



**ALGE-TIMING**

**Startmaschine ST-BSM1**

**ALGE**  
**TIMING**

Version: E-090203

## 1 General Information

For many disciplines in track cycling a starter is necessary. With the starter you can fasten and lock the race bike. With the start impulse the start machine unlocks the cyclist and he can start into the race.

**The start machine is used for the following events:**

- 500 meter
- 1 kilometer
- team speed
- individual pursuit
- team pursuit

**The ST-BSM1 is a variable adjustable pneumatic start machine (with compressor) that meets the highest requirements for all levels of track cycling:**

- start output (banana sockets)
- start input (banana sockets)
- connection for compressor
- meter for compressed air
- push button for back wheel holder - closing
- push button for back wheel holder - opening
- push button for saddle holder - closing
- push button for saddle holder - opening
- push button for back wheel stand
- 2 x operation switch
- fixing point for back wheel
- fixing point for saddle
- back wheel stand
- internal 12V rechargeable battery with integrated charger
- adjustable level for track slope



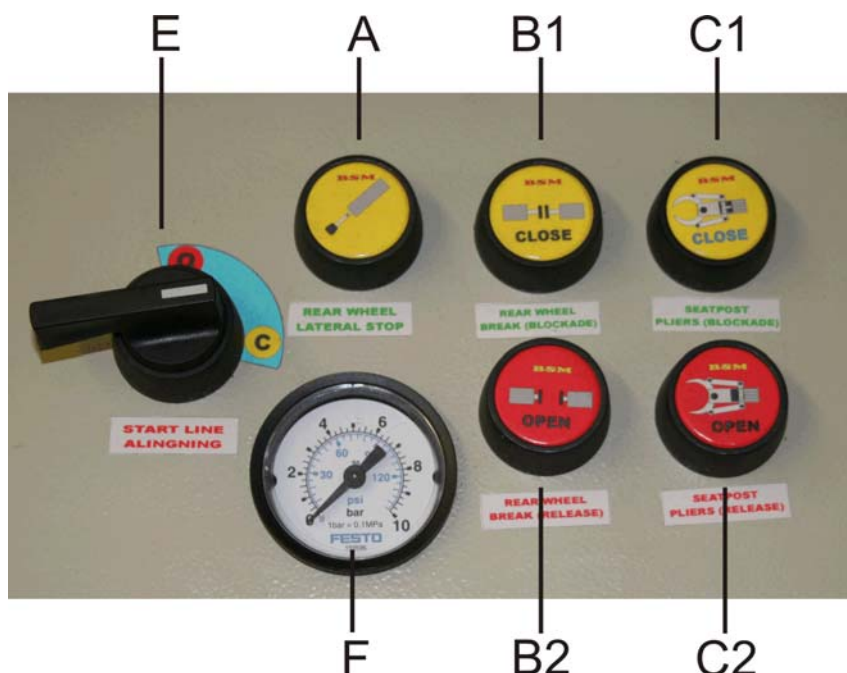
Compressor



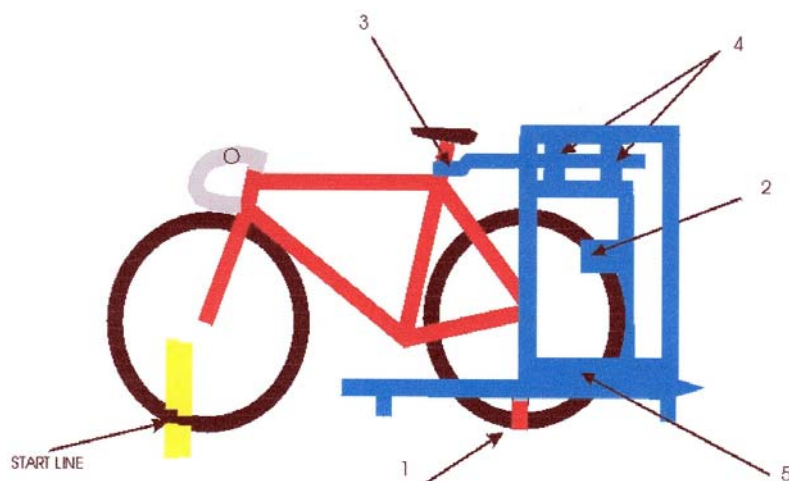
## 2 Operation

The ST-BSM1 is designed to use with the **ALGE-TIMING** Cyclestart System. Nevertheless, it can also be controlled with any other starting-device which is using a closing contact.

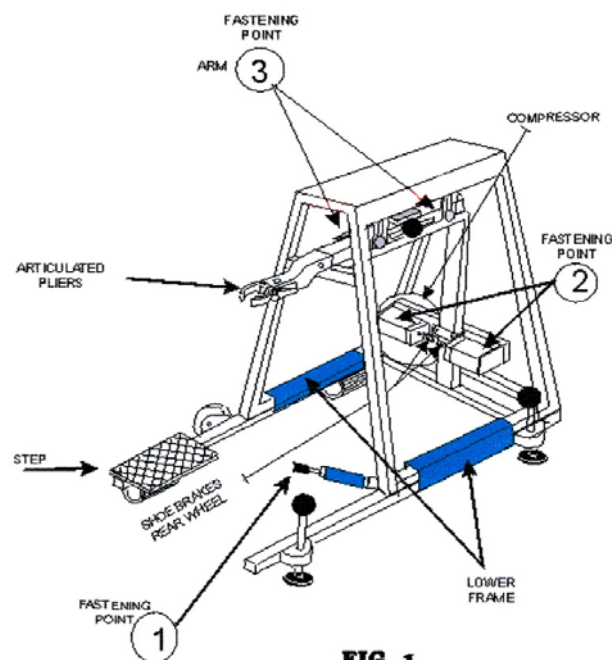
The main advantage of the T-BSM1 starter is that it keeps the bicycle fastened by those three points that are more applicable for its safety. We have illustrated these points in fig. 1 and 2.



Two frames form the starter's main body. While the lower one is firm, the upper one can slide along, so we can place different bicycle sizes without further adjustments of the starter.



**FIG. 2**  
FASTENING POINTS - LATERAL VIEW

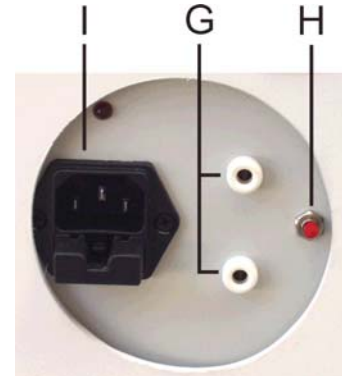


**FIG. 1**

1. By means of a pneumatic cylinder, a lateral stop is set to avoid that the rear wheel slides if the racer moves. This cylinder is situated at the bottom of the wheel. We name it fastening point 1. It is controlled with yellow button A.
2. Two pneumatic cylinders, with a non-turning piston each, fix the rear wheel by means of two brake shoes. We call it fastening point 2. It is placed at 120° from fastening point 1. The two buttons B control this fastening point: the yellow B1 blocks the system and the red B2 releases it, e.g. in case that pedals or connecting rods are not in a correct position. Also, those cylinders can reduce the width to adjust the different rim thick and the height for 26" and 28" wheels.
3. An arm fastens the bicycle's upper part, equipped with articulated pliers that fasten the seat post. This is the fastening point 3. Button D releases and blocks the arm, so

we can adjust it for different bicycle sizes in height. Yellow button C1 opens the pliers and red button C2 closes them.

4. Button E releases and blocks the upper frame and lets us align the bicycle towards the start line.
5. The Manometer F shows the pressure. It should have always above 4 bar so the system works.
6. On one side of the cycle start machine are two white banana sockets G. Connect here the start line that gives the opening command. The red push button H is to test the start machine (to open simulate a start manually).



### 3 Charging

The ST-BSM1 has an integrated rechargeable battery which has to be charged at least 14 hours. A charger is built into the start machine, so you have to connect only the power cable at the power socket I and at the mains.

The starter can then be used for more than 10,000 starts or for 5 competition days without recharging the battery.



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