Service & Support

Printer Product Updater (PPU)

DURAFLEX™

memjet®

Intended Audience and Purpose

- Intended for OEMs that are either:
  - Developing a printer based on Memjet DuraFlex modules OR
  - Have developed a printer system based on Memjet DuraFlex modules
- Provides procedural information on Re-branding the DuraFlex module
- Does not include all technical details and may refer to other DuraFlex documentation currently available

Prerequisites

- Printer Key Store (PKS) file
  - Can be obtained from your Technical Support representative **OR**
  - Available for download in your Partner SharePoint portal
- Production Device Certificate file
  - Can be obtained from your Technical Support representative **OR**
  - Available for download in your Partner SharePoint portal
- PPU Software
  - Can be obtained from your Technical Support representative **OR**
  - Available for download in your Partner SharePoint portal

- Target Printer engine to be functional
- Blank/Clean 16Gb> USB pen drive
  - Recommend Sandisk 16/32Gb Cruzer Bladebrand
- Laptop or PC running Windows 10 or greater
- WinSCP Software
  - is an SFTP/FTP client for both Windows & MAC OS
  - Free to download: https://winscp.net/eng/download.php
- BalenaEtcher Software
  - To be installed on the Windows based laptop or PC
  - Free to download: https://www.balena.io/etcher/

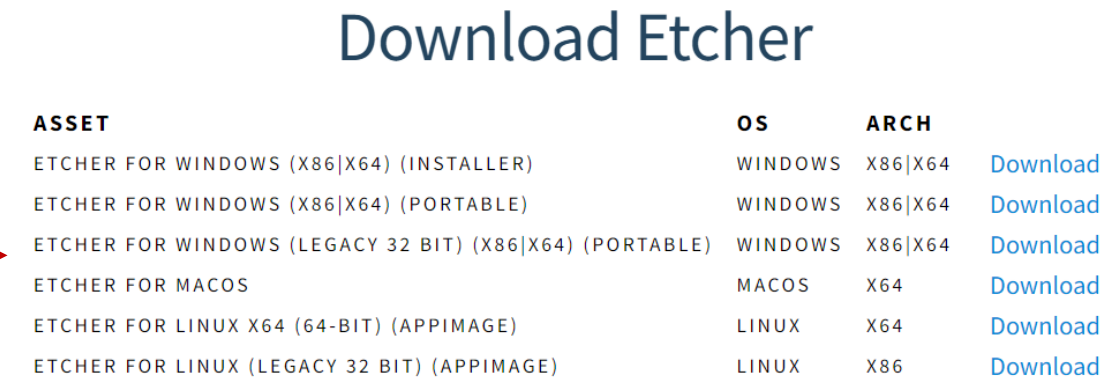
Overview

- This Printer Product Updater (PPU) release is intended to be used to update the printer product certificate in a DuraFlex printer main ROSS board.
- It cannot be used to operate the system nor install the DuraFlex system software.
- This PPU software image is intended to be written to a blank USB drive from which the printer main board will boot.
- The update operation initiates automatically on start up. However, the update process requires that a matching *ProductionDeviceCert_*.hex* file to be copied to *DTP_DATA* partition of the USB drive beforehand
  - Each file is specific to a DuraFlex printer ROSS board
- The Production Device Certificate files are signed binary certificate files and can only be obtained from Memjet customer support services.

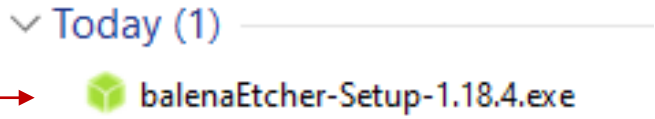
Installing ISO imaging utility: *BalenaEtcher*

Installing ISO imaging utility

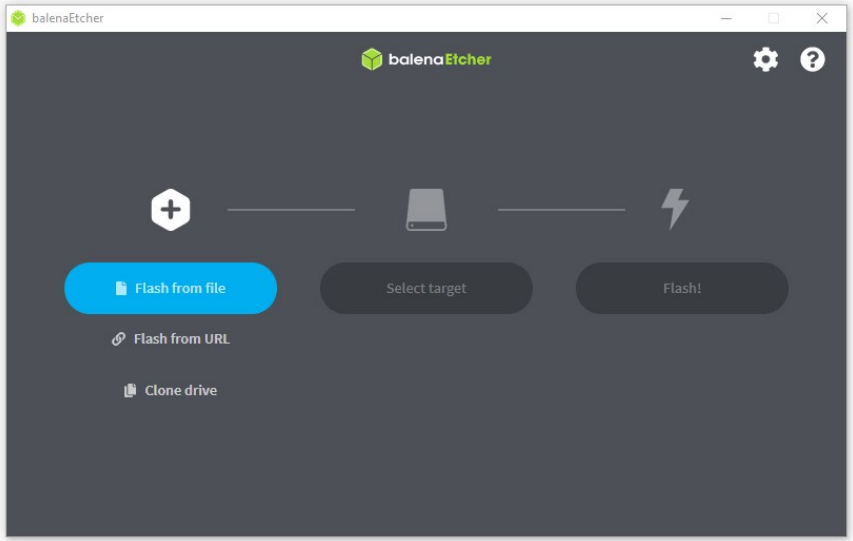
1. Download BalenaEtcher from the following location: https://www.balena.io/etcher/



2. Once downloaded, execute the installer file and follow the on-screen instructions



3. Once installed, your software is ready to use



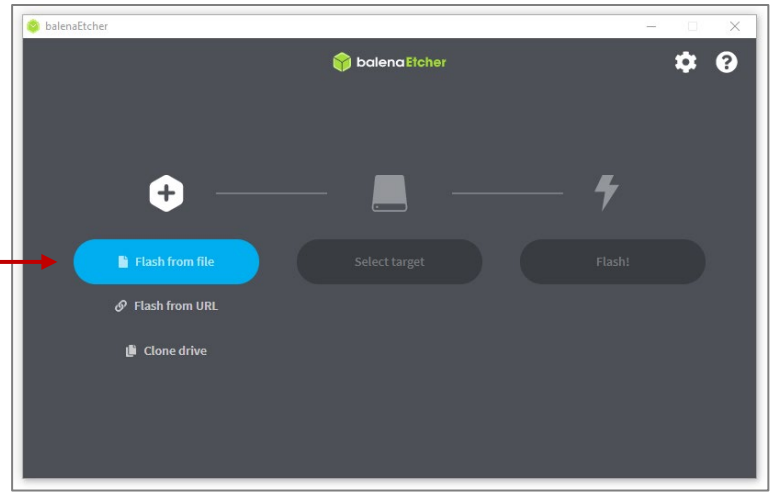
Please Note:

*Do **NOT** to use arbitrary Windows ISO image writing utilities (e.g. Rufus, Ventoy, Yumi). Many of these utilities do not correctly reproduce the required LiveUSB drive structure.*

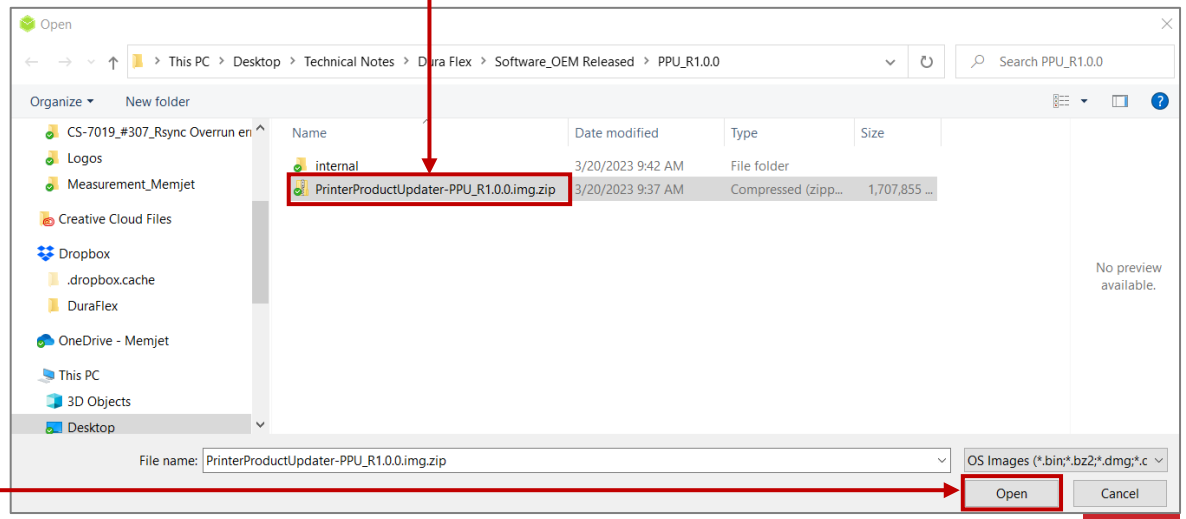
Creating the Bootable USB Drive

Creating Bootable USB

1. Insert the Target USB pen drive into the Windows based computer
2. Select '*Flash from file*'
3. Select '*PrinterProductUpdater-PPU_R1.0.0.img*' file
4. Click 'Open' to continue

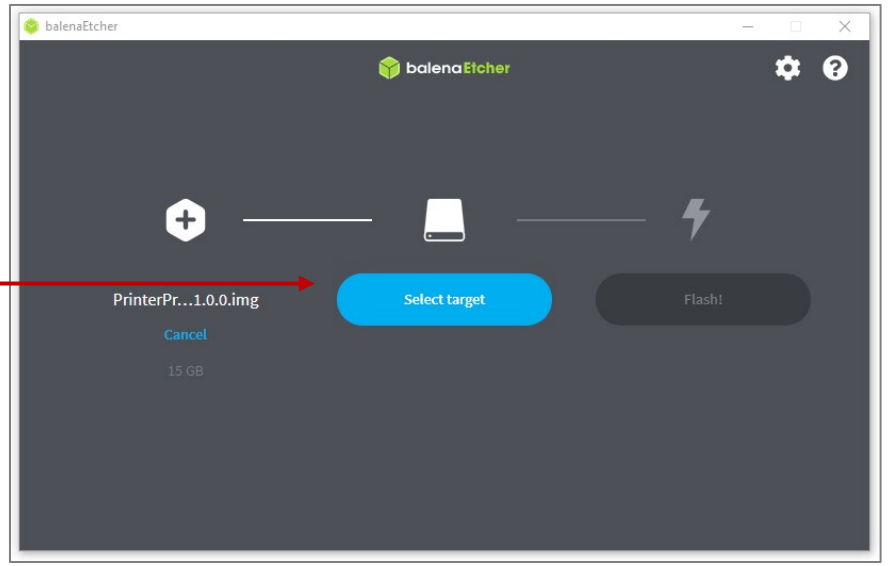


Please Note:
Ensure the PrinterProductUpdaterX.Y.Z.img.zip file is stored on the local disk drive as this gives the most reliable flashing results

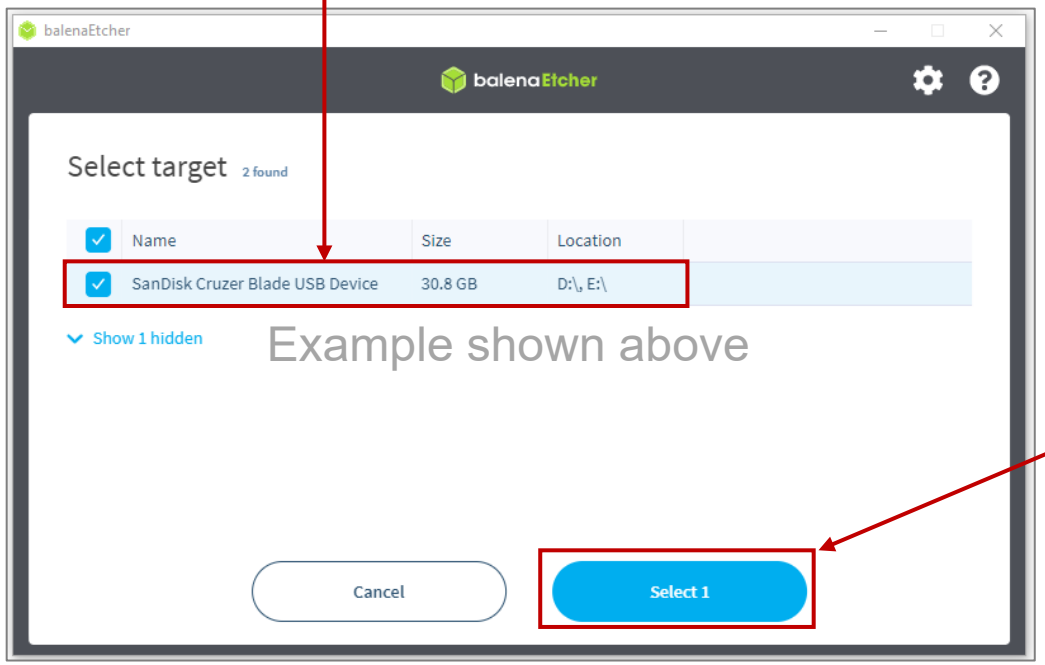


Creating Bootable USB: *continued*

5. Click '*Select target*'



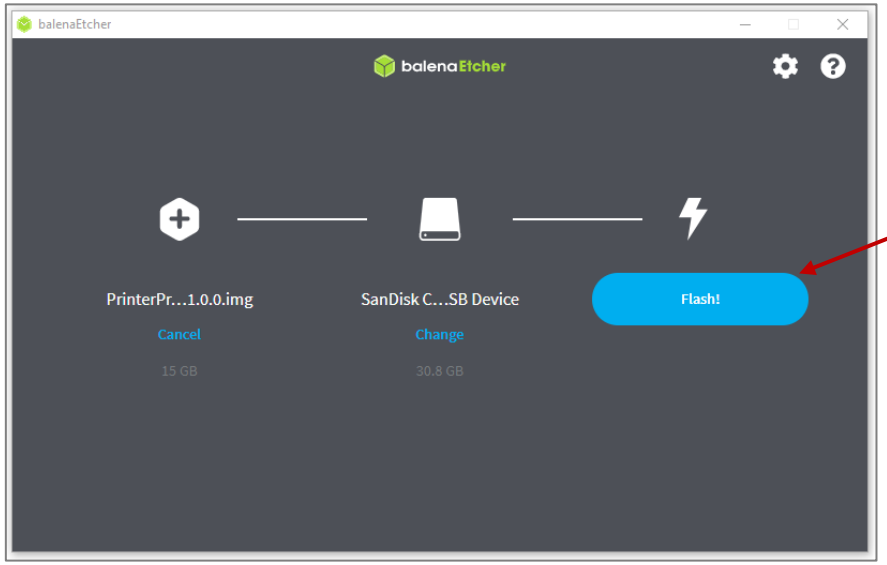
6. Select the target USB Pen drive



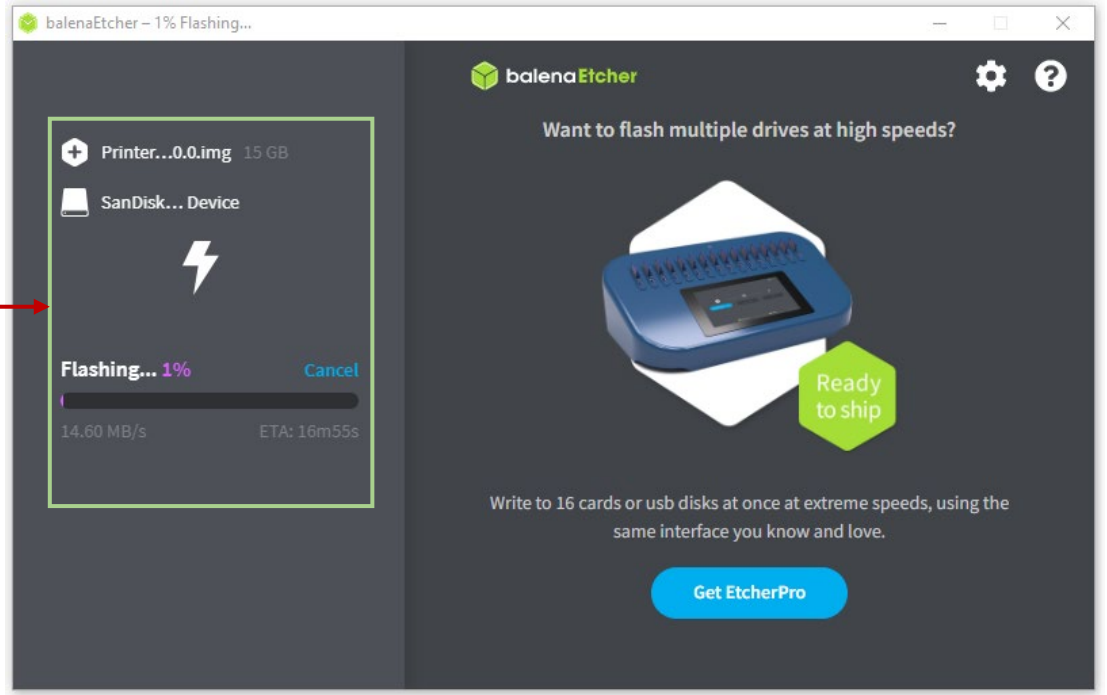
7. Click 'Select 1' to continue

Please Note:
If you do not see your intended target USB Pen drive, please use a different pen drive of suitable size.

Creating Bootable USB: *continued*



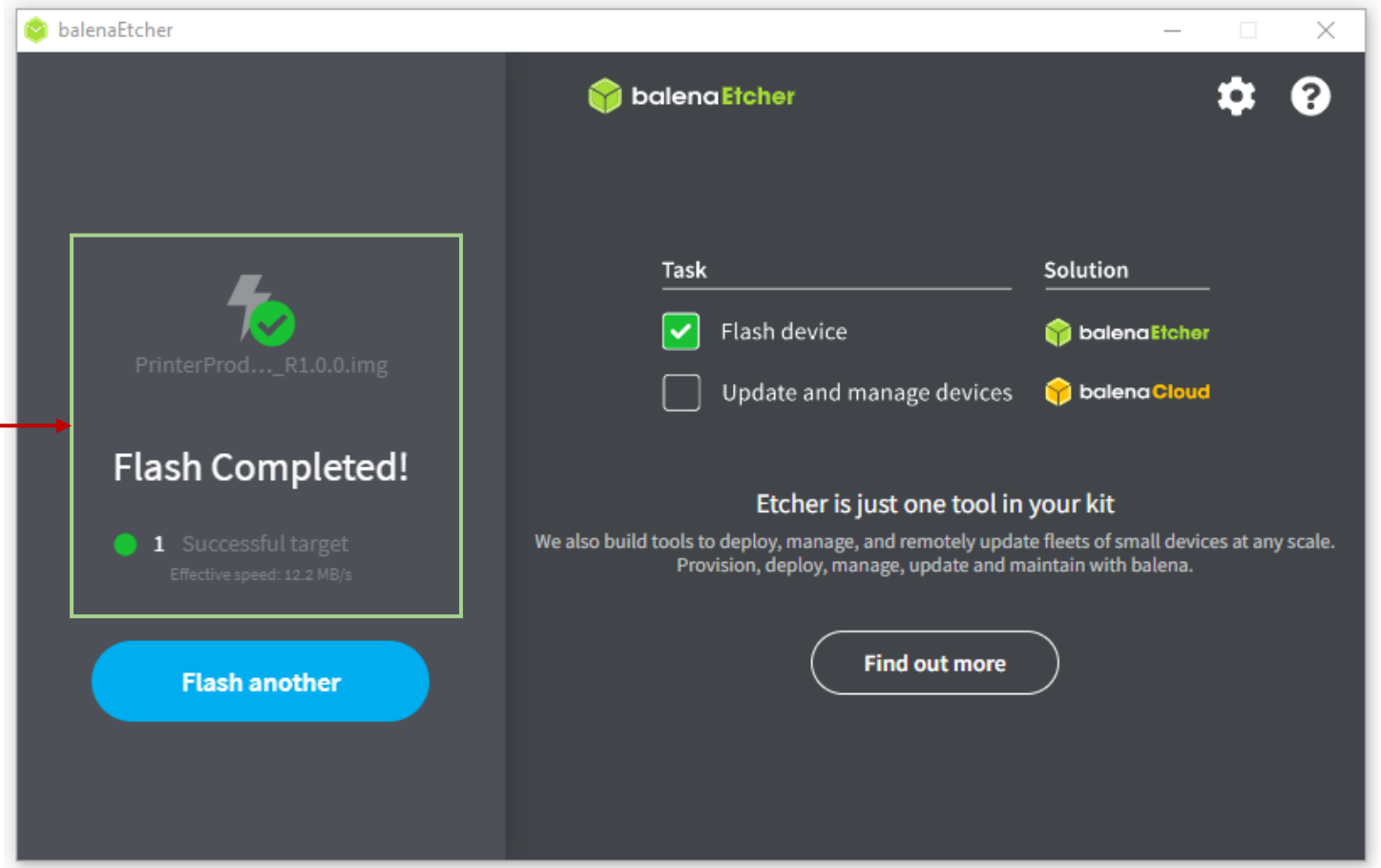
8. Click '*Flash!*' to begin



- The left will provide a status update during the Flashing process
- The phase can take up to 30 minutes to complete

Creating Bootable USB: *continued*

- The left will provide a status update indicating either ‘flash completed’ or a ‘flash failed’



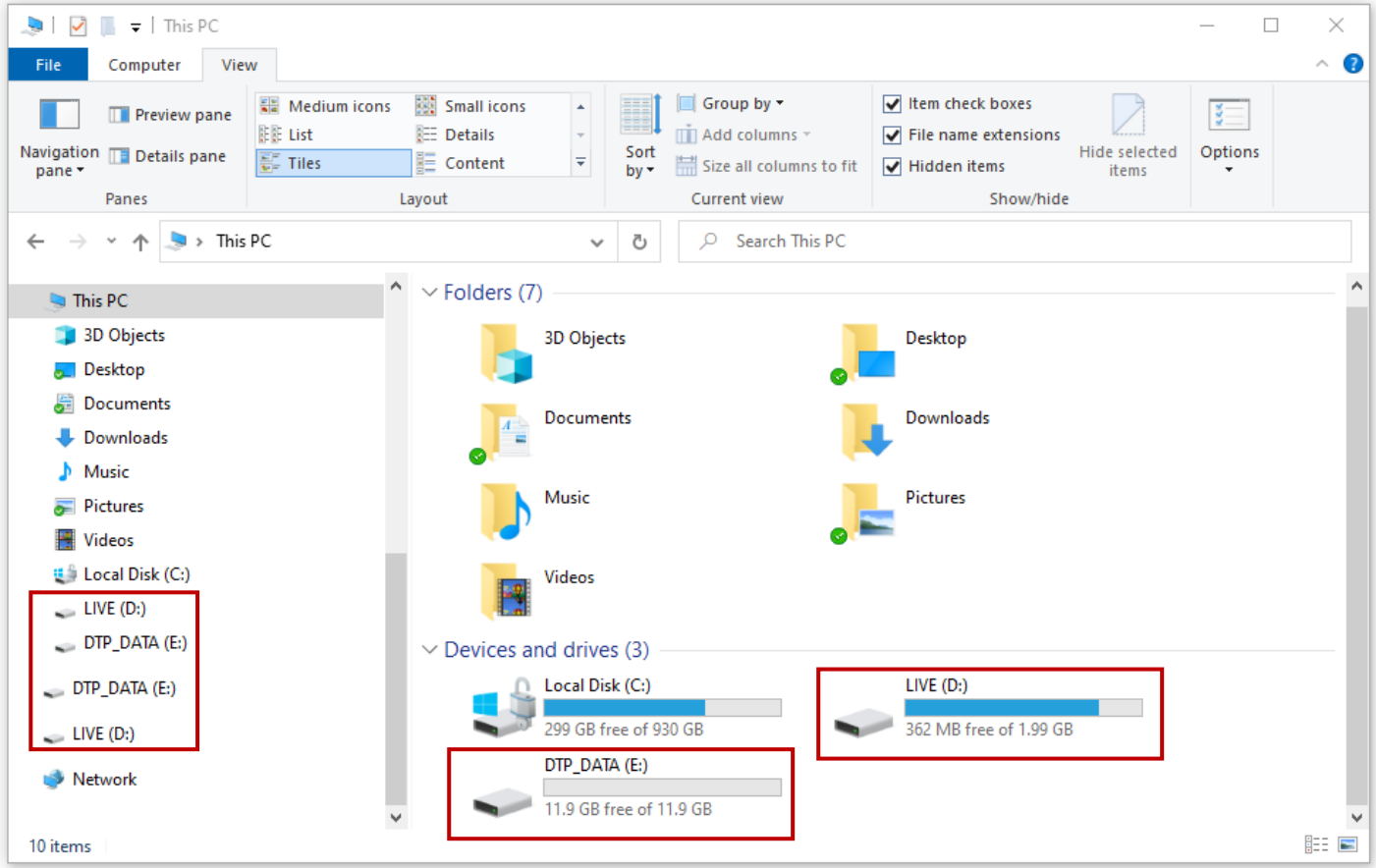
Please Note:

If the flash fails;

- *please use an alternative USB pen drive of suitable size.*
- *Ensure the target USB pen drive is connected directly with the computer in use and not connected via a USB hub*

Creating Bootable USB: *continued*

- The PPU USB drive is created with two partitions:
  - *'LIVE'* and *'DTP_DATA'*
- Example shown:
- It may be required to remove and re-insert the newly created USB drive to view the newly created partitions



Please Note:

If the newly created Pen drive does not look similar to the example screen shot (Right);

- *please use an alternative USB pen drive of suitable size and flash again.*
- *Ensure the target USB pen drive is connected directly with the computer in use and not connected via a USB hub and flash again*

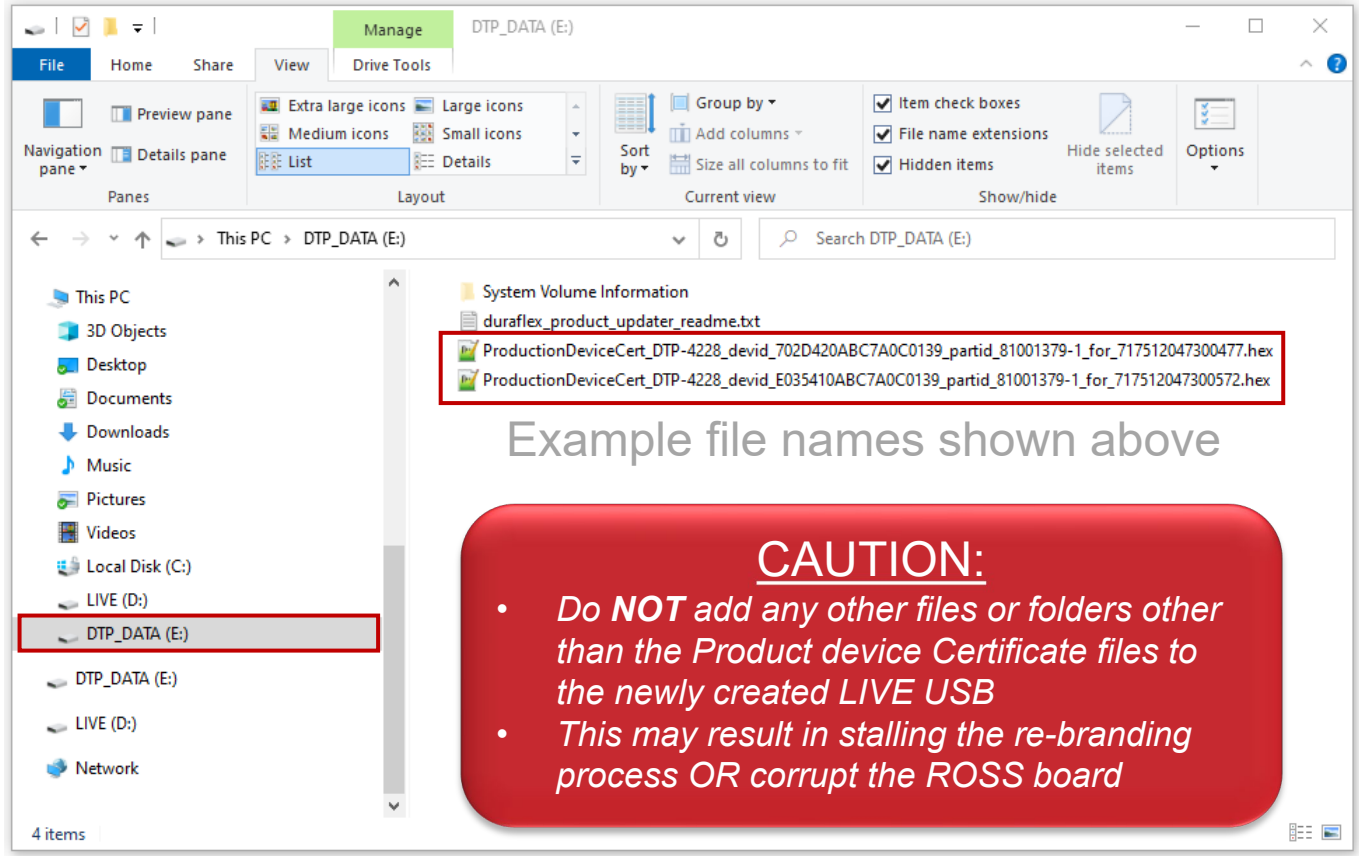
Adding the Product Device Certificate

Adding Product Device Certificates

1. Insert the Target USB pen drive into the Windows based computer
2. Copy the Product device Certificate files to the '***DTP_DATA'*** partition location on the USB drive
3. Safely remove the USB drive from the Windows computer

Please Note:

- *File names shown (Right) are an example ONLY*
- *Do **NOT** change the file names when issued from Memjet*
- *Multiple Files can be loaded onto the same drive*
- *Each specific unit will automatically pick the right certificate*
- *Use the "Eject <USB>" option in the Windows System Tray or File Manager to cleanly close the USB drive after all files have been copied to the USB drive*



Example file names shown above

CAUTION:

- *Do **NOT** add any other files or folders other than the Product device Certificate files to the newly created LIVE USB*
- *This may result in stalling the re-branding process OR corrupt the ROSS board*

Re-Branding the ROSS Board

Re-Branding Process

1. Ensure the Target DuraFlex system is fully powered **OFF**

2. **Insert** the PPU LiveUSB drive into the USB port of the printing system

3. Power **ON** the DuraFlex system

Please Note:

- The updater software automatically runs upon power-up and takes **around 3 minutes** to complete
- Do NOT interrupt the process

Re-Branding Process: *Continued*

4. To Verify the success of the process, please check LED lights located near the ROSS board Coin cell
   - **LD10** flashing **ORANGE** = Correct Product Device Certificate found and successfully applied
   - **LD9** flashing **RED** = The updater did not perform an update

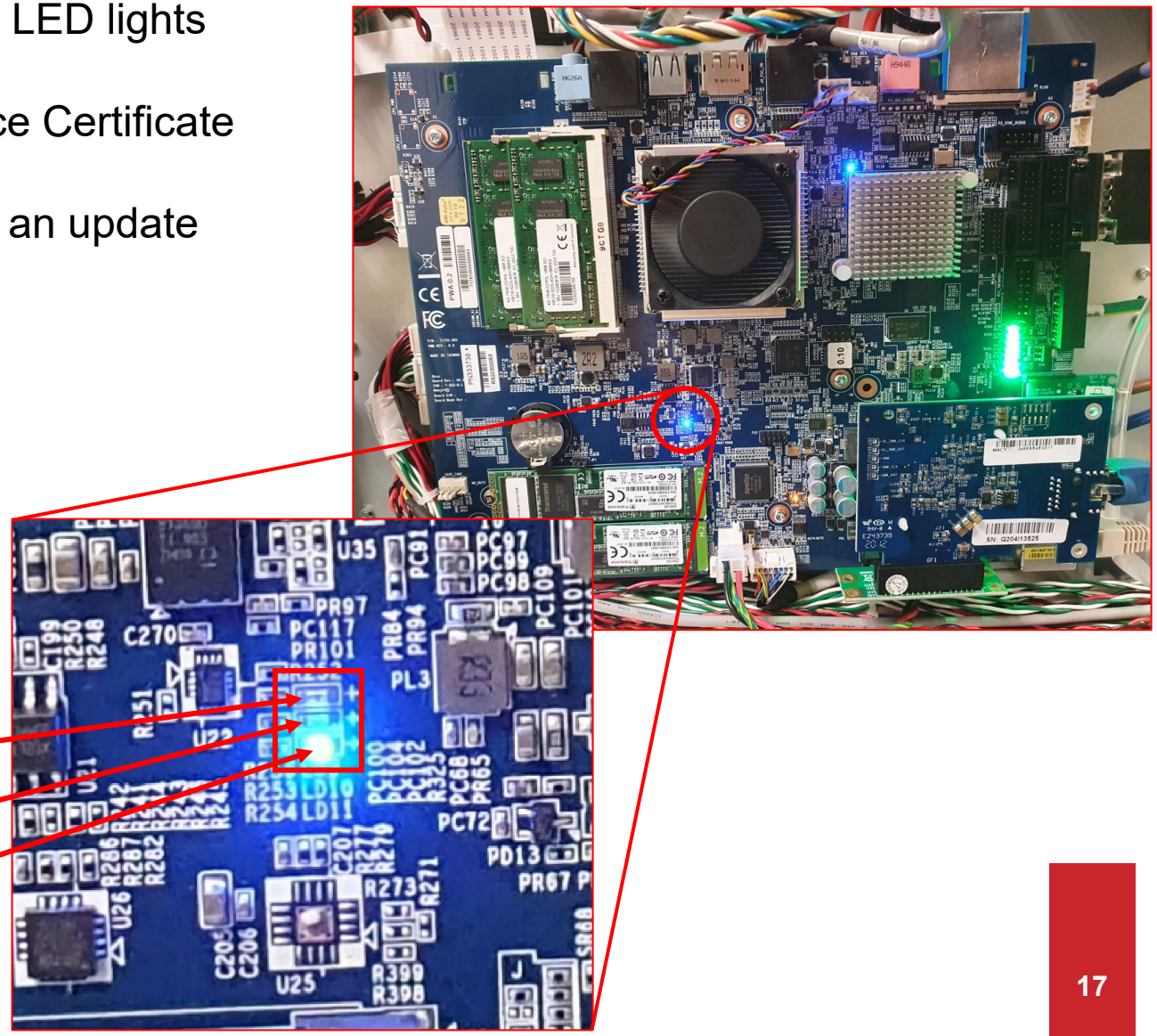
If a RED flashing LED occurs:

- A matching and valid ProductionDeviceCert_*.hex file wasn't found on the DTP_DATA partition.

OR

- multiple matching ProductionDeviceCert_*.hex file were found on the DTP_DATA partition

LED ORDER
LD9
LD10
LD11



Re-Branding Process: *Continued*

5. Once Verified (See point #4),Power **OFF** the Duraflex system

6. **Remove** the PPU LiveUSB drive from the USB port of the printing system

7. Power **ON** the DuraFlex system

Please Note:

- Please refer to Section **5.5.4** of the *DuraFlex Installation & commissioning guide* for updating the OEM specific Printer Key Store file (PK File)
- All current Partners have access to their corresponding license file on the Partner Sharepoint portal.

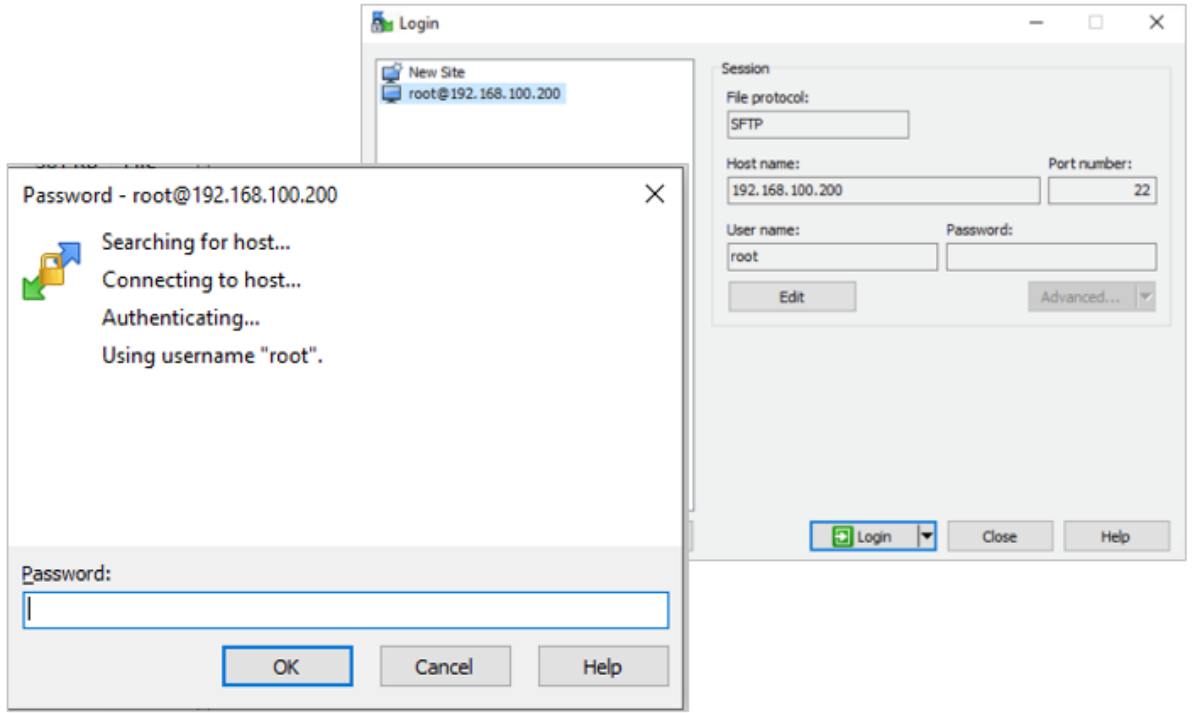
Updating the Printer Key Store file

Adding PKS file

- OEM specific Printer Key Store File is available in the OEM Partner SharePoint portal.
- If this cannot be access or the PKS file cannot be found, please raise a Service Desk ticket and a Support engineer will obtain these.

- Using the recommended tools: ***WinSCP***
- Log onto the DuraFlex Using the following details:
  - File Protocol: *SFTP*
  - Hostname: *192.168.100.200*
  - Port: *22*
  - Username: *root*
  - Password: *root*

Best Practice:
Logging in with '*root*' is a must as it allows read/write access to the DuraFlex system
This is best practice to use this convention for remote field support



Adding PKS file: *Continued*

1. Navigate via the right-hand panel to the following directory:

/opt/memjet/duraflex/data/gymea-data-current/common/certificates/current

2. Drag and drop the OEM PKS file to the directory above

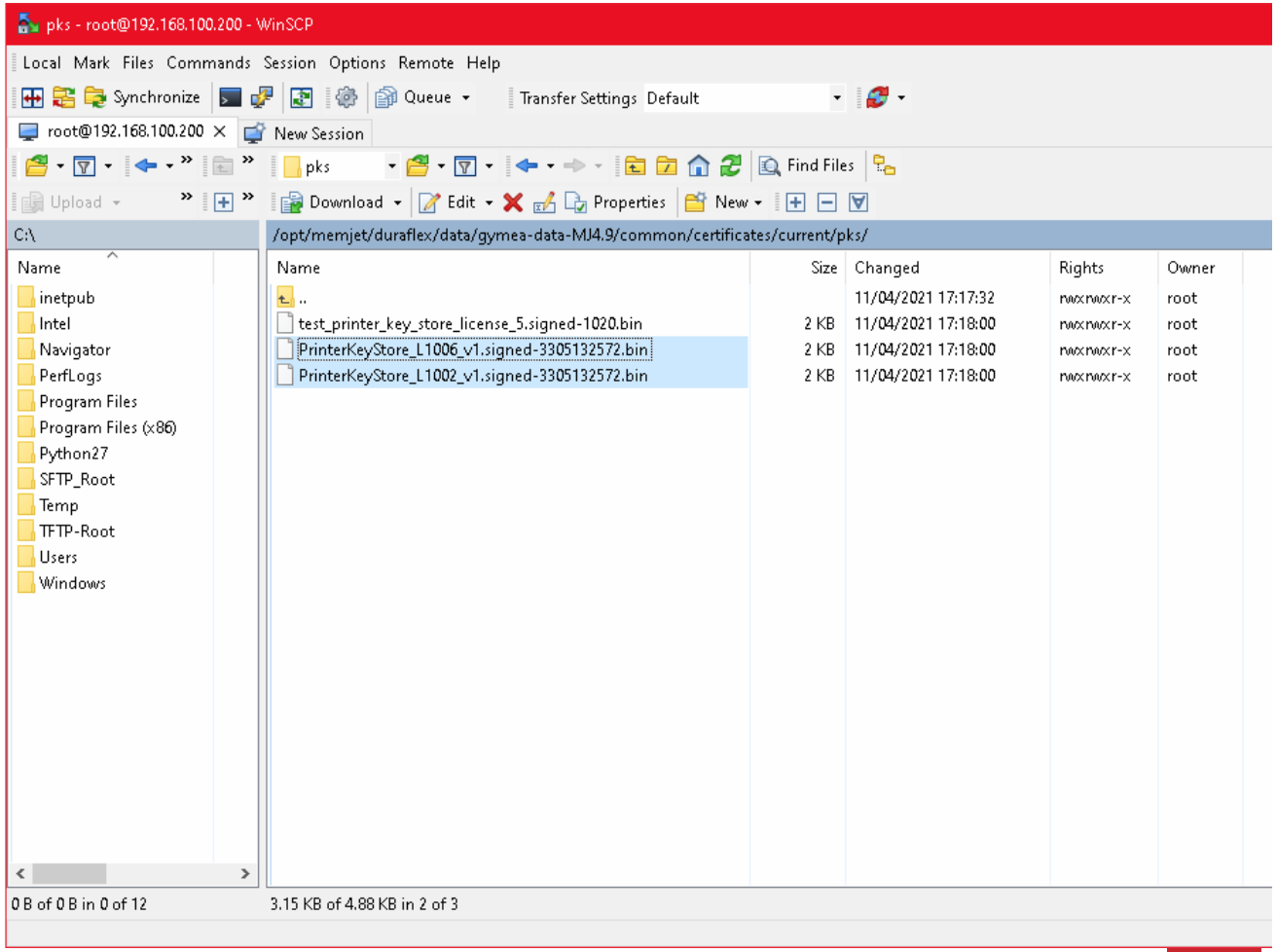
2. When complete, Power-cycle the DuraFlex System

Power Cycling

- Is the act of Powering OFF the System, waiting 1 minute and powering ON

Please Note:

- Please refer to Section **5.5.4** of the *DuraFlex Installation & commissioning guide* for updating the OEM specific Printer Key Store file (PK File)
- All current Partners have access to their corresponding license file on the Partner Sharepoint portal.

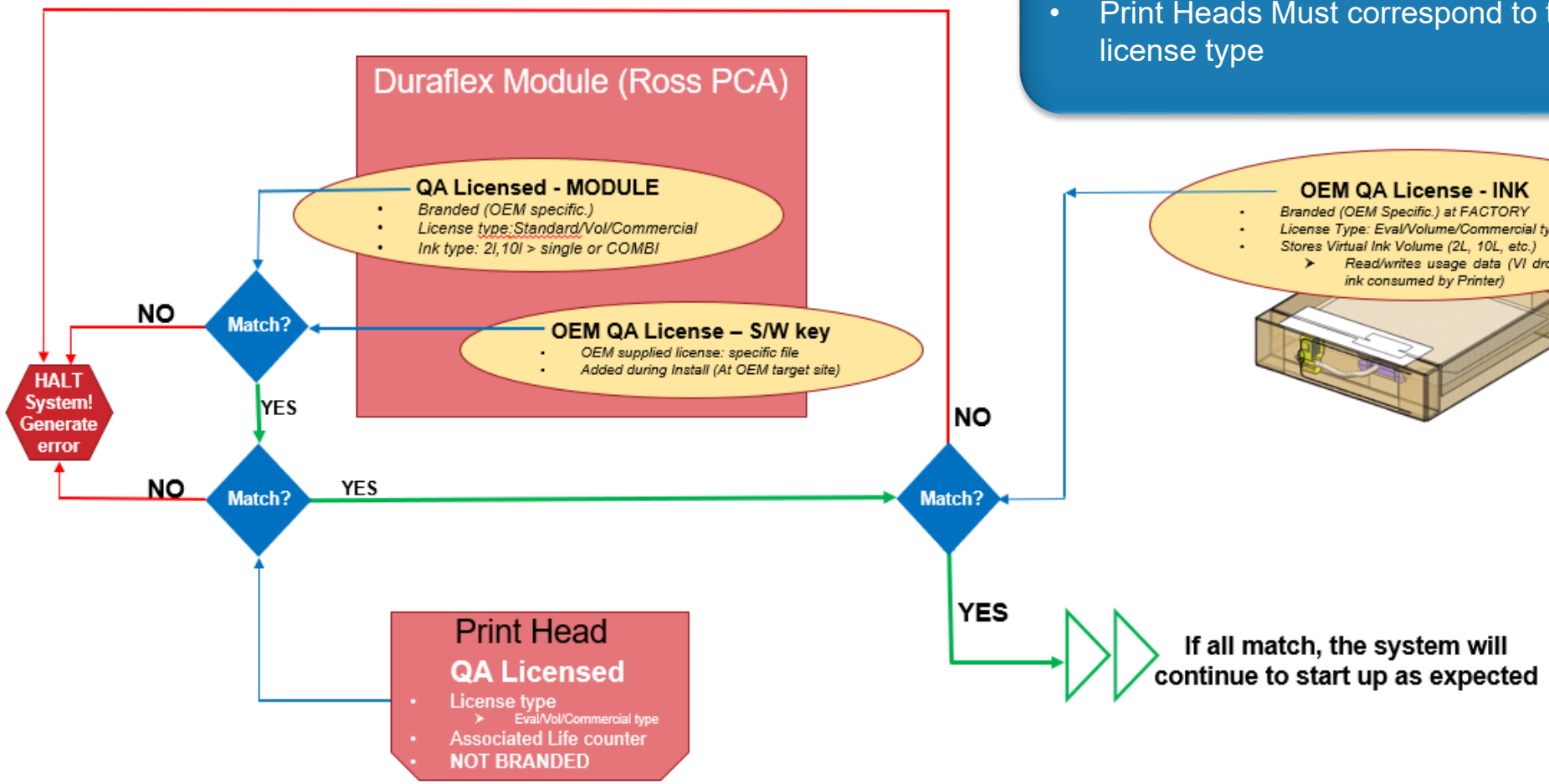


Adding PKS file: *Continued*

- The DuraFlex Module is now ready to be put into standard use

Please Note:

- Bulk Ink supplies should match the corresponding target brand and License file
- Print Heads Must correspond to the associated license type



Thank you