



Hot Rocks Oven – PLC and HMI programming (GEN2)

1 – Gathering information

If you received a new replacement PLC and HMI they are not programmed. USB thumb drive contains all the programs needed and will be use to update the HMI if needed. The blank SD memory card will be loaded with the right program from the thumb drive to programme the PLC if needed. The first step is to identify the current version of the software in use and gather the parameters of the oven.

IMPORTANT

On USB key you have to programs 2.308 or 2.309.

- If your actual program version is 2.8 or less, choose 2.308. Copy the proper PLC files on the SD card and keep only the proper HMI files on the USB key.
- If your actual program version is 2.9 OR if your oven has been updated with the new TM3TM3 external expansion temperature card, choose 2.309.

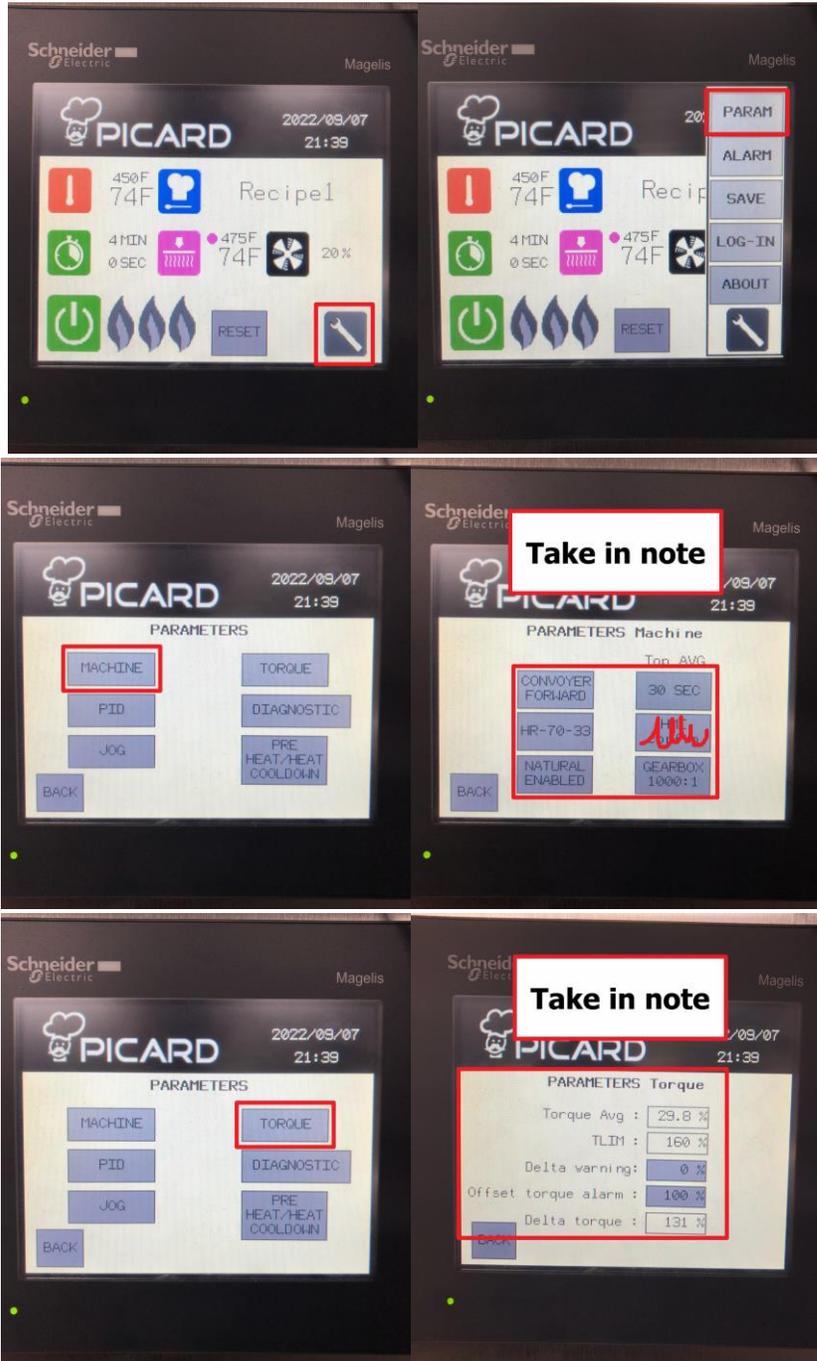
See following procedure for more details.

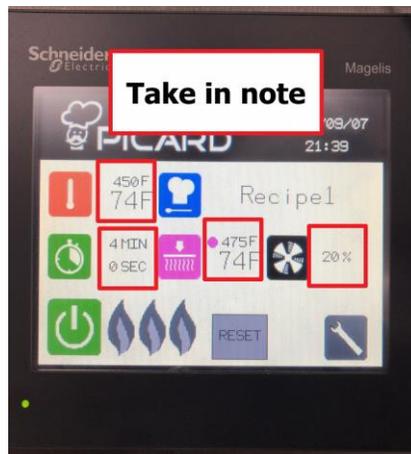
Method A: HMI screen is accessible

- Press the **setting** button (the wrench) then the **ABOUT** button and take in note the HMI and PLC version.



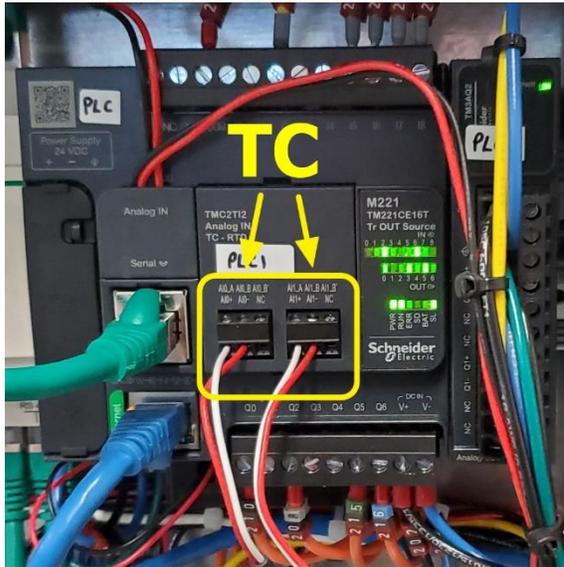
- Login as SYSTEM user, (Name: SYSTEM, password : SYSTEM). Page 23 in the owners manual on the thumb drive for help.
- Go to the PARAM page, take in notes the model number, the direction of the conveyor, the gearbox ratio, gas type and take in note the recipe(s) on the main screen.



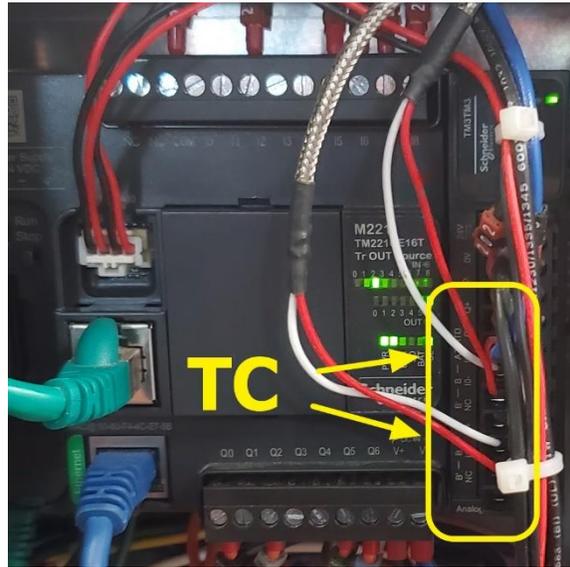


Method B: HMI screen is not accessible

- Close the gas main valve
- Close the main electrical switch on the unit
- Remove the back panels
- Check if the PLC has its TC (thermocouple) connected in the center. If it's the case, the version is 2.308. If the TC are connected in a module to the right of the PLC, the version is 2.309. (Refer to the image below)



2.308

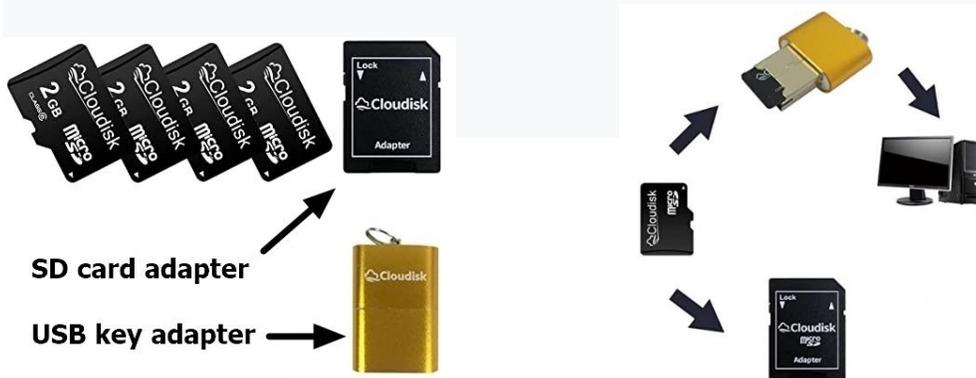


2.309

Material needed

You need a SD memory card as well as a USB thumb drive. The SD memory card and thumb drive must have a maximum capacity of 2GB each.

Suggested Amazon link for SD memory card with an USB adapter, click [HERE](#).



2 - Preparation before update

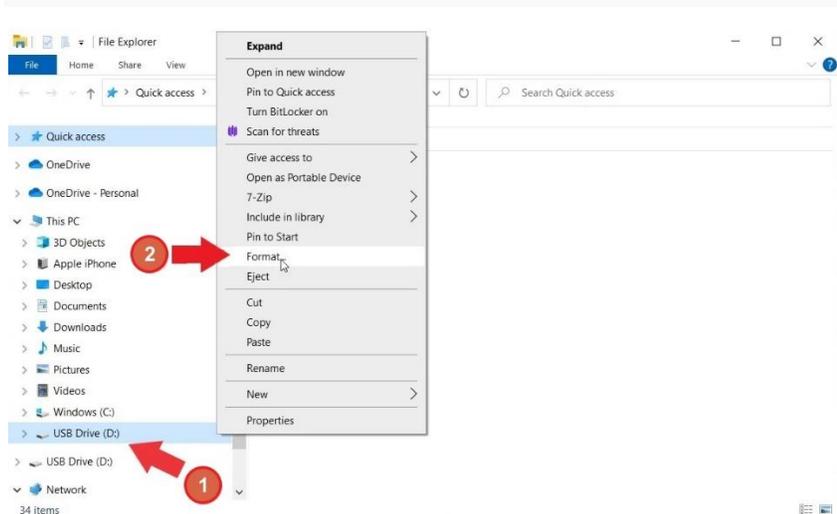
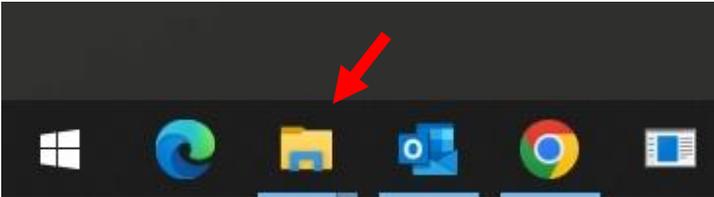
Ignore this step and go directly to step #4 if you have received the parts from us directly they are pre-programmed and you will find both version ready to use for updating

Copying the files on USB KEY and SD memory card

Use a PC to copy the proper files on the SD memory card and keep only the proper ones on the USB key.

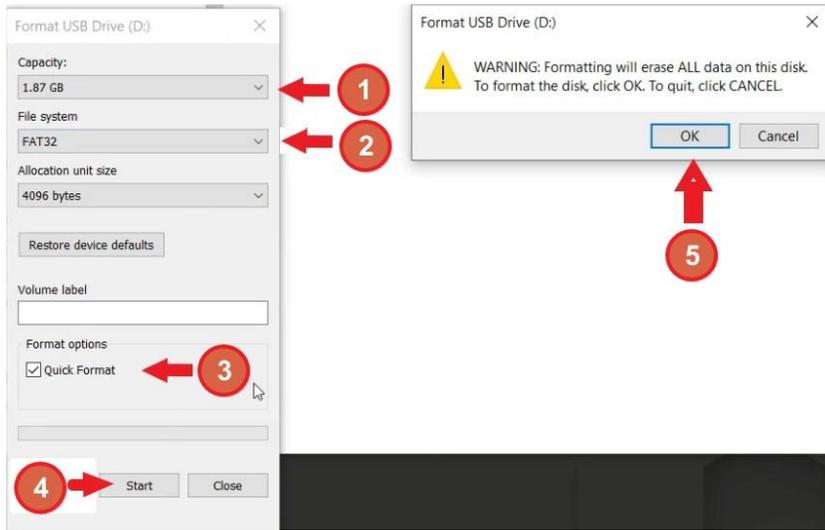
First, you must have a USB key and SD memory card formatted in FAT32. To do this, follow the instructions below.

Click on the FILE EXPLORER icon near of the Windows ICON.



1- Find your USB Drive on the left menu. Usually it's the letter (D:).

2- By clicking the right mouse button, a menu of options appears. Select the FORMAT menu.



In the FORMAT menu.

- 1- This is the capacity of the USB key or SD memory card. Should be no more than 2 GB.
- 2- Make sure FAT32 has been selected from the drop-down menu.
- 3- Check marks the QUICK FORMAT box.
- 4- When all is done, click START.
- 5- Click OK in the warning box that appeared.



After some time, a window will appear to indicate that everything is complete. Click OK

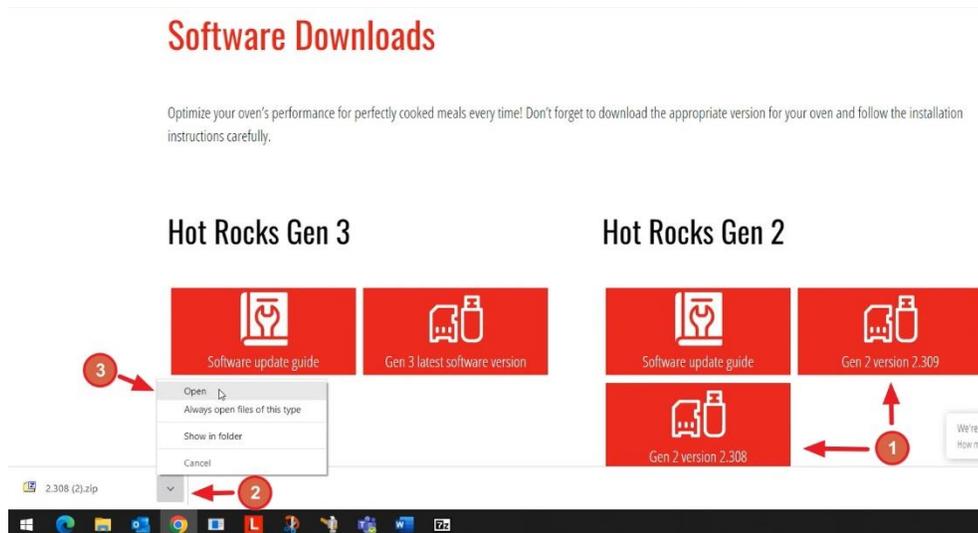


To exit the FORMAT USB Drive menu, click on CLOSE

3- Get the latest software version, on the website.

(Google Chrome was used for the walkthrough)

<https://hotrocksoven.com/downloads/>

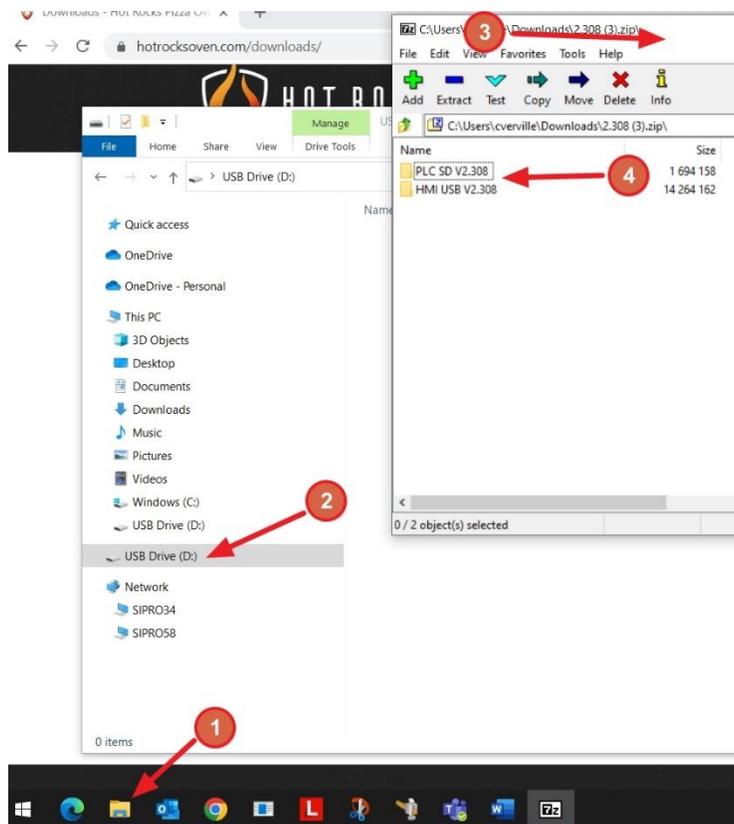


1- Click on the icon **Gen 2 version** for the oven version identified.

2- A box appears in the left bottom corner, click on the arrow to see the menu.

3- Click on OPEN.

- Put the SD memory card or USB key in the USB port of the PC.

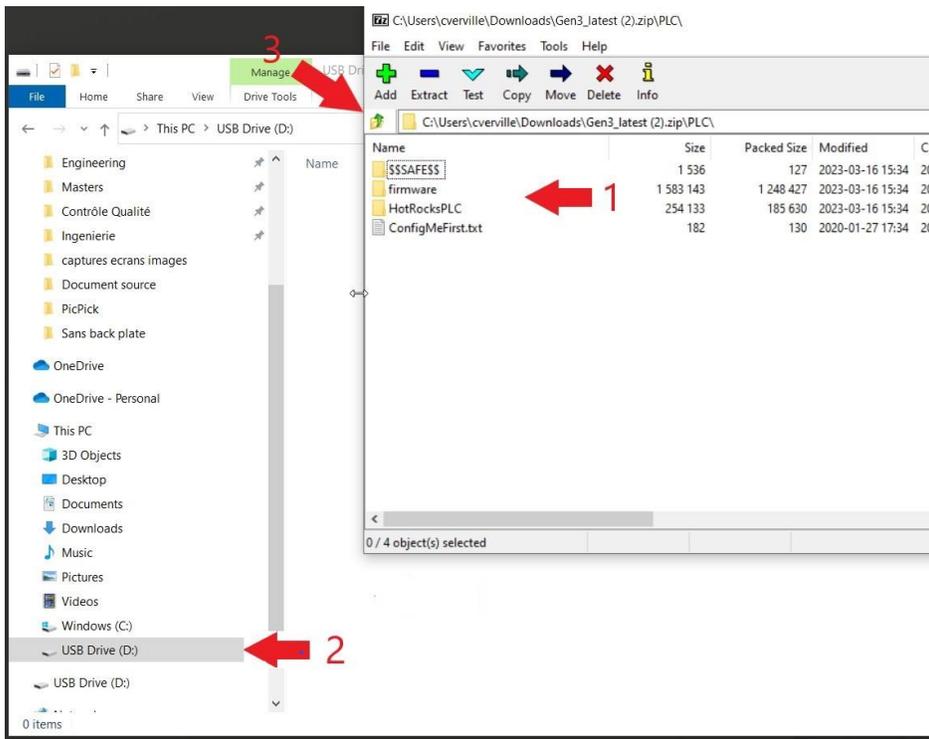


1- Click on the FILE EXPLORER icon.

2- Select the USB Drive.

3- Select the previously opened window of the latest version of the program file.

4- Double click on PLC SD to see the file to put on SD memory card. Double click on HMI USB to see the files to put on the USB key.

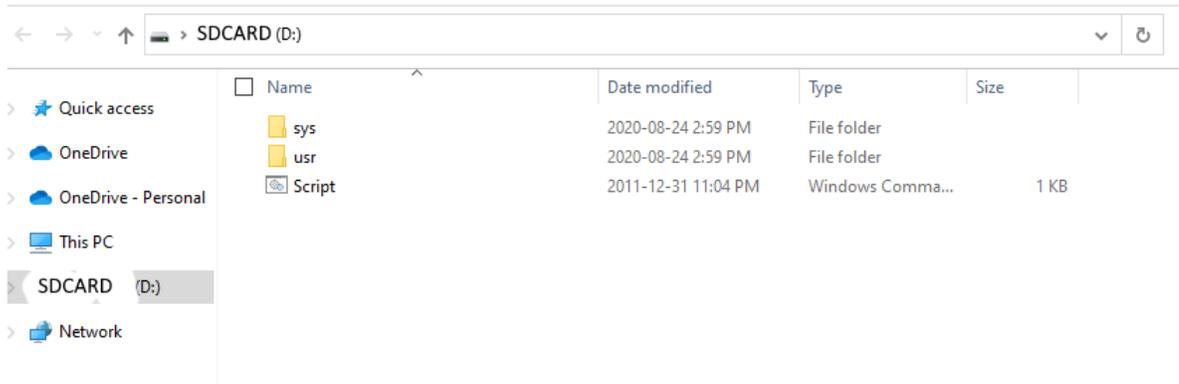


1- Click on the PLC directory. Click on the first file, press and hold the SHIFT key on the keyboard and select the last file. All 4 files should be blue. Release the SHIFT key.

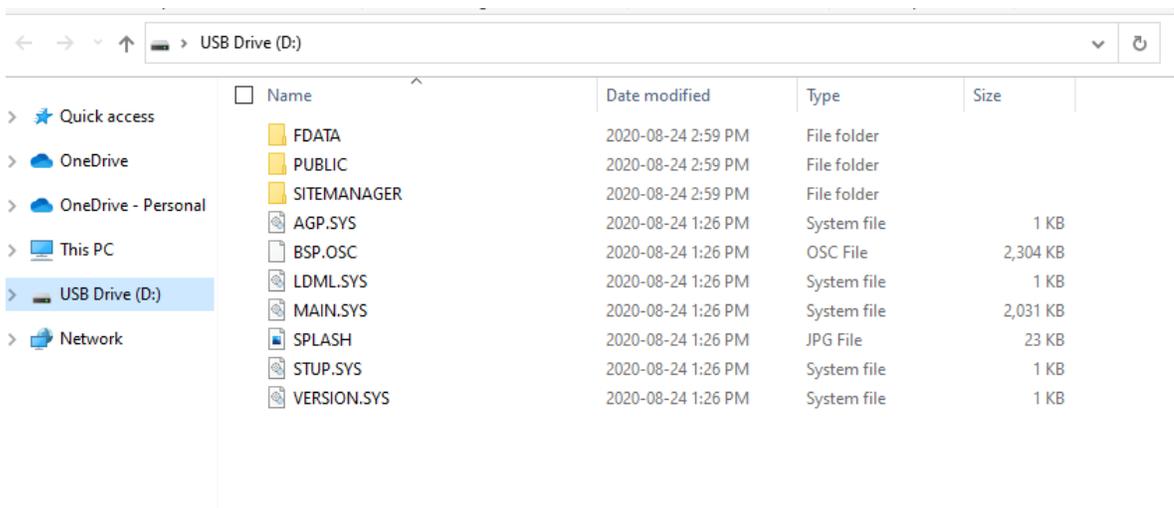
2- With the mouse, go to the files to be copied. Holding down the left mouse button, drag the files to the file explorer window over USB Drive, and release the mouse button to start the transfer.

3- Click on this icon to perform the same procedure to copy the file contained in the other directory to put to the USB key.

- SD memory card must contain 2 folders and 1 file;



- The USB key must contain 3 folders and 7 files;



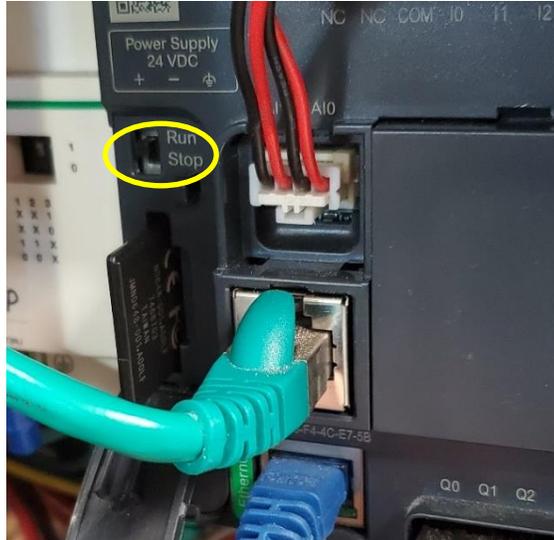
- Be sure, there are no other files on the key or card.

4 – Secure the oven

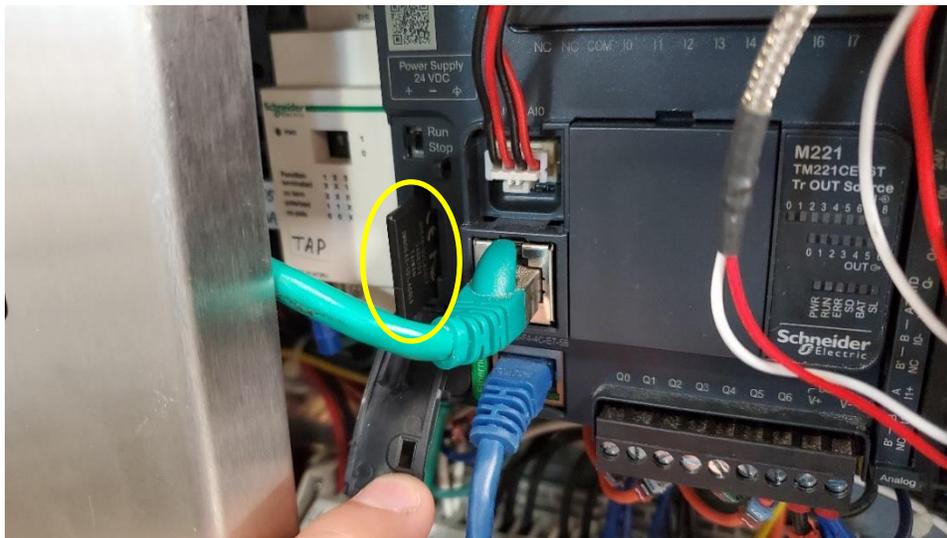
- Close the gas main valve
- Close the main electrical switch on the unit
- Remove the back panels

5 – Update the PLC

- Set the PLC switch to the “STOP” position.



- Insert the SD card into the PLC SD Card slot.



- Turn on the main electrical switch on the unit.
- Wait 5 minutes until the program is fully transferred.
- Turn off the main electrical switch on the unit.
- Remove the SD card from the PLC (push to release)
- Turn on the main electrical switch on the unit and wait until the HMI is fully booted. (The SD light will stop flashing when the program has finished loading.)
- Set the PLC switch to the "RUN" position

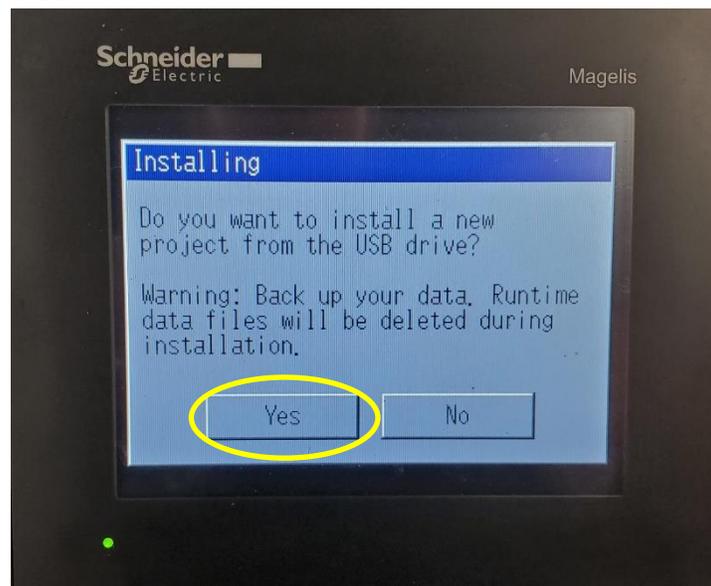


6 – Update the HMI

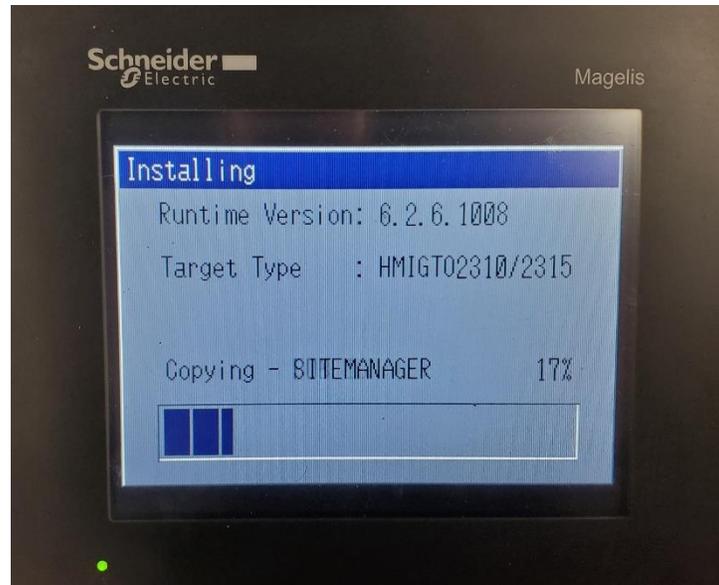
- Turn off the main electrical switch on the unit.
- Insert the USB thumb drive into the USB slot on the HMI and put power ON.



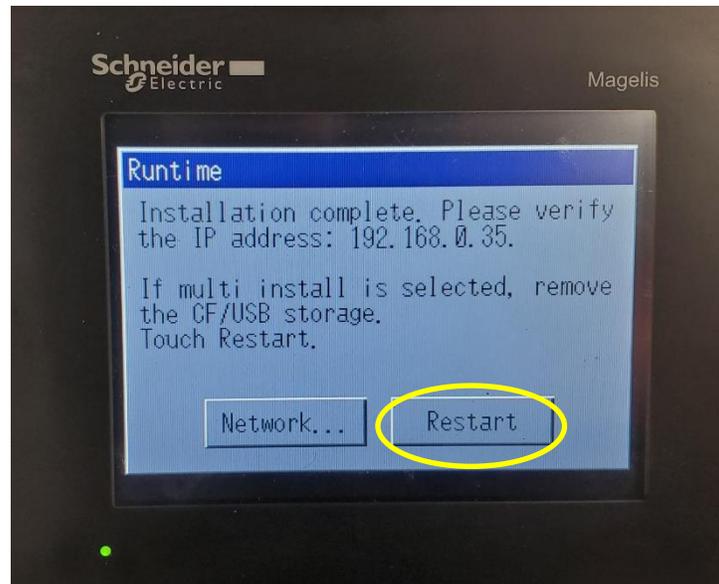
- Accept the USB transfer on the HMI screen.



- Wait until the program is fully transferred and the screen is booted into the new version.

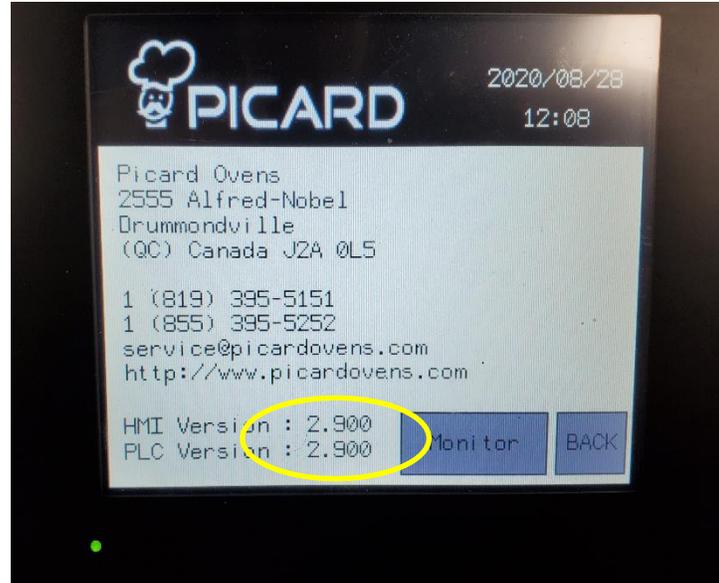


- Remove the USB thumb drive from the USB slot on the HMI and press restart.



7 – Verification

- Press the **setting** button then the **about** button and make sure the expected version is installed.



- Go to the PARAM page, remake the step 1 by entering the notes you have taken in every parameters.
- Replace panels and turn gas on.
- Press start on the main page to make sure the oven is working properly.