

## 1. MagicQ Compact Series Consoles

This manual covers the MQ40/40N/60/70 Compact Consoles

**! MAINTENANCE SHOULD BE CARRIED OUT BY  
EXPERIENCED AND QUALIFIED PERSONNEL !**

**! WARNING – LIVE 240V AC. DISCONNECT MAINS BEFORE  
PERFORMING ANY MAINTENANCE !**



## Tools Required

There are several tools required for maintaining MagicQ Compact series consoles.

- 5.5mm Nut driver for PCB spacers
- 2mm tip pozidrive Screwdriver
- 1mm tip pozidrive Screwdriver
- Small Flatheaded screwdriver for removing the large encoder knobs



## Preparing to remove the front panel metalwork

In order to remove the front panel metal work to access the top side of the main PCB board, all 12 fader knobs and the 2 large high res encoders must be removed. The 6 smaller low res encoder knobs do not need to be removed.

The Faders knobs will gently pull off, with the Encoders requiring a small flat head screw driver to remove them.

Note the screws only need loosening off, rather than fully removing to lift off the encoders.



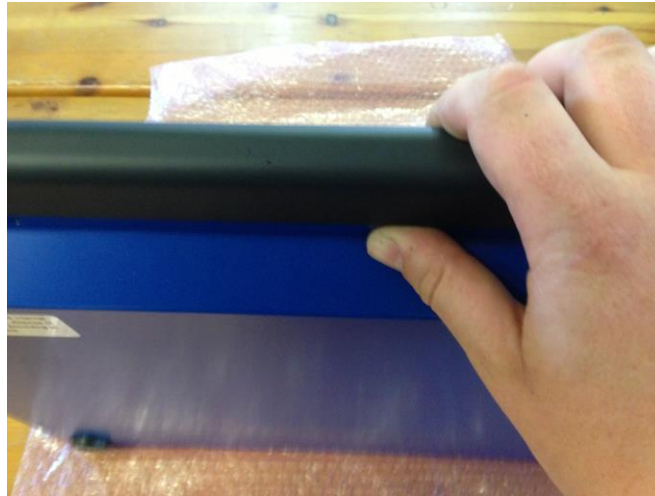
## Opening the Console

The console is opened by removing the 6 of M4 x 6mm Pozi head screws located under the console.

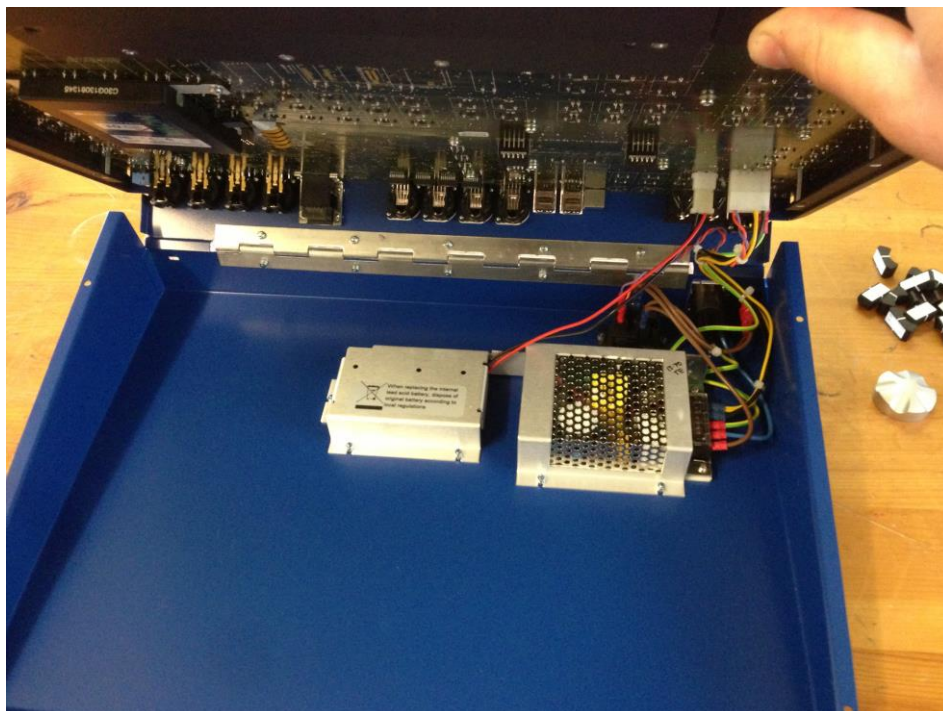
Turn the console upside down onto a soft surface such as bubble wrap and remove the 6 screws as shown:



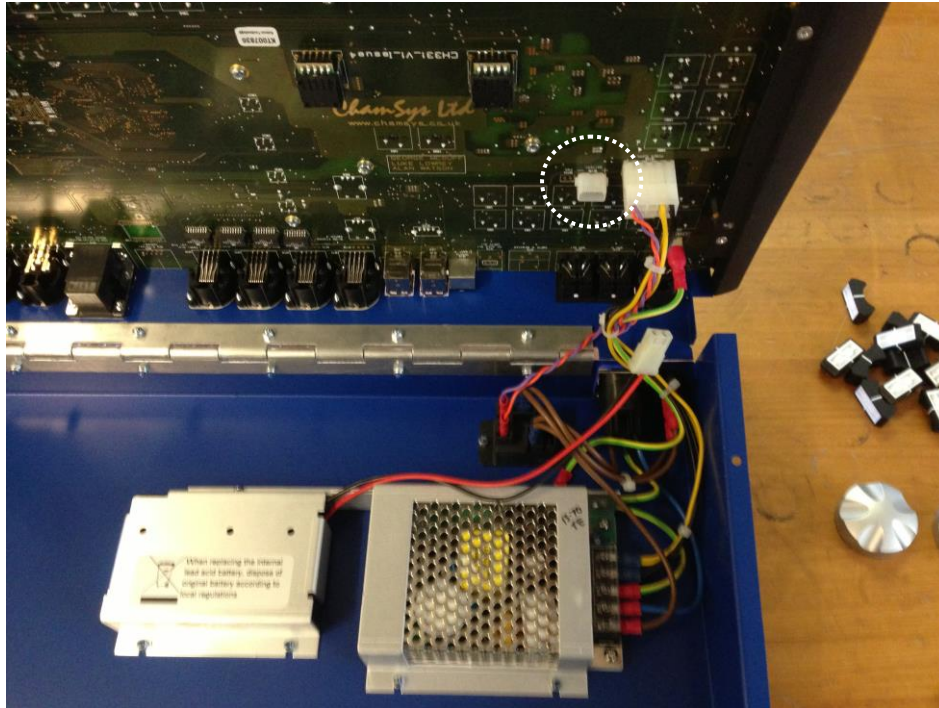
Once these fixings have been removed, hold the base of the console and extrusions together and turn the console the correct way up.



Gently open the console as shown. Note DO NOT open more than 45 degree's from the base as damage can be caused to the battery connector.



The battery needs to be disconnected from the main PCB to allow the console to be opened fully.  
Disconnect this as below.



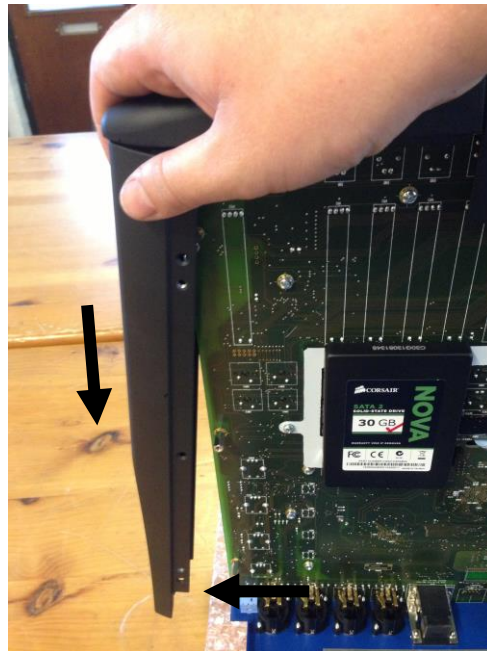
At this stage many minor repairs such as replacing the hard drive, power supply and UPS battery can be carried out, without the need to strip the console down any further.

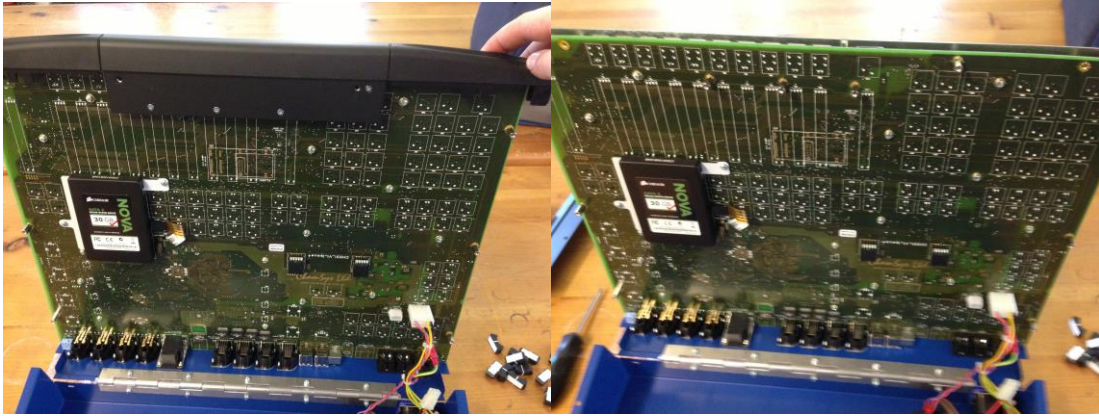
For any other repairs to the console, such as screen replacement the front panel metalwork needs to be removed.  
The side and front extrusions are removed to gain access to the front of the main PCB.



Remove the 10 of M3 x 5mm counter sunk screws on the metal extrusions.

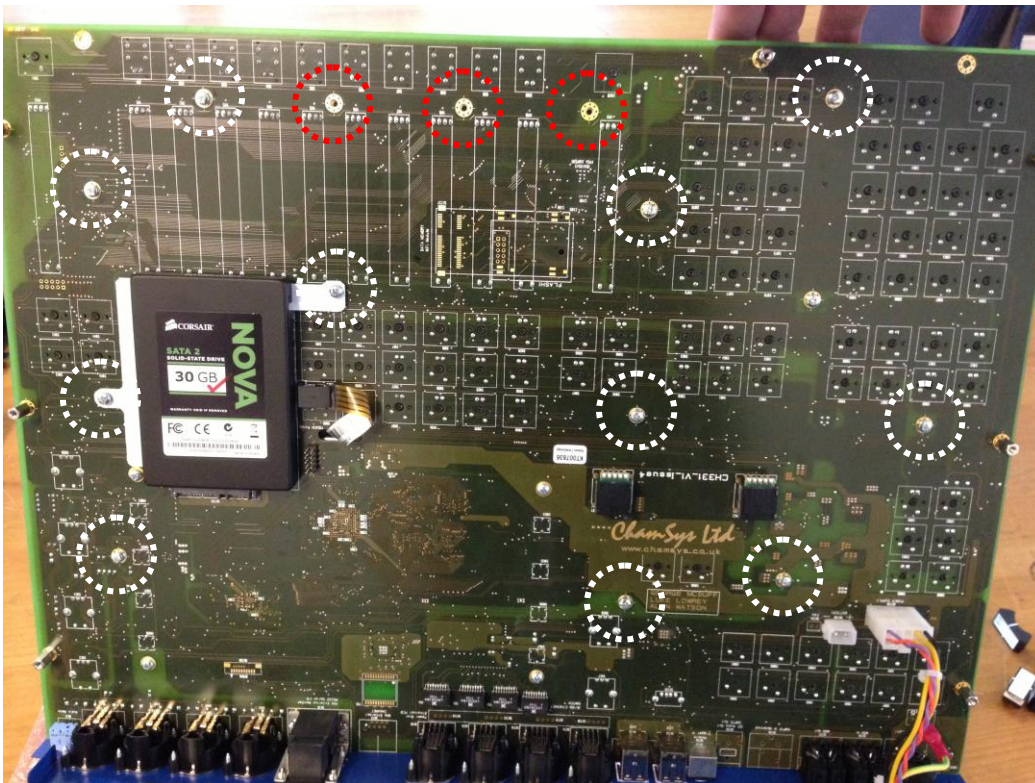
The side extrusions are removed by pulling the lower part away from the console and gently then pulling down to remove as shown below. Repeat for both side extrusions on the console.





Once the side extrusions are removed the front extrusion can then be simply lifted away.

Using the 5.5mm Nut driver, remove the 3 PCB spacers as shown in Red below.



Now remove the 11 of M3 Pozi head screws on the back of the PCB. Note that the 4 x screws around the LCD screen should not be removed.

Once these screws have been removed, lower the front panel back down onto the base.



Turn the console around and remove the 4 of M3 x 5mm Pozi head screws as above.

Once removed the front panel is lifted away from the main PCB.

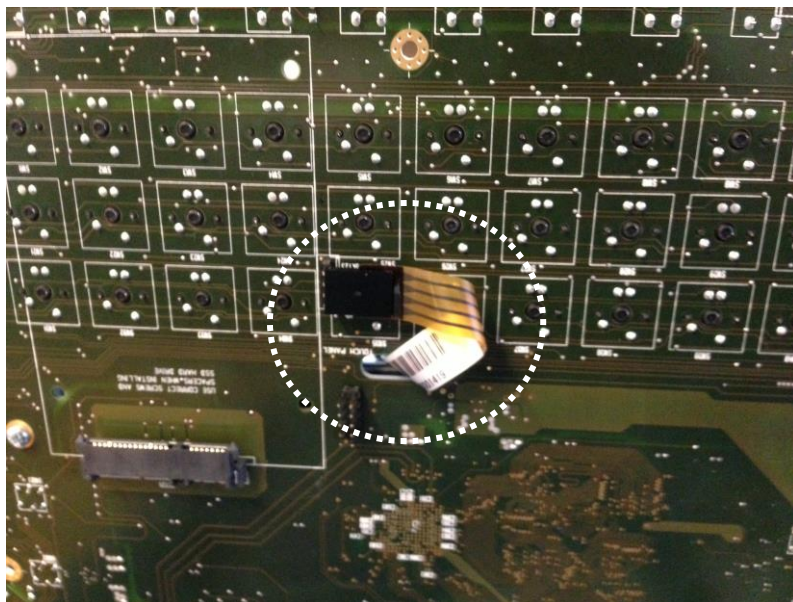


With the console at this stage, maintenance such as replacement of screen replacement, keys, encoders and faders can be carried out.

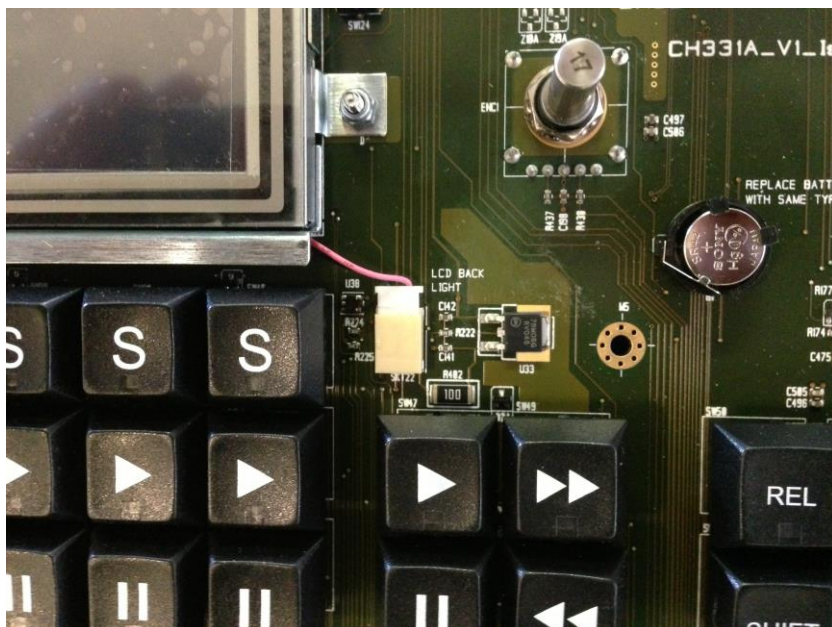
## Replacing Components

### *Removing the Screen/Screen replacement.*

The MQ40/40N/60/70 consoles use the same display assembly, which is available as a complete display/touch combined assembly directly from ChamSys. ChamSys part no for this is: 410-102



Disconnect the touch screen connector located on the underside of the PCB. This is a push fit connector. Note the orientation of the connector before removal.



Disconnect the LCD back light connector cable located on the lower right hand side of the screen on the front panel.

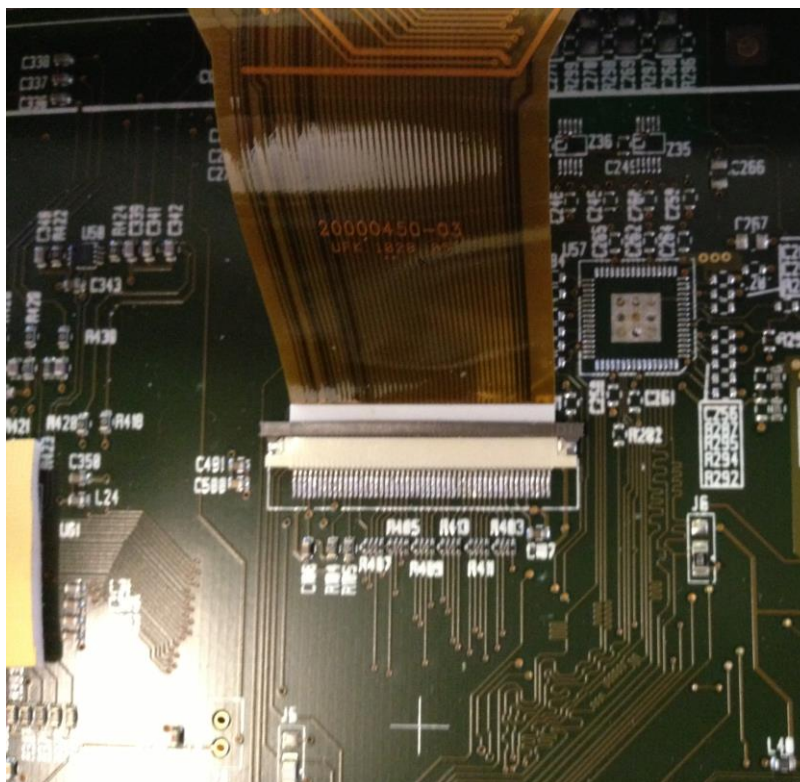


Remove the 4 M3 pozi head screws from around the edge of the screen using the 5.5mm Nut driver and Pozi 1 Screw driver.  
Take care to hold the screen in position while removing the screws.

Once the 4 screws have been removed, carefully lift the lower edge taking care of the ribbon connector on the underside of the screen.

Use an object to support the screen, while removing the ribbon connector.



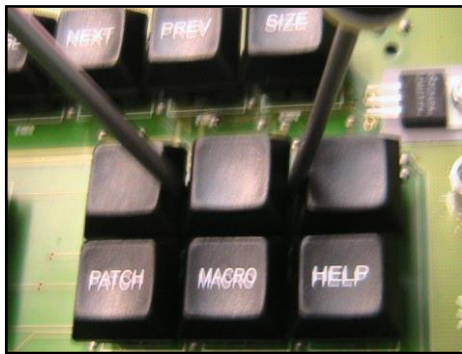


In order to replace a component in MagicQ products, you will need the tools for that product and a good quality soldering iron.

Component replacements can be obtained from ChamSys or your local distributor.

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### **Replacing Key Caps**



Key caps can be levered off using two flat head screwdrivers. Place one each side and apply even pressure to the key to prevent the switch from breaking. The new key cap can simply be pressed on. Key caps can be purchased individually or as an entire kit for a product.

### **Replacing Faders**

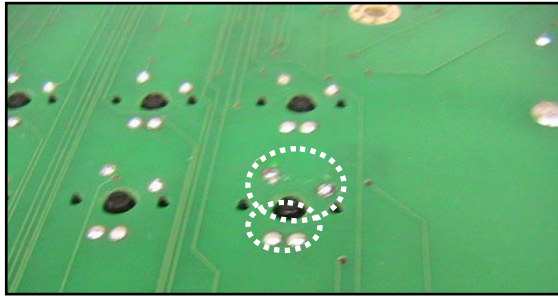
To replace the faders on the MagicQ Compact console, remove front panel from the console as detailed above.



Completely desolder the six solder joints for that fader. The holes must be completely free of solder to allow the fader to be removed. Place the new fader into the holes and solder the connections. We recommend the use of high quality lead free solder. ChamSys part no for replacement faders for the MQ40/40N/60/70 is: 308-002

## Replacing Key Switches

To replace key switches on the MagicQ Compact console, remove front panel from the console as detailed above.



First, desolder the LED connections (if an LED is fitted to the switch). These are the two at the bottom of the switch which are close together. Remove the LED and remember its orientation. This is important for when it is resoldered.

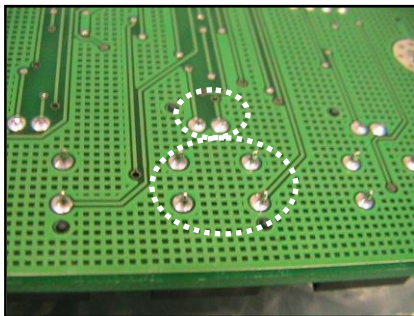
Desolder the two connections to the switch, and remove the switch. Place the new switch in the holes and solder the connections with high quality lead-free solder. Replace the LED (if fitted to the switch) in the same orientation it was removed, and resolder the LED.

Replace the key cap and reassemble the product.

ChamSys part no for replacement key switches is: 307-001

## Replacing Flash Switches

To replace Flash switches on the MagicQ Compact console, remove front panel from the console as detailed above.



First, desolder the LED connections. These are the two at the top of the switch which are close together. Remove the LED and remember its orientation. This is important for when it is resoldered.

Desolder the four connections to the switch, and remove the switch. Place the new switch in the holes and solder the connections with high quality lead-free solder. Replace the LED in the same orientation it was removed, and resolder the LED.

ChamSys Part no for replacement flash switches for the MQ40/40N/60/70 is: 307-003

## 2. MagicQ Console Fault Finding

### No Outputs

Check whether the desk is operating correctly by opening the Outputs Window and looking at the channel data. If channels are not at their correct levels then check:

- Are the Grand Master and Playback Master (Sub Master) faders up?
- Are Playback faders raised?
- Are the Playbacks active (shown as Red)?
- Is there channel data recorded in the Cues on the playbacks?
- Is BLIND mode on?
- Are heads and dimmers patched to the correct universe?

If the Outputs Window shows correct values then check the Outputs are configured and enabled correctly in the View DMX I/O view of the Setup Window. If you are using an Ethernet converter box check that it is receiving data correctly. Check:

- Outputs are configured correctly
- Outputs are enabled
- TCP/IP address and sub net mask are configured correctly (Setup View, Settings). Typically, IP address should be 2.9.200.1 and sub net mask should be 255.0.0.0.
- Ethernet box is powered up and connected to the console correctly
- Ethernet box is configured correctly (typically uses ArtNet Universe 0-0)

### Desk Not Responding

Is the time changing in the status window? If the time is not changing then a reset is required (see Resetting the Console) below. If the time is changing then the main processor and software are running fine. Check

- Master faders up
- Correct playback pages selected
- Playback has a Cue stored on it
- The desk is not locked (CTRL top left soft button)
- Is button test mode on? (hold top left SHIFT button and press top right SHIFT button)

Are all the Select buttons flashing blue? This indicates that the front panel is not communicating with the main processor board. Try:

- Pressing CTRL 9 on the external keyboard – this resets the front panel.
- Pressing CTRL 0 on the external keyboard – this resets the MagicQ application.
- Pressing CTRL BREAK on the external keyboard – this shuts down the console.

## Strange Key Presses, Unexpected Window Changes

Enter board test mode to determine the cause of the fault (Press CNTRL+ALT+SHIFT)

Check a button has not become stuck down

Check nothing is accidentally leaning on the keyboard or other buttons

Exit button test mode (Press CNTRL+ALT+SHIFT)

## Screen Problems

If a user has reported that the screen is displaying white/RGB vertical lines. First check that by either tapping on the touch screen or the knocking the back edge of the console do the lines appear/disappear?

If you are seeing an intermittent fault with the screen image, disassemble the console as detailed above.

Once the screen has been removed use small amount of Isopropyl alcohol on a soft bristled fine brush and gently clean the connector to remove any flux or dirt from the connector.

Re-assemble the screen and screw back into place. Re-boot the console with the Hard drive attached and check to see if the screen still has the intermittent fault.

If the fault continues, contact ChamSys UK for repair/service advice.

### 3. Resetting the Console

Under rare circumstances, it may be necessary to reset the console.

To reset the console, hold SHIFT whilst quitting the MagicQ application. This performs an immediate soft reset of the console - the MagicQ application will be running the show again within about 2-3 seconds.

If for some reason, the console does not respond to button presses then try pressing CTRL BREAK on the external keyboard (hold CTRL whilst pressing BREAK).

If this has no effect then a hard reset may be required. Hard resets should be avoided as they bypass the operating system shutdown procedures and may cause problems with the file system. To perform a hard reset, press and hold the reset button for 5 seconds.

To force the console to power off completely, disconnect the mains power to the console and hold the reset button on the back panel until it powers off (approximately 15 seconds.)

## 4. Backup Archives

By default, the console stores an archive of the show files for every quarter of an hour of the day, and for every day of the week. This enables the user to revert to a previous copy of their show.

Archive files are only made when the console auto saves – so if auto saves are disabled then no archive files will be generated. If the console is set to “auto save on changes” then archive files will only be stored when changes are made. To revert to an archived file press SHIFT and LOAD SHOW in the Setup Window.

Archive files are stored in a special directory that should not be modified by the user. When the user re-loads an archived backup file, the backup file is restored into the standard show directory.

Archive files have the name “backup0530.sbk” to indicate the show file that was recorded just before 5.30am. Daily files are also stored – “backupfri.sbk” indicates the show file that was recorded at the start of Friday. Archive files are overwritten every 24 hours, except for the daily files, which are overwritten every 7 days.

## 5. Reporting Problems

MagicQ stores diagnostic information about keys pressed, strange events and resets in log files. If you notice a problem then please send us the show file and the log file for the time the problem occurred and we will investigate and fix the problem in the next version of software.

Log files are stored in the log folder and are named according to the time and date the session was started – a new log file is started each time the console re-starts. The time and date of the file is the time that the session ended.

Please email the log files and show files to [support@chamsys.co.uk](mailto:support@chamsys.co.uk)

## 6. Upgrading Console Software

New versions of MagicQ console software are made available on the downloads page of the ChamSys website – [www.chamsys.co.uk](http://www.chamsys.co.uk)

The MagicQ Compact series uses our Stadium/Compact/Pro software installer from the website which ends with the extension .cdc

Note if downloading on Mac based systems check OSX has not added .\_. before the file name.

Ensure you have saved your current show file to a USB memory stick or to an external computer via network before you change software version and ensure any personalities that you have customised have been saved to a different file name of your choice – the new software will install the latest version of the standard personalities.

Download the software and copy it onto a USB drive.

Updating the console:

- Insert the memory stick into the one of the USB sockets on the console (on the rear panel, or on the front inside the armrest).
- Go to Setup > File Manager
- Select USB Drive view
- Select the Upgrade file from the USB drive
- Console will ask 'do you want to upgrade software' select 'YES'
- New software will now be loaded onto the console, do not touch any keys, encoders or faders during this process.
- Once complete the console will then boot back into MagicQ again and start expanding the updated heads library that is included with the software update.