Soundcraft®

by HARMAN

MINI STAGEBOX 16

User & Installation Guide

IMPORTANT

Please read this manual carefully before using your unit for the first time.

This equipment complies with the EMC directive 2014/30/EU and LVD 2014/35/EU

This product is approved to safety standard
EN 62368-1:2014 + A11:2017
And EMC standards
EN55032:2015 + A11:2020
EN55037:2017 + A11:2020

Warning: This equipment is compliant with Class A of EN 55032. In a residential environment this equipment may cause radio interference. This product must not be used in residential environment.

Warning: Any modification or changes made to this device, unless explicitly approved by Harman, will invalidate the authorisation of this device. Operation of an unauthorised device is prohibited under Section 302 of the Communications act of 1934, as amended, and Subpart 1 of Part 2 of Chapter 47 of the Code of Federal Regulations.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

For further details contact
Harman Professional, Inc., 8500 Balboa Blvd., Northridge, CA 91329, USA email: HProTechSupportEMEA@harman.com. HProTechSupportUSA@harman.com

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INTRODUCTION

SAFETY NOTICES

FOR YOUR OWN SAFETY AND TO AVOID INVALIDATION OF THE WARRANTY PLEASE READ THIS SECTION CAREFULLY.

SAFETY SYMBOL GUIDE

For your own safety and to avoid invalidation of the warranty all text marked with these symbols should be read carefully.

WARNINGS



The lightning flash with arrowhead symbol, is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTIONS



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

NOTES



Contain important information and useful tips on the operation of your equipment.

HEADPHONES SAFETY WARNING



Contain important information and useful tips on headphone outputs and monitoring levels.

ESD WARNING



The crossed-out hand symbol is intended to alert the user to devices sensitive to electrostatic discharge. Please refer to the instructions on page 6.

IMPORTANT SAFETY WARNINGS

THIS APPARATUS MUST BE EARTHED. Under no circumstances should the safety earth be disconnected from the mains lead.

The mains supply disconnect device is the mains plug. It must remain accessible so as to be readily operable when the apparatus is in use.

If any part of the mains cord set is damaged, the complete cord set should be replaced. The following information is for reference only.
The wires in the mains lead are coloured in accordance with the following code:

Earth (Ground):	Green and Yellow (US - Green/Yellow)
Neutral:	Blue (US - White)
Live (Hot):	Brown (US - Black)

As the colours of the wires in the mains lead may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

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

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

The wire which is coloured Brown 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.

This unit is capable of operating over a range of mains voltages as marked on the rear panel.

The internal power supply unit contains no user serviceable parts. Refer all servicing to a qualified service engineer, through the appropriate Soundcraft dealer.

ELECTROSTATIC DISCHARGE (ESD)



Many semiconductor components are sensitive to electrostatic discharge (ESD). The lifespan of assemblies containing such components can be drastically reduced by improper handling during maintenance and repair. Please observe the following rules when handling ESD sensitive components:

- ESD sensitive components should only be stored and transported in the packing material specifically provided for this purpose.
- When performing a repair by replacing complete assemblies, the removed assembly must be sent back to the supplier in the same packing material in which the replacement assembly was shipped. If this should not be the case, any claim for a possible refund will be null and void.
- Unpacked ESD sensitive components should only be handled in ESD protected areas (EPA, e.g. area for field service, repair or service bench) and only be touched by persons wearing a wristlet connected to the ground potential of the repair or service bench by a series resistor. The equipment to be repaired or serviced as well as all tools and electrically semi-conducting work, storage, and floor mats should also be connected to this ground potential.
- The terminals of ESD sensitive components must not come in uncontrolled contact with electrostatically chargeable or metallic surfaces (voltage puncture, discharge shock hazard).
- To prevent the components from undefined transient stress and possible damage due to inadmissible voltages or compensation currents, electrical connections should only be established or separated when the equipment is switched off and after any capacitor charges have decayed.

IMPORTANT SAFETY INSTRUCTIONS

Read these instructions.

Keep these instructions.

Heed all warnings.

Follow all instructions.

Do not use this apparatus near water.

Clean only with a dry cloth.

Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Do not defeat the safety purpose of a polarised or grounding type plug. A polarised plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.

Only use attachments/accessories specified by the manufacturer.



Use only with the cart, stand, tripod, bracket or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.

Unplug this apparatus during lightning storms or when unused for long periods of time.

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



NOTE: It is recommended that all maintenance and service on the product should be carried out by Soundcraft or its authorised agents. Soundcraft cannot accept any liability whatsoever for any loss or damage caused by service, maintenance or repair by unauthorised personnel.



WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Do not expose the apparatus to dripping or splashing and do not place objects filled with liquids, such as vases, on the apparatus. No naked flame sources, such as lighted candles, should be placed on the apparatus.
Ventilation should not be impeded by covering the ventilation openings with items such as newspapers, table cloths, curtains etc.

WORKING SAFELY WITH SOUND



Although your new unit will not make any noise until you feed it signals, it has the capability to produce sounds which when monitored through a PA system or headphones can damage hearing over time.

The table below is taken from the Occupational Safety & Health Administration directive on occupational noise exposure (1926.52):

PERMISSIBLE NOISE EXPOSURE

DURATION PER DAY, HOURS	SOUND LEVEL dBA SLOW RESPONSE
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
<0.25	115

Conforming to this directive will minimise the risk of hearing damage caused by long listening periods. A simple rule to follow is — the longer you listen, the lower the average volume should be.

Please take care when working with your audio. If you are manipulating controls which you don't understand (which we all do when we are learning), make sure your monitors are turned down. Remember that your ears are the most important tool of your trade, look after them, and they will look after you.

Most importantly — don't be afraid to experiment to find out how each parameter affects the sound — this will extend your creativity and help you to get the best results.

Recommended headphone impedance is 50-600 ohms.

FEATURES

The Mini Stagebox 16 is ideal for for expanding the I/O capabilities of any of the Vi or Si range of consoles regardless of whether that I/O is needed locally or hundreds of metres away on the stage.

The Soundcraft Mini Stagebox 16 requires only 2U of rack space and, in this tiny footprint, provides 16 recallable mic/line inputs and 8 balanced line outputs, all lifted directly from the Vi1 and the larger Compact Stagebox.

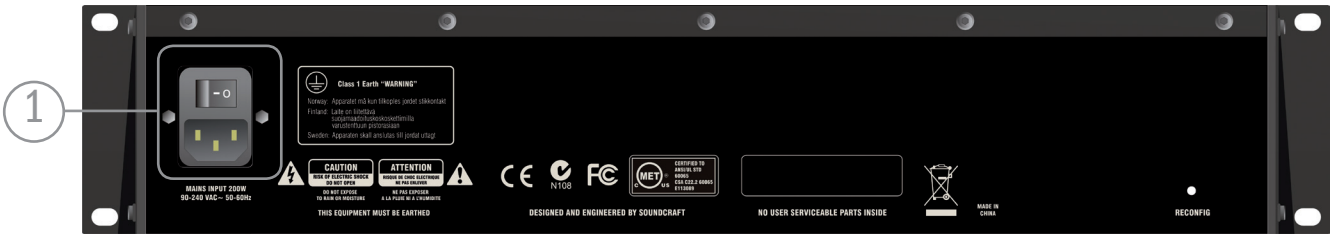
The Mini Stagebox 16 comes, as standard, fitted with a single-cable Cat 5 MADI HD interface for connection to the host console using an approved Cat 5 cable (not included, but available from Soundcraft).

MINI STAGEBOX FRONT PANEL



1. MIC/LINE IN 1-16 - CARD A
2. LINE OUT 1-8 - CARD <TBD>
3. MADI CARD (CAT5)
4. 48V PHANTOM POWER INDICATOR

MINI STAGEBOX REAR PANEL



1. AC INLET AND POWER SWITCH

MOUNTING MINI STAGEBOX 16

When installed in a 19" rack mount ensure all four mounting holes are used.

Use M6 x 16mm standard rack mount screws, with matching cage nuts (not supplied) for fixing the unit into the rack.
In the USA, use standard rack mounting screws size 10-32 or 12-24 for fixing the unit into the rack.

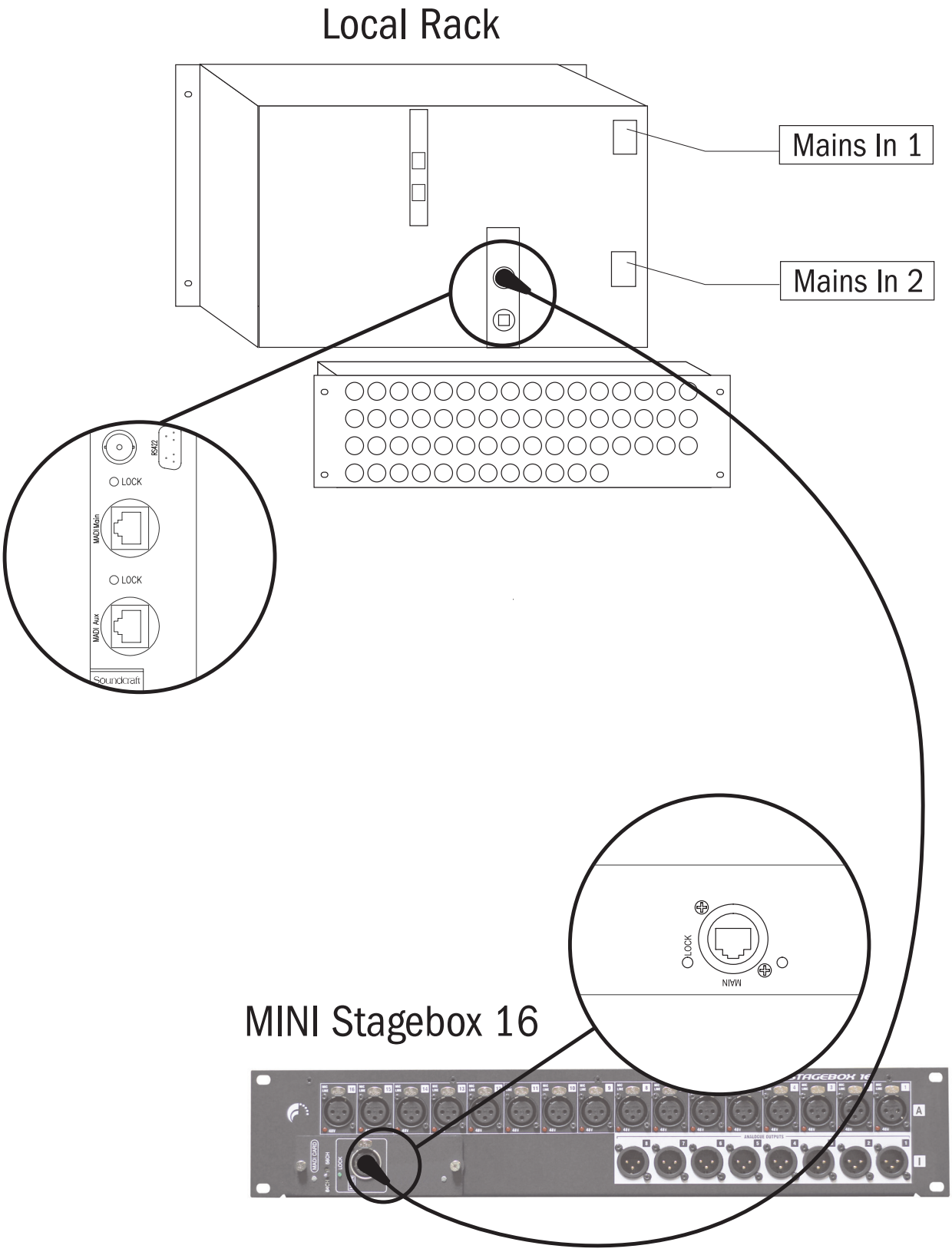
Use at least 4 screws on each side, equally spaced.

If mounted with other equipment that may get hot (~power requirement of 'other' equipment >100W) it is recommended to leave a 1U gap between the equipment.

In all scenarios, the air vents must not be obstructed and the Mini Stagebox 16 must not be mounted in a fully sealed enclosure.

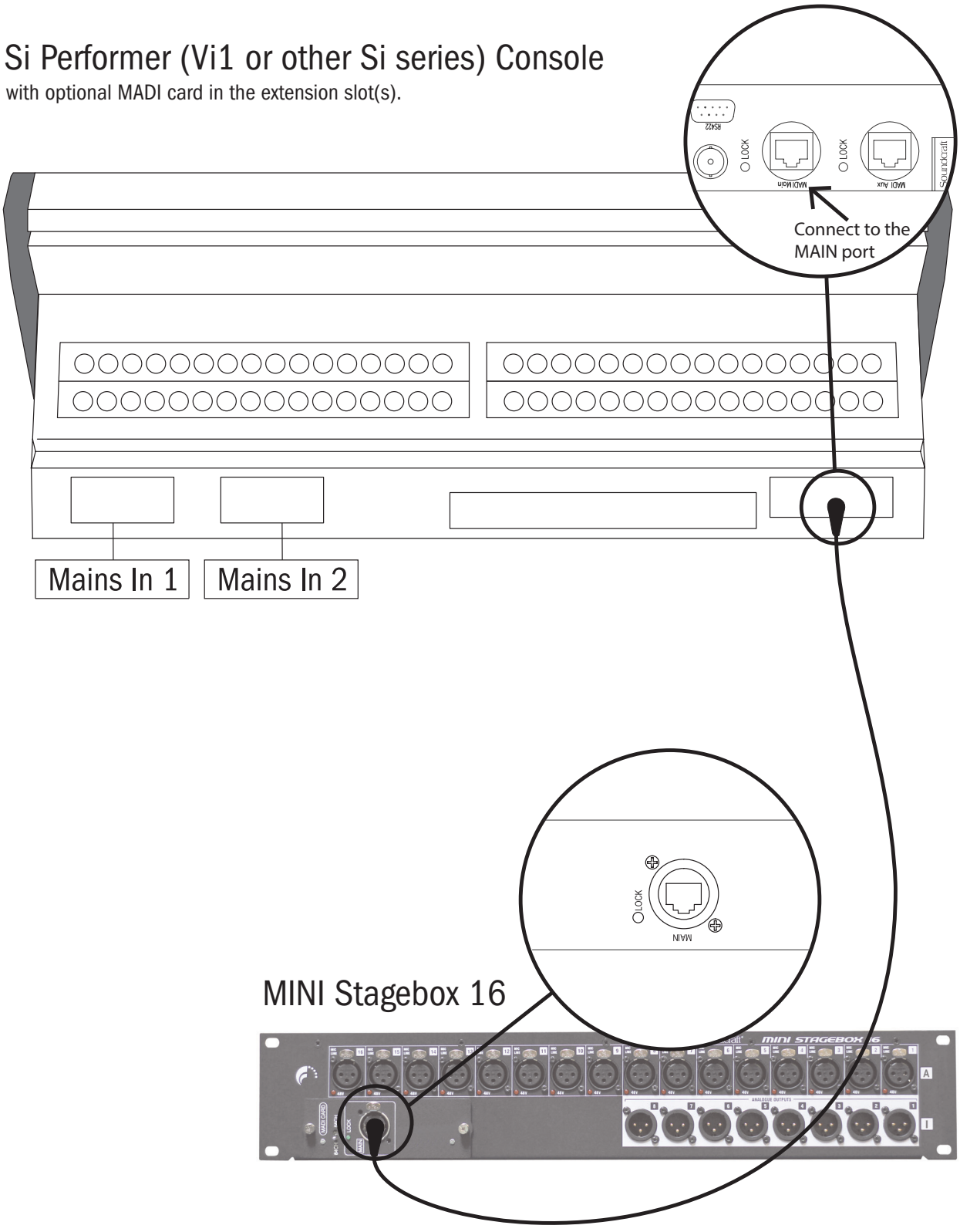
MINI STAGEBOX 16 CONNECTING TO VI2-VI6 RANGE CONSOLES

Note: Connections from the local rack to the Mini Stagebox 16 may vary depending on actual flightcase and breakout panel options.



MINI STAGEBOX 16 CONNECTING TO Si OR Vi1 CONSOLES

- Connections from the console to the Mini Stagebox 16 may vary depending on actual flightcase and breakout panel options.
- For Si1, 2 and 3 consoles, including their 'PLUS' variants, read the Si Option Slot and Option Card User Guide if using more than 1 option card in the console.



MINI STAGEBOX TYPICAL SPECIFICATIONS

Frequency Response	
Mic / Line Input to any Output:	+0/-1dB, 20Hz – 20kHz
T.H.D.	
Mic Sensitivity -30dBu:	< 0.01% @ 1kHz
Noise	
Residual noise:	-85dBu
Mic Input E.I.N. (maximum gain):	-125dBu (150Ω source)
Mix noise, masters at unity:	< -86dBu
1 input to mix at unity gain:	-84dBu
CMRR mic @1KHz (max gain):	-86dBu
Crosstalk (@ 1kHz)	
Mic – Mic:	<-80dB @ 1kHz
Input Gain	
Mic Gain:	-5dB – 58dB integrated pad design 1dB steps
Max. input level:	+24dBu
Max. output level:	+22dBu
Sample rate:	48kHz
Convertor resolution:	24 bit
Latency:	1.5ms
Internal clock accuracy:	+/- 25ppm
Mains power consumption:	33W
Mains voltage operating range:	90 – 264 VAC, 47 – 63Hz
Operating temperature range:	-10°C – +50°C
Relative humidity:	0 – 90%
Storage temperature range:	-10°C – +50°C

WARRANTY

1 Soundcraft is a trading division of Harman International Industries Ltd.
End User means the person who first puts the equipment into regular operation.
Dealer means the person other than Soundcraft (if any) from whom the End User purchased the Equipment, provided such a person is authorised for this purpose by Soundcraft or its accredited Distributor.
Equipment means the equipment supplied with this manual.

2 If within the period of twelve months from the date of delivery of the Equipment to the End User it shall prove defective by reason only of faulty materials and/or workmanship to such an extent that the effectiveness and/or usability thereof is materially affected the Equipment or the defective component should be returned to the Dealer or to Soundcraft and subject to the following conditions the Dealer or Soundcraft will repair or replace the defective components. Any components replaced will become the property of Soundcraft.

3 Any Equipment or component returned will be at the risk of the End User whilst in transit (both to and from the Dealer or Soundcraft) and postage must be prepaid.

4 This warranty shall only be valid if:
   a) the Equipment has been properly installed in accordance with instructions contained in Soundcraft's manual; and
   b) the End User has notified Soundcraft or the Dealer within 14 days of the defect appearing; and
   c) no persons other than authorised representatives of Soundcraft or the Dealer have effected any replacement of parts, maintenance adjustments or repairs to the Equipment; and
   d) the End User has used the Equipment only for such purposes as Soundcraft recommends, with only such operating supplies as meet Soundcraft's specifications and otherwise in all respects in accordance with Soundcraft's recommendations.

5 Defects arising as a result of the following are not covered by this Warranty: faulty or negligent handling, chemical or electro-chemical or electrical influences, accidental damage, Acts of God, neglect, deficiency in electrical power, air-conditioning or humidity control.

6 The benefit of this Warranty may not be assigned by the End User.

7 End Users who are consumers should note their rights under this Warranty are in addition to and do not affect any other rights to which they may be entitled against the seller of the Equipment.

PRODUCTS UNDER WARRANTY

UK customers should contact their local dealer.
Customers outside the UK are requested to contact their territorial distributor who is able to offer support in the local time zone and language. Please see the distributor listings on our website (www.soundcraft.com) to locate your local distributor.

OUT-OF-WARRANTY PRODUCTS

For out-of-warranty consoles purchased in the United Kingdom, please contact the Customer Services Department (e-mail: soundcraft.csd@harman.com) at the factory in Potters Bar, Hertfordshire: Telephone +44 (0)1707 665000. For all other out-of-warranty consoles, please contact the appropriate territorial distributor.

When mailing or faxing please remember to give as much information as possible. This should include your name, address and a daytime telephone number. Should you experience any difficulty please contact Customer Services Department (e-mail: soundcraft.csd@harman.com).

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