# BeoSound 5

Туре 2900

# BeoMaster 5

Type 1753, 1754, 1755

Service Manual English

German, French, Italian, Spanish, Danish, Dutch, Japanese, Korean and Simplified Chinese versions are available in the Retail System





This Service Manual must be returned with the defective parts/back-up suitcase !



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## Survey of modules

BeoSound 5



# BeoMaster 5



	RAM
PCB04	Power Supply
PCB51	ML-PL
PCB94	HDD

## How to service

Strategy	
	The product is to be serviced in the customer's home.
	The repair involves replacement of the module(s). The replaced modules must be returned for repair at the Bang & Olufsen Module Repair department. Error codes as well as an adequate fault description must be returned with each replaced part. For this purpose, use the Module Repair form or the form in the Retail System under Exchange Module. To help the Bang & Olufsen Module Repair department it is very important to answer the following questions:
	<ol> <li>Which products are in the setup?</li> <li>Which software versions are used in these products?</li> <li>How are the products linked together?</li> <li>What happens in the actual situation?</li> </ol>
Fault explanation and demonst	ration Before troubleshooting is initiated, let the customer demonstrate the fault, if possible.
Preparations before service	Always remember to download the latest version of the Service Manual from BeoWise. Use also an updated version of ServiceTool MKII to update the BeoMaster 5 ServiceTool (placed on a USB pen drive).
Servicing	The BeoMaster 5 and BeoSound 5 must be serviced by qualified technical personnel only. If it is not possible to determine the location of the fault or if replacing spare parts does not clear the fault, please contact your national Service Center for technical support.
Handling	<ul> <li>Like any other electronic equipment, this product must be handled with care.</li> <li>Particularly the BeoMaster 5 which contains a HDD (Hard Disc Drive), must be handled carefully. Otherwise, there is a major risk of damaging the HDD.</li> <li>Generally, there are 4 main items (described on the next page) which require great attention, when handling the product:</li> <li>Handling when the product is disassembled (ESD, lithium battery).</li> <li>Lithium battery.</li> <li>Cleaning.</li> <li>Transport and handling.</li> </ul>
Replacement of modules	
	<ul> <li>If it is necessary to replace modules in BeoSound 5 or BeoMaster 5, there are 3 modules which require an adjustment after replacement as the serial number has to be transferred into the new module. The modules are:</li> <li>PCB01, Mainboard (BeoSound 5)</li> <li>PCB01, Motherboard (BeoMaster 5)</li> <li>PCB94, HDD (serial number backup for BeoMaster 5 and BeoSound 5)</li> </ul>

Please refer to adjustments for further information.

#### Warnings

Static electricity, ESD



Static electricity may damage the product. In BeoSound 5/BeoMaster 5 there are integrated circuits which operate with 1.8 volt, and that makes the product extremely sensitive to static electrity.

Static-protective field service kit.

A static-protective field service kit must always be used when the product is disassembled or modules are handled.

Follow the instructions in this Service Manual and use the ESD-mat for both old and new modules.

#### Please note:

When mains voltage on the product is required, remove the connection between the product and the ESD-mat.

The chassis or modules must always be connected to the static-protective field service kit or placed in an ESD-proof bag.



Cleaning

ESC

ADVARSEL LITHIUMBATTERI - EKSPLOSIONSFARE UDSKIFTNING MÅ KUN FORETAGES AF EN SAGKYNDIG OG SOM BESKREVET I SERVICE MANUAL
WARNING LITHIUM BATTERY - RISK OF EXPLOSION TO BE REPLACED BY QUALIFIED SERVICEMAN ONLY AND AS DESCRIBED IN THE MANUAL

#### WARNING!

Short-circuit and overcharging of some types of lithium batteries may result in a violent explosion.

### CAUTION!

Danger of explosion if battery is incorrectly replaced: Replace only with the same or equivalent type.

Never use alcohol or other solvents to clean any part of the product!

Wipe dust off the surfaces using a dry, soft cloth or a micro fibre cloth. Remove grease stains or persistent dirt with a soft, lint-free, firmly wrung cloth, dipped in a solution of water containing only a few drops of mild detergent, such as washing-up liquid.

To retain the optimum performance of the screen, make sure that no streaks or traces are left on the screen.

Use white gloves to avoid smudging the front glass.

Transport and handling

When transportation is required, it is recomended to:

- Place BeoSound 5 in the original packing.
- Use product cover on BeoMaster 5 to prevent scratching the surface.

Recommended tools for service

B&O ServiceTool and a PC. White gloves. Shoe covers. Soft lint-free cloth (micro fibre cloth) for cleaning. Product cover for transportation.

# ServiceTool

General	
	The BeoMaster 5 ServiceTool is required in several service situations, e.g. update of firmware after replacement of certain modules. It is important that the BeoMaster 5 ServiceTool (placed on a USB pen drive) always is updated to the latest version. Please use an updated version of ServiceTool MKII remember to update the BeoMaster 5 ServiceTool.
	<ul> <li>The BeoMaster 5 ServiceTool is also used to restore the serial number in the following modules, if they are replaced:</li> <li>PCB01, Mainboard (BeoSound 5).</li> <li>PCB01, Motherboard (BeoMaster 5).</li> </ul>
	If it is not possible 'restore' the serial number from the one of the modules, e.g. if both the HDD and the Motherboard are damaged, a new pre-programmed PCB01, Motherboard can be ordered from Bang & Olufsen Retail System under Daily Use and Master Code.
	<ul> <li>Furthermore, the ServiceTool is necessary to flash update the firmware on the following modules, if they are replaced:</li> <li>PCB01, Mainboard (BeoSound 5).</li> <li>PCB51, ML-PL.</li> <li>PCB01 Motherboard (BIOS). This update is important to ensure correct functions in the product and optimal performance for the customer.</li> </ul>
Additional	Beside the mandatory elements mentioned above, the ServiceTool also contains the opportunity to perform the following services:
	<ul> <li>Clone System drives/Clone entire HDD (clones the drives on a present HDD).</li> <li>Backup/Restore (to a new HDD).</li> <li>Reboot of the system.</li> </ul>

Please refer to adjustment/ServiceTool for a fully detailed description of the features in the ServiceTool.

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# Service mode

## Service Menus

## General

This section describes the accessibility of the following three service menus in BeoSound 5/BeoMaster 5:

- 'Customer Configuration Menu'
- 'Service Configuration Menu'
- SERVICE MENU

The service menus can be accessed on BeoSound 5 or from the tv connected to BeoMaster 5. Both scenarios are described.

## Access to 'Customer Configuration Menu'

#### BeoMaster 5

- Select **PC** in the LIST on Beo4 and press **GO** / select the configured soft button, eg. **PC** on the screen on Beo5 and press **OK**.
- Beo4, press MENU 9 / Beo5, press Menu + 9 (the '+' enables numerical soft buttons) on the screen.
- Press RED GO on Beo4 / RED OK on Beo5 ('Configuration Menu' expands).

The procedure is illutrated below:



BeoSound 5

- Move the navigator arm + to MODE and use the wheel O to highlight SETTINGS.
- On BeoSound 5, press: ▶ ▶ GO to activate 'Customer Configuration Menu' (the menu appears on left side of the screen, containing new sub menus).





Highlight SETTINGS and press <br/>
 <br/>
 GO

#### Access to 'Service Configuration Menu'

#### BeoMaster 5

- Select **PC** in the LIST on Beo4 and press **GO** / select the configured soft button, eg. **PC** on the screen on Beo5 and press **OK**.
- Press MENU 9 on Beo4 / press Menu + 9 (the '+' enables numerical soft buttons) on the Beo5 screen.
- Press 0 0 GO on Beo4 / 0 0 OK on Beo5 ('Configuration Menu' expands).



#### BeoSound 5

- Move the navigator arm + to MODE and use the wheel O to highlight SETTINGS.
   On BeoSound 5, press: 
   GO to activate 'Service Configuration Menu'
  - (the menu appears on left side of the screen, containing new sub menus).



Highlight SETTINGS > < > < GO

Note!

The 'Customer Configuration Menu' or 'Service Configuration Menu' must be activated from either BeoSound 5 or BeoMaster 5. It is not possible to activate the menus on both BeoSound 5 and BeoMaster 5 at the same time.

#### How to exit 'Configuration Menus'

BeoMaster 5	
-	To exit 'Configuration Menu' on BeoMaster 5: Press <b>EXIT</b> on Beo4 or <b>BACK</b> on Beo5 to return to BeoMaster 5 Main menu. (The number of times to press <b>EXIT/BACK</b> depends of the menu stage).
BeoSound 5	
-	To exit 'Configuration Menu' on BeoSound 5:
	Move the navigator arm • $\ddagger$ to MODE, use the wheel O to highlight N.MUSIC / N.RADIO and press GO.
Survey of 'Configuration Menus'	
	This chapter is a survey that describes the content of the 'Customer Configuration
	Menu' and the 'Service Configuration Menu' on BeoSound 5 and BeoMaster 5.

Menu' and the 'Service Configuration Menu' on BeoSound 5 and BeoMaster 5. The 'Service Configuration Menu' is the extended version of the 'Customer Configuration Menu', as opposed to the 'Customer Configuration Menu' contains all menu items.

Items marked with a '\*' in the overview below is only available in the 'Service Configuration Menu'.

#### Menu overview



Some menu items will only be available in BeoSound 5 and other only in BeoMaster 5. In the following description of the menu items, it will be mentioned whether the item is present in only BeoMaster 5 or BeoSound 5.

Description af menu items	
MODE (BeoSound 5 only)	This menu item provides the opportunity to choose one of the following options:
	<ul> <li>N.MUSIC, opens the source N.Music and leaves 'Configuration Menu'.</li> <li>N.RADIO, opens the source N.Radio and leaves 'Configuration Menu'.</li> <li>SETTINGS, opens the basic SETTINGS menu and leaves 'Configuration Menu'.</li> </ul>
SOUND (BeoSound 5 only)	This menu item provides the opportunity to setup the settings for BeoSound 5.
	<ul> <li>VOLUME, provides the opportunity to setup the default volume level. To enter, press &lt; and a scale divided in steps from 0 to 90 appears on the screen.</li> <li>BALANCE, provides the opportunity to setup the default balance point. To enter, press &lt; and a scale divided in steps from &lt;9 to &gt;9 appears on the screen.</li> <li>BASS, provides the opportunity to setup the default bass level. To enter press &lt; and a scale divided in steps from -6 to 6 appears on the screen.</li> <li>TREBLE, provides the opportunity to setup the default treble level. To enter press &lt; and a scale divided in steps from -6 to 6 appears on the screen.</li> <li>TREBLE, provides the opportunity to set up the default treble level. To enter press &lt; and a scale divided in steps from -6 to 6 appears on the screen.</li> <li>LOUDNESS, provides the opportunity to set loudness ON/OFF.</li> <li>SPEAKER TYPE, provides the opportunity to set whether a pair of BeoLab 5 is connected to BeoMaster 5 or not. This menu item is only visible when speakers are connected to one of the POWERLINK sockets on BeoMaster 5.</li> </ul>
SYSTEM INFO	This menu item provides the opportunity to display information about the health of BeoMaster 5 and BeoSound 5. The information contains the following:
	<ul> <li>BS5 CASE TEMP, reads out the temperature inside BeoSound 5 (in degrees Celsius).</li> <li>BM5 CASE TEMP, reads out the temperature inside BeoMaster 5 (in degrees Celsius).</li> <li>BM5 HDD TEMP, reads out the HDD temperature inside BeoMaster 5 (in degrees Celsius).</li> <li>BM5 UPTIME, reads out the time BeoMaster 5 has been connected to the mains.</li> <li>AVAILABLE STORAGE, reads out the free space left on the HDD in BeoMaster 5</li> </ul>

(in gigabytes).

SYSTEM SETTINGS

#### BeoSound 5:

- LANGUAGE, provides the opportunity to setup the preferred language on BeoSound 5. The options are displayed on the respective languages and are: DANSK, DEUTSCH, ENGLISH, ESPANOL, FRANCAIS, ITALIANO, NEDERLANDS and SVENSKA (The setting does not have any impact to the language in 'Customer Configuration Menu' and 'Service Configuration Menu' as the only are available in english).
- TIME ZONE, this menu item provides the opportunity to setup the area where BeoSound 5 is installed. This setup is very important because it determines the time and thus the time for BeoMaster 5 to perform the automatic check for software updates. The options reaches from GMT-12:00 to GMT+13:00 (GMT stands for <u>Greenwich Mean Time</u>).

#### BeoMaster 5:

- **Extended character set**, provides the opportunity to enable the use of special characters (characters wich is not in common with the english character set), regarding to the chosen language.
- TIME ZONE, this item menu provides the opportunity to setup the area where BeoSound 5 is installed. This setup is very important because it determines the time and thus the time for BeoMaster 5 to perform the automatic check for software updates. The options reaches from GMT-12:00 to GMT+13:00 (GMT stands for <u>Greenwich Mean Time</u>).

#### MAINTENANCE

#### BeoSound 5/BeoMaster 5:

- **CLEAN-UP\***, this feature provides the opportunity to delete tracks or stations from the favourites list on BeoSound 5. The options are ON/OFF.
- UPDATE SOFTWARE, this feature provides the opportunity to perform on-demand software check/update. It is very important that BeoMaster 5 is not interrupted when the software update procedure is running.

The system is ready for use when the system has rebooted and the stby. LED lights red constantly.

- **REBOOT**, this feature reboots BeoMaster 5/BeoSound 5.
- **SERVICE MENU\*\***, this item menu accesses the service menu for BeoMaster 5, please refer to page 2.10 for further information.
- \* Only available on BeoSound 5
- \*\* Only available in 'Service Configuration Menu'!

## PRODUCT INFO

PRODUCT INFO provides the opportunity to read-out information about software versions, type no., item no., serial no. etc. The items are described below.

## BeoSound 5:

BS5/BM5 APPLICATION	Application software version
BS5 MAIN FIRMWARE	BeoSound 5 main firmware
BS5 BOOT FIRMWARE	BeoSound 5 boot firmware
BS5 PCB	BeoSound 5 PCB version
BS5 BOM	
BS5 TYPE NO	Type number for BeoSound 5
BS5 ITEM NO	Item number for BeoSound 5
BS5 SERIAL NO	Serial number for BeoSound 5
BM5 ML FIRMWARE	BeoMaster 5 Master Link firmware
BM5 ML PCB	BeoMaster 5 Master Link PCB version
BM5 MB BIOS	BeoMaster 5 Motherboard BIOS
BM5 SERIAL NO	Serial number for BeoMaster 5
BM5 OS IMAGE	BeoMaster 5 Operating System image
BM5 OS UPDATE	BeoMaster 5 Operating System update

BeoMaster 5 (contains 2 sub-menus, one for BM5 and one for BS5):

Product info for BM5	
BM5 Application	BeoMaster 5 application software
BM5 ML Firmware	BeoMaster 5 Master Link firmware
BM5 ML PCB	BeoMaster 5 Master Link PCB version
BM5 MB Bios	BeoMaster 5 Motherboard BIOS
BM5 Serial No	Serial number for BeoMaster 5
BM5 OS Image	BeoMaster 5 Operating System image
BM5 OS Update	BeoMaster 5 Operating System update

## Product Info for BS5

BS5 Main App	BeoSound 5 main application firmware
BS5 Main Firmware	BeoSound 5 main firmware
BS5 Boot Firmware	BeoSound 5 boot firmware
BS5 PCB	BeoSound 5 PCB version
BS5 BOM	
BS5 Type No	Type number for BeoSound 5
BS5 Item No	Item number for BeoSound 5
BS5 Serial No	Serial number for BeoSound 5

NETWORK INFO			
	NETWOF	K INFO provides the opportunity to read-out network information. The	
	elements	s are described below.	
	HOST N	AME	
	Here the	host name for BeoMaster 5 is read-out.	
	IP ADDF	RESS	
	Here the	IP address for BeoMaster 5 is read-out.	
	MAC AE	DDRESS	
	Here the	physical MAC address of the Ethernet adapter is read-out. If a wireless	
	Ethernet	adapter (WLAN) is connected, the MAC address for wireless adapter	
	(WLAN)	is shown, otherwise the read-out is for the wired network adapter (LAN).	
	CLIENIS	CONNECTED	
	Here It is	to see if a client PC is connected to Beolviaster 5, the options are	
	This feat	ure informs whether the network connection to the router/access point is	
	OK or no	t The options are YES/NO	
NETWORK SETTINGS			
	'Network Settings' provides the opportunity to set the 'Client Password'. It is		
	necessar	y to set the 'Client Password' in order to establish connection between	
	BeoMast	er 5 and the 'Client PC'.	
	You can	enter password data from both BeoSound 5 and BeoMaster 5.	
	Explanat	ion for BeoSound 5:	
	0	Changes/flicks through the characters.	
	GO	Accept the selected character.	
	<b>΄</b> Λ΄	Toggles between upper and lower case letters (placed in the character	
		list).	
	STORE	Saves the created password (placed in the character list).	
	Explanat	ion for BeoMaster 5 (Beo4/Beo5):	
		First press in the menu opens the character list.	
		Second press and following, toggles between upper and lower case	
		letters.	
	•	Closes the character list.	
	< ▶	Moves the courser between the characters.	
	GO/OK	Saves the created password.	

ROLES	
	This menu item provides the opportunity to define whether the BeoMaster 5/ BeoSound 5 is a AUDIO MASTER or not. If AUDIO MASTER is set to YES, it is possible to define which option the BeoMaster 5/BeoSound 5 is going to be in. If AUDIO MASTER is set to NO the 'Option' item is greyed out. The options are:
-	AUDIO MASTERYES / NOAM OPTIONS0 / 1 / 2(greyed out if AUDIO MASTER is NO)
RECOVERY	
	If damages/faults for unexplainable reasons occur to the file system, and a total reinstallation is required, it is possible to perform a recovery of BeoMaster 5. The recovery function reinstalls all system files, with the only exception of the customer data such as music, pictures and preferred websites. The recovery process contains 2 steps which is illustrated below:
-	Step 1 of 2: Recovering system files. BeoMaster 5/BeoSound 5 reboots
-	Step 2 of 2:     Applying factory default settings.
	BeoMaster 5/BeoSound 5 reboots.
-	Then the recovery process is completed and the system is ready for use.
	The recovery process proceeds unattended when first executed.
!	It is very important that BeoMaster 5/BeoSound 5 is not interrupted during the process, to prevent major damages to the system. The recovery process is finished when the source menu is shown on the tv, or when the display on BeoSound 5 is off and the stby. LED lights red constantly.

#### Access to Service Menu

BeoMaster 5

- Select PC in the LIST on Beo4 and press GO/select the configured soft button, eg. PC on the screen on Beo5 and press OK.
- Press MENU 9 on Beo4/press Menu + 9 (the '+' enables numerical soft buttons) on the Beo5 screen.
- Press 0 0 GO on Beo4/0 0 OK on Beo 5 ('Configuration Menu' expands).

The procedure is illustrated below: Configuration System info System Settings Maintenance Picture Configuration Product Info System Info Network Info System Settings Network Settings Maintenance Roles Picture Recoverv 0 0 GO (Beo4) Move highlight text to MENU 9 (Beo4) Menu '+' 9 (Beo5) 0 0 OK (Beo5) 'Maintenance' and press GO/OK. - Move highlight text to 'Service Menu' and press GO/OK.



Now all running sources and processes related to BeoSound 5 or BeoMaster 5 shut down, and the SERVICE MENU appears on the screen.



- Move the navigator arm ‡ to MODE and use the wheel O to highlight SETTINGS.
- On BeoSound 5, press: 
   GO to activate 'Service Configuration Menu' (the menu appears on left side of the screen, containing new sub menus).
- Move the navigator arm 
   to MAINTENANCE, use the wheel O to highlight SERVICE MENU and press GO.

The procedure is illustrated below:



Now all running sources and processes related to BeoSound 5 or BeoMaster 5 shut down, and the **SERVICE MENU** appears on the screen.



How to exit Service Menu

- To exit Service Menu on BeoSound 5/BeoMaster 5, double click the 'Exit Service Menu' icon on the desktop, and the product returns to its normal state.



Survey of 'Service Menu' This chapter is a survey that describes the shortcuts of the icons in the 'Service Menu' on BeoSound 5 and BeoMaster 5. The purpose of these shortcuts is to give an easy access to the different features. The shortcuts are: 'Date and Time' 'Exit Service Menu' 'Install Adobe Flash' 'Network Connections' - 'Regional and Language Options' 'Test Internet Connection' Description af menu items 'Date and Time' This icon is a shortcut to 'Date and Time' and provides the opportunity to manually set the date, time and time zone. This could be relevant if the auto update of date and time could not be performed. 'Exit Service Menu' This icon exits the 'Service Menu' and returns the product to its normal state. 'Install Adobe Flash' The shortcut 'Install Adobe Flash' is a link to install a 'Flash Player' which provides the opportunity to browse 'Flash' media files on BeoMaster 5 (WEB). 'Network Connections' The shortcut 'Network Connections' provides the opportunity to manually set up the settings for the network connection. This shows installations with a wireless network connection or a network without a 'DHCP server'. 'Regional and Language Options' This icon is a shortcut to 'Regional and Language Options', and provides the opportunity to manually set up regional options and languages options (eg. text services and input languages). It might be necessary to perform this setup, if a router with special characters is installed in the network setup. 'Test Internet Connection' This icon is a shortcut to Bang & Olufsen's homepage on the internet. The link provides the opportunity to check the internet connection from 'Service Mode'.

If the home page is shown, the internet connection is ok.

# Survey of control function **BeoSound 5 functionality** ۲ Selects/enters the high-lighted sub-menu. ۵ Back to the previous menu, modified data is not saved. GO Selects items. Saves the modified data and leaves the sub-menu to the previous menu. Ο Scrolls through menu items, radio stations, music files etc. <u>م</u> Moves the pointer on the screen according to the direction of the naviigation arm. **Beo4** functionality MENU Bring up the menu overlay. GΟ Selects the sub-menu where the cursor is located. Accepts a menu, saving the values that have been entered. Activates a function. Moves the cursor bar up. Edits characters in the characters list. Moves the cursor bar down. Edits characters in the characters list. Selects a sub-menu in special cases. **∢**/)> Modifies data. STOP Back to the previous menu, modified data is not saved. Digit Modifies data. 0 - 9 Beo5 functionality MENU Bring up the menu overlay. Π OK, selects the sub-menu where the cursor is located. Accepts a menu, saves the values that have been entered. Activates a function. Moves the cursor bar up. Edits characters in the characters list. Moves the cursor bar down. Edits characters in the characters list. Selects a sub-menu in special cases. ◀/ ▶ Modifies data. BACK Back to the previous menu, modified data is not saved. Digit 0 - 9 Modifies data.

# Fault flow chart

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#### \*BS5 power cable



#### Survey of connector placement on PCB01















\*Network Connections / Local Area Connection







\*Network Connections/ Wireless Network Connection



\*\*Wireless Network Connection/Properties



#### \*\*\*Wireless network properties

Wireless network propertie	es <u>?</u> X
Association Authentication	Connection
Network name (SSID):	Broadcast name
Connect even if this r Wireless network key	etwork is not broadcasting
This network requires a ke	ey for the following:
Network <u>A</u> uthentication: Data encryption:	Open
Network key:	Shared WPA WPA-PSK WPA2 WPA2-PSK
Key inde <u>y</u> (advanced):	
The key is provided for	or me automatically
This is a computer to-computer (ad hoc) network; wireless access points are not used	
	OK Cancel

# ServiceTool – Adjustments – Final check after repair

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#### ServiceTool for ajdustments

#### Information

The ServiceTool for BeoMaster 5 is new and developed to maintain the product when certain modules are replaced, or to maintain the HDD/file structure (cloning), if the health of this is weak.

The ServiceTool also provides the opportunity to:

- Serialise individual modules with a serial number
- Upgrade firmware/BIOS in individual modules
- Backup/restore the customer's data to a new HDD

The ServiceTool is placed on a USB pen drive and is only available in the backup suitcase. The BeoMaster 5 has to be booted from the USB pen drive to access the ServiceTool. During the boot-up procedure, the ServiceTool is loaded into a virtual RAM drive on BeoMaster 5.

#### Survey of features in ServiceTool

The ServiceTool contains the following features:

- 'Clone System Drives'
- 'Clone Entire HDD'
- 'Update BM5 BIOS'
- 'Update BM5 ML'
- 'Update BS5 FEP'
- 'Restore BM5 Serial From HDD'
- 'Restore BS55 Serial From HDD'
- 'Backup/Restore'
- 'Reboot System'
  - 'File Manager' (only available for special service situations)
- 'Ghost'
- (only available for special service situations)
- 'Command Prompt' (only available for special service situations)

For a fully detailed description of the features above please refer to page 4.4.

! The three last features are only available for special service situations with instructions from Bang & Olufsen support center. A detailed description for these features is not included in this Service Manual.

Additional information

When either PCB01, Mainboard (BS5), PCB51, ML-PL (BM5) or PCB01, Motherboard (BM5) has been replaced, the firmware must be updated in the individual module. The ServiceTool is necessary for this operation.

- ! The serial number is stored in the following places:
- PCB01, Mainboard (BS5)
- PCB01, Motherboard (BM5)
- PCB94, HDD (BM5)

If the PCB01, Mainboard (BS5) or the PCB01, Motherboard (BM5) have been replaced, the ServiceTool is required to initialise the serial number into the new module.

The HDD contains the serial number for both the PCB01, Mainboard and the PCB01, Motherboard as a backup. Serial data is stored on the HDD each time BeoMaster 5 is starts up.

#### Accessing ServiceTool

To access the ServiceTool, please follow the below procedure:

- Remove mains cable for BeoMaster 5.
- Install the USB flashdrive in one of the availabel USB sockets of BeoMaster 5.
- Install a USB keyboard with an integrated mouse/mousepad to a available USB socket.
- Verify that BeoMaster 5 is connected to either a BeoSound 5 or an external monitor (DVI-I).
- Install the old HDD with the power splitter cable and connect the SATA cable to the available SATA-channel (for backup/restore data only if relevant).
- Switch on the BeoMaster 5, press and hold the 'Esc' button on the keyboard, until the 'Boot Menu' appears on the screen (BeoSound 5 or monitor). Illustrated below:

Boot Menu	
== Select a Boot First device ==	Hard Disk
LS120 + Bard Disk CDROM ZIF100 USB-FDD USB-CDROM Legacy LAN	== Select a Boot First device == ChO M. : Hitachi HCS725050VLA38 USS-HDDO : KingstonDataTaraveler 2 Bootable Add-in Cards
†\$:Move Enter:Accept F4:Exit	↑↓:Move Enter:Accept F4:Exit

- Move the menu bar to
   '+ Hard Disk' and press
   ENTER
- Move the menu bar to 'USB-HDD0 : KingstonDataTraveler 2' and press ENTER
- Now the BeoMaster 5 ServiceTool appears on the screen:

BeoMaster 5 ServiceToo	
Images Changelog Image ver.4.10 Changelog not available. Clone System Drives Clone Entire HDD	
rmwares           BIOS current:         1.01         BM5 ML current:         2.14         BS5 FEP current:         1.0a           BIOS view:         1.04         BM5 ML new:         2.19         BS5 FEP new:         1.1a	Tools Backup/Restore
Update BM5 BIOS Update BM5 ML Update BS5 FEP	File Manager
erial Numbers	Ghost
Current BM5 serial:         19761527         Current BS5 serial:         00086392           Serial on HDD:         19761527         Serial on HDD:         00086392	

#### How to exit ServiceTool

To exit the ServiceTool, remove the 'USB Pen Drive' from the USB socket and click the '**Reboot System**' button. BeoMaster 5 reboots and returns to its normal state.

# Explanation of features in the ServiceTool

'Clone System Drives'	
	This feature provide the oppertunity to clone the drives on BeoMaster 5 which contain system files only. When this operation is executed, the customers data is unaffected. This feature is intended to be used in situations where unexplained faults have happened to the system files, and the recovery process is not possible due to a damaged file structure.
'Clone Entire HDD'	
	This feature provide the oppertunity to clone all drives on BeoMaster 5, including the shared folder where the customers data is stored ( <i>Warning</i> - these will be lost). When this operation is executed, the BeoMaster 5 is set to factory default. This feature is intended to be used in situations where unexplained faults have happened to the system files, and the recovery process is not possible due to a damaged file structure.
'Update BM5 BIOS'	
	This feature provide the oppertunity to update the BIOS (Basic Input Output System) on PCB01, Motherboard in BeoMaster 5. This update is necessary if PCB01, Motherboard has been replaced, to ensure the BIOS is updated to the newest version.
'Update BM5 ML'	
	This feature provide the oppertunity to update the firmware on PCB51, ML-PL in BeoMaster 5. This update is necessary if PCB51, ML-PL has been replaced, to ensure the firmware is updated to the newest version.
'LIndate BS5 FEP'	
	This feature provide the oppertunity to update the firmware on PCB01, Mainboard in BeoSound 5. This update is necessary if PCB01, Mainboard has been replaced, to ensure the firmware is updated to the newest version.
'Restore BM5 Serial From HDD'	
	This feature provide the oppertunity to copy the serial number from the HDD into a new PCB01, Motherboard in BeoMaster 5.
'Restore BS5 Serial From HDD'	
	This feature provide the oppertunity to copy the serial number from the HDD into a new PCB01, Mainboard in BeoSound 5.

'Backup/Restore'	
	This feature provide the oppertunity to restore the customers data from an old
	HDD to a new. This could be relevant in cases where the old HDD is suspected of having a defect. Playlists, music files, pictures and web sites are copied to the new HDD. The time for this operation is dependent on the content of the old HDD.
'Reboot System'	
	This feature provide the oppertunity to reboot BeoMaster 5. This is the method to exit the ServiceTool and return to normal mode.
# Adjustments

Useful Information	
	There are three main scenarios where it is necessary to perform adjustments. Actually, two of the adjustments are more an initialisation of the serial number and a firmware update to specific modules than it is an adjustment. It is very important to perform these adjustments before the product is left to the customer. The ServiceTool is required to perform the adjustments and is placed on a USB pen drive (only available in the back-up suitcase).
Elements described	The three elements in the adjustments in BeoSound 5 and BeoMaster 5 are:
	<ul><li>Initialisation of the serial number.</li><li>Firmware update.</li><li>Adjustment of mains voltage.</li></ul>
Necessity of adjustments	<ul> <li>An initialisation of the serial number is necessary after the following PCBs have been replaced:</li> <li>PCB01, Mainboard in BeoSound 5.</li> <li>PCB01, Motherboard in BeoMaster 5.</li> <li>A firmware update is necessary after the following PCBs have been replaced:</li> <li>BIOS on PCB01, Motherboard in BeoMaster 5.</li> <li>ML on PCB51, ML-PL in BeoMaster 5.</li> <li>FEP (Front End Processor) on PCB01, Mainboard in BeoSound 5.</li> <li>Adjustment of mains voltage is necessary after replacement of PCB04, Power</li> </ul>

Supply in BeoMaster 5.

#### After replacement

PCB01, Mainboard in BeoSound 5

- Boot up BeoMaster 5 with the ServiceTool (please refer to page 4.4 for access).
- Click the button 'Restore BS5 Serial From HDD' and await confirmation.
- Click the button 'Update BS5 FEP' and await confirmation.

PCB01, Motherboard in BeoMaster 5

- Boot up BeoMaster 5 with the ServiceTool (please refer to page 4.4 for access).
- Click the button 'Restore BM5 Serial From HDD' and await confirmation.
- Click the button 'Update BM5 BIOS' and await confirmation.

#### PCB51, ML-PL in BeoMaster 5

- Boot up BeoMaster 5 with the ServiceTool (please refer to page 4.4 for access).
- Click the button 'Update BM5 ML' and await confirmation.

PCB04, Power Supply in BeoMaster 5

- Check mains voltage for the product (please refer to type survey on page 6.2), and mount the 'jumper' for markets with 100~127 V. No 'jumper' is for 200~240V.

Final check after repair	The final check ofter repair describes the activities peeded to ensure that the
	product is returned in perfect condition to the customer. The contents are:
-	Insulation test. Check product information
-	Restore the setup and check connections, picture and sound. Final cleaning of the product.
Insulation test	
	Each set must be insulation tested after having been dismantled. Make the test when the set is reassembled and ready to be returned to the customer. Flashovers must not occur during the testing procedure!
	Make the insulation test as follows:
	Short-circuit the two pins of the mains plug and connect them to one of the terminals of the insulation tester. Connect the other terminal to ground on the aerial socket.
!	To avoid damaging the set, it is essential that both terminals of the insulation tester have good contact
	Slowly turn the voltage control of the insulation tester until a voltage of 2.5 kV and max. 10 mA is obtained. Maintain that voltage for one second, then slowly turn it down again.
Product Info	
	The scope of this check is to ensure the following:
-	The product has maintained the correct lidentity.
	Procedure:
-	Enter Service Configuratiom Menu (described on page 2.3). Choose PRODUCT INFO.
-	Check the serial number is correct for BeoSound 5 and/or BeoMaster 5.
-	Return to Service Configuration Menu and choose ROLES. Check Option setting is correct.
Customer setup	
	Remember to inform the customer of any changes that have been made in the user setup, due to procedures in the Service Manual, such as Connections, Sound, Picture, etc. Restore the product to the customer setup.

Check audio/video outputs	Check that audio and video outputs are working correctly.
Clean the product	Never user alcohol or other solvents to clean any part of the product.
Cabinet surfaces	Use a soft, lint-free cloth to clean the surfaces of the product.
	Wipe dust off the surfaces using a dry, soft cloth. Remove grease stains or persistent dirt with a soft, lint-free, firmly wrung cloth, dipped in a solution of water containing only a few drops of mild detergent, such as washing-up liquid.

# Replacement of modules in BeoSound 5

BeoSound 5 in service position	5.2
Replace PCB01, Mainboard	5.16
Replace PCB11, IR	5.8
Replace PCB12, Navigator	5.6
Replace PCB13, Input	5.3
Replace PCB14, Volume	5.4
Replace PCB51, LCD	5.12
Replace PCB52, Keyboard	5.5
Replace PCB58, Standby	5.10
Replace PCB61, Backlight Inverter	5.14



Short instructions for replacement of the available modules, with reference to additional illustrations:

- The correct sequence for replacing modules.
- Text and illustrations.
- Reference to adjustment.

### After replacement of modules

Replaced parts	Action
PCB01, Mainboard	Use BeoMaster 5 ServiceTool to serialise the serial number into
	PCB01, Mainboard when replaced.
	Please refer to adjustments page 4.7.
PCB01, Mainboard	Use BeoMaster 5 ServiceTool to update the firmware in PCB01,
	Mainboard when replaced.
	Please refer to adjustments page 4.7.
PCB01, Mainboard	Please refer to page 4.9 to perform a final check after repair.

































## Replacement of modules in BeoMaster 5

BeoMaster 5 in service position	5.20
Replace PCB01, Motherboard	5.22
Replace PCB04, Power Supply	5.24
Replace PCB51, ML-PL	5.21
Replace PCB94, HDD	5.23

#### Warning – Disconnect mains and wait 30 seconds before dismantling



### BeoMaster 5 Power Supply and the local power supplies on the different boards must be discharged before dismantling. This is done by disconnecting mains, and then wait 30 seconds before replacing any modules.

#### Warning – Static electricity



Static electricity may damage the product.

A static-protective field service kit must always be used when the product is disassembled or modules are being handled.

#### Notice!

All modules must be placed on the ESD-mat or in an ESD-proof bag.

#### Purpose of replacement of modules

Short instructions for replacement of the available modules, with reference to additional illustrations:

- The correct sequence for replacing modules.
- Text and illustrations.
- Reference to adjustment.

#### After replacement of modules

Replaced parts	Action	
PCB01, Motherboard	Use BeoMaster 5 ServiceTool to serialise the serial number into	
	PCB01, Motherboard when replaced.	
	Please refer to adjustments page 4.7.	
PCB01, Motherboard	Use BeoMaster 5 ServiceTool to update BIOS in PCB01,	
	Motherboard when replaced.	
	Please refer to adjustments page 4.7.	
PCB51, ML-PL	Use BeoMaster 5 ServiceTool to update the firmware in PCB51,	
	ML-PL when replaced.	
	Please refer to adjustments page 4.7.	
PCB01, Motherboard	Please refer to page 4.9 to perform a final check after repair.	
PCB51, ML-PL	Please refer to page 4.9 to perform a final check after repair.	











## SPECIFICATION GUIDELINES FOR SERVICE USE

BeoSound 5, BeoMaster 5

## BeoSound 5

Market		
Argentina, Australia, Austria, Azerbaijan, Bahrain, Belgium, Botswana, Bulgaria, Brazil, Canada, Chile, China, Croatia, Czech Repub., Denmark, Egypt, Faroe Islands, Finland, France, Germany, Greece, Greenland, Holland, Hong Kong, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Kazakhstan, Korea, Kuwait, Latvia, Lithuania, Lebanon, Liechtenstein, Luxembourg, Malaysia, Mexico, Morocco, New Zealand, Nigeria, Norway, Oman, Pakistan, Poland, Portugal, Qatar, Romania, Russia, Saudi Arabia, Serbia, Singapore, Slovak Rep., Slovenia, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, UK, United Arab Emirates, Uruguay, USA		
Anders Hermansen		
Anodised aluminium, pressure diecasted aluminium, Coated glass		
10.4" XGA (1024 x 768) TFT display, 16,777,216 colours		
12V DC, supplied from BeoMaster 5		
Beo4, Beo5, wheel, pointer, volume		
SW update via BeoMaster 5, MOTS ("More Of The Sa	ame")	
Wall bracket, Aluminium (blackpainted)		
Table stand, Iron (blackpainted)		
Floor stand, Iron/Aluminium		
30.5 x 19 x 7.5 cm (W x H x D)	30.5 x 19 x 7.5 cm (W x H x D)	
Neight 2.65 kg		
	Belgium, Botswana, Bulgaria, Brazil, Canada, Chile, China, Croatia,         land, France, Germany, Greece, Greenland, Holland, Hong Kong,         italy, Japan, Kazakhstan, Korea, Kuwait, Latvia, Lithuania, Lebanon,         procco, New Zealand, Nigeria, Norway, Oman, Pakistan, Poland, Portugal,         japore, Slovak Rep., Slovenia, South Africa, Spain, Sweden, Switzerland,         es, Uruguay, USA         Anders Hermansen         Anodised aluminium, pressure diecasted aluminium, or         10.4" XGA (1024 x 768) TFT display, 16,777,216 color         12V DC, supplied from BeoMaster 5         Beo4, Beo5, wheel, pointer, volume         SW update via BeoMaster 5, MOTS ("More Of The Sator SW update via BeoMaster 5, MOTS ("More Of The Sator Stand, Iron (blackpainted)         Table stand, Iron (blackpainted)         Floor stand, Iron/Aluminium         30.5 x 19 x 7.5 cm (W x H x D)         2.65 kg	

Pin 1

Pin 2

Pin 3

Pin 4

Pin 1

Pin 2

Pin 3

Pin 4

Pin 5

GND

IR\_IN

+5V\_SB\_AUX

+12V\_AUX

+5V\_VCC

Data -

Data +

N.C.

GND

Connections Power input



USB mini-B

1	2	3	4	5	
լԸ					١
					4

HDMI mini



Pin 1	GND
Pin 2	T.M.D.S. Data 2+
Pin 3	T.M.D.S. Data 2-
Pin 4	GND
Pin 5	T.M.D.S. Data 1+
Pin 6	T.M.D.S. Data 1-
Pin 7	GND
Pin 8	T.M.D.S. Data 0+
Pin 9	T.M.D.S. Data 0-
Pin 10	GND
Pin 11	T.M.D.S. Clock+
Pin 12	T.M.D.S. Clock-
Pin 13	GND
Pin 14	CEC
Pin 15	DVI_SCL
Pin 16	DVI_SDA
Pin 17	Reserved
Pin 18	+5V Power_DVI
Pin 19	Hot Plug Detect

### BeoMaster 5

Type survey	
Market	Type number
Argentina, Australia, Austria, Azerbaijan, Bahrain, Belgium, Botswana, Bulgaria, Chile, Croatia, Czech Repub., Denmark, Egypt, Faroe Islands, Finland, France, Germany, Greece, Greenland, Holland, Hong Kong, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Kazakhstan, Korea, Kuwait, Latvia, Lithuania, Lebanon, Liechtenstein, Luxembourg, Malaysia, Morocco, New Zealand, Nigeria, Norway, Oman, Pakistan, Poland, Portugal, Qatar, Romania, Russia, Saudi Arabia, Serbia, Singapore, Slovak Rep., Slovenia, South Africa, Spain, Sweden, Switzerland, Thailand, Turkey, UK, United Arab Emirates, Uruguay,	1753 (EU)
Brazil, Canada, Mexico, Japan, Taiwan, USA	1754 (US)
China	1755 (CH)

I Standby only possible in LAN setup (not in WLAN)  Valins voltage range Type EU/CH: 200 - 240 V, +10 / -15 %, 50-60 Hz Type US: 100 -127 V +10 / -15 %, 50-60 Hz Type US: 100 -127 V +10 / -15 %, 50-60 Hz Type US: 100 -127 V +10 / -15 %, 50-60 Hz  Derating system Active max. 23dB, Standby max. 20dBA  Derating system Microsoft Windows XP Embedded VIA EX PU 2 GHz NM 1 GB PD 500GB Automatically performed on weekly basis (sunday night) Automatically performed on weekly basis (sunday night) NMusic, N.Radio, Photo, Web Security Windows XP SP 2, Integrated firewall, Antivirus grogram with automatic updates, BullGuard (5 years)  Type for x 27.7 cm x 9.9 cm (W x D x H) 4 7 cm x 36 cm x 22 cm (Including packaging - W x D x H) Neight 3 7.9 cm x 27.7 cm x 9.9 cm (W x D x H) 2 Splay resolution DVH Max. res 1920x1200 (supports HD 1920x1080 none interlaced / Interlaced Idepending on actual TV Display resolution DVH Max. res 1920x1200 (supports HD 1920x1080 none interlaced / Interlaced Idepending on actual TV Display resolution DVH Max. res 1920x1200 (supports HD 1920x1080 none interlaced / Interlaced Idepending on actual TV Display resolution DVH Max. res 1920x1200 (supports HD 1920x1080 none interlaced / Interlaced Idepending on actual TV Display resolution DVH Max. res 1920x1200 (supports HD 1920x1080 none interlaced / Interlaced Idepending on actual TV Display resolution DVH Max. res 1920x1200 (supports HD 1920x1080 none interlaced / Interlaced Idepending on actual TV Display resolution DVH Max. res 1920x1200 (supports HD 1920x1080 none interlaced / Interlaced Idepending on actual TV Display resolution DVH Max. Res 1920x1200 (supports HD 1920x1080 none interlaced / Interlaced Idepending on actual TV Display resolution DVH Max. Supported formats. If it contains WMAA MP3/MAV MAX.MP3, MAX, ASF (a So-called container that can contain several different compression formats. If it contains WMAAMP3/MAV MAX.MP3, WAX, ASF (a So-called container that can contain several different contain several different contain several different con	Power consumption	38 W, 1.3W alone, 2W incl. BeoSound 5
Valins voltage range Type EU/CH: 200 - 240 V, +10 / -15 %, 50-60 Hz Type US: 100 -127 V +10 / -15 %, 50-60 Hz Violse Active max. 23dB, Standby max. 20dBA Derating system Microsoft Windows XP Embedded Viola EX PU 2 GHz Standby max. 20dBA (PU 2 GHz Standby performed on weekly basis (sunday night) StorGB St		! Standby only possible in LAN setup (not in WLAN)
Wains voltage range       Type EU/CH: 200 - 240 V, +10 / -15 %, 50-60 Hz         Type US: 100 - 127 V +10 / -15 %, 50-60 Hz         Noise       Active max. 23dB, Standby max. 20dBA         Deperating system       Microsoft Windows XP Embedded         Via board       VIA EX         PU       2 GHz         XAM       1 GB         10D       500C6B         Software upgrades       Automatically performed on weekly basis (sunday night)         Nulsic, N Radio, Photo, Web       Software upgrades         Vin dows XP SP 2, Integrated firewall, Antivirus program with automatic updates, BullGuard (5 years)         Dimensions       37.9 cm x 27.7 cm x 9.9 cm (W x D x H)         Vielpt       47 cm x 36 cm x 22 cm (including packaging) - W x D x H)         Velight       4.7 kg (6.0 kg including packaging) - W x D x H)         Vielpt       1024 x 768 (Excel format 1D V20x0080 none interlaced / interlaced depending on actual TV         Display resolution DVI-D       1024 x 768 (Excel format, 1D V20x0080 none interlaced / interlaced depending on actual TV         Visplay resolution DVI-D       1024 x 768 (Excel format, 1D v20x080 none interlaced / interlaced depending on actual TV         Visplay resolution DVI-D       1024 x 768 (Fixed format, 1D v20x080 none interlaced / interlaced depending on actual TV         Visplay resolution DVI-D       1024 x 768 (Fixed format), Normaliy locctes <td></td> <td></td>		
Type US: 100-127 V +107-15 %, 50-60 Hz         Noise       Active max. 23dB, Standby max. 20dBA         Deperating system       Microsoft Windows XP Embedded         Via EX       2 GHz         YMM       1 GB         HDD       500GB         For Up U       2 GHz         YMM       1 GB         HDD       500GB         Features       N. Music, N. Radio, Photo, Web         Security       Windows XP SP 2, Integrated firewall, Antivirus program with automatic updates, BullGuard (5 years)         Dimensions       37.9 cm x 27.7 cm x 9.9 cm (Wx Dx H)         Via EX       47 cm x 36 cm x 22 cm (Including packaging - W x D x H)         Weight       4.7 kg (6.0 kg including packaging - W x D x H)         Via EX       Via C (Fixed format for BeoSound 5 only)         Display resolution DVI-D       1024 x 768 (Fixed format for BeoSound 5 only)         Supported formats       WMA, MP3, ASX (MS advanced playlist format). Normally locates WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locates MP3 strea	Mains voltage range	Type EU/CH: 200 - 240 V, +10 / -15 %, 50-60 Hz
Noise         Active max. 23dB, Standby max. 20dBA           Operating system         Microsoft Windows XP Embedded           Wain board         V/A EX           CPU         2 GHz           RAM         1 GB           GDD         500GB           Software upgrades         Automatically performed on weekly basis (sunday night)           Nearce         N.Music, N.Radio, Photo, Web           Security         Windows XP SP 2, Integrated firewall, Antivirus program with automatic updates, BuilGuard (5 years)           Others         37.9 cm x 27.7 cm x 9.9 cm (W x D x H)           V4         4.7 kg (6.0 kg including packaging - W x D x H)           Weight         4.7 kg (6.0 kg including packaging)           Display resolution DVI-I         Max. res 1920x1200 (supports HD 1920x1080 none interlaced / interlaced) depending on actual TV           Display resolution DVI-D         1024 x 768 (Fixed format for BeoSound 5 only)           Supported formats         UMA, MP3, ASX (MS advanced playlist format). Normally locates WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locate MP3 streaming. M3U (Simple playlist format). AAC (together with MAC as editor PC)           * Natic         WMA, MP3, WAV, AF4 (a so-called container that can contain several different compression formats. It is coate by all camered GFF is shown)           * prog. Portable network graphics (or 'Ding bit GFF).           * d		Type US: 100 -127 V +10 / -15 %, 50-60 Hz
Diperating system         Microsoft Windows XP Embedded           Operating system         VIA EX           ZPU         2 GHz           XAM         1 GB           DD         500GB           Software upgrades         Automatically performed on weekly basis (sunday night)           reatures         N. Music, N. Radio, Photo, Web           Verinty         Windows XP 5P.2, Integrated firewall, Antivirus program with automatic updates, BullGuard (5 years)           Dimensions         37.9 cm x 27.7 cm x 9.9 cm (W x D x H)           Verinty         47 cm x 36 cm x 22 cm (Including packaging - W x D x H)           Neight         4.7 kg (6.0 kg including packaging)           Display resolution DVI-I         Max. res 1920x1200 (supports HD 1920x1080 none interlaced / interlaced) depending on actual TV           Display resolution DVI-D         1024 x 768 (Fixed format for BeoSound 5 only)           Supported formats         UMA, MP3, AXX, MP3, MAY, ASF (a so-called container that can contain several different compression format, It is contains WMA/MP3/WAV we support it, otherwise moth, AAC (together with MAC as editor PC)           PHOTO         * hmp: Bitmap (all colour depths 1-32 bit)           * artific GFI (only the first frame of animated GFIs is shown)           * proje; * mper, * mpge; * mpge; * mpg; * mpge; * mpgi;	Noise	Active max. 23dB, Standby max. 20dBA
Depending system       Microsoft Windows XP Embedded         VIA EX       VIA EX         PU       2 GHz         RAM       1 GB         HDD       500GB         Software upgrades       Automatically performed on weekly basis (sunday night)         reatures       Nulsic, N. Radio, Photo, Web         Security       Windows XP 5P 2, Integrated firewall, Antivirus program with automatic updates, BullGuard (5 years)         Dimensions       37.9 cm x27.7 cm x 9.9 cm (W x D x H)         Vegipt       47 cm x 36 cm x22 cm (Including packaging - W x D x H)         Vegipt       47 cm x 36 cm x22 cm (Including packaging - W x D x H)         Vegipt       47 cm x 36 cm x22 cm (Including packaging - W x D x H)         Vegipt       1024 x 768 (Fixed format for BeoSound 5 only)         Supported formats       WMA, MP3, ASX (MS advanced playlist format). Normally locates         VMA       WMA, MP3, VAV, ASF (as o-called container that can contain several different compression formats. If it contains WMA/MP3/MAV we support it, otherwise not). AAC (together with MAC as editor PC)         YHOTO       * bmp. Bitmage (II colour depth - 32 bit)         * gif: GIF (only the first frame of animated GiFs is shown)       * jng: GIF (IN) the first frame of animated GiFs is shown)         * jng: Portable network graphics (or * gng) EVEG Avarious MPEG format, two nol support M-JPEG, MS MPEG4 and uncompressed AV)		· · · · ·
Wain board       VIA EX         CPU       2 GHz         YAM       1 GB         HDD       500GB         Gottmanically performed on weekly basis (sunday night)         refaures       N.Music, N.Radio, Photo, Web         security       Windows XP SP 2, Integrated firewall, Antivirus program with automatic updates, BullGuard (5 years)         Dimensions       37.9 cm x 27.7 cm x 9.9 cm (W x D x H)         Vieight       4.7 kg (6.0 kg including packaging - W x D x H)         Vieight       4.7 kg (6.0 kg including packaging)         Display resolution DVI-I       Max. res 1920x1200 (supports HD 1920x1080 none interlaced / interlaced) depending on actual TV         Display resolution DVI-D       1024 x 768 (Fixed format for BeoSound 5 only)         Supported formats       WMA, MP3, ASX (MS advanced playlist format). Normally locates WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming.         Nusic       WMA, MP3, WAY, ASF (a so-called container that can contain several different compression formatis. If it contains WMA/MP3/WAV we support it, otherwise not). AAC (together with MAC as editor PC)         *HOTO       * horp: Bitmap (all colour depths 1-32 bit)         *.gif: GIF (only the first frame of animated GIFs is shown)       *.prog: Proteib network graphics (or 'Png Not GIF).         *.tiff: TIFF images (typically used in the graphics indust	Operating system	Microsoft Windows XP Embedded
PU       2 GHz         SAM       1 G8         IDD       500GB         Software upgrades       Automatically performed on weekly basis (sunday night)         Features       N Music, N.Radio, Photo, Web         security       Windows XP SP 2, Integrated firewall, Antivirus program with automatic updates, BullGuard (5 years)         Dimensions       37.9 cm x 27.7 cm x 9.9 cm (W x D x H)         47 cm x 36 cm x 22 cm (Including packaging - W x D x H)         Weight       4.7 kg (6.0 kg including packaging)         Display resolution DVI-I       Max. res 1920x1200 (supports HD 1920x1080 none interlaced / interlaced) depending on actual TV         Display resolution DVI-D       1024 x 768 (Fixed format for BeoSound 5 only)         Supported formats       WMA, MP3, ASX (MS advanced playlist format). Normally locates WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming. M3U (Simple playlist format (a contain sWMA/MP3/WAV we support it, otherwise not). AAC (together with MAC as editor PC)         *HOTO       *.bmp: Bitmap (all colour depths 1-32 bit)         *.gif: GIF (only the first frame of animated GIF) is shown)       *.gif: GIF (only the first frame of animated GIF).         *.gif: GIF (only we now support M-JPEG, MS MPEG4 and uncompression formats.)       *.dive only support M-JPEG, MS MPEG4 and uncompression formats). <td>Main board</td> <td>VIA EX</td>	Main board	VIA EX
AM       1 GB         IDD       500GB         Software upgrades       Automatically performed on weekly basis (sunday night)         reatures       N.Music, N.Radio, Photo, Web         Security       Windows XP SP 2, Integrated firewall, Antivirus program with automatic updates, BullGuard (5 years)         Dimensions       37.9 cm x 39.7 cm x 9.9 cm (W x D x H)         47 cm x 36 cm x 22 cm (Including packaging - W x D x H)         Weight       4.7 kg (6.0 kg including packaging)         Display resolution DVH       Max. res 1920x1200 (supports HD 1920x1080 none interlaced / interlaced) depending on actual TV         Display resolution DVHD       1024 x 768 (Fixed format for BeoSound 5 only)         Supported formats       WMA, MP3, ASX (MS advanced playlist format). Normally locates WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming. M3U (Simple playlist format). ACk (together with MAC as editor PC)         PHOTO       *.bmp: Bitmap (all colour depths 1-32 bit)         *.gdf: GIF (only the first frame of animated GIFs is shown)       *.png: portable network graphics (or 'Png Not GJF').         *.deo (WEB)       *.mpg; *.mpg: MPEG standard 24 bit is used by all cameras         */ideo (WEB)       *.mpg: *.mpg: MPEG standard 24 bit is used by all cameras         *.wirk vis no coal format (we only support M-JPEG, MS MPEG4 and uncompression formats).       wirw: vis n	CPU	2 GHz
HDD       500GB         Software upgrades       Automatically performed on weekly basis (sunday night)         Security       Windows XP SP 2, Integrated firewall, Antivirus program with automatic updates, BullGuard (5 years)         Dimensions       37.9 cm x 27.7 cm x 9.9 cm (W x D x H)         47 cm x 36 cm x 22 cm (Including packaging - W x D x H)         Weight       4.7 kg (6.0 kg including packaging)         Display resolution DVI-I       Max. res 1920x1200 (supports HD 1920x1080 none interlaced / interlaced) depending on actual TV         Display resolution DVI-D       1024 x 768 (Fixed format for BeoSound 5 only)         Supported formats       WMA, MP3, ASX (MS advanced playlist format). Normally locates WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming.         V. Music       WMA, MP3, WAY, ASF (a so-called container that can contain several different compression formats. If it contains WMA/MP3/WAV we support it, otherwise not). AAC (together with MAC as editor PC)         PHOTO       *.bmp: Bitmap (all colour depths 1-32 bit)         *.gif: GIF (only the first frame of animated GIFs is shown)       *.pmg: Portable network graphics (or 'Pg Not GIF').         *.utif: TIF images (typically used in the graphics industry)       *.jpeg, *.jpg: JPEG sta	RAM	1 GB
Software upgrades       Automatically performed on weekly basis (sunday night)         ireatures       N.Music, N.Radio, Photo, Web         security       Windows XP S 2, Integrated firewall,         Antivirus program with automatic updates, BullGuard (5 years)         Dimensions       37.9 cm x 27.7 cm x 9.9 cm (W x D x H)         Verify       47 cm x 36 cm x 22 cm (Including packaging - W x D x H)         Weight       4.7 kg (6.0 kg including packaging)         Display resolution DVI-I       Max res 1920x1200 (supports HD 1920x1080 none interlaced / interlaced) depending on actual TV         Display resolution DVI-D       1024 x 768 (Fixed format for BeoSound 5 only)         Supported formats       WMA, MP3, ASX (MS advanced playlist format). Normally locates WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming. M3U (Simple playlist formats). Locates MP3 streaming. M3U (Simple playlist formats). Locates MP3 streaming. M3U (Simple playlist formats). Locates MP3 streaming. M3U (semple playlist formats). Locates MP3 streaming. M3U (semple playlist formats). Locates MP3 streaming.         V.Music       WMA, MP3, WAV, ASF (a so-called container that can contain several different compression formats. If it contains WMA/MP3/WAV we support it, otherwise not). AAC (together with MAC as editor PC)         *HOTO       *.bmp: Bitmage (Igolour depths 1-32 bit)       *.iff: TIFF images (typically used in the graphics industry)       *.jeg: *.mpe; *.mpe; *.mpe; MPEG-x various MPEG format, but only MPEG-1 supported         vi	HDD	500GB
Patures       N.Music, N.Radio, Photo, Web         Security       Windows XP SP 2, Integrated firewall, Antivirus program with automatic updates, BullGuard (5 years)         Dimensions       37.9 cm x 27.7 cm x 9.9 cm (W x D x H)         47 cm x 36 cm x 22 cm (Including packaging - W x D x H)         Weight       4.7 kg (6.0 kg including packaging)         Display resolution DVI-I       Max. res 1920x1200 (supports HD 1920x1080 none interlaced / interlaced) depending on actual TV         Display resolution DVI-D       1024 x 768 (Fixed format for BeoSound 5 only)         Supported formats       WMA, MP3, ASX (MS advanced playlist format). Normally locates WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming.         V.Music       WMA, MP3, WAX, ASF (a so-called container that can contain several different compression formats. If it contains WMA/MP3/WAV we support i, otherwise not). AAC (together with MAC as editor PC)         PHOTO       *.bmp: Bitmap (all colour depths 1-32 bit)         *.gif: GIF (only the first frame of animated GIFs is shown)       *.png: Portable network graphics industry)         *.jpeg. *.jpg: JPEG standard 24 bit is used by all cameras       ////////////////////////////////////	Software upgrades	Automatically performed on weekly basis (sunday night)
Security Windows XP SP 2, Integrated firewall, Antivirus program with automatic updates, BullGuard (5 years) 37.9 cm x 27.7 cm x 9.9 cm (W x D x H) 47 cm x 36 cm x 22 cm (Including packaging - W x D x H) 47 cm x 36 cm x 22 cm (Including packaging - W x D x H) 47 cm x 36 cm x 22 cm (Including packaging) Display resolution DVI-1 Max. res 1920x1200 (supports HD 1920x1080 none interlaced / interlaced) depending on actual TV Display resolution DVI-D 1024 x 768 (Fixed format for BeoSound 5 only) Supported formats V.Radio WMA, MP3, ASX (MS advanced playlist format). Normally locates WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming. V.Nusic WMA, MP3, WAV, ASF (a so-called container that can contain several different compression formats. If it contains VMA/MP3/WAV we support it, otherwise not). AAC (together with MAC as editor PC) *.bmp: Bitmap (all colour depths 1-32 bit) *.gif: GIF (only the first frame of animated GIFs is shown) *.png: Portable network graphics (or 'Png Not GIF'). *.tiff: TIFF images (typically used in the graphics industry) *.jpeg, *.jpeg, *.jpeg. JPEG standard 24 bit is used by all cameras //deo (WEB) *.mpeg: *.mpe;*.mpe; *.mpe; MPEG-x various MPEG format, but only MPEG-1 supported *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI) *.vmv: Windows Media Video *.vfw: (a so-called container that can contain several different compression formats).	Features	N.Music, N.Radio, Photo, Web
Antivirus program with automatic updates, BullGuard (5 years)  Antivirus program vita automat	Security	Windows XP SP 2, Integrated firewall,
Dimensions       37.9 cm x 27.7 cm x 9.9 cm (W x D x H)         47 cm x 36 cm x 22 cm (Including packaging - W x D x H)         Weight       4.7 kg (6.0 kg including packaging)         Display resolution DVI-I       Max. res 1920x1200 (supports HD 1920x1080 none interlaced / interlaced) depending on actual TV         Display resolution DVI-D       1024 x 768 (Fixed format for BeoSound 5 only)         Supported formats       WMA, MP3, ASX (MS advanced playlist format). Normally locates WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming.         N.Music       WIMA, MP3, WAY, ASF (a so-called container that can contain several different compression formats. If it contains WMA/MP3/WAV we support it, otherwise not). AAC (together with MAC as editor PC)         PHOTO       *.bmp: Bitmap (all colour depths 1-32 bit)         *.gif: GIF (only the first frame of animated GIFs is shown)       *.pig. *.jpg. JFEG standard 24 bit is used by all cameras         //ideo (WEB)       *.mpeg: *.mpg: MPEG-x various MPEG format, but only         MPEG-1 supported       *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI)         *.wmv: Windows Media Video       *.vmv: Windows Media Video         *.vmv: Windows Media Video       *.vmv: Windows Media Video		Antivirus program with automatic updates, BullGuard (5 years)
47 cm x 36 cm x 22 cm (Including packaging - W x D x H)         Weight       4.7 kg (6.0 kg including packaging)         Display resolution DVI-I       Max. res 1920x1200 (supports HD 1920x1080 none interlaced / interlaced) depending on actual TV         Display resolution DVI-D       1024 x 768 (Fixed format for BeoSound 5 only)         Supported formats       WMA, MP3, ASX (MS advanced playlist format). Normally locates WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming.         N.Music       WMA, MP3, WAV, ASF (a so-called container that can contain several different compression formats. If it contains WMA/MP3/WAV we support it, othrewise not). AAC (together with MAC as editor PC)         * b.mp: Bitmap (all colour depths 1-32 bit)       *.gif: GIF (only the first frame of animated GIFs is shown)         * .pipe; Portable network graphics industry)       *.jpeg, *.jpe; POF standard 24 bit is used by all cameraa         //ideo (WEB)       *.mpe;*.mpe;*.mpe; MPEG standard 24 bit is used by all cameraa         *.wiv: Vindows Media Video       *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI)         *.wiv: Windows Media Video       *.wiv: (a so-called container that can contain several different compression formats).	Dimensions	37.9 cm x 27.7 cm x 9.9 cm (W x D x H)
Weight       4.7 kg (6.0 kg including packaging)         Display resolution DVI-I       Max. res 1920x1200 (supports HD 1920x1080 none interlaced / interlaced) depending on actual TV         Display resolution DVI-D       1024 x 768 (Fixed format for BeoSound 5 only)         Supported formats       WMA, MP3, ASX (MS advanced playlist format). Normally locates WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming.         N.Music       WMA, MP3, WAV, ASF (a so-called container that can contain several different compression formats. If it contains WMA/MP3/WAV we support it, otherwise not). AAC (together with MAC as editor PC)         * homp: Bitmap (all colour depths 1-32 bit)       * .gif: GIF (only the first frame of animated GIFs is shown)         *.pig: P.Tig: JPEC standard 24 bit is used by all cameras       * .mpeg; * .mpg; MPEG-x various MPEG format, but only MPEG-1 supported         *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI)       * .wrw: Windows Media Video         *.vfw: (a so-called container that can contain several different compression formats).       * .wrmats).		47 cm x 36 cm x 22 cm (Including packaging - W x D x H)
Display resolution DVI-I Display resolution DVI-I Display resolution DVI-D Display resolution PU-D Disp	Weight	4.7 kg (6.0 kg including packaging)
Display resolution DVI-I       Max. res 1920x1200 (supports HD 1920x1080 none interlaced / interlaced) depending on actual TV         Display resolution DVI-D       1024 x 768 (Fixed format for BeoSound 5 only)         Supported formats       WMA, MP3, ASX (MS advanced playlist format). Normally locates WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming.         N.Music       WMA, MP3, WAV, ASF (a so-called container that can contain several different compression formats. If it contains WMA/MP3/WAV we support it, otherwise not). AAC (together with MAC as editor PC)         PHOTO       *.bmp: Bitmap (all colour depths 1-32 bit)         *.gif: GIF (only the first frame of animated GIFs is shown)         *.png: Portable network graphics (or 'Ping Not GIF').         *.tiff: TIFF images (typically used in the graphics industry)         *.jpeg, *.jpg: JFG standard 24 bit is used by all cameras         //ideo (WEB)       *.mpeg; *.mpe;*.mpg: MPEG-x various MPEG format, but only MPEG-1 supported         *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI)       *.wm: Windows Media Video         *.wiv: Windows Media Video       *.wiv: Windows Media Video       *.wiv: Windows Media Video		
interlaced) depending on actual TV Display resolution DVI-D 1024 x 768 (Fixed format for BeoSound 5 only)  Supported formats WMA, MP3, ASX (MS advanced playlist format). Normally locates WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming. WMA, MP3, WAV, ASF (a so-called container that can contain several different compression formats. If it contains WMA/MP3/WAV we support it, otherwise not). AAC (together with MAC as editor PC) PHOTO *.bmp: Bitmap (all colour depths 1-32 bit) *.gfic GIF (only the first frame of animated GIFs is shown) *.png: Portable network graphics (or ' <u>Png Not GIF</u> '). *.tiff: TIFF images (typically used in the graphics industry) *.jpeg, *.jpg: JPEG standard 24 bit is used by all cameras //ideo (WEB) *.mpe;*.mpe;*.mpg: MPEG-x various MPEG format, but only MPEG-1 supported *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI) *.vfw: (a so-called container that can contain several different compression formats).	Display resolution DVI-I	Max. res 1920x1200 (supports HD 1920x1080 none interlaced /
Display resolution DVI-D       1024 x 768 (Fixed format for BeoSound 5 only)         Supported formats       WMA, MP3, ASX (MS advanced playlist format). Normally locates WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming.         N.Radio       WMA, MP3, MAX, ASF (a so-called container that can contain several different compression formats. If it contains WMA/MP3/WAV we support it, otherwise not). AAC (together with MAC as editor PC)         2HOTO       *.bmp: Bitmap (all colour depths 1-32 bit)         *.gif: GIF (only the first frame of animated GIFs is shown)       *.png: Portable network graphics (or 'Png Not GIF').         *.tiff: TIFF images (typically used in the graphics industry)       *.jpeg, *.jpg: JPEG standard 24 bit is used by all cameras         Video (WEB)       *.mpeg; *.mpe;*.mpg: MPEG-x various MPEG format, but only MPEG-1 supported         *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI)       *.wmv: Windows Media Video         *.vfw: (a so-called container that can contain several different compression formats).       *.vfw: (a so-called container that can contain several different compression formats).		interlaced) depending on actual TV
Supported formats           V.Radio         WMA, MP3, ASX (MS advanced playlist format). Normally locates WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming.           N.Music         WMA, MP3, WAV, ASF (a so-called container that can contain several different compression formats. If it contains WMA/MP3/WAV we support it, otherwise not). AAC (together with MAC as editor PC)           PHOTO         *.bmp: Bitmap (all colour depths 1-32 bit)           *.gif: GIF (only the first frame of animated GIFs is shown)         *.png: Portable network graphics (or 'Png Not GIF').           *.tiff: TIFF images (typically used in the graphics industry)         *.jpeg, *.jpg: JPEG standard 24 bit is used by all cameras           //ideo (WEB)         *.mpeg; *.mpe;*.mpg: MPEG-x various MPEG format, but only MPEG-1 supported           *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI)         *.wrw: Windows Media Video           *.vfw: (a so-called container that can contain several different compression formats).         *.fmreats).	Display resolution DVI-D	1024 x 768 (Fixed format for BeoSound 5 only)
WMA, MP3, ASX (MS advanced playlist format). Normally locates         WMA, MP3, ASX (MS advanced playlist format). Normally locates         WMA streaming, but can also locate MP3 streaming. M3U (Simple         playlist format). Locates MP3 streaming.         V.Music       WMA, MP3, WAV, ASF (a so-called container that can contain several         different compression formats. If it contains WMA/MP3/WAV we         support it, otherwise not). AAC (together with MAC as editor PC)         *.bmp: Bitmap (all colour depths 1-32 bit)         *.gif: GIF (only the first frame of animated GIFs is shown)         *.png: Portable network graphics (or 'Png Not GIF').         *.tiff: TIFF images (typically used in the graphics industry)         *.jpeg, *.jpg: JPEG standard 24 bit is used by all cameras         /ideo (WEB)       *.mpe; *.mpg: MPEG-x various MPEG format, but only         MPEG-1 supported         *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI)         *.wrw: Windows Media Video         *.vfw: (a so-called container that can contain several different compression formats).	Supported formats	
WMA streaming, but can also locate MP3 streaming. M3U (Simple playlist format). Locates MP3 streaming.         N.Music       WMA, MP3, WAV, ASF (a so-called container that can contain several different compression formats. If it contains WMA/MP3/WAV we support it, otherwise not). AAC (together with MAC as editor PC)         ?HOTO       *.bmp: Bitmap (all colour depths 1-32 bit)         ?endot       *.gif: GIF (only the first frame of animated GIFs is shown)         *.png: Portable network graphics (or 'Png Not GIF').       *.tiff: TIFF images (typically used in the graphics industry)         *.jpeg, *.jpg: JPEG standard 24 bit is used by all cameras       *.mpeg; *.mpe; *.mpg: MPEG-x various MPEG format, but only         Video (WEB)       *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI)       *.wrw: Windows Media Video         *.vfw: (a so-called container that can contain several different compression formats).       *.vfw: (a so-called container that can contain several different compression formats).	N Badio	WMA_MP3_ASX (MS advanced plavlist format). Normally locates
playlist format). Locates MP3 streaming.         N.Music         WMA, MP3, WAV, ASF (a so-called container that can contain several different compression formats. If it contains WMA/MP3/WAV we support it, otherwise not). AAC (together with MAC as editor PC)         *HOTO       *.bmp: Bitmap (all colour depths 1-32 bit)         *.gif: GIF (only the first frame of animated GIFs is shown)         *.png: Portable network graphics (or 'Png Not GIF').         *.tiff: TIFF images (typically used in the graphics industry)         *.jpeg, *.jpg: JPEG standard 24 bit is used by all cameras         Video (WEB)       *.mpeg; *.mpe;*.mpg: MPEG-x various MPEG format, but only         MPEG-1 supported         *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI)         *.vrmv: Windows Media Video         *.vfw: (a so-called container that can contain several different compression formats).		WMA streaming, but can also locate MP3 streaming, M3U (Simple
N.Music       WMA, MP3, WAV, ASF (a so-called container that can contain several different compression formats. If it contains WMA/MP3/WAV we support it, otherwise not). AAC (together with MAC as editor PC)         PHOTO       *.bmp: Bitmap (all colour depths 1-32 bit)         *.gif: GIF (only the first frame of animated GIFs is shown)       *.gif: GIF (only the first frame of animated GIFs is shown)         *.ppg: Portable network graphics (or 'Ping Not GIF').       *.tiff: TIFF images (typically used in the graphics industry)         *.jpeg, *.jpg: JPEG standard 24 bit is used by all cameras         //ideo (WEB)       *.mpeg; *.mpe; *.mpg: MPEG-x various MPEG format, but only         MPEG-1 supported       *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI)         *.wmv: Windows Media Video       *.vfw: (a so-called container that can contain several different compression formats).		playlist format) Locates MP3 streaming
different compression formats. If it contains WMA/MP3/WAV we support it, otherwise not). AAC (together with MAC as editor PC) *.bmp: Bitmap (all colour depths 1-32 bit) *.gif: GIF (only the first frame of animated GIFs is shown) *.png: Portable network graphics (or ' <u>Png Not G</u> IF'). *.tiff: TIFF images (typically used in the graphics industry) *.jpeg, *.jpg: JPEG standard 24 bit is used by all cameras //ideo (WEB) *.mpeg; *.mpe; *.mpg: MPEG-x various MPEG format, but only MPEG-1 supported *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI) *.wmv: Windows Media Video *.vfw: (a so-called container that can contain several different compression formats).	N.Music	WMA, MP3, WAV, ASE (a so-called container that can contain several
support it, otherwise not). AAC (together with MAC as editor PC) *.bmp: Bitmap (all colour depths 1-32 bit) *.gif: GIF (only the first frame of animated GIFs is shown) *.png: Portable network graphics (or 'Png Not GIF'). *.tiff: TIFF images (typically used in the graphics industry) *.jpeg, *.jpg: JPEG standard 24 bit is used by all cameras //ideo (WEB) *.mpeg; *.mpe;*.mpg: MPEG-x various MPEG format, but only MPEG-1 supported *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI) *.wmv: Windows Media Video *.vfw: (a so-called container that can contain several different compression formats).		different compression formats. If it contains WMA/MP3/WAV we
PHOTO       *.bmp: Bitmap (all colour depths 1-32 bit)         *.gif: GIF (only the first frame of animated GIFs is shown)         *.png: Portable network graphics (or 'Png Not GIF').         *.tiff: TIFF images (typically used in the graphics industry)         *.jpeg, *.jpg: JPEG standard 24 bit is used by all cameras         //ideo (WEB)       *.mpeg; *.mpe; *.mpg: MPEG-x various MPEG format, but only         MPEG-1 supported         *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI)         *.wmv: Windows Media Video         *.vfw: (a so-called container that can contain several different compression formats).		support it otherwise not) AAC (together with MAC as editor PC)
<ul> <li>*.gif: GIF (only the first frame of animated GIFs is shown)</li> <li>*.png: Portable network graphics (or '<u>Png Not G</u>IF').</li> <li>*.tiff: TIFF images (typically used in the graphics industry)</li> <li>*.jpeg, *.jpg: JPEG standard 24 bit is used by all cameras</li> <li>/ideo (WEB)</li> <li>*.mpeg; *.mpe; *.mpg: MPEG-x various MPEG format, but only MPEG-1 supported</li> <li>*.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI)</li> <li>*.wmv: Windows Media Video</li> <li>*.vfw: (a so-called container that can contain several different compression formats).</li> </ul>	РНОТО	*.bmp: Bitmap (all colour depths 1-32 bit)
<ul> <li>*.png: Portable network graphics (or '<u>Png Not G</u>IF').</li> <li>*.tiff: TIFF images (typically used in the graphics industry)</li> <li>*.jpeg, *.jpg: JPEG standard 24 bit is used by all cameras</li> <li>/ideo (WEB)</li> <li>*.mpeg; *.mpe; *.mpg: MPEG-x various MPEG format, but only MPEG-1 supported</li> <li>*.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI)</li> <li>*.wmv: Windows Media Video</li> <li>*.vfw: (a so-called container that can contain several different compression formats).</li> </ul>		* gif: GIF (only the first frame of animated GIFs is shown)
<ul> <li>*.tiff: TIFF images (typically used in the graphics industry)</li> <li>*.jpeg, *.jpg: JPEG standard 24 bit is used by all cameras</li> <li>/ideo (WEB)</li> <li>*.mpeg; *.mpg: MPEG-x various MPEG format, but only MPEG-1 supported</li> <li>*.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI)</li> <li>*.wmv: Windows Media Video</li> <li>*.vfw: (a so-called container that can contain several different compression formats).</li> </ul>		*.png: Portable network graphics (or 'Png Not GIF').
*.jpeg, *.jpg: JPEG standard 24 bit is used by all cameras         /ideo (WEB)       *.mpeg; *.mpe; MPEG-x various MPEG format, but only         MPEG-1 supported       *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI)         *.wmv: Windows Media Video       *.vfw: (a so-called container that can contain several different compression formats).		* tiff: TIFE images (typically used in the graphics industry)
<ul> <li>/ideo (WEB)</li> <li>*.mpeg; *.mpe; *.mpg: MPEG-x various MPEG format, but only MPEG-1 supported</li> <li>*.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI)</li> <li>*.wmv: Windows Media Video</li> <li>*.vfw: (a so-called container that can contain several different compression formats).</li> </ul>		* ipeq * ipq: IPEG standard 24 bit is used by all cameras
MPEG-1 supported *.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI) *.wmv: Windows Media Video *.vfw: (a so-called container that can contain several different compression formats).	Video (WEB)	*.mpeg: *.mpe:*.mpg: MPEG-x various MPEG format, but only
*.avi: Very broad format (we only support M-JPEG, MS MPEG4 and uncompressed AVI) *.wmv: Windows Media Video *.vfw: (a so-called container that can contain several different compression formats).		MPEG-1 supported
uncompressed AVI) *.wmv: Windows Media Video *.vfw: (a so-called container that can contain several different compression formats).		*.avi: Very broad format (we only support M-JPEG, MS MPEG4 and
*.wmv: Windows Media Video *.vfw: (a so-called container that can contain several different compression formats).		uncompressed AVI)
*.vfw: (a so-called container that can contain several different compression formats).		*.wmv: Windows Media Video
compression formats).		*.vfw: (a so-called container that can contain several different
		compression formats).

Connections			
MASTER LINK	Pin 1	Data0.4V ±0.1V	
	Pin 2	Data+ +0.4V ±0.1V	
	Pin 3	ML sense	
	Pin 4-8	N.C.	
	Pin 9	ATI transmit	
	Pin 10	ATI receive	
	Pin 11	-supply voltage -7V to -15V (in St By -3V to -15V)	
	Pin 12	+supply voltage +7V to +15V (in St By +3V to +15V)	
	Pin 13	Audio -L 1V Bal, Rin 2.2M $\Omega$ , Rout 75 $\Omega$	
	Pin 14	Audio +L 1V Bal, Rin 2.2M $\Omega$ , Rout 75 $\Omega$	
	Pin 15	Audio -R 1V Bal, Rin 2.2M $\Omega$ , Rout 75 $\Omega$	
	Pin 16	Audio +R 1V Bal, Rin 2.2M $\Omega$ , Rout 75 $\Omega$	
	<b>D</b> ' 4		
POWER LINK	Pin 1	Power up => 2.5V, OFF =< 0.5V	
2	Pin 2	Signal GND	
5 4	Pin 3	Audio L out UV - 6.5V RMS	
	Pin 4	Loudspeaker ON => $2.5V$ , OFF =< $0.5V$	
	Pin 5	Audio R out OV - 6.5V RMS	
	Pin 6	Data: High >3.5V, Low <0.8V	
	Pin 7	Data GND	
7   6 8	Pin 8	Not used	
DVI-I (Dual Link)	Pin 1	T.M.D.S.Data 2 -	
	Pin 2	T.M.D.S. Data 2 +	
	Pin 3	T.M.D.S. Data 2/4 shield	
	Pin 4	T.M.D.S. Data 4 -	
	Pin 5	T.M.D.S. Data 4 +	
	Pin 6	DDC Clock	
	Pin 7	DDC Data	
	Pin 8	Analog vert. sync	
	Pin 9	T.M.D.S. Data 1 -	
	Pin 10	T.M.D.S. Data 1 +	
	Pin 11	T.M.D.S. Data 1/3 shield	
	Pin 12	T.M.D.S. Data 3 -	
	Pin 13	T.M.D.S. Data 3 +	
	Pin 14	+5V Power	
	Pin 15	Ground	
	Pin 16	Hot plug detect	
	Pin 17	T.M.D.S. Data 0 -	
	Pin 18	T.M.D.S. Data 0 +	
	Pin 19	T.M.D.S. Data 0/5 shield	
	Pin 20	T.M.D.S. Data 5 -	
	Pin 21	T.M.D.S. Data 5 +	
	Pin 22	T.M.D.S. Clock shield	
	Pin 23	T.M.D.S. Clock +	
	Pin 24	T.M.D.S. Clock –Composite video	
	C1	Analog red	
	C2	Analog green	
	C3	Analog blue	
	C4	Analog horizontal sync	
	C5	Analog ground (Return for R, G and B signals)	
S - Video	S - Video connector		
	GND pin 1 and 2		
3 4	$4$ $Y \text{ in pin 3 } 1.0 \text{Vpp } \pm 3 \text{dB incl. sync } 75\Omega \pm 10\%$ $C \text{ in pin 4 } 1.0 \text{ Vpp } \pm 3 \text{dB } 75\Omega \pm 10\%$		

SPDIF out				
	RCA phono Black			
	0.5 Vpp 75 ohm ± 10%			
	Specified by IEC 60958 and IEC61937			
IR-IN				
1	Minijack stereo			
	Pin 1 Shield: Shield			
r → 2	Pin 2 Inner: IR Signal			
	Pin 3 Outer: 5V			
/0 3				
Line Out				
	Minijack stereo , Max 1.4 Vrms $30\Omega$			
o 1	Pin 1 Shield: Shield			
o 2	Pin 2 Inner: Right			
	Pin 3 Outer: Left			
/\o 3				
Y, P <sub>b</sub> , P <sub>r</sub> (3 x RCA Phono connectors, Green-Blue-Red)				
	Y out 1.0 Vpp incl. Sync.			
	P <sub>B</sub> out 0.7 Vpp			
	P <sub>R</sub> out 0.7 Vpp			
	Output impedance 75 ohm ±10 %			
Video (CVBS output)				
	1 phono socket, yellow (RCA)			
	Inner: CVBS out			
	Outer: GND			
Audio Line out				
	2 phono sockets, L/R (RCA)			
	Output L/R Audio out 0.2 – 2V rms			
Mains inlet				
	Too see the different types of mains lead see exploded view in the			
Live	Retail Ordering System			
, , , , , , , , , , , , , , , , , , ,				
Neutral o				
Ethernet				
	KJ45 socket			
	Ethernet 10/100 Mbit/s			
חחחחחחח	IEEE 802.3			
U2R				
	3 plugs One reserved for BeoSound 5!			
	U2R 5'0			
Power output (to BeoSound 5)				
3 2	Pin Z         +5V_SB_AUX			
100	Pin 3 +12V_AUX			
	PIN 4 IK_IN			

DVI-D for BeoSound 5

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	1	_)

Pin 1	T.M.D.S.Data 2 -
Pin 2	T.M.D.S. Data 2 +
Pin 3	T.M.D.S. Data 2/4 shield
Pin 4	T.M.D.S. Data 4 -
Pin 5	T.M.D.S. Data 4 +
Pin 6	DDC Clock
Pin 7	DDC Data
Pin 8	Analog vert. sync
Pin 9	T.M.D.S. Data 1 -
Pin 10	T.M.D.S. Data 1 +
Pin 11	T.M.D.S. Data 1/3 shield
Pin 12	T.M.D.S. Data 3 -
Pin 13	T.M.D.S. Data 3 +
Pin 14	+5V Power
Pin 15	Ground
Pin 16	Hot plug detect
Pin 17	T.M.D.S. Data 0 -
Pin 18	T.M.D.S. Data 0 +
Pin 19	T.M.D.S. Data 0/5 shield
Pin 20	T.M.D.S. Data 5 -
Pin 21	T.M.D.S. Data 5 +
Pin 22	T.M.D.S. Clock shield
Pin 23	T.M.D.S. Clock +
Pin 24	T.M.D.S. Clock –Composite video

#### Video Output formats

Product	Resolution (VGA)	Resolution (DVI)	Resolution (YpbPr)	Resolution (CVBS
	60 HZ	60 HZ (BIVI2)	60HZ (BIVI2)	or Y/C)
BeoSystem 1 MKII (940x)	-	-	-	800 x 600
BeoSystem 1 MKIII (9431-9436)	-	-	-	800 x 600
BeoSystem 2 MKII (941x)	-	-	-	800 x 600
BeoSystem 2 MKIII (942x)	-	-	-	800 x 600
BeoSystem 3 + BV4 MKI HD	1360 x 768	1360x768	720p / 1080i	800 x 600
BeoSystem 3 + BV4 MKII FHD	1360 x 768	1920x1080p	720p / 1080i	800 x 600
BeoSystem 3 + BV4 MKIII FHD	1360 x 768	1920x1080p	720p / 1080i	800 x 600
BeoVision Avant 32 DVD MK III (846x)	-	-	-	800 x 600
BeoVision 3 – 32 MK III (881x)	-	-	-	800 x 600
BeoVision 5 MK III (891x/8931)	-	-	-	800 x 600
BeoVision 5 MK IV (8939/894x)	1024 x 768	1024 x 768	1024 x 768	800 x 600
BeoCenter 6 – 23 (9212-9218) HD-Ready	1360 x 768	1360 x 768	-	800 x 600
BeoCenter 6 – 26 (9280-9286)	1360 x 768	1360 x 768	720p / 1080i	800 x 600
BeoVision 7 – 32 MKI (9310-9320)	1366 x 768	1360 x 768	-	800 x 600
BeoVision 7 – 32 MKI (9310-9320) HD-kit	1360 x 768	1360 x 768	720p / 1080i	800 x 600
BeoVision 7 – 32 MKII (9321-9329)	1366 x 768	1360 x 768	-	800 x 600
BeoVision 7 – 32 MKII (9321-9329) HD-kit	1360 x 768	1360 x 768	720p / 1080i	800 x 600
BeoVision 7 – 32 MKIII (9331-9339)	1360 x 768	1360 x 768	-	800 x 600
BeoVision 7 – 40 MKI (9351-9359)	1366 x 768	1360 x 768	-	800 x 600
BeoVision 7 – 40 MKI (9351-9359) HD-kit	1360 x 768	1360 x 768	720p / 1080i	800 x 600
BeoVision 7 – 40 MKII (9361-9369)	1360 x 768	1360 x 768	720p / 1080i	800 x 600
BeoVision 7 – 40 MKIII (9370-9384)	1360 x 768	1920x1080p	720p / 1080i	800 x 600
BeoVision 8 – 26 (9500)	1360 x 768	1360 x 768	Not possible !	800 x 600
BeoVision 8 – 32(9550-9551)	1360 x 768	1360 x 768	Not possible !	800 x 600
BeoVision 8 – 40 (9560-9561)	1360 x 768	1920x1080p	Not possible !	800 x 600
BeoVision 9-50 MKI HD (9710-9719)	1360x768	1360x768	720p / 1080i	800 x 600
BeoVision 9-50 MKII FHD (9710-9719)	1360x768	1920x1080p	720p / 1080i	800 x 600
BeoVision 9-50 MKIII FHD (9760-9772)	1360x768	1920x1080p	720p / 1080i	800 x 600

Subject to change without notice

Overall block diagram – BeoSound 5



### Block diagram - Power - BeoMaster 5


## Block diagram – ML-PL – BeoMaster 5



**External Connectors** 

7.4	7.4	



Available parts BeoSound 5 **P** æ<sup>7</sup> 58 . P Ø æ<sup>7</sup> ß 9006 9007 100 6 0 2 9008 11  $\mathbb{Q}$ 9009 P 2 01 2 S 51 9001 ¢۶ 9002 ß 9003 9004 9005

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## BANG & OLUFSEN



Strees, water         Strees, interimentation         Back-up suitage         Back	Available parts BeoSound 5	9001 9002	3451873 2804054	Front glass Menu wheel incl. pos. no. 9003, 9004 Social	Parts not shown	3376190 Product 3010063 Tool f/b
Size         227816         Justice         Control         Control <thcontrol< th=""> <thcontrol< th=""> <thcontr< td=""><td></td><td>9003</td><td>2390013</td><td>l ock f/menu wheel</td><td></td><td>0004109 Wileles</td></thcontr<></thcontrol<></thcontrol<>		9003	2390013	l ock f/menu wheel		0004109 Wileles
None         Stortur         Back-up suitage         Stortur           000         64015         Startur         Packing         333114         Packing		9005	2776816	Button unit		
Streed         Streed         Streed         Packing         Streed           Streed         30013         30012         Viel Northweiter         Auslichter         Streed         Auslichter         Streed		9006	3321117	Frame	Back-up suitcase	3395333 Back-up
Screw, wishers etc.         3 30000 9 30000 9 30000 9 30000         Construction 9 40000 9 40000 9 40000         Packing         200000 9 40000         200000 9 40000           Screw, wishers etc.         1         3 30000 9 10000         Construction 9		9007	8480185	Speaker	·	
Servey, vashers etc.         1         2010/2017         Null horder in 2 strate.         Packing         133141 # Jaing           Screws, vashers etc.         1         2010/2017         Null horder in 2 strate.         Available documentation         Screws in 2 strate.         Available documentation         Screws in 2 strate.           1         1000/2017         Null horder in 2 strate.         Available documentation         Screws in 2 strate.         Available documentation         Screws in 2 strate.         Available documentation         Screws in 2 strate.         Screws in 2 st		9008	3164072	Cover f/menu wheel		
Screw, wather str.         1         2018         Sore         2018         Sore		9009	3321158	IR lens incl 2 screws	Packing	3393144 Packing
Sing 2012         With London         Available documentation         See Recul District           913         90112         South London         See Recul District         See Recul District           914         92112         South With Res         See Recul District         See Recul District           915         92112         South Res         See Recul District         See Recul District           917         20168         With Res         See Recul District         See Recul District           1000000         900000         PEB12, Number See Recul District         See Recul District         See Recul District           1000000         900000         PEB12, Number See Recul District         See Recul District         See Recul District           1000000         900000         PEB12, Number See Recul District         See Recul District         See Recul District           1000000         900000         PEB12, Number See Recul District         See Recul District         See Recul District           1000000         900000         PEB12, Number See Recul District         See Recul District         See Recul District           1000000         900000         PEB12, Number See Recul District         See Recul District         See Recul District           1000000000000000000000000000000000000		9010	3131112	Holder, complete		
2013         20113         Conversioning         20130         20130         20130           2014         33115         Conversioning         201400         201400         201400 <td></td> <td>9011</td> <td>3451515</td> <td>Dack Cover Wall bracket</td> <td>Available documentation</td> <td>See Retail Ordering</td>		9011	3451515	Dack Cover Wall bracket	Available documentation	See Retail Ordering
Strews, washers etc.         1         2010000         View Biel           1         201000         View Biel         View Biel           1         View Biel         View Biel         View Biel           2         View Biel         View Biel         View Biel           3         3         Strews         View Biel         View Biel           3         3         Strew Biel         View Biel         View Biel           3         3         Strew Biel         View Biel </td <td></td> <td>9013</td> <td>3901127</td> <td>Decoration ring</td> <td>Available documentation</td> <td></td>		9013	3901127	Decoration ring	Available documentation	
Screws, washers etc.         1         201000 10000000000000000000000000000000		9014	3321125	Cover f/socket unit		
Strews, washers etc.         911         2003000         Wouldworked with a fill           Strews of cables         No.0445         P. 601, Mainboard           No.0445         P. 601, Mainboard         P. 601, Mainboard           No.0445         P. 601, Mainboard         P. 601, Mainboard           Strews of cables         No.0445         P. 601, Mainboard           No.0445         P. 601, Mainboard         P. 601, Mainboard           No.0445         P. 601, Mainboard         P. 601, Mainboard           No.0445         P. 601, Mainboard         P. 601,		9015	3321159	Wire guide		
Screws, washers etc.         1         209605         Neigation am           11Module         800403         PCR11, IA           12Module         800403         PCR11, IA           12Module         800403         PCR11, IA           13Module         800403         PCR11, IA           13Module         800403         PCR11, IA           13Module         800403         PCR13, Nept           51Module         800404         PCR15, Nept           51Module         800404         PCR15, Standby           61Module         800404         PCR15, Standby           7         2001207         Sterw 20 x form           3         300187         Sterw 20 x form           3         2001207         Sterw 20 x form           3         200187         Sterw 20 x form           3         200180         Sterm           4         200000         Verk 20 x form		9016	2804080	Volume wheel unit		
Screws, washers etc.         0110xdui         800409         FC810, Mainboard           11Modui         800409         FC812, Nutgator           200000         800409         FC813, Reput           200000         800409         FC813, Reput           200000         Serve 2, Serve 3, Serve 2, Serve 3, Serve 2, Serve 3, Serve 2, Serve 3, Serve 3, Serve 2, Serve 3, S		9017	2804065	Navigation arm		
Screws, washers etc.         11         603403         K1817, Newgatar           13Module         800403         K1817, Newgatar           13Module         800403         K1817, Newgatar           13Module         800403         K1817, Newgatar           13Module         800403         K1817, Newgatar           14Module         800403         K1817, Newgatar           15         800403         K1817, Newgatar           15         800403         K1817, Newgatar           15         800403         K1817, Newgatar           16         200303         K1817, Newgatar           17         8007004         K181           18         200704         K1817, Newgatar           <		01Module	8004045	PCB01, Mainboard		
12Module         8034040         R/B12, Navigator           13Module         8040408         R/B13, Input           5Module         8040418         R/B13, Input           5Module         8040411         R/B58, Standby           6Module         8040411         R/B58, Standby           7         201922         Screw 22 x 7mm           2         201923         Screw 22 x 7mm           3         201923         Screw 23 x 6mm           4         2021203         Screw 2 x 5 6mm           3         2025207         Screw 3 x 6mm           5         2025207         Screw 2 x 5 6mm           7         2025207         Screw 2 x 5 6mm           8         303227         Rubber foot           1         2025207         Screw 2 x 6mm           8         2025208         Screw 1 x 6mm           9         3103274         Rubber foot           10         2025207         Screw 1 x 6mm           8         202707         Screw 1 x 6mm           9         3103274         Rubber foot           10         2025207         Screw 1 x 6mm           8         2027078         Screw 1 x 5mm           8		11Module	8004039	PCB11, IR		
Screws, washers etc.         13.80du3         PCB13, Input           1         2019027         PCB51, ICD           5.00du6         800du3         PCB51, Backlight Inverter           5.00du7         9019027         Screw 22 x /mm           2         2019033         Screw 22 x /mm           3         2019033         Screw 22 x /mm           3         2019027         Screw 22 x /mm           3         2019033         Screw 22 x /mm           3         2019033         Screw 22 x /mm           3         2019033         Screw 23 x 8mm           3         202007         Screw 30 Screw 23 x 8mm           3         202000         Sclew 10 Screw 23 x 8mm           3         202000         Sclew 10 Screw 23 x 8mm           4         202001         Wiselscrew 10 Screw 23 x 8mm           5         2020002         Sclew 10 Screw 23 x 8mm           620901         Wiselscrew 10 Screw 23 x 8mm           620901         Wiselscrew 10 Screw 23 x 8mm           620901         Sclew 10 Screw 10 Screw 10 Sc		12Module	8004040	PCB12, Navigator		
Strews, washers etc.         S1004/2         82092/4         PCB51, LCD           2         2019027         Screw 2,5 standby           3         300187         Screw 2,5 standby           4         202508         Screw 2,5 standby           5         205508         Screw 2,5 standby           6         301027         Mobier foot           10         202020         Bering not           10         202020         Screw 2,5 standby           10         202020         Wree, USB to repater 4.5M           10         202020         Wree, USB to repater 4.5M           10         202020         Scree, Power - 4.5M           11         627069         Calle, power - 45M           12         627069         Calle, power - 45M           13         627020         Scree, Power - 45M           141         6		13Module	8004038	PCB13, Input		
Skrowie         8004ule         8004ule         RC858, Standby           51Module         800402         PC861, Backlight Inverter           5crews, washers etc.         2         2019037         Screw 22 x Trum           2         2019033         Screw 22 x Trum         2           3         300167         Screw 22 x S form           4         262071         Sap pad 31 x 16mm           6         3940708         Foam           7         2020209         Screw 22 x S mm           8         262071         Sap pad 31 x 16mm           10         2020209         Screw 20 x 6mm           8         2620207         Washer           10         2020209         Washer           20000         Vasher         Screw 2 x 6mm           8         2620207         Washer           10         2028004         Boaring nut           10         2028004         Washer           20091         Sclub, power - 45M           2010         Sclub, power - 45M           20201         Sclub, power - 45M           20202         Sclub, power - 45M           202021         Sclub, power - 45M           202031         Sclub, power -		51Module	8200204	PCB51, LCD		
61Module       8004042       PCB61, Backlight Inverter         Screws, washers etc.       1       2019023       Screw 22 x 7mm         2       2019023       Screw 22 x 7mm         3       3301077       Gaspad 11 x 16mm         5       2052083       Screw 22 x 7mm         6       39374080       Foat         7       2052079       Gaspad 11 x 16mm         5       2052083       Screw 22 x 7mm         6       3937408       Foat         7       2052079       Screw 25 x 8mm         8       2052079       Screw 25 x 8mm         2010227       Screw 25 x 8mm       Screw 25 x 8mm         2010228       Viet, USB - 45 M       Screw 25 x 8mm         202000       Wise, USB to repeter - 4 5M       Screw 25 x 8mm         202000       Viet, USB to repeter - 4 5M       Screw 25 x 8mm repeter - 4 5M         8020002       Cable, power - 9M       Screw 25 x 8mm repeter - 4 5M         8020002       Cable, power - 9M       Screw 25 x 8mm repeter - 4 5M         8020002       Cable, power - 9M       Screw 25 x 8mm repeter - 4 5M         8020002       Cable, power - 9M       Screw 25 x 8mm repeter - 4 5M         8020002       Cable, power - 9M       Screw 25 x 8		58Module	8004041	PCB58, Standby		
Screws, washers etc.       1       201903       Screw 22 x 7mm         2       201903       Screw 22 x 5 mm         3       300175       Gasket         4       2622011       Gap ad 31 x 16mm         5       2052095       Screw 20 x 6mm         6       3947080       Form         7       2052075       Screw 20 x 6mm         6       2052075       Screw 20 x 6mm         7       2052075       Screw 20 x 6mm         8       2052075       Screw 20 x 6mm         10       2260201       Bearing nut         11       232000       Bearing nut         11       242000       Screw 20 x 6mm         8       2052075       Sclew 00 x 6mm         9       3103274       Ruber foot         11       242000       Wire, USB 10 repater - 4.5M         6270961       Wire, USB 10 repater - 4.5M         6270962       Cable, DVH singleine-HDMI - 9M         6270962       Cable, DVH singleine-HDMI - 9M         6270952       Cable, DVH singleine-HDMI - 9M         6270952       Cable, DVH singleine-HDMI - 9M         6270827       Wire SN02         V11       6278237         V12<		61Module	8004042	PCB61, Backlight Inverter		
2       2019033       Screw 22.5 x 6mm         3       3300187       Gsket         4       2622071       Gap pad 31 x 16mm         5       2052083       Screw 20.5 6mm         6       3947080       Feam         7       2052079       Screw 20.5 6mm         8       2622079       Screw 25.5 8mm         8       2622079       Screw 25.5 8mm         8       2622079       Screw 25.5 8mm         9       3103224       Rubber foot         10       2380208       Maring nut         11       2632000       Washer         Survey of cables         W11       6270961       Wire, USB to repeter - 4.5M         6270957       Cable, power - 4.5M       6270952         6270952       Cable, power - 4.5M       6270952         6270952       Cable, power - 9M       455         6270952       Cable, power - 4.5M       6270522         6270952       Cable, power - 4.5M       6270522         6270952       Cable, power - 9M       455         6270952       Cable, power - 9M       455         6272052       Wire SHR-10       9M         W16       6278230	Screws washers etc	1	2019027	Screw 22 x 7mm		
3       300187       Gasket         4       2622071       Gap pad 31 x 16mm         5       2052083       Screw 20 x 6mm         6       3947080       Foam         7       2052097       Screw 25 x 8mm         8       2052079       Screw 25 x 8mm         8       2052079       Screw 25 x 8mm         8       2052075       Washer         3       303024       Baring nut         10       2380048       Baring nut         12       262000       Washer         5       2052083       Cable, power - 4.5M         62709960       Wre, USB - 4.5M         62709970       Cable, power - 4.5M         6270995       Cable, power - 4.5M	Sciews, washers etc.	2	2019033	Screw 2.5 x 6mm		
4       2622071       Gap pad 31 x 16mm         5       32503       Screw 2.0 x 6mm         6       3947080       Foam         7       2052079       Screw 2.5 x 8mm         8       262207       Water         9       3103274       Rubber foot         10       2380024       Boring nut         11       2632000       Wire, USB - 4.5 M         6270960       Cable, Dower - 4.5 M         6270950       Cable, Dower - 4.5 M         6270952       Cable, Dower - 4.5 M         6270953       Wire Main/Minetter         9       6278237       Wire Main/Minetter		3	3300187	Gasket		
5       2052083       Screw 20 x 6mm         6       3947080       Foam         7       2052079       Screw 2.5 x 8mm         8       2622075       Washer         9       3103274       Rubber foot         10       2380024       Bearing nut         11       262005       Wire, USB - 4.5 M         6       5270956       Wire, USB - 4.5 M         6       6270967       Wire, USB - 4.5 M         6270951       Wire, USB - 0.5 M         6270952       Cable, power - 4.5 M         6270954       Cable, power - 9.6 M         8       6270955         6270956       Cable, power - 4.5 M         6270957       Cable, power - 4.5 M         6270958       Cable, power - 4.5 M         6270959       Cable, power - 4.5 M         6270959       Cable, power - 4.5 M         6270950       Cable, power - 4.5 M         6270952       Cable, power - 4.5 M         6278250       Wire sR02         Wire		4	2622071	Gap pad 31 x 16mm		
6       3947080       Foam         7       252079       Screw 2.5 x 8mm         8       2622075       Washer         9       3103274       Rubber foot         10       2380024       Bearing nut         11       2632000       Washer         Survey of cables         W11       6270960       Wire, USB - 4.5M         6270957       Cable, power - 4.5M         6270950       Cable, DVH singleline-HDMI - 4.5M         6270952       Cable, DVH singleline-HDMI - 9M         W15       6278265       Wire SHR-10         W16       6278265       Wire SNG         W19       6278265       Wire SNG         W20       6278265       Wire SNG         W21       6278267       Wire SNG </td <td></td> <td>5</td> <td>2052083</td> <td>Screw 20 x 6mm</td> <td></td> <td></td>		5	2052083	Screw 20 x 6mm		
7       2052079       Screw 2.5 x 8mm         8       2622075       Washer         9       3103274       Rubber foot         10       2380024       Bearing nut         11       2632000       Washer         Survey of cables         W11       6270960       Wire, USB + 0.5M         6270910       Wire, USB + 0.5M         6270911       Cable, power - 4.5M         6270952       Cable, power - 4.5M         6270954       Cable, power - 4.5M         6270952       Cable, power - 4.5M         6270954       Cable, power - 4.5M         6270952       Cable, power - 4.5M         6270952       Cable, power - 4.5M         6270952       Cable, DVH singleline-HDMI - 4.5M         6270952       Cable, DVH singleline-HDMI - 9M         W13       6270952         W15       6278250         W18       6278237         W18       6278237         W18       6278238         W18       6278245         W18       6278256         W19       6278256         W18       6278267         W18       6278267         W19       6278267 <td></td> <td>6</td> <td>3947080</td> <td>Foam</td> <td></td> <td></td>		6	3947080	Foam		
8       2622075       Washer         9       3103274       Bubber foot         10       2380024       Bearing nut         11       2632000       Washer         Survey of cables         W11       6270960       Wire, USB - 4.5M         6270961       Wire, USB to repeter - 4.5M         W12       6270905       Cable, power - 4.5M         W13       6270959       Cable, power - 4.5M         W14       6270599       Cable, DVH-I singleline-HDMI - 4.5M         6270514       Cable, DVH-I singleline-HDMI - 9M         W15       6278236       Wire filte-0         W16       6278237       Cable LVDS         W18       6278237       Cable LVDS         W20       6278268       Wire SR08         W21       6278266       Wire SR04         W22       6278267       Wire SR02         W23       6278276       Wire SR02		7	2052079	Screw 2.5 x 8mm		
9       3103274       Rubber toot         10       238024       Bearing nut         11       263200       Washer         Survey of cables         11       6270960       Wire, USB 10 repeter - 4.5M         12       6270915       Cable, power - 4.5M         6270914       Cable, power - 4.5M         12       6270905         13       227092         14       6270914         15       6270914         16       6270925         17       Cable, power - 4.5M         18       6270925         19       6270926         10       6270927         11       6270926         11       6270927         11       6270926         11       6270926         11       6270926         11       6278237         11       6278236         11       6278237         11       6278237         11       6278237         11       6278237         11       6278237         11       6278237         11       6278237         11       6278238		8	2622075	Washer		
10       2380024       Bearing nut         11       232000       Washer         Survey of cables       W11       6270960       Wire, USB to repeter - 4.5M         W12       6270951       Cable, power - 4.5M         6270952       Cable, power - 9M         W13       6270952       Cable, power - 9M         W13       6270952       Cable, DVI-i singleline-HDMI - 4.5M         6270962       Cable, DVI-i singleline-HDMI - 9M         W15       6278230       Wire micro coax         W16       6278232       Wire micro coax         W18       6278232       Wire Main/Inverter         W20       627828       Wire SR04         W21       6278267       Wire SR04         W22       627826       Wire SR04         W23       627827       Wire SR04         W24       627827       Wire SR02		9	3103274	Rubber foot		
Survey of cables       W11       6270960       Wire, USB - 4.5M         6270961       Wire, USB to repeter - 4.5M         W12       6270905       Cable, power - 4.5M         6270914       Cable, power - 4.5M         6270959       Cable, power - 4.5M         6270959       Cable, power - 4.5M         6270950       Cable, power - 4.5M         6270952       Cable, DVH singletine-HDMI - 4.5M         6270952       Cable, DVH singletine-HDMI - 9M         W15       6278250       Wire wine micro coax         W18       6278237       Cable LVDS         W19       6278238       Wire Main/Inverter         W20       6278266       Wire SR14         W22       6278266       Wire SR04         W23       6278276       Wire SR02         W24       6278277       Wire SR02		10	2380024	Bearing nut		
Survey of cables       W11       6270960       Wire, USB - 4.5M         6270961       Wire, USB to repeter - 4.5M         W12       6270910       Cable, power - 4.5M         6270911       Cable, power - 9M         W13       6270950       Cable, DVH- singleline-HDMI - 4.5M         627092       Cable, DVH- singleline-HDMI - 9M         W15       6278250       Wire, SHR-10         W16       6278236       Wire findro coax         W18       6278237       Cable LVDS         W19       6278237       Cable LVDS         W19       6278238       Wire Main/Inverter         W20       6278260       Wire SR04         W21       6278277       Wire SR04         W22       6278260       Wire SR04         W23       6278277       Wire SR04		11	2632000	Washer		
Survey of Cables       Wire, USB to repeter - 4.5M         6270910       Cable, power - 9M         6270912       Cable, power - 9M         6270925       Cable, DVI-I singleline+HDMI - 4.5M         6270926       Cable, DVI-I singleline+HDMI - 9M         W15       6278230         Wire micro coax         W18       6278237         Vable CVDS         W19       6278238         Wire Main/Inverter         W20       627826         Wire SR08         W21       6278276         Wire SR04         W22       627826         Wire SR04         W23       6278277         Wire SR04         W24       6278277	Survey of cables	W11	6270960	Wire LISB - 4 5M		
W12       6270905       Cable, power - 4.5M         6270914       Cable, power - 9M         W13       627095       Cable, DVI-I singleline-HDMI - 4.5M         6270952       Cable, DVI-I singleline-HDMI - 9M         W15       6278250       Wire SHR-10         W16       6278237       Wire imicro coax         W18       6278237       Cable LVDS         W19       6278238       Wire SR08         W21       6278267       Wire SR04         W22       6278276       Wire SR04         W23       6278277       Wire SR04         W24       6278277       Wire SR02	Survey of cables		6270961	Wire, USB to repeter - 4.5M		
6270914       Cable, power - 9M         W13       6270959       Cable, DVI-I singleline-HDMI - 4.5M         6270962       Cable, DVI-I singleline-HDMI - 9M         W15       6278250       Wire SHR-10         W16       6278237       Wire micro coax         W18       6278237       Cable LVDS         W19       6278238       Wire Main/Inverter         W20       6278260       Wire SR08         W21       6278276       Wire SR04         W22       6278276       Wire SR04         W23       6278277       Wire SR02		W12	6270905	Cable, power - 4.5M		
W13       6270959       Cable, DVI-I singleline-HDMI - 4.5M         6270962       Cable, DVI-I singleline-HDMI - 9M         W15       627820       Wire SNR-10         W16       6278230       Wire micro coax         W18       6278237       Cable LVD5         W19       6278238       Wire Main/Inverter         W20       6278268       Wire SN8         W21       6278276       Wire SN4         W22       6278276       Wire SN4         W23       6278276       Wire SN64         W24       6278277       Wire SN04         W24       6278277       Wire SN04			6270914	Cable, power - 9M		
6270962       Cable, DVI-I singleline-HDMI - 9M         W15       6278250       Wire SHR-10         W16       6278236       Wire micro coax         W18       6278237       Cable LVDS         W19       6278237       Cable LVDS         W19       6278263       Wire SR08         W21       6278267       Wire SR08         W22       6278266       Wire SR04         W23       6278276       Wire SR06         W24       6278277       Wire SR02		W13	6270959	Cable, DVI-I singleline-HDMI - 4.5M		
W15       6278250       Wire SHR-10         W16       6278236       Wire micro coax         W18       6278237       Cable LVDS         W19       6278238       Wire Main/Inverter         W20       6278268       Wire SR08         W21       6278267       Wire SR04         W22       6278268       Wire SR04         W23       6278277       Wire SR05         W24       6278277       Wire SR02			6270962	Cable, DVI-I singleline-HDMI - 9M		
W16       6278236       Wire micro coax         W18       6278237       Cable LVDS         W19       6278238       Wire Main/Inverter         W20       6278268       Wire SR08         W21       6278267       Wire SR14         W22       6278268       Wire SR04         W23       6278276       Wire SR06         W24       6278277       Wire SR02		W15	6278250	Wire SHR-10		
W18       6278237       Cable LVDS         W19       6278238       Wire Main/Inverter         W20       6278268       Wire SR08         W21       6278267       Wire SR14         W22       6278268       Wire SR04         W23       6278276       Wire SR06         W24       6278277       Wire SR02		W16	6278236	Wire micro coax		
W19       6278238       Wire Main/Inverter         W20       6278268       Wire SR08         W21       6278267       Wire SR14         W22       6278266       Wire SR04         W23       6278276       Wire SR06         W24       6278277       Wire SR02		W18	6278237	Cable LVDS		
W20       6278268       Wire SR08         W21       6278267       Wire SR14         W22       6278266       Wire SR04         W23       6278276       Wire SR06         W24       6278277       Wire SR02		W19	6278238	Wire Main/Inverter		
W21       6278267       Wire SR14         W22       6278266       Wire SR04         W23       6278276       Wire SR06         W24       6278277       Wire SR02		W20	6278268	Wire SR08		
W22       6278266       Wire SR04         W23       6278276       Wire SR06         W24       6278277       Wire SR02		W21	6278267	Wire SR14		
W23     6278276     Wire SR06       W24     6278277     Wire SR02		W22	6278266	Wire SR04		
W24 6278277 Wire SR02		W/23	6278276	Wire SR06		
		W24	6278277	Wire SR02		
			52, 52, 7			

ct cover /bearing nut ess USB network adapter

ıp suitcase

g, complete

ng System



Available parts	9050	3031139	Wall f/fan
PooMastar F	9051	3938010	Damper f/fan
Beolviaster 5	9052	3340308	Gasket f/fan
	9053	8410009	Fan incl. pos. no. 9051 x 4 and 9052
	9054	3340309	Gasket f/PCB01
	9055	3431506	Cabinet, top incl. damping material
	9056	3103208	FOOL Gaskat f/PCPE1
	9058	3152588	Bracket f/PCB51
	9059	3431508	
	9060	6100245	Mains cable EU, 2.5A, 1.8M
		6100328	Mains cable UK, 2.5A, 1.8M
		6100125	Mains cable TWN, 2.5A - 125V, 3M
		6100151	Mains cable TH, 2.5A 1.8M
		6100247	Mains cable JP, 7A, 1.8M
		6100248	Mains cable AUS, 2.5A 1.8M
		6100306	Mains cable US, 2.5A, 1.8m
		6100040	Mains cable China, 2.5A, 1.8M
	0064	6100386	Mains cable Korea, 3A 3M
	9061	3152552	Holder f/PCB04
	9062	3947513	Gasket T/IML
	01Module	8004085	PCB01 Motherboard
	onnodule	8004086	RAM
	04Module	8003045	PCB04. Power Supply
	51Module	8004083	PCR51 ML-PL
		042004005	
	94Module	8420040	РСВ94, НОО
Survey of screws washers etc	10	3390167	Bag w/all screws, washers and pos. no. 11
	11	3390006	Bag w/cable holder and screw
Survey of cobles	\\/1	6270211	
Survey of cables	VV I \\/2	6278246	
	W/3	6278240	Wire Power
	W4	6278245	Cable, USB
	W5	6278240	Cable, ATX/ATX
	W6	6278239	Cable
	W7	6278249	Wire, ground
	W8	6278243	Wire f/mains polarized
	W9	6278241	Cable, HDD power
	W10	6278242	Wire, 24 pole
	W11	6270960	Wire, USB - 4.5M
	14/12	6270961	Wire, USB to repeter - 4.5M
	VV12	6270905	Cable, power - 4.5M
	\\\/12	62700E0	Cable, power - 9101 Cable, DVLL singleline, HDML - 4, 5M
	21 22	02/0959 6270062	Cable, DVH singleline-HDMI - 4.5W
	W14	6278247	Wire, reset w/switch
Parts not shown		3375179	Product cover
		3390006	Bag w/wire relief
		6270925	Cable network RJ45
Back-up suitcase		3395333	Back-up suitcase
Packing		3393149	Packing, complete
Available documentation		See Retail (	Ordering System

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