

# TECHNICAL NOTE

Date: 21<sup>st</sup> August 2025

ref 647

Raised by: RA

Distributed to: as required

Digico(UK) Ltd. unit 10 Silverglade Business Park Chessington Surrey KT9 2QL England  
Tel: +44 1372 845600 email: support@digiconsoles.com

---

## Fitting Fourier Interface Option Card

Quantum 852

### Preparation

**Important Note:** These instructions are a guide to fitting the Fourier Interface Option Card to this mixer. This option is normally supplied factory fitted and is not considered a user installed option. This note is for the use of factory approved technicians only. **The USB key included in the kit includes these installation instructions and the operation manual.**

Read the instructions carefully before starting and leave yourself time to perform the work.

You will need to have the following tools to hand:

- Pozi screwdriver no.1
- 5.5mm Socket driver for M3 Nuts
- 2.0 Hexagonal driver (Allen Key)
- Soft material (e.g. bubble wrap) for resting the engine

You should also have:

- A Fourier transfrom.engine or another Dante audio device for post installation testing.

### Ensure you have taken appropriate anti-static precautions.

The kit includes a disposable wrist strap and heel strap. Ensure you wear both. The wrist strap should be connected to the chassis of the engine whilst you work on it, in or out of the mixer. The heel strap ensures the skin of your leg is connected to the floor and not isolated by a rubber soled shoe.

Avoid working in areas with synthetic floor coverings or carpet, especially polypropylene material, as opposed to natural materials such as solid wood or wool. Ideally work at a proper workbench with ESD safe features, such as a metal frame. Before work, try to discharge yourself into a mains earth fitment, water pipe etc.

This is important as parts of the equipment are static sensitive and even if any damage is not immediately obvious, so called "latent damage" can occur, where a device may be partially degraded yet continue to perform its intended function. However, the operating life of the device may be reduced dramatically, leading to premature failure.

If you are unsure about any part of the procedure, seek advice before proceeding.

## Procedure

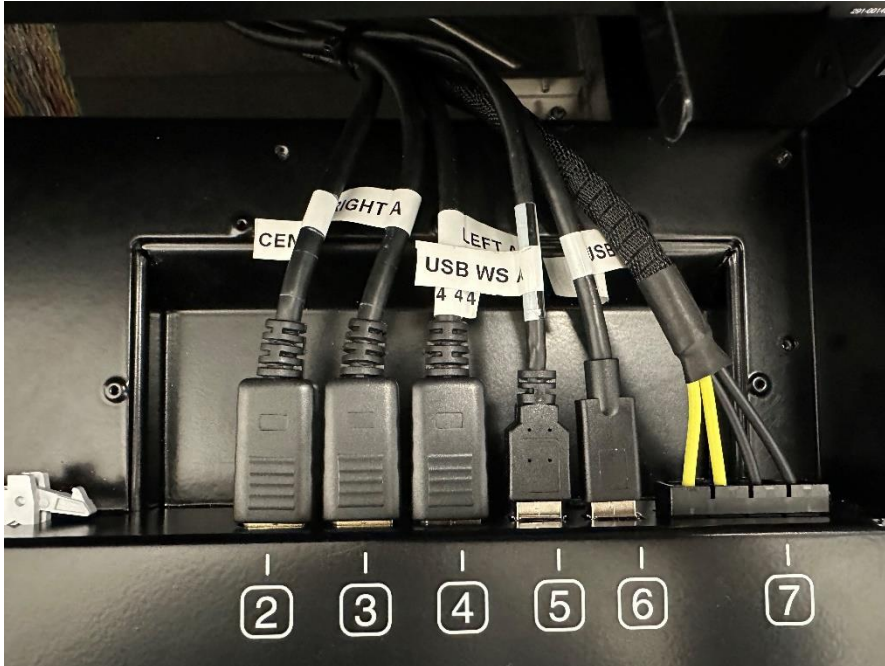
### Before you start:

Shut the mixer down, switch it off, and remove the power leads.

### Remove the Engine

Unscrew the 4 x thumbscrews to release the engine and pull out the engine gently.

Unplug connections paying attention to the connector locks under the connectors.



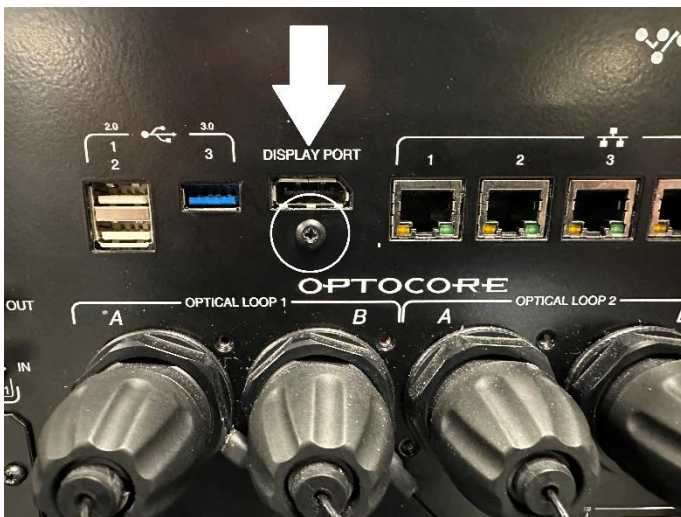
Place the engine on top of a clean and open area and remove all top panel screws (circled).



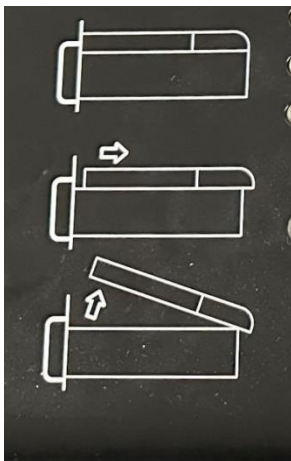
Remove both screws from each side of the engine (left & right).



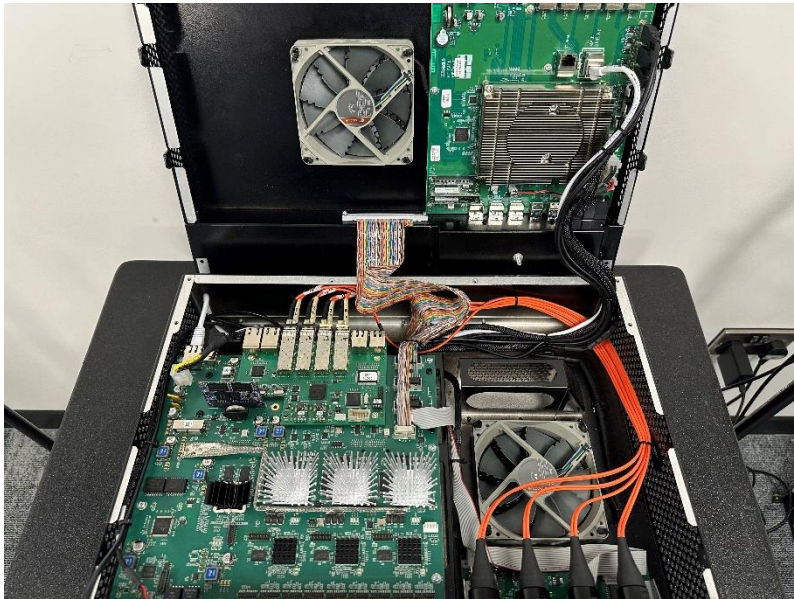
**Note:** In order to fully remove the top lid you also need to remove the screw on the front panel under the display port.



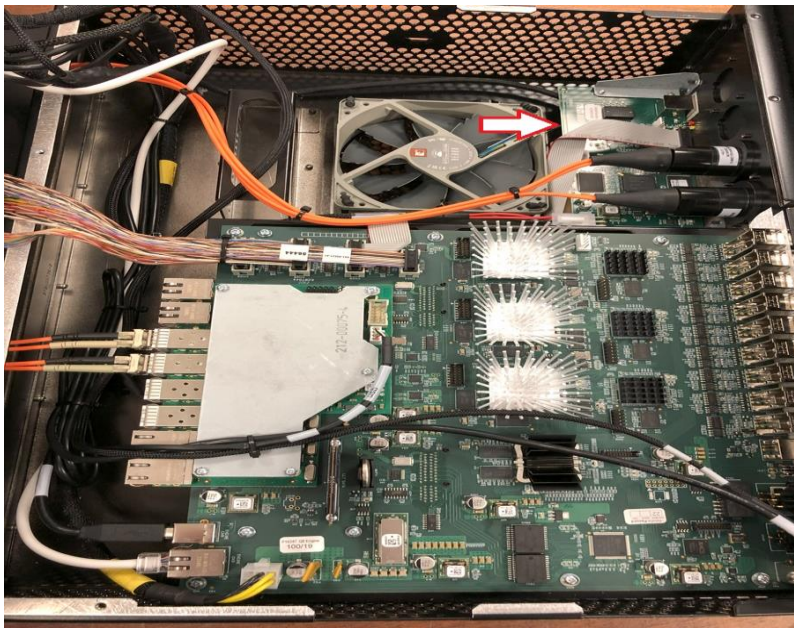
Now you can fully remove the top lid accordingly (please see below).



Lift the top cover carefully and rest it behind the engine without pulling or putting any tension to the internal cables to avoid any damage.



The image below shows the location where the Fourier module needs to be installed. It is located right below the optical connections, which also need to be removed.



**\*NOTE: To install the Fourier card, the Waves card needs to be removed\***

## Fourier Interface Option PCB Module

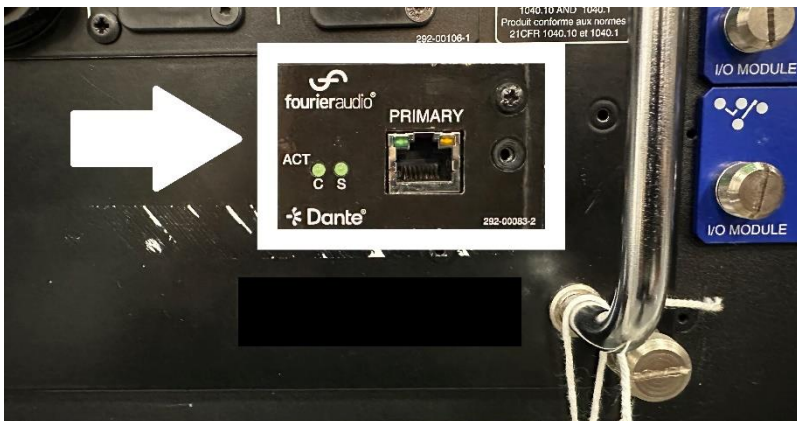
If optics are installed in loop 1, remove the optical connections and the blanking plate from the other loop so the new combined Optocore / Fourier plate can be installed.

If no optics are fitted, one blanking plate can be re-used after the installation of the new mounting plate to cover the openings for the connectors on loop 1.

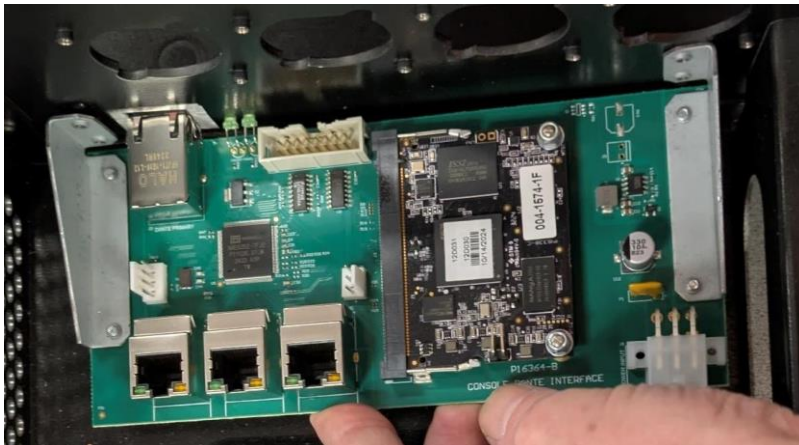
Remove the blanking plate fitted and the optics connection.



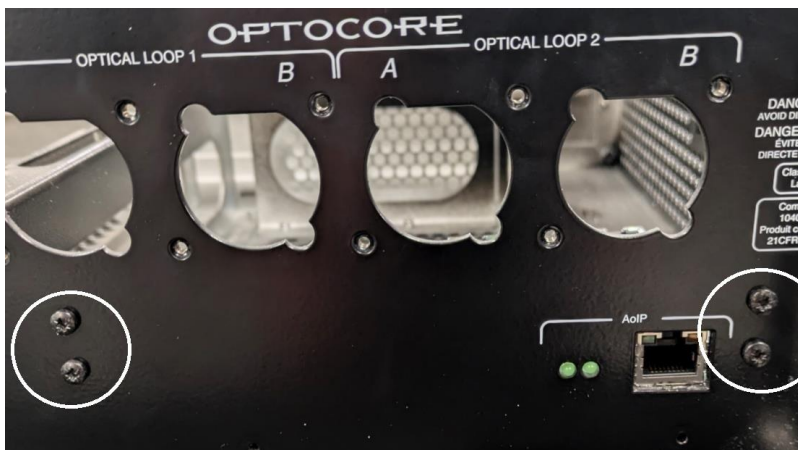
Before fitting the Fourier interface module, place the sticker provided with the kit (see picture below).



Fit the Fourier interface module under optic cut outs on Q852 engine chassis. Ensure the RJ45 socket and LEDs are pushed through the front panel of engine chassis.



Screw and secure the module from the front of the engine.



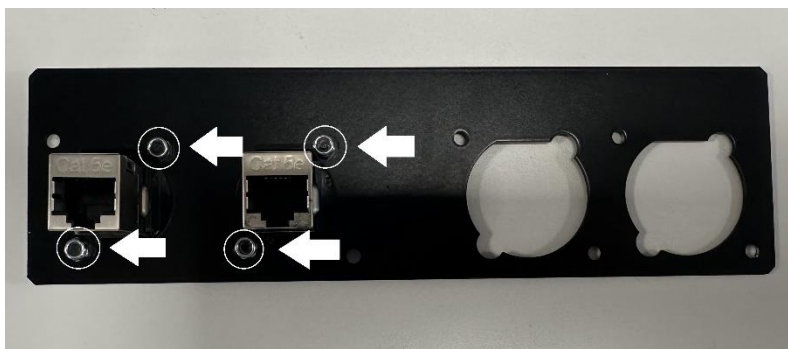
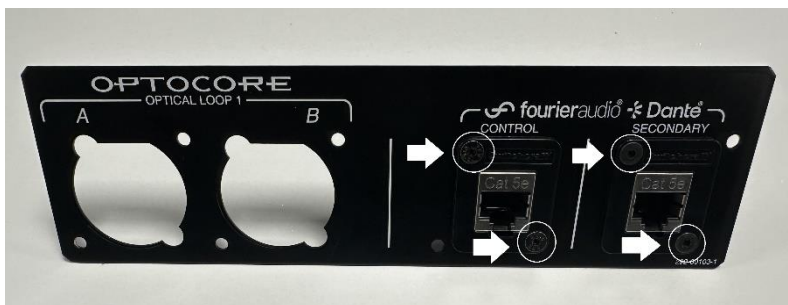
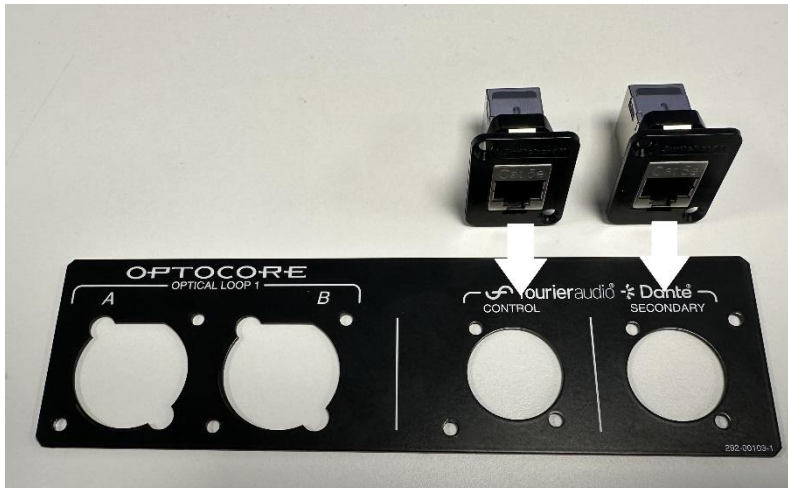
## FOURIER AUDIO MOUNTING PLATE INSTRUCTIONS

### Optocore / Fourier Mounting plate

The kit comes with a mounting plate which needs to be installed on the Optical loops section on the rear of the console. For engines fitted with a dual Optocore loop, the installation of this mounting plate can be omitted in order to keep the 2<sup>nd</sup> loop however, this prevents access to the Dante Secondary and Control ports.

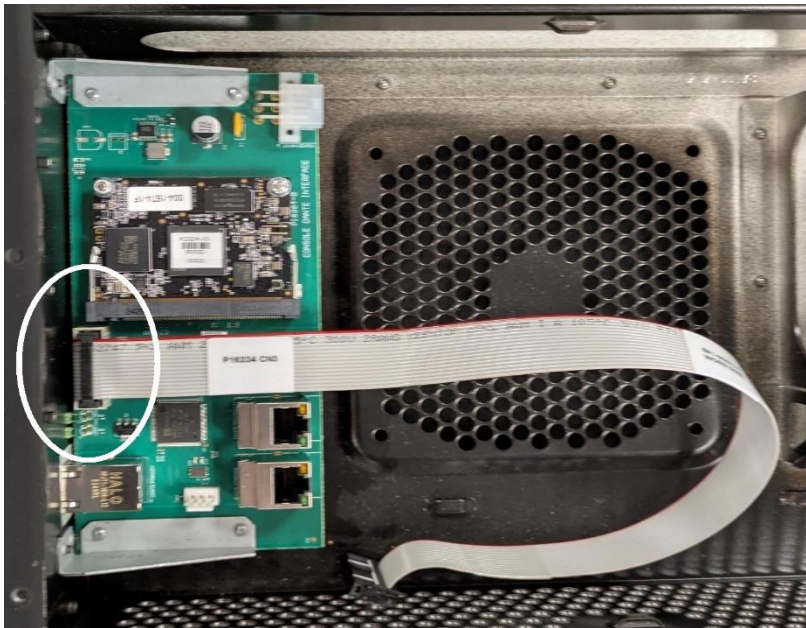


Fit the two Cat5 sockets into the plate with the M3 countersunk, hex socket screws and nuts provided.



## Fourier Interface Option Cables

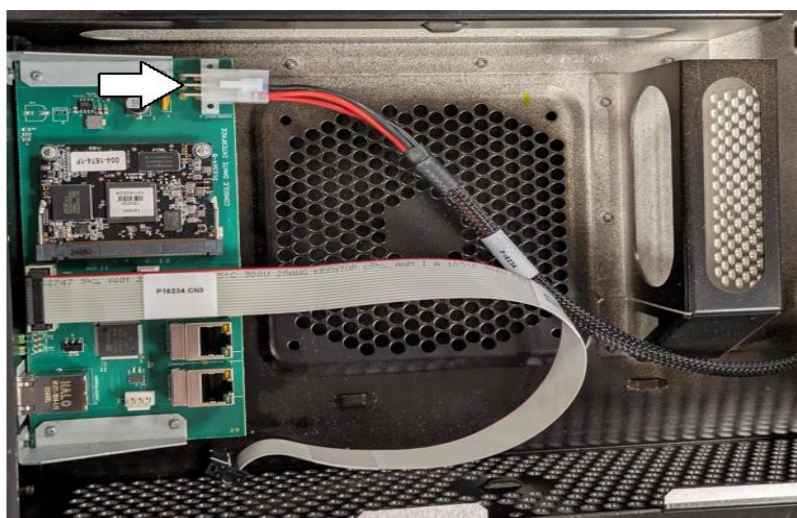
Fit the Ribbon Connector 681-00373 to the interface card.



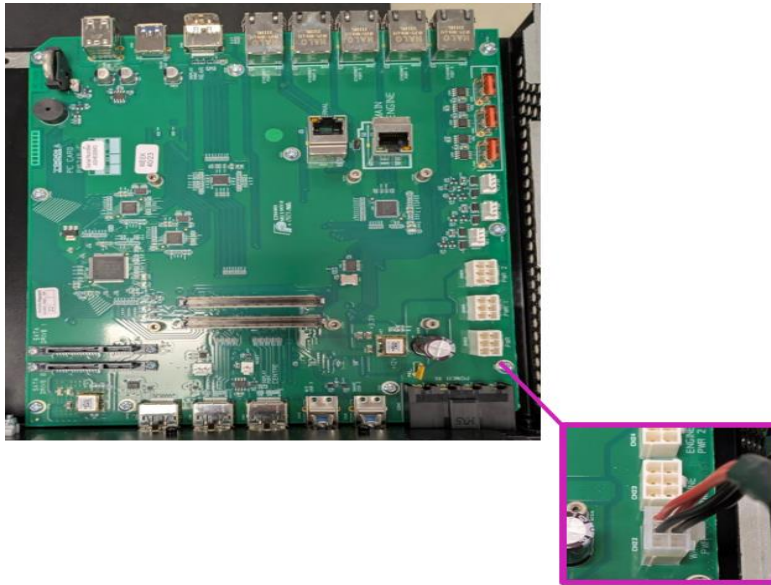
Connect the other end of the ribbon connector to CN25 port on the Engine Board.



Fit the power cable as shown.



Connect the other end of the power cable to CN22 on the main PC board.



Now the **Optocore / Fourier Mounting plate** with the Cat5 sockets previously assembled as per instructions on page 7 can be installed.

Secure the Adaptor plate to optic cut outs on Q8 Engine Chassis with 2 off screws.

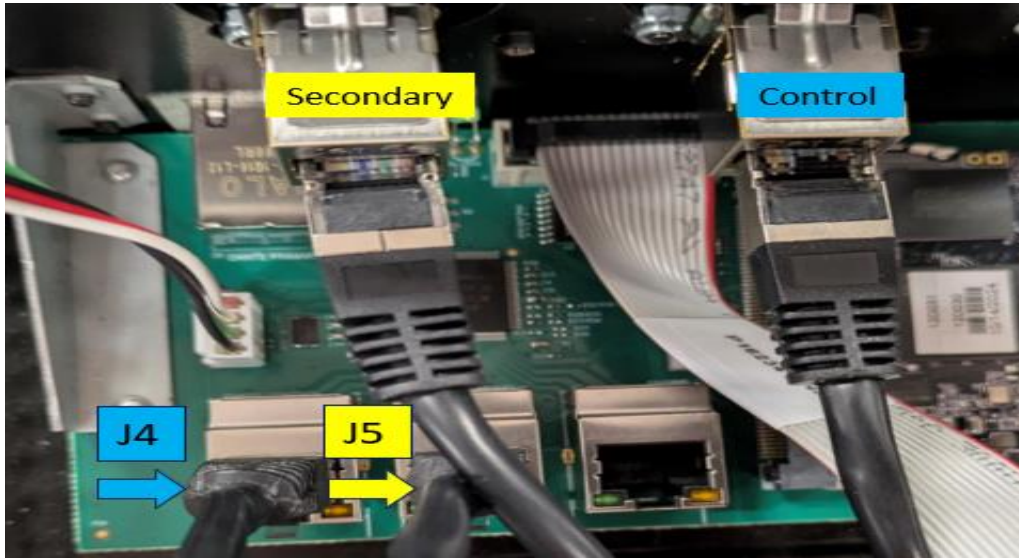


Fit the Cat5 cables to the each of the connectors.



\*NOTE: Make sure to connect the ethernet cable end to end accordingly\*

**CONTROL <-> CONTROL**  
**SECONDARY <-> SECONDARY**  
*J4 for control port and J5 for secondary.*



The option card hardware installation is now complete.

#### **Reassemble the engine**

Re-fit the optics connections from loop 1 previously removed for the installation, make sure everything is connected correctly and proceed to place the cover of the engine, install the engine back into the console and connect all corresponding cables.

#### **Test the mixer functions**

On completion of work connect the mixer to power and perform a functional test to confirm all screens and controls function correctly, prior to reseating the engine.

On completion of test, shut down and switch off power.

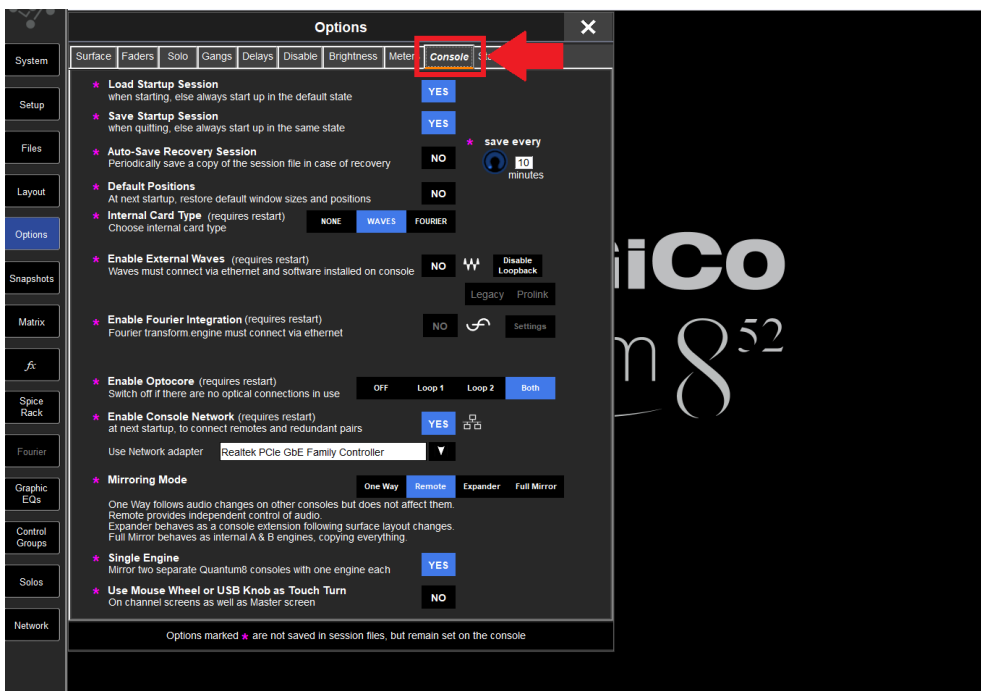
## SOFTWARE SETUP NOTES

To enable Fourier Card:

1. On main screen click on 'Options'.



2. Once Options window is open click and select on 'Console'.



3. Click on 'Fourier' to enable.



4. Close and restart the console.

#### Fourier Interface Card Specifications.

- The Fourier Interface Card provides 64 channels in and 64 channels out at 48kHz or 96kHz to the Dante network.
- The card does not feature Sample Rate Conversion so make sure that the console sample rate and the Dante sample rate of the card (set in Dante controller) match or it could end up with distortion/clipping/no audio.
- The Fourier Interface card cannot be used to control socket parameters (phantom power and gain) of DQ Racks or A168D/A164D Racks.
- When fitted to Quantum consoles, the user can Enable Sync to External in Dante controller for the Fourier Interface Card to get it to clock to the console. Alternatively, the console can be set to clock from the Fourier interface card in Setup\Audio Sync. This will result in the console following the Dante network for audio clock.