FiTRONiC

FiTRODyne Peak Power
LED

User Manual

1. Description, components and technical parameters

FiTROdyne Peak Power LED is used to measure the average and maximum velocity, average and maximum power from concentric phase of weight exercise. It consists of a velocity sensor and display unit.

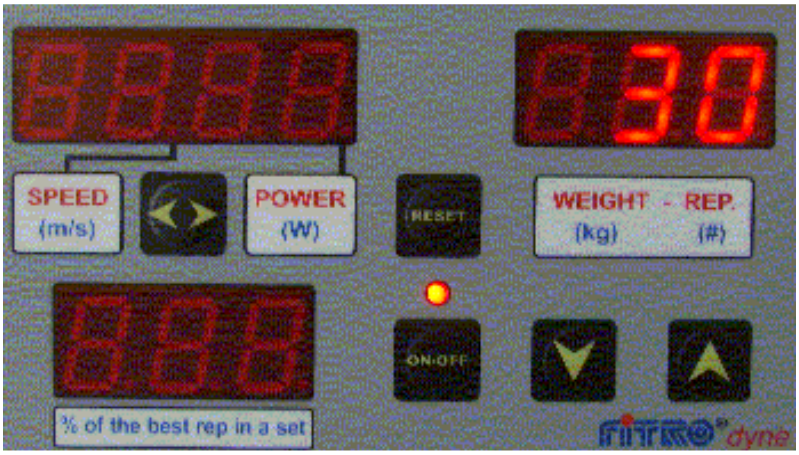
Possible extension is a PC USB port interface and special software, which allows transfer, storage and also parallel measurement on a computer.

Four AA batteries are needed to operate this device. Rechargeable AA batteries can be also used. Battery status can be assessed by the brightness of the display. If the display does not light at all after turning on the device by pressing ON-OFF button, then it is necessary to change the batteries. When inserting new (charged) batteries, one has the polarity as shown at the bottom of the battery holder.

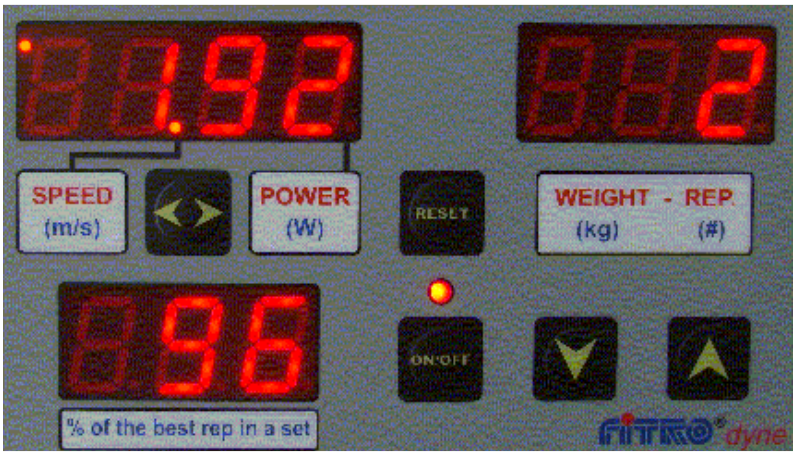
Technical parameters:
- Power supply: 4x AA batteries
- Power consumption: about 120 mA
- The capacity of internal memory: 32kB
- Length of the speed sensor tether: 2.6 m
- Accuracy of the distance measurement: 5.4 mm
- Measurement of average speed: 0 to 5.12 m / s in steps of 0.02 m / s
- Measurement of maximum speed: 0 to 7.65 m / s in steps of 0.03 m / s
- Power measurement: 0-9999 W in increments of 1 W

2. Installation of the device

Velocity sensor tether should be attached by Velcro to the axis of the barbell or stack of weight lifting machine. While positioning the sensor unit one should bear in mind that tether moves in vertical direction. Connect sensor cable to the connector on the display unit. Press **ON** / **OFF** button to turns the device on and off. After turning on the display on the right shows the weight to be lifted. Use ▼ ▲ buttons to set the proper weight.

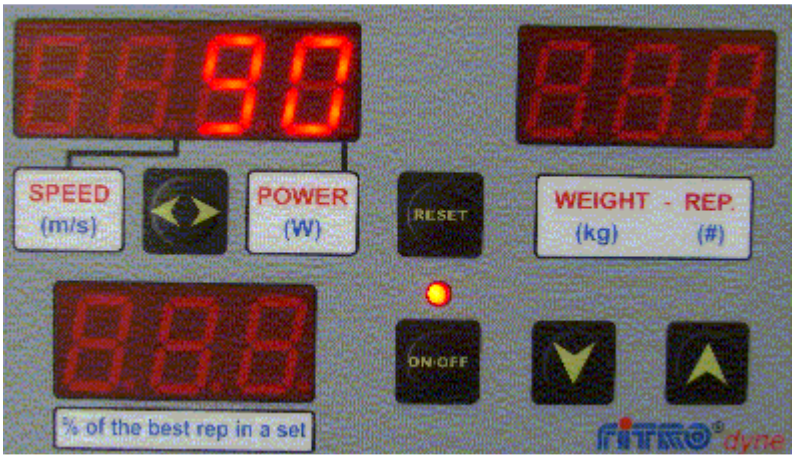


Once the barbell i in start position, pres RESET button. The data masured are displayed automatically after finishing concentric phase of exercise. The top left display shows the mean and peak values of power or speed in the concentric phase. To switch between the parameters (mean speed, peak speed, mean power and peak power) press ◄► button. The position of the decimal point indicates whether the display shows speed or power. The peak values are indicated by a lighted up dot in the upper left corner of the display. The lower display shows the average percentage of the best power in the current set. The right display (where the weight was set) shows the number of repetitions in the series. 99 repetitions can be stored in one series. Should this number be exceeded, the attempt on 99th position will be overwritten.

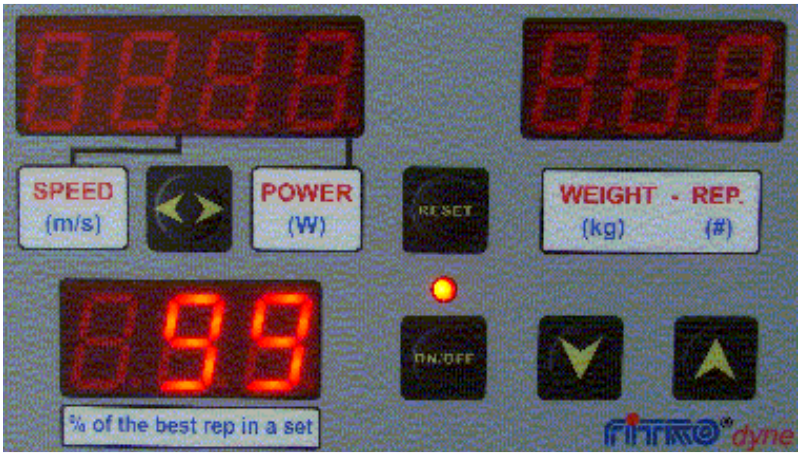


Use ▼ ▲ buttons to go through reps from the current series. RESET button will end up a series and the device will be set to the starting mode expecting new weight to be set. Data from previous set remains stored in the internal memory of display unit, however cannot be displayed. However, they can be transferred to the PC by using the interface.

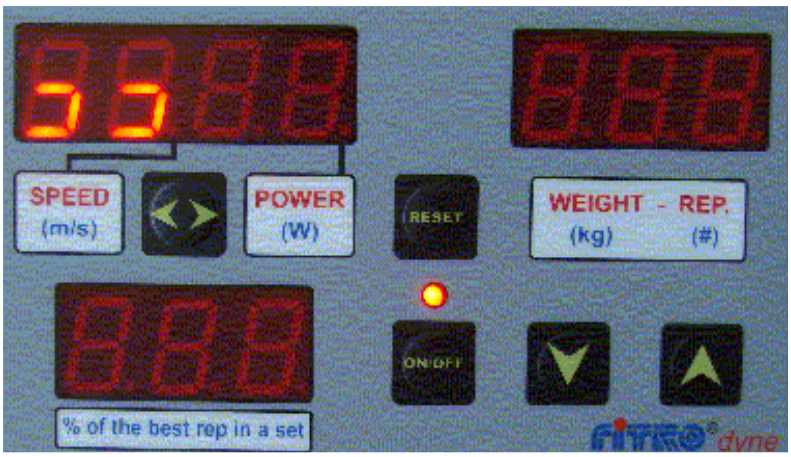
Simultaneous pressing RESET button and one of ▼ ▲ buttons activates the setting mode. One can set the limits (displayed in upper left window) for the sound signal (a beep) that will after each repetition indicate not exceeding selected percent of the power of the best repetition in the current set.



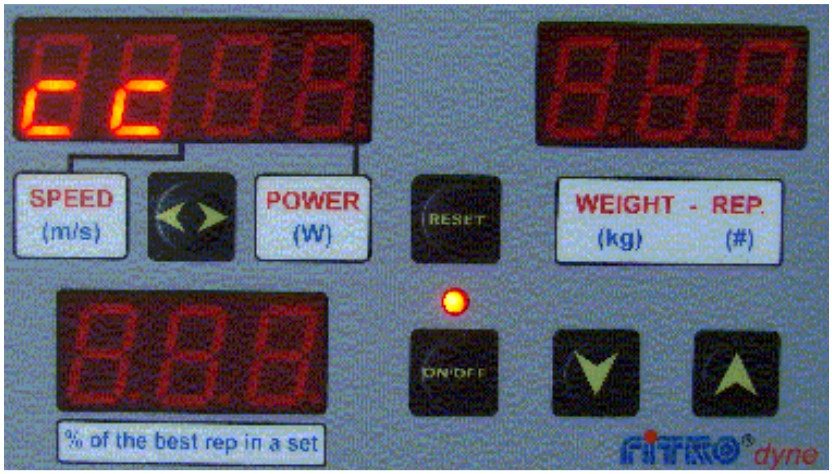
Further pressing of RESET opens the routine in which one can the limit for the sound signal (a double beet) that will occur after each repetition in which the power exceeds the limit. Power above this limit will be indicated by double beep. Setting 99% limit, the double beep will indicate the best value in current set. Setting 100 % limit disables this feature..



Further pressing of RESET opens the **SEND DATA** routine. To send data from the device´s internal memory to your PC through interface one has to press ▲, or enter the weight setting mode by pressing RESET button.



After transferring data from memory to the PC, CC **(clear data**) will show up on the display. For erasing memory you need to press buttons at the same time. If you return to the weight setting mode by pressing RESET data from previous set (sets) will remain the internal memory.



Memory capacity is approximately 8000 inputs. That means for example 80 sets of 100 reps, or 800 sets of 10 reps etc.

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