Sport Expert™

Professional Sport Technologies

MPS-501

MULTI PURPOSE Electronic Integrated SYSTEM - 501

About the MPS - 501

MPS-501 - Multi Purpose Electronic Integrated System - 501.

MPS-501 is an excellent solution for on-line testing and training.

MPS-501 is a highly accurate electronic instrument especially designed for measuring: Running Speed, Jumping Height, Reaction Time, Quickness, Agility, Endurance and Body Composition which includes body weight, height, % fat, LBM and more.

MPS-501 is five different hi-tech instruments in one integrated system working wireless indoor and outdoors. Pay for one and get five!

MPS-501 is a Timesaver

No more paper work and unnecessary questions during the tests! All the data are automatically recorded and stored on-line by using the special MPS-501 software together with the Special (BCSS) Bar-Code-Scanning-System for on-line automatic recognition of any participant in the tests.

Practical and Technological Advantages of MPS-501

Indoor and Outdoor operation

MPS-501 is easy to use indoors as well as outdoors. The system is designed for a standalone operation of at least 48 hours while running on rechargeable batteries.

Wireless operation

Most of the modules are wire-less and communicate with the MCU (Main Control Unit) using a coded radio frequency. Cables are needed only for those modules that are located closely to the MCU and can also be optionally replaced with a wireless communication. The user can configure each telemetric unit's code.

Modularity

Because of the high degree of modularity, MPS-501 can be configured as a complete system, allowing a whole range of tests and measurements, or it may be used as a partial system, using only those components that are relevant for the user. A partial system can be easily extended from a single-function system into a multi-function system or into a complete system.

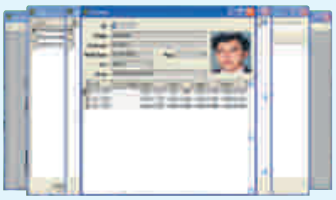
Mobility

All parts of MPS-501 are accurately packed into 3 heavy-duty, weatherproof, aluminum reinforced cases, which are easy to carry. After removal of the equipment from cases, outdoors, the cases can be used as ad-hoc stands or as tables. The cases are light and strong and can be used in all seasons and in any extreme weather conditions.

BCSS – Identification / Recognition feature

MPS-501 uses a special BCSS (Bar-Code-Scanning-System) for automatic recognition of participants during tests. MCU has a standard PS2 input for connecting a hand held barcode scanner. CCD (Charge-Coupled Device) scanners are used. CCD technology is renown in the industry for its durability and easy maintenance. User- friendly computer software allows entry of information about athletes before the tests take place. After definition of athletes has been noted, special barcode labels are printed and attached to the athletes. During the test, the athlete's barcode label is scanned with the barcode reader and identified by MCU. The result is stored and attached automatically to the athlete's file.

MPS-501 Software



Special Software was designed for bi-directional communication between MCU and the PC by using a standard RS-232 cable. This software allows analysis of data collected by the different extensions (instruments) of MPS-501. Other features of the software are graphical presentation of data, statistical analysis, data storage, etc.

Printing the results

MPS-501 is equipped with a compact thermal printer that can be used for creating reports on the field by using a standard 58 mm paper roll. Thermal printers are convenient in operation and do not use a toner.

The MCU (Main Control Unit)

MCU is the actual heart and brain of the system and all the operations of MPS-501 are controlled by the MCU. All modules and Instruments are connected to the MCU. The connectors are all different which helps the user to correctly connect the devices to each other.

Data are transferred for storage from MCU to PC over a standard RS-232 cable. It is not mandatory to have a PC. The MCU console can be used instead of a PC, thus providing all necessary features for basic operation of MPS-501.

The MCU features 4 RISC type processors operating in parallel, which allows an excellent performance of the system. The system can store up to 1500 user (athlete) files in the memory of MCU.

MCU console provides a 128x64 backlit graphics LCD display and a high-quality keyboard. Since most of the elements in the system are wireless, MCU is equipped with a license-free (10 mW) 433-418 MHz radio communications.

In order to allow a fast input of data, MCU provides a port for connection of a barcode reader and a PS2 type keyboard.

MCU has a programmable sound unit, which can produce audible signals as required by the user.

KEYWORDS OF MPS-501,

GENERAL SPECIFICATIONS:

1. Main system - MCU (Main control unit)

a. Microprocessor controlled main system

b. 0.001 sec based main timing unit

c. 128X64 graphics display with backlit

d. Realtime clock for time and date functions with internal battery backup

e. Self battery powered system

f. Sensor for ambient temperature

g. Soft functions keys for easy and user friendly operation

h. High quality membrane switches and front panel

2. Others,

a. High quality tripods for gates, reflectors, sound unit and scoreboards

b. Standart RS232 port

c. Telemetry scorboard data transfer (optional)

d. IRDA com port (optional)

e. Standart software for PC

f. Aliminium reinforced heavy duty carrying cases

g. Standard serial thermal printer (58mm)

Main functions of the MPS-501 are: CHRONO - REACT - TIMER - JUMP - ANTHRO.

CHRONO

TIMING SYSTEM

a. Complete coded telemetry system

b. Each gate can be addressed as START or FINISH

c. Twin IR photocell sensors on each gate for better operation

d. Unlimited number of gates can be used

e. 300 meter range (On sight)

f. All of the units of the system have their own rechargable high capacity batteries

g. 1/1000 sec precision timer

h. 3 modes, Single time , LAP time from start and LAP time from beginning of last lap (Intermediate).

i. Presetable coundown timer from 00:01 to 59:59

j. Sound unit can be activated while countdown timer start or reach 00:00

k. High power sound unit with electronic volume and frequency control

l. STARTING BLOCK SENSOR for measuring reaction time after gun or sound start

m. Hand unit fot external START, STOP or LAP

n. Optional gun start

o. Two 15cm X4 digit electromechanic scoreboards

p. Scoreboards can be adressed individually to display time of day, date, temperature, count down timer, LAP, resulting time etc.

q. Memory for 1500 results

r. Optional telemetry operation of scoreboards

s. Graphics LCD display on main unit for better view

t. Serial thermal printer

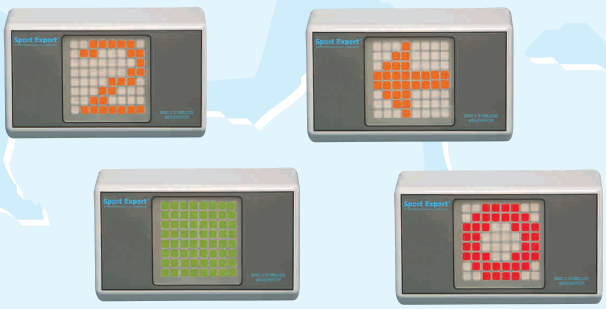
u. AT type keyboard and barcode scanner for text input (Name, surname, age)

v. RS 232 interface

w. Computer program for further analysis of data

REACT

REACTION & AGILITY MEASUREMENT SYSTEM



a. Multi choice audio-video stimulator (Sound, color, shape, number, arrow)

b. 3 audio signals can be programmed to desired frequency volume and duration

c. LED type ultra fast RGB visual stimulus matrix that displays, orange, red and green color also square, triangle and circle shapes, also 1,2 and 3 numbers, left right and up arrows or combination of them.

d. Piezo type zero displacement switches (3 piece) and 1 mechanical switch for measurement of movement time and finger speed test

e. Serial thermal printer

f. AT type keyboard and barcode reader for text input (Name, surname, age)

g. RS 232 interface

TIMER

TEMPO GENARATOR

a. Audio visual programable tempo generator

b. Generates tempo signals at predefined speed and duration at predefined marked intervals on track

c. Factory programmed modes of conconi test, shuttle run (yo-yo) test, etc.

d. Acts like a treadmill on the field

e. 30 user programable memory

f. Each memory has 30 levels that, speed (0.1 to 25.5km/h) and duration (00:01 to 59:59sec) and coni distance (5 to 255 m) can be programmed seperately.

g. 2 scoreboards display total time remaining, total time elapsed, speed run, level run, total shuttle, time elapsed on that shuttle, time remain to complete that shuttle or segment, temperature, time and date as an visual feedback to keep tempo.

h. High power sound unit that 3 audio signals can be programmed to desired frequency volume and duration for START, LEVEL CAHANGE and START OF NEW SEGMENT OR SHUTTLE

JUMP

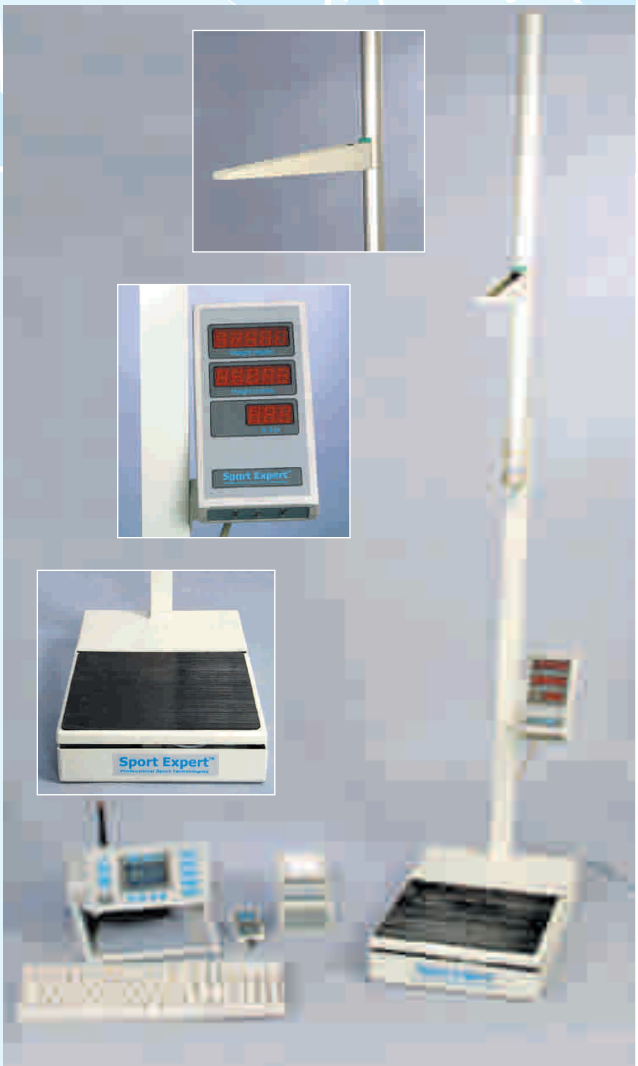
JUMPING HEIGHT MEASUREMENT SYSTEM

a. Jumping time and height measurement system
b. Specially designed non - contact infrared sensors
c. 3 pieces sensors for special jumping protocols and quickness tests
d. No mechanical and moving parts means no maintanance and long life
e. 3 modes: single jump, multiple jump based on predefined time and multiple predefined number of jumps.
f. At the end of multiple tests, total time or total jumps depending on the mode, max jump, min jump, and average jump performed are displayed
g. Serial thermal printer
h. AT type keyboard and barcode scanner for text input (Name, surname, age)
i. RS 232 interface
j. Computer program for further analysis of data

ANTHRO

ANTHROPOMETRIC MEASUREMENT

a. Body weight, height and %fat measurement system.
b. 150kg one point loadcell type scale with 50gr precision
c. Detachable integrated electronic stadiometer with 0.5mm precision
d. Magnetostrictive contactless stadiometer sensor
e. Length measurement starting from 15cm to 225cm
f. Length sensor can be detached, so that it can be used also for other anthropometric measurements (head, arm, leg, shoulder etc)
g. It can also be used as an infant stadiometer.
h. %fat measurement with BIA technique with 0.1% steps.
i. Dedicated electronics for standalone use
j. Serial thermal printer
k. AT type keyboard and barcode reader for text input if connected to main system (Name, surname, age)
l. RS 232 interface
m. Computer program for further analysis of data



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