OneRemote converter
Type 34016128

User Manual

Operate with Beolink

Samsung TV
Analog/ Digital

Everyday use

TV	Power on TV
●	Power off TV
SAT	TV/ DTV
GO GO	Enter/ OK
*1	Guide
*1	Return
*1	P+
*1	P-
EXIT	Exit
GO MENU	Menu
MENU	D.menu
TEXT	Text on/ mix/ off

**1 As the un-shifted function of the coloured function buttons has been assigned to other functions, they have to be preceded with a GO to retrieve their actual coloured functions.*

GO	Green function
GO	Yellow function
GO	Red function
GO	Blue function

Other operations

GO 0	- / - -
GO 1	SRS
GO 2	DUAL
GO 3	Size
GO 4	P.mode
GO 5	P.size
GO 6	PIP Source
GO 7	PIP –
GO 8	PIP +
GO 9	S.mode
GO EXIT	Sleep
STOP	Previous channel

Operating using a Beolink 1000 or other old remote controllers.

Older remote controls do not have coloured buttons, and use is not logical.

As Beolink 1000 has no coloured buttons the Zapmode option needs to be set, to make the the up/ down arrows serve as P+ and P-.
See page 6 about option programming.

The PLAY button on older Bang & Olufsen remote controls does the exact same operation as the GO button on never remote controls.

GOTO	Back
STORE	Exit
PLAY GOTO	Guide
PLAY SHIFT «	Green function
PLAY SHIFT »	Yellow function
PLAY SHIFT ▲	Blue function
PLAY SHIFT ▼	Red function

Congratulations.

The BEE2 converter from www.oneremote.dk can operate your TV using your Bang & Olufsen remote control terminal, in a beelink system.

Beo4 Beo5 or Beo6 remote controls can be used. Beolink 1000 can be used with reduced functionality. This guide explains how.

This converter is ready for use, plug & play. See the opposite page regarding daily operation.

Some operations can be altered, to improve interaction with other controllers or to your convenience. Refer to the installation section further on, if changes are needed.

List of Contents

beeLINK basic

The IR data emitted from a Bang & Olufsen remote control, is captured with a IR-receiver. If there is already one IR-receiver in the room, this can also be used to feed the BeeLINK bus. Normally there is no need for two IR receivers in the same room.

Data received by the IR-receiver is fed to a OneRemote Link Amplifier with built-in power supply and 5 outputs for beeLINK devices.

If there is more than 5 beeLINK devices in the setup, splitters can be added.

The BeeLINK bus distributes the IR-data, received with the attached IR-receiver from a Beolink 1000, Beo4 or Beo5 to any number of beeLINK controllers. It also supplies the attached controllers with power.

The cable used between the link amplifier and the controllers is simple CAT5 type cable with RJ45 plugs. This type of cable is inexpensive and a standard cable that any installer are familiar with. Also it is well suited for data transmission. Finally many modern house installations use the same connectors, making installation even easier.

Note !

A BeeLINK bus must ONLY be connected to other beeLINK components.
If connected to LAN or other systems, there is a great risk to damage these systems.

The BeeLINK bus is a parallel bus type. Passive splitters therefore can be used, to make a network of any shape. If many controllers or very long cables are used, it might be necessary to add more power supplies.

Using this parallel structure each beeLINK controller receives the IR-data simultaneously. Every controller has its own microcomputer, living its own life.

Although some of the controllers can 'talk' to each other, most controllers operates fully on their own.

beeLINK2 installation

The beeLINK2 controller gets its power supply and control data, via the CAT5 cable from a beeLINK amplifier. The beeBus.

Once connected to the beeBUS the beeLINK2 controller only needs an IR-emitter to operate the device it has been designed for. The IR-emitter emits the same IR data as the device's own remote control.

Emitted IR data is in fact pure light at a frequency just out of the spectrum that the human eye is able to see.
It emits short flashes of light, a bit like when sending Morse codes using a flashlight.

The beeLINK2 controller can be placed by the device or in another room. IR emitters are available in lengths of 1, 5 and 10 meters. Additional extension cords can be used. An IR-emitter can be extended to more than 50 meters.

The IR-emitter can be placed inside the device, if you want to avoid having it on the outside, as long as the IR-receiver is able to see the light from the emitter. This requires that the device is opened and the emitter is placed inside.

The converted IR data is transmitted to the receiver's ir-receiver via a small IR-emitter that has to placed in front of the device to be controlled.

Here it emits the same IR data into the front of the device, that it was made to receive from its own remote control.

A beeBUS CAT5 cable may exceed more than 75 meters without additional amplifiers.

Some beeLINK2 controllers requires not only a simple IR-emitter, to operate a device. If the device is not able to power on and off via separate commands, the beeLINK controller needs to measure the power status of the device.

This is done using special IR-emitters that either measures the status signal on a TV-scart output or the presence of a video signal.

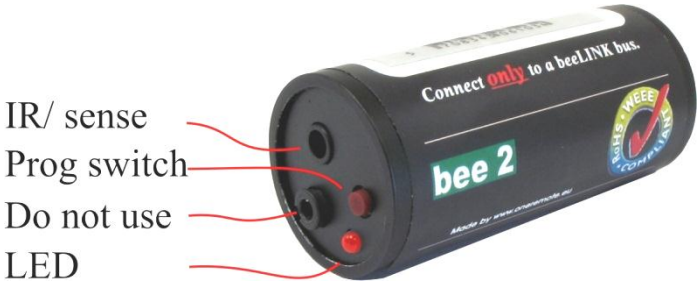
OneRemote 81108180 IR-emitter cable.
Measures the DC-status on a Scart TV-output.

OneRemote 31108182 IR-emitter cable.
Measures the presence of a video output signal.

The Humax BXR-HD receiver cannot be powered on and off using discrete codes and does not cut of video and status signalling, when in standby.
Therefore this receiver can only be powered on and off using the [GO] [9] command. Usually the receiver is never powered off, so this is not a problem.

The correct IR-emitter for this BEE2 converter is therefore a simple type like the 81108110:

Bee2 connections



The IR/ sense socket is output for the IR-emitter that sends IR to the device to be operated. In some cases this socket is also used for sensing purposes. Some BeeLINK2 converters needs to know if the device is powered up or not.

In some cases this socket is used for other serial communications like RS-232 instead of IR control.

Prog switch is a push button that must be activated to initiate a programming sequence, as described in the option programming chapters.

Do not use socket is for firmware updating of the controller, and connection to special adapters. If used for anything else, the controller will be damaged.

LED indicates different operating states:

Red-green flash:	No data has been received since power has been applied
Red flash:	The controller is in option programming mode.
Red:	The controller is active.
Green:	The controller is inactive.
Short off:	When the controller sends data, the LED turns off 1 sec.

Programme Zapping option

In a BeeLINK environment the buttons and are being used for programme stepping and to manoeuvre up and down in an on screen menu.

This is the basic OneRemote layout and compatible with other OneRemote controllers.

Some people prefer the programme zapping buttons on the up and down buttons. The programme zapping option, make it possible to change the function of these buttons.

If the user would give it a fair chance, trying out the OneRemote layout, it is not likely that he would make use of this option. The OneRemote layout adds much perspective to many OSD menus on many devices, and makes sense once fully understood. But we are up against habits, which we all wants to hang on to, so...

Option	Function
090	and are used for Bouquet+/ Bouquet-. Factory setting.
091	▲ and ▼ are used for Bouquet+/ Bouquet-.

An option programming sequence is initiated by pressing the little red switch on the BeeLINK2 controller, until its LED starts flashing. Hereafter the 3 digit option code must be entered with the B&O remote control.

Menu button option

If the device is used in a setup that includes a Bang & Olufsen TV, sometimes the use of the MENU button gives a conflict.

Some Bang & Olufsen TV act on the MENU and enters its own TV On Screen Menu regardless of which source it is set to.

In these setups the Menu button must be disabled on the BeeLINK controllers. Instead of using the Menu button to access the devices 'Menu', use the alternative menu operation GO 5.

Option	Function
080	Menu button blocked. Use alternative menu operation
081	Menu button enabled.

An option programming sequence is initiated by pressing the little red switch on the BeeLINK2 controller, until its LED starts flashing. Hereafter the 3 digit option code must be entered with the B&O remote control.

Beolink 1000, Beo4, Beo5 and Beo6.

Beolink 1000 and other early Bang & Olufsen remote controls are not equipped with the coloured function buttons that have been added to Beo4 and Beo5. The lack of these buttons makes it difficult to make a good layout, transparent for controlling different devices. Some operations therefore might be less logical or in some cases not available, when using older remote controls in a beeLINK setup.
Some buttons on the Beolink 1000 remote controls, do actually send the same commands as differently named buttons on a Beo4/ Beo5. Other buttons simply has been renamed, but still sends the same commands.

Beolink 1000	Compares to Beo4/ Beo5
SHIFT «	
SHIFT »	
SHIFT ▲	
SHIFT ▼	
GO	PLAY
VTAPE	VMEM
SHIFT VTAPE	VTAPE2 /VMEM2 /DVD2
SAT	DTV
SHIFT SAT	DVD / CDV
SHIFT TV	VAUX
ATAPE	AMEM
SHIFT ATAPE	AMEM2

For compatibility with older remote controls, a typical OneRemote layout uses the following buttons:

Beolink 1000	Typical BeeLINK use
GOTO	Back, Backup e.t.c.
PLAY GOTO	EPG, Guide e.t.c.
STORE	EXIT.
PLAY 5	Menu.
PLAY 9	Manual power.

BeeLINK Active option.

As all converters on the BeeLINK bus are receiving the IR-data simultaneously, every controller must know when to go *active* and when to go *inactive*. Sometimes two or more controllers are active at the same time.

A BeeLINK 2 controller is used to operate a TV, a satellite receiver, a DVD-player, a projector or similar devices. Each controller is specifically made for one device.

From factory a BeeLINK2 controller is set to go active on a source button like TV or DVD. The controller can be programmed to go active on another source, setting the Active option.

Your BeeLINK2 controller needs to know when you want it to go active, in your setup. You need to program it with an Active *option*.

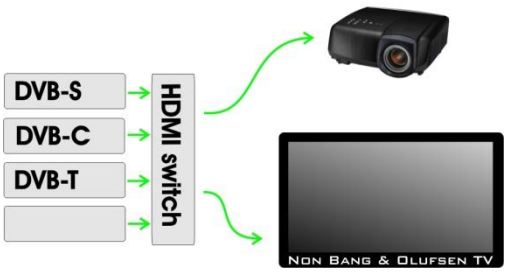
Option	Function
DTV 0 RECORD	DTV turns on the receiver. *(Factory setting for this converter.)*
DTV 1 RECORD	DTV + 1 turns on the receiver.
DTV 2 RECORD	DTV + 2 turns on the receiver.

An option programming sequence is initiated by pressing the little red switch on the BeeLINK2 controller, until its LED starts flashing. Hereafter the 3 digit option code must be entered with the B&O remote control.

Up to 10 receivers can be controlled this way, using the same source. This could be useful when you have more than one device of the same type.

When the BeeLINK2 controller goes active, its LED will turn red to indicate this. When another source is selected, the controller will go inactive and the LED turn green.

As a controller goes active, it will usually turn on the device, if it is not already turned on.



A setup with 3 receivers attached to both a TV and a projector.
An example of operation could be:

TV 1	Operate projector
TV 2	Operate TV
DTV 1	Operate DVB-S
DTV 2	Operate DVB-T
VMEM	Operate DVB-C

Example of a setup with more components.