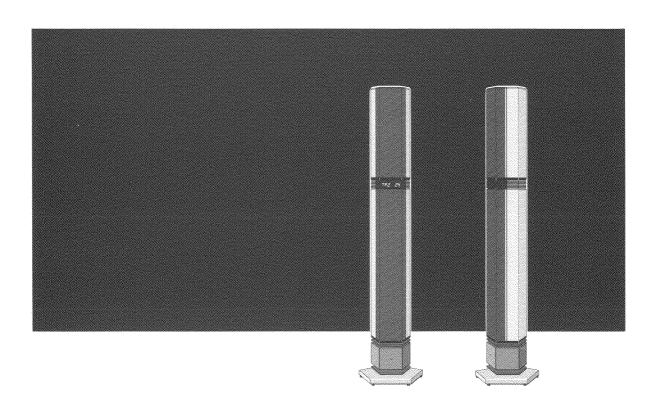
# Table of contents

Setting up	4
Assembling stand and column Placement	4 5
Connection to receiver	6
Setting the switches to the correct positions	8
Switching on and off	9
Display	10
Dynamic Soft Clipping	11
Protection circuit	12
Maintenance	13
Technical specifications	14



Your Beolab Penta is the jewel in the Bang & Olufsen range of audio equipment. It contains the best Bang & Olufsen loudspeaker and power amplifier ever, united in a slim, pentagonal sound column of stainless steel.

The Beolab Penta fits naturally into any home environment. It takes up very little floor space and adopts the colour of its surroundings.

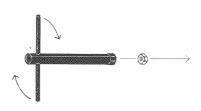
The power amplifer is a fully automatic one channel amplifier with a 150 watt output, set together with a 150 watt loudspeaker in a perfect match. It is equipped with the Dynamic Soft Clipping system, which was developed by Bang & Olufsen.

The display on the Beolab Penta is able to give you exact information about the current state of your music system. The display function requires that the Beolab Penta is connected to a Beomaster 5500, a Beocenter 9000 or used in a Master Control Link 2 system.

This manual describes how to assemble the Beolab Penta, where to place it, and how to connect and adjust it to your music system. The instructions imply that the two units required in a stereo music system are set up in exactly the same way.

# Setting up

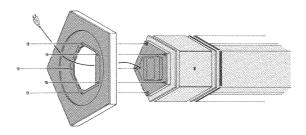
#### Assembling stand and column



Assembling the stand and the column is easiest if the column is lying on a table. In order to protect the table against being scratched, we recommend you first place the wrapping foam on the table.

The tools you require for assembling are included with the Beolab Penta:

- 1 box spanner
- 5 nuts



Fasten the stand to the column by hooking the stand onto the five bolts fitted to the base of the column. Screw the five nuts onto the bolts and tighten them securely using the box spanner. Please also refer to the diagrams above.

#### Placement

Because of its slim, column-like design, the Beolab Penta can be placed freely without special attention to room configuration, walls or anything otherwise affecting the performance of a loudspeaker. Any requirements to placement will only be of a visual nature.



However, make sure to put the Beolab Penta in a place where the ventilation of the amplifier unit cannot be impeded. When securely fastened to its stand, the Beolab Penta must be placed absolutely vertically on a stable surface.

#### Do not lean against it.

We recommend you carry out the connections described in the next section before raising the Beolab Penta to an upright position.

Do not forget to remove the thin protection film on the display panel.

### Connection to receiver

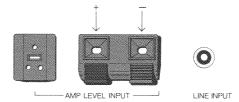
Before connecting the Beolab Penta to your receiver, make sure that the POWER MODE switch is set to OFF.

Bang & Olufsen receiver (Beomaster 5500 or Beocenter 9000) or Master Control Link
 2 system, using the enclosed cable with 4 pin DIN speaker plugs:



Locate the 4 pin AMP LEVEL INPUT socket (DIN) at the bottom of the column (amplifier unit) and plug the cable into it. Plug the other end of the cable into the appropriate loudspeaker socket on the receiver.

Other receivers (screened cable must be used):



Locate the spring loaded contacts marked AMP LEVEL INPUT at the bottom of the column (amplifier unit). Strip the cable and insert the screen into the black contact (negative). Insert the stripped lead into the red contact (positive). Connect the other end of the screened cable to the appropriate loudspeaker socket on the receiver.

- Using the pre-amplifier output (phono sockets) on the receiver:



Locate the phono socket marked LINE INPUT at the bottom of the column (amplifier unit). Remove the sealing plug from the socket. Plug the appropriate cable end into the LINE INPUT socket using screened cable with phono plugs. Connect the other cable end to the appropriate phono socket on your receiver.

# Setting the switches to the correct positions

To open the front panel of the amplifier unit with the three switches press gently in the upper middle field of the panel.

Do not switch on your music system until you have made sure that the SENSITIVITY switch is set to the correct position.

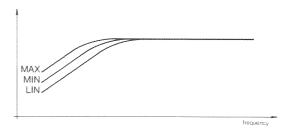
 Set the SENSITIVITY switch to the position required to suit the output of your receiver (for details about receiver output, please refer to the receiver manual):

Switch	R	eceiver outpu	įt*
position	4 ohms	8 ohms	LINE
MAX	-25 W	-12 W	-1 V
MED	25-50 W	12-25 W	1-1.4 V
MIN	50- W	25- W	1.4- V

\* The three columns are to be understood as follows: 4 ohms and 8 ohms for 4 and 8 ohms speaker output; LINE for pre-amplifier output.



• Set the BASS LEVEL switch to the position which best suits the loudspeaker:



- LIN for lineary bass reproduction (neutral bass level)
- MIN for +3 dB/40 Hz bass boost (minimum bass boost)
- MAX for +6 dB/40 Hz bass boost (maximum bass boost).

See the graph indicating the different bass levels.

- Set the POWER MODE switch to either AUTO or LINK:
  - AUTO for automatic switching on and off.
  - LINK if the Beolab Penta is used in a Master Control Link 2 system or if it is connected to a Beomaster 5500.

Beocenter 9000 or any other receiver with a built-in loudspeaker relay. This position also implies automatic switching on and off.

### Switching on and off

The Beolab Penta switches on automatically as soon as it receives a signal, unless of course the POWER MODE switch is set to OFF.

When the signal disappears, the Beolab Penta automatically switches off, i.e. reverts to stand-by mode, after a delay of approximately 15 seconds (LINK position) or approximately 3 minutes (AUTO position).

Stand-by mode is indicated by a tiny red light on the front of the amplifier unit. When the Beolab Penta switches on, the light turns green.

## **Display**

If connected to a compatible Bang & Olufsen receiver or Master Control Link system, the Beolab Penta will display information about the current state of your music system:

SOURCE

Preset radio station: e.g. P1

Radio frequency band: **F**(M)

or A(M)

Compact disc player: **cd**Tape recorder 1 or 2: **TP1** or

TP2

Record player: PH

Auxiliary equipment: AU

NO SOURCE

Compact disc, record or

cassette, as the case may be,

is missing

**VOLUME** 

00 - 60

RECORDING

Recording in progress. Blinking display indicates recording pause mode NO SOURCE VOLUME
TP2
NO RECORDING AUTOLIMIT

NO RECORDING No access to recording

Tuning, winding or search in

progress

Playing pause

AUTO LIMIT

Dynamic Soft Clipping

system activated

The displayed cues and symbols will not all be visible at the same time.

# **Dynamic Soft Clipping**

Clipping is a form of distortion which occurs in case of severe overloading. The tips of the audio waveform become clipped because the power amplifier is incapable of producing any more output despite increasing input.

This phonomenon has been taken care of in

the Beolab Penta, however, which features the Dynamic Soft Clipping system. The Dynamic Soft Clipping system was developed by Bang & Olufsen. It ensures that the clipping of the output signal takes place with much less audible distortion than usual.

### **Protection circuit**

The Beolab Penta is provided with a protection circuit which is automatically activated if something is wrong, e.g.:

- If the amplifier unit gets too hot
- If a fault occurs in the amplifier which could damage the loudspeaker unit.

In case the protection circuit should be activated, the sound disappears, and the tiny

light on the front of the amplifier unit turns yellow. If this happens:

- Disconnect the power supply
- Allow the amplifier to cool off
- Check that ventilation is not impeded
- Connect the power supply again.

If the light is still yellow, contact your Bang & Olufsen dealer. Do not cut the power supply in and out several times in a row.

### **Maintenance**

Before packaging a protective oil has been applied to the Beolab Penta, making the stainless steel greasy and giving it a slightly blotchy appearance. To make the stainless steel surfaces shiny, polish them thoroughly using a dry, soft cloth.

Fingerprints and grease stains can be removed using a mild detergent on a soft cloth. However, frequent treatments of this kind will remove the oil completely and you will have to apply new oil to the stainless steel surfaces. We recommend you use coconut oil, which is available from your Bang & Olufsen dealer (part no. 3984025). Apply a thin layer of oil to the steel surfaces and polish them thoroughly using a dry, soft cloth.

# **Technical specifications**

Beolab Penta	
Туре по.	6601/6602/6604/6605
Loudspeaker	· ·
RMS power handling capacity	150 watts
Music power handling capacity	200 watts
Frequency range +4 -8 dB	40-20,000 Hz
Power at 96 dB SPL	2.5 watts
Sensitivity 1 W	92 dB
Distortion 250-1000 Hz	<0.5%
Distortion >1000 Hz	<0.5%
Cabinet principle	Bass reflex
Woofer	4 units 13 cm (5")
Midrange	4 units 8 cm (3")
Tweeter	2.5 cm (1")
Crossover frequency	700/5000 Hz 18 dB/octave
Net volume	32 litres
Power amplifier	
Power output 20-20,000 Hz IHF	1 x 150 watts/8 ohms
LINE input	80 mV/1 W, 1 V/150 W, 22 kohms,
Enve input	phono plugs
Power input	800 mV/1 W, 10 V/150 W, 15 kohms
i ower input	4-pin DIN or spring loaded contacts
Bass level switch	Linear, +3 dB/40 Hz, +6 dB/40 Hz
Sensitivity switch	0 dB, -3 dB, -6 dB
Power supply	6601: 220 V
rower suppry	6602/6605: 240 V
	6604: 100 V
Power frequency	50-60 Hz
Power consumption	Max. 300 watts
Stand-by	2 watts
Dimensions WxHxD	5-13.5 x 165 cm incl. stand
Weight	24 kg
**CIGHT	LT NY

Accessories			
Screened cable with 4-pin	Part no. 6270336,		
DIN plugs	included		
Subject to change without notice			

#### For the UK market only

#### **IMPORTANT**

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

Blue: Neutral Brown: Live

As the colours of the wires in the mains lead may not correspond with the coloured markings identifying the terminals in your unit, proceed as follows: The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Ensure that your equipment is connected correctly. If you are in any doubt, consult a qualified electrician.

#### International guarantee

This Bang & Olufsen product carries a guarantee against defects in workmanship and materials. It is a national guarantee, extended by Bang & Olufsen to the country in which the product was bought. The terms of the guarantee apply principally to the country of purchase but will be met by authorized Bang & Olufsen dealers in other countries. The guarantee period

applying to the country of purchase takes priority over guarantee periods applying in other countries, even where differences exist.

In order to obtain service under this guarantee from a dealer in a country other than that in which the product was bought, the guarantee form must be completed in full and presented to the dealer.

BANG & OLUFSEN DK-7600 STRUER DENMARK

www.bang-olufsen.com