

Series 7



soulution
nature of sound

Phono-preamplifier 755

User manual



Dear client

We are proud that you decided to go for a solution product. You have acquired a phono-preamplifier with outstanding sonic performance which you will enjoy for many years.

We understand your eagerness to get started but even though please study this manual step by step before you integrate the phono-preamplifier 755 in your High Fidelity system. This manual contains also useful tips for the optimisation of your overall HiFi-system.

If there are any questions regarding the start-up or operation of your phono-preamplifier 755 please do not hesitate to contact your dealer.

Enjoy!

Your solution team



CE-Declaration of Conformity

Spemot AG declares that this product is in conformance with the following directives and standards:

Low Voltage Directive 2006/95/EG (EN/IEC 60065:2002)

Electromagnetic Compatibility 2004/108/EG (EN 55013:2001, EN 55020:2002, EN 61000-3-2:2006, EN61000-3-3:1995)

FCC-Notice

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ⇒ adjust or relocate the receiving antenna
- ⇒ increase the separation between the equipment and the receiver
- ⇒ connect the equipment into a mains outlet on a circuit different from that to which the receiver is connected
- ⇒ consult the dealer or an experienced radio/TV technician for help

Disposal


According to the Directive 2002/96/EG of the European Parliament used consumer-electro technical appliances have to be disposed separately and have to be indicated with the following symbol.







In the case of disposal of this component please do so in conformity with legal and environmental regulations.



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1 Quick start

Unpacking	<ul style="list-style-type: none"> ⇒ Unpack the phono-preamplifier 755 ⇒ Store the packing for future transportations  Treat the surfaces with care
Positioning	<ul style="list-style-type: none"> ⇒ Position the phono-preamplifier 755 on a stable base.  Cooling air must be able to escape unrestricted.
Cabling	<ul style="list-style-type: none"> ⇒ Disconnect all components of your system from the mains ⇒ Connect the phono-preamplifier 755 with your (pre)amplifier ⇒ Connect the 755 with your turntables ⇒ Connect all your components with the mains  While manipulating with cables the 755 has to remain disconnected from the mains.
Settings	<ul style="list-style-type: none"> ⇒ Default values for all functions are programmed ⇒ No additional settings are required.
Switch on	<ul style="list-style-type: none"> ⇒ Switch-on the phono-preamplifier 755 ⇒ Select a moderate volume level (if Volume-Mode is ON) ⇒ Switch-on your (pre)amplifier  Check the cabling before you switch-on



2 Highlights

2.1 Layout

The phono-preamplifier 755 is an unbalanced dual mono circuit design. Left and right audio channels (incl. phono mc stage) each have identical circuit boards. Resulting in a channel separation of >105 dB, prerequisite for a three dimensional spatial reproduction.

The audio section is physically separated from the power supply units and the digital circuits. For minimal interference the different sections are shielded against each other.

2.2 Phono-stage (optional)

The 755 phono-preamplifier provides a gain of +72 dB or +78dB (at 1 kHz) for the MC-inputs and +60 dB or +66dB (at 1 kHz) for the MM-input. The gain can be adjusted individually per input. The phono amplifier works with an internal bandwidth of 1 MHz (-3 dB). This guarantees the most accurate reproduction of the RIAA - equalisation curve.

The impedance can be adjusted per input with relais-switched high precision metal foil resistors. This allows perfect matching to your cartridges. For the MC-inputs the impedance can be adjusted from 10Ω to 1'000Ω, for the MM-input provides adjustment from 47Ω to 47kΩ and 0pF to 750pF. The impedance can be adjusted from the listening position through the remote-control.

2.3 Volume control

The 755s high precision volume control may be activated or deactivated depending on the individual setup of your high-end system. In a "puristic" phono setup the 755 phono preamplifier can drive the power amplifiers directly.

Relays switched high precision metal foil resistors form an 80 steps (1 dB) volume control. Each channel has its own volume control resistor network. The volume control allows also adjusting the balance. Depending on the balance setting the volume of the left or right channel is decreased.

In order to avoid unpleasant click-noise and harmful voltage peaks while changing the volume the phono-preamplifier 755 disposes over an additional volume control



path only active while actually changing the volume. This parallel volume control is realised with a Programmable Gain Amplifier (PGA) which is able to adjust the volume without any noise. As soon as the new volume level is set the signal path is switched to the high end resistor network.

2.4 Output stage

The output stage is optimised for velocity, precision and impulse current rating. Thanks to its low output impedance of 2Ω and Class-A operation (40mA idle current) the output stage is stable on every load (also long cables are driven without problems).

The theoretical maximal current rating of 3 amperes is limited to 1 ampere. This is achieved with a protection circuit outside the signal path.

Due to the bandwidth of 1 MHz (-3 dB) - internally the output stage works up until frequencies of 40 MHz - all details of the music reproduced naturally. The spatial reproduction gets really three dimensional and holographic (optimal recording prerequisite). The power of the output stage ensures that all these details are truly transmitted to your amplifier. (Cable losses are minimised).

2.5 Power supply

The phono-preamplifier 755 has two separate power supply units, one for the supply of the audio section, another for the supply of the digital circuits. The stringent separation of the power supply units is amended with a multi stage filter network. Interference between digital and analogue circuits is thus minimised.

The supply voltages for the audio section are multi stabilised by fast and precise regulation stages. More than 500'000 microFarad of capacitance ensures optimal impulse response of the powers supply.



3 Safety advice: ⚠

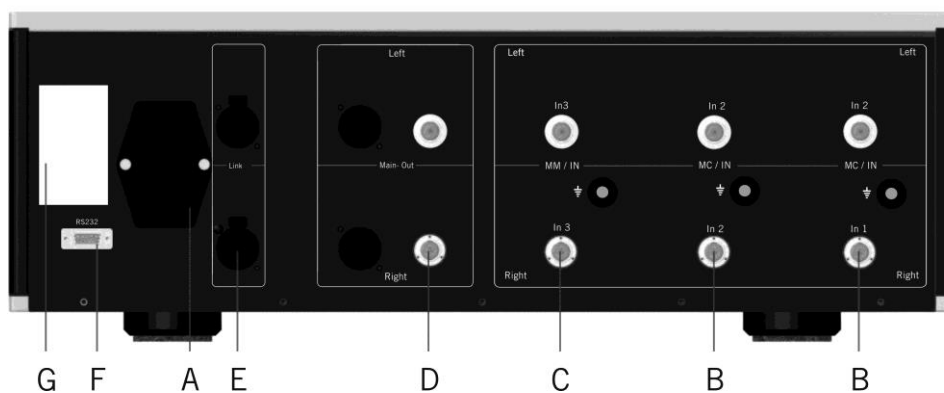
User manual	<ul style="list-style-type: none"> ⇒ Follow the safety advices ⇒ Keep this user manual.
Mains supply	<p>Exclusively use 3 phase power cords with ground conductor.</p> <ul style="list-style-type: none"> ⇒ Unplug the 755 from the mains in the following cases: ⇒ before you manipulate with cables ⇒ before cleaning ⇒ during thunder storms ⇒ before you leave for longer periods
Cabling	<p>While manipulating with cables the 755 has to remain disconnected from the mains. Wrong cabling may cause damages to your 755, amplifier and loudspeakers. Excessive volumes due to inappropriate handling may cause hearing damages.</p>
Transport	<p>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 cart/apparatus combination to avoid injury or tip over.</p>
Packing	<p>In order to omit condensation of water inside the 755, let it warm up within the packing. Please keep the original packing for future transports.</p>
Operation	<p>Never run your preamplifier 755</p> <ul style="list-style-type: none"> ⇒ with opened housing ⇒ with closed cooling-slots ⇒ with high ambient temperatures (>40°C) ⇒ close to heat sources like radiators, etc. ⇒ with extremely high humidity for example in humid cellars ⇒ close to water (Sink, bathtub, or similar equipment)
Cleaning	<p>Use a soft and dry towel. We suggest using a nonabrasive microfiber towel. Please do not use any solvents or liquidities</p>
Service	<p>Service by a qualified person required if</p> <ul style="list-style-type: none"> ⇒ the mains-cable or the mains connectors are damaged ⇒ foreign substances or liquidity have entered the 755 ⇒ the 755 has seen rain ⇒ the 755 seems to malfunction ⇒ the 755 has fallen to the floor or the housing is damaged



4 Scope of delivery


- ⇒ Phono-preamplifier 755
- ⇒ Remote control
- ⇒ Power cord
- ⇒ User manual

5 Rear panel



5.1 Mains (A)

Connect the phono-preamplifier 755 with the mains supply. In standby the 755 has a power consumption of <math><0.5\text{W}</math> (red LEDs in display).

 Only switch-off the mains if your phono-preamplifier 755 is in standby.

5.2 MC-inputs IN 1/IN 2 (B)

Connect your turntables with MC-cartridges to input IN1 or IN2. Please use top grade audio cables. The termination impedance can be adjusted to your cartridge.

Two gain levels can be selected $+72\text{dB @ 1kHz}$ or $+78\text{dB @ 1 kHz}$.
If required the subsonic filter RIAA-IEC can be activated.



5.3 MM-input IN 3 (D)

Connect your turntables with MM-cartridges to input IN3. Please use top grade audio cables. The termination impedance can be adjusted to your cartridge.

Two gain levels can be selected +60dB @ 1kHz or +66dB @ 1 kHz.
If required the subsonic filter RIAA-IEC can be activated.

5.4 Main-Out (E)

Due to the exceptional load stability there are no restrictions regarding the selection of your connecting cables. For long cable lengths we recommend using balanced cables. A potential humm loop can be suppressed with the Ground-Lift switch (XLR only).

Ground-Lift OFF = ground connected
Ground-Lift ON = ground disconnected

5.5 LINK (F)

The phono-preamplifier 755 can control the start-up sequence of soulution components connected through the LINK System (cable: CAT 5, RJ45).

The phono-preamplifier 755 will trigger the switch on of connected components. It will remain protected until all connected components are switched on. The display shows LINK ERROR if a connected component does not switch on.

5.6 RS232 – Interface (H)

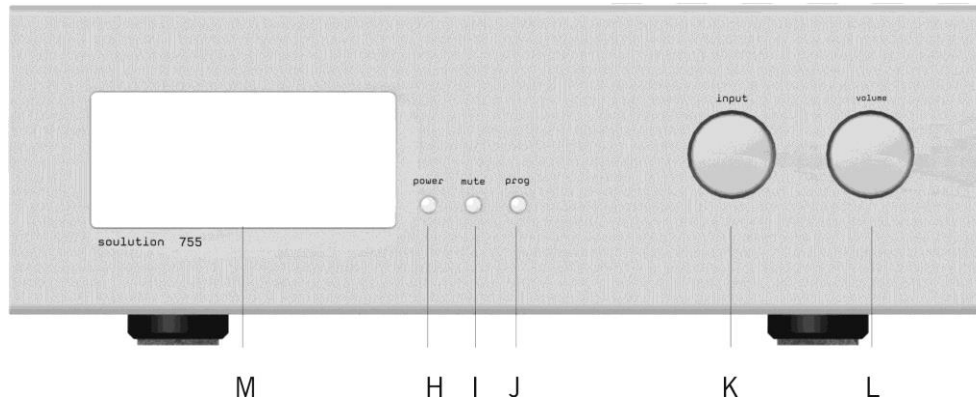
The phono-preamplifier 755 can be remote controlled through the RS232 interface. All functions can be controlled and relevant information is provided to the control unit.

5.7 Type label (I)

The type label shows the serial number and the nominal power consumption.



6 Front panel



6.1 Power (J)

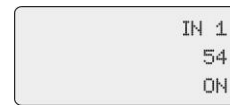
The Power-button defines the operating condition ON or OFF (red LEDs). The audio circuits remain disconnected from the outputs until it is switched on.



Display in standby (OFF)



Display for PROTECT ON



Display for ON condition

We suggest switching the 755 to standby (OFF) while not listening to music. (Power consumption <math><0.5\text{ W}</math>).

⚠ Unplug the 755 from the mains before you manipulate with cables, before cleaning, during thunder storms or before you leave for longer periods. Switch the phono-preamplifier 755 to standby (OFF), before you unplug the mains.

6.2 Mute (K)



Mute allows disconnecting all inputs from the outputs in case of an urgency (wrong cabling, feedback loops, etc.).

For reducing the volume to a predefined level please use the function Volume-Dim.

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6.3 Prog (L)

The phono-preamplifier 755 can be adjusted to specific requirements of your system. The Prog-button (de)activates the Programming-Mode.

6.4 Volume (M)



Volume +/-

0 = Mute
1 = min. volume
80 = max. volume

We suggest limiting the volume (Volume-Max function)



Volume-Dim

Pushing the Volume-knob (de)activates the Volume-Dim function (Display for example „D 10“).As long as the Volume-Dim function is active the volume cannot be altered by the Volume-knob.

6.5 Input (N)



Input Select

Selects the inputs
All other inputs remain disconnected



7 Program-Mode

7.1 Overview

The available Program-Functions allow adjusting the phono-preamplifier 755 to your individual High-Fidelity setup.



Push on the Prog button switches the phono-preamplifier 755 between operating-mode and Program-Mode. Timeout after 10 seconds.



Rotating of the Select knob allows selecting the desired Program-Function



Push on the Select knob for approval of the selected function. Now the value domain of the selected Program-Function is active. (red LEDs in display).



Rotating of the Select knob allows for adjusting the desired value.



Push on the Select knob for approval of the respective value.



7.2 Program-Functions

Function	Values	Remarks
<pre> START-IN IN 1 PROG# </pre>	IN 1, IN 2, IN 3	Defines the active in put after switch-on
<pre> VOLUME-MODE ON PROG# </pre>	ON, OFF	(De)activates the volume control function.
<pre> START-VOLUME 25 PROG# </pre>	1..30..50	Defines the volume after switch-on.
<pre> DIM-VOLUME 10 PROG# </pre>	1..20..40	Defines the DIM-volume.
<pre> MAX-VOLUME 60 PROG# </pre>	50...80	Defines the MAX-volume.
<pre> BALANCE <- 4 PROG# </pre>	<- 9...0...9 ->	Sets the volume difference between left and right channel.
<pre> IMPEDANCE-IN 1 125Ω PROG# </pre>	MC: 10Ω...1kΩ MM: 47Ω...47kΩ 0...750pF	Defines the impedance for inputs IN1...IN3



Function	Values	Remarks
GAIN-IN 1 72dB PROG#	MC: 72 ...78dB MM: 60 ...66dB	Defines the gain for each input.
HIGH-PASS-IN 1 ON PROG#	ON , OFF	(De)activates the RIAA-IEC high pass filter.
MONO-MODE ON PROG#	ON , OFF	((De)activates Mono-mode.
GROUND-LIFT ON PROG#	ON = disconnected OFF = connected	(De)activates Ground-Lift for the unbalanced output.
BRIGHTNESS 2 PROG#	1 = low 2 = medium 3 = high	Adjusts the brightness of the display.
LOAD-DEFAULT YES PROG#		Loads the default-values (bold) for all functions.
FIRMWARE-VERSION v1.00 PROG#		Displays firmware version.



8 Remote control

Button	Pre-Modus	CD-Modus
(1) IR-transmitter	Operation until 5m distance and angel of $\pm 45^\circ$.	
(2,3) ▲ ▼	Volume +/-	
(4) DIM / ►	Volume-Dim	Play/Pause
(5/6) ◀ ▶	Select +/-	Next / Previous track
(7) ↵	Enter Function for Program-Mode	
(8) P	(De)activates Program-Mode	
(9) 🔇	Mute	-
(10) ⏻	ON / OFF	
(11) ⏴	-	Open/Close
(12) PRE	-	Activates PRE-Mode
(13) CD	Activates CD-Mode	-

Change of Remote Ctrl ID:

Bring the remote control in PRE-mode and press the respective buttons for approx. 5 seconds.

- ⇒ Preamplifier ID 1: ◀ (6), ▶ (5), ⏻ (10)
- ⇒ Preamplifier ID 2: ◀ (6), ▶ (5), 🔇 (9)
- ⇒ Phono ◀ (6), ▶ (5), ↵ (7)
- ⇒ DAC ◀ (6), ▶ (5), P (8)

Exchange of batteries (2 x AAA):

- ⇒ Open the battery tray on the rear side.
- ⇒ Insert the batteries into the tray as indicated.
- ⇒ Ensure correct polarity of the batteries.
- ⇒ Close the tray with corresponding screw.
- ⇒ Dispose the exhausted batteries





9 Safety functions

Overcurrent	For currents > 1 A at the output the 755 Phono-preamplifier shuts down automatically.	
Power supply	The power supply is monitored for correct operation. In case of an error the 755 gets shut down automatically.	
Fuse	Model 220-240 V	2A/T 250V micro fuse 5x20mm
	Model 100-120 V	4A/T 250V micro fuse 5x20mm

10 Warranty

All solution products are guaranteed against defects in material and workmanship for five years from date of purchase.

The guarantee is void if the product has been subject to misuse or negligence or has been modified, repaired or opened by a non-authorized person without written authorisation of Spemot AG.

For the return transport to our premises please use exclusively the original packaging. Transport damages are not subject to this guarantee, repairs will be charged. We recommend effecting transport insurance.

If you do not have the original packaging no more please contact your solution dealer.

Basic repairs may be completed by your solution dealer. Please clarify whether he is able to do the work before you send the product back to us.



11 Trouble shooting

Error	Action
No Display	Check the cabling to the mains supply. Eventually replace the fuse of your preamplifier 755.
No music	Check the following: <ul style="list-style-type: none"> ⇒ cabling to your (pre)amplifier, signal sources and from the power amplifier to your loudspeakers ⇒ whether you have selected the correct input, ⇒ if the power amplifier is switched on ⇒ the LINK connection
POWER FAIL	If the power supply to the audio channels is interrupted or an error in the power supply unit has occurred the phono-preamplifier 755 is shut down automatically. The display shows POWER FAIL.
OVERCURRENT	If the current at the Main-Out exceeds 1A the phono-preamplifier 755 is shut down automatically. The display shows OVERCURRENT. Check the cabling to the power amplifier. This error may also be provoked by defect or switched off power amplifier.

If you can not identify the error please disconnect the mains supply (before you disconnect the phono-preamplifier 755 has to be in operating condition OFF) and contact your soulution dealer.

12 Service

If your soulution preamplifier needs service please contact your soulution dealer.
For further information see www.soulution-audio.com



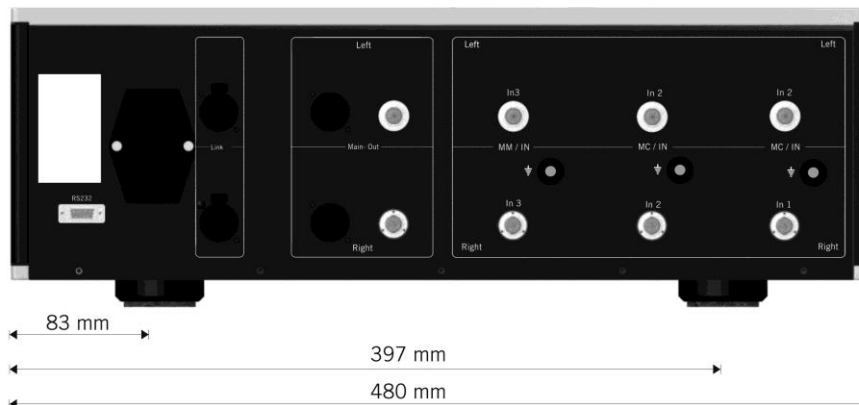
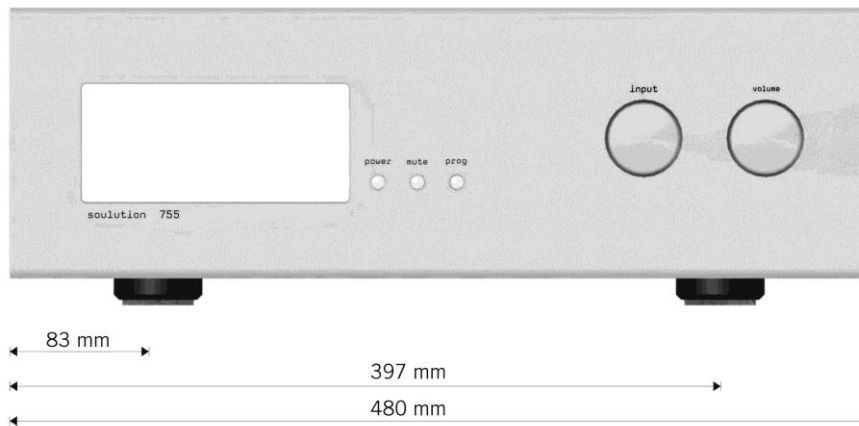
13 Specifications

		Data
General		
Nominal voltage	Model 220-240V Model 100-120V	220 - 240 V, 50-60 Hz 100 - 120 V, 50-60 Hz
Nominal rating		250 W
Power consumption	(OFF)	<0.5 W
Power consumption	(ON)	60 W
MC - inputs: IN 1 In 2		
Voltage gain		+72...+78 dB
Bandwidth	(internal)	DC-1 MHz
Rise time		400 ns
THD+N		<0.0006 %
Impedance	(adjustable)	10-1'000 Ω
MM - input: IN 3		
Voltage gain		+60...+66 dB
Bandwidth	(internal)	DC-1 MHz
Rise time		400 ns
THD+N		<0.0006 %
Impedance	(adjustable)	47 - 47'000 Ω 0 -750 pF
Outputs		
Voltage	Main-Out symmetrical	max. 16 Vrms@100Ω
	Main-Out asymmetrical	max. 8 Vrms@100Ω
Current		max. 1 A
Impedance	Main-Out symmetrical	2 Ω
	Main-Out asymmetrical	2 Ω
LINK-Out		+12 V
Dimensions		
Dimensions		480x450x167 mm
Weight		ca. 30kg

Technical specifications are subject to change without prior notification.



14 Dimensions



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