AvoKey Installation

with 1221-2041, 1221-2046 and 1221-2047

AvoKey Hardware installation guide for

Pearl Expert consoles using the

Fujitsu D3243 MB upgrade (F-V10 upgrade)

or

Pearl Expert consoles with Fujitsu D3243 fitted (Factory refurbished consoles)

i.e. Consoles requiring an extra USB cable and

Avolites Kit number 8000-6103 Version 1.1

Useful Avolites phone numbers:

Avolites England

Sales and service*   (+44) (0) 20 8965 8522

Service out of hours*(+44) (0) 831 17 8888

Fax   (+44) (0) 20 8965 0290

Email   repairs@avolites.com

Website   http://www.avolites.com

The small print:

No Liability for Consequential Damages

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In no event shall Avolites be liable for any direct, indirect, special, incidental, or consequential damages or loss whatsoever (including, without limitation, damages for loss of profits, business interruption, or other pecuniary loss) arising out of the use or inability to use Tiger Touch even if Avolites Ltd. has been advised of the possibility of such damages. Because some jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damages, the above limitation may not apply to you.

Reprint and revision history:

v1.0 Created GK Jun 2019

V1.1 Split up per console, cables added 1221-2046 and 1221-2047 GK Mar 2020

C O N T E N T S

IMPORTANT NOTES:

The document is divided into chapters depends on the console type or TNP and motherboard installed in the console or TNP.

Read the relevant section of this document at least once before starting the installation.

If in doubt contact your reseller or Avolites for support direct.

Perform the upgrade in an area with good work lighting and clear working space.

Have a small container handy to put screws in as you remove them.

Please note that it is possible that your console does not have a motherboard listed below, this can be because the original MB had failed, and the original MB was not available anymore. In this case contact Avolites direct to establish which kit you may need.

After the installation of the Avokey you can use the console as normal with software versions before V12. In order to use V12 you will need to download it and install as per normal, this is then followed by the "authentication" process to licence the console or TNP for V12. This only needs to happen once.

See the V12 installation notes for further information

Console an and TNP licenses are Hardware locked, therefore once authenticated against a specific console or TNP the dongle will only work in that product.

1.   Safety notice

Before you open the console or TNP

Disconnect the console from the Mains supply and other electrical connections

Observe anti-static measures by either using and anti-static strap connected to the console or by touching the internal metal PSU housing when working inside the console like connecting the AvoKey
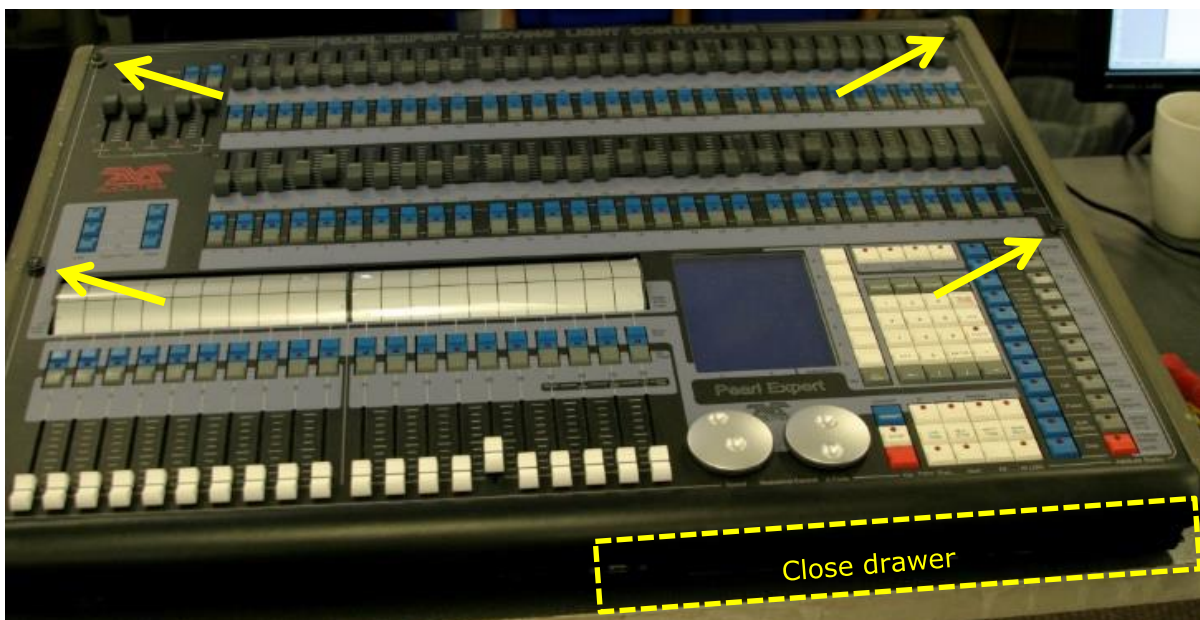
2.   Pearl Expert Pro

Fujitsu D3243 (F-V10 upgraded units)

Place the console on a stable base and <u>Make sure the keyboard drawer is closed</u>.

Assure that the Console is not connected to the mains supply

Open the console by turning the four Dzus fasters 1/4 turn anticlockwise, then lift the front panel from the back (hinge point is at the front)

Close drawer

Disconnect the UPS USB cable. Note in late revision of the upgrade UPS USB cable is connected to motherboard, not to the U-HUB (in this case jump to subpoint D)
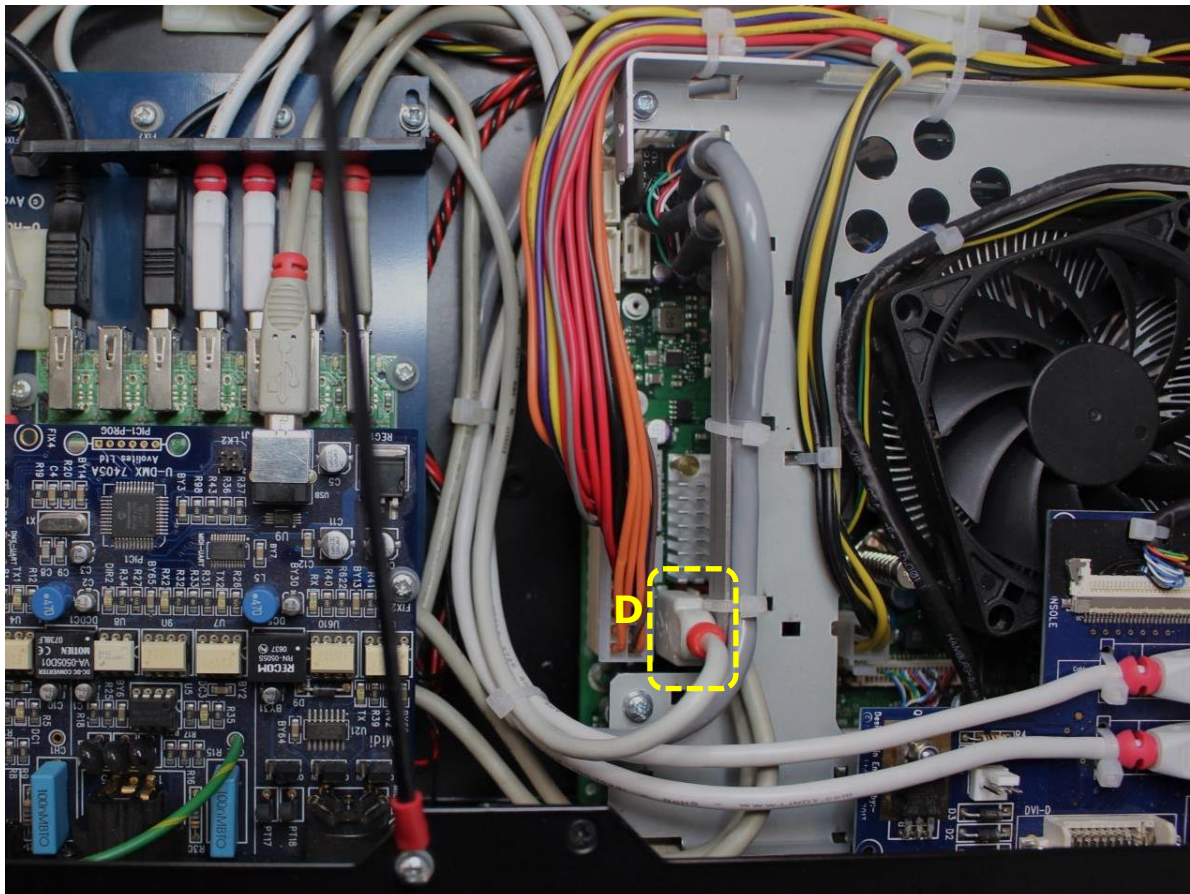
A - Unscrew the two fixings then remove the comb

B – Disconnect **UPS USB** cable from **USB-2** port on shown U-HUB *(in case it's connected)*

C - Secure the USB cables with the comb. Use retained fixings (M3x12 screw, spring washer & flat washer). Push the comb towards the back before tighten the screws
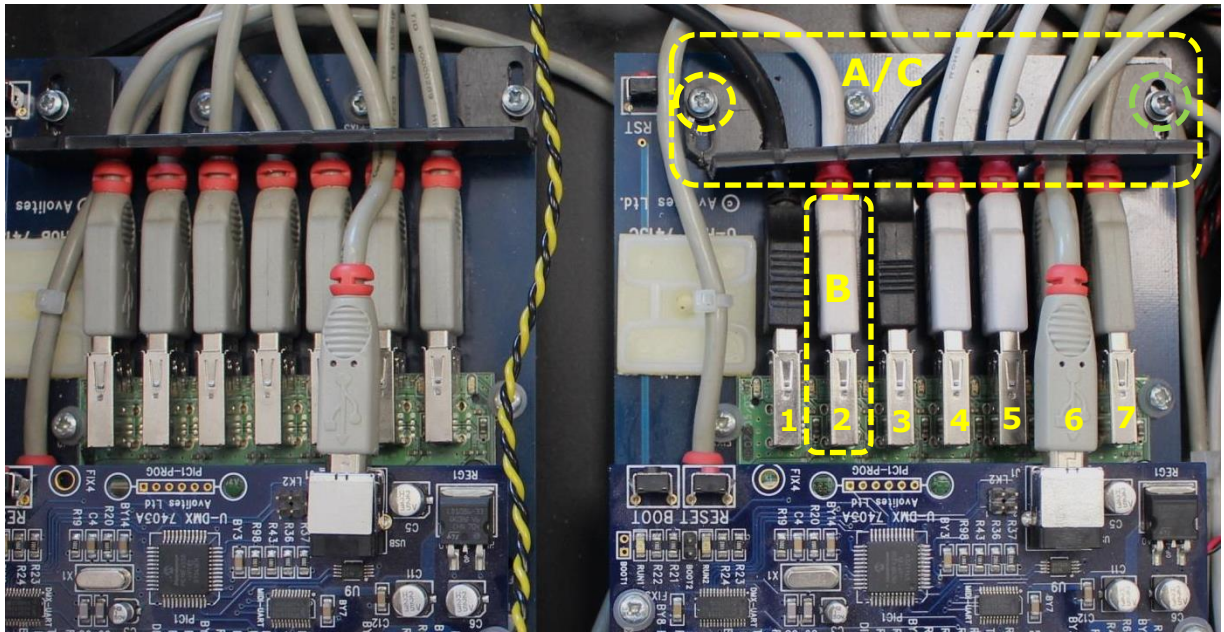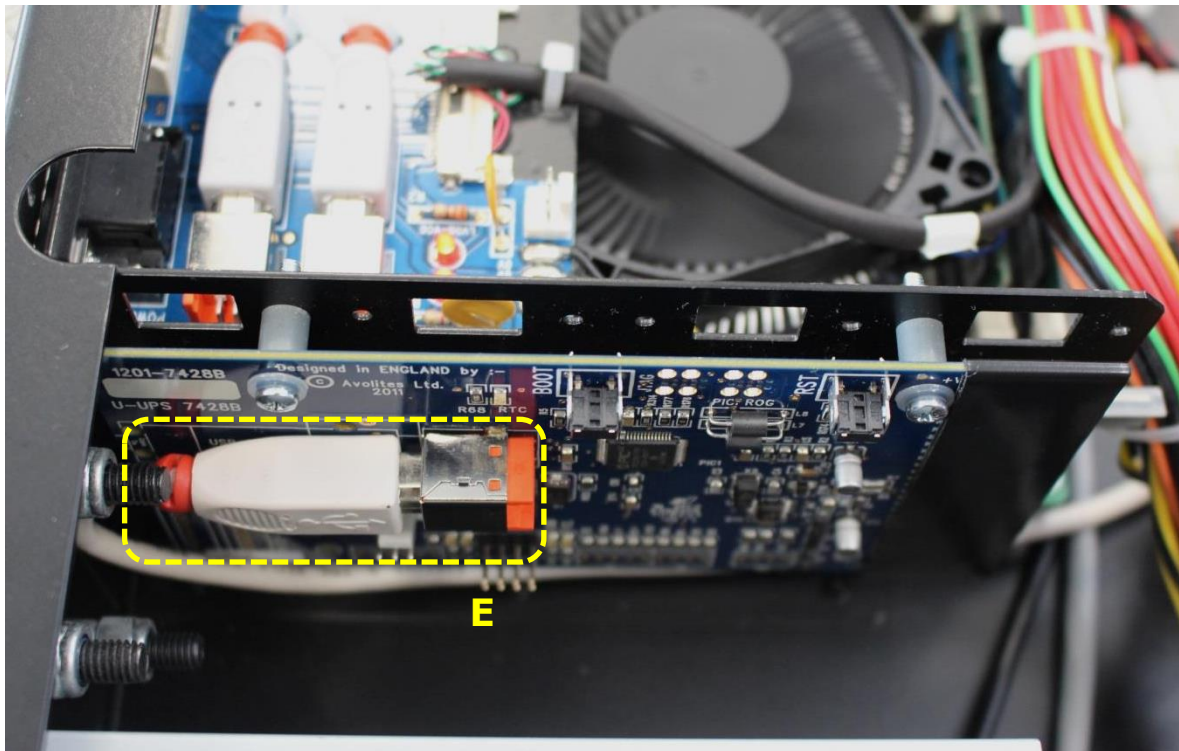

D - Disconnect **UPS USB** cable from motherboard port *(in case it's connected)*

E – Unplug the UPS USB cable from U-UPS board (or DC-UPS-C board); discard the cable

F – Disconnect the cable connected from 2x5 way port (2xUSB2) on motherboard
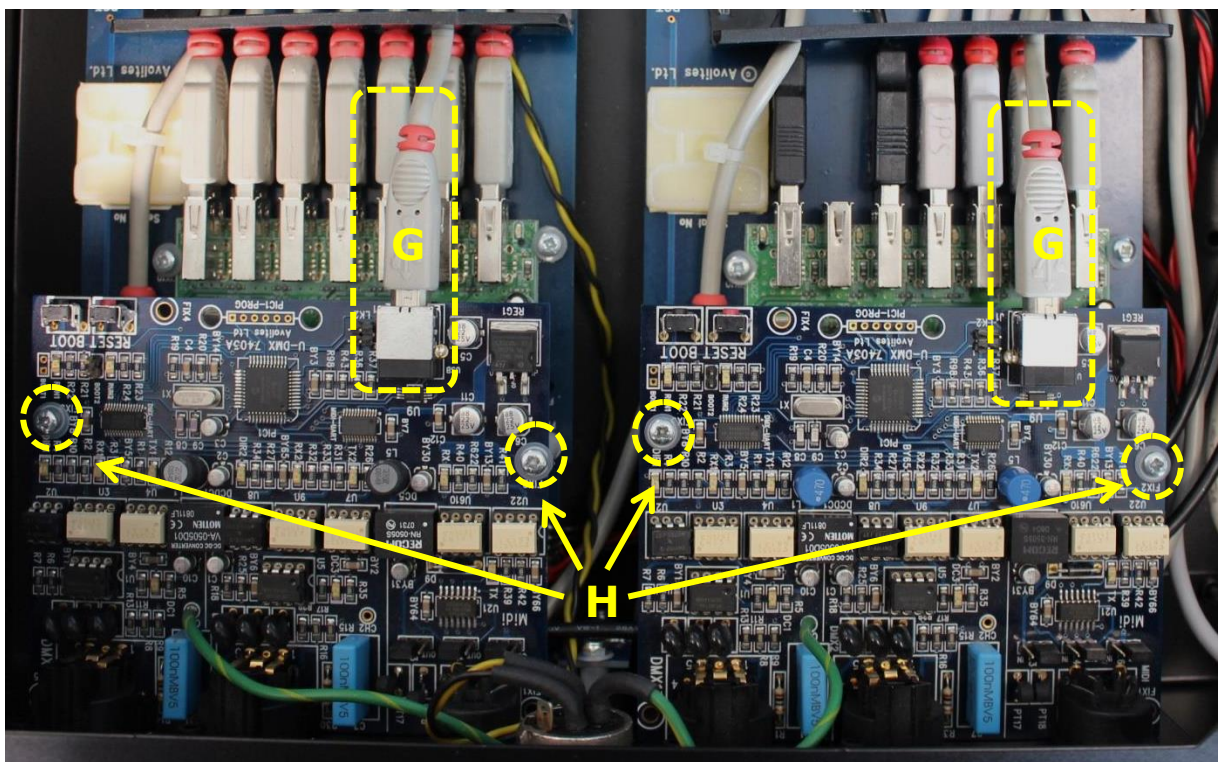
(cut the cable-ties; arrows)
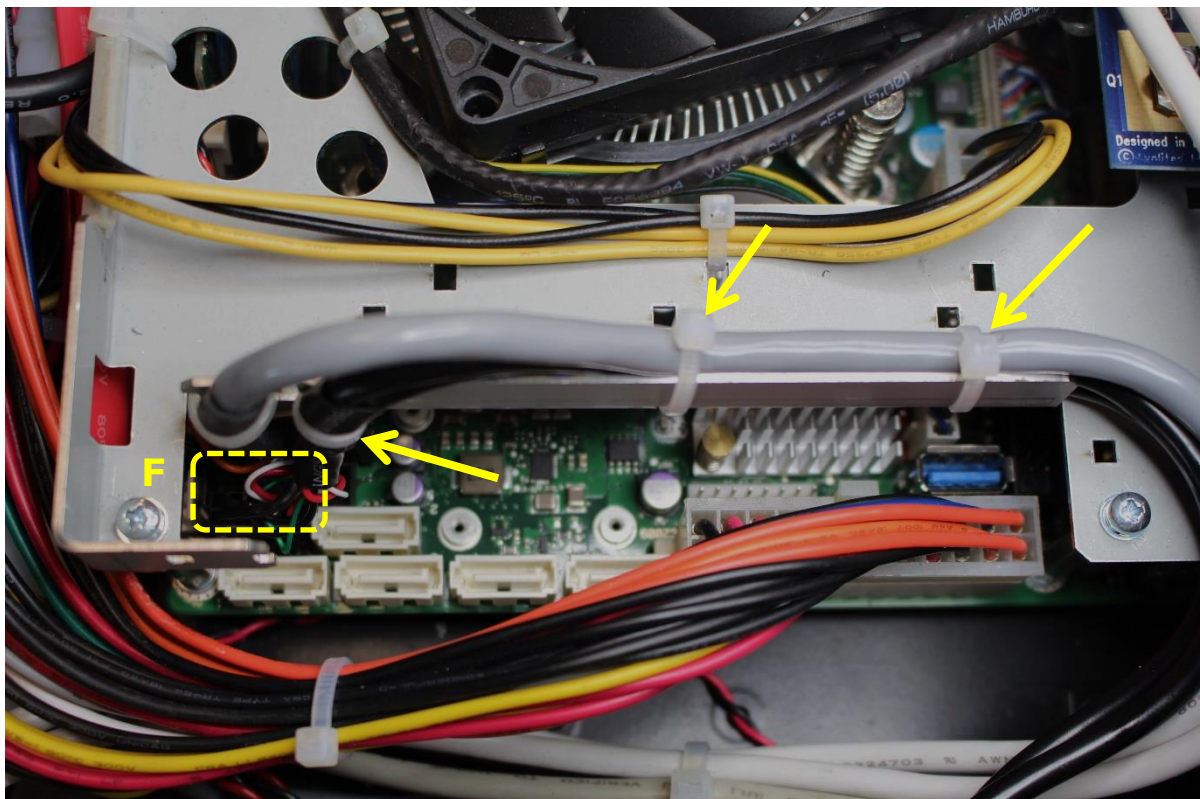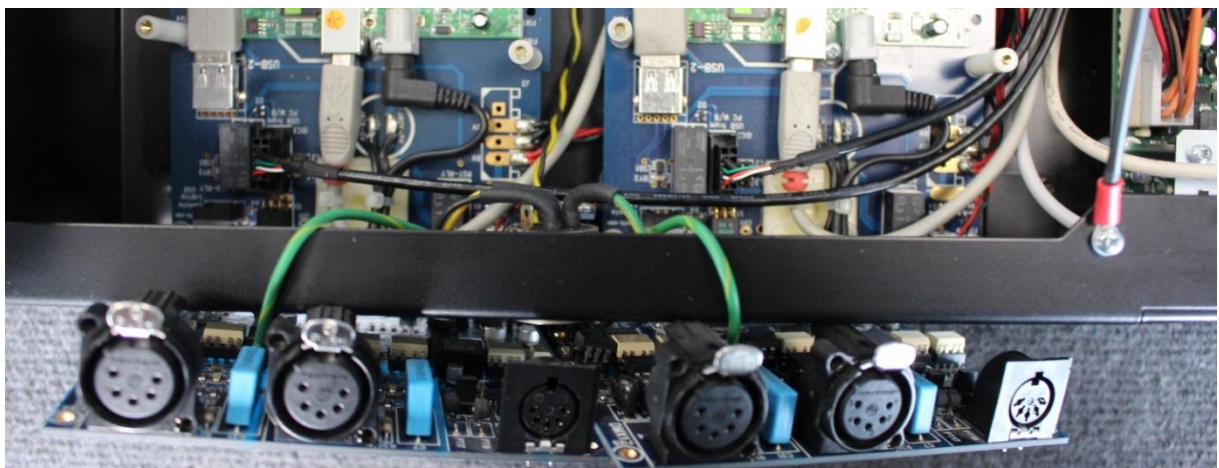
Unscrew eight screws

G - Unplug the two USB cables
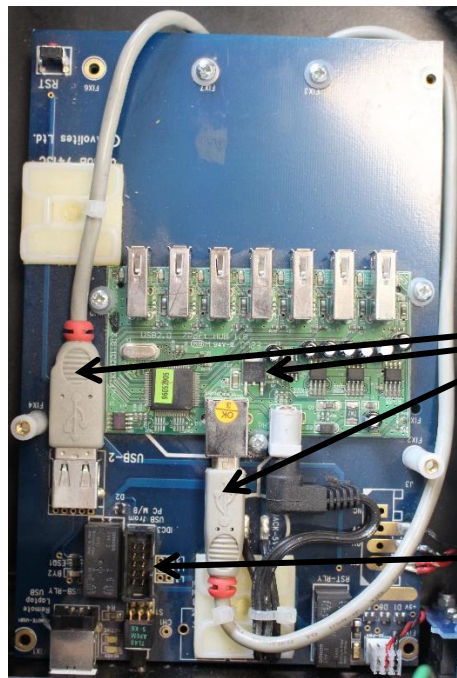
H - Unscrew the two U-DMX boards

Flip U-DMX boards as shown, let them be hang on the earth wires

IMPORTANT NOTE: The latest Pearl Expert consoles come with assembled ST-HUB boards instead of U-HUB boards. Follow instruction is in two subsections below.

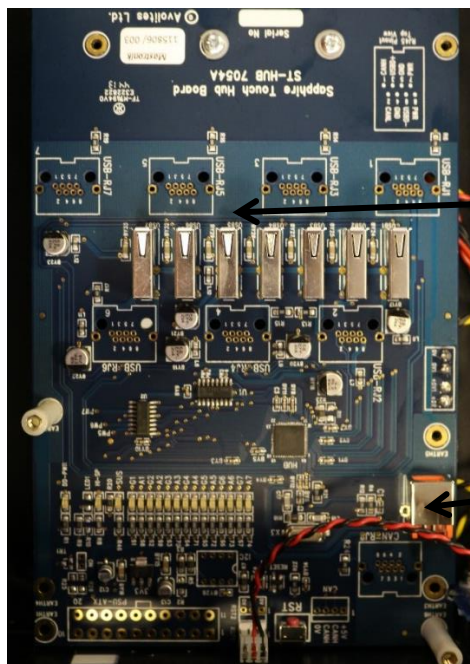Console with **U-HUB:**   *2.1 Subsection for PE consoles with U-HUB boards assembled*

U-HUB

Pair of pcbs. One pcb on top of the other one, connected to each-other with 0.5m USB cable

USB port - LOW PROFILE 10WAY HEADER

Console with **ST-HUB:** *2.2 Subsection for PE consoles with ST-HUB boards assembled*
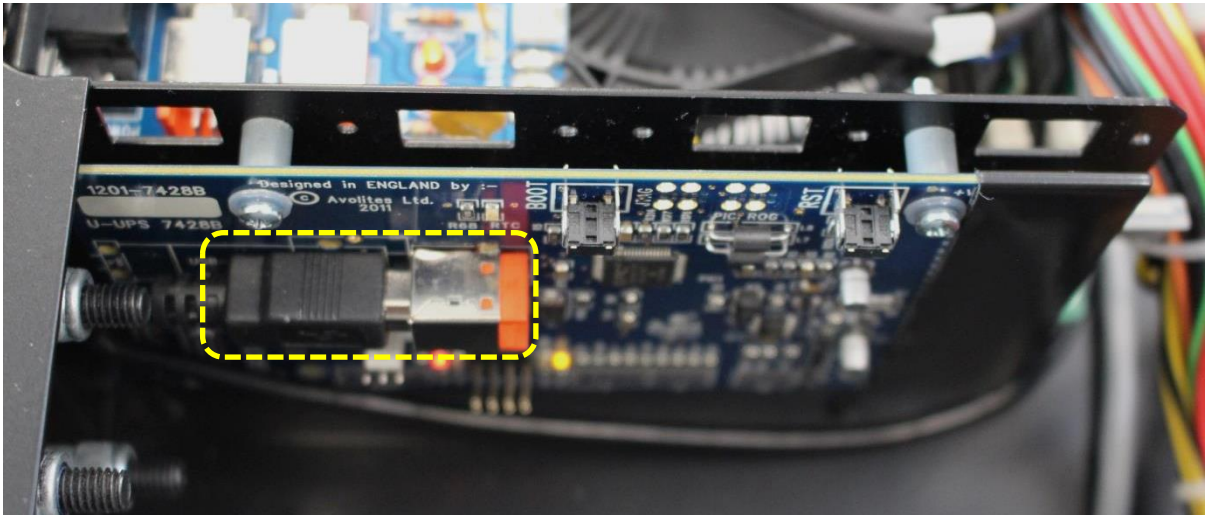

ST-HUB

Single pcb

USB port - USB R/A TYPE B Receptacle

NOTE: Double check which type boards are assembled in the console. Some cables will be cut during the upgrade process.

2.1   Subsection for PE consoles with U-HUB boards assembled

Plug the supplied _10way USB to Type B and U-HUB feed (1221-2041)_ cable to USB-B port on U-UPS board (or DC-UPS-C board)
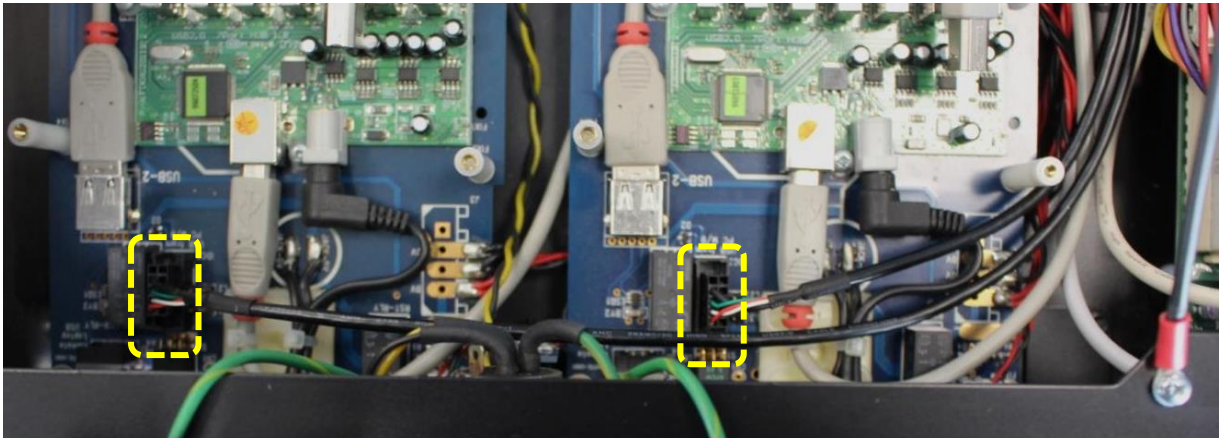

Cable-tie the _IO loom_ and _10way USB to Type B and U-HUB feed_ cable to the safety frame
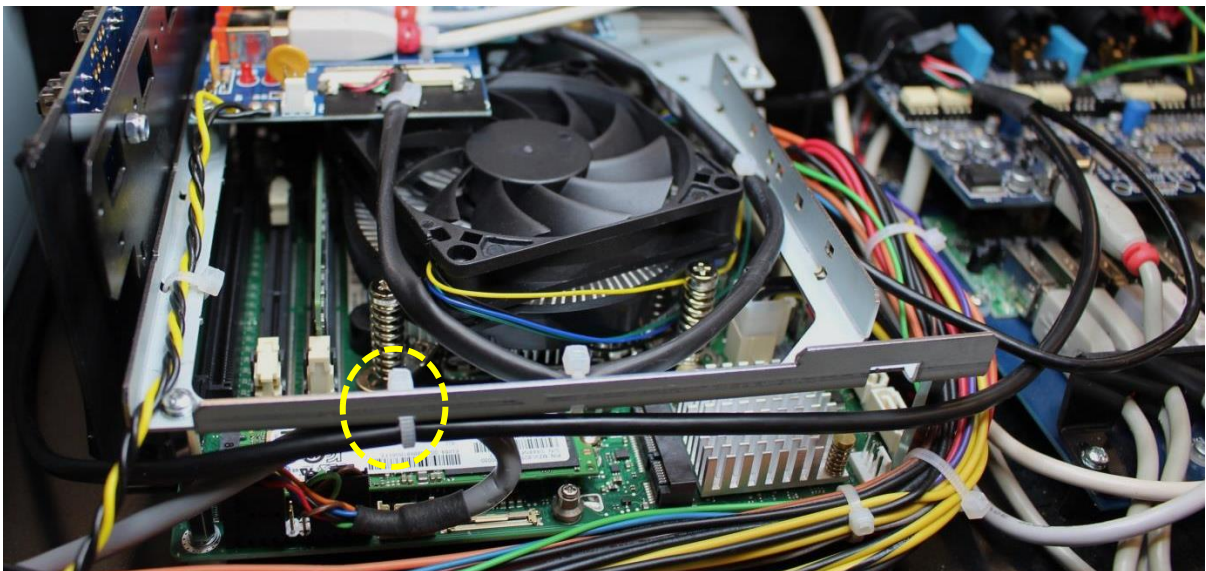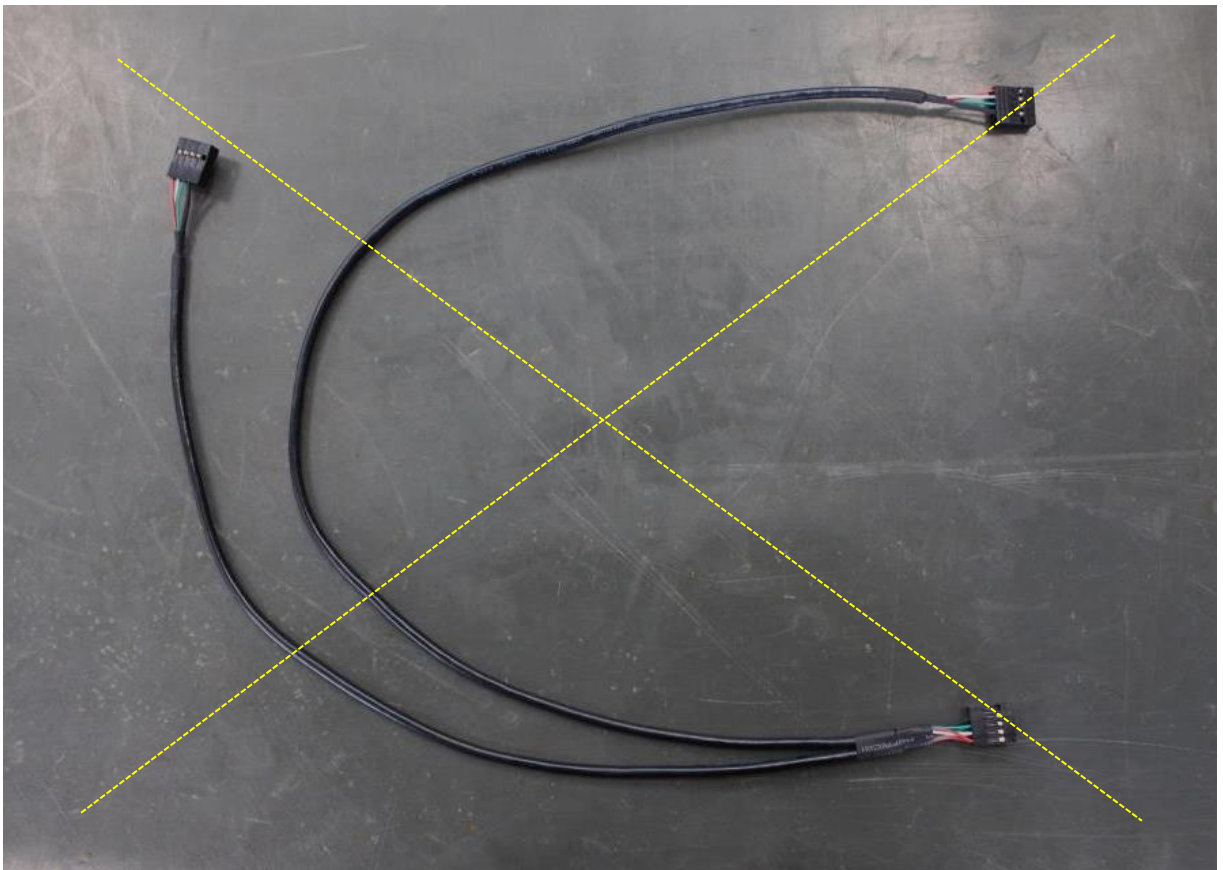
Disconnect the _U-HUB USB feed loom_ from both U-HUB boards and motherboard port, remove the loom
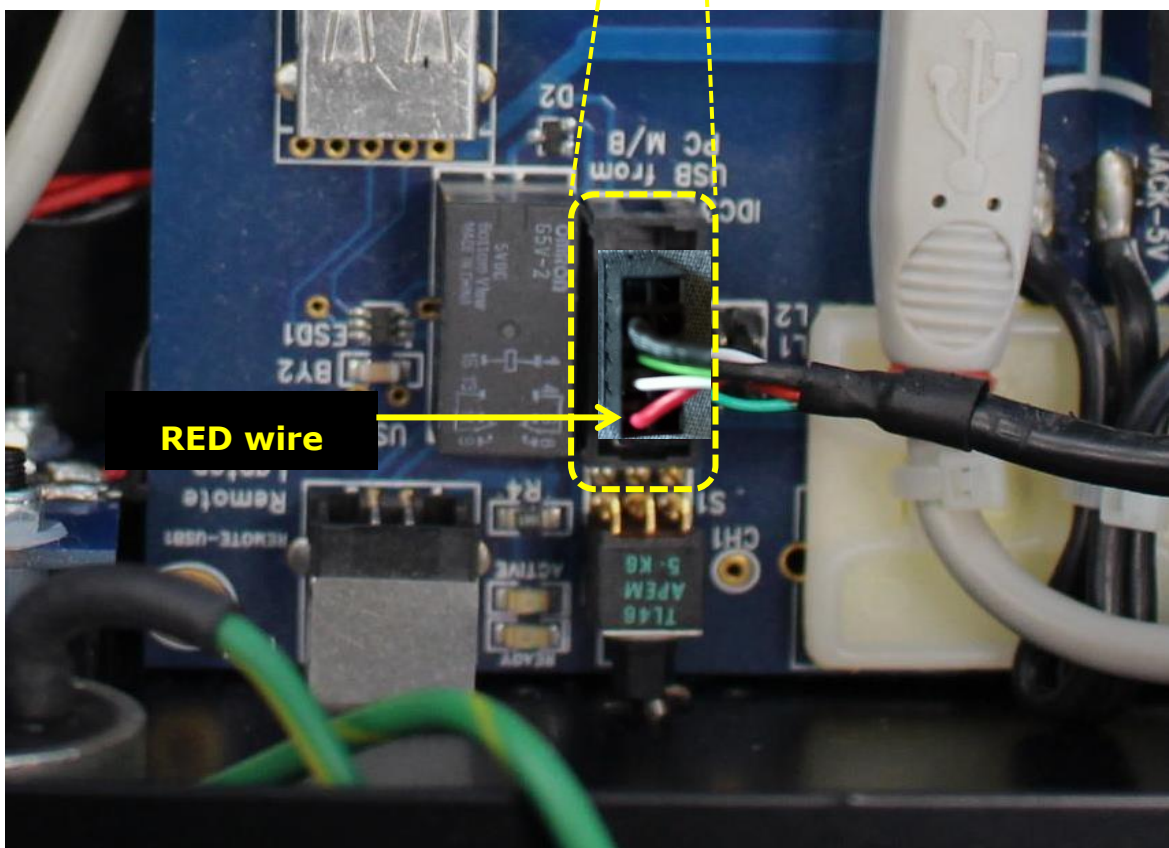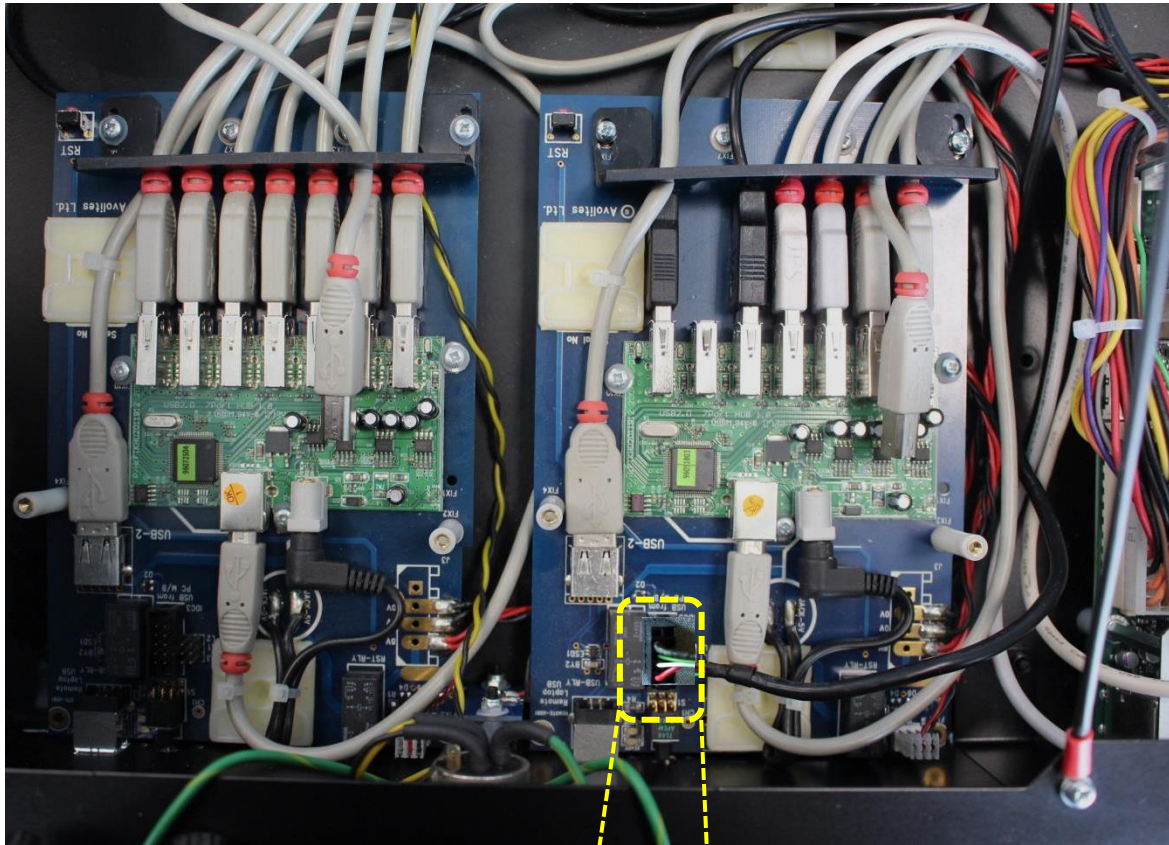

Discard the loom

Find supplied USB3 to USB2 Harwin loom (1221-2046)

Connect 2x5 connector from USB3 to USB2 Harwin loom (1221-2046) to **IDC3** port on the right U-HUB board

NOTE: Connector has to be connected with the **RED** wire towards the back of the console

RED wire

Connect the other end from supplied _10way USB to Type B and U-HUB feed (_1221-2041) _cable_ (2x5 connector) to **IDC3** port on the left U-HUB board
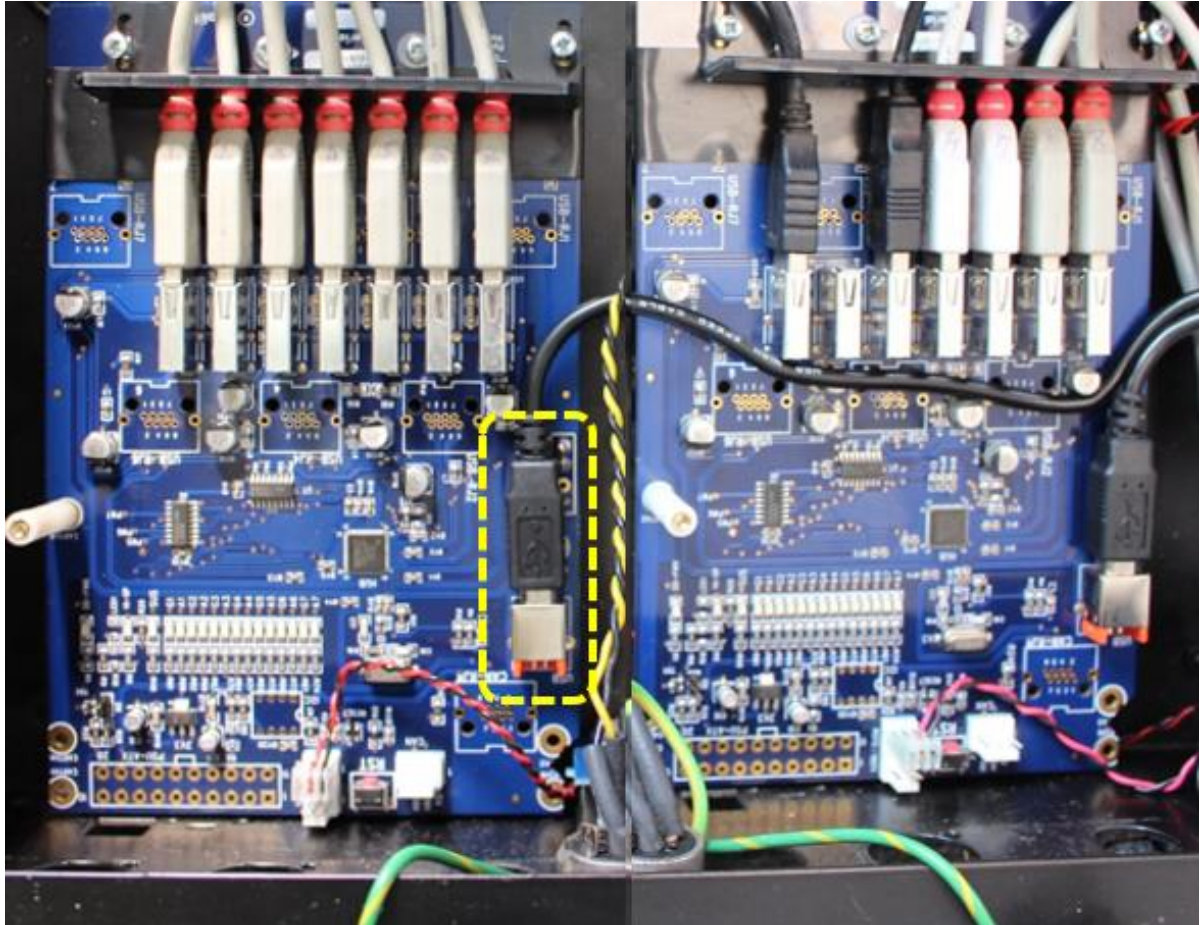
NOTE: Connector has to be connected with the **RED** wire towards the back of the console

RED wire
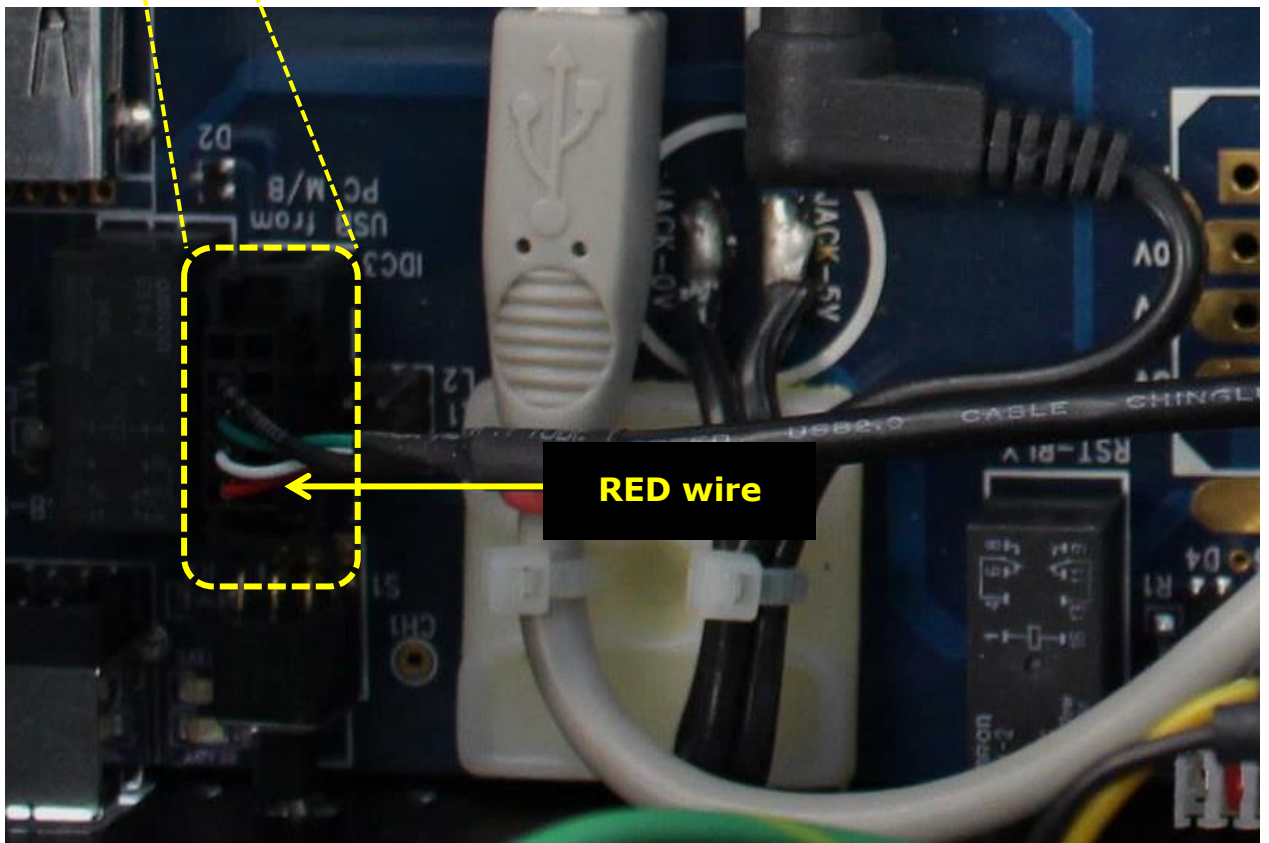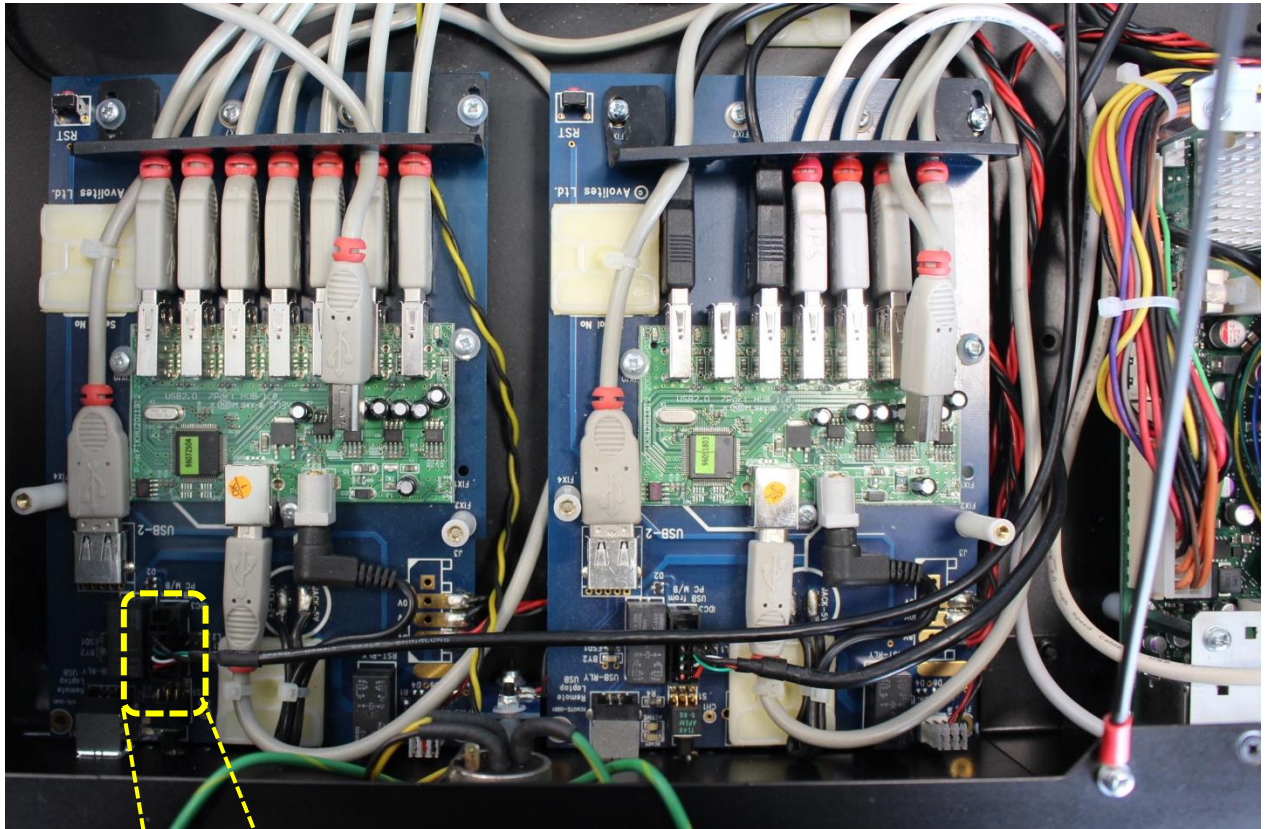
2.2   Subsection for PE consoles with ST-HUB boards assembled

Disconnect the USB-B type connector *(10way USB to Type B feed loom)*
from the left ST-HUB board

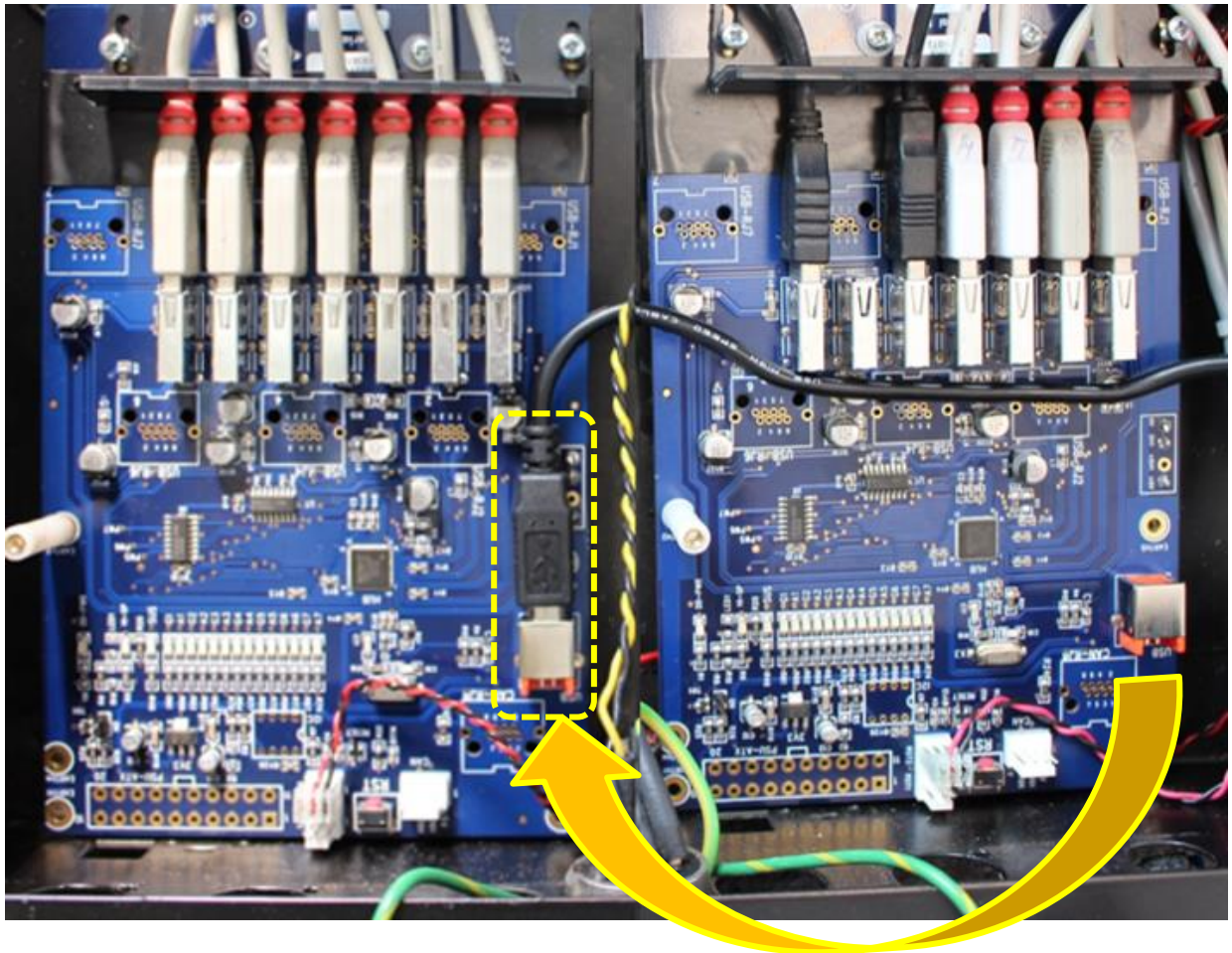

Plug just disconnected from the ST-HUB board USB-B type connector (*10way USB to Type B* cable) to **USB-B** port on U-UPS board (or DC-UPS-C board)
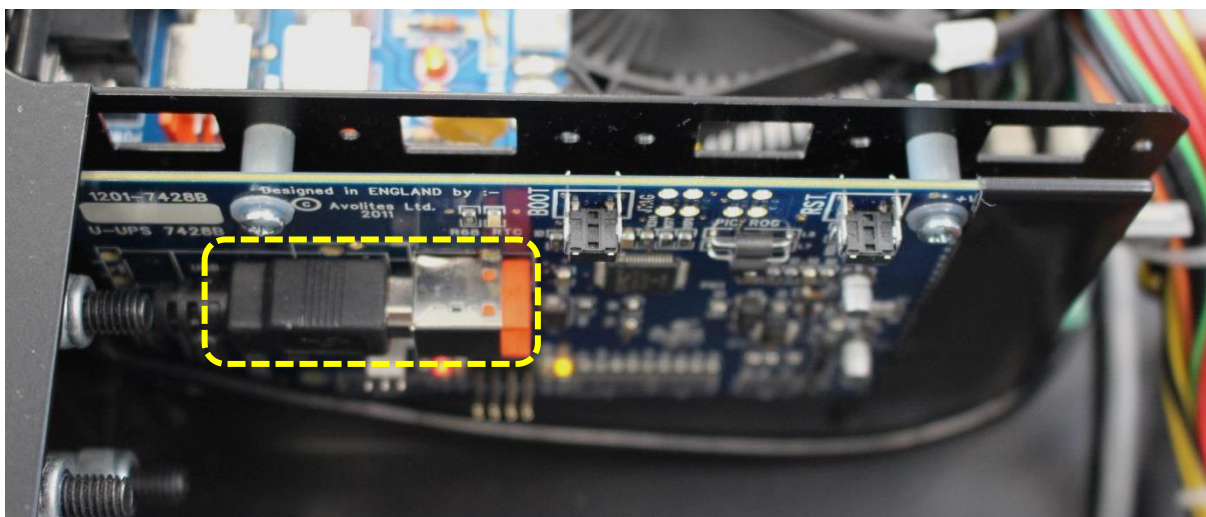
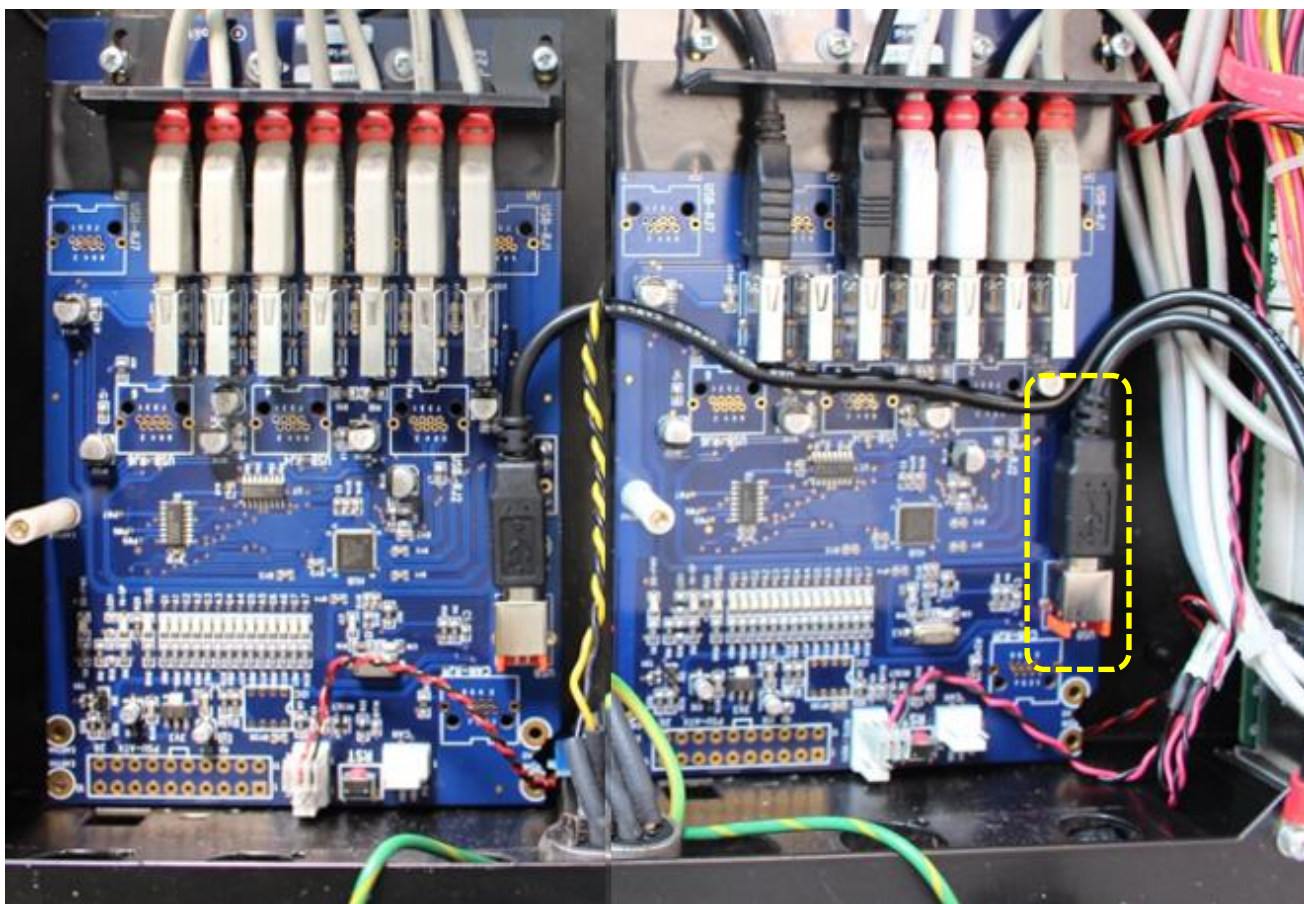NOTE: Route the cable on the shell around the motherboard

Disconnected the other USB-B type connector (*10way USB to Type B* cable) from the **right** ST-HUB board then connect it to the **left** ST-HUB board

Find supplied *USB3 to USB2 Type-B (1221-2047)*

Connect USB B-type connector from *USB3 to USB2 Type-B (1221-2047)* to **USB** port on the right ST-HUB board
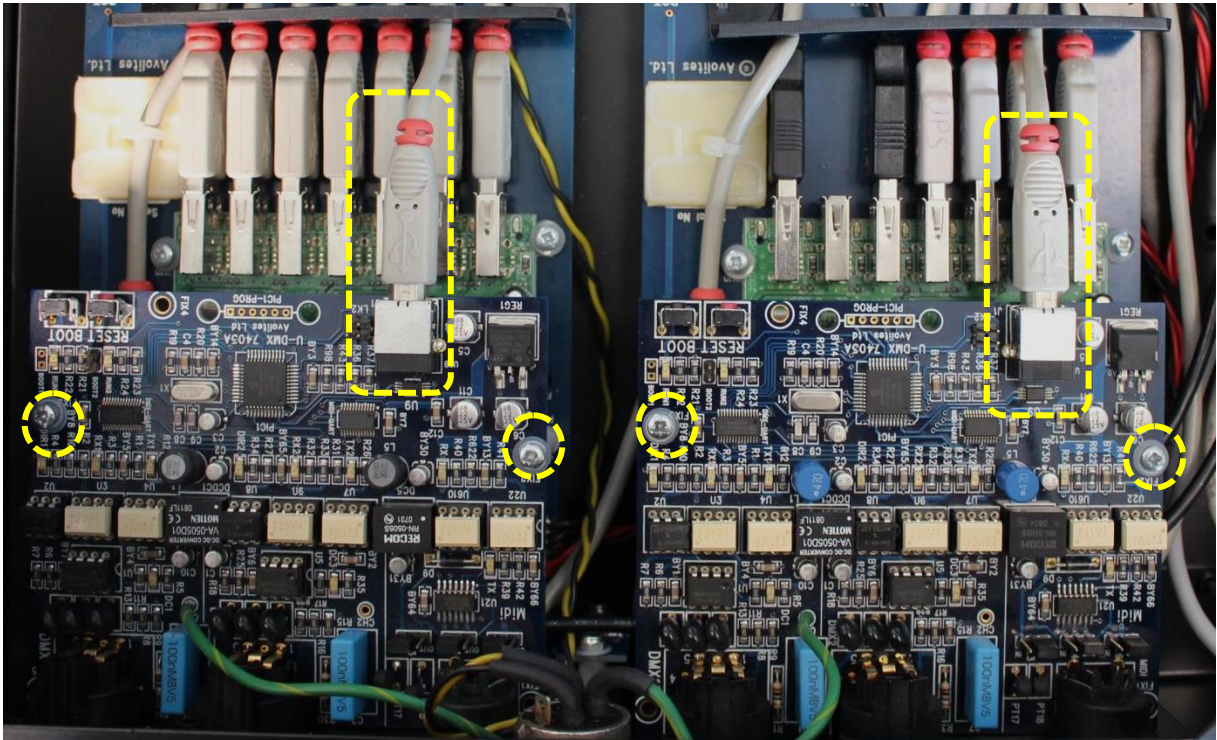
2.3   Continue the upgrade process *(for U-HUB and ST-HUB version)*

Screw back the two U-DMX boards

Plug back the two USB cables to the U-DMX board ports

Secure back the boards with the eight screws at the back of the console

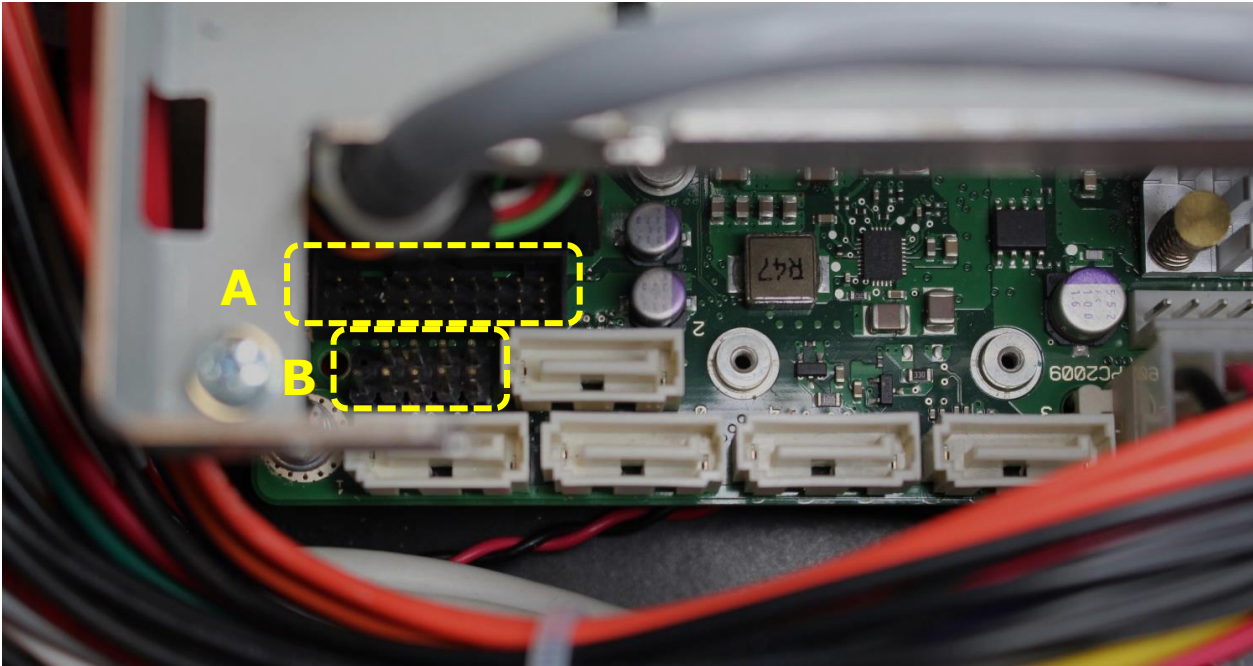Cable-tie looms to the cable-tie base

2.3.1   Motherboard double USB3 port

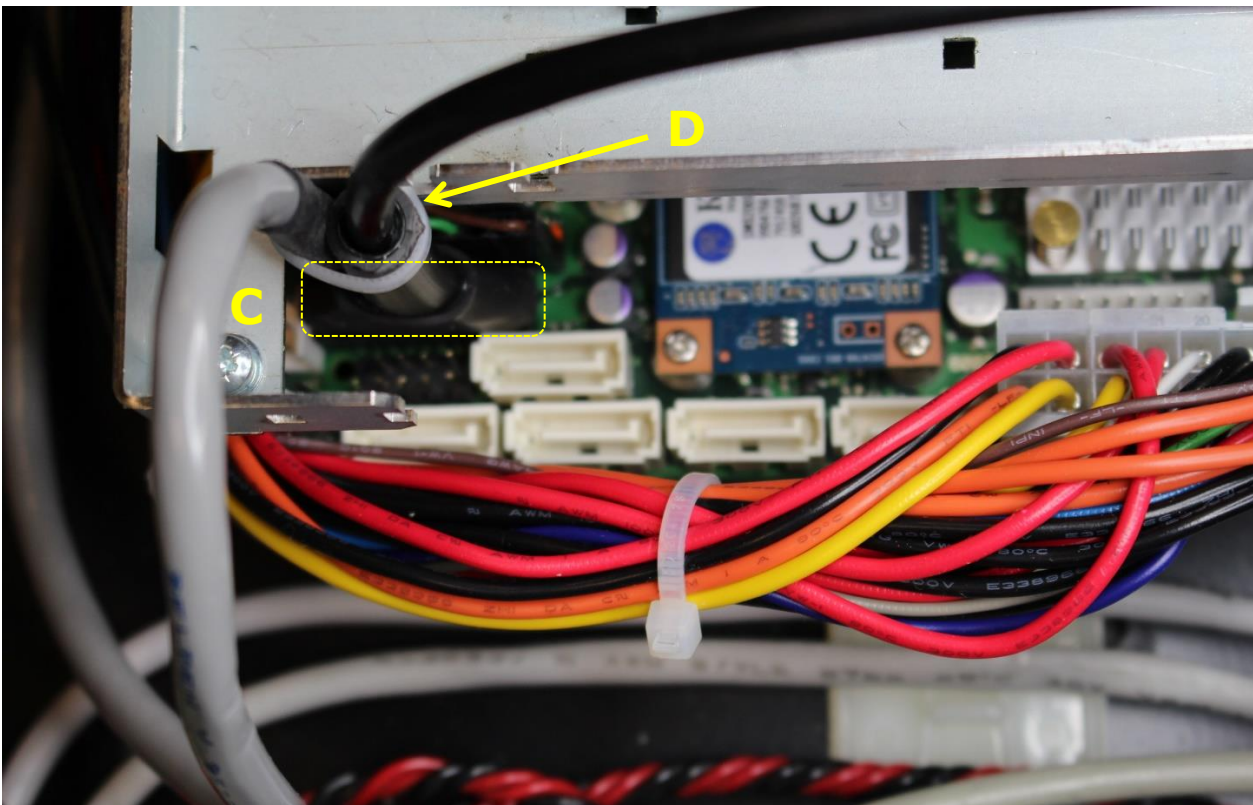*NOTE: Connect two cables will be connected to:*

> A- *20way 2xUSB3 port*
> B- *10way 2xUSB2 port*

C - Connect *20 Pin USB3 connector* to **2xUSB3** motherboard port

D - Secure the loom (with IO loom) to the safety frame with cable-tie as shown above (arrow)
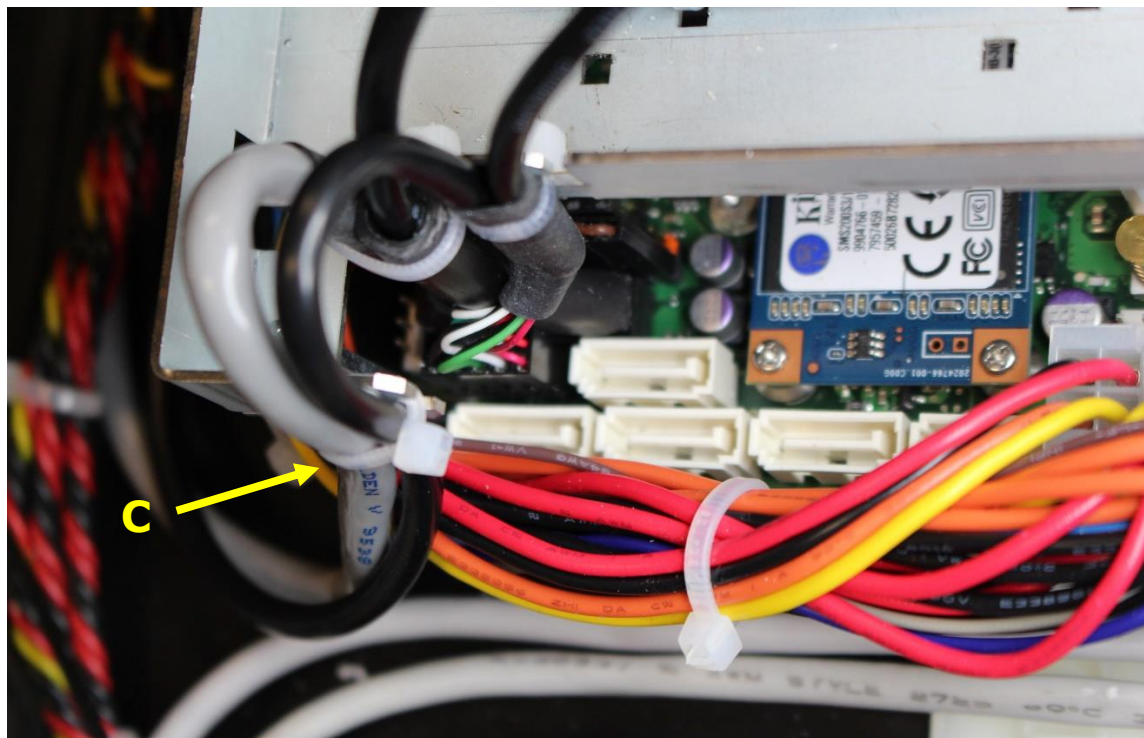
2.3.2   Motherboard double USB2 port

A - Insert *10way USB to Type B and U-HUB feed* (or *10way USB to Type B* in case the console has ST-HUB boards) *loom* to the **2xUSB2** port on motherboard with the red wires on towards the back of the console as shown

B – Cable-tie the loom to the safety frame as shown
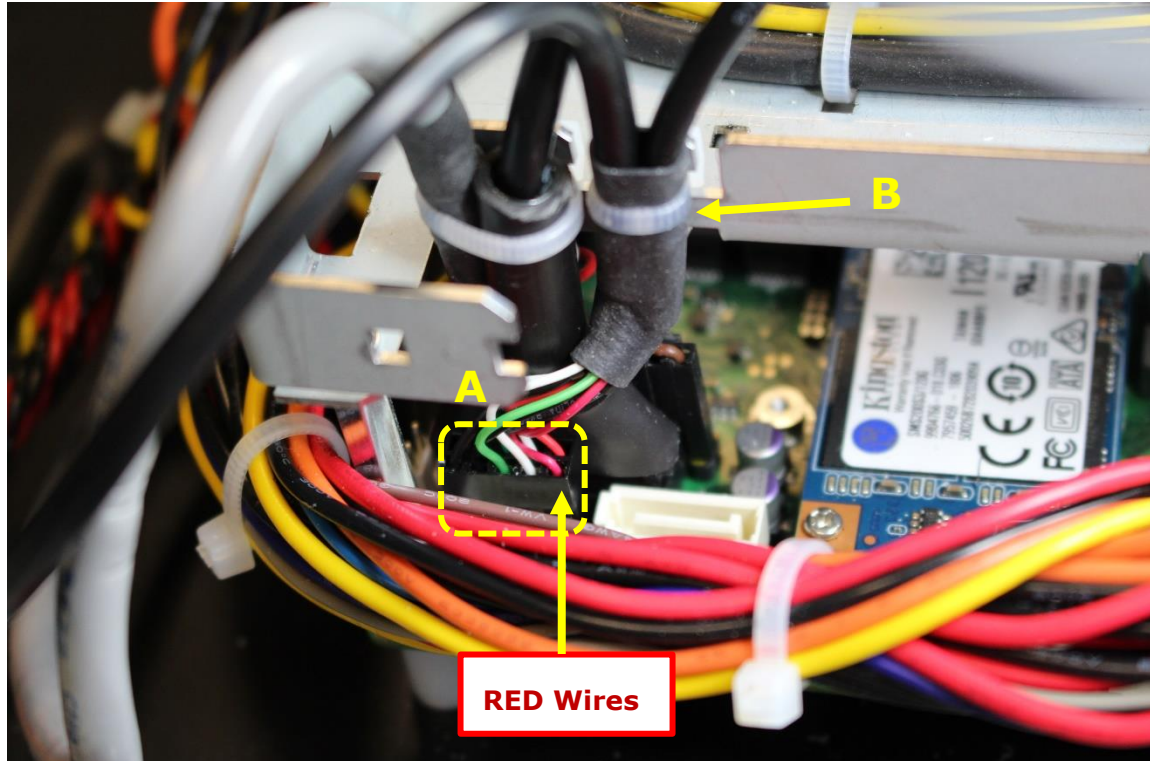
C -Cable-tie the IO loom and USB cable connected to the UPS board to the safety frame

D – Cable-tie the two HUB USB cables to safety frame
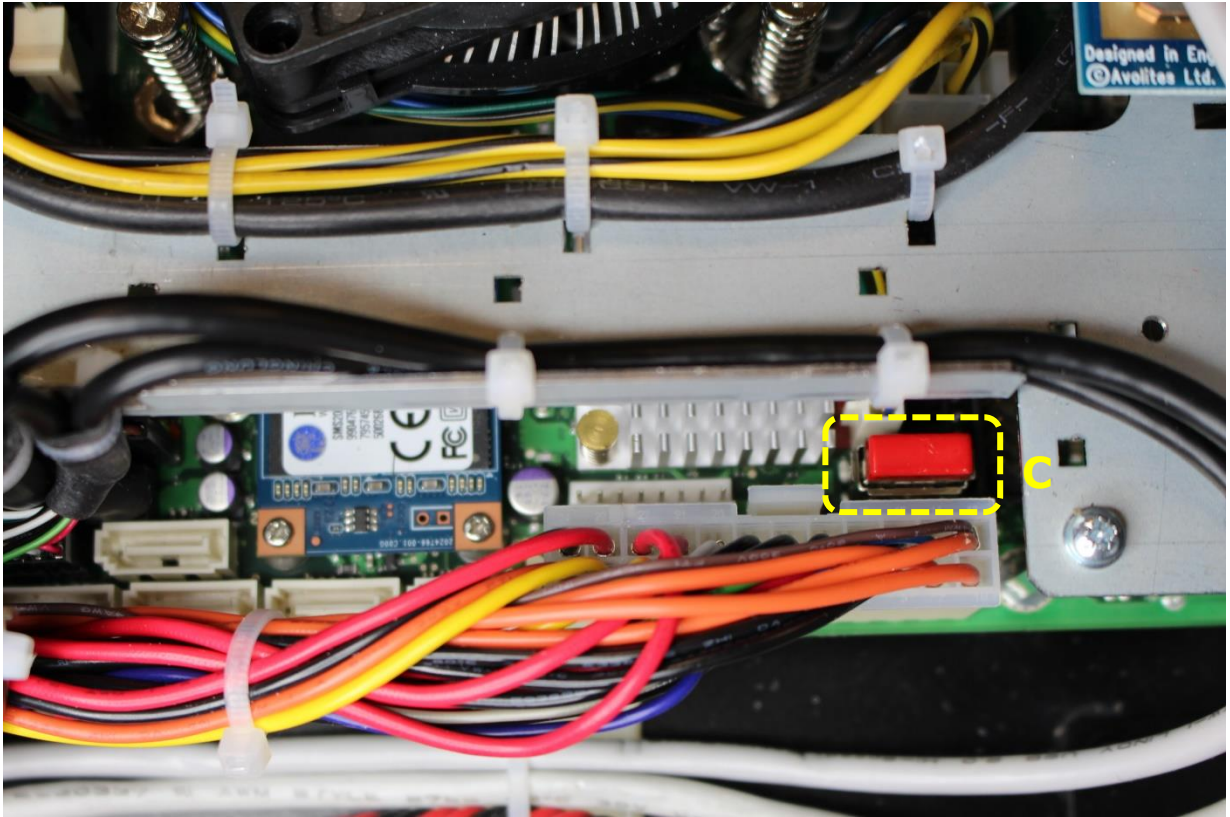

2.3.3 AVOKEY

A – Locate blue colour USB3.0 port on motherboard (near the ATX connector)

B – Cable-tie the cables at the bottom of the shell

C - Plug the AVOKEY stick into the located USB3.0 port

2.3.4   Close the Pearl Expert

Check that there are no loose parts inside the console then close the panel checking that no cable can obstruct the fan

Lower down the front panel then close the console by turning clockwise the four Dzus fasters 1/4

3.   Relicensing

You will now need to relicense your console. During the working week most licenses are returned within hours of the request, but if you are in special need of a fast licence turnaround you should contact TitanLicensing@avolites.com, or call +44 208 965 8522 between 9am and 5pm UK Time and we will endeavour to ensure you receive your licence in the shortest possible time.

4.   Letting us know

We care about our products, and therefore we want to know as much as we can about each console that we have made. This upgrade is major and we want to keep track of that. So email us the details as listed below so we can update our records.

Further if you have any comments about this document or procedure let us know as well so we can improve where needed.

Send the email to repairs@avolites.com

 Data to include:

- Console serial number
- client name if known
- your name or company name
- Date of upgrade