

Smart Console™
Elite series
Installation Guide

For

Smart Console™ E72



Index

Before you start opening boxes - Preparation	3
Furniture specification	3
Unpacking	5
Initial Assembly	5
Initial Connections	6
Physical Configuration Guide	7
Powering Up	9
Plate 1: Module bays	7
Plate 2: Rear of rack showing connection points	10
Plate 3: Rear left of console showing connection points	11
Plate 4: Rear of console showing Video connection points	11
Plate 4: E72 mounting points	12
Plate 6: Example angle bracket	12
Plate 7: E72 dimensions	13
Plate 8: Further E72 dimensions	14
Plate 9: Inserting modules	15
Plate 10: Inserting modules 2	16
	16

Congratulations! You have just purchased the world's most ergonomically advanced console. Your *E72 Smart Console™* should provide you with many years of trouble free operation, however it is important for you to properly install and configure your console prior to operation.

This document contains instructions for assembly, connection and configuration of your *E72 Smart Console™*. If you experience any problems or need any assistance please contact your local distributor first or you can contact *SmartAV* technical support in Australia via telephone on: +61 2 9648 6744 or via email on support@smartav.net

Before you start opening boxes - Preparation

Let us go through what is needed before installation can be completed.

All the Elite series *Smart Consoles™* are comprised of two parts: a control surface (also referred to as 'the console') and a rack-mounted computer. A series of cables connect these to each other. Ideally the rack-mounted computer will be located in your machine room and four units of rack space should be allocated to it. From there, a second Ethernet connection is required from the rack-mounted computer to your mix engine or to the local area network (LAN) your mix engine is connected to.

Both the control surface and the rack-mounted computer will require mains power. It will also be necessary to have a few helpers around for lifting, moving and positioning the control surface part, as it is too large to be lifted by one person. Please observe all safety and lifting precautions to prevent injuries.

Furniture specification:

The *Smart Console™* Elite 72 (or E48) is designed to be dropped into a correctly prepared unit of studio furniture. Refer to Plates 7 and 8 that detail the dimensions of the cut-out required in your studio furniture. For stability, it is recommended that the furniture feature a cross-beam below the console connecting the left and right supporting legs.

The console itself is supported by three M6 screws which fit into mounting holes on each side of the console. Refer to Plate 5.

The most desirable method of mounting is to attach an steel angle bracket of the appropriate size via these mounting holes. This angle bracket is then mounted either to the furniture itself or to a sub-frame within the furniture so that the top surface of the furniture is flush with the top of the console surface. Refer to Plate 6 for an

example of this type of construction method. In this case you may use the m6 screws provided. In this case you **MUST** ensure that at least 15mm of the thread of each m6 screw is entirely within the console when fully mounted.

Alternatively the console may be attached to the furniture directly by passing screws or bolts through the furniture into the console's mounting holes. In this case you must source your own screws and you **MUST** ensure that at least 15mm (and no more than 25mm) of the thread of each m6screw is entirely within the console when fully mounted.

The console furniture should be rigid and should not rely on the console for its structural integrity.

Note also that there will need to be sufficient clearance at the back of the console to allow the rear bolster to be opened so that modules may be added and removed. The clearance must also allow room for rear connecting cables and ventilation. See Plates 7 and 8 for exact measurements.

In the unlikely event of needing to service your console, you may also need to remove the access panel in the rear of the console. This rear panel is held in place with 10 screws that can be removed with a normal Phillips head screwdriver. Please keep this in mind when designing your furniture.

Unpacking

The following items should be included in your shipment:

- The control surface (unpopulated – that is without modules)
- Various modules depending on the particular console configuration ordered
- The rack computer
- The *Arc™ Scribble Strip scanner*
- A marker pen for the *Scribble Strip*
- An optional monitor arm
- Two power cables
- One five-metre network cable
- One shorter cross-over network cable
- One five-metre VGA cable
- One five-metre RCA cable
- Manuals
- Pre-installed Software (including backup disks of the Microsoft Windows XP install disk, *SmartAV* install disk, and a drivers disk)

Initial Assembly

Firstly position the control surface in your studio furniture. Once the console has been carefully lowered into the correctly sized space in your studio furniture, attach the console using the three m6 screws on either side of the console. These screws should pass through a weight bearing part of the furniture.

Next, ensure nothing inside the rack PC has been shaken loose by the vibration that occurred during transit. To do this open the lid and check the seating of the PCI and AGP cards, the RAM chips and the IDE cabling to the motherboard utilising all the appropriate anti-static precautions.

Once you have done this reattach the lid and secure the rack computer into suitable rack mountings in your machine room, ensuring there is adequate space for ventilation and cooling.

Carefully unpack the modules, but at this stage resist the temptation to fit any of them into the console.

Initial Connections

Now that the control surface is securely positioned and the rack-mounted computer is bolted into location it is time to start connecting the various cables.

Begin with the mains power for each unit. The IEC socket is located on the left-hand side of the back of the control surface if you are facing the back of the unit. Refer to Pointer A on Plate 3. The rack PC is connected to mains power using the socket indicated by Pointer B in Plate 2.

ENSURE MAINS POWER IS SWITCHED OFF AT THE SOCKET BEFORE CONNECTING

Next connect the supplied five-metre network cable to the socket on the Rack PC marked by Pointer F in Plate 2. The other end should be connected to the rear of the control surface (see Pointer D in Plate 4). Note there are two network sockets on the rack and it is important to connect the correct one to the control surface.

If the supplied network cable is not long enough then ensure the cable used is a Category 5 twisted-pair Ethernet cable suitable for 100 MB data speeds. It is important that the console and the rack must be directly connected with a straight-through type network cable and not connected via a LAN.

Now connect an Ethernet cable from the remaining network socket on the rack (see Pointer C on Plate 2) to your mix engine or to your LAN where your mix engine is also connected. If you connect directly between the rack and your mix engine you will need to use the supplied crossover cable. A straight-through network cable should be used if connecting the console to a LAN.

If your console includes a *Scribble Strip Scanner*, position the *Scanner* on the *Arc™*. The *Scanner* has two spring-loaded wheels at the bottom and one at the top. Position the bottom wheels against the black strip running along the lower edge of the *Arc™* and gently push the *Scanner* upwards while tilting the top of the *Scanner* firmly downwards onto the *Arc™*. When the top wheel is aligned with the black strip on the upper edge of the *Arc™* there will be a click and the *Scanner* is now in place. Connect the cable emerging from the *Scanner* to the console – the socket for this is at the opposite end of the console to the power connection (see Pointer A in Plate 4).

If your console includes a *Scribble Strip Scanner* there will be an RCA cable supplied that needs to be connected between the console and the rack. Connect one end of this RCA cable to the RCA socket on the rear of the console (see Pointer B in Plate 4). Connect the other end of the RCA cable to the RCA socket marked 'AV' on the back of your rack. Pointer E in Plate 2 indicates this socket.

Now run the VGA cable from the VGA port on the control surface (indicated by Pointer C on Plate 4) to the VGA input on the back of rack (indicated by Pointer D on Plate 2).

Physical Configuration Guide

It is now time to start populating the console with the modules. However, let us first look at the different types of modules and note the various legal positions they may occupy in the console. With the exception of *EQ* and *Fader* modules, modules can be identified by the name printed on the top-left or bottom-left corner.

Running horizontally through the middle of the chassis of every *Smart Console™ Elite* is a series of VFD display modules (also referred to as 'Fader displays' in Smart Console user documentation) that separate the console into top and bottom halves. Modules that are designed for the top half can never be positioned in the bottom half and similarly modules for the lower part can never be fitted into the upper section. Upper modules can be identified by their different profile and the fact that they are longer than the lower modules.

All modules used with the *Smart Console™ Elite* are designed to fit vertically aligned with either a VFD section with a display or a VFD section without a display, depending on their function. For example, a *Fader* module can only be fitted below a display section but not below a non-display section.

Every E72 has sixteen module bays, eight above the VFD modules and six below.

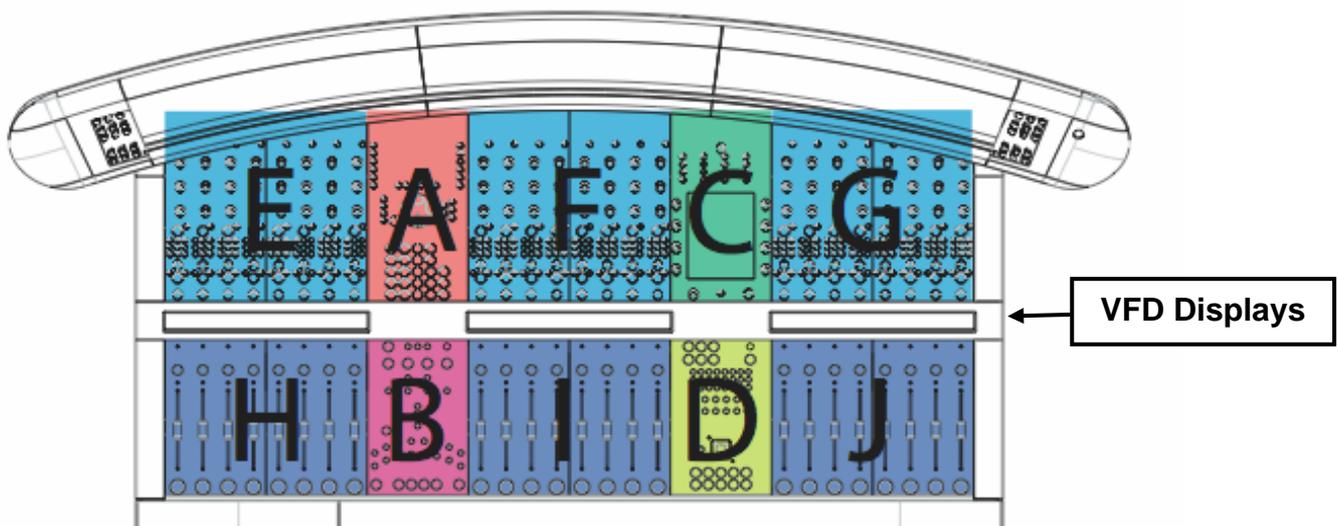


Plate 1: Module bays

Every console must have a *Monitor Panel* and an *Expert Panel* fitted as a pair either in sections A and B or in sections C and D respectively as shown above. Every console must also have an *Upper Active Panel* and a *Lower Active Panel* also fitted as a pair in the remaining bays out of the A/B and C/D pairs.

Generally the upper and lower *Active Panels* are fitted to bays C and D, however some users, such as left-handed engineers, may prefer them fitted in A and B. They can of course be changed at will due to the hot-swappable nature of the console.

Now let us turn our attention to the bays denoted by E, F, G, H, I and J in the above diagram. Two modules fit in the bays represented by each letter. The bays E, F and G can either house a pair of *EQ/AUX* Modules or a double width module such as the upper part of the *Post Panel* Module or a pair of blanking panels if this bay is unused. *EQ/AUX* Modules and blanking panels can be mixed.

The bays H, I and J can either house a pair of blanking or *Fader* Modules or a double width module such as the lower part of the *Post Panel* Module. The *Post Panel* Module is an optional extra and not necessary for the operation of a console. It is possible to fit a lower *Post Panel* Module without the upper module or vice versa.

Similarly, the *Fader* Modules would ideally be fitted with *EQ/AUX* Modules directly above them but the console will operate correctly if this is not the case. Note that modules designed for bays A and C will not fit in bays E, F and G and vice versa. Modules designed for bays B and D cannot be fitted in bays H, I and J.

Now it is time to begin populating the console with the modules. Insert the modules one at a time, making sure to observe the legal positioning rules described above.

The technique for inserting a module is as follows:

Open the rear and front bolsters by grasping the ends of them and lifting them upwards so they unlatch thus allowing them to swivel downwards and away from the body of the console.

Each module has a handle-end and a connector-end. Position the module in the bay so the connector-end slides in first while the handle-end is still raised slightly (see Plate 9). Next lower the handle-end of the module so it is flush with the base of the bay and, while keeping downward pressure on the connector-end, push the module into place with the handle (see Plate 10). The modules will only click into place if the switch under the handles is lifted. Once the module is seated make sure the switch is pushed back down to ensure it is secured. Removing the modules is the reverse procedure - lift the switch first before pulling out the module.

In the case that the console is not fully populated please install blanking-panels that have been provided to complete the surface.

Powering Up

The correct order for powering up the parts of your *Smart Console™* for the first time is as follows:

First, switch on the rack PC using the switch indicated by Pointer A in Plate 2. Then power on the console via the switch indicated in Plate 3 by Pointer B. On the right-hand end of the *Arc™* press the silver start button. Each module correctly installed in the console should shortly begin to flash the Light Emitting Diode (or LED) in the upper left corner. The *Arc™* should also flash the top-left-most LED (not including meters) in both segments. If any modules do not flash their top-left-most LED then re-seat them in the chassis of the console.

Next, the rack PC will automatically boot. Assuming all connections have been made correctly then the control surface will go into its default state where all the top-left-most LEDs will cease flashing. The screen on the Upper *Active Panel* should also illuminate.

Congratulations! You are now ready to configure your mix engine to operate with the *Smart Console™*. Please refer to the Engine Configuration Guide(s) relevant to your audio engine(s) for further instructions.



Plate 2: Rear of rack showing connection points.

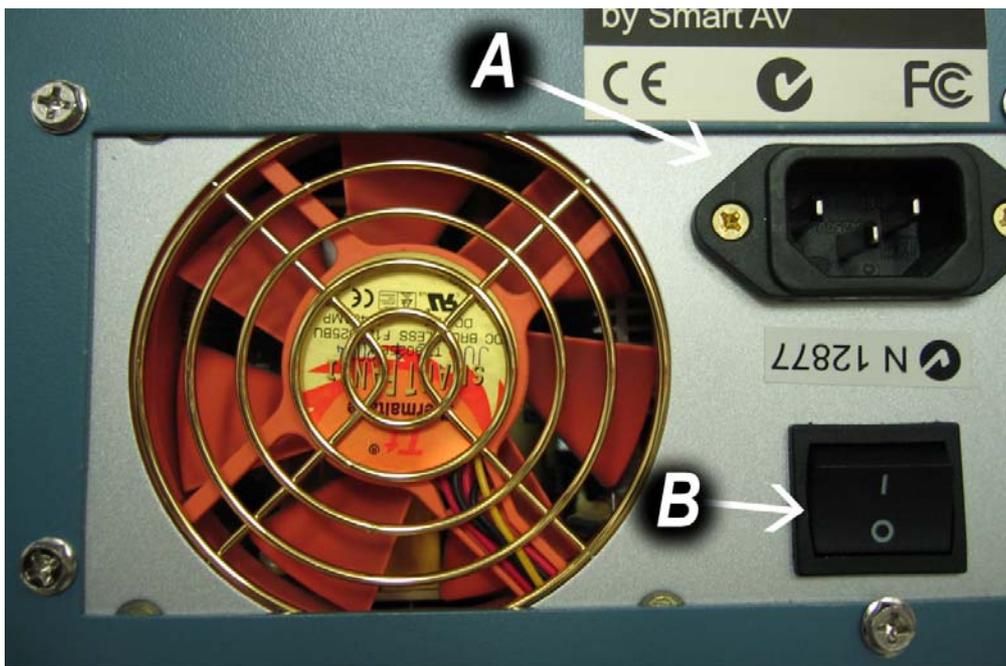


Plate 3: Rear left of E72 console showing connection points.

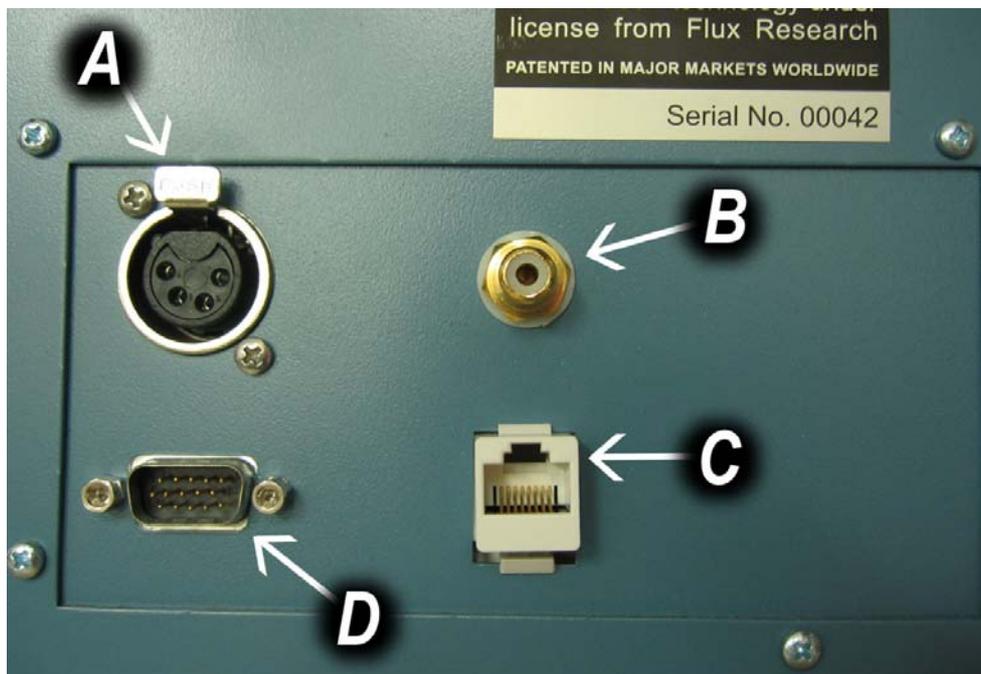


Plate 4: Rear of E72 console showing *Scribble Strip™ Scanner* connector (A), the RCA cable connector (B), the Ethernet cable connector (C), and the SVGA connector (D).

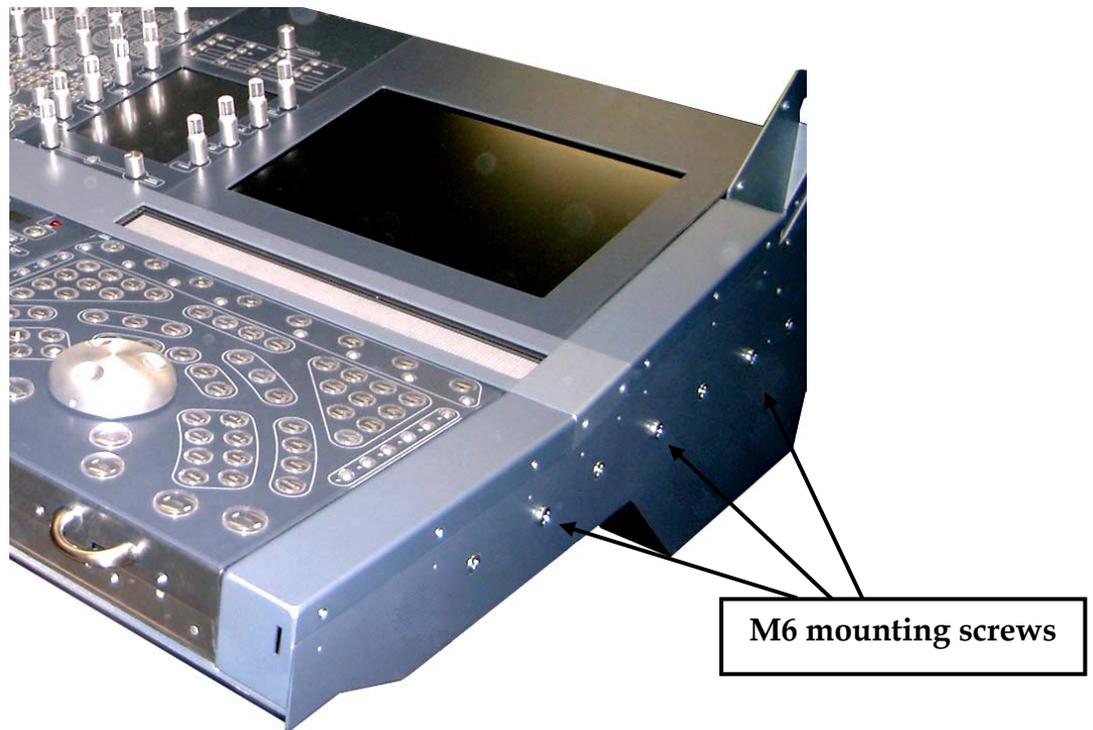


Plate 5: E72 mounting points.



Plate 6: An example of the suggested angle bracket mounting procedure.

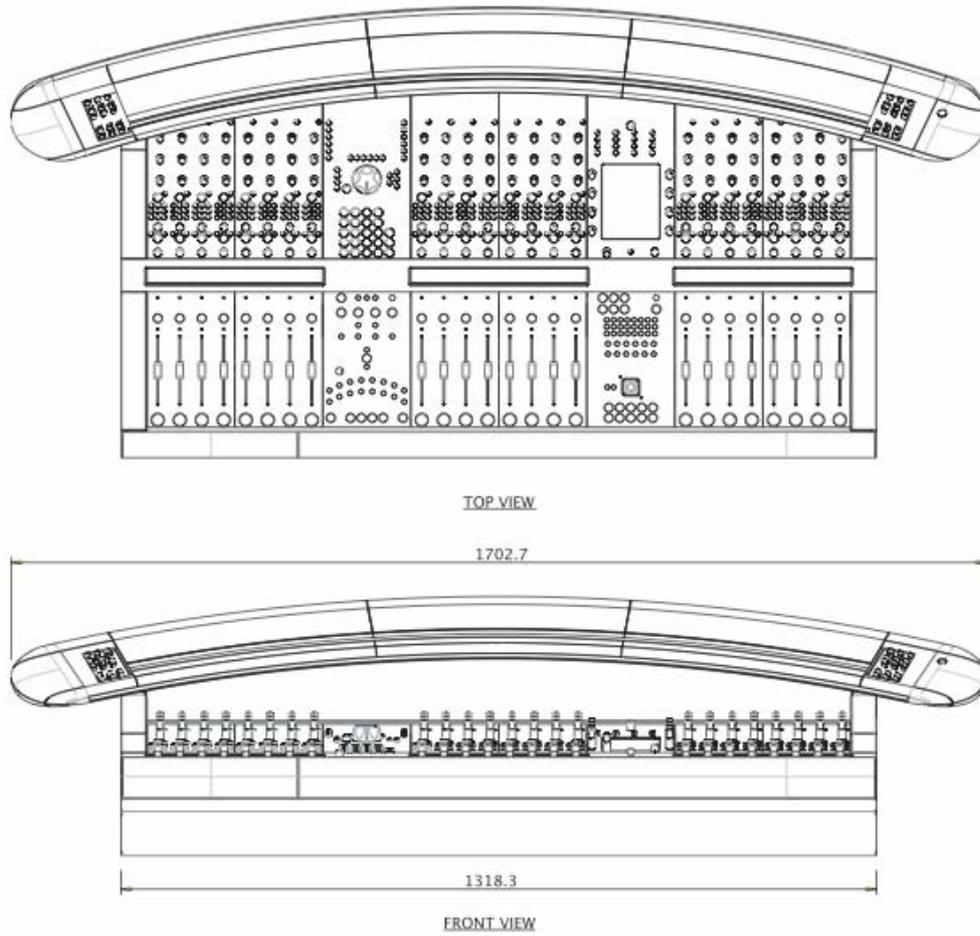


Plate 7: E72 dimensions.

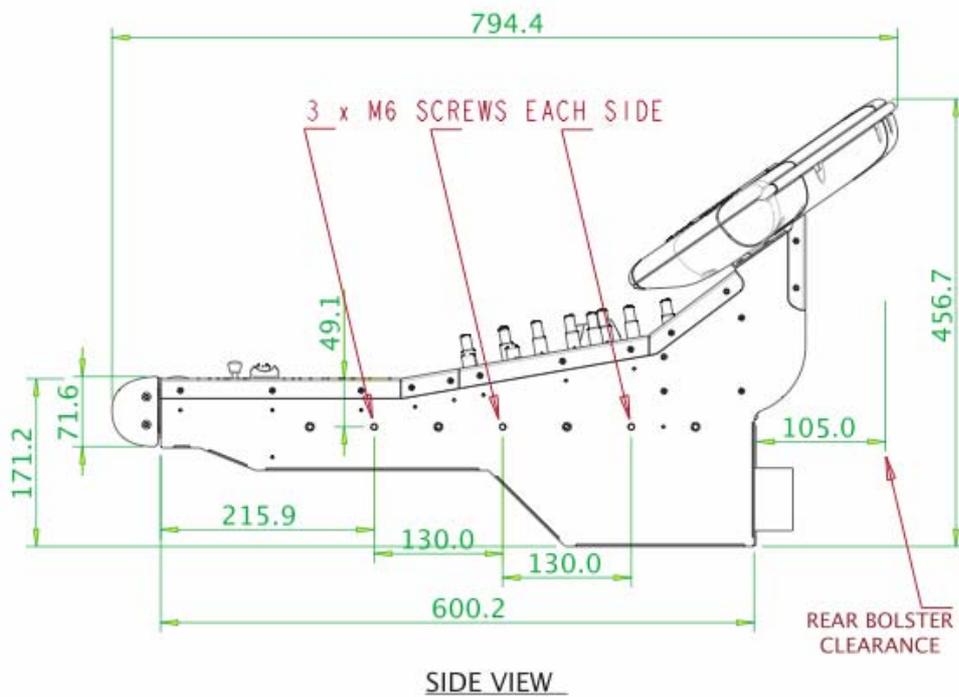


Plate 8: Further E72 dimensions.

Note: Threaded mounting posts are 6.5mm in diameter and 32mm long. Please leave 120mm clearance at rear of console for bolster to open, for ventilation and for rear connecting cables.



Plate 9: Inserting modules.

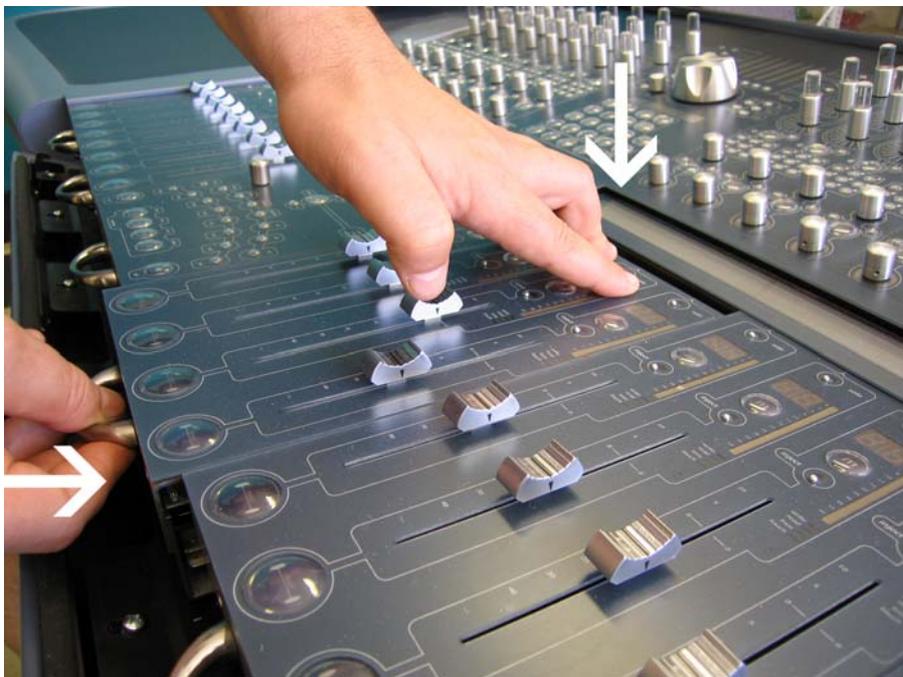


Plate 10: Inserting modules 2