

ALLEN&HEATH



SERVICE MANUAL

Publication AP4501

Introduction

This service manual provides technical information on the Allen & Heath **Xone:02** professional DJ mixer. Included is the technical specification, system block diagram, circuit schematics with board layouts, and a spare parts list. Only technically qualified service personnel should carry out service work on the console and its power supply.

Whilst we believe the information in this manual to be reliable we do not assume responsibility for inaccuracies. We also reserve the right to make changes in the interest of further product development.

We are able to offer further product support through our world-wide network of approved dealers and service agents. You can also access our Web site on the Internet for information on our product range and further technical support. To help us provide the most efficient service please keep a record of the console serial number, and date and place of purchase to be quoted in any communication regarding this product. The serial number is located on the rear panel.

Check out our home site for information on the company and its pedigree, our full product range and our design philosophy. We also have a site dedicated to the **Xone Series** consoles.

www.allen-heath.com

www.xone.co.uk



This product complies with the European Electromagnetic Compatibility directives 89/336/EEC & 92/31/EEC and the European Low Voltage Directives 73/23/EEC & 93/68/EEC.

This product has been tested to EN55103 Parts 1 & 2 1996 for use in Environments E1, E2, E3, and E4 to demonstrate compliance with the protection requirements in the European EMC directive 89/336/EEC. During some tests the specified performance figures of the product were affected. This is considered permissible and the product has been passed as acceptable for its intended use.

Allen & Heath has a strict policy of ensuring all products are tested to the latest safety and EMC standards. Customers requiring more information about EMC and safety issues can contact Allen & Heath.

NOTE: Any changes or modifications to the console not approved by Allen & Heath could void the compliance of the console and therefore the users authority to operate it.

XONE:02 Service Manual AP4501 Issue 2

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Manufactured in the United Kingdom by **ALLEN&HEATH**

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Important Safety Instructions – Read First

- Read instructions:** Retain these safety and operating instructions for future reference. Adhere to all warnings printed here and on the console. Follow the operating instructions printed in this User Guide.
- Do not open:** Operate the console with its front and crossfader panels correctly fitted. Disconnect mains power by unplugging the power cord if a panel needs to be removed for servicing. Refer this work to competent technical personnel only.
- Power sources:** Connect the console to a mains power only of the type described in this User Guide and marked on the rear panel. The power source must provide a good ground connection.
- Power cord:** Use the power cord with sealed mains plug appropriate for your local mains supply as provided with the console. If the provided plug does not fit into your outlet consult your service agent. Route the power cord so that it is not likely to be walked on, stretched or pinched by items placed upon or against it.
- Grounding:** Do not defeat the grounding and polarisation means of the power cord plug. Do not remove or tamper with the ground connection in the power cord.
- Ventilation:** Do not obstruct the ventilation slots or position the console where the air flow required for ventilation is impeded. If the console is to be operated in a rack unit or flightcase ensure that it is constructed to allow adequate ventilation.
- Moisture:** To reduce the risk of fire or electric shock do not expose the console to rain or moisture or use it in damp or wet conditions. Do not place containers of liquids on it which might spill into any openings.
- Heat:** Do not locate the console in a place subject to excessive heat or direct sunlight as this could be a fire hazard. Locate the console away from any equipment which produces heat such as power supplies, power amplifiers and heaters.
- Environment:** Protect from excessive dirt, dust, heat and vibration when operating and storing. Avoid tobacco ash, drinks spillage, and smoke, especially that associated with smoke machines.
- Handling:** To prevent damage to the controls and cosmetics avoid placing heavy objects on the control surface, scratching the surface with sharp objects, or rough handling and vibration. Protect the controls from damage during transit. Use adequate packing if you need to ship the unit.
- Servicing:** Switch off the equipment and unplug the power cord immediately if it is exposed to moisture, spilled liquid, objects fallen into the openings, the power cord or plug become damaged, during lightening storms, or if smoke, odour or noise is noticed. Refer servicing to qualified technical personnel only.
- Installation:** Install the console in accordance with the instructions printed in this User Guide. Do not connect the output of power amplifiers directly to the console. Use audio connectors and plugs only for their intended purpose.



Important Mains Plug Wiring Instructions

The console is supplied with a moulded mains plug fitted to the AC mains power lead. Follow the instructions below if the mains plug has to be replaced.

The wire which is coloured Green/Yellow or Green must be connected to the terminal in the plug which is marked with the letter E or with the Earth symbol.

This appliance must be earthed.

The wire which is coloured Blue or White must be connected to the terminal in the plug which is marked with the letter N.

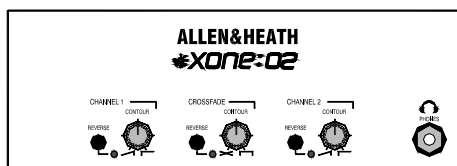
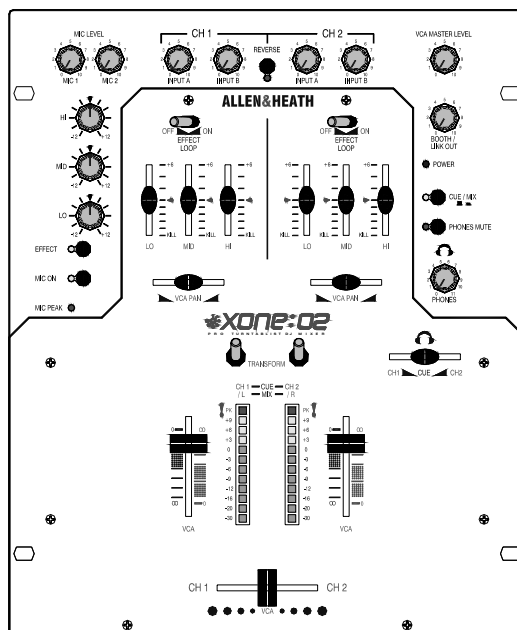
The wire which is coloured Brown or Black must be connected to the terminal in the plug which is marked with the letter L.

Ensure that these colour codes are followed carefully in the event of the plug being changed.

Key Features

- Dual stereo channels with mixable A and B inputs featuring independent level control and channel reverse
- A inputs switchable for line and RIAA phono sources
- 2 microphone inputs with vocal EQ, effect in/out and independent level control
- Balanced XLR main mix output with VCA master level control
- Booth output for local stereo monitoring
- EFFECT loop with silent FET switching to add external effects
- Link in and out connections for daisy chaining mixers, recording or booth output
- 3 Band +6/-26 asymmetric EQ with extended cut
- VCA PAN controls to adjust LR balance or for performance effect
- Ultra smooth gold contact dual rail conductive plastic VCA crossfader and channel faders
- All faders are VCA for noise free operation and have reverse and variable contour controls
- Rotatable TRANSFORM switches for stutter effects
- Removable face plate for fader servicing and user preferred transform switch positioning
- Advanced headphones cue system with cue/mix select, cue crossfader and large meters
- Sensible performance control layout makes it very easy to use
- Universal internal power supply for any worldwide mains voltage

Front and Rear Panel Layouts



Specifications

0dBu = 0.775 Volts rms, +4dBu = 1.23V rms 0dBV = 1 Volt rms, -10dBV = 316mV rms

Max output level	XLR +23dBu into >2k load TRS +21dBu into >2k ohm RCA +15dBu into >10k ohm	Mix System	VCA
Headroom	Channels +21dB Mix to output +23dB	Music EQ	3-Band +6/-26dB 100Hz, 1kHz, 10kHz 12dB/oct slope
Freq response	+0/-1dB 10Hz to 30kHz	Mic EQ	3-Band +/-12dB 120Hz, 2.5kHz, 6.5kHz
Distortion	< 0.04% THD+N @1kHz +10dBu	Channel Faders	45mm stereo VCA Dual rail, gold contacts Replaceable Penny & Giles option
Crosstalk	< 90dB Channel shutoff @1kHz	Crossfader	45mm stereo VCA Dual rail, gold contacts Replaceable Penny & Giles option
MIC EIN 22-22kHz	-128dB 150 ohm source	Transform	Fast action toggle Rotatable
Residual noise	< -88dBu		
Mix noise	< -81dBu		
Meters	Peak reading 12 led -30 to +9, +15 (PK)		
Mic Peak	Within 6dB of clipping		

Power Supply

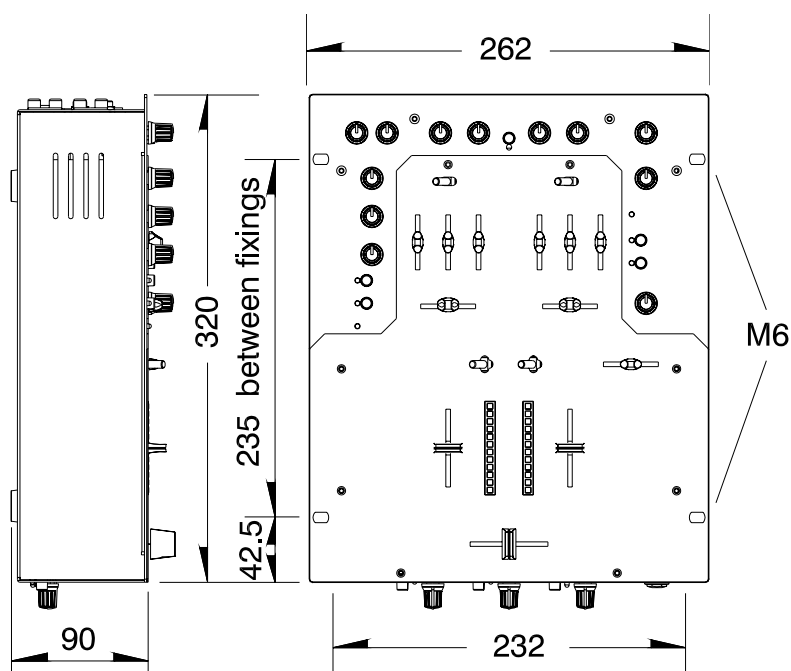
Internal switch mode power unit with auto sensing mains input.

MAINS IN socket	IEC 3 pin
Power lead	Country dependent with moulded mains plug supplied
AC mains	100 to 240V AC @ 50/60Hz
Consumption	30W max
Mains fuse rating	100-240V AC T500mA 20mm

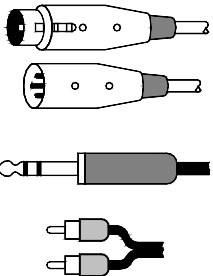
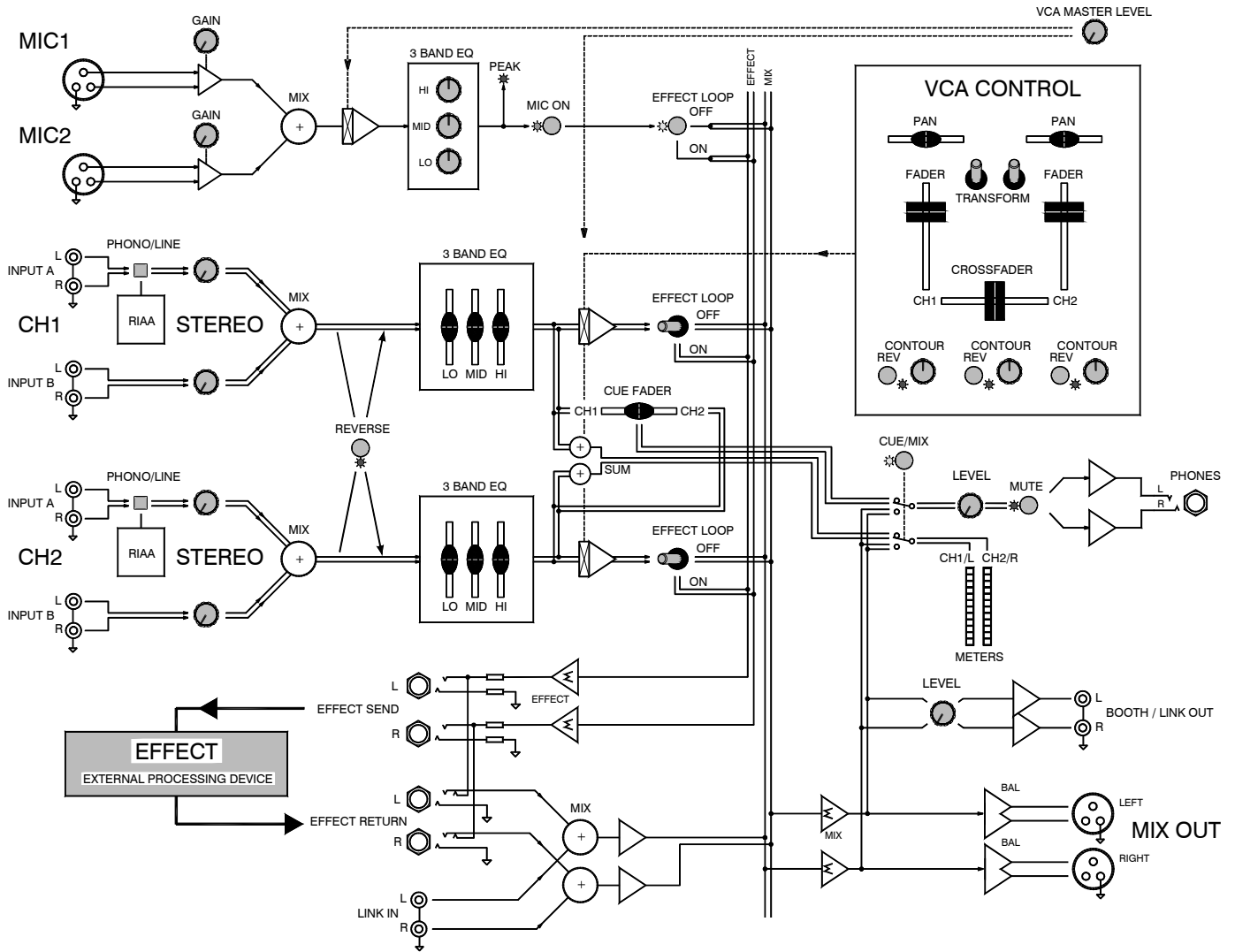
Dimensions and Weights

The console is fitted with rubber feet for desktop operation. It also has integral rack ears so that it can be fitted into a plinth, rack or other equipment furniture. Note that it is narrower than the standard 19" equipment rack system. Use M6 screws with plastic protective cups to mount the console into the furniture.

	Width	Height	Depth	Weight
Unpacked	262 mm (10.3")	90 mm (3.5")	320 mm (12.6")	4.5 kg (10 lbs)
Packed	475 mm (18.7")	210 mm (8.3")	395 mm (15.6")	5 kg (12 lbs)



XONE:02 BLOCK DIAGRAM



Connector Types

XLR connector :

Pin 2 = hot (+) Pin 3 = cold (-) Pin 1 =

GND

TRS input and output connectors : Tip = hot (+) Ring = cold (-) Sleeve = GND

RCA PHONO pin connectors

Input Connections

	Type	Impedance	Sensitivity
MIC IN	Balanced XLR female	2k ohm	-50 to -10dBu
Stereo LINE IN	RCA phono	>10k ohm	-22 to +15dBu
Stereo PHONO IN	RCA phono RIAA	47kohm/330pF	2 to 140mV
EFFECT RETURN	TRS jack		>10k ohm
0dBu			
LINK/BOOTH IN	RCA phono	>10k ohm	0dBu

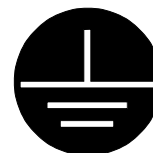
Output Connections

	Type	Impedance	Level
MIX OUT L,R	Electronically balanced TRS jack	<75 ohm	0dBu
LINK/BOOTH OUT	RCA phono		<75 ohm
0dBu			
EFFECT SEND	Impedance balanced TRS jack	<75 ohm	0dBu
HEADPHONES	Tip = L Ring = R	30 to 600 ohm, 70 ohms recommended	

Earthing

The connection to earth (ground) in an audio system is important for two reasons:

1. **SAFETY** - To protect the operator from high voltage electric shock, and
2. **AUDIO PERFORMANCE** - To minimise the effect of earth (ground) loops which result in audible hum and buzz, and to shield the audio signals from interference.



For safety it is important that all equipment earths are connected to mains earth so that exposed metal parts are prevented from carrying high voltage which can injure or even kill the operator. It is recommended that the system engineer check the continuity of the safety earth from all points in the system including microphone bodies, turntable chassis, equipment cases, and so on.

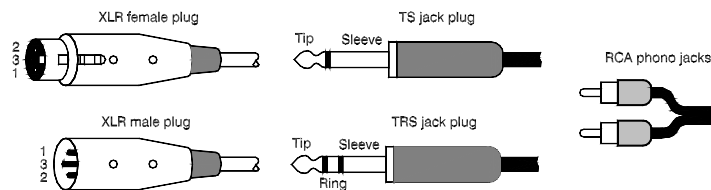
The same earth is also used to shield audio cables from external interference such as the hum fields associated with power transformers, lighting dimmer buzz, and computer radiation. Problems arise when the signal sees more than one path to mains earth. An 'earth loop' (ground loop) results causing current to flow between the different earth paths. This condition is usually detected as a mains frequency audible hum or buzz.

To ensure safe and trouble-free operation we recommend the following:

- **Have your mains system checked by a qualified electrician** If the supply earthing is solid to start with you are less likely to experience problems.
- **Do not remove the earth connection from the console mains plug** The console chassis is connected to mains earth through the power cable to ensure your safety. Audio 0V is connected to the console chassis internally. If problems are encountered with earth loops operate the audio 'ground lift' switches on connected equipment accordingly, or disconnect the cable screens at one end, usually at the destination.
- **Make sure that turntables are correctly earthed** A chassis earth terminal is provided on the console rear panel to connect to turntable earth straps.
- **Deal with ground loops** Should you experience hum or buzz caused by ground loops, check first that each piece of equipment has its own separate path to ground. If so, operate ground lift switches on connected equipment in accordance with the instruction manuals. Alternatively disconnect the cable screen at the destination end only. This breaks the offending loop while still maintaining the signal shielding down the length of the cable.
- **Use low impedance sources** such as microphones and line level equipment rated at 200 ohms or less to reduce susceptibility to interference. The console outputs are designed to operate at very low impedance to minimise interference problems.
- **Use balanced connections for the microphone and main outputs** as these provide further immunity by cancelling out interference that may be picked up on long cable runs. Refer to the cable drawing for information on how to connect balanced and unbalanced equipment.
- **Route cables to avoid interference** To avoid interference pickup keep audio cables away from mains power units and cables, thyristor dimmer units or computer equipment. Where this cannot be avoided, cross the cables at right angles to minimise interference.
- **Use good quality cables and connectors** and check for correct wiring and reliable solder joints. Allow sufficient cable loop to prevent damage through stretching.
- **If you are not sure ...** Contact your service agent or local Allen & Heath dealer for advice.

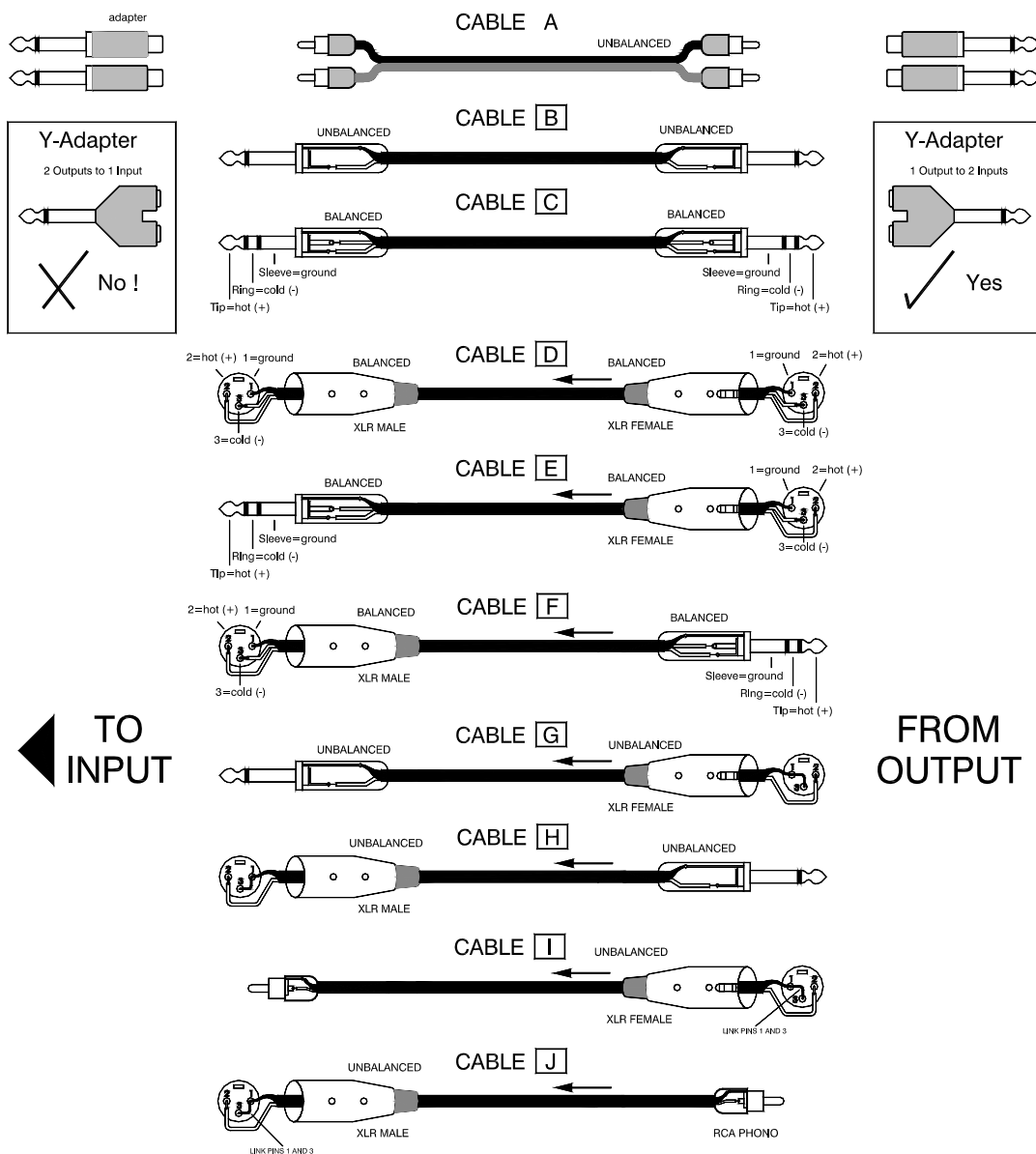
Cables and Connections

The **XONE:02** uses professional grade 3 pin XLR, 1/4" TRS jack and RCA PHONO sockets. The following mating plugs may be used:



The **XLR** connector is 3 wire balanced. This has 3 connector pins: Pin 1 = ground (screen), Pin 2 = signal hot (+), Pin 3 = signal cold (-). The jack sockets are the 3 pole **TRS** type. These are wired to work with either the balanced TRS or the unbalanced 2 pole TS type plugs without cable modification. The sockets have 3 connector pins: Inputs and outputs are Tip = signal hot (+), Ring = signal cold (-), Sleeve = ground (screen). Headphones are Tip = left, Ring = right, Sleeve = ground. The **RCA** phono connectors are 2 wire unbalanced to connect to equipment such as CD players, turntables and domestic amplifiers.

To ensure best performance, we recommend that you use high quality audio cables and connectors, and take time to check for reliable and accurate cable assembly. It is well known that many audio system failures are due to faulty interconnecting leads. Avoid reversing + and - on balanced connections as this will result in reverse polarity connections which may cause signal cancellation effects. Refer to the cable diagram for how to wire unbalanced to balanced connections. **It is fine to use a Y-adapter to feed one output to several inputs, but never use a Y-adapter to sum two outputs into one input.**



Gain and Operating Levels

It is most important that the system gain and level settings are correctly set. It is well known that many DJs push the gain to maximum with meters peaking hard in the belief that they are getting the best from the system. **THIS IS NOT THE CASE !** The best can only be achieved if the system levels are set within the normal operating range and not allowed to peak. Peaking simply results in signal distortion, not more volume. It is the specification of the amplifier / speaker system that sets the maximum volume that can be achieved, not the console. The human ear too can fool the operator into believing that more volume is needed. Be careful as this is in fact a warning that hearing damage will result if high listening levels are maintained. Remember that it is the **QUALITY** of the sound that pleases the ear, not the **VOLUME**.

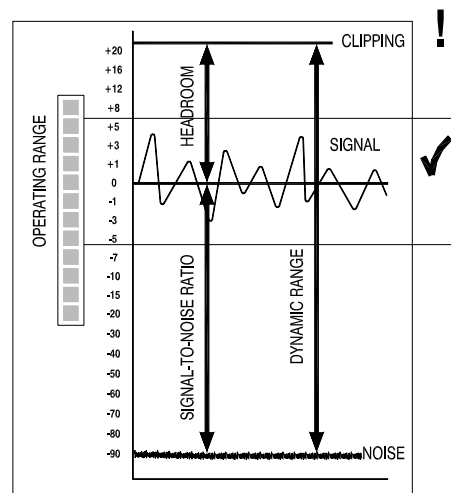
Use the **LEVEL** control to match the input source to the normal operating level of the console. Adjust this so that the **CUE METER** averages 0dB with loudest moments reading +6. Listen to the signal on headphones. Adjust the **VCA MASTER LEVEL** so that it normally operates near the top of its travel. Make sure the amplifier/speaker system has been correctly calibrated for the loudest volume required at the channel fader top position. Boosting the **EQ** also adds gain to the system. Reduce by turning back the **LEVEL** control if the meter red peak LEDs flash. Adjust the **HEADPHONES** and **BOOTH** monitor controls for safe listening levels.

The diagram illustrates the operating range of the audio signal.

NORMAL OPERATING RANGE. For normal music the signal should range between -6 and +6 on the meters with average around 0dB. This allows enough **HEADROOM** for unexpected peaks before the signal hits its maximum **CLIPPING** voltage and distorts. It also achieves the best **SIGNAL-TO-NOISE-RATIO** by keeping the signal well above the residual **NOISE FLOOR** (system hiss). The **DYNAMIC RANGE** is the maximum signal swing available between the residual noise floor and clipping.

The **XONE:02** provides a massive 108dB dynamic range.

A final note ... The human ear is a remarkable organ with the ability to compress or 'shut down' when sound levels become too high. Do not interpret this natural response as a reason to turn the system volume up further ! As the session wears on ear fatigue may set in, and the speaker cones may become hot so reducing the effectiveness of the system and listeners to gain any benefit from increased volume.



BE SENSIBLE, BE SAFE WITH SOUND LEVELS



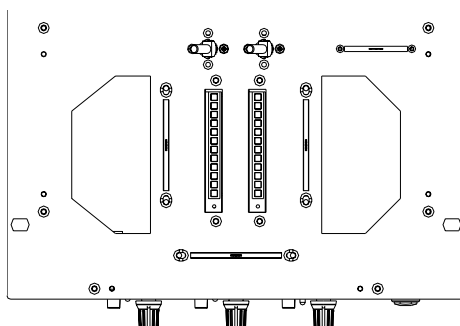
Replacing the Faders

The faders on a DJ mixer are heavily used and can suffer considerable wear and tear. The audio design using VCAs prevents clicks and scratchiness as the fader wears. However, the movement can become mechanically stiff or sloppy in time, or become ingrained with dirt. Should this be the case the fader may need replacement. The **XONE:02** channel faders and crossfader are removable and can easily be replaced in a few minutes. There are two versions available, the standard type and the higher grade Penny & Giles type. Make sure you order the correct version from your Allen & Heath dealer.

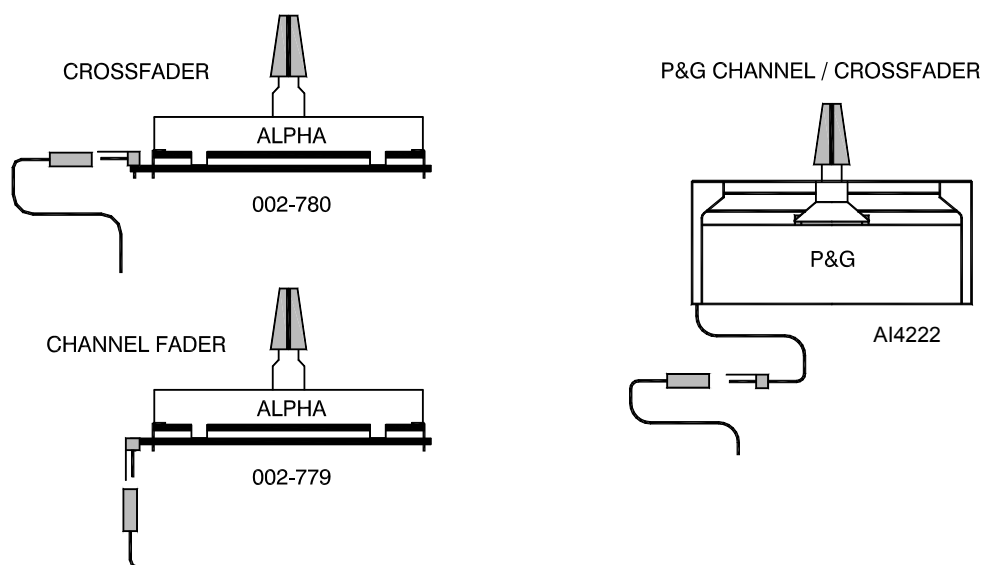


Before you start make sure you turn off the console and disconnect the mains power cord. The top plate must not be removed with power applied.

First prize off the fader knobs, take care whilst removing the EQ and Cue Mix knobs as they are very tight. Excessive force can damage the fader assemblies. We suggest using the edge of a plastic rule to prize the knobs off. Next, use a small cross-point (Pozidriv) screwdriver to undo and remove the 8 top plate screws. Lift the plate off to gain access to the fader assemblies. While supporting the fader with your fingers through the top opening unscrew the two fader mounting screws. Remove the fader assembly out of the console being careful not to damage any internal components. Unplug the cable from the old fader and plug in the new assembly. Check that the connector is correctly aligned and pushed on. Replace the assembly making sure the cable faces the front (channel fader assemblies) or left side (Cross-fade assembly) of the console. Holding the new fader in position refit the mounting screws. Replace the top plate and fit the fader knobs.



Make sure you replace the assembly with the correct fader type.



Repositioning the Transform Switches

The CH1 and CH2 TRANSFORM toggle switches can be repositioned to reverse their operation or rotate them to operate sideways.

Disconnect power and remove the console top plate as described above. Support the toggle switch with your fingers through the access hole while removing the switch mounting screws. Rotate the switch assembly into the new position required. Refit the screws into the appropriate holes. Replace the top panel.



For your safety do not remove the **EARTH** (ground) connection in the power lead of the console or connected equipment.



Have your **MAINS SYSTEM** checked by a qualified electrician. If the earthing is solid to start with you are less likely to experience problems.



Use high grade **AUDIO CABLES** and check them for reliable connection. It is well known that many audio system problems are due to faulty cables and connectors.



In a club or similar installation strict **SOUND LEVEL** and noise regulations may apply. Check that your system levels are correctly set up to comply.



To avoid damage to your hearing start with the **HEADPHONES** level control at minimum and turn up only as much as is needed to maintain comfortable listening level. Do not drive headphones at high listening levels for long periods of time.



Always switch connected **AMPLIFIERS** on last and off first to avoid thumps when the console and connected equipment is turned on or off.



Reduce level if the red meter **PEAK** led flashes. These warn you that you are near clipping which may result in system overload and distortion. The **XONE:02** provides plenty of drive and headroom when operated around the 0 to +6 meter points. Check that the amplifier / speaker system is correctly matched and set up for correct levels.



If you suspect a console fault. The console is the heart of the audio system and is often suspected faulty when a problem occurs. Usually the fault is found to be with other equipment in the system, typically the interconnecting leads, input sources, or level matching between equipment. Check for source problems by unplugging each channel in turn listening for a change in symptom. To check the console, isolate it by unplugging all sources and outputs leaving just headphones and a reference source such as a CD player connected.



I have plugged in a microphone but it does not work. The **XONE:02** is designed to operate with non-phantom powered dynamic microphones such as the popular vocal types. Do not use microphones which require phantom power. If it has an on/off switch check that it is turned on. Make sure the front panel **LEVEL** control is turned up and **MIC ON** switch pressed.



The signal sounds very distorted with high level and excessive bass. Only plug turntables needing RIAA equalisation into the **PHONO** inputs with RIAA selected.



There is a hum on the turntable channels. Check that the turntable earth strap has been correctly connected to the console chassis earth post. Also check that the turntable headshell and cartridge are correctly aligned and plugged in.



The **MIX** meters reads fine but the signal is distorted. Switch the meters to **CUE** and check that the channels are not peaking red. If they are, the output meter may still read fine if the fader or master level control is not set fully up. Reduce the input level control if the channel meter reads too high.



Only one side of the stereo mix is working. Check that the **VCA PAN** control is not set fully to either **L** or **R**. Also check for bad connections, in particular **RCA** phono leads and turntable headshell and cartridge pins.



The channel is not working. Check that the **TRANSFORM** switch is not selected. This mutes the channel.



There is feedback. Check that the microphone is not placed next to the headphones or loudspeakers. The mic may pick up its own signal and feed back. Use the mic **EQ** to tune out the range of frequencies likely to feed back. In loud listening conditions feedback can sometimes be caused by mechanical vibration through the turntables into the cartridge, or even the needle resting on a cued turntable starting to resonate in the groove of the record.



The crossfader works backwards. Check that the reverse switch has not been pressed and its red LED on. If it is off then check that the crossfader has been re-fitted the right way round if previously removed.



I have connected a stereo source to a single input using a Y-adaptor but it sounds bad. Do not connect more than one output to the input. These adaptors are designed to feed one output to two inputs, not the other way round.



The level changes when I switch in the effects. The effects loop operates at 0dBu line level. Make sure the external effects device is set for similar line level and 0dB unity gain.



I can hear interference pickup in the mix. If you are not using the **LINK IN** sockets then make sure the shorting plugs supplied with the console are plugged in. These short out the inputs to prevent interference when not in use.

Order Codes

The following products and parts can be ordered from Allen & Heath or the approved dealer:

XONE:02/v	XONE:02 2 channel DJ scratch mixer	/v = specify voltage
XONE:32/v	XONE:32 3 channel DJ mixer	/v = specify voltage
XONE2:62/v	XONE:62 6 stereo channel mixer	/v = specify voltage
XONE2:464/v	XONE:464 4 mic 6 stereo channel mixer	/v = specify voltage
002-779	45mm Stereo Channel Fader for XONE:02	
002-780	45mm Standard Crossfader for XONE:02	
AI4222	Optional P&G crossfader for XONE:02	
AP4264	XONE:02 User Guide	
AP4501	XONE:02 Service Manual	

SERVICE TOOLS

The tools required to service the **XONE:02** are standard to an electronics service workshop and are easily obtainable. The following items are necessary for disassembly and service access:

TOOL	USE	ORDER CODE
T10 Torx-headed screwdrivers	M3, 4AB Torx-headed screws	
1-point Crosshead screwdriver	M2.5 Torx-headed screws	AT0004
0-point Crosshead screwdriver	M2 Torx-headed screws	
2BA or 8mm AF Spanner	2BA Earth post on rear	
5.5mm AF Spanner or Nutdriver	M3 Earth post inside	
11mm AF Nutdriver	Potentiometer and headphone socket nuts	
12mm Nutdriver	Jack nuts	

ORDERING AN ASSEMBLY

The following assemblies for the **XONE:02** are supplied fully tested. Please quote the description and order code for the part required.

Printed circuit board (PCB) assemblies:

DESCRIPTION	ORDER CODE
Main/Mic/Conn PCB assembly	002-763
Master/Mains/Meters PCB assembly	002-764

IDC connector harnesses:

DESCRIPTION	ORDER CODE
4 way XONE harness	AL3817
5x2 way Meters harness	AL4507
13x2 way Connector harness	AL4513
Switch harness	AL4591
Mains harness	AL4616

ORDERING A XONE:02 SPARES KIT

It is recommended that the spares kit order code **002-766** is held and maintained by the service agent to enable in-field service repairs to the **XONE:02** independent of the ALLEN & HEATH factory. Commonly available items such as resistors, capacitors, tools and soldering equipment are not included. The contents of the kit are listed below and are supplied in a cabinet of drawers. Individual spare parts may be ordered. Please quote the description and order code for the part required.

Fixings:

DESCRIPTION	ORDER CODE	QTY
SCREW 4ABX5/16 CSK TORX BK	AB0059	10
SCREW M3X6MM PAN TORX BK	AB0072	15
SCREW M3X10 PAN TORX BK	AB0076	3
NUT M3 NYLOCK	AB0102	5
SCREW M3X6 CSK TORX BK	AB0215	10
SCREW 4ABX1/4 PAN TORX PLTD	AB0252	4
JOINT BLOCK 30% GLASS FILLED	AB0253	5
WASHER M5 SHAKEPROOF	AB0304	5
SCREW 4X5/16 PAN POLY TORX BK	AB2810	20
SCREW M3X4 CSK TORX BK	AB2811	10
SCREW M2.5X6 CSK POZI S/S	AB4502	10
SCREW M2.5X4 CSK POZI BK	AB4692	10
SCREW M2X3 CSK POZI S/S	AB4704	20
NUT POT 9MM BLACK	AB8172	30
FEET FAST 20DIA P4X5	AK0102	4

Knobs and caps:

DESCRIPTION	ORDER CODE	QTY
PUSH BTN BLACK ROUND	AJ2887	3
KNOB CAP SOFT SIL-BL LINE P300	AJ4245	10
FADER KNOB BK-WH LINE	AJ4247	10
PUSH BTN ROUND BLACK 8MM	AJ4251	10
FADER KNOB BK-WH LINE REAN	AJ4302	15
KNOB CAP SOFT SIL-WHI LINE P300	AJ4346	15
SWITCH CAP TALL	AJ8071	3

Faders, Potentiometers, Switches and connectors:

DESCRIPTION	ORDER CODE	QTY
FLEX CABLE 39WAY 200MM 4 TAILS	AH2900	2
POT ALPS 11MM 10K SPCL (103)	AI3838	5
FADER ALPHA 30MM 10KBX2	AI4301	10
POT ALPS 11MM 20KK (203K)	AI8003	3
POT ALPS 11MM 20KB C/D (203B)	AI8004	3

POT ALPS 14MM 20KKX2 ST (203K)	AI8007	10
SWITCH 2PCO LATCH SINGLE	AL0162	5
JACK SKT STEREO SW PCB CHROME	AL0328	1
SWITCH 4PCO LATCH	AL0333	3
SWITCH ALPS 6PCO LATCH	AL0354	2
XLR FEM 3PIN VERT PCB	AL2410	3
XLR MALE 3PIN VERT PCB	AL2411	3
JACK SKT 1/4" ST V MET	AL3410	5
PHONO DUAL VERT PCB 24MM GOLD	AL3753	5
SWITCH LEVER DPCO	AL4483	10
SWITCH ALPS 2PCO LATCH V	AL8057	5
SPARE ASSY XONE02 LINE FADER	002-779	1
SPARE ASSY XONE02 X-FADE	002-780	2

LEDs and Semiconductors:

DESCRIPTION	ORDER CODE	QTY
ZENER DIODE BZX85 5V6 1.3W	AE0012	5
TRANSISTOR BC549 NPN	AE0020	2
IC TL072 OP-AMP	AE0046	5
IC LM339N COMPARATOR	AE0071	3
TRANSISTOR J111N FET T092B	AE0083	5
LED T1 3MM YELLOW	AE0084	3
LED T1 3MM GREEN	AE0085	3
LED T1 3MM RED	AE0086	3
IC NE5532N OP-AMP	AE0221	3
ZENER DIODE BZX55C2V7 400MW	AE0231	5
LED BAR MB 12/8G/3Y/1R	AE2701	2
TRANSISTOR BC556B PNP	AE3001	2
DIODE BYV27-400 2A 400V	AE3469	5
DIODE BYV26E 1A 1000V	AE3470	3
DIODE P6KE200A (TAPED)	AE3471	3
TRANSISTOR MOSFET STP4NB80FP	AE3472	3
IC SMPS UC3842AN	AE3473	3
IC TL431 VOLTAGE REFERENCE	AE3475	3
BRIDGE RECTIFIER 2KBP06M	AE3477	3
IC SSM2164 VCA	AE3688	2
IC LA6515 POWER OP-AMP	AE3707	3
LED T1 3MM BLUE	AE4041	3
IC THAT2155 VCA	AE4279	1
IC TLC072C OP-AMP CMOS	AE4604	5
TRANSISTOR 2SB737 PNP	AE8069	5

Miscellaneous:

DESCRIPTION	ORDER CODE	QTY
PRESET 22K CARBON HOR ADJUST	AC3980	3

Power Supply:

DESCRIPTION	ORDER CODE	QTY
MAINS LEAD IEC-2PIN EURO	AH0205	-
MAINS LEAD IEC-3PIN UK	AH0206	-
MAINS LEAD IEC-3PIN C33 USA	AH0323	-
SWITCH MAINS PCB 10A	AL3338	1
MAINS INLET IEC FILTER PCB 3PIN	AL3458	1
FUSE 20MM 500MA A/SURGE	AL3534	10
INDUCTOR 4.7UH 600MA	AM3467	5
TRANSFMR WIZARD & DL1 SWITCH MODE	AM3476	1

Technical Drawings

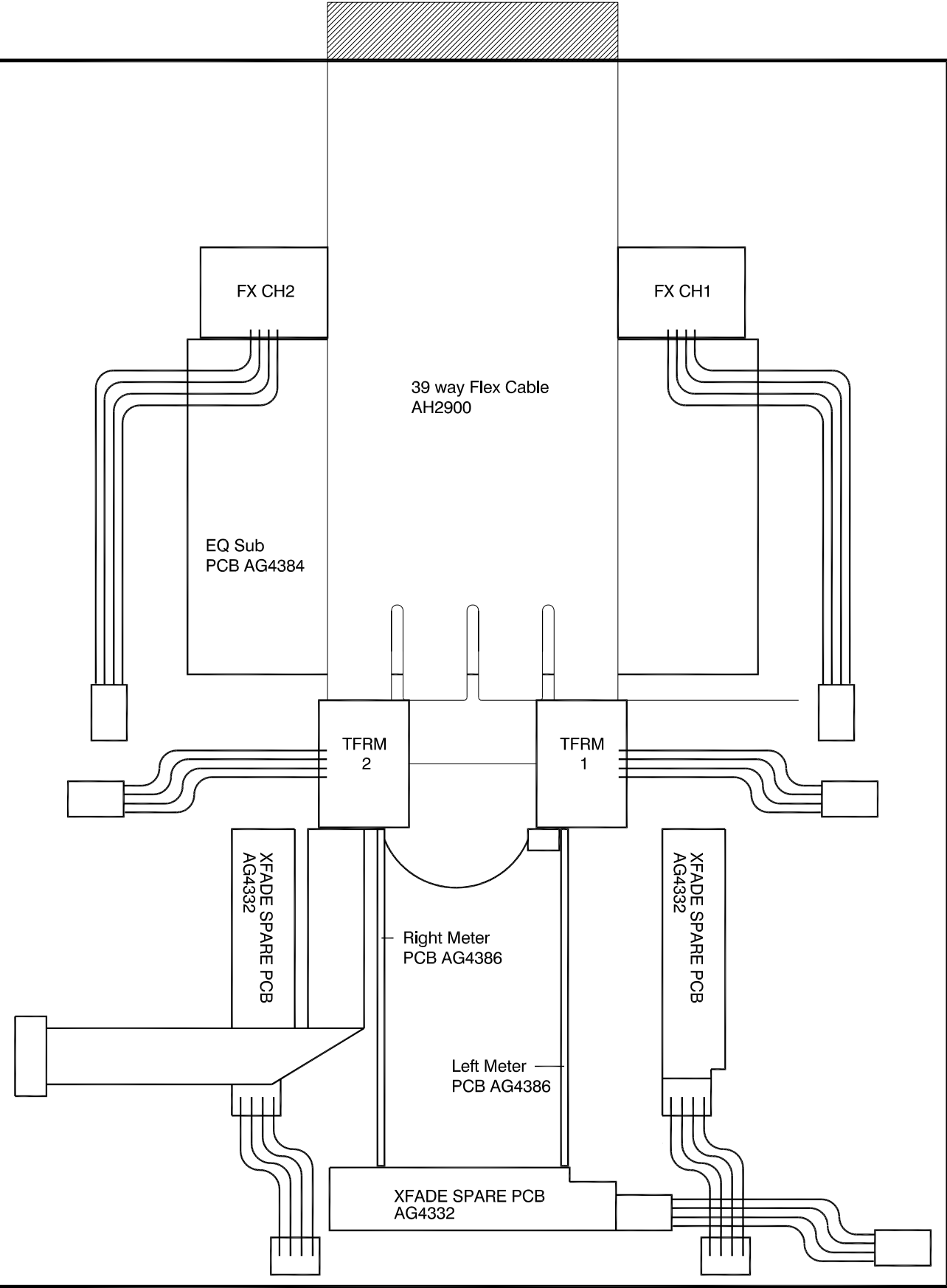
The following section includes the full set of technical drawings associated with the **XONE:02**.

The MAP DRAWINGS show the interconnection between the various circuit assemblies.

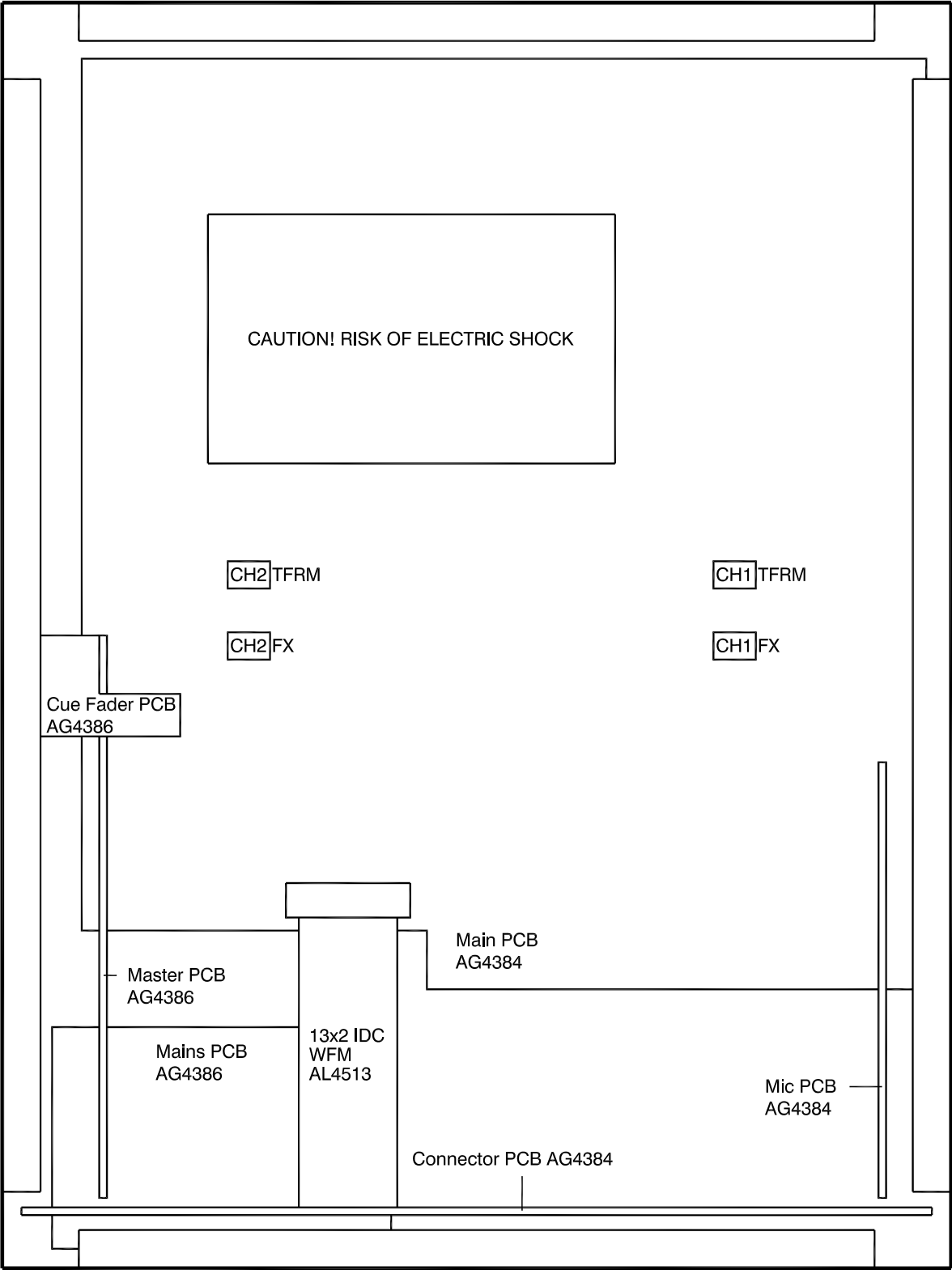
The PCB and CIRCUIT drawings show the details for each assembly. Option and assignment links are marked where appropriate. The drawings included are listed in the contents at the start of this manual.

If you have any queries or require further information please contact Allen & Heath.

FRONT PANEL INTERNAL LAYOUT

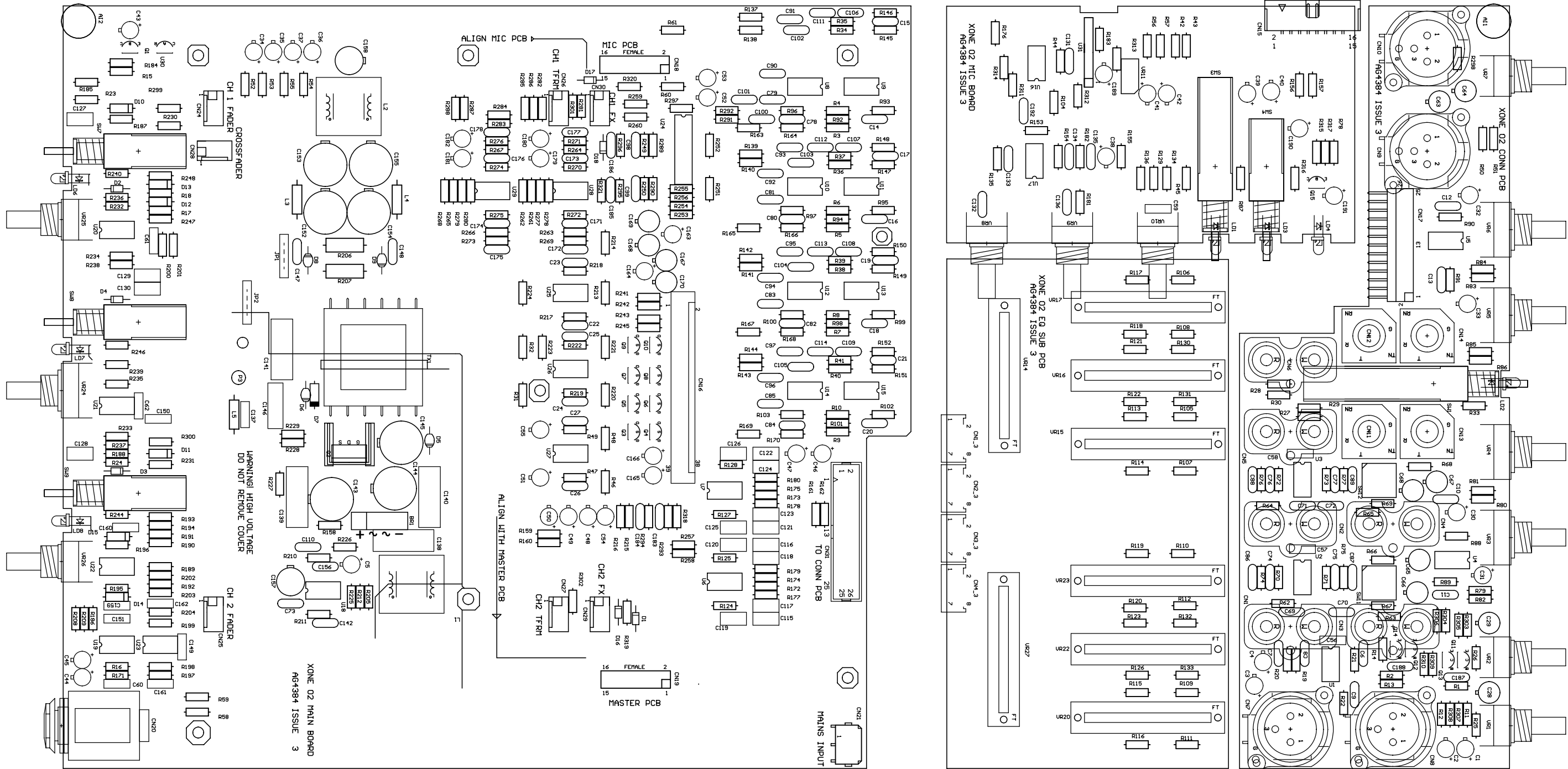


CHASSIS INTERNAL LAYOUT



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XONE:02
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TITLE:
XONE02 MAIN/MIC/CONN

DRG No: AG4384 ISSUE: 3

