

PTCC Firmware Upgrade



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Firmware Upgrade

About firmware



- ❑ **Firmware** is the software used by each of the hardware components in the **PTCC Controller**
- ❑ Updated **Firmware** versions were released regularly by **Schneider** to introduce new features to the PTCC Controller or rectify issues
- ❑ Customers should develop a **Firmware update process** if they wish to use updated features in their controllers
- ❑ The upgrade process **overwrites all PTCC settings. Reading Switchgear Settings from Switchgear** before, and **Writing Switchgear Settings to Switchgear** after, firmware upgrades is **mandatory**
- ❑ The **PTCC Loader in WSOS5** is designed for all Firmware version V28.00+ (but can be used to upgrade earlier versions)
- ❑ Updating Firmware is a simple process that is done using **WSOS5** and a Firmware file – typically PTCC Controllers are updated individually

Software version naming scheme for CAPM4/5

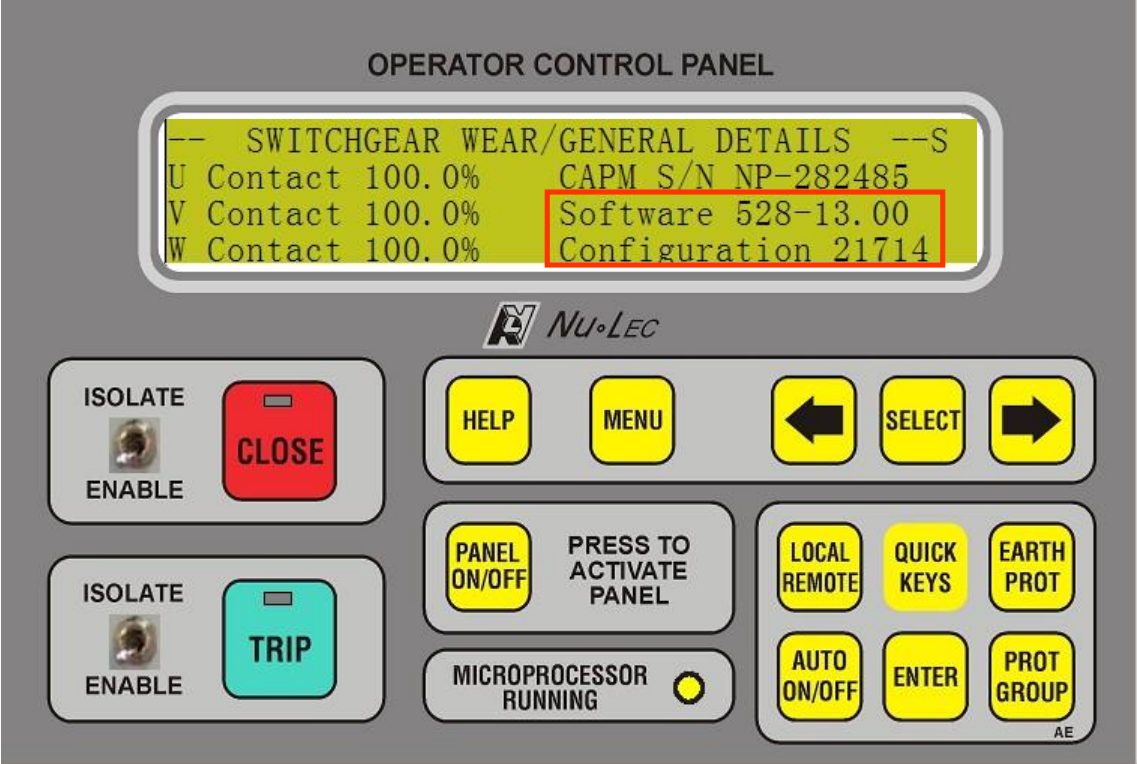
CAPM4

- Version 21
- Version 22
- Version 23
- Version 24
- Version 26
- Version 27
- Version 28

CAPM5

- Version 25
- Version 26
- Version 27
- Version 28

Software Version Details on Operator Panel



CAPM4/5 Software version naming scheme

- The Software Version

XXX-XX.XX

- The Configuration Number

2XXXX

Examples

CAPM4

Software 028-07.00

Configuration 21186

CAPM5

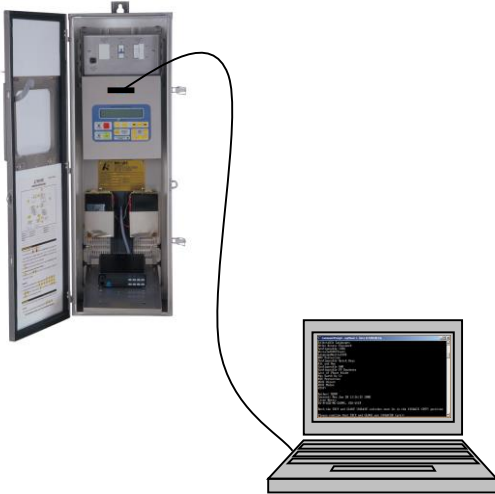
Software 528-07.00

Configuration 21187

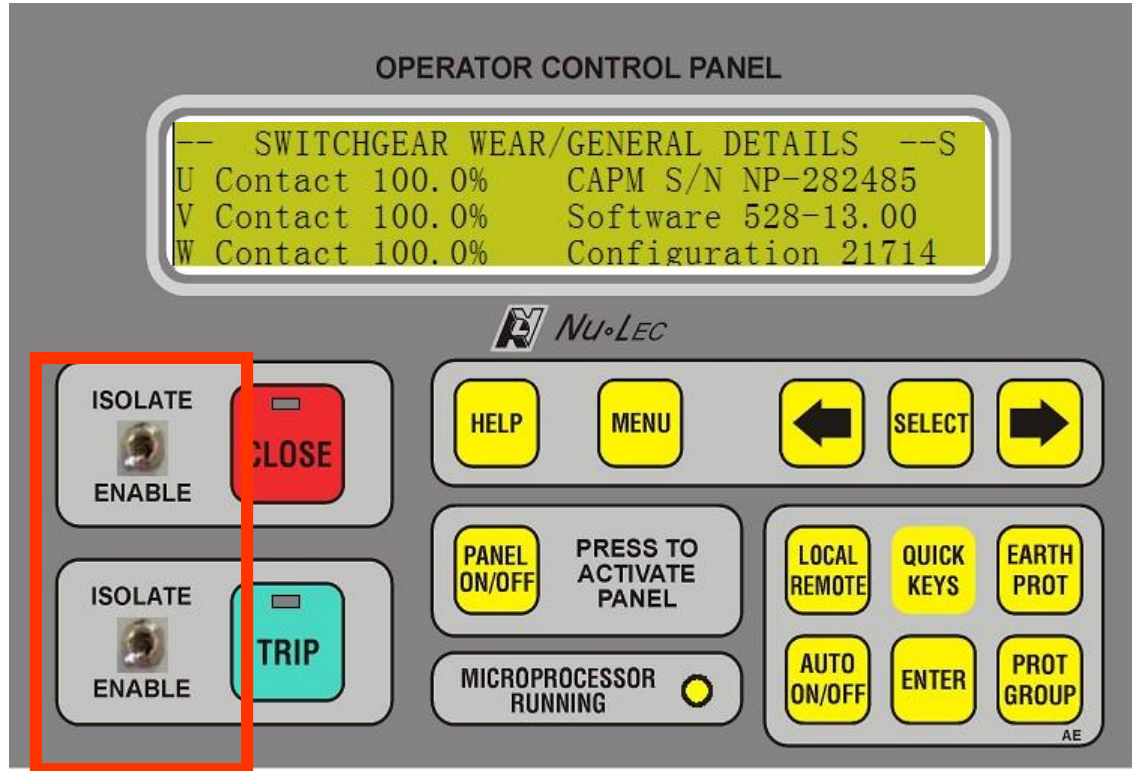
CAPM4/5 Software Upgrade

OBJECTIVE:

- To Install the latest revision software over an existing version of CAPM4/5 software, whilst retaining all previous control and protection settings.



Isolate the Trip & Close Switches

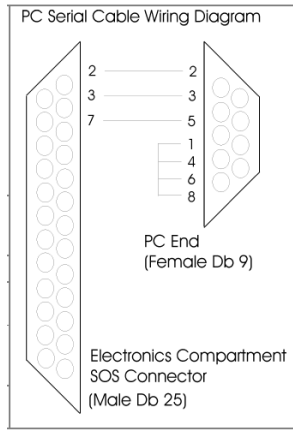


Prepare the Firmware & Communications

SNAPSHOT



- ❑ Open the **WSOS5** software, select, and **Set Active** the switchgear for which you will perform the **Firmware Upgrade**.
- ❑ The PTCC can only be communicated with using serial communications. This may necessitate use of a USB to serial converter
- ❑ Identify the communications port using the control panel feature of windows
- ❑ Connect a serial cable with the pin outs below from the laptop serial port or converter to P9 of the PTCC (The 25 way port above the LCD)



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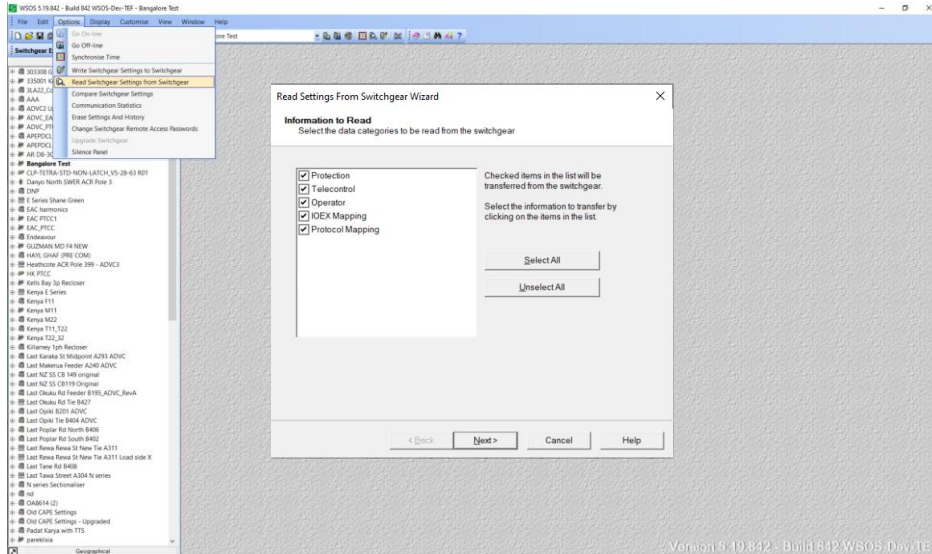
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Start WSOS5 and perform Read Settings

SNAPSHOT



- ❑ Download & unzip the updated firmware
- ❑ Go **online** to the controller, and select **Options / Read Switchgear Settings from Switchgear**, select all required categories and the local file will be updated with current online settings



Version 5.10.842 - Build 842.WSOS.Dev.TE1

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Start the PTCC Loader Tool



❑ In WSOS5, select **Customise / PTCC Loader Tool** and enter password **WSOS** – the **PTCC Loader Wizard** is displayed

The screenshot shows the WSOS 5.19.842 - Build 842.WSOS.Dev.TEF - PTCC EAC application window. The 'Customise' menu is open, and the 'PTCC Loader Dialog' is displayed. The dialog has the following elements:

- Load Issue File:** A text input field with a 'Browse' button.
- Serial Port:** A dropdown menu set to 'COM3' with 'Load' and 'Cancel' buttons.
- Options:** Three checkboxes: High Speed Mode, Force Download, and Clear Event Log.
- Configuration:** A section with 'Configuration', 'Program Version', and 'Capability' labels and empty text boxes.
- CAPM Serial Numbers Authorisation List:** A section with radio buttons for 'All', 'Range', and 'List'. The 'Range' option is selected, showing 'To' and 'From' input fields.
- CAPM Board Type:** A section with a label and an empty text box.
- Notes:** A section with a label and an empty text box.

The background shows a tree view of various PTCC devices and configurations, including Heathcote ACR Pole 399, Kenya E Series, Kenya M11, Kenya M22, Kenya T11_T22, Kenya T22_32, Killamey 1st Recloser, Last Karaka St Midpoint A293 A, Last Makerua Feeder A240 ADV, Last NZ SS CB 149 original, Last NZ SS CB119 Original, Last Okuku Rd Feeder B195_ADV, Last Okuku Rd Tie B427, Last Opiki B201 ADV, Last Opiki Tie B404 ADV, Last Poplar Rd North B406, Last Poplar Rd South B402, Last Rewa Rewa St New Tie A311 Load side X, Last Tane Rd B408, Last Tawa Street A304 N series, N series Sectionaliser, nd, OA8614 (2), Old CAPE Settings, Old CAPE Settings - Upgraded, Padat Kanya with TTS, parekisia, PEA_DEMO, PTCC, PTCC EAC, PTCC Reset, R New GTE, R-AC2-01, R-AC4-01, R-AC4-02, R-AC6-002, R-AC6-01, R-CW-01, R-CW-02_ed, R-MCH 01_04-2020, R-SW-01, R-SW-02, RC-AC2-L1, RC-CW-L1, RC-1001-101, RC-1002-101, Rec Karyatani with TTS (2), and REC Karyawisata.

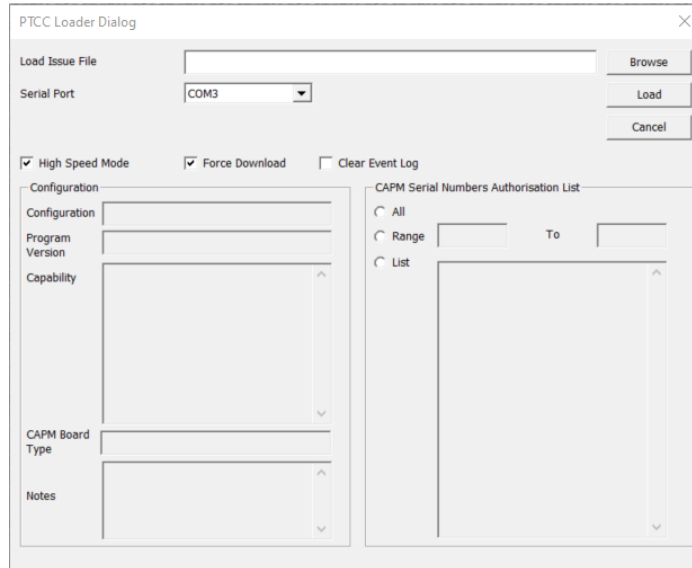
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Select the PTCC Controller(s) to update



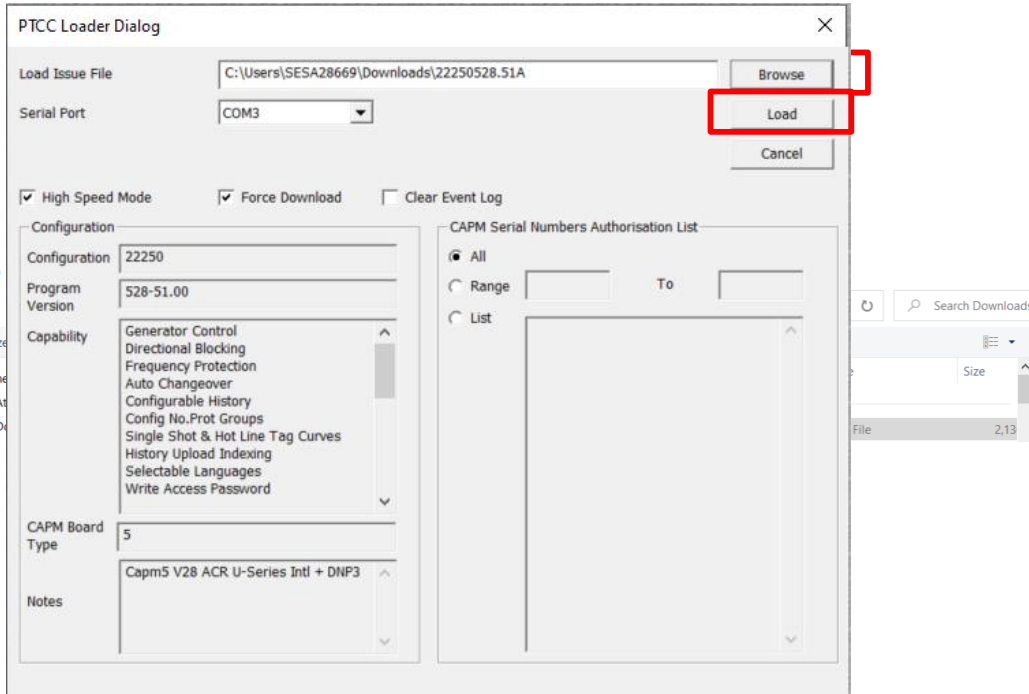
- Select / tick the switchgear file to update



Locate & select the Firmware file to use



- Browse to the Firmware file to be used for the update **xxxxxx528.BB** for CAPM5 or **xxxxxx028.BB** for CAPM4, select it and then select Load



- Check the boxes for high speed and force download

Start the Update Process



- Select **Next >** to start the update process

ADVC Loader Wizard

Load Progress

Switchgear	Bangalore Test (1 of 1)
Progress	0%
Status	Going on-line.



Status field states

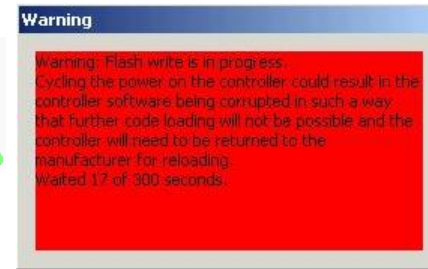


□ The processes indicated in the **Status** field may include:

- Initialising...
- Going On-line
- Waiting X of 120 seconds to go On-line
- Reading PTCC version Information
- Waiting for load to complete. Time Elapsed XX:XX:XX
- Writing to Flash. Time Elapsed XX:XX:XX
- Load Committed.
- Waited X of 120 seconds to go On-line
- Reading SCEM data. Waited X of 120 seconds.
- Going On-line
- Waiting X of 120 seconds to go On-line
- Reading PTCC version Information
- Reboot successful. Finished.

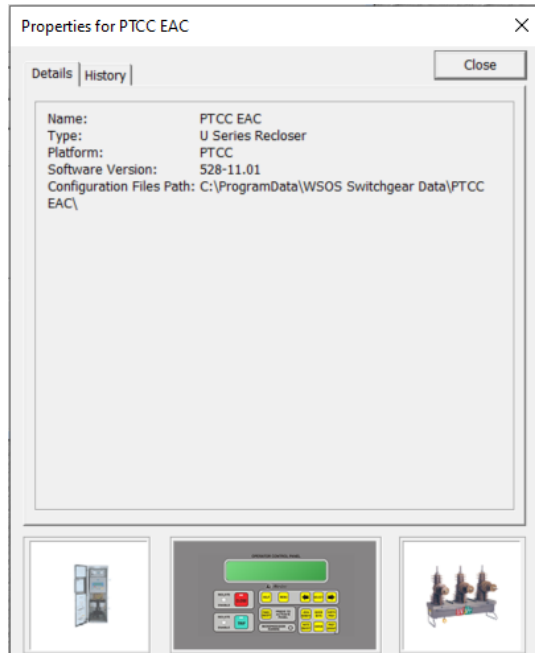
Other states shown in the **Status** field include:

- All Up to Date. Nothing to load. Finished.
- Load Aborted by error in load
(rollback is automatic – original install is unchanged)



Load Confirmation

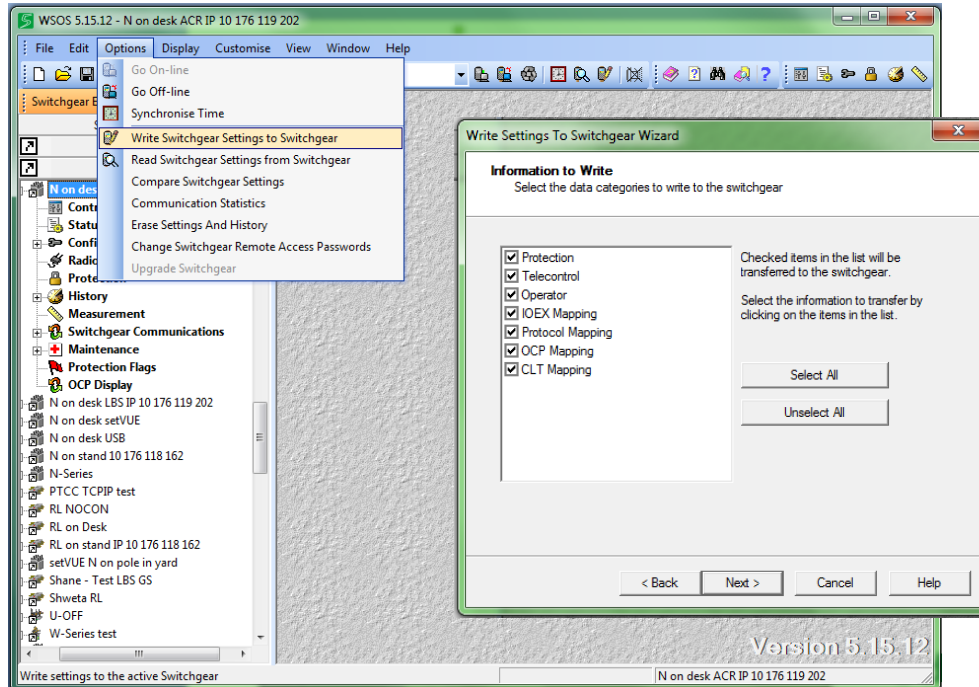
- ❑ Go online in **WSOS5 (Options / Go On-line)** and confirm the current Firmware Version in the **PTCC Controller (File / Switchgear Properties)**



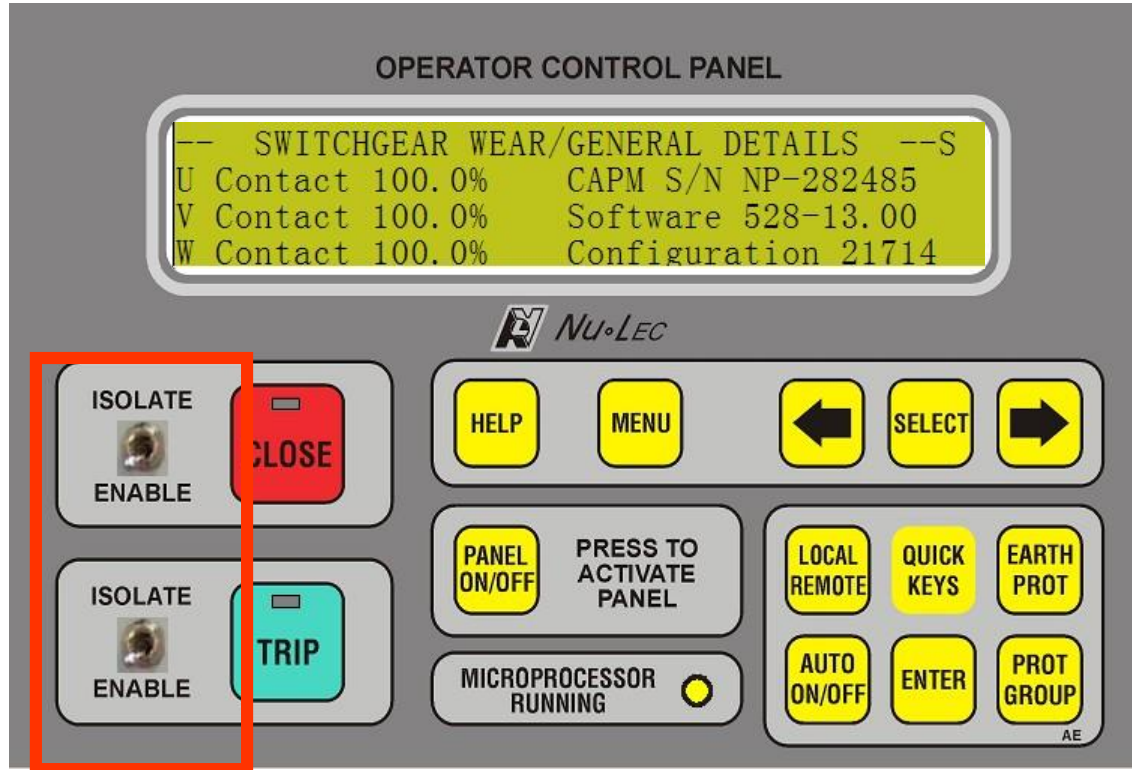
Perform Write in WSOS5



- Whilst **online** to the switchgear in **WSOS5**, select **Options / Write Switchgear Settings to Switchgear**, select all required categories and the online file will be updated with the offline settings saved before the firmware upgrade.



Enable the Trip & Close Switches



Exit & Disconnect



- ❑ After completing the **Firmware Upgrade**, select **File / Exit** – this will exit the **WSOS5** program
- ❑ Disconnect your communications cable (USB printer, Serial or Network)
- ❑ If the controller is to be stored before installation, ensure that you power down the controller by switching all MCB's to OFF



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