



# Technical Data

## Contents

<b>Key Features</b>	<b>2</b>
<b>Modules</b>	<b>3</b>
<b>Block Diagram - Inputs</b>	<b>4</b>
<b>Block Diagram - Master Section</b>	<b>5</b>
<b>Typical Specifications</b>	<b>6</b>
<b>Dimensions</b>	<b>7</b>
<b>Architect's and Engineer's Specifications</b>	<b>8</b>





# Technical Data

## Key Features

- **19" Rackmountable console**
- **16 channel version, with 16 mono inputs, Stereo Mix and Mono Sum Outputs and 6 Aux Outputs. Total Inputs to Mix: 22**
- **12/2 channel version, with 12 mono inputs and 2 stereo inputs, 1 Stereo Sub Group Output, Mix and Mono Sum Outputs, and 6 Aux Outputs. Total Inputs to Mix: 26 (when Mics used on stereo input)**
- **Dual-position connector pod for top or rear cable entry**
- **8 (GB2R-16) or 10 (GB2R-12/2) busses**
- **2 full feature stereo inputs (GB2R-12/2 version)**
- **GB30 Mic preamp and precision EQ on inputs**
- **Switchable +48V phantom power on every mic input**
- **100Hz Hi-pass filter**
- **Direct outputs on every mono channel**
- **100mm faders**
- **Stereo Mix Output and separate Mono Sum output**
- **Record output**
- **Internal Universal switched mode PSU**
- **Mix Inserts**
- **Separate L-R Mix Faders**
- **Mix Outputs on XLRs**
- **Mono Sum Output on XLR**
- **All outputs except Insert Sends and Record are Impedance Balanced.**
- **All inputs, except Insert Returns and 2-TK Replay are Voltage Balanced.**
- **Littlite connector**



# Technical Data

## Modules

### Mono Input

1

48V

MIC GAIN

LINE IN 9 00dB / 100Hz

HF

H MID

LO MID

LF

EQ

AUX1 PRE

AUX2 PRE

AUX3

AUX4

AUX5 POST

AUX6 POST

PAN

MUTE

MIX

SUB

PK

SIG

PFL

1

12/2 ONLY

### Stereo Input 12/2 Only

STE1

48V

MIC GAIN

LINE IN 9 00dB

LINE TO MIX

LINE

MONO

HF

H MID

LM

LF

EQ

AUX1 PRE

AUX2 PRE

AUX3

AUX4

AUX5 POST

AUX6 POST

BAL

MUTE

MIX

SUB

PK

SIG

PFL

STE1

### Master Section 12/2

Soundcraft  
Sprohler  
Blyth  
DESIGNER

48V

±17V

AUX1 PRE

AUX2 PRE

AUX3

AUX4

AUX5

AUX6

STEREO RET1

STEREO RET2

2 TK TO MIX

2 TK LEVEL

2TK

MIX

SUB

MONITOR SOURCE

PFL

AFL

MONO

C:ROOM

H/PHONES

MONO

MIX

SUB-L

SUB-R

MIX-L

MIX-R

### Master Section 16

Soundcraft  
Sprohler  
Blyth  
DESIGNER

48V

±17V

AUX1 PRE

AUX2 PRE

AUX3

AUX4

AUX5

AUX6

STEREO RET1

STEREO RET2

2 TK TO MIX

2 TK LEVEL

2TK

MIX

SUB

MONITOR SOURCE

PFL

AFL

MONO

C:ROOM

H/PHONES

MONO

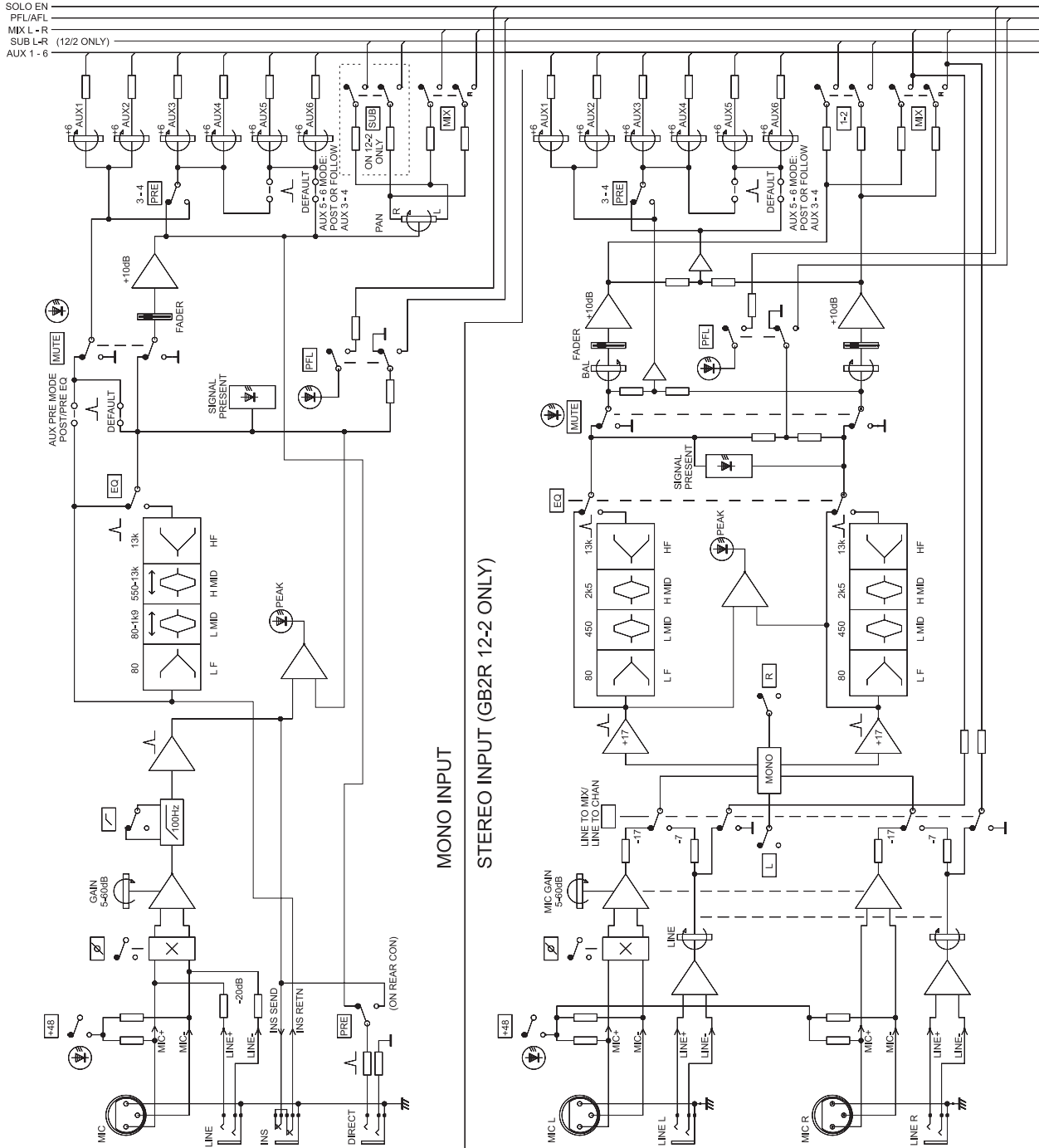
MIX-L

MIX-R

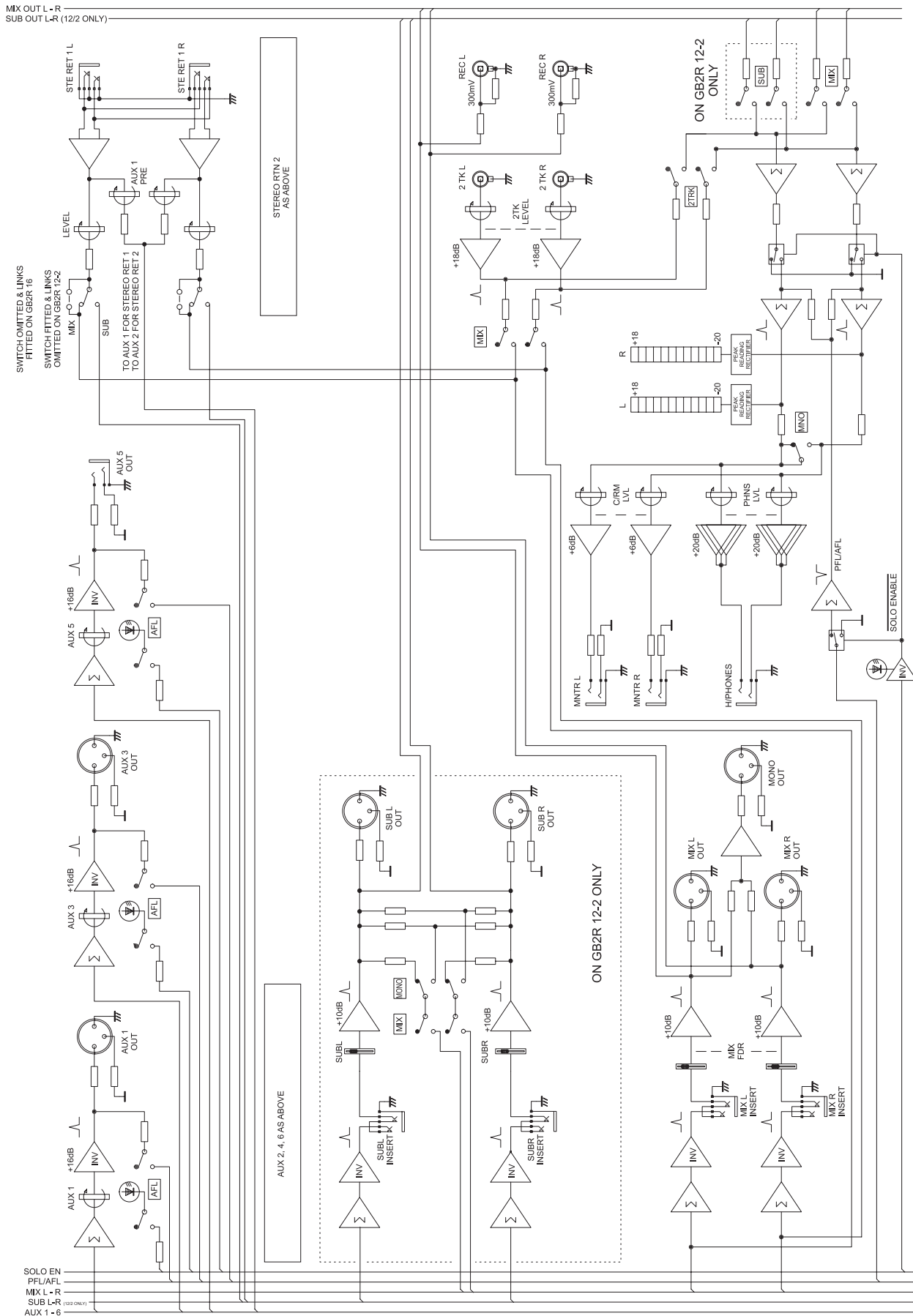


# Technical Data

## Block Diagram - Inputs



# Block Diagram - Master Section





# Technical Data

## Typical Specifications

### Frequency Response

Mic/Line Input to any output, 20Hz - 20kHz <1dB

### THD + N

Mic sens. -30dBu, +10dBu at all outputs @1kHz <0.006%

### Noise

Measured RMS, 22Hz to 22kHz Bandwidth

Mic E.I.N. @ unity gain, 150Ohm source impedance -128dBu

Mix Output, 16 inputs routed to mix <-86dBu

Group & Centre Outputs <-86dBu

Aux Outputs <-86dBu

### Crosstalk (@1kHz, typical)

Input Channel Mute <-97dB

Input Fader cut-off <-95dB

Pan isolation <-77dB

Mix route isolation <-97dB

Group route isolation <-97dB

Adjacent channel crosstalk <-99dB

Group to Mix <-89dB

Aux Send pots offness (typical) <-84dB

### CMRR

Typical @ 1kHz 90dB

### Input & Output Max Levels

Mono & Stereo Mic Inputs +15dBu

Mono & Stereo Line Inputs +30dBu

Stereo Returns & Insert Returns +20dBu

Any output +20dBu

Nominal Operating Level 0dBu

Headphone Power 2 x 250mW into 2000hms

### Input & Output Impedances

Mic Inputs 2kOhms

Line Inputs and Stereo Returns 10kOhms

Input channels Insert Return 5kOhms with EQ in, otherwise 3kOhms

Mix, Group, Aux, Matrix & Direct outputs 1500hms

Insert sends 750hms

Recommended Headphone Impedance 50-6000hms

### EQ (Mono input)

High pass filter (Mono input) 100Hz, 18dB/octave

HF 13kHz, +/-15dB, 2nd order shelving

Hi-Mid 550Hz-13kHz, +/-15dB, Q=1.5

Lo-Mid 80Hz-1.9kHz, +/-15dB, Q=1.5

LF 80Hz, +/-15dB, 2nd order shelving

### Metering

Input channels Single LEDs, Signal Present & Peak

Outputs 2 tri-colour 12-segment LED bargraphs

### Power

AC mains supply (internal PSU) 90V-240V AC, 50/60Hz universal input

Power consumption Less than 100W

### Operating conditions

Temperature range -10°C to +30°C

Relative humidity 0% to 80%

Note: These figures are typical of performance in a normal electromagnetic environment. Performance may be degraded in severe conditions. All measurements refer to electronically balanced inputs and outputs.



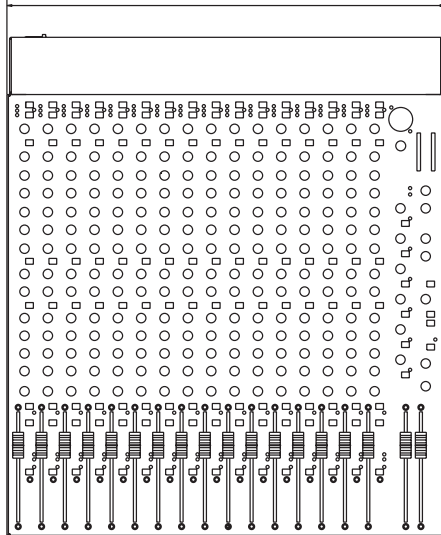
# Technical Data

## Dimensions

### Free Standing

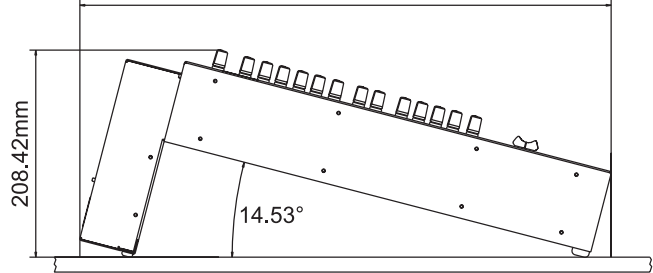
Top View

441.00mm

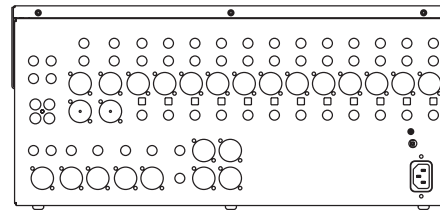


Side View

534.79mm



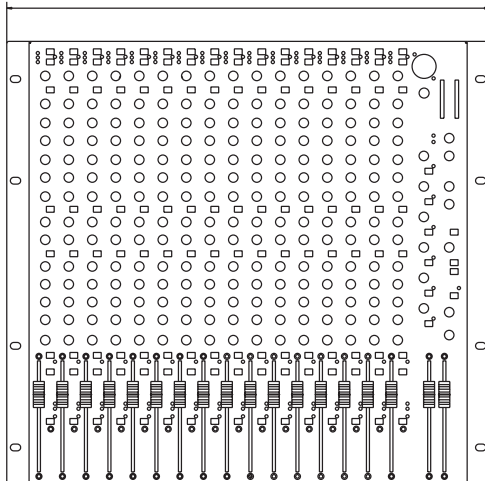
Rear View



### Rack Mounted

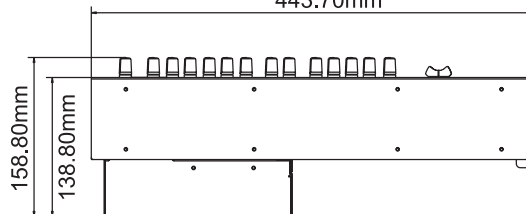
Top View

482.60mm

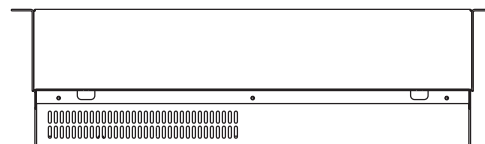


Side View

443.70mm



Rear View





# Technical Data

## Architect's and Engineer's Specifications

Soundcraft GB2R December 2007

The Mixing Console shall be constructed in an all-steel chassis, and shall be available in 16 mono and 12 mono/2 stereo (12/2) input configurations. There shall be one PCB per channel and master section. There shall be one Main mix output, optionally 2 Sub Group outputs (12/2 version), and a L/R recording output. There shall be 6 auxiliary send outputs and Direct Outputs on each mono channel with a switch to select the Direct Output to be sourced either Pre or Post fade. There shall be optionally 2 fully featured stereo Mic/Line channels (12/2 version). A lamp socket shall be provided on each version. The unit will be supplied with an universal internal power supply.

Each Mono Input shall have a balanced low-impedance input via an XLR socket and a line-level ¼" balanced TRS connector. Input Gain shall be continuously variable from +5 dBu to +60 dBu. Phantom power will be switchable on an individual basis with an LED to indicate that it is active. There shall be a switchable 100Hz High Pass filter with an 18db per octave slope, along with a Phase switch. The EQ shall be a 4-band type with a Shelving HF at 12kHz, Shelving LF at 80Hz, and two sweepable mid-range controls from 80Hz – 1.9kHz, and 550Hz – 13kHz respectively. The Q for Mid-range control shall be fixed at 1.5. Gain shall be cut or boosted by 15db on all bands (centre detented). The EQ circuit shall be engaged via a switch. Six external Aux sends shall be provided. Auxes 1-2 shall be fixed pre-fader, 3-4 will be globally switchable between pre and post fader. Auxes 5-6 shall be fixed post-fader operation, although it should be possible to set Aux 5-6 via internal jumper link to follow Aux 3-4). All Aux sends will be post-mute and post EQ. (There should also be internal jumper links to set any Pre fade Aux to also be Pre EQ) There shall be a pre-EQ, pre-mute TRS ¼" insert point. Routing shall be assigned, post-pan, to the Mix, and Group 1-2 (12/2 version) buses via a switch adjacent to each fader. Faders shall be of the 100mm variety. There shall be provided a main channel Mute switch and Mute LED indicator, as well as a PFL switch and LED indicator. Each mono input channel shall have a peak and signal LED indicator adjacent to the channel fader.

Each Stereo Input shall have 2 x balanced low-impedance Microphone inputs via XLR sockets and 2 x line-level ¼" balanced TRS connectors. Input Gain shall be continuously variable from +5 dBu to +60 dBu, and phantom power will be switchable on an individual basis. There shall be a switchable Phase switch that reverses the phase of the Left input signal. Left Only/Right Only and Mono Sum switches shall be provided. The EQ shall be a 4-band fixed frequency type. Gain shall be cut or boosted by 15db on all bands (centre detented). The EQ circuit shall be engaged via a switch. Six external Aux sends shall be provided. Auxes 1-2 shall be fixed pre-fader, 3-4 will be globally switchable between pre and post fader. Auxes 5-6 shall be fixed post-fader operation, although it should be possible to set Aux 5-6 via internal jumper link to follow Aux 3-4. All Aux sends will be post-mute and post EQ. (There should also be internal jumper links to set any Pre fade Aux to also be Pre EQ) Routing shall be assigned, post-pan, to the Mix, Group 1-2 and Group 3-4 buses via a switch adjacent to each fader. Faders shall be of the 100mm variety. There shall be provided a main channel Mute switch and Mute LED indicator, as well as a PFL switch and LED indicator. Each stereo input channel shall have a peak and signal LED indicator adjacent to the channel fader. When the Mic signal (XLR) is routed to the channel, the Line input (Jack) should be routable to the MIX bus, providing an additional stereo line input to mix.

There shall be 2 sub group busses on 100mm faders situated to the left of the Mix fader. Outputs will be routed to dedicated balanced XLR jacks with TRS insert points. A switch to route Group channels to the mix bus will be provided along with a mono/stereo switch to allow each group to route to both left and right output busses.

The Master section shall consist of two 100mm master faders which control the mix bus master level. Six master Aux sends with AFL switches shall be provided. There shall be a 12 segment multi-coloured LED meter switchable between the 2 Track, Groups 1-2 (12/2 version) and the Mix output. There shall be 2 stereo returns with level control and routing to Mix and Aux 1 or Aux 2 (16 input version) or Mix and Groups 1 and 2 (12/2 version).

The Monitoring section shall allow the selection of the 2 Track input, Mix bus and Groups 1-2 (12/2 version) to the headphones and Control Room speaker outputs. A 2 Track to Mix button shall also be provided that allows the Main stereo mix output to be replaced by the 2 Track input. A ¼" stereo headphone jack will be provided with dedicated level control. Master outputs shall be balanced XLR with ¼" TRS inserts available.

The console dimensions and weight shall be published in product literature according to frame size. The console shall be the **Soundcraft GB2R**.



**H** A Harman International Company

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