



# Firmware Upgrade Instructions for Taktis Fire Alarm Control Panels

Kentec Electronics Ltd.  
25-26 Fawkes Avenue  
Questor, Dartford, Kent DA1 1JQ  
Tel: +44(0)1322 222 121  
E/m: techsupport@kentec.co.uk  
Web: www.kentec.co.uk

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## Important!

Panel firmware upgrades must only be carried out by competent fire engineers who have been trained on the Taktis system.

Before proceeding with any firmware updates use Loop Explorer LE2 to get the most recent download of the system configuration file.

As part of the Update process all Inputs will default to Fire Inputs so be aware if Active i.e. Tech Alarms, Disablements are present then this will default to a Fire condition.

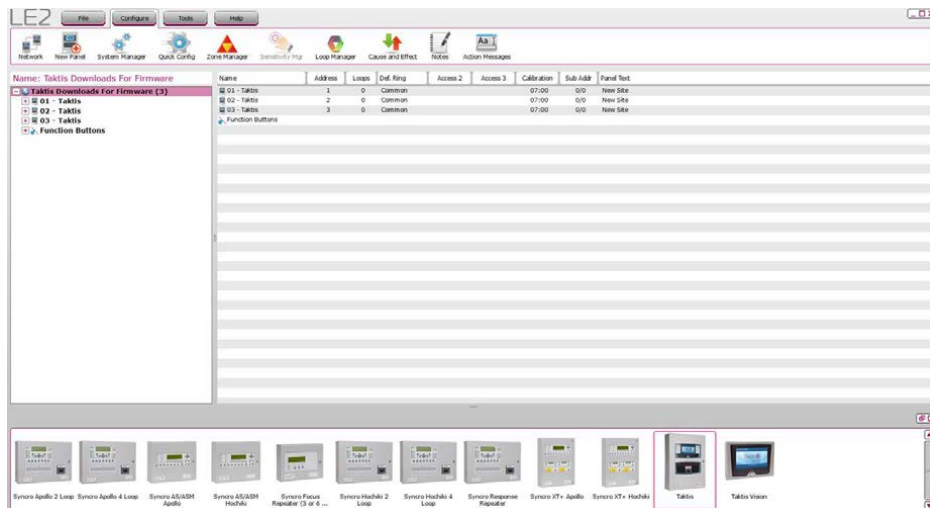
**Note:** These instructions are for upgrading firmware in Taktis control panels only, separate instructions are provided for upgrading firmware in Vision repeaters.

On multi-panel networks the time taken to upgrade the system can be significantly reduced by preparing multiple USB flash drives allowing simultaneous upgrades to be instigated.

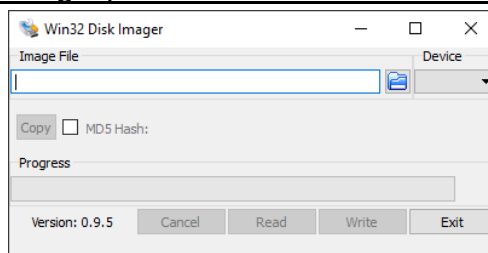
**Pre-Firmware upload list of requirements:**

**STEP 1 - Ensure you have a laptop installed with the following:**

**Loop explorer LE2 (Downloadable through <https://virtualresource.global>).**



**WIN32 Disk Imager (Free software downloadable from internet)**



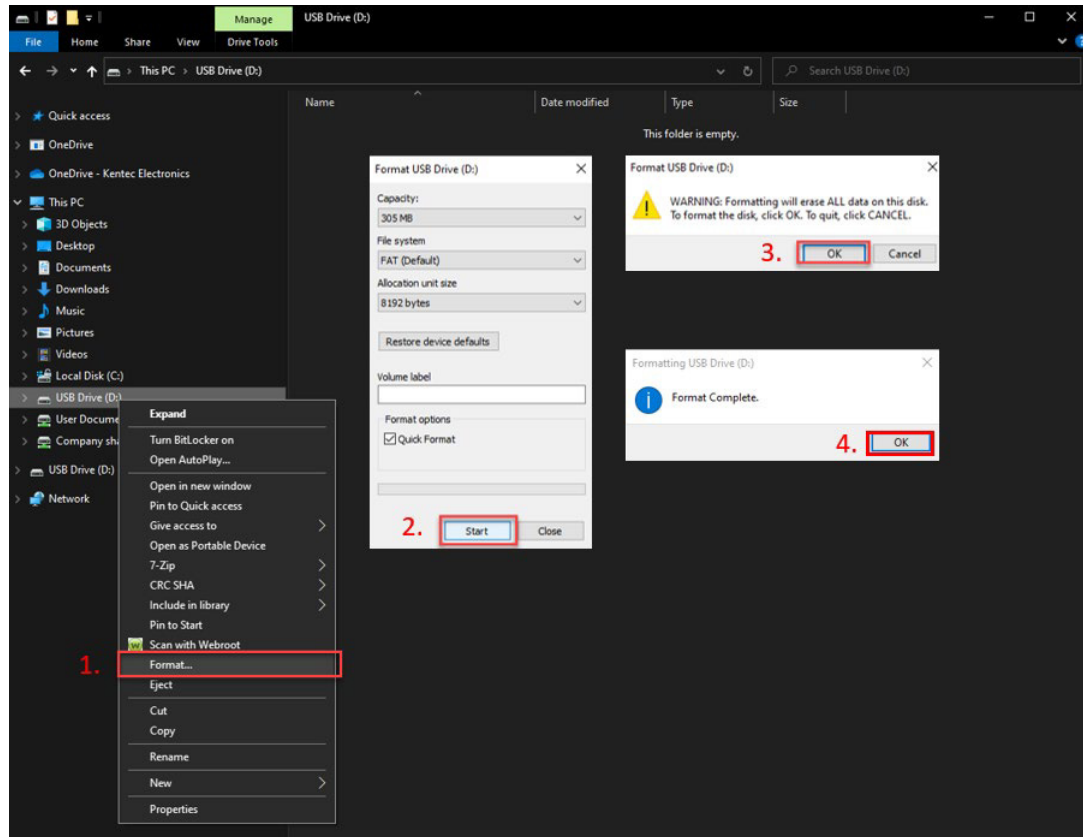


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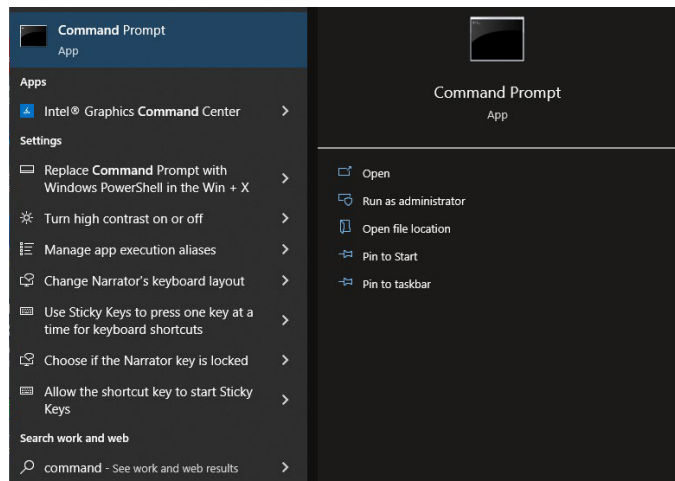
Ensure you have the latest Firmware disc image files from Kentec Tech support  
(This will need to be requested)

## STEP 2 – Clean the USB Flash Drive:

Follow the shown below processes from 1 to 4 to Format the USB Stick



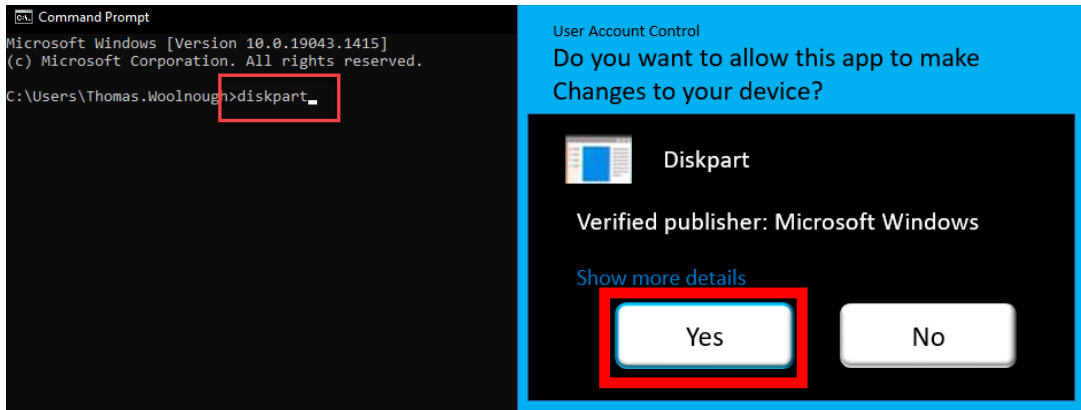
Then go to Command prompt



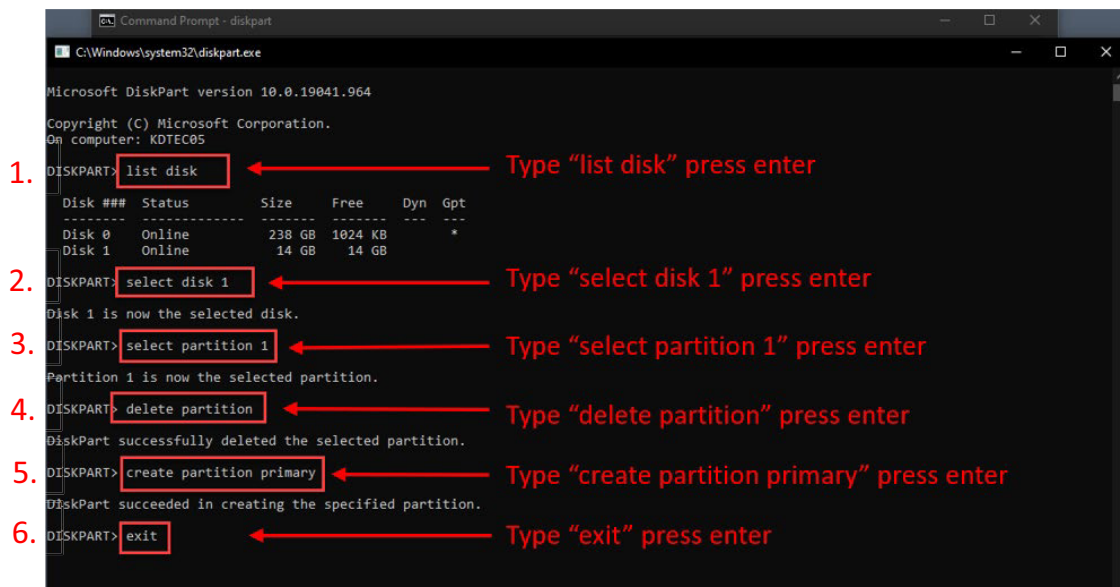


## Firmware Upgrade Instructions for Taktis Fire Alarm Control Panels

When in the Command Prompt, type the phrase “diskpart” then press enter this is case sensitive. A window will appear, click “yes”. As shown below.



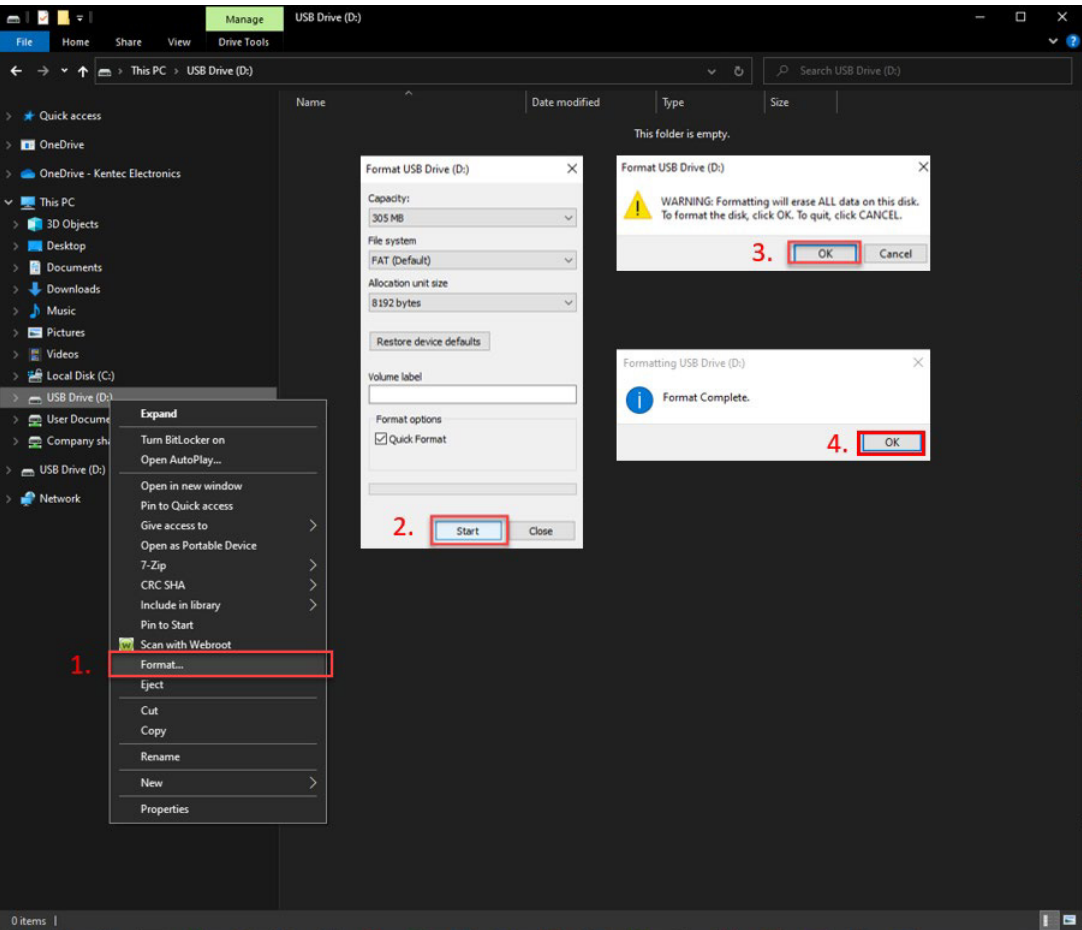
Follow the steps 1 to 6 in the new window.





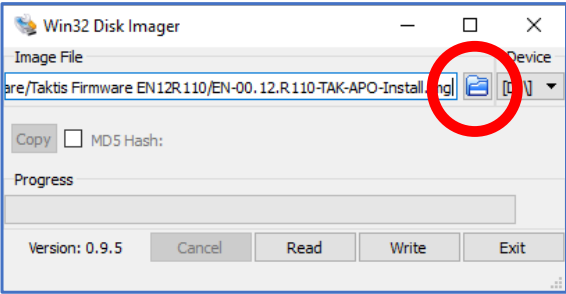
# Firmware Upgrade Instructions for Taktis Fire Alarm Control Panels

Follow the shown below processes from 1 to 4 to Format the USB Stick



Run the WIN32 Disk Imager program, the following window will appear:

Click on the blue folder icon (circled below) this will open the “Select a disk image” window.





## Firmware Upgrade Instructions for Taktis Fire Alarm Control Panels

**\*CAUTION\***

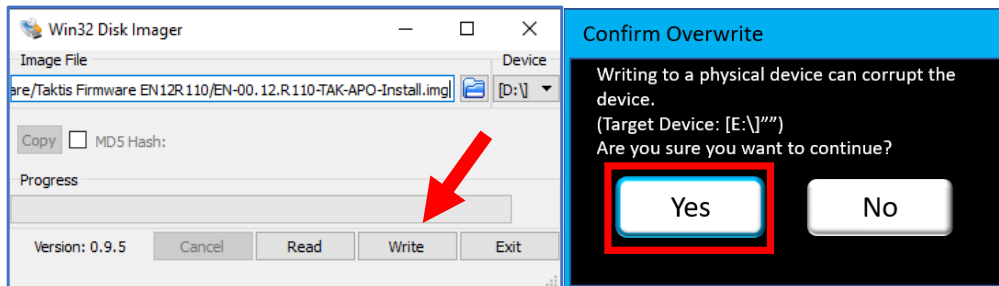
**DO NOT SELECT TAK-VIS THIS IS FOR VISION REPEATERS AND WILL CORRUPT YOUR TAKTIS PANEL!**

APO – For Apollo Protocol, HOC – For Hochiki and VIS – For Vision Repeater.

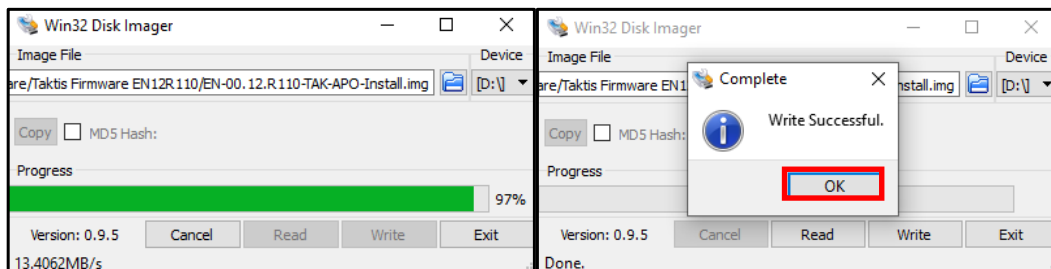
Name	Status	Date modified	Type	Size
EN-00.12.R110-TAK-APO-Install.img	✓	24/09/2021 07:44	Disc Image File	321,300 KB
EN-00.12.R110-TAK-HOC-Install.img	✓	24/09/2021 07:41	Disc Image File	321,300 KB
EN-00.12.R110-TAK-VIS-Install.img	✓	24/09/2021 07:42	Disc Image File	321,300 KB

Locate the firmware upgrade file required for the Taktis control panel, click on the file to highlight it, and click the “open” button. This window will close and return you back to the main “WIN32 Disk Imager” window.

Click on the “Write” button (highlighted below) and this will then prompt to Overwrite the Target Device, click “Yes”.



A progress bar will appear and upon completion a “Write Successful” Banner will appear, Click “Ok”

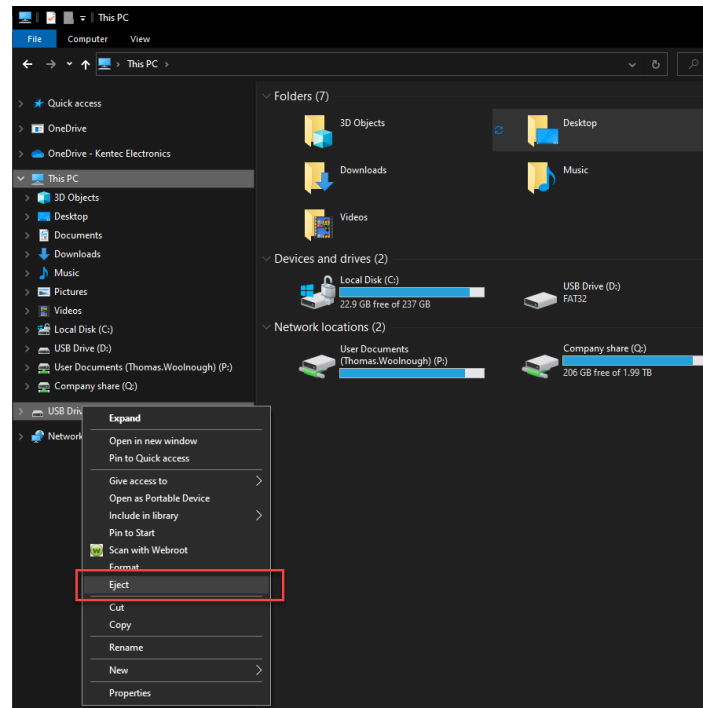


When the file has been written to the Flash drive **DO NOT OPEN**



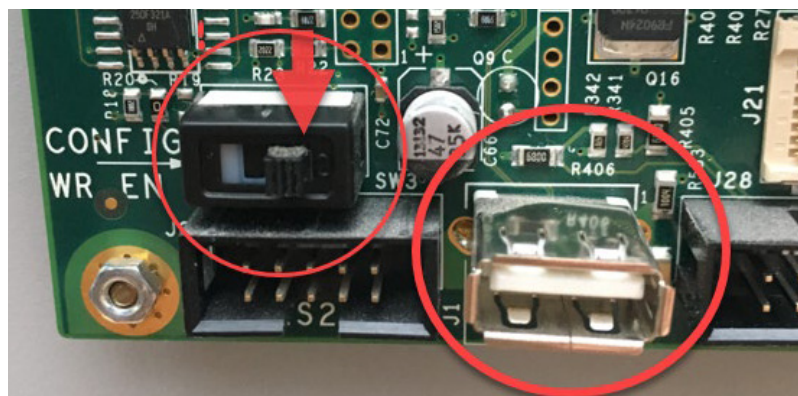
# Firmware Upgrade Instructions for Taktis Fire Alarm Control Panels

Safely Eject the Formatted Disk (As shown below)



## Uploading the Firmware into the Taktis Panel

Put the Write Enable On (To the right), Insert the Preloaded USB stick with the Firmware (Which has been installed with Win32 Disk Imager) in the Port shown below:

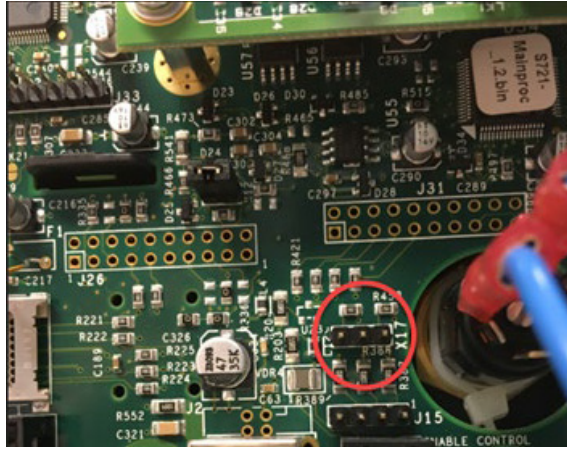
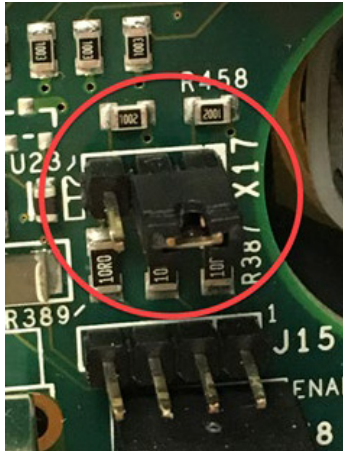






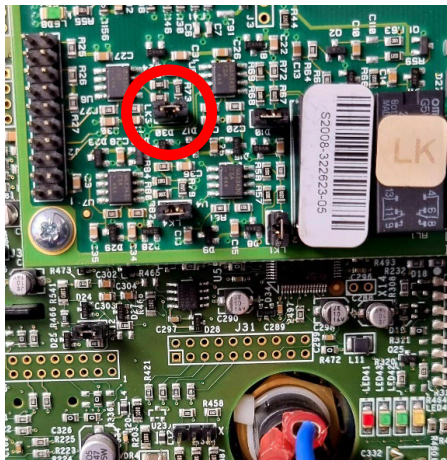
## Firmware Upgrade Instructions for Taktis Fire Alarm Control Panels

Place a Jumper Link on X17 the middle and right (this can be located next to the back of the enable control key)

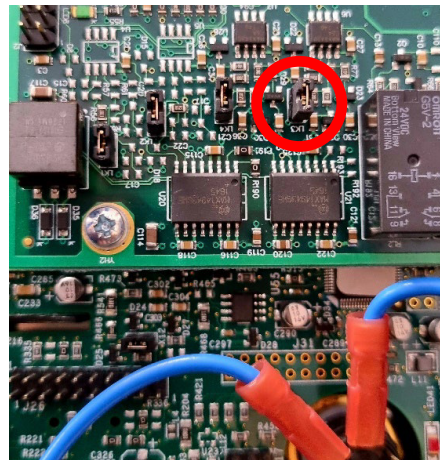


If a jumper link is required that you can use LK3 from the back of the network card. Do not forget to replace this link when panel is powered down a few steps later.

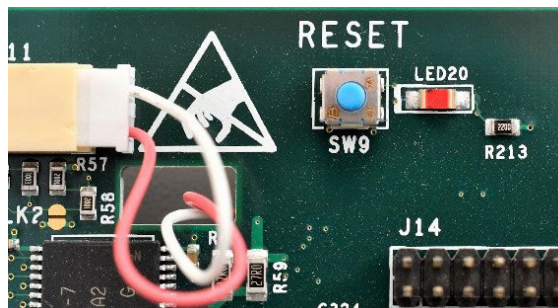
Older Network Card:



Latest Network Card:



Then press the processor RESET button (Shown below), this will then proceed to reboot the Panel and start the Firmware update procedure.





## Firmware Upgrade Instructions for Taktis Fire Alarm Control Panels

The Panel Screen will go black and after a few seconds display the header “Installing System”. Upon completion an image similar to the one shown below will be displayed, it will then instruct to “Power off, remove the installation jumper from the board, and reboot”, this will be the last line displayed in the process.

```
Installing System
Please wait while system is initialised ...
Erasing NAND Flash, creating file system ...
Mounting NAND Flash file system ...
Copying bin to file system ...
Copying dev to file system ...
Copying etc to file system ...
Copying kentec to file system ...
Copying lib to file system ...
Copying linuxrc to file system ...
Copying media to file system ...
Copying opt to file system ...
Copying root to file system ...
Copying/sbin to file system ...
Copying tmp to file system ...
Copying usr to file system ...
Copying var to file system ...
Creating link mnt in file system ...
Creating folder proc in file system ...
Creating folder sys in file system ...
Erasing configuration ...
Configuration erased .
Power off, remove the installation jumper from the board, and reboot .
```

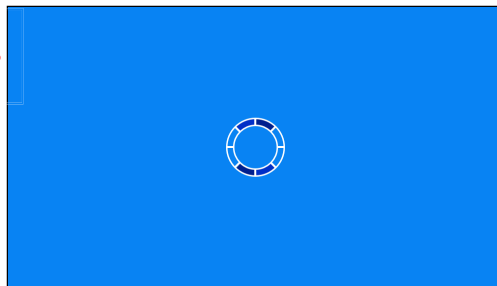
Once you have Removed the battery Power, and safely isolated the incoming Mains supply.

Remove the Jumper link on X17(If Jumper from LK3 was used replace it now) and the USB firmware stick, wait 10 seconds.

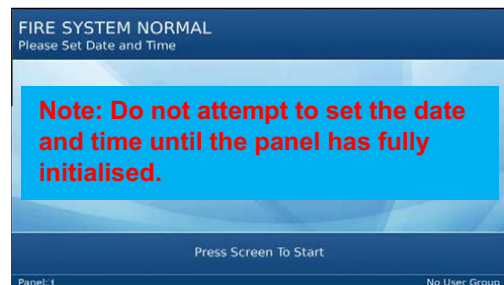
Ensure the “Write Enable Switch” is left “On” (to the right) for the whole process

Turn the mains back on and reconnect the batteries and let it carry out the necessary panel updates.

1.



2.



3.



4.



After a Firmware Flash all Panels will default to Panel 1, Panel readdressing will require an Autolearn





## Firmware Upgrade Instructions for Taktis Fire Alarm Control Panels

The "General Fault" and "System Fault" LED's will be illuminated this is nothing to cause concern.



The panel buzzer will activate, press the "Buzzer Silence" button on the touch screen.

After a short period, the panel display will show the fault screen with 1 active fault "System fault". Press the more details button on the touch screen and the display will show that this is an Autolearn fault.

To complete its upgrade the panel must carry out the necessary Card Updates (This may be on specific Cards only), then it will proceed to auto learn the system. Select the "Other Events" tab to view the progress of the Autolearn. DO NOT do anything with the panel until all Autolearn tasks are complete

Once the System Auto Learn is complete the panel will begin learning loop devices with status bars visible on the display, as shown in the image below.



It may take a few minutes after reboot for the above status bars to appear - please be patient. The time taken to complete these tasks will vary dependent on the number of loop cards installed within the panel.

Following the device learn the "Other Events" screen will show "Saving Configuration" message along with a status bar once this is full the Autolearn is complete.

Once the Panel has finished the Firmware Update, go into Engineer Options > System Information on the Display and confirm the Software Version is the same as the one you had loaded onto the Firmware Stick.

**Networked panels and repeaters will default their node address to "1" following an upgrade, therefore the nodes will need to be addressed.**

To change the address number of the Panel this can be located in "Access Level 3" > "Engineer Options" > "Configuration" > "Edit Configuration" > "Panel Settings", Example below.





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Once the Panel number has been changed an Autolearn process will need to be carried out, this ensure any additional Boards and the new Panel number is learnt onto the Panel.

Once all tasks have been completed in the other events menu you can upload the original configuration file into the panel. Once the upload configuration, initialising devices are all complete the Write Enable Switch can be put back to the left "Off" Position.

**In line with BS5839 part 1 the system must be tested following an upgrade to ensure the system is functioning correctly.**

## Firmware Upgrade Diagnostics

Fault Description	Diagnostic Action
Blank screen after Firmware Flash	This can occur if the wrong Jumper is removed after the Flash procedure. Reinstall Jumper and remove the correct Jumper then press the Processor Reset on the Panel
Display appears Normal but unable to access Menus or buttons	Wait a minute in case it is in the process of carrying out loading procedure, if after a couple minutes and this persists, then press the Processor Reset on the Panel
System A or B board, Dual Loop Boards reported as missing by the Panel	Firstly, make sure they System A or B Board is fitted correctly into the Backboard, if issue persists then press the Processor Reset Button
If Card update has failed	Turn the write Enable on and press the Processor reset, once it has finished all updates and learning of the loops, then turn the Write Enable off
Unexpected or missing ancillary cards	Firstly, make sure the Legacy Ancillary cards have power on prior to an Autolearn, if not then an Autolearn will need to be carried out
Panel reports missing devices, double address or device type change following an upload of the site config file	Firstly, investigate the faults as the Configuration file you uploaded may have not been the most recent Configuration file, amend the configuration file to reflect new changes and re-upload
If a System Update Failed Message appears	As shown below is the error message if X4 jumper is not fitted. Refit Jumper and press processor reset.

