### Manual for **brinkmann** Integrated Amplifier

#### Design :

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#### Legal Regulation of the European Community :

This amplifier had been designed and testet according to the guidelines EN55013 and EN55020, it meets the safety requirements of IEC60065.

<u>Optional digital-analogue-converter</u>: When not connected properly, the operation of the DA-converter can emit frequencies that might affect the radio or television reception. The amplifier works according to the FCC guidelines point J, paragraph 15 for computers of class B.

#### **Informations for Safety :**

This amplifier is <u>only</u> allowed for 110-120V, 50-60Hz alternating current unless otherwise stated on bottom of the unit.

Please connect or disconnect <u>only</u> when the amplifier is not connected to the mains. The amplifier is <u>not</u> switched off in the stand-by modus !

# ATTENTION ! The loudspeaker-outputs are not short curcuit proof when the amplifier is switched on.

Always disconnect the amplifier from the mains when it is not used for a longer period of time (during holidays etc.)!

Never lift or remove the glass plate while the amplifier is connected to the mains ! <u>ATTENTION ! Dangerous voltages inside !</u>

Always keep the amplifier away from wet, heat and open fire !

The amplifier can be cleaned with a dry cloth and brush, wet cleaning can cause damages !

Repairs, modifications etc. are only to be carried out by the company **brinkmann** itself or by specially authorized workshops.



#### **Technical Information :**

The **brinkmann** Integrated amplifier impresses with its puristic design, featuring only the minimum of control elements. The control panel includes left hand a headphone plug-in, the input selector, in the middle a LED indicating operation, right hand the volume control and a stand-by push button. The operations are to be made directly at the amplifier, volume and stand-by may also be driven via remote control.

The buffer stage for the tape recording output "rec" always carries the signal of the choosen input.

The current consumption of the amplifier is reduced while in the stand by mode ; the amplifier should be taken from the mains when it is not in use for a certain time.

#### Remote Control :

The purchase of the Integrated amplifier includes the remote control. It features three push buttons for the functions (left to right) **volume down, mute** and **volume up,** for the volume and stand by (mute).

The sensor for the remote control is located under the glass plate in the front of the amplifier; for an impeccable function of the sensor it is essential to keep the glass plate clear of objects or immediately adjacent shelves etc. on top of the amplifier.

To change batteries, please unscrew the remote control at its back side, pull out the battery compartment and replace the empty batteries by two new ones of the type AA according to the illustration in the compartment. Please push the battery compartment completely back into the remote control until the cover can be closed again easily.

>Used batteries are not to be thrown into household waste but be disposed at special waste utilisation plants or collecting points according to the possibilities of the country in question.<

#### Inputs and Outputs :

The amplifier features : four linear inputs, two optional digital inputs, a record output, a loudspeaker output for each channel, a headphone output at the front panel



#### Adjustments :

The input selector switches the linear as well as the digital inputs. The selected input is indicated from top through the glass plate at the rim of the selector switch. By pushing the button "ein" the amplifier is in "stand-by" or the inputs and outputs are cleared. While the amplifier is in the "stand-by" mode (mute) the headphone output is active.

A DAC-modul is optionally available, this makes the amplifier a digital device. The current to voltage stage is made with a small tube for best sonic results. The digital signals of CD-players, DAT-recorders or digital radio tuners can have sample-frequencies of 32.....48 kHz, the DAC-modul is automatically self-adjusting to the input-frequencies. The two digital-inputs are switched electronically. When a signal reaches dig 1, the tube of the output is heated independently from the chosen input of the amplifier. So the tube with dig 1 can be warmed up by switching on a source of digital signals, while an other input is working.

#### <u>Setup :</u>

First all needed inputs and outputs should be plugged in, and the integrated amplifier connected to the loudspeaker before this is connected to the mains. Be careful not to create a short circuit, because a (lasting) short circuit can lead to damages in the amplifier or the loudspeakers.

In order to connect the amplifier to the mains, it has to be plugged into a mains-socket or a multiple plug with double poled power switch.

The mains-plug of the powercord has a red mark at one side, the pole of this side should be connected to the phase of the mains to get the best sound quality.

After the integrated amplifier is connected to the mains, the inputs and outputs are switched on after about 2 minutes (the LED at the front panel starts to glow). The headphone output is activated when the LED is off by switching the "on" button.

The headphone requires a usual 1/4 inch connector. The resistance of the headphone should be 200 Ohms or higher.

The amplifer should be placed as far away as possible from magnetic fields (humming).

All stages of the amplifier are DC-coupled, so it is important that the inputs are not loaded with DC, a typical small amount of DC is nulled by a DC-servo-regulator.

The knobs of the loudspeaker terminals can be removed completely and the connection of 4mm-"banana"-plugs is possible. Please do not use open litz wires as this could cause a short circuit to the outputs.

For best sonic results the outputs are not short circuit proof and the load resistance should be 3 Ohms or higher.

#### some technical details :

power output both channels driven :	load 4 / 8 Ohms	100 / 70 W
minimum load :		3 Ohms
damping factor	load 8 Ohms	65
distortion :	half power	0.1 %
input sensitivity and resistance :	line input	400mV / 20kOhm
input sensitivity and resistance :	digital input	0.5Vss / 75 Ohms
conversion format DAC :		18bit /8fs
power consumption stand-by :		50 Watts
power consumption full power :	load 8 Ohms	240 Watts

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