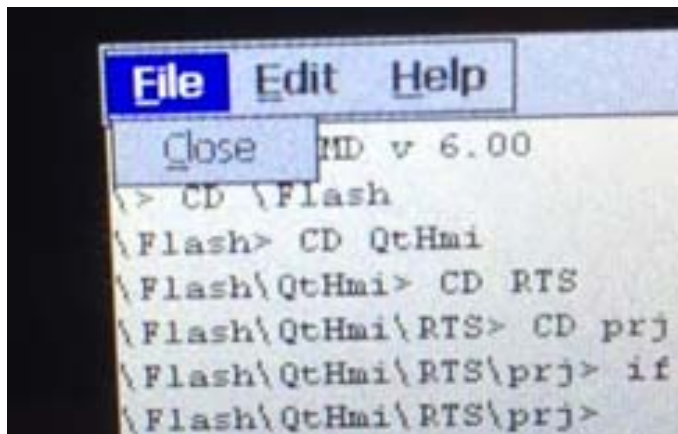
6. At this point we wish to save important information to the USB stick. Press the **"Write Variables To USB"** button. If you have an LED on your USB stick you should see it flash a little as it records data.

7. Click on the **"Replace PLC Code"** button. This should result in a command window becoming visible and several commands being executed. When it reaches a point that it says "Press any key to continue....."



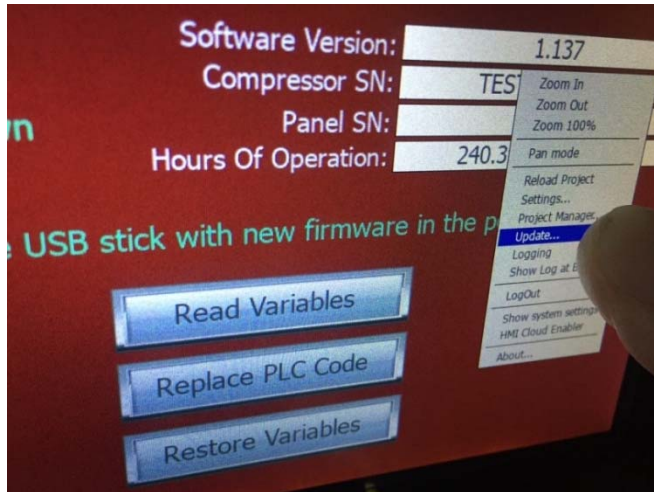
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File Edit Help
Pocket CMD v 6.00
\> CD \Flash
\Flash> CD QtHmi
\Flash\QtHmi> CD RTS
\Flash\QtHmi\RTS> CD prj
\Flash\QtHmi\RTS\prj> if not exist Application.app goto COPY
\Flash\QtHmi\RTS\prj>
\Flash\QtHmi\RTS\prj> ECHO Removing Old Files
Removing Old Files
\Flash\QtHmi\RTS\prj> DEL /F /Q \Flash\QtHmi\RTS\prj\*.
\Flash\QtHmi\RTS\prj>
\Flash\QtHmi\RTS\prj> Echo Delay...
Delay...
\Flash\QtHmi\RTS\prj> REM | CHOICE /C:AB /T:A,%1 > NUL
Cannot execute CHOICE.exe.
\Flash\QtHmi\RTS\prj>
\Flash\QtHmi\RTS\prj> ECHO Inserting new files
Inserting new files
\Flash\QtHmi\RTS\prj> COPY \USEMemory\*.app \Flash\QtHmi\RTS\prj\Application.app
Copied 1 file(s).
\Flash\QtHmi\RTS\prj> COPY \USEMemory\*.crc \Flash\QtHmi\RTS\prj\Application.crc
Copied 1 file(s).
\Flash\QtHmi\RTS\prj>
\Flash\QtHmi\RTS\prj> GOTO END
\Flash\QtHmi\RTS\prj> PAUSE
Press any key to continue...
```

8. Click on the word "File" in the menu, then click on "Close".

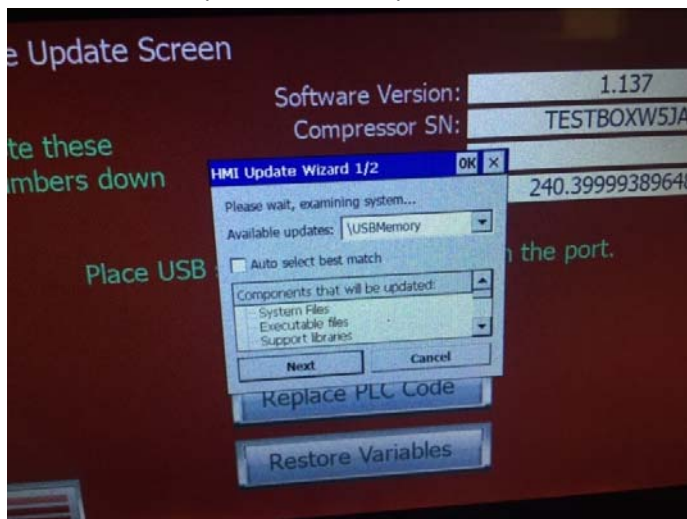


9. Press on an open red area of the screen and hold down until a small menu pops up. Slide up the menu until the word "**Update..**" is highlighted. Or alternately click on the word "**Update..**".

There will be a pause that could last up to 20 seconds before you see anything happen.

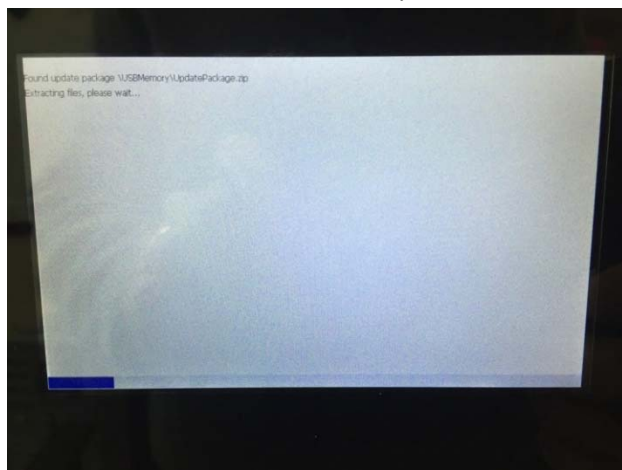


10. When it does respond the HMI Update Wizard screen will become visible.



11. Click "Next" and wait for the system to finish updating the HMI.

Note: *There is a rather lengthy delay between clicking the Next button and seeing something happen. 6- 8 seconds.* The screen will go mostly blank and you will see a progress bar slowly make its way across the bottom of the screen several times. This process will take several minutes.



12. Once the HMI has finished updating and restarted, you will find the panel sitting on a diagnostic screen that looks like this.

| 15 Pin Connection In | 15 Pin Connection Out | Outputs |
|--------------------------------------|--------------------------|--|
| <div>ON Switch Open</div> | <div>Unit Good</div> | <div>Cold Head Idle</div> <div>Power Contactor Open</div> |
| <div>OFF Switch Open</div> | <div>High Temp</div> | Local Buttons |
| <div>INTERLOCK Switch Open</div> | <div>High Pressure</div> | <div>ON Button Released</div> <div>OFF Button Released</div> |
| <div>SLVL Switch Open</div> | <div>Running</div> | <input type="checkbox"/> Testbox Mode |
| | | <div>Go Set The Serial Number</div> |

13. Just click on the button titled "Go Set The Serial Number" and it will take you to a screen that looks like this.

Please enter the panel's serial number

Commit

Not Now

14. Click on the "Commit" button and the screen will return to the "Main" screen that looks like this.



15. Navigate back to the About screen (see step 3) and then press and hold down on the 'O' in Cryomech again. When the firmware update screen comes back up, Press the **"Restore 2.xxx Variables"** button. (You should notice items such as the "Panel SN" and the "Compressor SN" getting updated.)
16. Remove the USB thumb drive now and power cycle the unit. When the device comes back up, it should be fully functional again. If you navigate back to the About screen again, all the revision and operating hours should be restored.