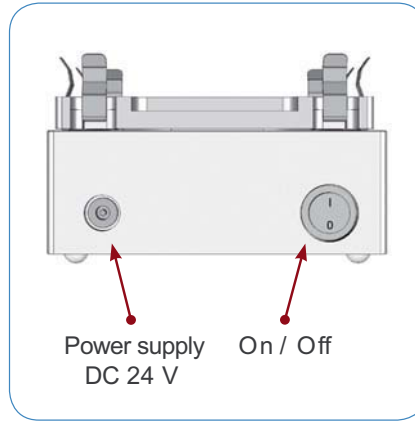
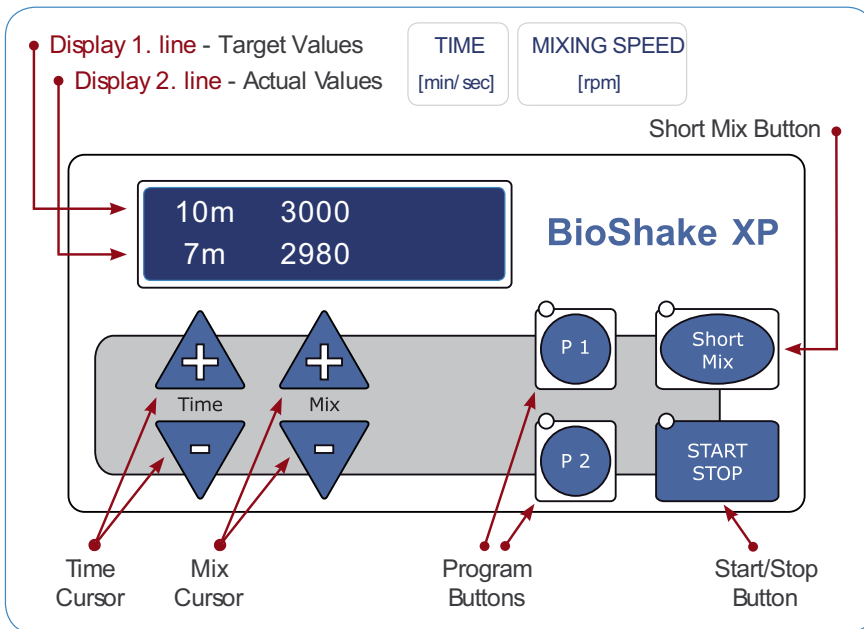
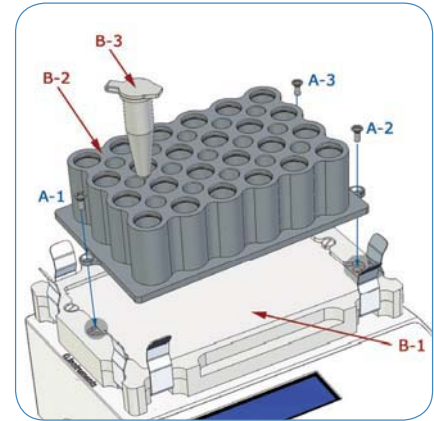


## BioShake XP Quick Start Guide



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



### SHORT MIX FUNCTION

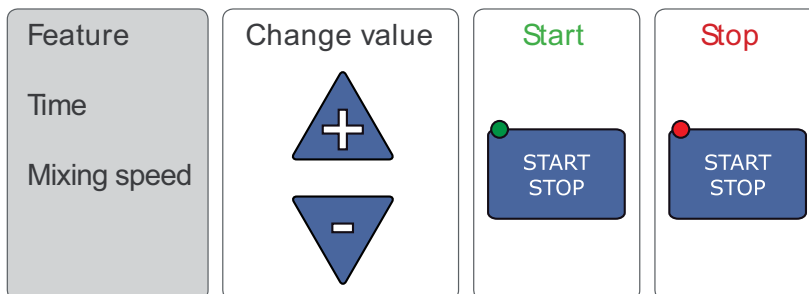
1. Set mixing speed



2. Press button



### STANDARD FUNCTIONS






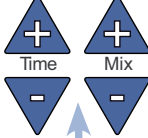



Sir Isaac Newton (anno 1687)

$$\omega = 2\pi f$$






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

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)	Delete program Yes / No ?	Short press P1 (or P2)	Change values with the cursors as for progr. step I	Short press P1 (or P2)	Repeat STEP 4-5 for program step II and step III	To End press P1 (or P2)
	 Change values with the cursors!			 to go forward to the next program step		 and hold for at least 2 sec.
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 	Short press P1 (or P2)
			or	
			If you do not press Start/ Stop, the program will stop, when it is finished.	

## 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! Floor 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).