# 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.

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 equipmentis operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, 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.
This Class A digital apparatus meets the requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la Classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

# IMPORTANT SAFETY WARNINGS

**THIS UNIT MUST BE EARTHED**

**Under no circumstances should the mains earth be disconnected from the mains lead.**

The wires in the mains lead are coloured in accordance with the following code:

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

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 codings are followed carefully in the event of the plug being changed.

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

## WARNINGS

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Clean the apparatus only with a dry cloth.
- Do not install near any heat sources such as radiators, heat resistors, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not use this apparatus near water.
- Do not defeat the safety purpose of the polarized or grounding type plug. A polarized 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. When 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.
- 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 have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.

- Use only with the cart, stand, tripod, bracket or table specified by the manufacturer, or sold with the apparatus. When the cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- No naked flame sources, such as lighted candles or cigarettes etc., should be placed on the apparatus.
- 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.
- This unit contains no user serviceable parts. Refer all servicing to a qualified service engineer, through the appropriate Soundcraft dealer.
- Ventilation should not be impeded by covering the ventilation openings with items such as newspapers, table cloths, curtains etc.
- The disconnect device is the mains plug; it must remain accessible so as to be readily operable in use.
- 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.

## WORKING SAFELY WITH SOUND

Although your new console 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):

PERMISSABLE 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.

## 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 available 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 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.

# Soundcraft Vi Series™ FEATURES AND SPECIFICATIONS

## Audio Channels

**Max number of simultaneous mixing channels**
Soundcraft Vi6 : 96 mono inputs into 35 mix busses. (3 DSP cards fitted)
Soundcraft Vi4 : 96 mono inputs into 35 mix busses. (3 DSP cards fitted)
: 64 mono inputs into 35 mix busses (2 DSP cards fitted)
Soundcraft Vi2 : 96 mono inputs into 35 mix busses. (3 DSP cards fitted)
Pairs of mono inputs can be linked to create stereo channels.

**Insert points**
24 insert send/return pairs can be configured (using available I/O) and assigned to any of the 96 inputs or 35 output channels

**Direct Outputs**
All 96 input channels can have direct outputs in addition to their internal bus routing, assuming sufficient I/O is available (eg via 64ch optical MADI card, see below)

**Busses**
32 Grp/Aux/Matrix*, plus main LCR Mix and LR Solo busses.
* a maximum of 16 matrix outputs can be configured.

## I/O Capability

The following I/O is available and can be patched to any channel input, direct output, bus output or insert point as required:

**Local Rack Inputs**
- 16 analogue line inputs
- 3 analogue mic/line inputs
- 1 Talkback Mic input (mounted on control surface – 2 parallel sockets front/rear)
- 8 pairs of AES/EBU inputs (=16 channels)
- 64ch MADI In via optical SC connectors

**Local Rack Outputs**
- 16 analogue line outputs
- 8 pairs of AES/EBU outputs (= 16 channels)
- LCR Local monitor A analogue line outputs
- LR Local Monitor B analogue line outputs
- TB line output
- 64ch MADI Out via optical SC connectors

**Stagebox Inputs (max configuration)**
- 64 analogue mic/line inputs (with remote gain control, PAD, 48V and pre-A-D 80Hz HPF)

**Stagebox Outputs (max configuration)**
- 32 analogue line outputs (max configuration)

## Miscellaneous

**Connection from local rack to stagebox**

Standard fit: Cat 5e Neutrik Etherflex cable ZNK CT2672601.
Optional: Fibre Optical interface card with 150 or 200m cable (additional cost).

**Max distance, local rack to stagebox:**

80m using flexible reel-mounted Cat5 cable (Neutrik Etherflex only, part number ZNK CT2672601)
130m using Cat7 permanent installation cable (Amp Netconnect 600MHz PiMF, part no. 57893-x).
1500m using a single run of multimode 50/125 optical fibre.
600m using 3 X 200m reels of multimode 50/125 optical fibre joined in series.

**GPIO facility**

- 16 GPIO inputs and outputs on the local rack
- 8 GPIO inputs and outputs on the stagebox (All outputs are relay contact closure)

**MIDI**

- 1 MIDI Input and 2 MIDI Outputs on rear of control surface.

## Channel Processing

**Inputs**

- Analogue gain (remote control of stagebox or local mic preamp)
- Digital Gain Trim (+18/-36dB)
- Delay (0-100ms)
- HPF, LPF (variable 20-600Hz and 1-20kHz)
- 4-band fully parametric EQ, shelf mode on HF/LF.
- Compressor (variable threshold, attack, release, ratio, makeup gain with ‘auto’ mode)
- Limiter (variable threshold, attack, release)
- Gate or De-Esser. Gate switchable to ducker.
- Insert point for external processing.
- Pan – LR or LCR switchable.
- Direct Output, patchable to any I/O and with selectable tap-off point.

**Outputs**

- HPF (variable 20-600Hz)
- 4-band fully parametric EQ, shelf mode on HF/LF.
- Compressor
- Limiter
- Delay (0-1sec)
- Insert point for external processing.
- Pan (Output bus to LCR) – LR or LCR switchable.
- Bus Feed feature – allows switched routing of one bus to another.
- Graphic EQ 1/3-octave (with FX Card)
- Assignable Lexicon Multi-FX processors x8 (with FX Card)

## Control Surface

### Inputs

**Soundcraft Vi6:** 32 input faders, switchable in 3 fixed layers to access 96 inputs (3 DSP cards fitted).

**Soundcraft Vi4**: 24 input faders, switchable in 2 fixed layers to access 64 inputs (2 DSP cards fitted).
: 24 input faders, switchable in 3 fixed layers and meter screens to access 96 inputs (3 DSP cards fitted).

**Soundcraft Vi2**: 8 input faders, switchable in 3 fixed layers, 3 user layers and meter screens to access 96 inputs.

Vistonics™ II channel strip interface x 4 (3 on Vi4), each Vistonics™ controls 8 input channels.
The Vistonics™ II interface contains 16 rotary encoders and switches, and a touch screen.

Fader tray contains motorised faders, Mute, Solo, Isolate and F (user defined) switches, plus one assignable rotary encoder with LED display ring. This encoder is globally assignable to Gain, Pan, Gate Threshold, or one of 2 user-definable parameters.

Input level and gain reduction meters are located above each fader.

Input faders can be assigned to the 16 VCA (control group) masters and/or 4 Mute Groups.

Input faders can be switched to control all 32 Grp/Aux/Matrix Outputs, or can control an individual Aux send mix, using the switchable 'Follow Solo' function. Soundcraft FaderGlow™ clearly indicates using colours when faders are not controlling inputs.

### Outputs

8 assignable Output faders, plus dedicated LR and C Master faders, plus 16 assignable rotary Output faders. Output faders are colour-coded using Soundcraft FaderGlow.

Output faders can be assigned to the 16 VCA (control group) masters and/or 4 Mute Groups.

Single Vistonics II interface for Output processing control, also functions as complete meter overview display for all Inputs & Outputs, plus snapshot Cue List and diagnostics info display.

### Misc

Gang mode for temporary linking of any number of channels or outputs for quick adjustment and setup
Controls for Mute Group and VCA Group assignment.
Controls for assignment of Vistonics™ rows to bus sends (when channel parameters are not assigned to Vistonics).
Snapshot automation controls.
Talkback & Oscillator controls.
Controls for Monitor Output level, phones level and Solo Trim and blend level.

# CONSOLE OVERVIEW

## Bays

The desk is based on 1, 3 or 4 bays and 1 MASTER bay:

Soundcraft Vi2:
* 1 Input Bay

Soundcraft Vi4:
* 3 INPUT bays

Soundcraft Vi6:
* 4 INPUT bays

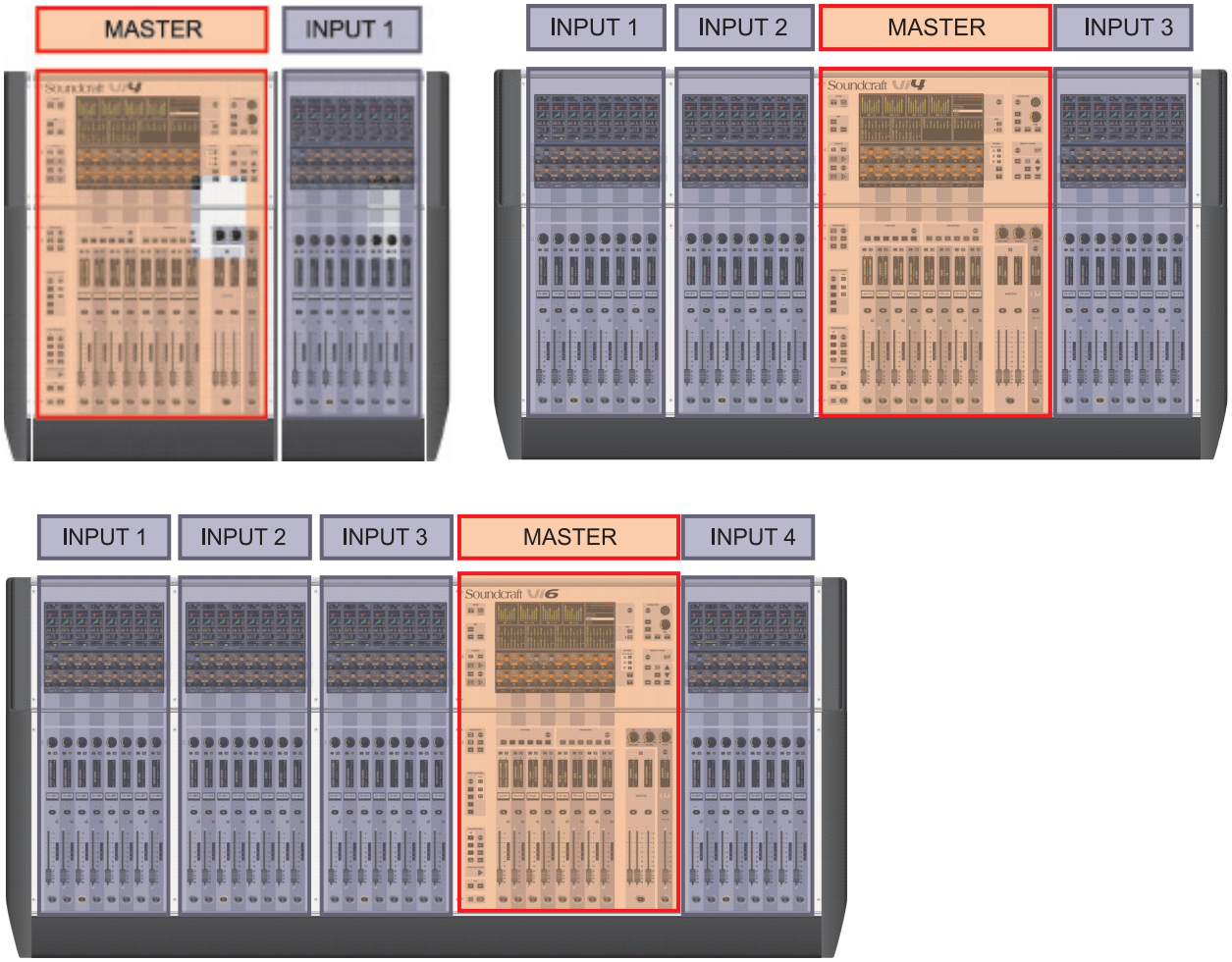


***Figure 1-1. Console Bays.***

* Each Input bay contains 8 complete Fader strips with full state overview, giving in total 32 directly accessible Input Strips.

* The Master bay contains 8 Output Fader strips, the 3 Masters and 16 Output encoders that give a total of 27 Output levels that can be directly controlled without changing Layers. General Functions like Snapshot, Monitoring, TB & OSC and so on are also located on the Master bay.

## Layers

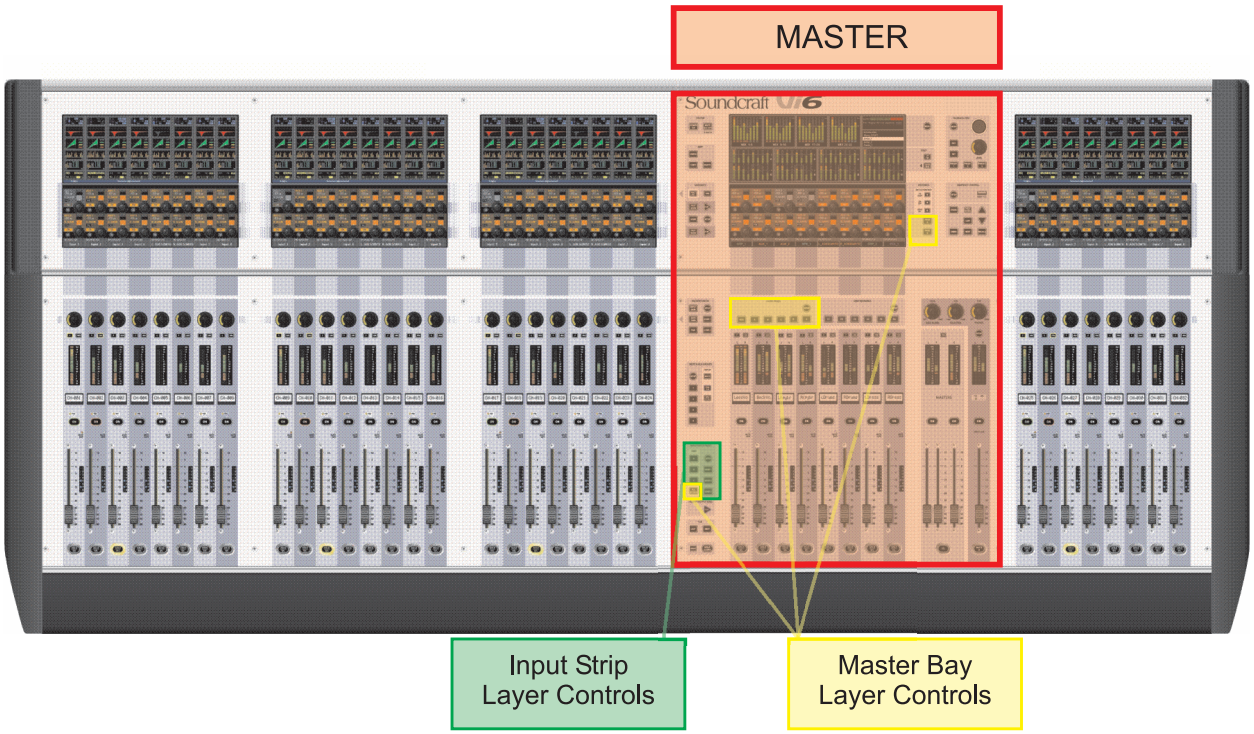


***Figure 1-2. Layer Controls.***

The console is able to control up to 96 inputs and 35 mix busses via its 32 input strips (24 on Vi4, 8 on Vi2), 8 bus master strips and the LCR masters. To do this the console has a number of layers which the user accesses via the layer controls shown above.

Full details are given in chapter 8 of this manual.

## Encoders

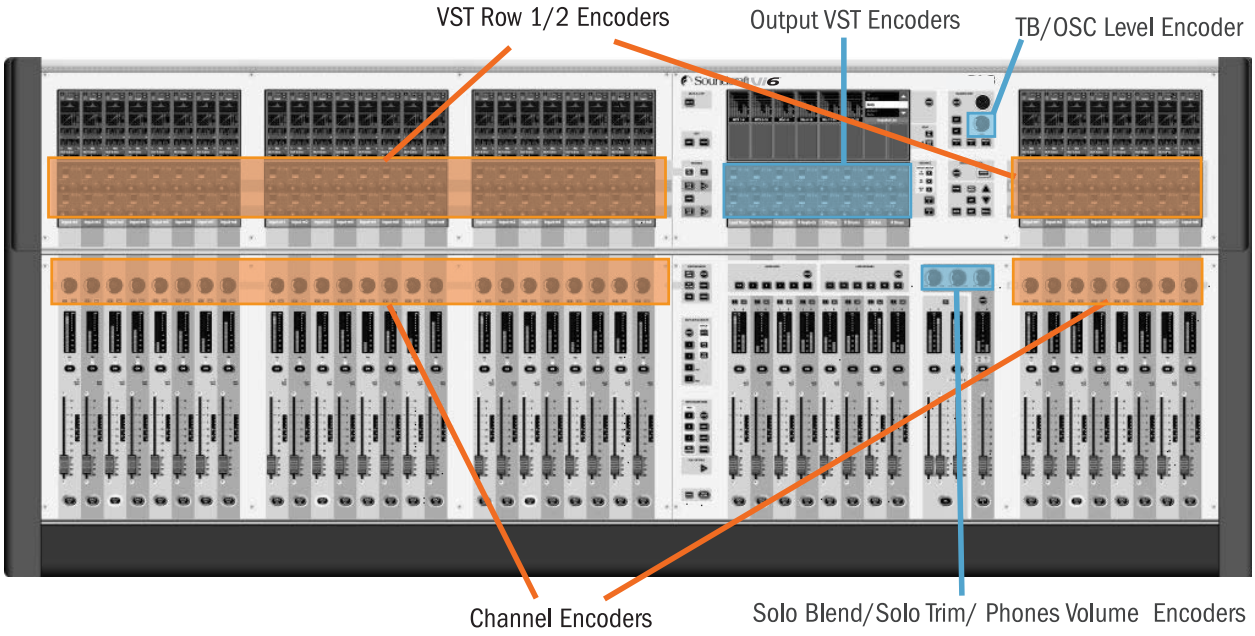


***Figure 1-3. Encoders.***

* The Vistonics™II **row 1 and 2 encoders**, including switches, are used in different modes, in which they can change in order to show various functions in a context-sensitive way.

* In normal operation they act as Input channel related controls.

* The **Channel encoders** are assigned with Input channel related functions.

* The Vistonics™ II **output encoders** are normally used as Output faders and are also context sensitive.

* There are four panel-mounted encoders with LED rings: the TB/OSC Level Control encoder, and the Sold Blend, Solo Trim & Phones Volume encoders. These are dedicated to their respective functions.

A detailed explanation of encoder use is given in chapter 7 of this manual.

## Master Audio Functions

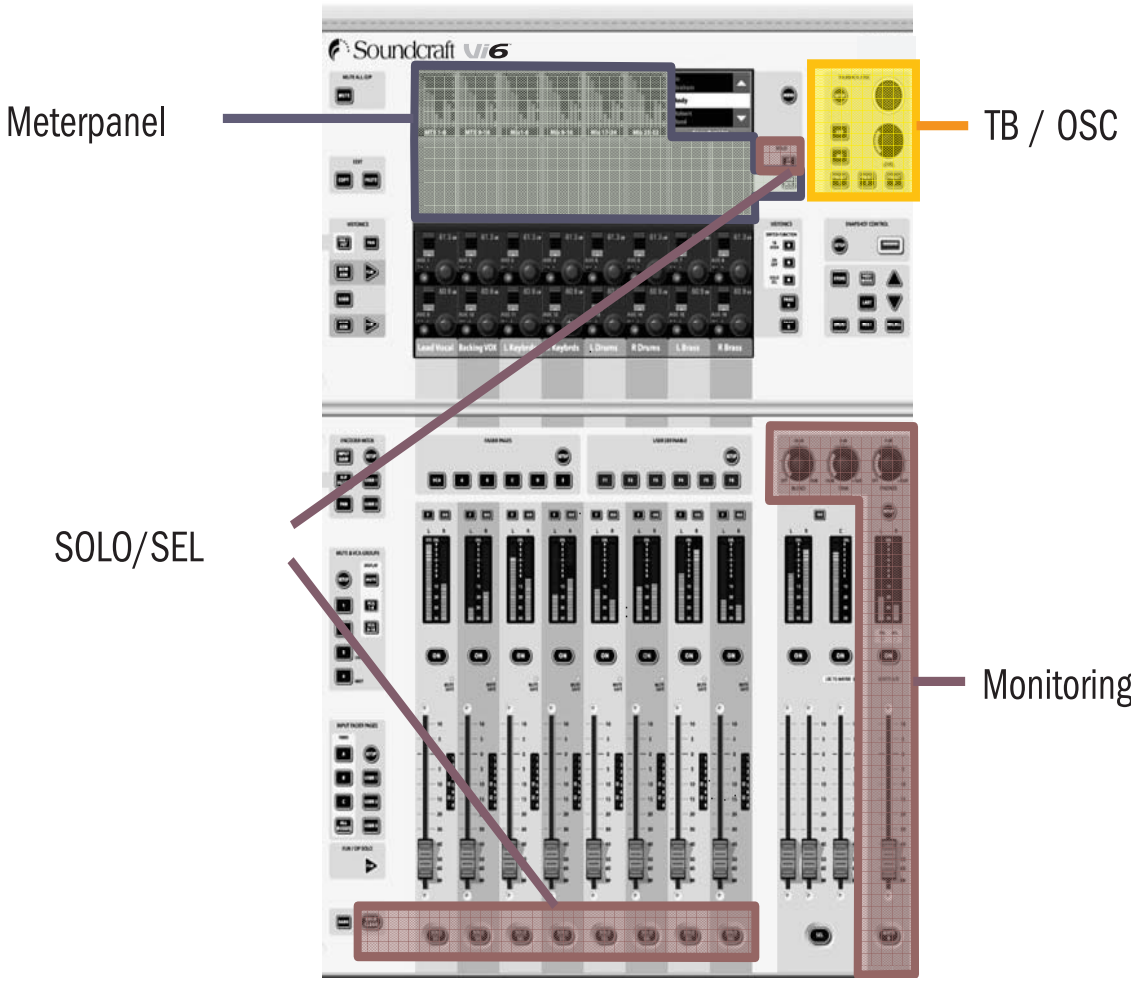


***Figure 1-4. Master Audio Functions.***

* The Monitoring system contains the functionality to listen to and monitor the audio signal at several points in the console.

* TB/OSC system contains the Talkback functionality and the oscillator settings.

* The Meter panel provides a full overview of all Input and Output levels.

## Master Control

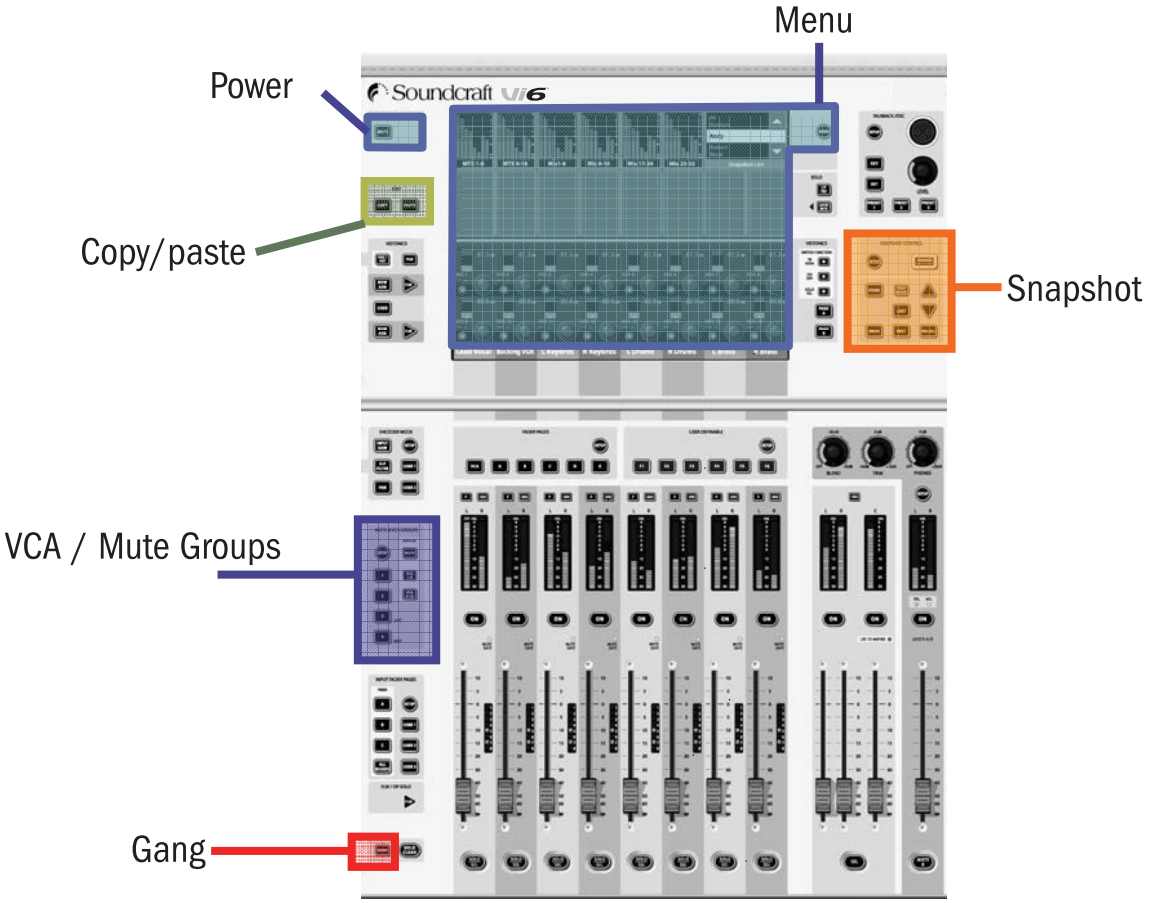


***Figure 1-5. Master Control.***

* VCA/Mute Groups: this functional block contains the VCA (control groups in VCA style) and Mute Group functions.

* Snapshot allows the console's automated settings to be saved and recalled.

* Menu opens the Menu page where central configurations can be done.

* Copy / paste functionality can be used in different modes and speeds up repetative tasks..

* Gang is a superb feature that links channels functions together for temporary changes.

* [Power] switches the Desk on and off, while [MUTE ALL] Outputs is helpful in emergency situations.