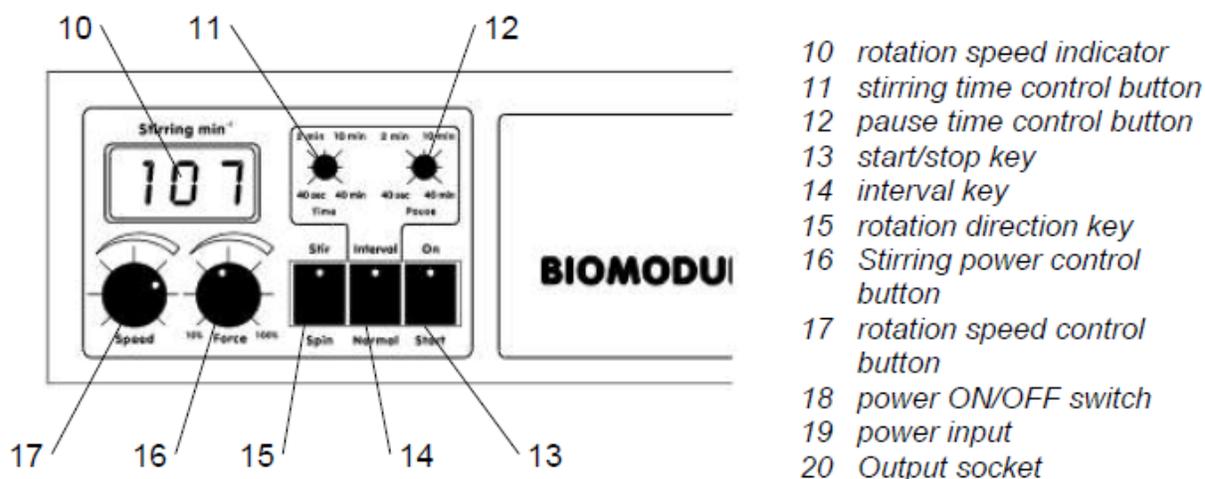


Remote-controlled BIOSYSTEM



Remote-controlled BIOSYSTEM:

The control cable (7) connects the magnetic stirrer (5) with the control unit (9) BIOMODUL 40 B. The magnetic stirrer (5) is supplied with power and controlled via the control unit (9). It is connected to the mains supply with the power cable (8). The control unit (9) BIOMODUL 40 B has all the controls necessary for an effective stirring operation:

- rotation speed control button (17) with digital rotation speed indicator (10)
- power adapted to the stirring task
- reversal of rotation direction
- continuous and interval operation

The stirring process is always started slowly and stopped slowly. The power ON/OFF switch (18) for the control unit (9) BIOMODUL 40 B is located at the back of the unit. The control unit (9) can drive up to two magnetic stirrers (5) simultaneously. Two output sockets (20) are provided for this purpose at the back of the unit. The upper output socket (20) is always used first. A separate power supply for both equipment types ensures a safe low voltage situation at the magnetic stirrer (5). Following a power failure, the magnetic stirrer (5) will come on again automatically. Drive and electronic control system are inside the polished stainless steel housing of the magnetic stirrer (5), which is completely watertight. This prevents germs from penetrating into the inside of the magnetic stirrer (5). The magnetic stirrer (5) is cleared for use in safety laboratories and sterile rooms. Stirring vessel (2) and stirring device (1) do not fall within the scope of delivery.

Remote-controlled BIOSYSTEM:

The rotation speed is adjusted using the rotation speed control button (17) and displayed on the rotation speed indicator (10). You may choose between continuous stirring and interval operation. For interval operation, set the required stirring and pause times on the control unit (9). The rotation speed is reduced slowly at the end of every stirring period, and increased slowly at the end of every pause. You can use the rotation direction key (15) to maintain or reverse the direction of rotation after every pause. Use the stirring power control button (16) to match the stirring power to the stirring task in hand. This will keep the heat emitted to the stirred medium to a minimum. Heat emission can also be reduced by working in the interval mode. To stop and restart the stirring device (1), the control unit (9) is fitted with a start/stop key (13). The rotation speed is slowly reduced, and then slowly increased again.

Remote-controlled BIOSYSTEM:

- Switch the power ON/OFF switch (18) at the back of the control unit (9) to position OFF.
- Connect the control cable (7) to the upper output socket (20) at the back of the control unit (9).

When connecting a second magnetic stirrer:

- Connect the control cable (7) of the second magnetic stirrer (5) to the lower output socket (20) at the back of the control unit (9).
- Connect the power cable (8) to the power input (19) on the control unit (9) and into the mains socket.
- If a germ-free environment

Remote-controlled BIOSYSTEM:

- Fill the stirring vessel (2) and center it onto the stirring point.
- Suspend the stirring device (1) into the stirring vessel (2).
- Switch on the control unit (9) with the power ON/OFF switch (18). The green LED display in the start/stop key (13) will light up.
- Push the start/stop key (13) twice, and hold it down.

Now set the desired rotation speed with the rotation speed control button (17). The set rotation speed is immediately displayed on the digital rotation speed indicator (10).

Continuous operation:

- Lock the interval key (14) to position NORMAL. The yellow LED display in the interval key (14) will not light up.

Interval operation:

- Lock the interval key (14) to position INTERVAL. The yellow LED display in the interval key (14) will light up.
- Set the desired stirring time with the stirring time control button (11).
- Set the desired pause time with the pause time control button (12).

The rotation speed is reduced slowly at the end of every stirring period, and increased slowly at the end of every pause. You can choose to maintain or reverse the direction of rotation after every stirring interval.

- If you want to reverse the direction of rotation, lock the rotation direction key (15) to position STIR. The yellow LED display in the rotation direction key (15) will light up.
- If you do not want to reverse the direction of rotation, lock the rotation direction key (15) to position SPIN. The yellow LED display in the rotation direction key (15) will not light up.

Power adaptation:

CAUTION: At high speeds of the magnetic stirring, too high power setting can lead to overheating of the stirred material.

- **High** stirring power for large stirring volumes, high rotation speed, viscous mediums, and when several stirring drives are driven simultaneously,
- **Low** stirring power for small stirring volumes, low rotation speed, mediums resembling water, and when there is a requirement for heating the standing surface, or heat emission in the incubator.
 - Set the desired stirring power with the stirring power control button (16).
 - Take care to note the turning motion of the stirring device (1). It should turn evenly and smoothly without jerking.

Manual stop and stirring restart:

- Hold down the start/stop key (13). The rotation speed will be slowly reduced to zero.
- Release the start/stop key (13). The rotation speed will be slowly increased to the preselected rotation speed.

If you want to terminate the stirring process:

- Switch off the control unit (9) using the power ON/OFF switch (18).