



7

757 deemphasis preamplifier

User manual



Dear client

We are proud that you have chosen a solution preamplifier. In doing so, you have acquired an audio component of outstanding quality with exceptional sonic performance which we are sure you will enjoy for many years to come.

It is important that you study this user manual carefully, step by step, before you install the 757 deemphasis preamplifier in your audio system. The manual contains information on how the 757 deemphasis preamplifier works, relevant safety instructions and recommendations for optimizing your entire audio system.

If you have any questions regarding the installation, setup or operation of your 757 deemphasis preamplifier, please do not hesitate to contact your dealer.

Enjoy!

solution Team



CE-Declaration of Conformity

Spemot AG declares that this product conforms to the following directives and standards:

Low Voltage Directive 2014/35/EU

Electromagnetic Compatibility 2014/30/EU

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 is found to cause unwanted or harmful interference to radio or television reception when switching on or off, the user is encouraged to take one or more of the following measures:

- adjust or relocate the receiving antenna of the affected appliance
- 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 your dealer or an experienced radio/TV technician for help

Disposal

According to Directive 2012/19/EU of the European Parliament, consumer electro-technical appliances must display the following symbol and must be disposed of separately. In the event of this component requiring disposal please do so in conformity with all locally applicable legal and environmental regulations.





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1 Highlights

1.1 Layout

The 757 deemphasis preamplifier (including the power supplies) was designed to be entirely dual-mono in its layout. The left and right channels each have their own PCB and are thus completely separated from each other. This results in much better channel separation (>100 dB) than with previous models. The sensitive analog circuits of the 757 deemphasis preamplifier are also physically separated from the mains and digital sections of the preamplifier. A massive aluminum shield separates the two sections for minimal interference.

1.2 Inputs for MM, MC or tape head

The innovative input stage of the 757 deemphasis preamplifier enables exceptional common mode rejection without compromising the input stage by introducing noise. This is achieved with parallelized instrumentation amplifiers designed for wide bandwidth (2MHz), lowest noise (noise density < $-170 \text{ dBV}/\sqrt{\text{Hz}}$) and optimal common mode rejection (CMMR >100dB). This ensures that even the faintest musical signals can be properly received by the 757 deemphasis preamplifier. With its adjustable termination impedance the input can be adapted very precisely to your magnetic pickup system.

1.3 Input for optical cartridges

One of the 757s inputs is dedicated to DS Audio's optical cartridges. The 757 deemphasis preamplifier features a wideband transimpedance amplifier for optimal reception of the output signals (current) of the optical cartridges.

1.4 Gain control

High speed und ultra-low noise operational amplifiers together with relay-switched high precision metal foil resistors form an 80 step (1 dB) gain control unit. Each channel has its own gain control unit also allowing balance adjustment. To avoid unpleasant clicking noises or harmful voltage peaks during gain adjustments, the 757 deemphasis preamplifier is provided with a second gain control path which is active only during gain adjustments. This secondary, IC based gain control alters the gain without any click or pops. Once the new gain is set, the 757 will revert to the sonically superior path.



1.5 Deemphasis curves

For optimal playback of your records (vinyl or tape) the 757 provides a wide range of deemphasis curves.

Phono: RIAA, DECCA, COLUMBIA, LONDON, TELDEC, NARTB

Tape: IEC2-30ips, IEC1-15ips, IEC1-7.5ips, NAB-15ips

The use of very fast amplifier stages ensures highly accurate reproduction of the selected equalization curve ($\pm 0.05\text{dB}$, 20Hz to 200kHz).

1.6 Output stage

The Class-A output stage has been optimised for speed, precision and high peak currents. Thanks to its low output resistance the output stage can drive even long cables without difficulty. With a frequency bandwidth of 20 MHz (-3 dB) and the accompanying minimal phase shift in the audio band, all details of the music are reproduced true to life. The result is a three-dimensional spatial sound experience full of musicality and natural timbres. The sheer power of the output stage guarantees that the rich detail of the music reaches your power amplifier.

1.7 Distributed Local Power Supply:

The basis for the dual mono power supply of the 757 deemphasis preamplifier is a switched mode power supply (SMPS) which converts mains voltage into an intermediate DC voltage. Highly efficient DC-DC converters and extremely low-noise and fast linear regulators generate the supply voltages needed to operate the 757 deemphasis preamplifier. Local linear regulators are placed next to each current sink (OpAmp, transistor, etc.). This ensures lowest noise levels on the analog supplies and shortest signal paths. Large filter capacitors, as typically used for linear power supplies with transformers and rectifiers, are no longer required.



2 Safety advice:

User manual	<ul style="list-style-type: none">⇒ Follow the safety advice⇒ Keep this user manual
Mains supply	<p>3 phase power cords with a ground conductor are mandatory. Unplug the 757 from the mains:</p> <ul style="list-style-type: none">⇒ before you adjust or manipulate mains cables⇒ before cleaning the unit⇒ during thunderstorms⇒ when leaving the unit unused for longer periods
Cabling	<p>Unplug the 757 from the mains while connecting or disconnecting interconnect cables. Incorrect cabling may cause damage to your 757, amplifier or loudspeakers. Excessive volume due to inappropriate handling may cause hearing damage.</p>
Transport	<p>Use only the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the apparatus. When a cart is used, take care when moving cart/apparatus combination to avoid injury or tipping over.</p>
Packing	<p>To avoid the formation of water condensation within the 757, allow it to reach room temperature before unpacking it. Keep the original packing safely for future transport requirements.</p>
Operation	<p>Never run your preamplifier 757</p> <ul style="list-style-type: none">⇒ whilst the casing is open⇒ with obstructed cooling slots⇒ in high ambient temperatures (>40 °C)⇒ in proximity to heat sources like radiators, etc.⇒ in areas of extreme humidity (for example in a humid cellar)⇒ close to water (sink, bathtub, taps or similar facilities)
Cleaning	<p>Use a soft and dry towel. We suggest using a nonabrasive microfiber towel. Please do not use any solvents or liquids.</p>
Service	<p>Service by a qualified person will be required if</p> <ul style="list-style-type: none">⇒ the mains cable or the mains connectors are damaged⇒ foreign substances or liquids have entered the 757⇒ if the 757 has been rained on⇒ the 757 exhibits any form of malfunction⇒ the 757 has been dropped⇒ if the casing is damaged



3 Unpacking



Before opening, let the crate warm up to room temperature to prevent water condensation forming inside the unit.



Remove all screws (3-5 screws per side) and keep them.



Lift off the top cover by using the metal handles on the sides of the crate.



The 757 can now be easily accessed. Take care; the unit is heavy!

Original packing

Please keep the original packing for future transport requirements. Always ship the 757 deemphasis preamplifier in its original packing.



4 Scope of delivery

- ⇒ 757 deemphasis preamplifier
- ⇒ IR remote control
- ⇒ Mains cable
- ⇒ Spare fuses
- ⇒ User manual
- ⇒ Set of shims

Please check the scope of delivery. If anything is missing or you notice any damage while unpacking, please contact your authorised dealer.

5 Setup

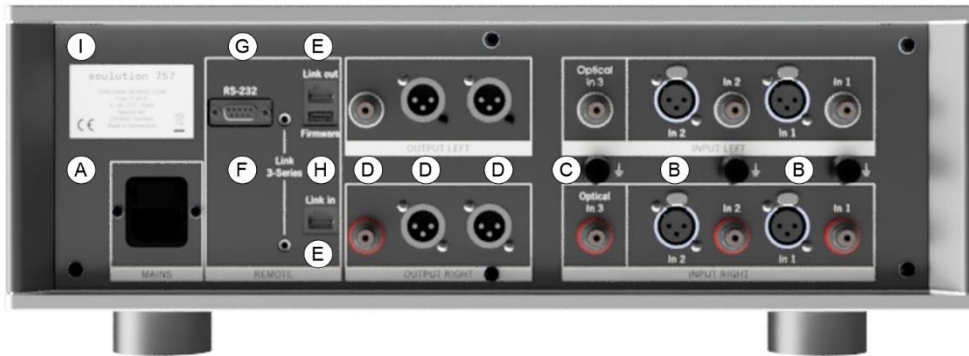
Remove the 757 deemphasis preamplifier carefully from the base of the wooden crate and position it on a stable surface in an appropriate location ensuring cooling air can circulate and escape unhindered. Do not cover the surface of the 757 deemphasis preamplifier with a cloth or any other object as the complete chassis acts as a heat sink.

The feet of the 757 deemphasis preamplifier feature a constrained layer damping system which will mitigate vibrations away from the unit. The damping system is designed to work on any surface material. The feet shims are used in case the surface of your audio rack is not perfectly in level.

For best results we suggest using a dedicated audio rack system for all of your audio components.

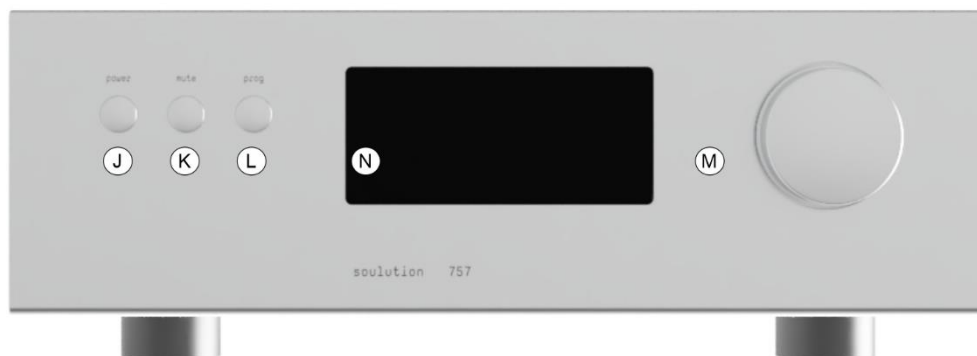


6 Rear and front view



Rear view of the 757 deemphasis preamplifier

- | | |
|-------------------------------------|----------------------|
| A) AC mains input | F) LINK Series 3 |
| B) MC/MM Tape inputs IN 1 ... IN 2 | G) RS232 – interface |
| C) Inputs for DS AUDIO optical IN 3 | H) Firmware |
| D) Outputs | I) Type label |
| E) LINK in, LINK out | |



Front view of 757 deemphasis preamplifier

- | | |
|-----------------|-----------------------|
| J) power button | M) Rotary knob |
| K) mute button | N) Display and IR eye |
| L) prog button | |



7 Connections

7.1 Mains supply (A)

Connect the 757 deemphasis preamplifier to the mains supply. Please use a high-quality power cable for optimal sonic results. The 757 preamplifier has no power switch. The device will enter standby mode as soon as it is connected to the mains supply.



unplug mains

Unplug the unit from the mains supply when

- ⇒ left unused for longer periods
- ⇒ adjusting the wiring of your audio system
- ⇒ during thunderstorms
- ⇒ Set the 757 to standby before unplugging it from the mains.

7.2 Inputs IN 1 & IN 2 (B)

The fully balanced inputs are dedicated to magnetic pick-up systems like MC or MM cartridges or magnetic tape heads of reel-to-reel machines. Thanks to the very high common mode rejection of the input stage, any noise picked up by cables to your pick-up is effectively suppressed.

Connect your pick-up with high-quality interconnect cables to the 757 deemphasis preamplifier. Both inputs, IN 1 and IN 2, do feature an XLR and an RCA connector for highest flexibility. Please do not connect two source devices simultaneously to any input. For best results, we recommend keeping interconnect and power cables well separated from each other.

XLR-pin-out: pin1 = ground (relay-switchable)
 pin2 = non-inverting input
 pin3 = inverting input

RCA-pin-out: hot pin = non-inverting input
 cold pin = inverting input

With its adjustable termination impedance, the input can be perfectly adapted to the requirements of your magnetic pickup system.

<u>Impedance:</u>	<u>Resistive</u>	<u>Capacitive</u>
MC	10Ω – 1kΩ	0 – 750pF
MM	47kΩ	0 – 750pF
Tape	20 - 100kΩ	0 – 750pF



⚠ No line level: Never connect a line-level source component to any input of the 757 deemphasis preamplifier. Excessive input levels will cause clipping and overheating.

⚠ Hot plugging Before you adjust the cabling of the 757 deemphasis preamplifier always put the unit into standby and disconnect it from the mains.

7.3 Input IN 3 for optical cartridges (C)

Input IN 3 is dedicated to the DS Audio optical cartridges. Connect your optical cartridge with unbalanced cables to the input IN 3 of the 757 deemphasis preamplifier. For best results we suggest using shielded cables. DS Audio's optical cartridges are active devices which need to be supplied with power. This is done via the standard tonearm cabling with RCA connectors but with a different pin-out than used for magnetic cartridges.

RCA-pin-out right: hot pin = signal current right channel, reverse bias -10V
cold pin = +5V supply for infrared LEDs

RCA-pin-out left: hot pin = signal current left channel, reverse bias -10V
cold pin = ground

The supply for the infrared LEDs of the optical cartridge remains disabled when the 757 deemphasis preamplifier gets powered up. It needs to be enabled with the configuration function IN3 POWER CART.

⚠ MC, MM, or tape NEVER connect a magnetic pick-up system to input IN3. The power supply for the infrared LEDs could potentially damage the fragile coils of your magnetic cartridge.

⚠ No line level: Never connect a line-level source component to any input of the 757 deemphasis preamplifier. Excessive input levels will cause clipping and overheating.

⚠ Hot plugging Before you adjust the cabling of the 757 deemphasis preamplifier always put the unit into standby and disconnect it from the mains.



7.4 Output (D)

The 757 deemphasis preamplifier features two balanced and one unbalanced outputs. The excellent load stability of the output stage allows even long cables runs to power amplifiers without any degradation of the music signal. For long cable runs to your power amplifiers we recommend using balanced cables.

The GND-LIFT OUTPUT function determines whether the ground pin of the XLR outputs is (dis)connected to the ground. This can be used to interrupt ground loops. The negative pin of the RCA output is not affected by this setting and always remains connected to the ground of the 757 deemphasis preamplifier.

The 757 is a non-inverting amplifier. However, the phase of the output signal can be inverted by using the configuration function POLARITY.

Depending on the input type the maximal system gain is limited to the following values (gain to XLR outputs).

<u>Input type</u>	<u>Min gain</u>	<u>Max gain</u>
Moving coil	-40dB	+80dB
Moving magnet	-40dB	+60dB
Tape	-40dB	+70dB
Optical	-40dB	+120dB (thereof +80dB transimpedance gain)

XLR-pin-out: pin1 = ground
 pin2 = non-inverting output
 pin3 = inverting output

Ground loop

If no other measures may eliminate hum noise in your system, use the configuration functions GND-LIFT OUTPUT. For optimal sonic performance, pin 1 of the XLR outputs should be CONNECTED to the ground of the 757 deemphasis preamplifier.

Hot plugging

Before you adjust the cabling of the 757 deemphasis preamplifier always put the unit into standby and disconnect it from the mains.



7.5 LINK in, LINK out (F)

The LINK connection (RJ45- CAT 5 cable) allows all connected solution devices to be switched on and off centrally. Do not connect the LINK in or LINK out to your network (LAN). The 757 deemphasis preamplifier does not feature any LAN connectivity.

7.6 LINK Series 3 (G)

Connect the LINK Series 3 socket to the Link-Com socket on your Series 3 unit. Series 3 units connected to the 757 deemphasis preamplifier via this interface can be centrally switched on and off. Use cables with 3.5mm audio jacks. The LINK Series 3 connection does not convey any audio signal.

7.7 RS232 – interface (H)

The RS232 interface allows home automation systems to control all functions of the 757 deemphasis preamplifier and to read relevant information about the unit's operating status.

7.8 Firmware (J)

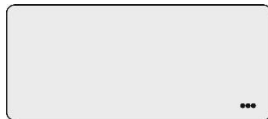
The USB input is provided for firmware updates only. For detailed instructions please refer to section 12 Firmware Update.



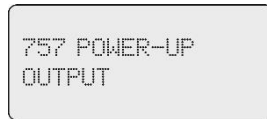
8 Operation

8.1 power (K)

The power (K) button turns on the 757 deemphasis preamplifier. The start-up sequence takes a short while as the power supplies for the different sections of the circuit are initiated. Progress will be reported in the display (O). Once the unit is ready to operate it will show the active input and gain level in the display (O).



Standby



Power-up sequence

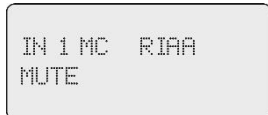


Ready to operate

If the 757 deemphasis preamplifier is on, the power (K) button will put the unit back into standby (power consumption <1W).

8.2 mute (L)

The mute (L) button disconnects or reconnects all inputs and outputs from the analog circuits of 757 deemphasis preamplifier. While the unit is muted, the gain level cannot be altered and the DIM-Function is unavailable.



Mute

8.3 prog (M)

The 757 deemphasis preamplifier can be configured to suit the individual requirements of your audio system. Pressing the prog (M) button (de)activates the configuration functions.



8.4 Rotary knob (N)

The multi-purpose rotary knob is used to control the gain, select the input, dim the gain, and to select the configuration functions of the 757 deemphasis preamplifier.

Operation-Mode



Turning the rotary knob (N) changes the gain.



Pressing the rotary knob for less than 1 second (de)activates the Gain-Dim function.



Pressing the rotary knob for more than 1 second activates the Input select mode.



Turning the rotary knob while the unit is in input select mode will in/decrement the input.

Configuration mode



Turning the rotary knob (N) selects the desired configuration function.



Pressing the rotary knob (N) confirms the selected configuration function and activates the value range (3 LEDs lit).



Turning the rotary knob (N) selects the desired value.

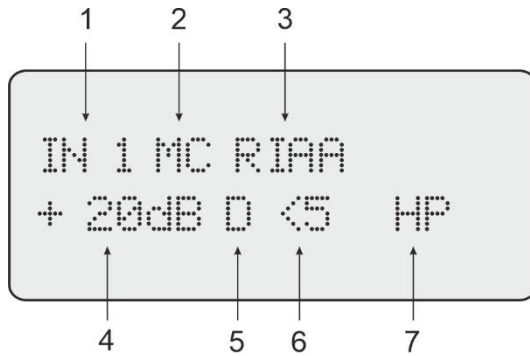


Pressing the rotary knob (N) confirms the new value.



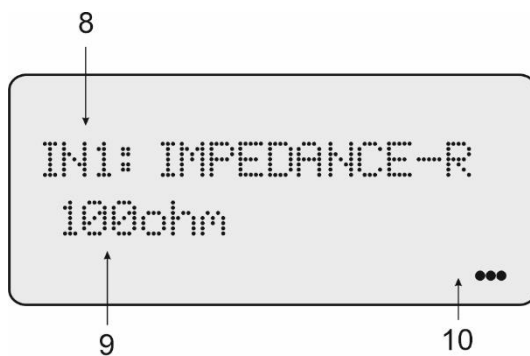
8.5 Display (0)

Normal mode



- 1) Selected input: IN 1 to IN 3
- 2) Input type: MC, MM or TP = Tape for IN1 and IN2, OP = optical for input IN3
- 3) Deemphasis curve: INx DEEMPHASIS
- 4) Gain
- 5) Gain mode: D = DIM, M = MAX
- 6) Balance setting
- 7) High-pass filter (IEC) phono

Configuration mode



- 8) Configuration function
- 9) Value of function
- 10) LEDs are lit whilst values are changeable



9 Configuration

Function	Values	Remarks
START-INPUT IN 2 ...	IN 1, IN 2, IN 3	Defines which input is to be activated when the unit is switched on.
GAIN DIM + 10dB ...	-40...+20	Defines the gain for the DIM function.
HIGHPASS-FILTER IEC 20Hz ...	OFF 100mHz, IEC 20Hz, STRONG 100Hz	Activates the highpass-filter
POLARITY IN PHASE ...	IN PHASE, INVERTED	Defines the polarity of the output signal
MONO/STEREO STEREO ...	STEREO, MONO	Changes between MONO and STEREO mode. In MONO mode both channels output the average of the two input signals
IN 1: STATE ENABLED ...	ENABLED, DIASBLED	Input IN 1 can be (de)activated. Deactivated inputs can no longer be selected.
IN1: TYPE MOVING COIL ...	MOVING COIL, MOVING MAGNET TAPE	Defines the type of magnetic pic-up system connected to input IN 1.
IN1: GAIN-START + 20dB ...	-20...+40	Defines the start-gain for input IN1. This gain will be set when the unit switches to input IN1.
IN1: GAIN-MAX + 80dB ...	+20 ... +80	Limits the maximal gain for input IN1. MC: 80dB, MM: 60dB, Tape: 70dB



Function	Value	Remarks
IN1: BALANCE <-4 ...	< 9 ...0... 9>	Sets the balance for input IN1.
IN1: DE-EMPHASIS RIAA ...	RIAA , DECCA, CO- LUMBIA, TELDEC, LONDON, etc.	Defines the deemphasis curve used for input IN1. The selection depends on the input type (MC/MM or Tape).
IN1: IMPEDANCE-R 100ohm ...	MC: 10...1kΩ MM: 47kΩ Tape: 20-100kΩ	Defines the resistive termination impedance for input IN1. The selection depends on the input type (MC, MM or Tape).
IN1: IMPEDANCE-C 10pF ...	0...750pF	Defines the capacitive termination impedance for input IN1.
IN1: XLR-GND IN CONNECTED ...	CONNECTED DISCONNECTED	Determines whether pin 1 of the XLR input become ground or remain floating when input IN1 is selected.
IN1: XLR-GND OUT CONNECTED ...	CONNECTED DISCONNECTED	Determines whether pin 1 of the XLR outputs become ground or remain floating when input IN1 is selected.
IN1: HEAD CAL- START ...	OFF, START	This function starts the calibration procedure for magnetic tape heads. (Only available when the input IN1 is set to tape)
IN2: STATE ENABLED ...	ENABLED , DIASBLED	Input IN 2 can be (de)activated. Deactivated inputs can no longer be selected.
IN2: TYPE MOVING COIL ...	MOVING COIL , MOVING MAGNET TAPE	Defines the type of magnetic pic-up system connected to input IN 2.
IN2: GAIN-START + 20dB ...	-20...+40	Defines the start-gain for input IN2. This gain will be set when the unit switches to input IN2.



Function	Value	Remarks
IN2: GAIN-MAX + 80dB ...	+20 ... +80	Limits the maximal gain for input IN2. MC: 80dB, MM: 60dB, Tape: 70dB
IN2: BALANCE <-4 ...	< 9 ... 0 ... 9>	Sets the balance for input IN2.
IN2: DE-EMPHASIS RIAA ...	RIAA , DECCA, CO- LUMBIA, TELDEC, LONDON, etc.	Defines the deemphasis curve used for input IN2. The selection depends on the input type (MC/MM or Tape).
IN2: IMPEDANCE-R 100ohm ...	MC: 10...1kΩ MM: 47kΩ Tape: 20-100kΩ	Defines the resistive termination impedance for input IN2. The selection depends on the input type (MC, MM or Tape).
IN2: IMPEDANCE-C 10pF ...	0 ...750pF	Defines the capacitive termination impedance for input IN2.
IN2: XLR-CND IN CONNECTED ...	CONNECTED DISCONNECTED	Determines whether pin 1 of the XLR input become ground or remain floating when input IN2 is selected.
IN2: XLR-CND OUT CONNECTED ...	CONNECTED DISCONNECTED	Determines whether pin 1 of the XLR outputs become ground or remain floating when input IN2 is selected.
IN2: HEAD CAL- START ...	OFF, START	This function starts the calibration procedure for magnetic tape heads. (Only available when the input IN2 is set to tape)
IN3: STATE ENABLED ...	ENABLED , DIASBLED	Input IN 3 can be (de)activated. Deactivated inputs can no longer be selected.
IN3: GAIN-START + 20dB ...	+40... +60 ...+80	Defines the start-gain for input IN3. This gain will be set when the unit switches to input IN3.



Function	Values	Remarks
IN3: GAIN-MAX +100dB ...	+60 ... +120	Limits the maximal gain for input IN3.
IN3: BALANCE <-4 ...	< 9 ... 0 ... 9>	Sets the balance for input IN3.
IN3: DE-EMPHASIS RIAA ...	RIAA, DECCA, CO- LUMBIA, TELDEC, LONDON, NARTB	Defines the deemphasis curve used for input IN3.
IN3: XLR-CND OUT CONNECTED ...	CONNECTED DISCONNECTED	Determines whether pin 1 of the XLR outputs become ground or remain floating when input IN3 is selected.
IN3: POWER CART- ON ...	ON, OFF	(De)activates the power supply the optical cartridge.
BRIGHTNESS HIGH ...	DISPLAY OFF, LOW, MEDIUM, HIGH	The brightness can be adjusted in three levels. When set to display off, the display switches off about 15 seconds.
REMOTE-ID Pre1 ...	Pre1, Pre2, Phono	The remote ID of the 757 is defined. The remote ID of the IR remote control must match (see page 22).
LOAD-DEFAULT NO ...		Activates the default values (shown in bold) for all the functions.
FIRMWARE VERSION FW-1.42 ...		Displays the firmware version of the unit.



⚠ Disabled inputs Disabled inputs cannot be selected. When scrolling for a new input, disabled inputs will be skipped and their configuration functions unavailable.

⚠ All inputs disabled If all inputs are disabled the 757 will not function. The following error messages will appear:

```
NO INPUT ENABLED  
press PROG
```

```
select INx:STATE  
to enable INPUTS
```



10 Tape head calibration

Magnetic tape heads do suffer from several effects that impair the frequency response. Omega losses, the gap effect, mirror resonances and manufacturing tolerances may lead to deviations from the ideal frequency response either in the bass or in the treble. The tape calibration procedure helps minimizing these deviations from the ideal response.

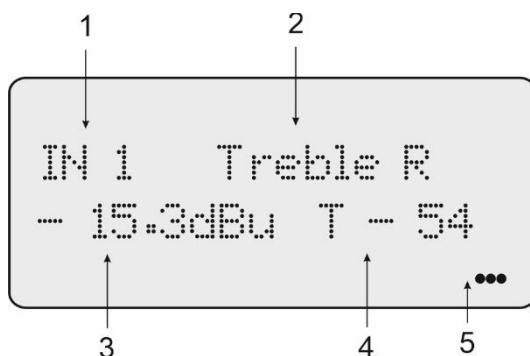
Ensure that your reel-to-reel tape machine is properly adjusted (azimuth, tilt, height, tangency, etc. of the tape head) before you start with tape head calibration procedure. Please follow the instructions of the manufacturer of your reel-to-reel tape machine.

The tape head calibration procedure requires a tape with test tones. Depending on the tape speed the following test tones are used.

<u>Speed</u>	<u>Treble</u>	<u>Bass</u>	<u>Midband</u>
7.5ips (19cm/s)	12.5kHz	63Hz	1kHz
15ips (38.1cm/s)	14kHz	63Hz	1kHz
30ips (76.2cm/s)	16kHz	63Hz	1kHz

The 757 deemphasis preamplifier features a rms level meter which measures the signal level of its output. The level will be shown in the calibration menus.

10.1 Calibration functions



- 1) Selected input for tape head calibration
- 2) Calibration function
- 3) RMS level of the 757's output signal
- 4) Calibration setting
- 5) LEDs are lit whilst values are changeable



Function	Values	Remarks
<pre>IN 1 Gain L - 21.7dBu G +43.2 ...</pre>	0...+40...+80	Adjusts the gain of the left channel only. This allows to match the midband gain of both channels.
<pre>IN 1 Gain R - 11.2dBu G +51.7 ...</pre>	0...+40...+80	Adjust the gain of the right channel only. This allows to match the midband gain of both channels.
<pre>IN 1 Bass L - 7.2dBu B +25 ...</pre>	-70...0...+80	Adjusts the bass response of the left channel
<pre>IN 1 Bass R + 1.9dBu B +31 ...</pre>	-70...0...+80	Adjusts the bass response of the right channel
<pre>IN 1 Treble L - 5.3dBu T - 42 ...</pre>	-70...0...+80	Adjusts the treble response of the left channel
<pre>IN 1 Treble R - 15.3dBu T - 54 ...</pre>	-70...0...+80	Adjusts the treble response of the right channel

10.2 Calibration process

Before you start the tape head calibration process you will have to match the deemphasis curve of the 757 with the deemphasis curve of the test tone tape.

```
IN1: DE-EMPHASIS
IEC1-15ips
...
```

The configuration function INx: HEAD CAL. will activate the calibration menus.

```
IN1: HEAD CAL-
START
...
```



Midband gain calibration:

Browse to the calibration function INx: Gain L and play the 1kHz reference test tone. The display will show the measured output level of the left channel for the actual gain setting. Change the gain until the display shows 0dBu. This will change the gain for the left channel only.

Repeat the procedure for the right channel (INx: Gain R) also adjusting the gain for 0dBu output level. The 757 will remember the gain difference between the two channels which will be applied when selecting the respective input.

Bass calibration:

Browse to the calibration function INx: Bass L and play the 63Hz test tone. The display will show the measured output level of the left channel for the actual setting. Change the bass setting until the display shows the level the bass test tone has been recorded. For example, if the bass test tone has been recorded with -10dBu compared to 1kHz reference test tone, change the base setting until the display shows an output level of -10dBu. This will change the bass response for the left channel only.

Repeat the procedure for the right channel (INx: Bass R) also adjusting for 0dBu output level while playing the 63Hz test tone.

Treble Calibration:

Browse to the calibration function INx: Treble L and play the test tone corresponding to speed of your test tape. The display will show the measured output level of the left channel for the actual setting. Change the treble setting until the display shows the level the treble test tone has been recorded. If the treble test tone has been recorded with -10dBu compared to 1kHz reference test tone, change the treble setting until the display shows an output level of -10dBu. This will change the treble response for the left channel only.

Repeat the procedure for the right channel (INx: Treble R).

The treble and bass calibration may have impact on the midband gain and vice versa. We suggest revisiting the midband gain, bass and treble calibration and potentially readjusting the settings.

⚠ Output signal

The 757 will output the test tone signal. Depending on the recording level of the test tone they can be very loud. We suggest that you disconnect the 757 from the rest of your audio system during the calibration or that you revert your preamplifier or power amplifier to mute condition.



11 Remote control

Button	Pre-Modus	CD-Modus
(1) IR-transmitter	Operation up to 5m distance and at an angle 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:

Press the respective three buttons simultaneously for approximately 5 seconds:

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

Replacing the batteries (2 x AAA):

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





12 Firmware Update

USB-Stick:

The firmware of all soulution products can be updated via the USB port on the back panel. To update firmware, please prepare a USB stick (FAT32 formatted, UBS2.0) containing the required firmware data.

You can find the latest firmware for your 757 deemphasis preamplifier on our website www.soulution-audio.com. Unzip the downloaded .zip file and copy the firmware files to the root directory of the USB stick. Make sure there are no other files or folders on the USB drive.

Update-process:

- ⇒ Prepare the USB stick with the firmware files (no other files should be present).
- ⇒ Unplug the unit from the mains supply.
- ⇒ Insert the USB stick into the USB interface "Firmware".
- ⇒ Connect the unit to the mains supply.
- ⇒ Follow any instructions in the display.
- ⇒ Once the new firmware has been loaded, the 757 will be in standby mode.
- ⇒ Power up the 757 deemphasis preamplifier.
- ⇒ Press the prog button.
- ⇒ Select configuration function LOAD-DEFAULT and confirm with YES.
- ⇒ Configure the 757 deemphasis preamplifier to suit your requirements.



13 Troubleshooting

- No Display**
- ⇒ check the mains connection
 - ⇒ check the fuse of your house installation
 - ⇒ check the fuse of the preamplifier 757
 - ⇒ check the BRIGHTNESS setting (DISPLAY-OFF)
- No music**
- ⇒ check the cabling of your audio system
 - ⇒ check whether the correct input is selected
 - ⇒ check whether the source component is muted
 - ⇒ check whether the power amplifier is switched on
 - ⇒ check whether the power amplifier is muted
- CLIPPING**
- If the output signal exceeds the max allowed level the 757 deemphasis preamplifier will display CLIPPING.
- ⇒ reduce the gain
- OVERCURRENT**
- If a current > 0.5 A is detected at the output of the 757, it switches off and the display shows OVERCURRENT
- ⇒ disconnect the 757 from the mains supply
 - ⇒ check the wiring to your power amplifier (short cut)
 - ⇒ check the input stage of your power amplifier (short cut)
- PSU FAIL...**
- The 757 monitors all necessary supply voltages. If a supply voltage fails, the 757 will switch itself to MUTE with the corresponding error code shown in the display.
- ⇒ note the error code
 - ⇒ disconnect the 757 from the mains supply

14 Service

If you cannot identify or rectify a fault by following the troubleshooting measures, please disconnect the 757 deemphasis preamplifier from the mains supply and contact your authorised solution dealer.



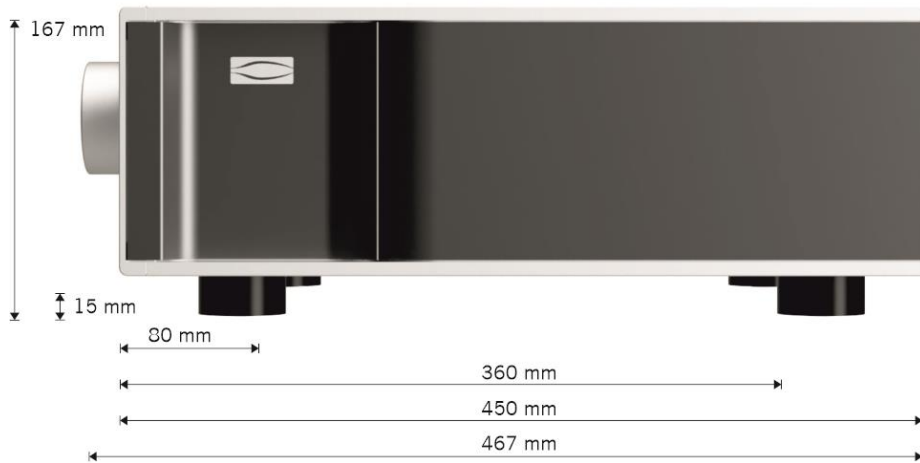
15 Specifications

General		
Nominal voltage		100 - 240 V, 50-60 Hz
Power rating		120 W
Consumption	Standby	<1 W
	ON regular operation	60 W
Inputs IN 1 & IN 2: Magnetic cartridges		
Gain	MC	-40 dB to +80 dB
	MM	-40 dB to +60 dB
	Tape	-40 dB to +70 dB
Accuracy of deemph.	20Hz - 200kHz	±0.05 dB
Frequency response	-3dB	0.1 Hz - 2 MHz
Input voltage		max. 200 mVpp
CMRR		> 100 dB
THD		not measurable
Signal to noise ratio	20Hz - 20kHz	> 110 dB
Noise density	Input-related	< -170 dBV/ \sqrt{Hz}
Channel separation		> 100 dB
Input impedance	Resistive - MC	10 - 1'260 Ω
	Resistive - MM	47 k Ω
	Resistive - Tape	20 - 100 k Ω
	Capacitive	0 - 750 pF
Input IN 3 Optical cartridge		
Gain		-40 dB to +120 dB
Accuracy of deemph.	20Hz - 200kHz	±0.05 dB
Frequency response	-3dB	0.1 Hz - 2 MHz
THD		not measurable
Signal to noise ratio	20Hz - 20kHz	> 110 dB
Channel separation		> 100 dB
Outputs		
Output voltage	Balanced	max. 14 Vpp
	Unbalanced	max. 7 Vpp
Output current		max. 0.5 A
Output impedance	Balanced	0.8 Ω
	Unbalanced	0.4 Ω
Dimensions	W x D x H	480x450x167 mm
Weight		28 kg

Technical specifications are subject to change without prior notification.



16 Dimension sheet



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