TECHNICAL NOTE

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SD10 CONSOLE
INSTALLATION OF WAVES ® OPTION

Important Note: These instructions are a guide to fitting the Waves option to an SD10. 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 install instructions and the operation manual.

Read the instructions carefully before starting, and leave yourself plenty of time to perform the upgrade
You will need to have the following tools to hand:
Pozi-screwdriver no1 stubby (lees that 40mm)
Pozi-screwdriver no2
2.0 and 5.0 mm Hexagonal drivers (Allen Key)
Wooden or other prop to hold worksurface open

Before proceeding, first check the version of software and processor hardware in use.
Confirm the version of software presently running on the mixer. See master screen when the mixer is running.
If the existing mixer system is V760 (or below) and it is not intended to purchase Core 2 be aware V760 does not support current versions of Waves and the option should NOT be fitted. Contact local support for advice.

Current mixer versions support Waves only on a separate external control computer. Legacy internal Waves operation using versions up to V929 only is no longer supported by either Digico or Waves.

Refer to the pictures on page 2. Is the engine PCB a P16001 or PA16200?
If fitted with a P16200, the engine normally does NOT require to be removed or moved forward in order to connect the Waves IO cable, which can be installed with the engine in place.

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

You should also have available:

1) Authorisations for Waves Multirack, Superack, Waves Studio or a PC driver for recording at least, as obtained from Waves (http://www.waveslive.com/html/soundgrid-for-digico.aspx) This will be required to use the installation.
2) To fully test Waves functionality, you will also require a compatible PC to run the Waves software required, also usually a Soundgrid Server, a Waves approved 1GB Network switch and 3 CAT5e/CAT6 network cables. Details of approved switches and appropriate Cables can be found at http://www.waveslive.com/html/soundgrid-switches.aspx

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.

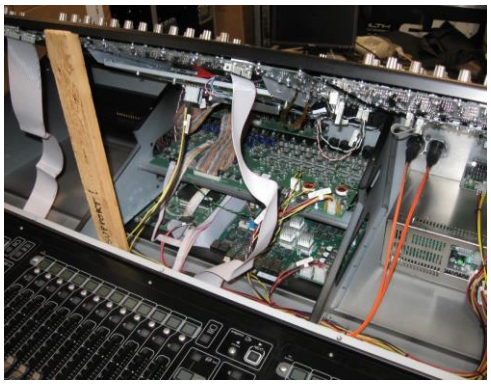
This is important as parts of this kit are static sensitive and even if any damage is not immediately obvious, so called “latent damage” can occur, where a device may be partially degraded yet continue to perform its intended function. However, the operating life of the device may be reduced dramatically,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

Before you start:
Shut the SD10 down, switch off, and remove power leads.
Remove all connections [MADI, MIDI, Audio, Keyboard and Mouse, VGA etc]

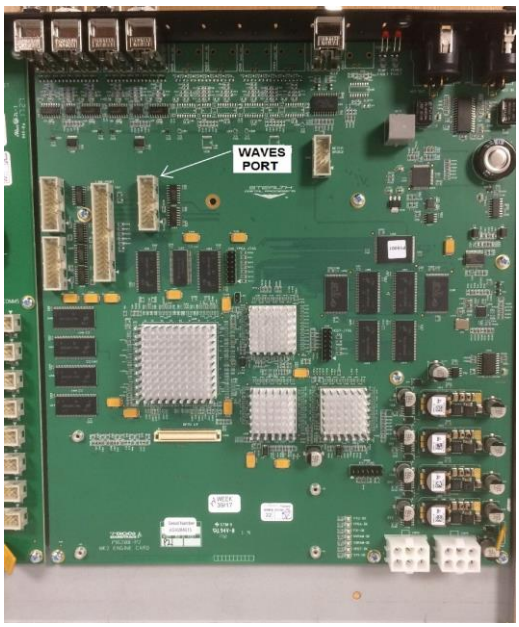
Remove end cheeks. 3 x socket screws each end. Use 5.0 mm hex driver

Remove the 12 socket screws around the Upper Panel (LCD Screen Panel). Use 2.0 mm hex driver

Lift the Panel and prop this securely

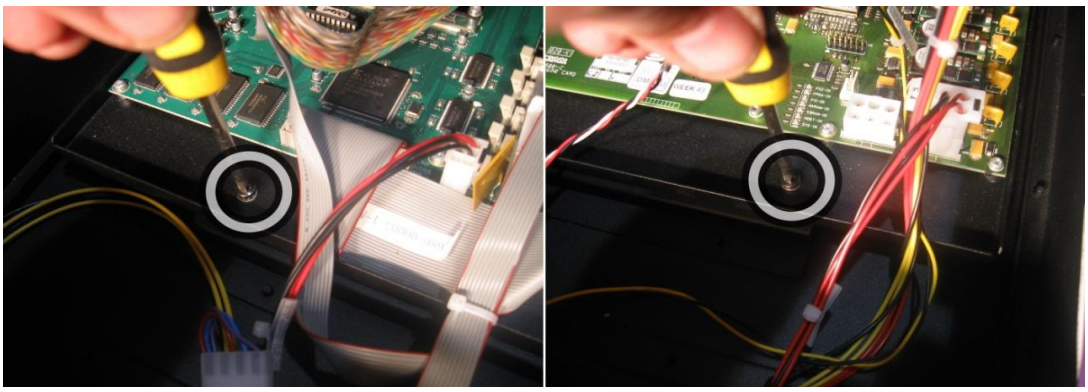


Note: The Waves interface connector is not required for (and cannot be fitted to) mixers shipped after November 2017. These have a P16200 processor PCB with the waves interface connector built in.

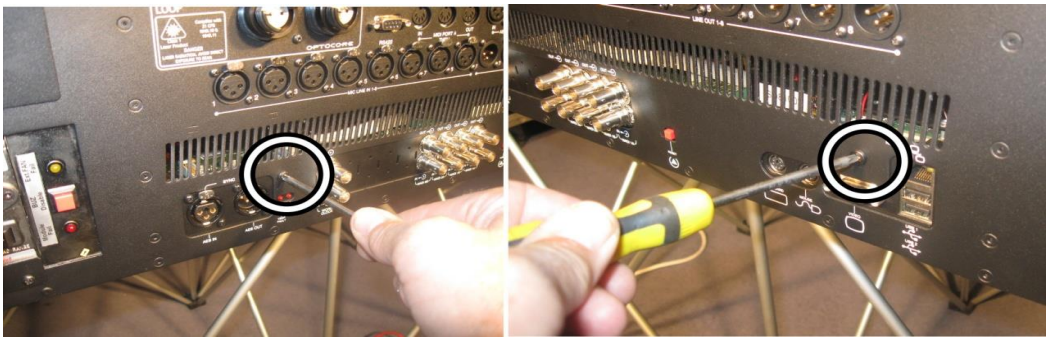


For earlier mixers refer to notes following about moving the engine tray and fitting the Waves connector PCB.

If required to move the engine tray, locate the two M4 screws on the internal processor tray, and remove. These screws are located at the front of the Engine / PC Tray, one each side

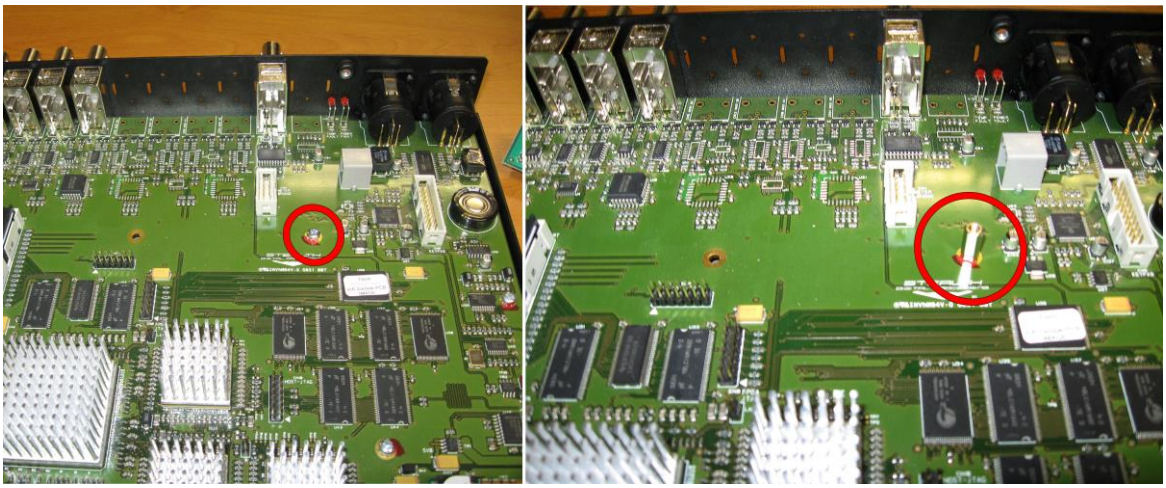


Locate the two M4 screws on the rear of the Console that secure the processor tray. These are located just above the engine connections, one each side.

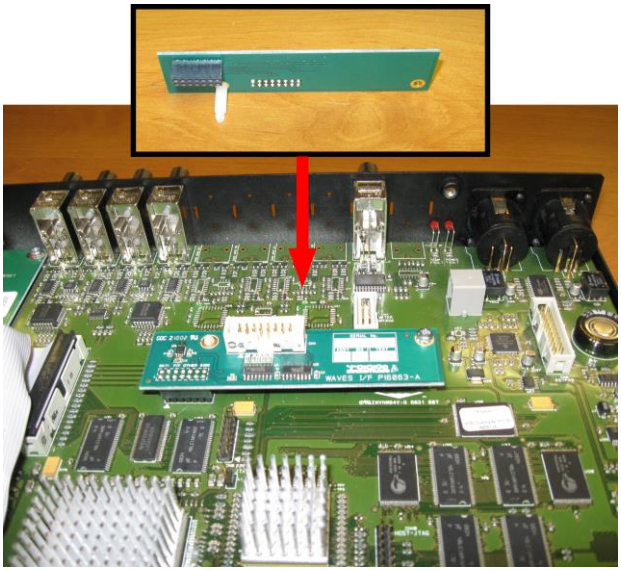


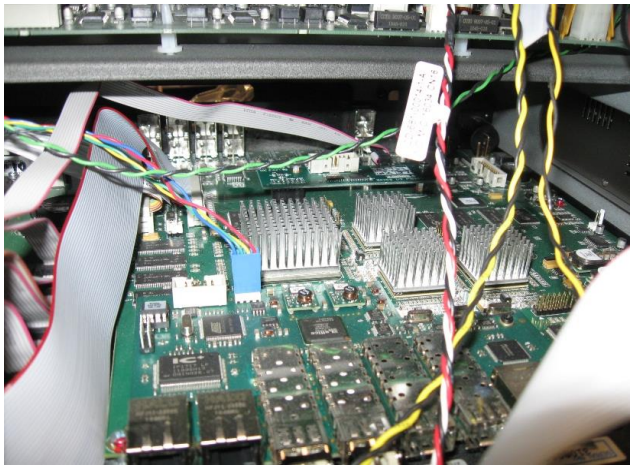
The Engine tray can now be released from the console frame, and moved forward **without** disconnecting all cables to make the PCB's more accessible.

Remove the screw indicated and replace with the threaded pillar supplied in the kit. (The engine is shown here removed from the mixer for clarity.)



Fit the nylon mounting post to the Waves interface PCB and then fit the PCB to the mating pin header on the FPGA board and secure to the threaded pillar using the M3x6 poz pan zinc sp screw provided.

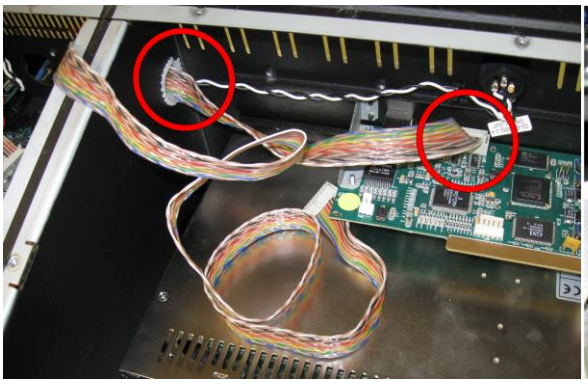


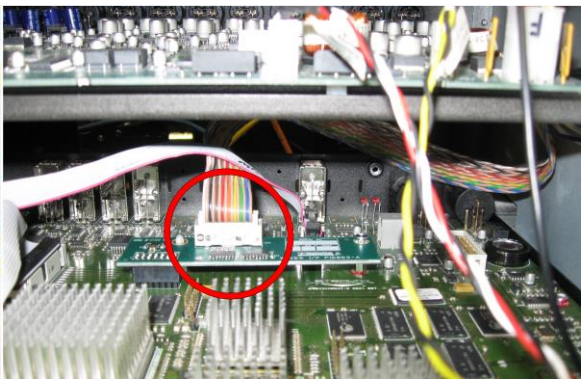


The picture of the right show the card as installed in the SD10 with the engine PCB draw forwarded but not entirely removed.

Remove the blanking plate fitted above the console power supplies on the rear of the console. Note the screws go into nuts on the inside of the console. Fit the Waves module, re-using the bolts from the blank.

Connect the multi colored ribbon cable to the Waves PCB; thread it through the hole as shown in the picture.





Connect this to the Waves interface PCB (as shown here)
or direct to the Waves port on the engine tray (see page 2).

Fit the spare power connector loom supplied tied back adjacent (left picture), to the Waves board (right picture)

Re-install the engine tray into the console.
Check no cables are caught / snagged.
Continue to re assemble the console and replace the surface panel and end cheeks.

You can now power the console back on .

SOFTWARE SETUP NOTES

Enable Waves in the Console options page and restart.

The Waves IO port will appear as an option and can be added in the audio IO page.
The option will also activate external Waves control integration features allowing the Waves system to synchronize features such as snapshot firing and the session load and save, via Ethernet.

Connect both the Waves port and the console network port to the Waves compatible network switch.

Ensure the Waves computer is on the current version compatible with the mixer version installed on the mixer. Refer to your Waves Central account to download and install this, following instructions included from Waves.

The Waves port will appear as “Digico IO” in the Waves inventory. Refer to Waves instructions for the relevant Waves software for operation of the integration features.

If required the PC waves audio only driver can be downloaded from Wave Central once an account has been created. This can be created at no initial cost by using the serial number on the Waves licence card included in the kit.

For all further information on the operation of the Waves software please refer to Waves Support