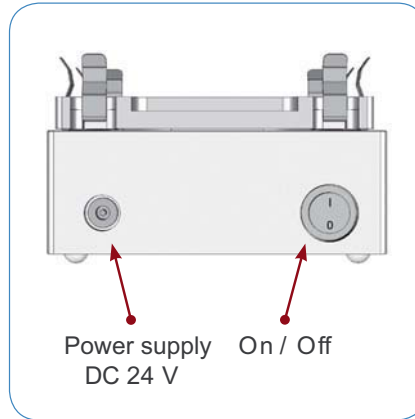
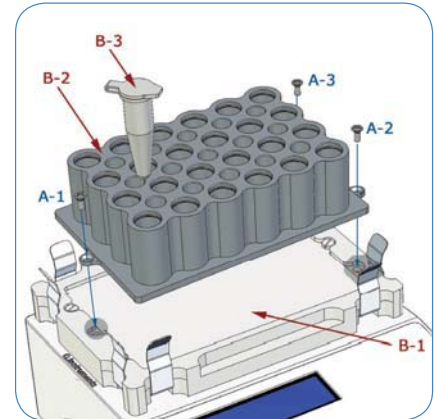


## BioShake iQ Quick Start Guide



\*Note - You must remove the thin adapter plate protecting B-1 before installing the block (B-2)



Display 1. line - Target Values  
Display 2. line - Actual Values

TIME	MIXING SPEED	TEMPERATURE
[min/ sec]	[rpm]	[°C]
10m	3000	65.0
7m	2980	65.1

Short Mix Button

Time Cursor, Mix Cursor, Temperature Cursor, Program Buttons (P 1, P 2), Start/Stop Button, Short Mix Button

### SHORT MIX FUNCTION

1. Set mixing speed



2. Press button



### STANDARD FUNCTIONS

Feature	Change value	Start	Stop
Time			
Mixing speed			
Temperature			




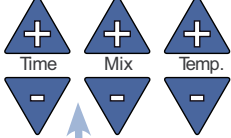


Sir Isaac Newton (anno 1687)

$$\omega = 2\pi f$$






$$F = m\omega^2 r$$

Angular frequency  $\omega$ , orbital mixing radius  $r$  and centripetal force  $F$  are important values for efficient mixing.

## PROGRAMMING P1 and P2

STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6	STEP 7
To Start press P1 (or P2)  and hold for at least 2 sec.	Delete program Yes / No ?  Change values with the cursors!	Short press P1 (or P2) 	Change values with the cursors as for progr. step I 	Short press P1 (or P2)  to go forward to the next program step	Repeat STEP 4-5 for program step II and step III	To End press P1 (or P2)  and hold for at least 2 sec.

## TO RUN THE PROGRAM

Program P1 (or P2)	activated	START	STOP		deactivate
Short press P1 (or P2) 		Short press 	Short press 	or If you do not press Start/ Stop, the program will stop, when it is finished.	Short press P1 (or P2) 

## RECOMMENDED MIXING SPEEDS

For MICROPLATES depending on filling volume/well [%] for diluted fluids

Filling volume	96-well (standard)	384-well (standard)	384-well (small-vol.)	1536-well (standard)
10 %	1800 - 2200 rpm	2200 - 2600 rpm	2800 - 3000	2800 - 3000
25 %	1600 - 2000 rpm	2000 - 2400 rpm	2400 - 3000	2600 - 3000
50 %	1400 - 1800 rpm	1800 - 2200 rpm	2200 - 2600	2400 - 2600
75 %	1200 - 1600 rpm	1600 - 2000 rpm	2000 - 2400	2200 - 2600

For TUBES depending on filling volume/well [%] for diluted fluids

Filling volume	0.2 ml tubes	0.5 ml tubes	1.5 ml tubes	2.0 ml tubes
25 %	1400 - 1800 rpm	1200 - 1600 rpm	1000 - 1300	1000 - 1300
50 %	1200 - 1500 rpm	1100 - 1300 rpm	1000 - 1200	900 - 1200
75 %	1000 - 1300 rpm	1000 - 1200 rpm	900 - 1100	900 - 1100

## SAFETY

### IMPORTANT NOTES:



- Do not operate the device in rooms where work is being carried out with explosive substances.
- Do not use this device to process any explosive, radioactive or highly reactive substances.
- Do not use this device to process any substances, which could create an explosive atmosphere.
- Danger! Electric shock from damage to device/power cable. Danger! Lethal voltages inside the device.
- Warning! General hazard point.
- Warning! Injury from rapidly rotating holder. Injury from rapidly rotating imbalance compensation. Injury from flying tubes and plates.
- Warning! Injury from sample material being flung out. Injury from incorrect vortexing.
- Warning! Damage due to incorrect power supply.
- Caution! Damage to the display from mechanical pressure. Severe vibration.
- Caution! Damage to electronic components caused by spilled liquids. Damage to electronic components from condensation.
- Caution! Poor safety due to missing operating manual. Caution when using aggressive chemicals.
- Please start even with minimal mixing frequencies to avoid overloading.
- Only mix in sealed tubes and plates. Sample material can be flung out of open, inadequately sealed or unstable tubes and plates.
- When working with hazardous, toxic and pathogenic samples, always comply with the nationally specified safety environment.
- Pay particular attention to personal safety gear (gloves, clothing, glasses etc., the extraction hood and the safety class of the laboratory).