

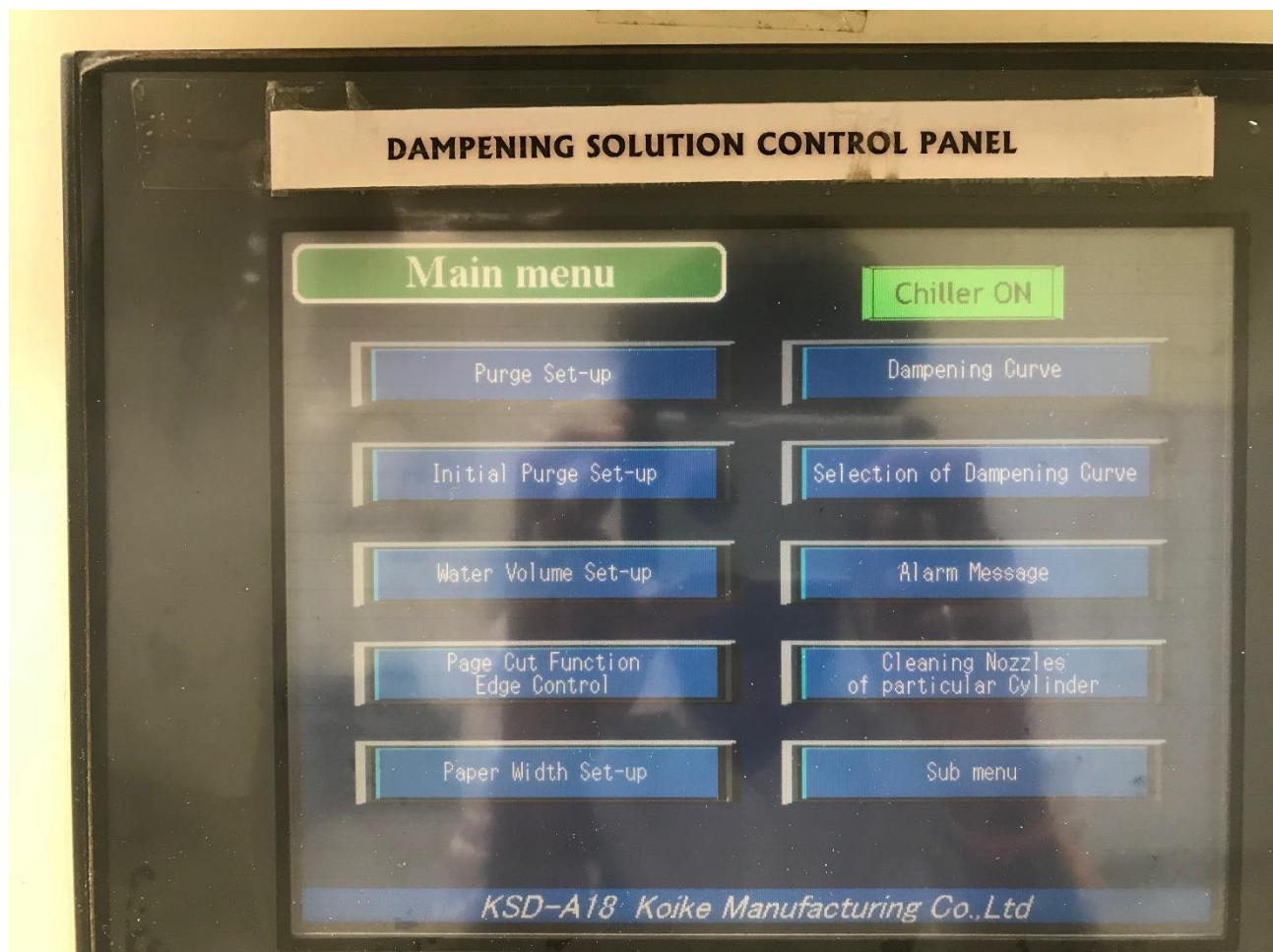
# Koike Orion chiller Remote On/Off from console – B press

Modification date: 16/01/2018

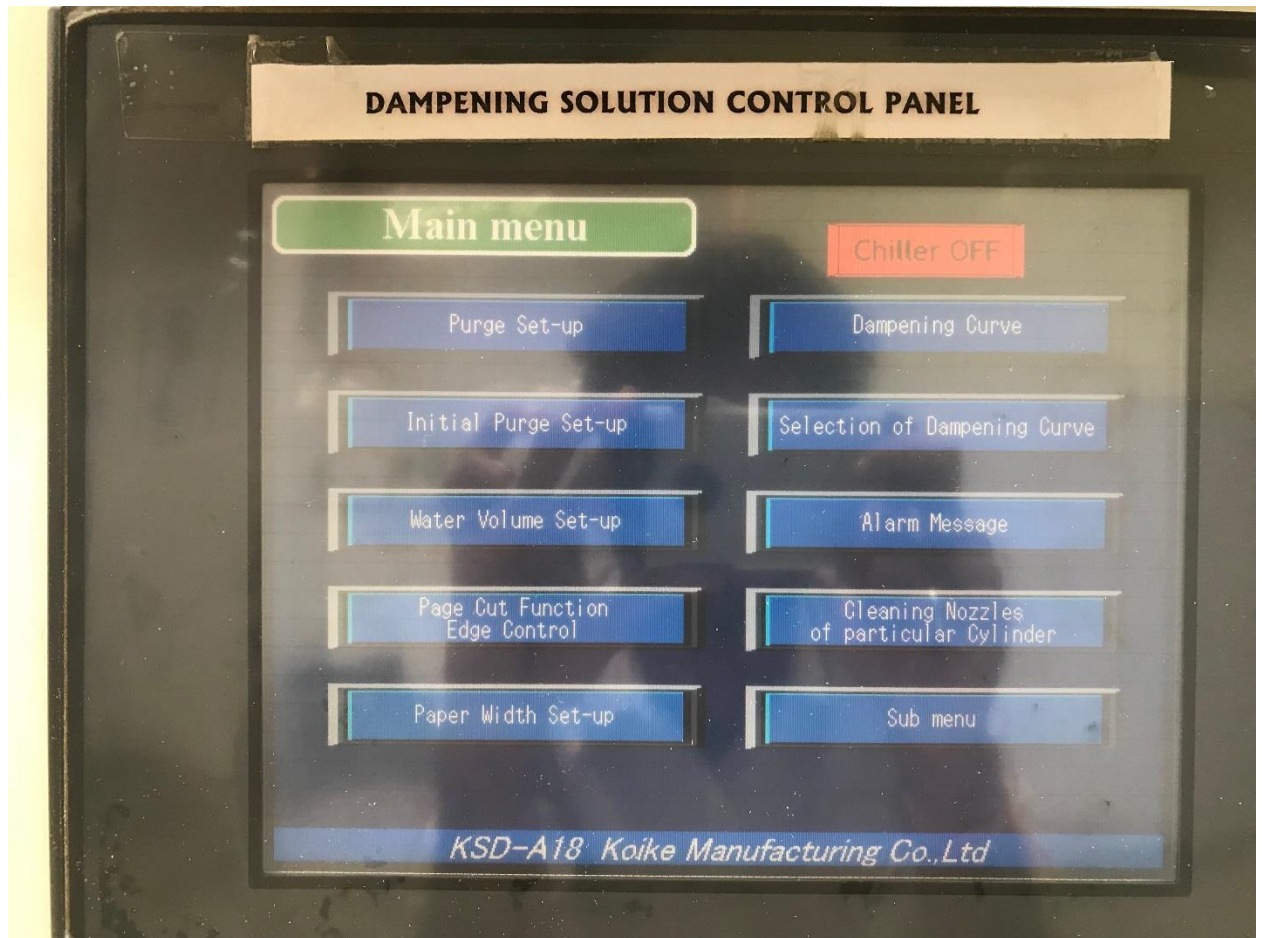
## MODIFICATION DETAILS

1. Plc program was modified. Y80 output stands for Chiller On output. Y80 is always On unless x58 input gets off. X58 is koike buffer solution low limit trigger. So we have added a NO contact in between X58 input and y80 output. Even if X58 doesn't cut off, Y80 gets off by our manual NO contact. These No contact can be made NC from BT5 koike main console touch panel. These No contact was assigned with M20115. So as far as PLC, program is modified only in B press koike panel PLC CPU.
2. For touch panel, A switch was placed with off indication in red and on indication in green. For this, a backup was taken in .mem format using Cf memory loader tool. Then .mem was converted to .prx file and edited using Gp-Pro Ex software. Again it was converted back to .mem file and uploaded to touch screen using Cf memory loader tool.

## CHILLER ON BUTTON INDICATION



## CHILLER OFF BUTTON INDICATION

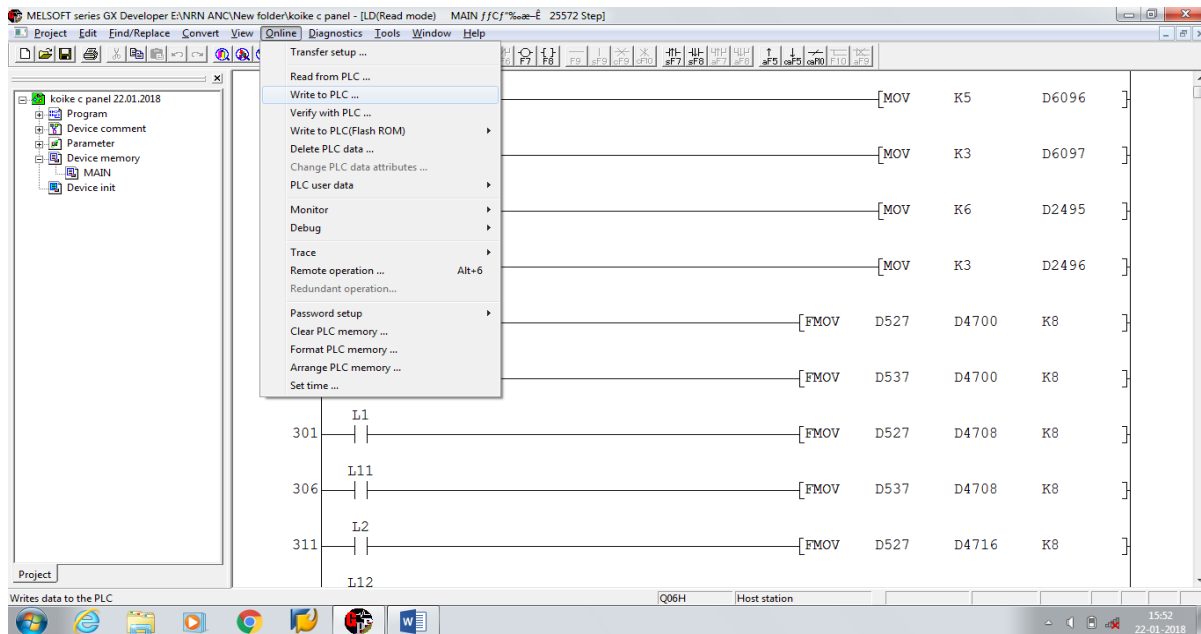


## MODIFICATION PROCEDURE

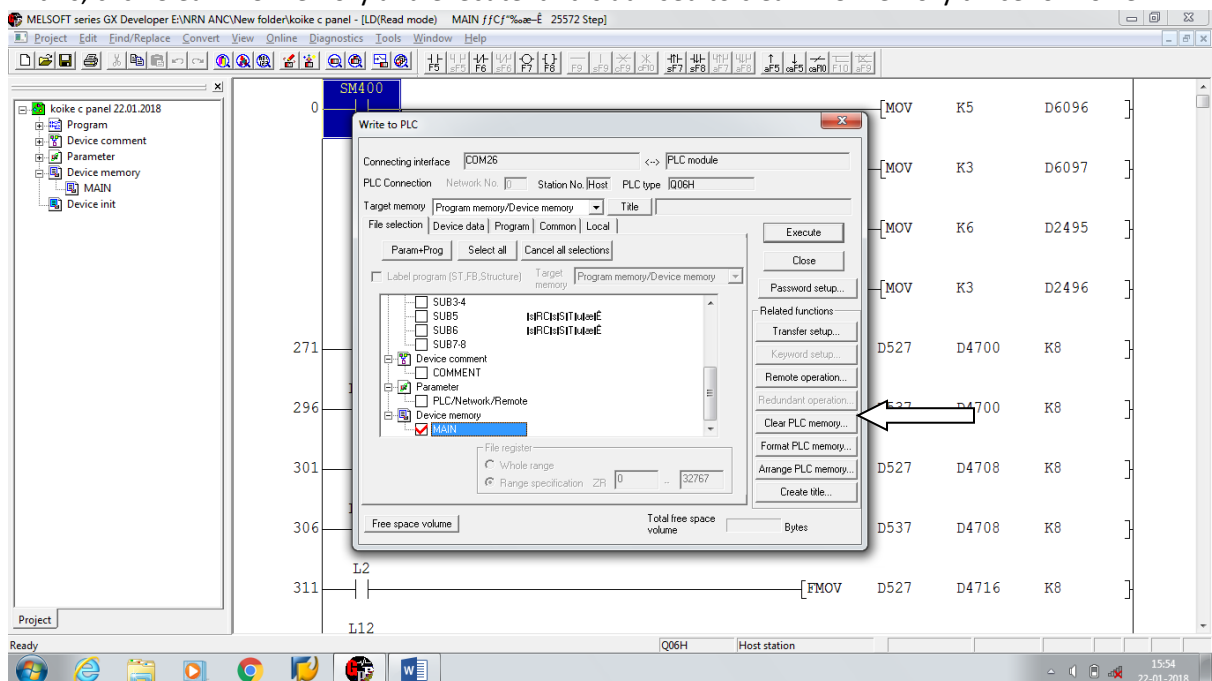
1. First PLC program was loaded to spare Q06 CPU. When mounted in machine, File set error was repeated. On analysis, found Program and parameter have to be uploaded to ROM. PLC memory was cleared and again uploaded to ROM. During this time, no error was present. It is recommended to clear PLC memory two times.

### Steps for writing to PLC

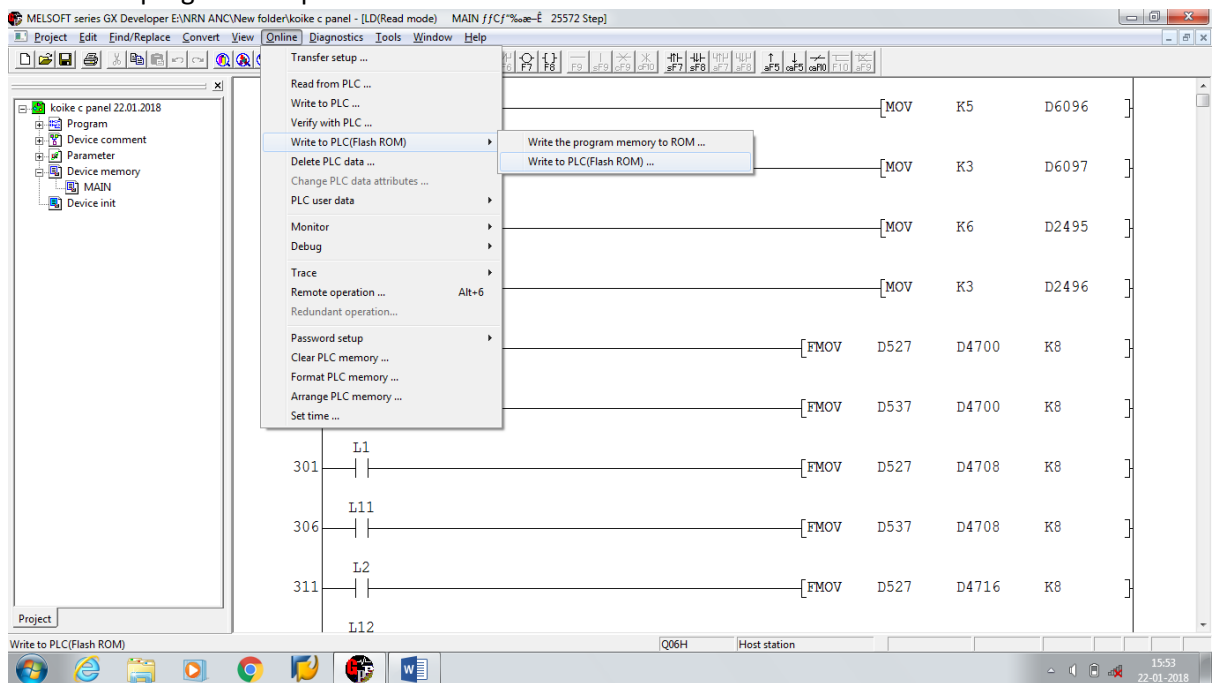
- a) Write to PLC after connecting to CPU Q06H



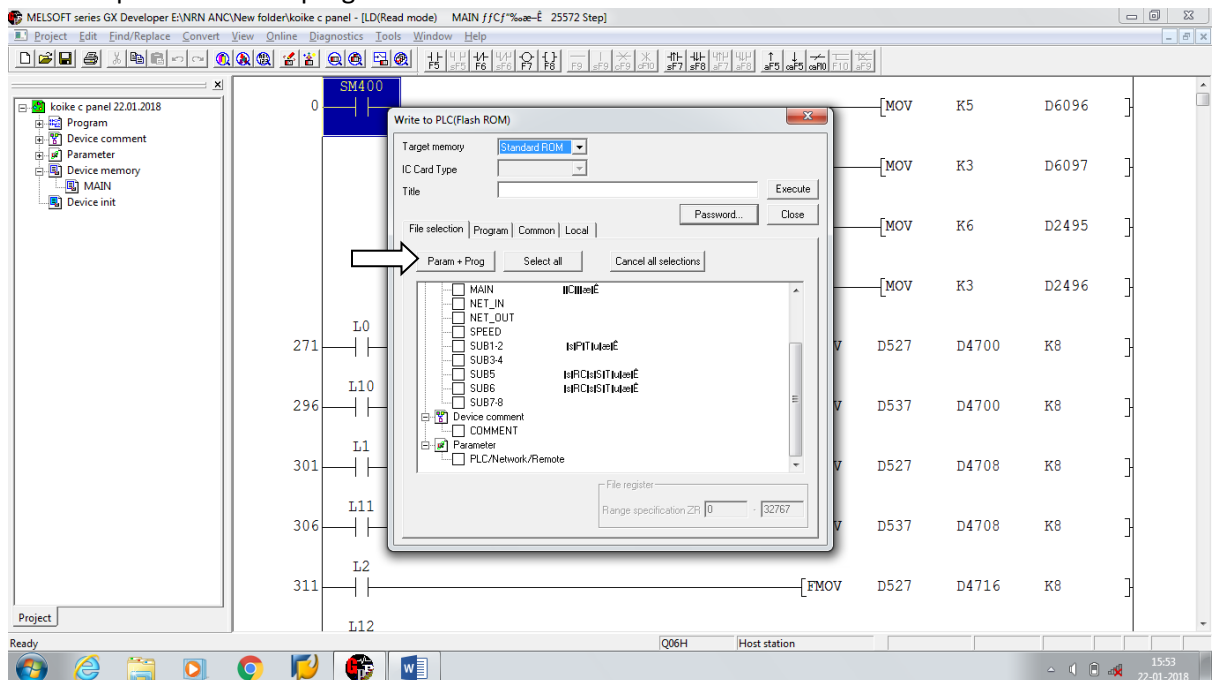
- b) In this, click Clear PLC memory and execute it. It is advised to clear PLC memory twice for Koike

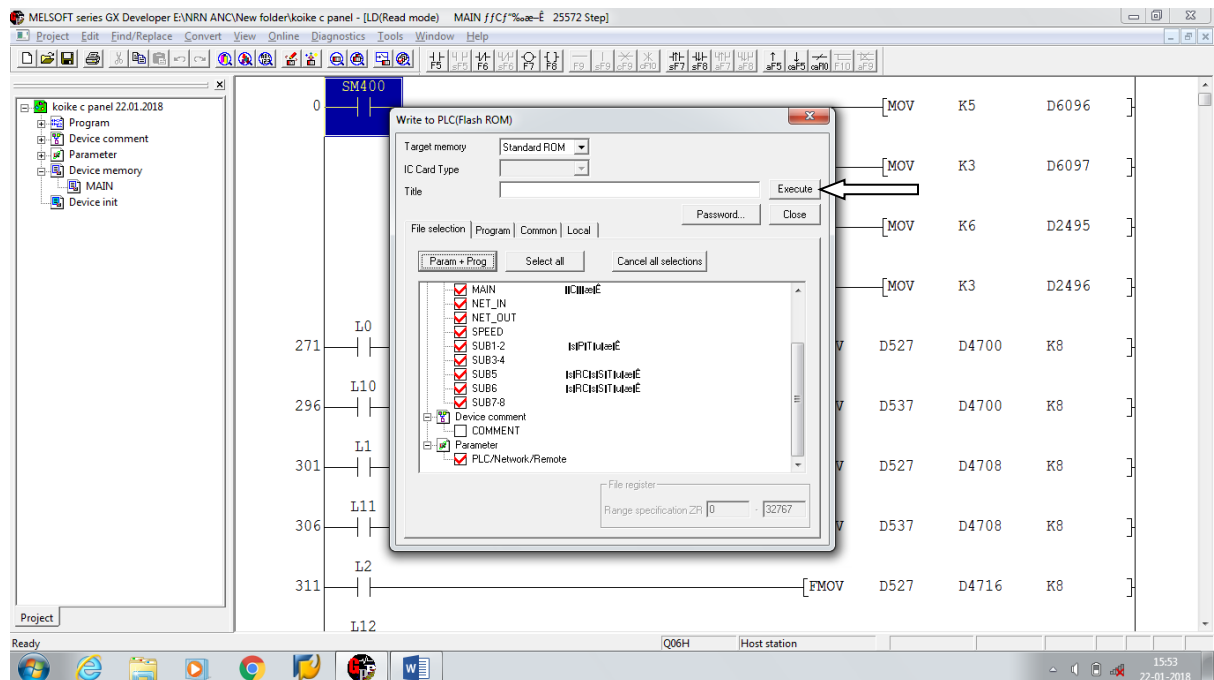


c) Next write program and parameter to flash rom.



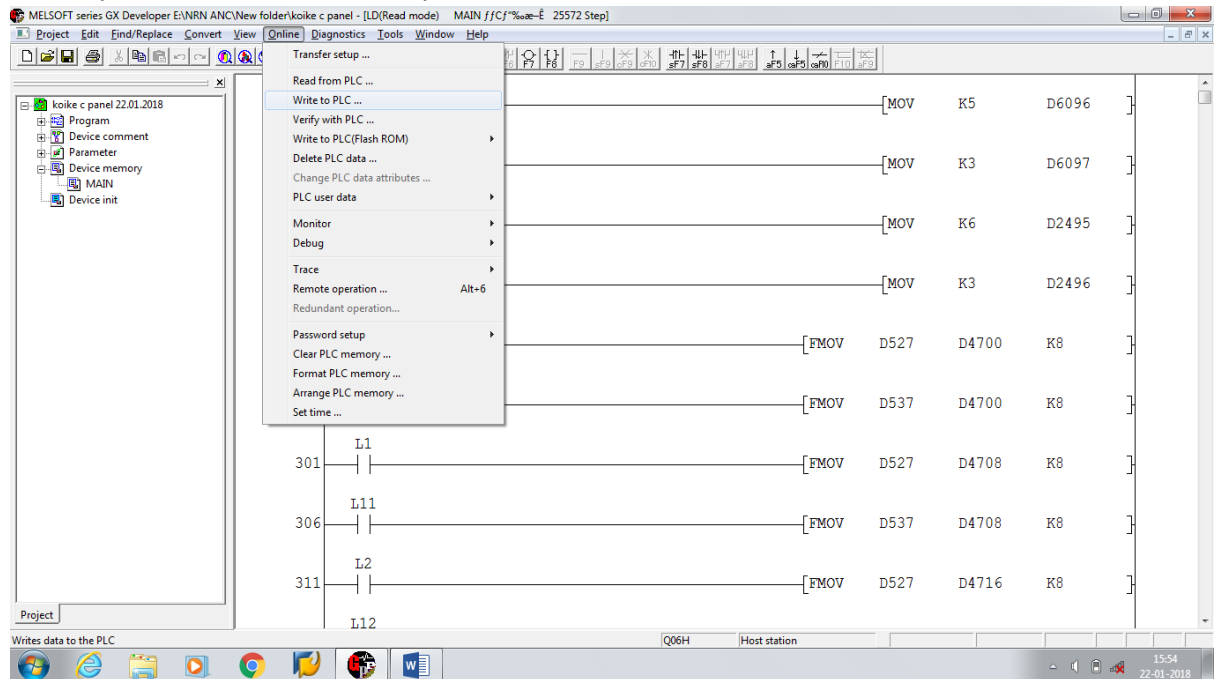
d) Click the parameter and program and execute it.



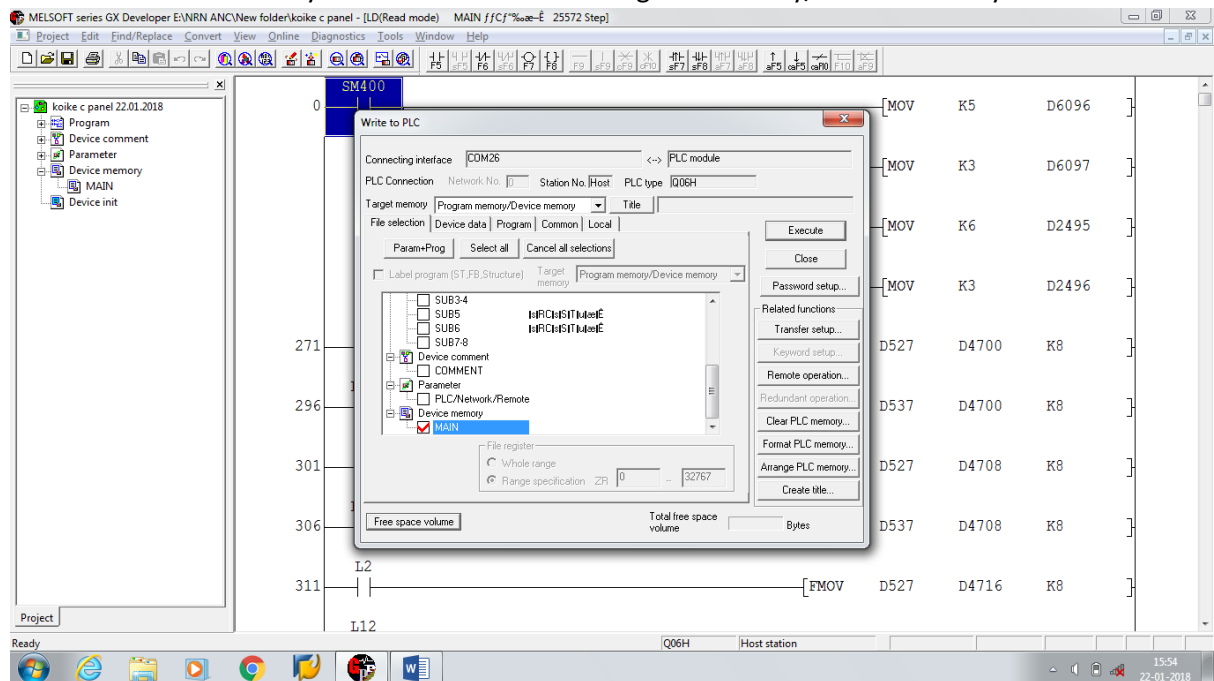


2. Touch panel program was loaded to spare touch panel and checked. On checking, it was uploaded to original BT5 Koike main touch panel.
3. During checklist of koike working, it was found that all curve values and purge values were missing. When Old Plc CPU was restored, curve values were present proving the absence of device memory in spare PLC CPU. On analysis, generally Device memory will be in RAM in all PLC programs. But in koike it is Program/Device memory, so again backup was taken from Old PLC with device memory. Password for downloading program is 3774. So, program was modified in the recent back up with device memory and uploaded to the spare PLC. When mounted, all operation were working correctly and curve values were also found. So, it is necessary to take device memory also when taking PLC program backup. ON/OFF from console was done and checked in orion chiller.

- e) For the above problem, Device memory was not written to PLC. In order to write device memory, click write to PLC memory

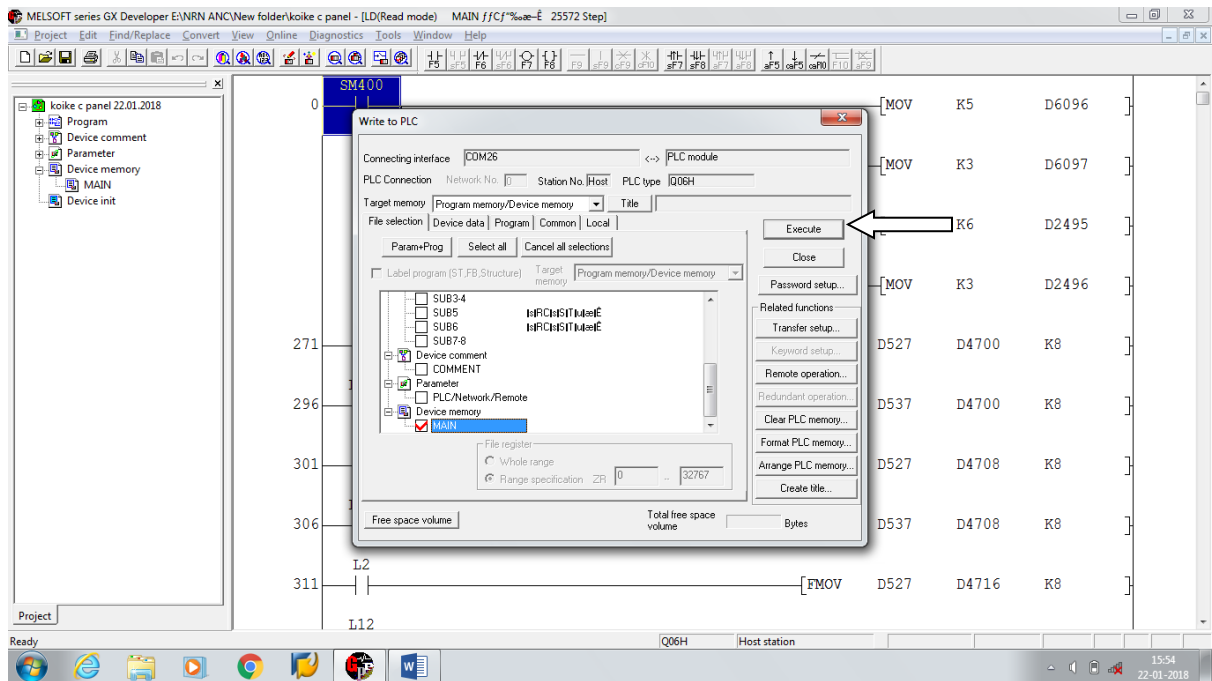


- f) Select the device memory alone. It is available in Program memory/Device memory in Koike.





- g) Execute it. After completion, Writing is finished. These device memory contain the purge, curve values.



#### MODIFICATION TO BE DONE

1. As of now, On/Off should be done only in BT5 main console touch panel only. Local On/Off switch in orion chiller should not be used. There is no indication about the status of orion local on/off switch. So for example, when switching on from console, orion chiller will be in ON condition. If mistakenly, local orion chiller is made off, orion chiller will be in OFF condition despite switch in Console touch panel shows as ON condition, leading to an operational error. This problem have to be rectified. Therefore, during every day power on and Power cut resumption, only Error reset have to be done in orion chiller as the ON/OFF function will be done by operator in console. The Orion chiller On indication can be checked by LED indication in Orion chiller panel board as well as RY20 relay status found inside koike control cabinet.
2. As of now, PLC program was loaded without password in B koike touch panel CPU. In order to maintain uniformity, password have to be enabled which is 3774.

## **IMPORTANT DETAILS**

- 1. During every day power on and Power cut resumption, only Error reset have to be done in B press orion chiller as the ON/OFF function will be done by operator in console.**
- 2. Old CPU removed from Koike panel is kept in GC06 with note in case of emergency.**
- 3. Touch screen Back up is available in CF card verbatim 1 GB with name BK2267.mem. Cf card will be available in Hp laptop bag.**
- 4. Plc program back up will be available in Hp laptop in koike project folder under backup documents. It is also available in one drive under modified plc programs folder.**
- 5. For B press orion chiller manual on problem reported on 10.10.2018, two time off/on done from console. Its action was normal. It is advised to manually error reset in chiller during every power ON & every power change over. OFF/On should be done only from console. If mistakenly, Power ON/OFF is done in orion chiller, the power status of the chiller is not visible in console leading to error. To normalize the above problem, Two times OFF/ON should be done in console.**