SACD-Player 745

User Manual

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Dear client

We are proud that you decided yourself for a soulution SACD-Player 745. You have acquired a SACD-Player 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 SACD-Player 745 in your High Fidelity system. This user manual contains also useful tips for the optimisation of your over-all HiFi-System.

If there are any questions regarding the start-up or operation of your SACD-Player 745 please do not hesitate to contact your dealer.

Have fun!

Your soulution 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.

Table of Content

1   Quick start

Unpacking	Unpack the SACD-Player 745 and the External Power Supply 740PSU and store the packing for future transportations. Security advice: Your SACD-Player 745 and the External Power Supply 740PSU have top class surfaces. Please take care while installing them.
Positioning	Position the SACD-Player 745 and the external power supply unit 740PSU on stable bases. Security advice: Cooling air must be able to circulate and escape unrestricted.
Cabling	Disconnect all electrical appliances of your HiFi-system from the mains supply. Connect your SACD-Player 745 with your (pre)-amplifier and with the External Power Supply 740PSU. Use the respective signal cables, DC-analog cable, DC-digital cable and the cable for the LINK-system. Connect the External Power Supply 740PSU and the other components of your HiFi-System with the mains. Security advice: While manipulating with cables the External Power Supply 740PSU has to remain disconnected from the mains supply.
Programming	Default values for all Program-Functions are programmed. No additional programming is required for the start-up of your SACD-Player 745.
Switch-On	Switch-on the SACD-Player 745 and the (pre) amplifier while setting the (pre) amplifier to minimal volume. Security advice: Before you switch on the SACD-Player 745 and the amplifier check whether the cabling is done correctly.

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2   **Important security advices:**

User manual:

Read this user manual carefully before you start-up your SACD-Player 745 and follow all installation and security advices.

Please keep this user manual. In the case this manual gets lost you have the possibility to download it from the soulution-webpage.

(http://www.soulution-audio.com/downloads.html)

Mains supply:

Exclusively use 3 phase power cords with ground conductor. They may not be crushed by objects.

Unplug your SACD-Player 745 from the mains connection in the following cases:

-      before you manipulate with cables
-      before you clean your SACD-Player
-      during thunder storms or
-      before you leave for longer periods

Cabling:

While manipulating with cables the External Power Supply 740PSU has to remain disconnected from the mains. Before you disconnect the mains the SACD-Player 745 has to be in operating condition OFF. Wrong cabling may cause damages to your SACD-Player 745, your amplifier or to your loudspeakers. Excessive volumes due to inappropriate handling may cause hearing damages.

Transport:

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.

Packing:

Please keep the original packing for future transports. The original packing is optimal protection against potential damages.

Operation:

Never run your SACD-Player 745

- with opened housing
- with closed cooling-slots
- with high ambient temperatures (>40°C)
- close to heat sources like radiators, heatings, ovens or similar appliances dissipating heat
- with extremely high humidity for example in humid cellars or rooms with similar humidity
- close to water (Sink, bathtub, or similar equipment) or with any object containing water residing on top of the product

Cleaning:

Use a soft and dry towel. We suggest using a non abrasive micro fibre towel. Please do not use any solvents or liquidities.

Service:

Do not try to repair your SACD-Player 745 by yourself. It needs a service check by a qualified person in the following cases:

- the mains-cable or the mains connectors are damaged
- foreign substances or liquidity has entered the SACD-Player 745
- the SACD-Player 745 has seen rain
- the SACD-Player 745 seems to malfunction
- the SACD-Player 745 has fallen to the floor or the housing is damaged

Serial-Nr.:   **745 –** _____

Serial-Nr.:   **740PSU -** _____

Please note the serial-number of your SACD-Player 745 and the External Power Supply 740PSU above.

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3   Technical Highlights

3.1   Layout

The SACD-Player 745 has two housings, the Player itself and the External Power Supply.

CD-Player: The analogue circuits are physically separated from digital circuits. After the Sample-Rate-Converter unit the CD-Player is realized in pure dual mono layout. Shields between the different sections of the CD-Player effectively reduce interferences between them.

External Power Supply: The power supplies are located in a separate, external housing. This reduces potential interferences even further.

3.2   CD-Drive

The SACD-Player 745 has a high quality SACD-drive (Esoteric UMK-5). In order to reduce errors from vibrations the drive is mounted on rubber damping elements.

3.3   Sample-Rate-Converter

In CD-mode the digital data (16 Bit, 44.1 kHz) is converted to 24 Bit, 352.8 kHz (DXD), in SACD-mode the 1Bit DSD data stream is converted to 24 Bit, 384 kHz. The Sample-Rate-Conversion is based on the proven Anagram technologies Q5™ and ATF™. The DSP based Sample Rate Converter runs in synchronous mode.

The converted data is extrapolated by a 3rd order polynomial algorithm. For optimal performances the DSP on the Sample Rate Converter focuses exclusively on this task. This ensures maximal calculation speed and power for optimal precision.

3.4   Digital/Analog-Converter (DAC)

The SACD-Player 745 has one DAC board per audio channel (left/right). We use the Burr-Brown 1792 DAC which guarantees excellent performance. Only the top quality converter section which runs up to 384 kHz of the chip is used. The internal up sampling section is bypassed!

The DACs are operated in dual mono mode. At the output of the converter chip four current signals (I1+, I1-, I2+, I2-) are available. The four current signals are not combined directly after the DAC but are first converted in a voltage signal and filtered. The I-V converter runs up to 100 MHz fast. The summig of the voltage signals is done on the output-stage board.

The digital section of DAC board is supplied by the digital power supply unit; the analogue section is supplied by the analogue power supply unit. This allows withholding noise present in the digital ground from the analogue section of the player.

3.5   Clock and PLL (Phase Lock Loop)

Utmost precision of the clock signal is a must have for a top class D/A-Conversion. The clock unit of the SACD-Player 745 runs at a precision of < 0.01ppm.

For the synchronisation to external digital data the clock/PLL must adapt itself very fast to eventual changes of the external data. This is done by a special digital clock circuit that allows synchronising its clock signal very fast and at the same time extremely precise to the incoming signal.

3.6   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 realised with a protection circuit outside the signal path.

The output stage is a completely symmetrical design. For optimal performance of the unbalanced connection, the CD-Player has an additional unbalanced output section. This ensures the same sonic quality for both connection types.

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Due to the output stages bandwidth of up to 40 MHz (-3 dB) all details of the music are 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 (pre)amplifier. Cable losses are minimised.

3.7   External Power Supply

The External Power Supply consists of three different power supply units which are physically and electrically separated. Additionally the three units are separated by the AC-Filter unit. Interferences between the different sections are minimized.

The supply voltages for the audio section are multi stabilised. We use an amplifier-like circuit working into a capacitor. The ultra stable supply voltage has a load-dependant deviation of 500 microvolt and a residual ripple < 0.01 microvolt. Solid copper bars distribute the supply voltages across the D/A-Converter board and the output stage.

The digital sections of the player require stable supply voltages alike. The supply voltages for the digital Inputs / Outputs, the DSP/Clock board, the PLL as well as for the digital section of the D/A-Converter are generated in a dedicated supply unit optimised for this function. The voltages are stabilised locally on the boards where they are needed.

The drive of the SACD-Player 745 has its own dedicated power supply unit. This guarantees that the drive can dispose over sufficient current when needed, at the same time there is no interference between the drive and the rest of the SACD-Player.

4   Start of operation and handling of the SACD-Player 745

4.1   Scope of delivery and packing

Please check the scope of delivery:

- SACD-Player 745
- External Power Supply 740PSU
- remote control 720/740 (incl. batteries 2xAAA)
- mains cable
- DC-Analogue cable
- DC-Digital cable
- user manual
- cotton gloves

Please store the packing of the SACD-Player 745 and the external power supply 740PSU for future transports. Check your SACD-Player 745 and the External Power Supply 740PSU for transport damages. In the case of damage, please contact your soulution dealer.

Security advice: If the SACD-Player 745 and/or the External Power Supply 740PSU are still very cold from the transport please let them warm up within the packing, in order to omit condensation of water inside the units.

4.2   Optimal positioning of your SACD-Player 745

There are no limitations on where to position your SACD-Player 745. We suggest positioning the SACD-Player 745 so that the connecting cables to the preamplifier remain short. Do not place the SACD-Player 745 directly on top of the External Power Supply 740PSU. If available, place the power supply unit on separate shelf in your rack.

Security advice: Please follow the security advices on page 6!

The SACD-Player 745 has a high quality surface. Please be careful while transporting so that the surface does not get scratched. Please use the enclosed cotton gloves. Never position your SACD-Player 745 on the front panel. The display glass could get scratched or even burst.

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4.3 Rear panel of the External Power Supply 740PSU

Rear panel of the External Power Supply 740PSU

4.3.1 DC- Connectors between External Power Supply and CD-Player (A,B)

Connect the DC-Analogue and the DC-Digital of the External Power Supply 740PSU with enclosed high quality cables and the SACD-Player 745. Please secure the cables for tight fitting.

Security advice: Please follow the security advices on page 6!

The External Power Supply 740PSU must be switched off while you are connecting the cables. The high current connectors could get damaged.

4.3.2 Mains (C)

Connect the External Power Supply 740PSU with the mains. The enclosed power cord is optimised for this application.

After switch-on of the External Power Supply 740PSU the standby power supply gets started. The display of the SACD-Player 745 shows "WAIT". As soon as constant conditions are reached the SACD-Player 745 changes to operating condition OFF (red LEDs in display).

Display after switch on of the mains   Display in operating condition OFF

Security advice: Please follow the security advices on page 6!

Only switch-off the mains connection if your SACD-Player 745 is in operating condition OFF.

4.3.3   Link (D)

With the LINK-connection the preamplifier soulution 720/721 can control the switch-on of the SACD-Player 745. Connect the Master out 1 or Master out 2 of the preamplifier 720/721 with the Slave-In of the External Power Supply 740PSU. The Slave-out of the External Power Supply 740PSU allows connecting further soulution components.

4.4   Rear panel of the SACD-Player 745
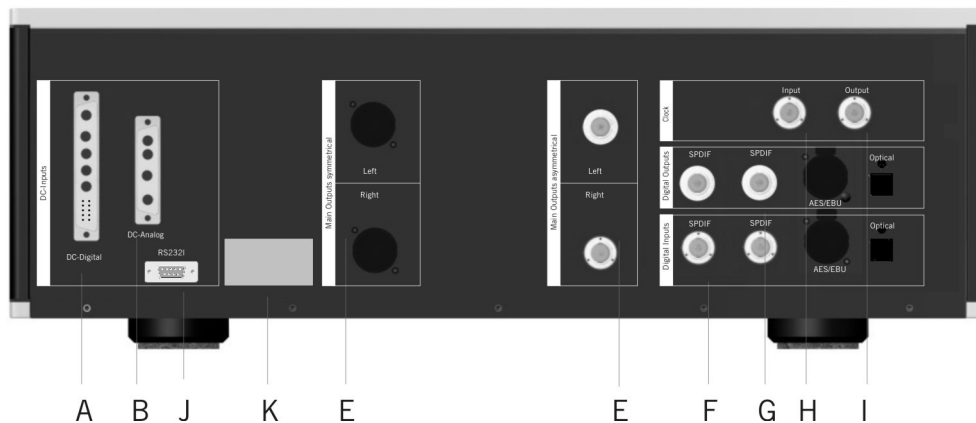
Rear panel of the SACD-Player 745

4.4.1   Main-Out (E)

The SACD-Player 745 has symmetrical and asymmetrical connectors for the main output signal. Connect the output terminals with your (pre)amplifier. Due to the extraordinary load-stability of the output-stage there are no restrictions regarding the selection of the connecting cables.

We recommend using symmetrical cables. For short cable lengths also asymmetrical cables represent a high quality connection, top quality cable and optimal layout prerequisite.

Security advice: Please follow the security advices on page 6!

Wrong cabling could damage your SACD-Player 745, your preamplifier, your amplifier or your loudspeakers. Excessive volumes due to inappropriate handling may cause hearing damages.

4.4.2   Digital-Output (F)

The SACD-Player 745 has 4 digital output connectors. (SPDIF 1 (RCA), SPDIF 2 (BNC), AES/EBU, Toslink). Connect your favourite digital output with the digital input of your external D/A-Converter.

With the functions Output SPDIF 1, Output SPDIF 2, Output AES/EBU, Output Toslink (chapter 5.2.5, page 23) the digital inputs can be (de)activated. The function Record-Input (chapter 5.2.7, page 23) selects the data source that will be connected to the digital outputs.

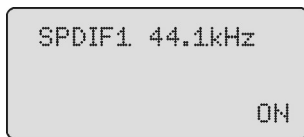Security advice: Please follow the security advices on page 6!

Wrong cabling could damage your SACD-Player 745, your preamplifier, your amplifier or your loudspeakers. Excessive volumes due to inappropriate handling may cause hearing damages.

4.4.3   Digital-Input (G)

The SACD-Player 745 can receive external digital data from other digital sources. The top class D/A-converter section and output-stage can thus be used for these sources alike. The SACD-Player 745 has four digital input connectors (SPDIF 1 (RCA), SPDIF 2 (BNC), AES/EBU, Toslink). The function Listen-Input (chapter 5.2.6, page 23) connects the selected digital source with D/A-Converter section.

If you activate one of the digital inputs the display will show the sampling frequency and the word length of the digital data.

```
┌─────────────────────┐    ┌─────────────────────┐
│  SPDIF1  44.1kHz    │    │  SPDIF1   UNLOCKED  │
│                     │    │                     │
│                ON   │    │                ON   │
└─────────────────────┘    └─────────────────────┘
```

Display for digital input signal at
SPDIF1 with 44.1 kHz
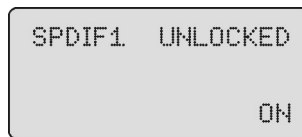
Display if the external DataStream is
interrupted

4.4.4   Clock-Output (H)

The high precision clock signal is available for the synchronisation of external digital
appliances at the clock-out terminal. Connect the clock out (BNC) with the clock
input terminals of your external component. The clock output of the SACD-Player
745 provides a word clock signal. In case you do not use synchronisation of external
components you can switch of the Clock-Output with the function Clock-Output (see
chapter 5.2.8, page 24).

4.4.5   Clock-Input (I)

If you use an external clock generator for the synchronisation, connect the clock
generator with the clock input (BNC) of the SACD-Player 745. The SACD-Player
745 is able to receive Wordclock and Masterclock signals. For optimal adaptation to
your clock generator the SACD-Player 745's clock input can be terminated with two
different impedances. With the function Clock-Input (see chapter 5.2.9, page 24)
you may select the optimal termination or deactivate the clock input.

4.4.6   RS232 – Interface (J)

The SACD-Player 745 can be remote controlled through the RS232 interface. All
functions can be controlled and relevant information is provided to the control unit.

4.4.7   Type label (K)

Please note the serial number of your SACD-Player 745 and External Power Supply
740PSU on page 7 of this user manual. This allows you to have the specific data at
hand without removing your units from the HiFi rack.

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4.5   Front panel of the SACD-Player 745
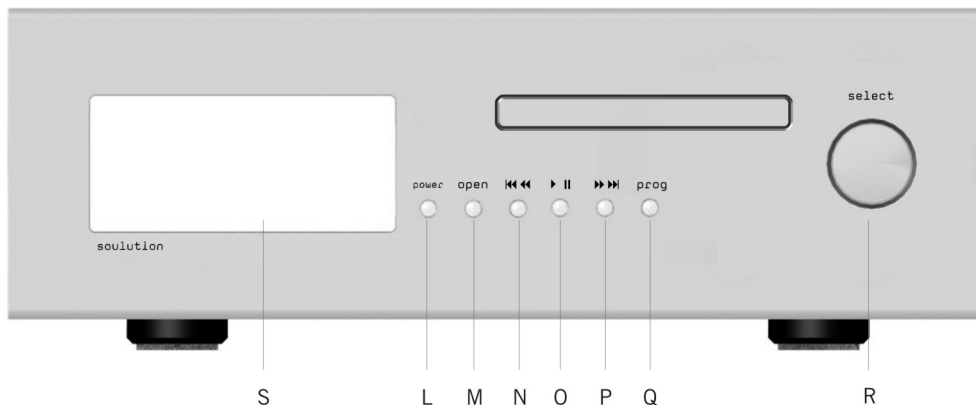
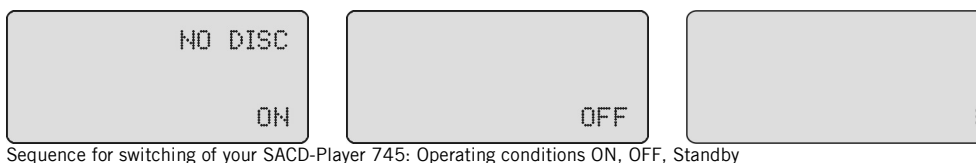Front panel of the SACD-Player 745

4.5.1   Power (L)

With the Power button you define the operating condition ON or OFF (red LEDs). In operating condition OFF the audio circuits are completely disconnected from the output terminal (Main-Out), the CD-drive and the digital sections remain deactivated. The Main-Out terminals are only activated if the SACD-Player 745 is ready for operation and if no errors are present.

Display in operating condition OFF

P ON

Display in operating condition
PROTECT ON

NO DISC

ON

Display in operating condition ON
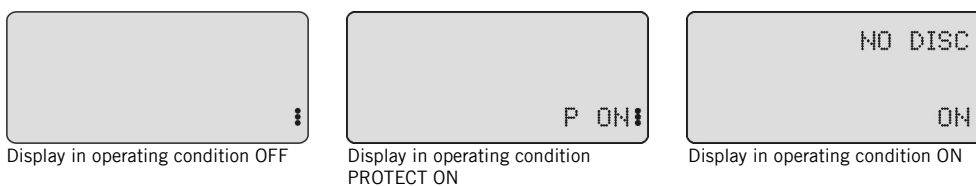
We suggest switching the SACD-Player 745 to operating condition OFF (power consumption in < 0.5W) while not listening to music. Your SACD-Player 745 can easily be activated with the remote control.

NO DISC

ON

OFF

Sequence for switching of your SACD-Player 745: Operating conditions ON, OFF, Standby

LINK-System:

If you have connected the LINK – System, your preamplifier 720/721 will control switch-on of the SACD-Player 745.

Security advice: Please follow the security advices on page 6!
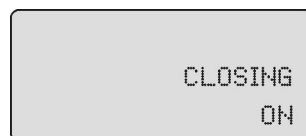
Unplug the External Power Supply 740PSU from the mains before you manipulate with cables, before you clean your SACD-Player 745, during thunder storms or before you leave for longer periods. Before you switch off the mains bring your SACD-Player 745 in operating condition OFF.
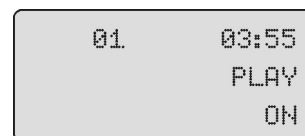

4.5.2   Open (M)

The Open button opens or closes the drawer of the SACD-Player 745. If a CD/SACD is playing the first push on the Open button will stop the mechanism, the second push will open the drawer.
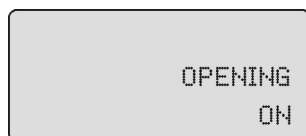
OPENING ON	CLOSING ON	01. 03:55 PLAY ON
Display while opening the mechanism	Display while closing the mechanism	Display while playing a CD/SACD

If the drawer and flap are hindered from closing by an object the mechanism will open again.

Security advice: Never close the drawer by hand. Do not try to block the flap from closing and do not try to open it by hand.

4.5.3   Previous (N)

By tipping on the Previous button you can skip backwards through the tracks of the CD/SACD. While pressing the Previous button permanently the SACD-Player 745 performs the fast backward function.
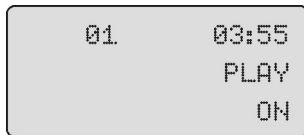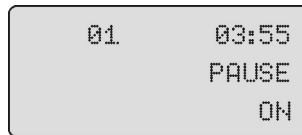
4.5.4 Play / Pause (O)

The Play/Pause button switches the SACD-Player 745 between play and pause mode.

```
┌─────────────────────┐   ┌─────────────────────┐
│  01.        03:55   │   │  01.        03:55   │
│             PLAY    │   │             PAUSE   │
│             ON      │   │             ON      │
└─────────────────────┘   └─────────────────────┘
```
Display while playing a CD/SACD   Display while the mechanism is in
                                       pause.

4.5.5 Next (P)

By tipping on the Next button you can skip forward through the tracks of the CD. While pressing the Next button permanently the SACD-Player 745 performs the fast forward function.

4.5.6 Prog (Q)

The Prog button switches the SACD-Player 745 between operating-mode and programming-mode. In the programming-mode you may adjust the SACD-Player to your individual requirements.

4.5.7 Select (R)

The Select knob controls the functions Track select, Play/Pause, Open/Close and is used for the Programming.

4.5.7.1 Track select

Rotating the Select knob allows selecting a new track. Rotating to the right will increase the track number, rotating to the left will decrease the track number. After 3 seconds the newly selected track will be played.

4.5.7.2   Play/Pause

Pressing the Select knob for less than 0.5 seconds will switch the SACD-Player 745 between Play and Pause. If the drawer is open while pressing the Select knob for less than 0.5 seconds the drawer will be closed and the SACD-Player 745 starts to play track 1 of the inserted CD/SACD.

4.5.7.3   Open/Close

Pressing the Select knob for more than 0.5 seconds will Open or Close the drawer of the SACD-Player 745. If a CD/SACD is playing while pressing the Select knob the SACD-Player 745 is stopped and the drawer will be opened.

4.5.7.4   Programming:

In programming-mode the Select knob is used for the selection of the program-functions and the function values.

4.5.8   Display / IR-Receiver (S)

The display shows all relevant information for operating your SACD-Player 745. In operating mode the actual track, the playing time and the operating condition are shown.

Security advice: The IR-receiver for the remote control is located in the lower left corner behind the display glass. For best reception do not place any objects in front of the display.

Never place your SACD-Player 745 on the front panel. The display glass could get scratched or even burst.

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5   Programming of the SACD-Player 745

5.1   Overview

The available Program-functions allow adjusting the SACD-Player 745 to your individual High-Fidelity set-up.

The SACD-Player 745 is already programmed with default settings. Further programming is not mandatory.

Element	Function
Prog button	The Prog button changes the SACD-Player 745 from operating-mode to programming-mode and vice versa. It remains in the respective mode until the Prog button is pressed again or the timeout of 5 seconds is reached. In case of timeout it will return to operating-mode automatically.
Select knob	**Rotating** of the Select knob allows selecting the desired Program-function. **Pressing** the Select knob approves the selected function. Now the value domain of the selected function is active. (red LEDs in display). **Rotating** of the Select knob allows adjusting the desired value. **Pressing** the Select knob approves the respective value.

5.2   Program-Functions

5.2.1   Start-Mode

This Program-Function defines the start-up behaviour of the SACD-Player 745 after switch-on of the mains.
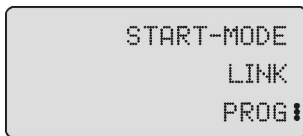
```
    START-MODE
         LINK
        PROG
```
Display for function Start-Mode,
Value domain activated

Values: NORM   => Standby
                  LINK   => depends on LINK System
   AUTO   => ON

Default: NORM

Behaviour of the SACD-Player 745:

NORM: After the switch on of the mains the SACD-Player 745 changes to operating condition Standby. The LINK-Signal has no influence.

LINK: After switch on of the mains the SACD-Player 745 changes its operating condition depending on the LINK Signal.

AUTO   After switch on of the mains the SACD-Player 745 changes to operating condition ON. The LINK-Signal has no influence.

The Power button remains active independent of the start-mode. The CD-Player740 can always be switched-off via the front panel.
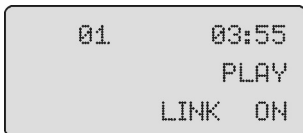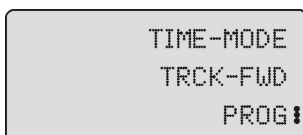
```
  01.       03:55
          PLAY
       LINK  ON
```
Display in start-mode LINK
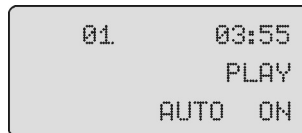
```
  01.       03:55
          PLAY
       AUTO  ON
```
Display in start-mode AUTO

5.2.2   Time-Mode

The Program-Function Time-Mode defines the time format shown in the display.

```
    TIME-MODE
     TRCK-FWD
        PROG
```
Display for function Time-Mode,
value domain activated

Values: TRCK-FWD = Track time forward
                  TRCK-BWD = Track time backward
                  DISC-FWD = Disc time forward
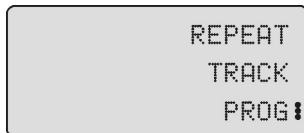   DISC-BWD = Disc time backward

Default: TRCK-FWD

5.2.3 Repeat
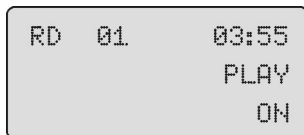
The Program-Function Repeat defines the repeat mode.

```
      REPEAT
       TRACK
        PROG
```
Display for function Repeat, value domain activated

Values: Track, Disc, Random, OFF

Default: OFF

The selected repeat mode will be shown in the display as follows.

```
RD   01.      03:55
            PLAY
              ON
```
Display for Repeat Disc
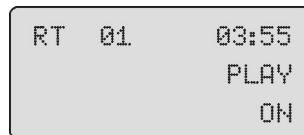
```
RT   01.      03:55
            PLAY
              ON
```
Display for Repeat Track
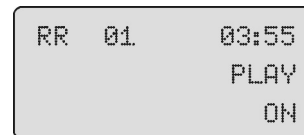
```
RR   01.      03:55
            PLAY
              ON
```
Display for Repeat Random

5.2.4 Phase-Polarity

Phase Polarity 180° will invert the phase of both channels (phase shift of 180°).

```
   PHASE-POLARITY
             180
            PROG
```
Display for function Phase-Polarity, value domain activated
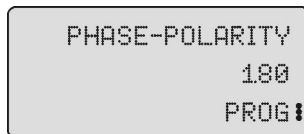
Values: 180°   = left & right inverted
            0°   = no inversion

Default: 0°

Activated Phase-Polarity is shown in the display as follows.
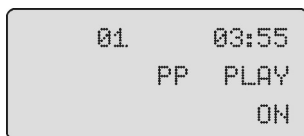
```
     01.      03:55
        PP   PLAY
              ON
```
Display for activated Phase Polarity

5.2.5   Output SPDIF 1, Output SPDIF 2, Output AES/EBU, Output Toslink

The digital outputs SPDIF 1, SPDIF 2, AES/EBU and Toslink can be activated or deactivated.

```
OUTPUT-SPDIF 1.
           ON
         PROG
```
Display for function Output SPDIF1,
value domain activated

Values: ON, OFF

Default: ON
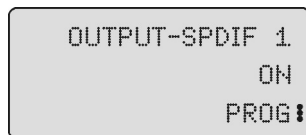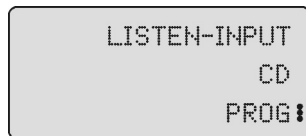
5.2.6   Listen-Input

The Program-Function Listen-Input defines which digital input shall be connected with the D/A-Converter of the SACD-Player 745.

```
LISTEN-INPUT
         CD
       PROG
```
Display for function Listen-Input,
value domain activated

Values: CD, RCA, BNC, AES/EBU, Toslink

Default: CD

The format of the received digital data is recognized automatically. The SACD-Player 745 can receive external data 16 bit, 44.1 kHz up to 24 bit, 192 kHz. The PLL and sample rate converter are adapted automatically to the incoming digital data format.

5.2.7   Record-Input

The Program-Function Record-Output defines which data shall be available at the digital outputs of the SACD-Player 745. You can select either the CD/SACD-mechanism itself or one of the four digital inputs.

```
RECORD-INPUT
         CD
       PROG
```
Display for function Record Input,
value domain activated
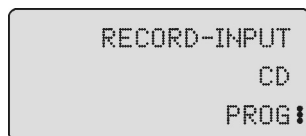
Values: CD, SPDIF 1, SPDIF 2, AES/EBU, Toslink, OFF

Default-Value: CD

The digital data from the CD/SACD-mechanism are available at the digital outputs with the data format 16 bit, 44.1 kHz (For SACD's no digital output available). If you connect one of the digital inputs with the digital outputs the data will pass the SACD-Player 745 without any change.

5.2.8   Clock-Output

The Program-Function Clock-Output activates or deactivates the clock output signal.
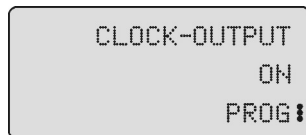
```
┌─────────────────────┐
│    CLOCK-OUTPUT     │
│                 ON  │
│             PROG❖   │
└─────────────────────┘
```
Display for function Clock-Output,
value domain activated

Values: ON
               OFF

Default: OFF

5.2.9   Clock-Input

The Program-Function Clock-Input activates or deactivates the Clock-Input and allows optimising the termination impedance.

```
┌─────────────────────┐
│     CLOCK-INPUT     │
│             ON-300  │
│             PROG❖   │
└─────────────────────┘
```
Display for function Clock-Input,
Value domain activated
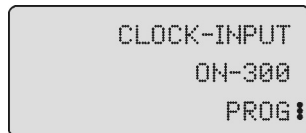
Values: ON-300   =   300 ohm
               ON-75   =   75 ohm
               OFF

Default: OFF

The SACD-Player 745 will automatically detect and synchronise to the external clock signal. If you have activated the Clock-Input, the display will show the following information in case that the external clock signal is missing.
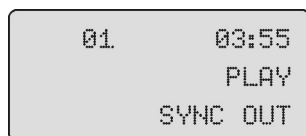
```
┌─────────────────────┐
│  01.        03:55   │
│            PLAY     │
│         SYNC OUT    │
└─────────────────────┘
```
Display for activated Clock-Input and
missing external clock signal

5.2.10   Brightness

The intensity of the display can be adjusted in three steps.

```
      BRIGHTNESS
           2
        PROG:
```
Display for function Brightness,
value domain activated

Values: 1 = low
                 2 = medium
                 3 = high

Default: 3

5.2.11   Load-Default

In the case you want to overwrite all your individual settings by the factory default values you select the Program-Function Load-Default and you confirm with YES. The following values will be loaded.
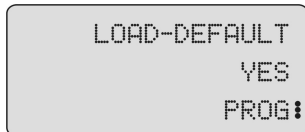
```
     LOAD-DEFAULT
           YES
        PROG:
```
Display for function Load-Default,
Value domain activated

Start-Mode:	NORM	Output Toslink:	ON
Time Mode:	TRCK-FWD	Listen-Input:	CD
Repeat:	OFF	Record-Input:	CD
Phase-Polarity:	OFF	Clock-Output:	OFF
Output SPDIF 1:	ON	Clock-Input:	OFF
Output SPDIF 2:	ON	Brightness:	3
Output AES/EBU:	ON		

Security advice: Please note your personal settings in the table Individual settings on page 38.

5.2.12   Software-Info

This Program-Function shows the version of software installed on your SACD-Player 745.

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6 Remote control

The remote control controls all functions of the soulution preamplifiers, integrated amplifiers and CD/SACD-Players. You can also access the Program-Functions of these products.

The Volume +/- buttons of the remote control will always control the volume of the soulution preamplifier or integrated amplifier. This is also the case when changing the remote control to CD-mode.

6.1 Start of operation and maintenance

The remote control requires 2 AAA batteries (enclosed in the scope of delivery). We recommend using only top quality products.

Exchange of batteries:

- 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

6.2 Handling

6.2.1 IR-Transmitter (1)

Ensure that the IR-Transmitter is not covered and that the IR-Receiver is not hided by any objects. The remote control works up until a distance of 5m and a maximal angel of incident of ±45°.

6.2.2   Input ± / Next Track, (5/6)

PRE-mode: The Input ± buttons switch between the different inputs. With the Enter-button you change to the Record-select-mode. In this mode the Input ± buttons allow to select the Record-IN.

CD-modus: The Next Track buttons skip the tracks forward or backward.

In Programming-Mode (Prog-button) the Input ± buttons allow to select the desired function and the Enter-button confirms the selection. If the value domain of a function is activated the Input ± buttons allow setting the new value and Enter-button confirms the new setting.

6.2.3   Volume-Dim / Play-Pause (4)

PRE-mode: Pressing the Volume-Dim button (de)activates the Volume Dim function of the preamplifier or the integrated amplifier.

CD-mode: The Play-Pause button controls the Play/Pause function of the CD/SACD-Players

6.2.4   Volume ± (2,3)

The Volume ± buttons control always the volume of the preamplifier, integrated amplifier irrespective of the PRE-/CD-mode of the remote control.

6.2.5   Mute (9)

PRE-mode: The Mute-button controls always the mute function of the preamplifier, integrated amplifier. The mute function disconnects the Main-Out and the Record-Out connectors.

CD-mode: no function

6.2.6 Open/Close (11)

PRE-Mode: no function.

CD-mode: The Open/Close button controls the drawer of the player.

6.2.7 Prog-button (8)

PRE-mode: The Prog-button switches the preamplifier, integrated amplifier between Operating-Mode and Programming-Mode.

CD-mode: The Prog-button switches the CD/SACD-Player between Operating-Mode and Programming-Mode.

6.2.8 PRE-button (12)

Pressing the PRE-button switches the remote control to PRE-mode for the control of the preamplifiers or integrated amplifiers. While pressing the buttons of the remote control the red LED (14) will light up.

6.2.9 CD-button (13)

Pressing the CD-button switches the remote control to CD-mode for the control of the CD/SACD-Players. While pressing the buttons of the remote control the blue Leds under the Play/Pause button (4) will light up.

6.2.10 Power (10)

PRE-mode: The Power-button defines the operating condition ON or OFF of the preamplifier, intzegrated amplifier.

CD-mode: The Power-button defines the operating condition ON or OFF of the CD/SACD-Player.

6.2.11   Remote Ctrl ID

PRE-mode: Change the transmitter Remote Ctrl ID of the remote control as follows:

ID 1:   Input+ button (6), Input- button (5) and Power (10)
ID 2:   Input+ button (6), Input- button (5) and Mute (9)

Press the respective buttons for approximately 5 seconds. The remote control confirms the new ID via red LED on its front.

The Remote Control ID of the preamplifier, integrated amplifier has to be changed as well by selecting the Program-Function Remote Control ID, otherwise the preamplifier, integrated amplifier will not react to the remote control no more.

CD-mode: The Remote Ctrl ID can not be changed.

7   **Protection functions of the SACD-Player 745**

Comprehensive protection functions ensure a secure operation and long durability. The SACD-Player 745 disposes over the following functions:

Overcurrent:

For currents > 1 Ampere at the Main-Out the preamplifier shuts down automatically.

Fuse:

The mains connection has a fuse which protects your SACD-Player 745 against too high power consumption. The fuse is located within the mains switch on the rear side of the External Power Supply 740PSU.

Model 220-240 V, 50-60Hz   2A/T 250V micro fuse 5x20mm
Model 100-120 V, 50-60Hz   4A/T 250V micro fuse 5x20mm

8 Trouble shooting

Error	Action
No display	Check the cabling to the mains supply. Eventually replace the fuse of the External Power Supply 740PSU.
No music	Check the cabling to your (pre)amplifier, eventually from the preamplifier to the amplifier and from the amplifier to the loudspeakers, whether the preamplifier is switched on and you have selected the correct input, whether the power amplifier is switched on.
POWER FAIL	If the power supply to the audio channels is interrupted or an error in the power supply unit has occurred the SACD-Player 745 is shut down automatically. The display shows POWER FAIL.
OVERCURRENT	If the current at the Main-Out exceeds 1 ampere the SACD-Player 745 is shut down automatically. The display shows OVERCURRENT.

8.1 Actions after the appearance of an error

If you con not identify the error please disconnect the mains supply (before you disconnect the SACD-Player 745 has to be in operating condition OFF) and contact your soulution dealer.

9 Care and maintenance

9.1 Burn-in

The SACD-Player 745 will play on top level immediately after the first placing into operation. However during the first 20-50 hours of operation you will notice a further improvement of its sonic qualities.

9.2 Longlife-precautions

We use only highest quality components for the SACD-Player 745. The electronic circuits have been designed for maximal lifetime. All electronic components have been selected accordingly.

9.3 Cleaning

Please use a soft towel for the cleaning of your CD-Player. We recommend the use of a nonabrasive micro fibre towel. Please do not employ any solvents.

<u>Security advice:</u>   Liquidity is not allowed to enter the SACD-Player 745. The electronic may be damaged seriously.

10 Service

If your soulution SACD-Player 745 needs service please contact your soulution dealer. For further information see www.soulution-audio.com

11   Warranty

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

The guarantee is void if the SACD-Player 745 has been subject to misuse or negligence or has been modified, repaired or opened by a non authorised 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.
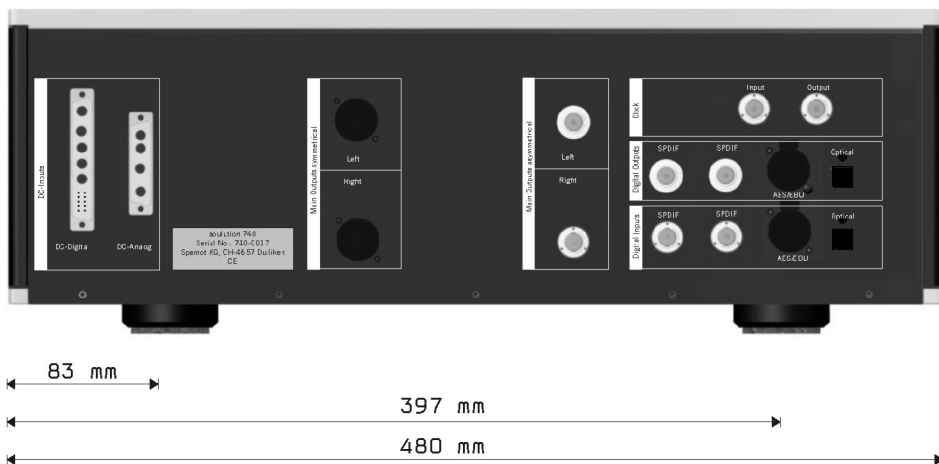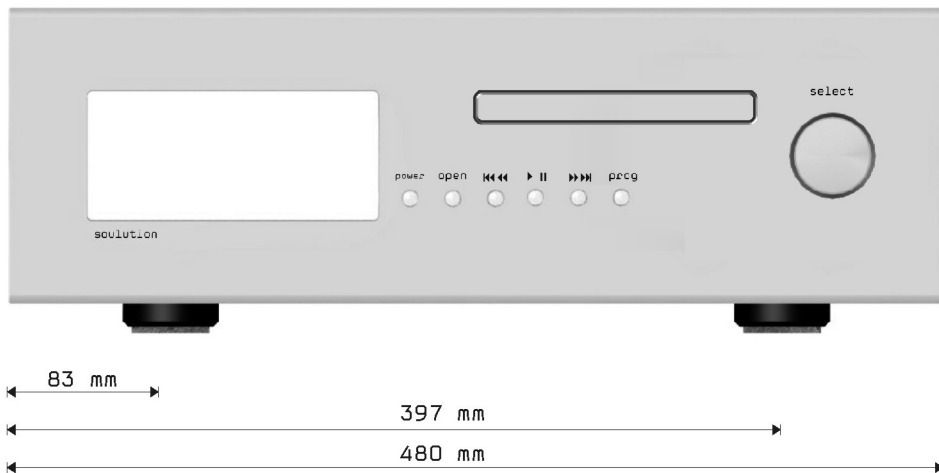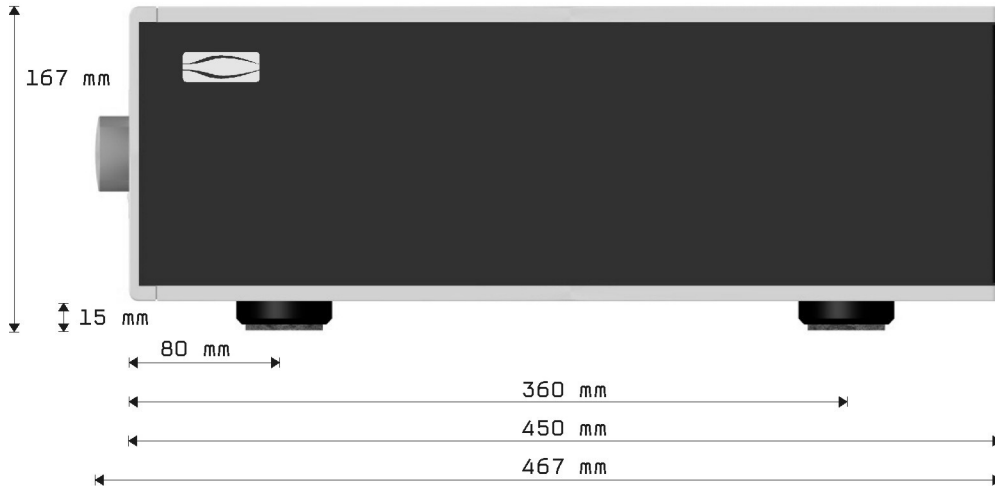
If you do not posses the original packaging no more please contact your soulution dealer.

Basic repairs may be completed by your soulution dealer. Please clarify whether he is able to do the work before you send the SACD-Player 745 back to us.
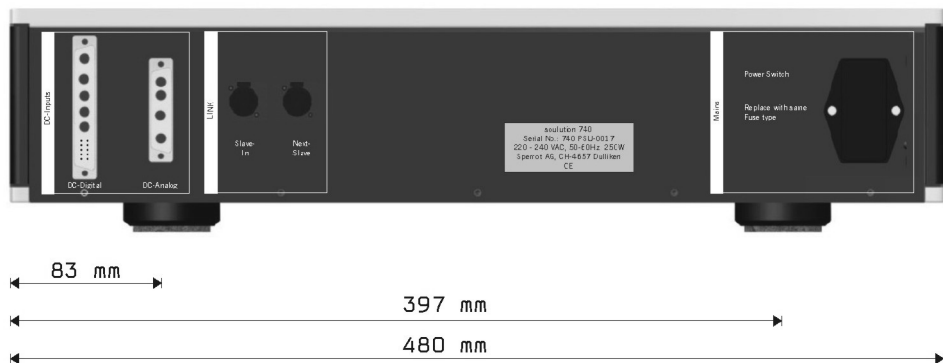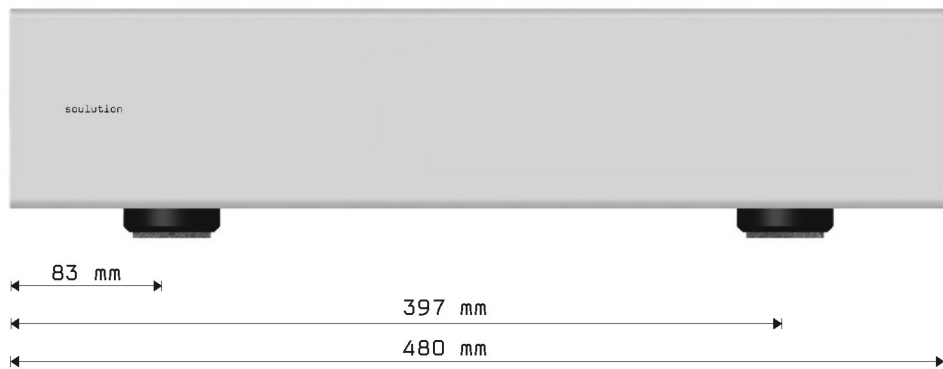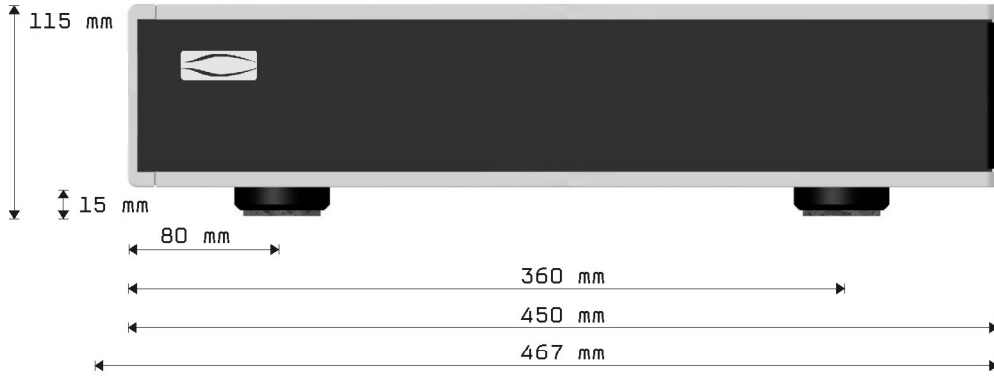
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12   Specifications

Specification		Data
Nominal voltage		
Model 220 – 240 V / 50 – 60 Hz		220 – 240 V
Model 100 – 120 V / 50 - 60 Hz		100 – 120 V
Power consumption		
OFF (standby)		< 0.5 W
ON		60 W
Main-Out		
Output voltage	symmetrical	2 Vrms
	asymmetrical	2 Vrms
Peak Output Current		1 A
Impedance	Main-Out symmetrical	2 Ω
	Main-Out asymmetrical	2 Ω
Frequency response	(depending on data format)	DC-100 kHz
Slew rate		200 Ns
Distortion (THD)		<0.0002 %
Signal to Noise Ratio		140 dB
Digital-Out		
Output-Voltage	S/PDIF	500 mV p-p
	AES EBU	5 V p-p
Output-Impedance	S/PDIF	75 Ω
	AES EBU	110 Ω
Digital-In		
Sensitivity		0.3 - 5 V p-p
Input-Impedance	S/PDIF	75 Ω
	AES EBU	110 Ω
Clock-Out		
Output-Voltage		5 V p-p
Output-Impedance		75 Ω
Clock-Out		
Sensitivity		0.3 - 5 V p-p
Input-Impedance		75 or 300 Ω
LINK-System		+12 V

13 Dimension

115 mm

15 mm

80 mm

360 mm

450 mm

467 mm

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83 mm

397 mm

480 mm

DC-Inputs

DC-Digital   DC-Analog

LINK

Slave-
In

Next-
Slave

soulution 740
Serial No.: 740 PSU-0017
220 - 240 VAC, 50-60Hz 250W
Sperrot AG, CH-4657 Dulliken
CE

Mains

Power Switch

Replace with same
Fuse type

83 mm

397 mm

480 mm

14   Definitions

Operating conditions

OFF (Standby)	In operating condition OFF only the power supply for the front panel is active. Power consumption of <0.5Watts.
P ON (PROTECT ON)	As soon as the SACD-Player 745 is switched on it changes to the operating condition P ON. All power supply units are started and the audio channels are checked for potential errors. When constant operating conditions are reached and no errors are detected the SACD-Player 745 changes into operating condition ON.
ON	In operating condition ON the SACD-Player 745 is ready for operation.
POWER FAIL	If the power supply to the audio channels is interrupted or an error in the power supply unit has occurred the SACD-Player 745 is shut down automatically. The display shows POWER FAIL.
OVER-CURRENT	If the current at the Main-Out exceeds 1 ampere the SACD-Player 745 is shut down automatically. The display shows OVERCURRENT.

Labelling

SYM	Abbreviation for symmetrical connectors.
XLR Female	1. Ground, 2. + Phase, 3. - Phase
XLR Male	1. Ground, 2. + Phase, 3. - Phase
ASYM	Abbreviation for asymmetrical connectors.

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15   Individual settings

Function	Setting	Default-Value
Start Mode		NORM
Time Mode		TRCK FWD
Repeat		OFF
Phase Polarity		0°
Output SPDIF 1		ON
Output SPDIF 2		ON
Output AES/EBU		ON
Output Toslink		ON
Listen-Input		CD
Record-Input		OFF
Clock-Output		OFF
Clock-Input		OFF
Brightness		3

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