

## **BMC-2HD Remote User Manual**

Congratulation with your new BMC-2HD converter! We are convinced that you'll enjoy the sound and we hope you'll also find use for the new functions:

The upgraded BMC-2HD includes an IR remote interface and an Apple infrared (IR) remote. The remote interface is also compatible with the Apple aluminium IR remotes. This document describes the setup and use of the remote control:

### **1.1. Remote Setup**

#### **Enabling IR Reception**

To work the BMC-2HD remote system requires the IR light from the remote to arrive at the receiver. Either directly (line of sight) or by reflection(s).

On the front edge of the BMC-2HD there is a built in 5 mm IR receiver (black, domed) and a mini-jack connector. This is *not* an audio jack – but an input for a dedicated external IR receiver. When the mini-jack connector is not populated the built in receiver is used.

The BMC-2HD is delivered with an IR optical cable that will automatically be used for the reception of the remote signals when plugged in. This enables the BMC-2 to be put anywhere (i.e. in a closed cabinet) as long as the IR receiver in the end of the cable is visible. The receiver has a small LED that will indicate *any* ~38khz modulated IR activity. Thus, it will indicate most other remote control activity.

#### **Pairing with a Specific Remote**

The BMC-2HD supports pairing<sup>1</sup> to allow different remotes to be used for different devices (i.e. one for an Apple product and one for the BMC-2HD).

To pair the BMC-2HD with a given remote hold the *Menu (Mute)* and *Right* buttons for more than 5 seconds while pointing at the active IR-receiver. The BMC-2HD will acknowledge by lighting the *ADAT* button for 2 seconds – and will then respond only to the used remote. Of course other units should be prevented from seeing the IR signal while pairing (turn them off).

#### **Un-pairing**

A BMC-2HD can be un-paired (with any remote) by holding the *Menu (Mute)* and *Left* buttons for more than 5 seconds while pointing at the active IR-receiver. The BMC-2HD will acknowledge by lighting flashing the *ADAT* button (two short and one long flash).

An unpaired BMC-2HD will respond to *any* Apple remote, disregarding its ID.

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<sup>1</sup> The Apple remotes transmit an “ID”, making it possible to distinguish up to 256 different remotes. If you happen to have two remotes with the same ID, the ID can be changed by holding *Menu (Mute)* and *Play* keys for more than 5 seconds.

## 1.2. Remote Use

### Wake from Stand-by

A press on the *Menu (Mute)* button of the remote will wake the BMC-2HD from the stand-by state<sup>2</sup>. The stand-by state can not be entered from the remote; we recommend turning off the BMC-2 by removing power from the external power supply to eliminate stand-by power consumption.

### Controlling Volume

The volume can be controlled by the *Up* and *Down* buttons of the remote. A short press will change the volume a bit – holding the button will continuously keep turning the volume up or down.

Please note that the remote volume control function works in conjunction with the physical volume button of the BMC-2HD: It will vary the volume from zero up to the level set by the volume knob<sup>3</sup>.

### Selecting Digital Input

The *Left* button of the remote will select the S/PDIF (coaxial) input.

The *Right* button of the remote will select the TOSLINK (optical) input.

### Muting

The *Menu (Mute)* button will toggle the Cut switch on the BMC-2HD – effectively muting the output.

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<sup>2</sup> The standby state is entered by holding the *Cut* button for ~2 seconds.

<sup>3</sup> Sound quality will be the same at a given level; disregarding the setting of the physical volume knob.

## 1.3. Remote Notes

### Detecting Low Battery and Changing Battery

When the remote is low on battery this will be indicated by the *ADAT* button flashing fast 5 times (or more) each time a button press on the remote is detected.

The battery used (disregarding the remote type) is a 3V CR2032 lithium coin cell. The battery of the plastic remote is accessed by pressing the small button on the bottom panel: The battery holder will then pop out. The battery of the aluminium remote can be accessed by turning the battery lid on the back side of the remote towards the “O” (i.e. using a coin).

### Volume at Power Up

The *BMC-2HD* will start up with the last *stored* volume level.

When the volume has not been changed with the remote for 1 minute the current volume level is stored in non-volatile memory. Thus, if the *BMC-2 HD* is powered down earlier than 1 minute after a (series) of volume changes, it will start with the last stored level.

### Setting Maximum Volume without an Remote

Should the nasty thing happen that the remote disappears with the volume turned way down: No need to panic! The remote volume can be set to maximum simply by holding down the *Cut* button of the *BMC-2HD* down for more than 3 seconds (the *BMC-2HD* will power off after ~2 seconds). When the command is accepted the *ADAT* button will flash slowly 10 times before the remote volume is set to max. It's strongly advised to turn the physical volume button down to near zero before performing this procedure to avoid surprises...

### Dim button

The analogue circuitry that used to handle the *Dim* function was degrading sound and has been bypassed in the *BMC-2HD*. Thus, the *DIM* button has no function in the analogue path – although the LED of the button can still be toggled on and off.

### 1.4. Remote Layout

Below are shown two compatible Apple infrared remote controls with their original markings (the left instance) and the BMC-2HD functionality (the right instance). The play button has no function in the BMC-2HD application.

