SMC 7.1

Surround Monitor Controller

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User Manual

Welcome

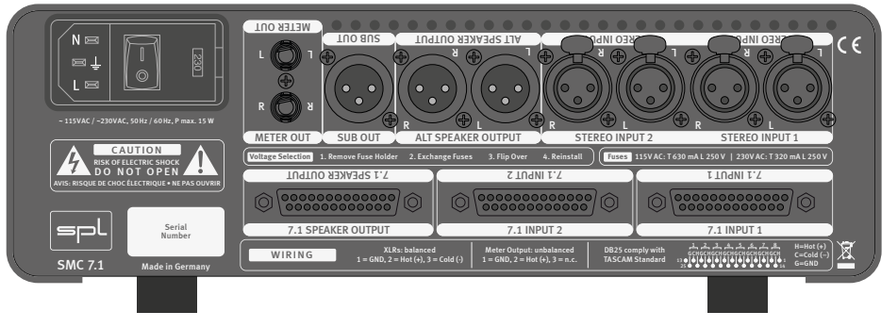
and thank you for choosing the SMC 7.1.

The Surround Monitor Controller SMC 7.1 is an analog studio monitor controller for 7.1 and stereo sources.

Each of the two balanced 7.1 Inputs and the two balanced Stereo Inputs can be routed to the balanced 7.1 Speaker Output. The L/R signals of the selected input can optionally be routed to the Alternate Speaker Output. With the headphone amplifier you can monitor the L/R of the selected input as well as single channels of the 7.1 Inputs.

The eight-ganged potentiometer controls the volume of all channels in the analog domain – no control circuits like VCAs or digital attenuators are used.

The SMC 7.1 is built in high-quality analog technique, which ensures a linear frequency response up to 150 kHz as well as an outstanding dynamic range.



Content

Getting started

Read thoroughly and follow the instructions as well as the security advices of the Quickstart which is enclosed in the scope of delivery! You can also download the Quickstart here.

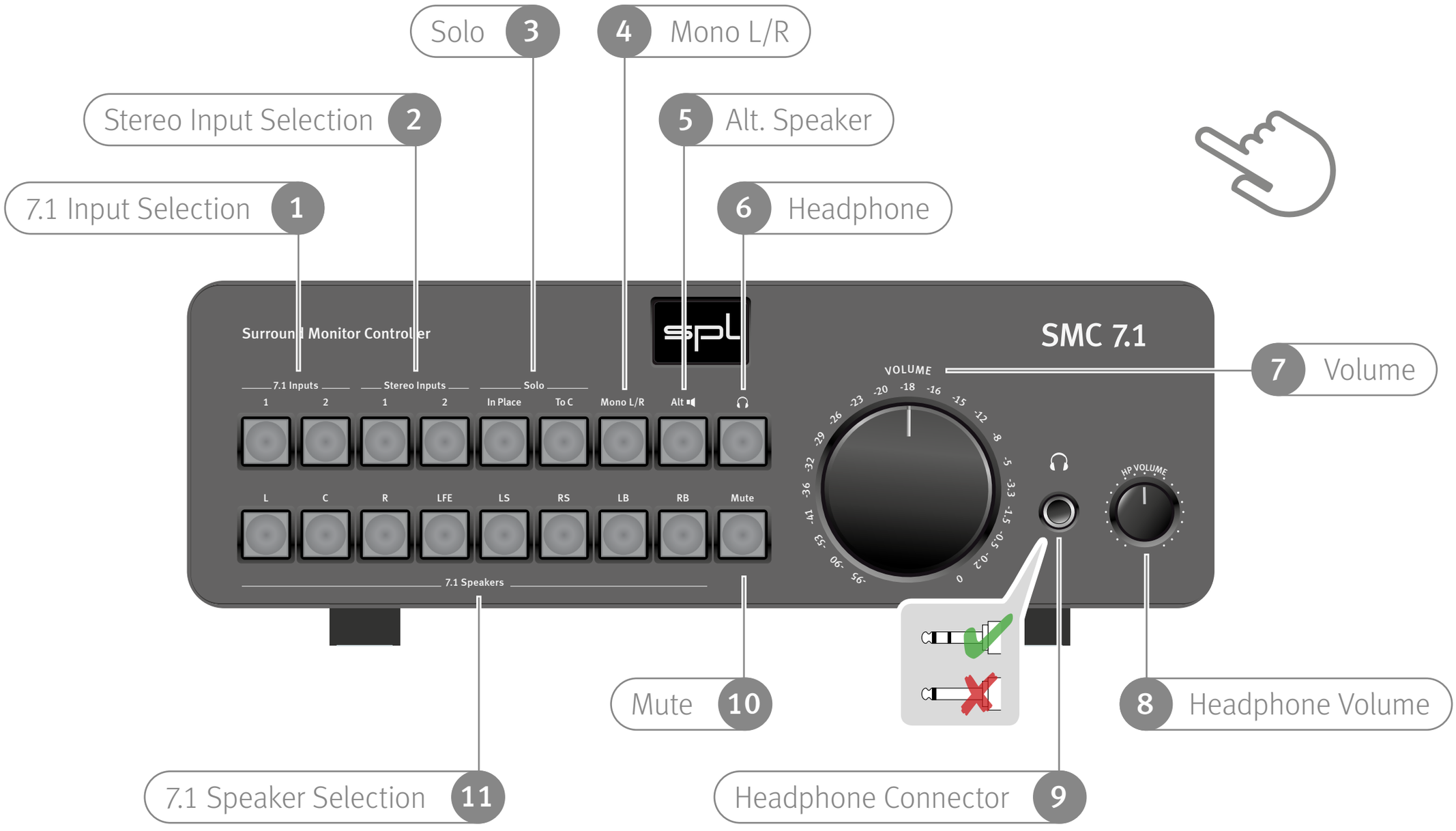
By pressing the I -Button you get to the table of contents.

By pressing the F -Button you get to the front view of the unit.

By pressing the R -Button you get to the rear view of the unit.

By pressing the ↩ -Button you get to the previous content.

Front view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7.1 Inputs
Stereo Inputs
Solo
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L C R LFE LS RS LB RB Mute
7.1 Speakers
VOLUME
HP VOLUME
7 Volume
8 Headphone Volume
Mute 10
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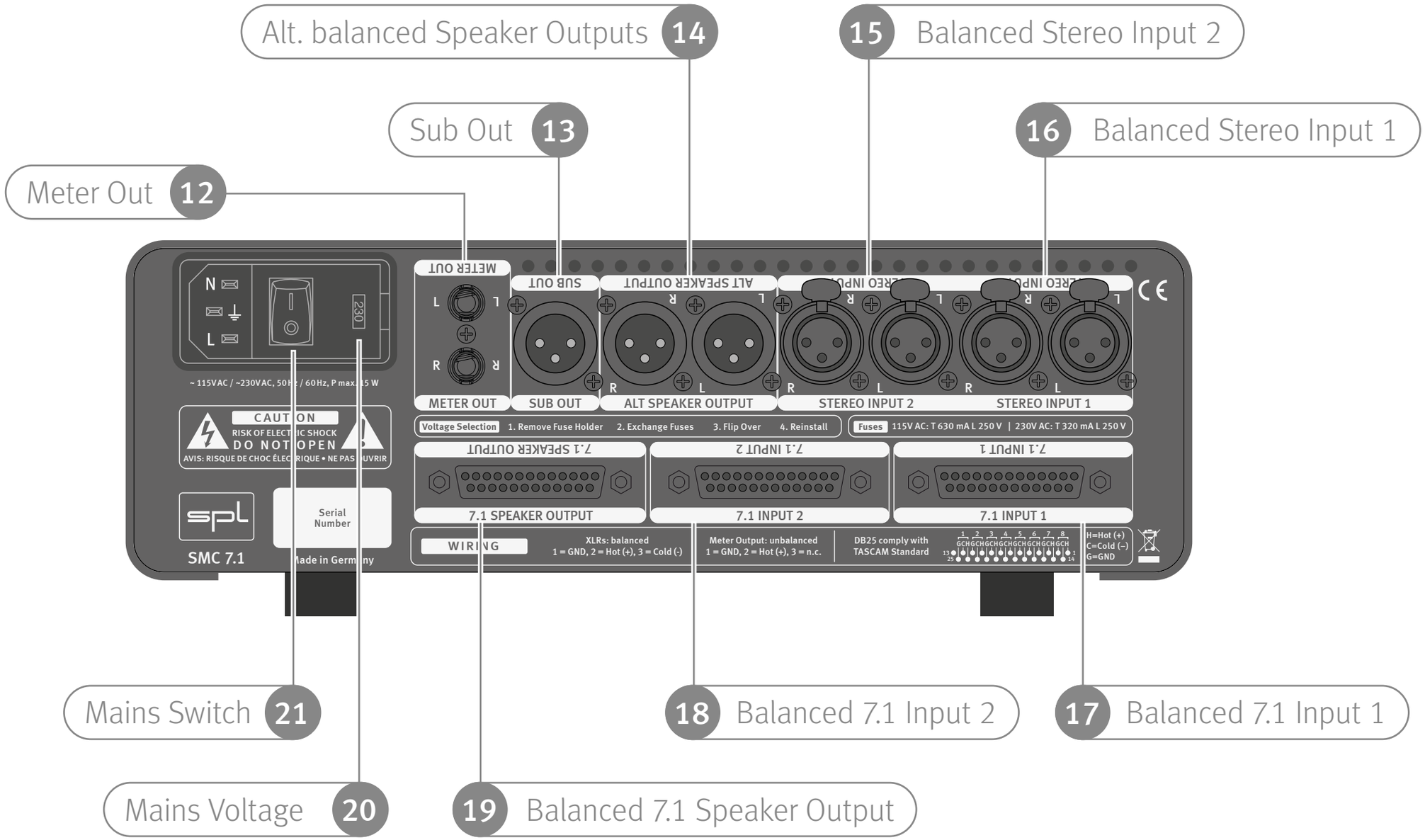
Rear view

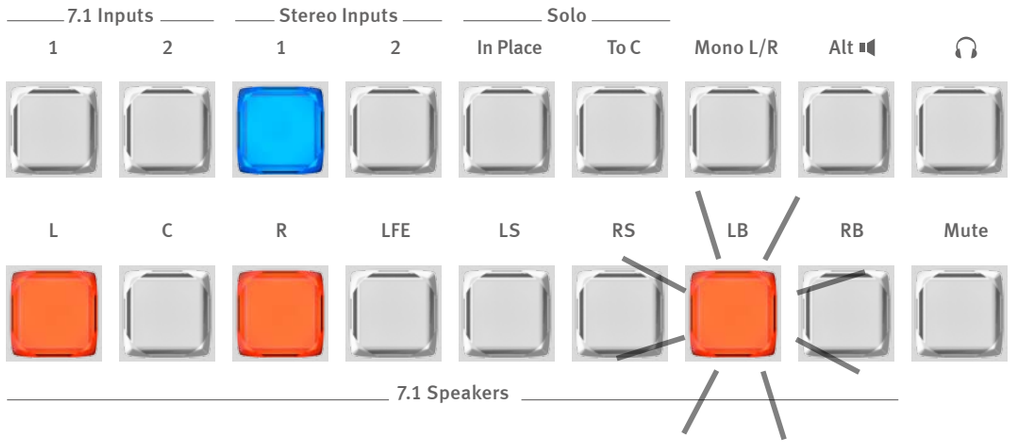

Alt. balanced Speaker Outputs 14
15 Balanced Stereo Input 2
Sub Out 13
16 Balanced Stereo Input 1
Meter Out 12
METER OUT
SUB OUT
ALT SPEAKER OUTPUT
STEREO INPUT 2
STEREO INPUT 1
Voltage Selection 1. Remove Fuse Holder 2. Exchange Fuses 3. Flip Over 4. Reinstall
Fuses 115V AC: T 630 mA L 250 V | 230V AC: T 320 mA L 250 V
7.1 SPEAKER OUTPUT
7.1 INPUT 2
7.1 INPUT 1
WIRING
XLRs: balanced
1 = GND, 2 = Hot (+), 3 = Cold (-)
Meter Output: unbalanced
1 = GND, 2 = Hot (+), 3 = n.c.
DB25 comply with
TASCAM Standard
H=Hot (+)
C=Cold (–)
G=GND
~ 115VAC / ~230VAC, 50 Hz / 60 Hz, P max. 15 W
CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
Serial Number
SMC 7.1
Made in Germany
Mains Switch 21
Mains Voltage 20
18 Balanced 7.1 Input 2
17 Balanced 7.1 Input 1
19 Balanced 7.1 Speaker Output

Operation

- To select an input, an output or a desired function, press the corresponding button.
- According to the function of a button, it lights blue, red or orange if it is active.
- If you press a button which is not appropriate in the selected mode, the button will blink rapidly.

E.g.:

- Stereo Input 1 is routed to 7.1 Speaker Output.
- The LB speaker button was pressed, which is not allowed in Stereo Input mode.

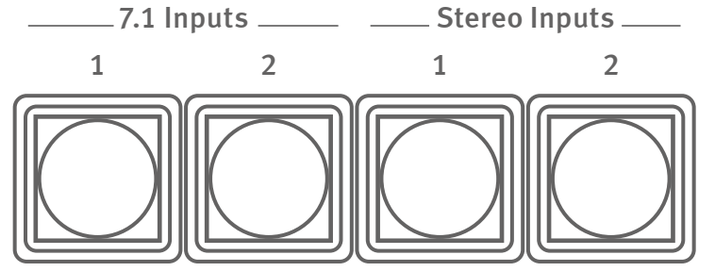


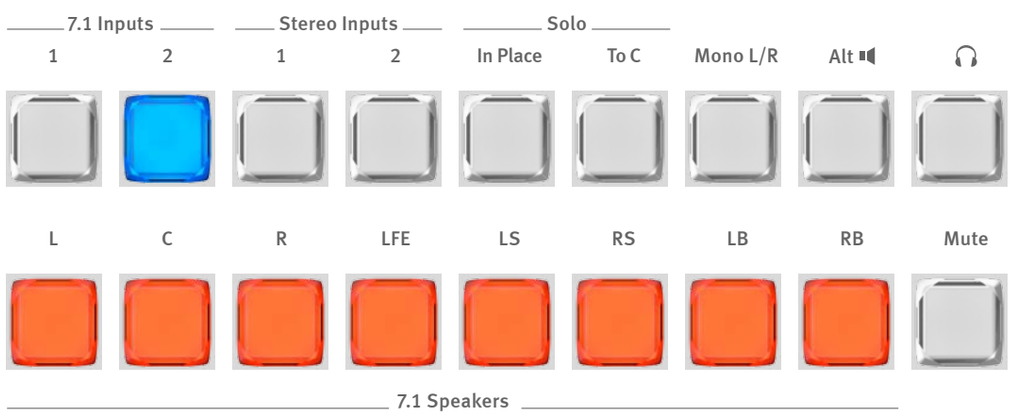
Routing

The SMC 7.1 is equipped with extensive routing possibilities. Choose one of the four inputs for monitoring by pressing the corresponding button:

- 7.1 Input 1
- 7.1 Input 2
- Stereo Input 1
- Stereo Input 2

The chosen input is routed to the 7.1 Speaker Output, while the previous input is no longer routed to the 7.1 Speaker Output.

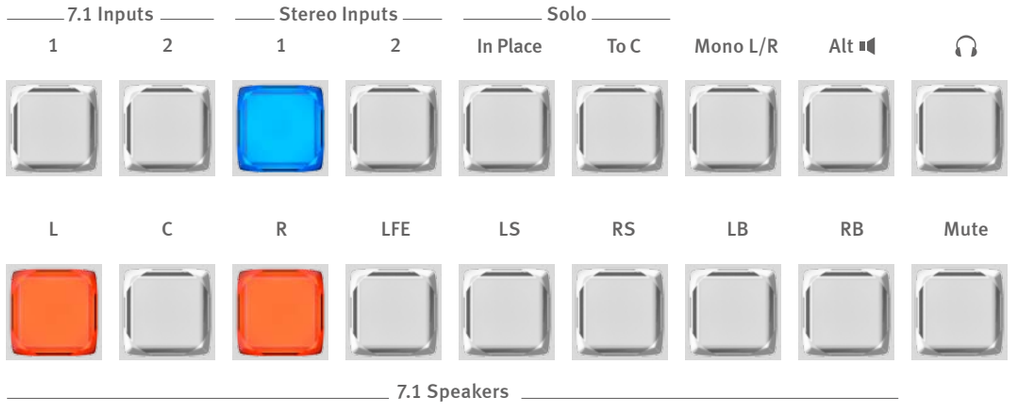




E.g.: 7.1 Input 2 is routed to the 7.1 Speaker Output.

Stereo Inputs

If one of the Stereo Inputs is selected, the stereo signal is routed to the 7.1 Speaker Outputs L and R.



E.g.: Stereo Input 1 is routed to the 7.1 Speaker Outputs L and R.

Additionally you can add the Sub Out by pressing the LFE button.

The Sub Out provides the full-range mono sum of the left and right stereo signal. (Bass management is not included.)

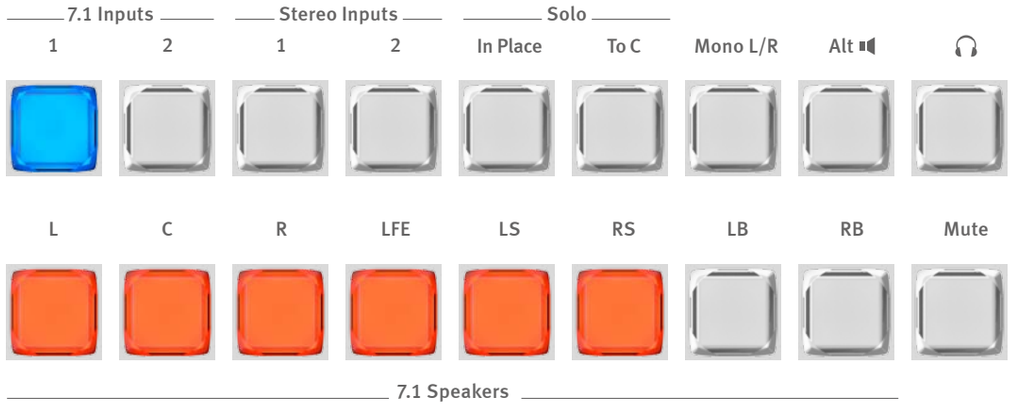
E.g.: Stereo Input 1 is routed to the 7.1 Speaker Outputs L, R and Sub Out.

7.1 Speaker Outputs

Individual 7.1 Speakers can be deactivated.

- Press the button of the 7.1 Speaker you don't want to monitor. The button is no longer lit.
- To reactivate the speaker, press the button again. The button lights up again.

As long as a 7.1 Speaker button lights up, the corresponding speaker is active.



E.g.: LB and RB are deactivated (7.1 Input 1 is routed to the 7.1 Speaker Output).

L	Left
C	Center
R	Right
LFE	Low frequency effects (Subwoofer)
LS	Left surround
RS	Right surround
LB	Left back
RB	Right back

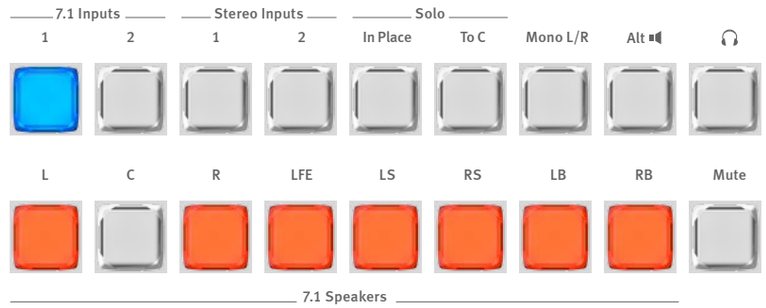
7.1 Speaker channel names

Memory Function

The SMC 7.1 stores the last routing per input.

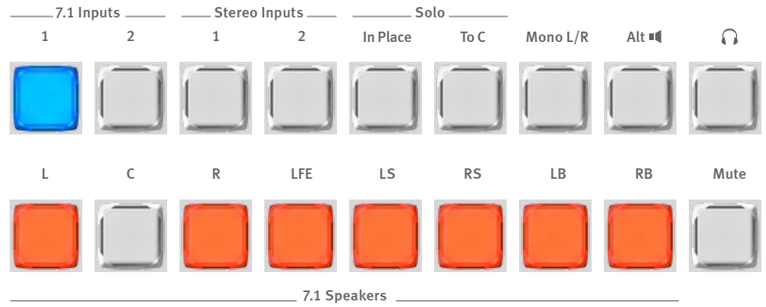
E.g.:

- Choose a routing from the 7.1 Input 1 to the 7.1 Speaker Output and deactivate the center.



- Switch to Stereo Input 2, where previously the Sub Out was additionally activated.

- If you switch back to the 7.1 Input 1, the last routing for this input is restored.



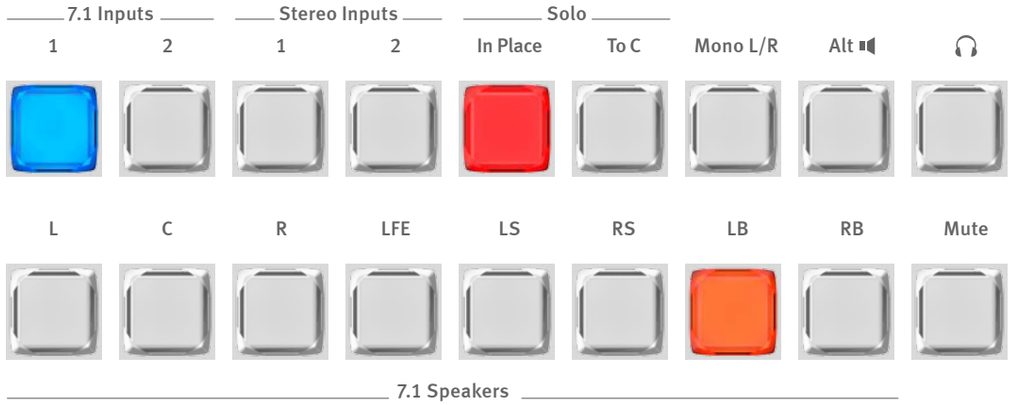
Solo

To monitor individual channels of your 7.1 speaker system you can use one of two Solo modes, “Solo In Place” and “Solo To Center”:

Solo In Place

- Press the Solo In Place button. The button flashes red awaiting a further selection (audio is muted).
- Now press the corresponding button of the 7.1 Speaker you wish to monitor. The Solo In Place button stops flashing and lights up red. The corresponding button of the selected speaker lights up orange.
- To monitor another speaker press the corresponding button.

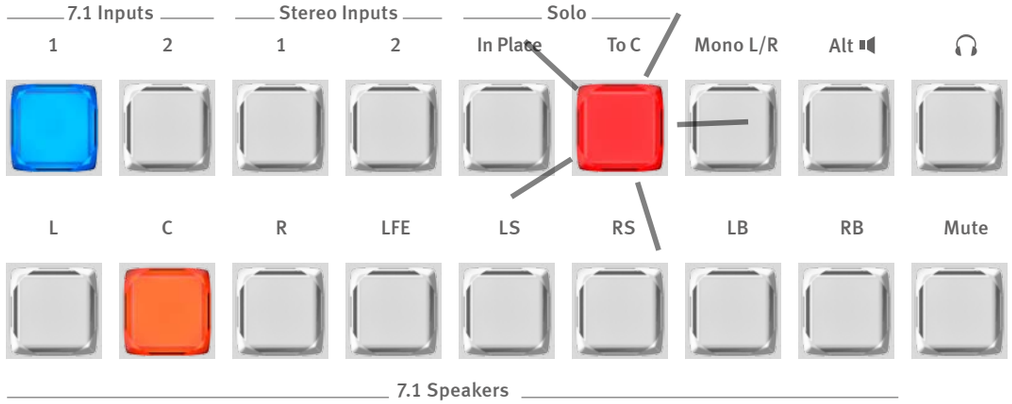
E.g.: Solo In Place was activated.



E.g.: The LB channel of 7.1 Input 1 is routed to 7.1 Speaker LB. All other speakers are deactivated.

Solo To Center

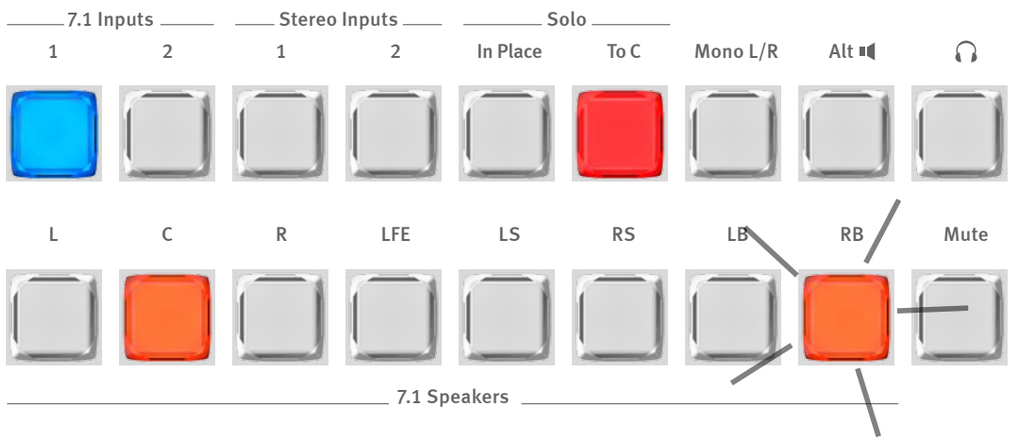
- Press the button Solo To C. The button flashes red awaiting a further selection (audio is muted).
  All 7.1 Speaker buttons except the Center are deactivated.
- Now press the corresponding 7.1 Speaker button you wish to monitor on the center speaker. The button Solo To C stops flashing and the button of the selected speaker flashes.
- To monitor another 7.1 Speaker on the Center Speaker press the corresponding button.



E.g.: Solo To Center was activated.

Finish Solo

- Press the active Solo button. The Solo button no longer lights up and the last active routing for the chosen input will be restored.

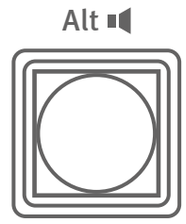


E.g.: The RB channel of 7.1 Input 1 is routed to 7.1 Center Speaker. All other speakers are deactivated.

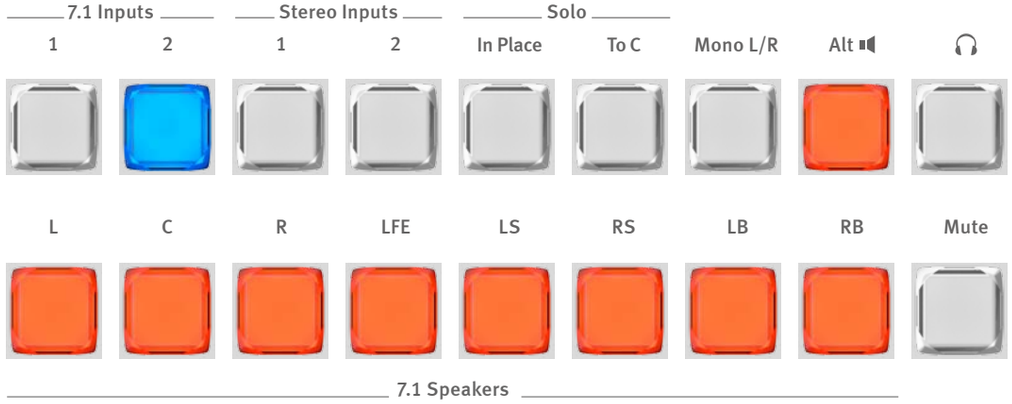
Note: Solo functions are available only when a 7.1 Input is active.

Alternate Speaker Output

The SMC 7.1 provides an Alternate Speaker Output as well as a Sub Out. Both can drive power amplifiers or an active 2.1 loudspeaker systems.



- Press the Alt button, it lights up orange. The L/R channels of the active input (7.1 Input 1 or 2, Stereo Input 1 or 2) will be routed to the Alternate Speaker Output.
- The Sub Out provides full-range mono sum of L and R of the Alternate Speaker Output which are used to drive a subwoofer. (Bass management is not included.)

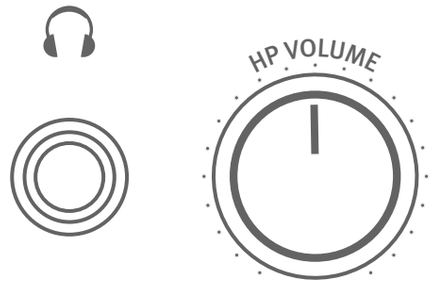


E.g.: The L/R channles of 7.1 Input 2 are routed to the Alternate Speaker Output.
All 7.1 Speakers are deactivated.

Note: As long as Alt is selected, all 7.1 Speakers are deactivated.

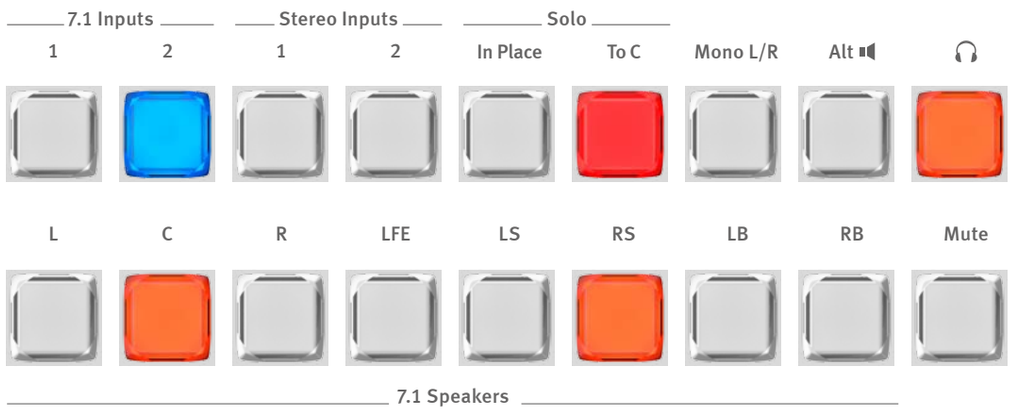
Headphone

The SMC 7.1 is equipped with a headphone amplifier with a dedicated volume control. The L/R signal of the 7.1 or Stereo Input as well as an individual 7.1 channel can be monitored on headphones.



- Press the 🎧 button to activate the headphone output.
  The 🎧 button lights up orange and you hear the L/R signal of the selected input.

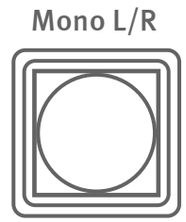
- To monitor an individual 7.1 channel Solo To Center must be activated. You hear the selected channel as a mono signal on headphones.



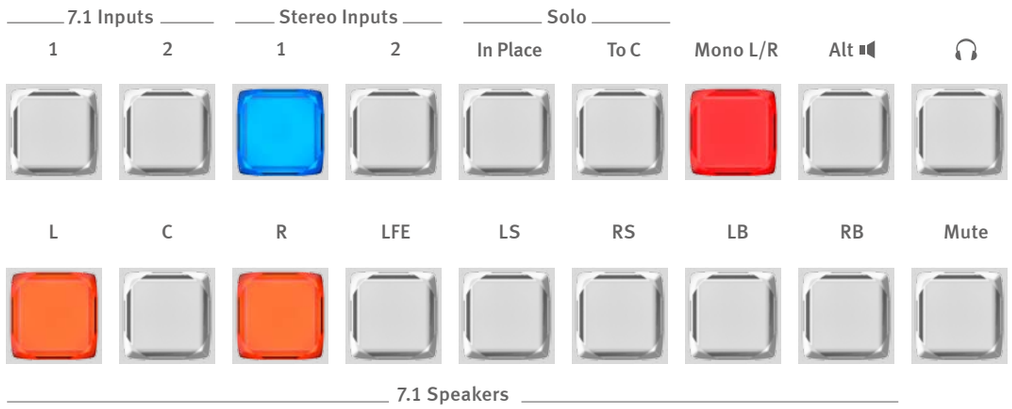
E.g.: You listen to RS channel of 7.1 Input 2 on headphones.

Mono L/R

The Mono L/R function allows to monitor the L and R channels of the 7.1 or the Stereo Inputs in mono.

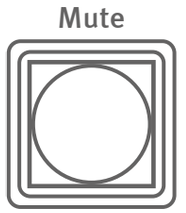


- Press the Mono L/R button to activate the mono function.
  The Mono L/R button lights up red.
- To deactivate the mono function press the button again.



E.g.: The L/R channels are switched to mono.

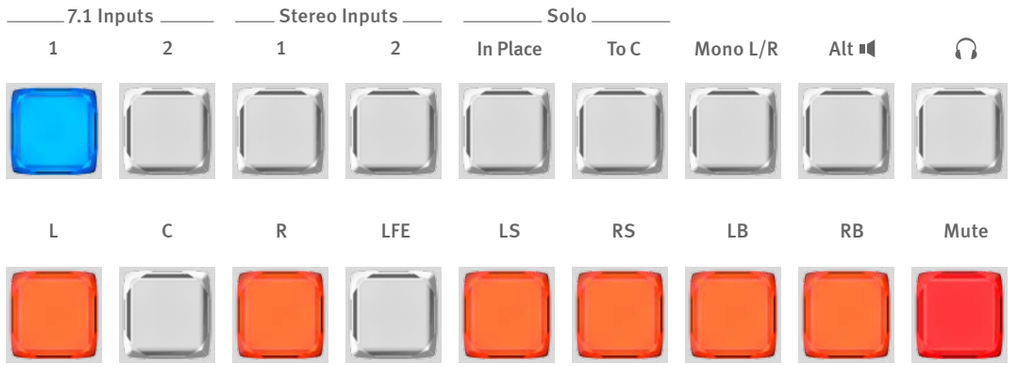
Mute Function



If you activate the Mute function, all (7.1 and Alternate) speakers are muted at once.

- Press the Mute button to activate the Mute function. The Mute button lights up red.
- To deactivate the Mute function press the button again.

Note: The Heaphone Output is **not** afected by the Mute function.

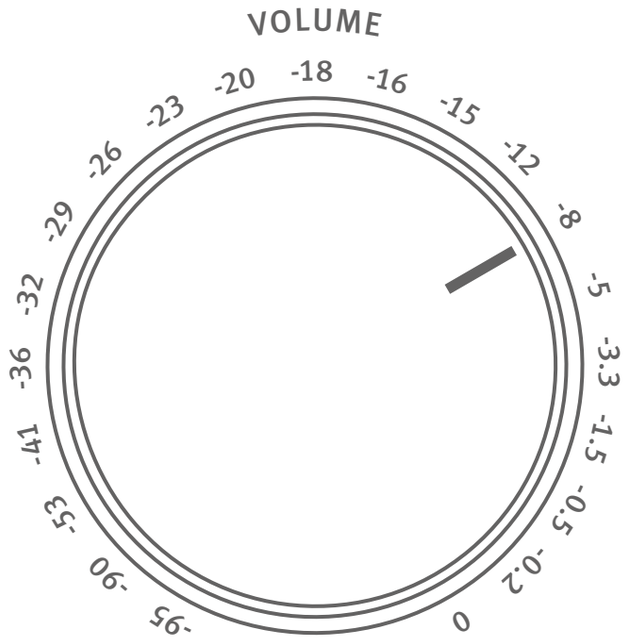


E.g.: All 7.1 Speakers are muted.

Volume

The eight-ganged potentiometer is exclusively manufactured for the SMC 7.1. It controls the volume of all channels in the analog domain – no control circuits like VCAs or digital attenuators are used.

The 7.1 Speaker Output, the Alternative Speaker Output and Sub Out are regulated in a range from 0 and -95 dB.

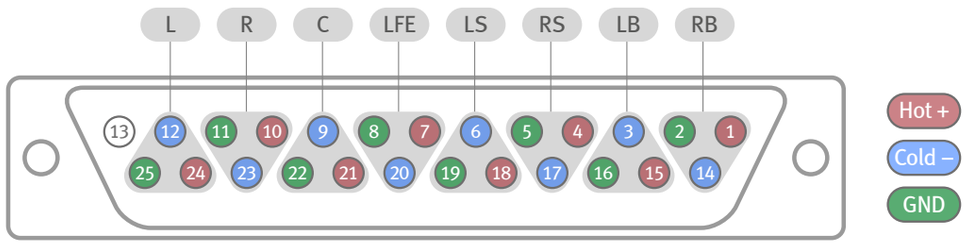


Specifications

Inputs

DB25 inputs

- DB25 (TASCAM-Standard)
- Impedance: 20 kohms
- CMR: -82 dB
- Max. Input level: +22 dB



SMC 7.1 back view

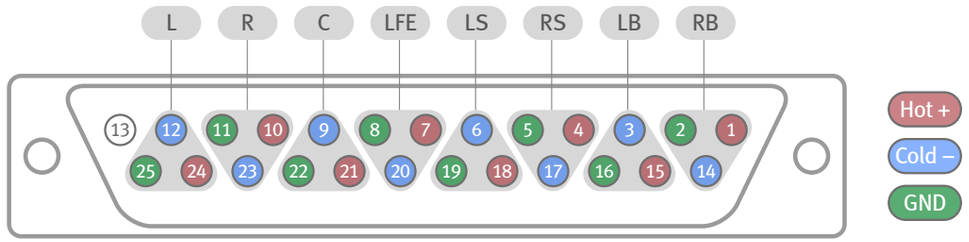
XLR inputs

- Neutrik XLR, balanced, Pin 2 = (+)
- Impedance: 20 kohms
- CMR: -82 dB
- Max. Input level: +22 dB

Outputs

DB25 ouput

- DB25 (TASCAM-Standard)
- Frequency range: 10 Hz to 150 kHz (-3 dB)
- Crosstalk at 1 kHz: -92 dB
- THD & N: 0.001 % (at 0 dBu, 1 kHz, 100 kohms load)
- Noise (A-weighted): -93 dB
- Dynamic range: 115 dB



SMC 7.1 back view

XLR output

- Neutrik XLR, balanced, Pin 2 = (+)
- Frequency range: 10 Hz to 150 kHz (-3 dB)
- Crosstalk at 1 kHz: -92 dB
- THD & N: 0.001 % (at 0 dBu, 1 kHz, 100 kohms load)
- Noise (A-weighted): -93 dB
- Dynamic range: 115 dB

Headphone output

Warning: Never connect a mono jack cable to the headphone output (front panel stereo jack). Make sure that the stereo jack is fully inserted, otherwise a short circuit might damage the headphone amplifier!

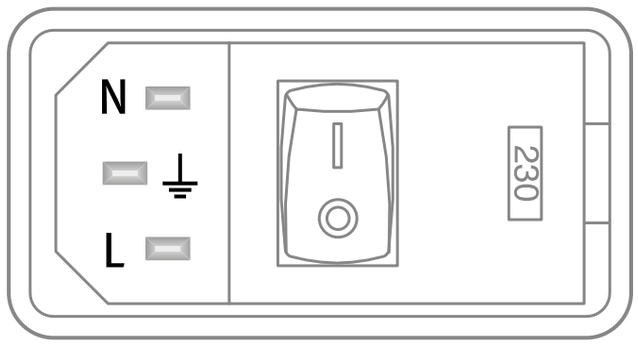
- 6.35 mm TRS connector
- Pin wiring: Tip = Left, ring = right, sleeve = GND
- Impedance: 22 ohms
- Frequency range: 10 Hz to 80 kHz (-3 dB)
- Crosstalk at 1 kHz: -70 dB
- THD & N: 0.001% (at 0 dBu, 1 kHz, 40 ohms load)
- Noise (A-weighted): -93 dB
- Dynamic range: 113 dB

Internal operating voltages

- Analog: +/- 18 V

Power supply

- Mains voltage (switchable): 230 V AC / 50 Hz or 115 V AC / 60 Hz
- Fuses: 230 V: T 500 mA; 115 V: T 1 A
- Power consumption: max 25 VA



Dimensions (incl. feet)

- (WxHxD) 10.95 x 4.6 x 13.1 in (278 x 103 x 333 mm)

Weight

- 9.04 lbs (4.1 kg), unit only
- 11.02 lbs (5.0 kg), shipping

Important Notes

Version 1.1 – 07 /2017

Developer: Wolfgang Neumann / Thomas Irmen

This manual includes a description of the product but no guarantee as for specific characteristics or successful results. Unless stated otherwise, everything herein corresponds to the technical status at the time of delivery of the product by SPL electronics GmbH. The design and circuitry are under continuous development and improvement. Technical specifications are subject to change.

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Declaration of CE Conformity

CE The construction of this unit is in compliance with the standards and regulations of the European Community.