ALGE-TIMING

Version: V140116

Timy 2

Manual Jumping

Important Information

General

Before using your ALGE-TIMING device read the complete manual carefully. It is part of the device and contains important information about installation, safety and its intended use. This manual cannot cover all conceivable applications. For further information or in case of problems that are mentioned not at all or not sufficiently detailed, please contact your ALGE-TIMING representative. You can find contact details on our homepage www.alge-timing.com

Safety

Apart from the information of this manual all general safety and accident prevention regulations of the legislator must be taken into account.
The device must only be used by trained persons. The setting-up and installation must only be executed according to the manufacturer's data.

Intended Use

The device must only be used for its intended applications. Technical modifications and any misuse are prohibited because of the risks involved! ALGE-TIMING is not liable for damages that are caused by improper use or incorrect operation.

Power supply

The stated voltage on the type plate must correspond to voltage of the power source. Check all connections and plugs before usage. Damaged connection wires must be replaced immediately by an authorized electrician. The device must only be connected to an electric supply that has been installed by an electrician according to IEC 60364-1. Never touch the mains plug with wet hands! Never touch live parts!

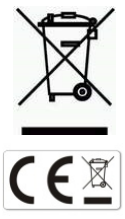
Cleaning

Please clean the outside of the device only with a smooth cloth. Detergents can cause damage. Never submerge in water, never open or clean with wet cloth. The cleaning must not be carried out by hose or high-pressure (risk of short circuits or other damage).

Liability Limitations

All technical information, data and information for installation and operation correspond to the latest status at time of printing and are made in all conscience considering our past experience and knowledge. Information, pictures and description do not entitle to base any claims. The manufacturer is not liable for damage due to failure to observe the manual, improper use, incorrect repairs, technical modifications, use of unauthorized spare parts. Translations are made in all conscience. We assume no liability for translation mistakes, even if the translation is carried out by us or on our behalf.

Disposal



If a label is placed on the device showing a crossed out dustbin on wheels (see drawing), the European directive 2002/96/EG applies for this device.
Please get informed about the applicable regulations for separate collection of electrical and electronical waste in your country and do not dispose of the old devices as household waste. Correct disposal of old equipment protects the environment and humans against negative consequences!

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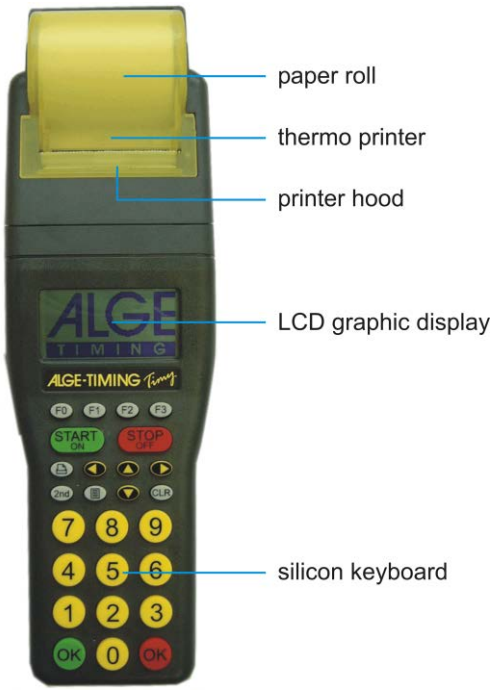
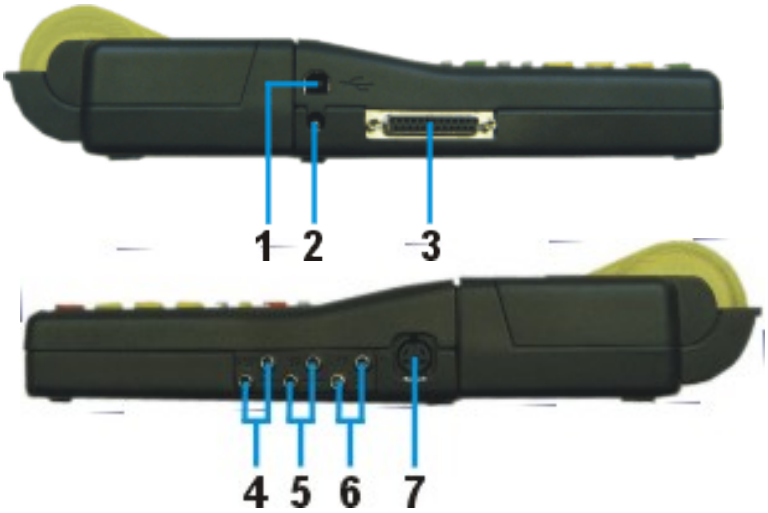
1 Control Elementes





1.....USB-interface
2.....Charging socket
3.....ALGE multiport
4.....Connection for displayboard
5.....Connection for start emitter (C0)
6.....Connection for finish emitter (C1)
7.....Standard ALGE photocell socket

2 Gerneral

The program jumping is a program to do certain training test with jumping. For this test you need a contact mat (e.g. ALGE contact mat CM40x30 (see bleow)). We can also offer bigger contact mats on request.

The time from leaving the mat until landing on the mat is measured by the timing device Timy. From the measured “time in the air” the timing device is calculating the height of the jump.

3 Select Program Jumping

The Timy program "JUMPING" measures the height of the jump when using a contact mat. The contact mat is connected to channel 0 (C0) of at the Timy.

- Connect the contact mat at the Timy (channel C0)
- Start the Timy and select program Jumping
- Select the jumping mode with the function button <F0>, <F1>, <F2>, <F3>
  - o <F0> select further jumping modes
  - o <F1> <F2> <F3> : select the mode that is specified above

4 Jumping Modes

You can select between the following jumping modes:

- Squat
- Count
- Drop
- Pow15
- Pow30
- Pos60

4.1 Squat Jump

The Squat Jump is a used in sports science for jump analysis to test the pure concentric force jump ability of muscles (a backswing is not allowed).

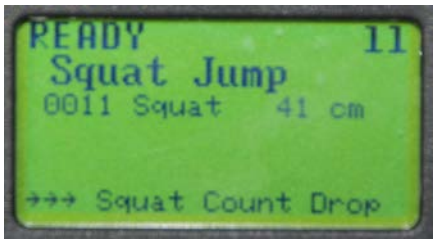
The jump is executed from a squatting position standing on a contact mat. The arms parallel to the body and should not be actively involved during the movement. The goal is to jump as high as possible and to land again on the contact mat. As a performance index of the jump the height is measured.

- Select with <F1> the software “Squat”
- The display shows “NOT READY, Squat Jump”
- Input a ID-number for the athlete and confirm it with key <OK>
- Display shows “WAITING FOR JUMPER …”
- Jumper steps on contact mat. Upper and lower leg has in a 90 degree angle. Hands on the hips.
- Athlete jumps as high as he can.
- The Timy measures the time that the athlete is in the air and outputs the height in cm

Printer Output:

```
0002 C0     12:45:22.1706
     Squat     0.4435 fly
     Squat          24 cm
```

Time of day when jump happens
time in the air
jumping height



Display:

The display shows the 11th Jump of program Squat. The jump was 41 cm high!

4.2 Counter Movement Jump

The counter movement jump is used in sports science for jump analysis. It helps to test the ability of concentric force jump muscles (a backswing (down) is allowed). The measurement is the same as for Squat Jump, but the movement of the athlete is different.

Normally, the jump is in this case designed from the base position standing on a contact mat; the arms are placed on the hips and should not be involved in the backswing. The goal is to jump as high as possible and land again on the contact mat. As a performance index of the jump the height is measured.

- Athlete starts ON THE MAT.
- Athlete may go deeper with using his arms to support the jump.
- Timy measures the fly time.

4.3 Drop Jump

The Drop Jump is a used in sports science to Jump jump analysis. It helps to test the force capability, including the reactive power capability of the jump muscles.

Normally, the jump is executed of a defined height (approx. 30 cm), the arms are parallel to the body and have no active part in the movement. The athlete jumps on the ground (contact mat) and then tries to jump as high as possible and lands again on the contact mat. As a performance index of the jump the height is measured.

- Athlete starts on a socket OFF THE MAT and jumps down on the mat.
- Timy measures the contact time and the fly time.

Printer Output:

`0003 C0 13:41:02.1706`	Time of day when jump happens
`Drop 0.3483 con`	time on the mat
`Drop 0.5134 fly`	time in the air
`Drop 32 cm`	jumping height

4.4 Power Test 15s, 30s and 60s

It measures how many jumps you can do in a certain period and it outputs on the printer for each jump the time on the mat, the time in the air and the jump height.

- Athlete starts ON THE MAT and jumps as often as he can until the interval is elapsed.
- Timy measures the fly time and the contact time between each jump.

Printer Output:

`0005 C0 13:53:11.1796`	Time of day when jump happens
`1 Pow15 0.5134 fly`	1st Jump, Power Test for 15 sec., time in the air
`1 Pow15 32 cm`	1st Jump, Power Test for 15 sec., jumping height
`2 Pow15 0.3572 con`	2nd Jump, Power Test for 15 sec., time on the mat
`2 Pow15 0.6208 fly`	2nd Jump, Power Test for 15 sec., time in the air
`2 Pow15 47 cm`	2nd Jump, Power Test for 15 sec., jumping height
`3 Pow15 0.3572 con`	3rd Jump, Power Test for 15 sec., time on the mat
`3 Pow15 0.6079 fly`	3rd Jump, Power Test for 15 sec., time in the air
`3 Pow15 45 cm`	3rd Jump, Power Test for 15 sec., jumping height

5 Interface for display board

Output format: 1 start-bit, 8 data-bit, no parity-bit, 1 stop-bit
Bit rate: factory setting: 9600 baud (necessary for ALGE GAZ display board)
2400, 4800, 9600, 19200, 28800, 38400
Transmission protocol: ASCII

Each lane ends with a carriage return (CR)

Output by RS232 for Power Test 15 Seconds:

```
123456789012345678901234567890123456 Character Counter
 0008 C0  16:04:13,1768 00
 0008 Pow15  0,4736 fly 01
 0008 Pow15     028 cm  01
 0008 Pow15  0,9523 con 01
 0008 Pow15  0,5084 fly 02
 0008 Pow15     032 cm  02
 0008 Pow15  0,9761 con 02
 0008 Pow15  0,4564 fly 03
 0008 Pow15     026 cm  03
 0008 Pow15  0,9664 con 03
 0008 Pow15  0,5540 fly 04
 0008 Pow15     038 cm  04
 0008 Pow15  1,0316 con 04
 0008 Pow15  0,5353 fly 05
 0008 Pow15     035 cm  05
 0008 Pow15  1,1512 con 05
 0008 Pow15  0,5945 fly 06
 0008 Pow15     043 cm  06
 0008 Pow15  1,1634 con 06
 0008 Pow15  0,4892 fly 07
 0008 Pow15     029 cm  07
 0008 Pow15  1,0877 con 07
 0008 Pow15  0,5328 fly 08
 0008 Pow15     035 cm  08
 0008 Pow15  1,1974 con 08
 0008 Pow15  0,5273 fly 09
 0008 Pow15     034 cm  09
 0008 Pow15  1,2228 con 09
 0008 Pow15  0,4756 fly 10
 0008 Pow15     028 cm  10
```

Each lane ends with a carriage return (CR)

Subject to changes

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