Jumping power, spring ability, and footwork ability can be measured and evaluated.

Measure ground time, jump height, jump index, etc.

MultiJump Tester

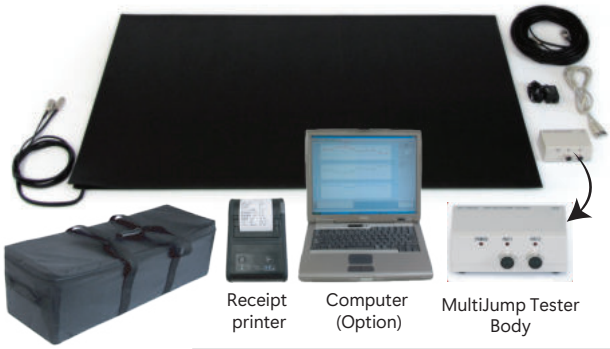
Vertical jumps(SJ,CMJ)
Consecutive rebound jumps
Drop jump
Hurdle Jump

Besides jumping footwork stepping

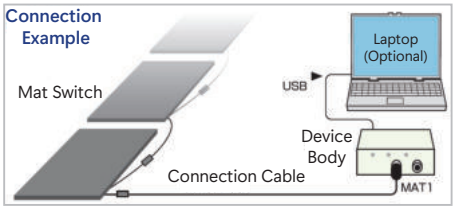
Main Measurement Applications

- Jump training /Effect measurement
- Comparison of jump height with and without arm swing
- Research on the relationship between running ability and jumping ability
- Comparison of jump index between trials

System Configuration



Everything except the PC and printer can be stored in the storage case



MultiJump Tester 2		PTS-2400	1 Set
<Breakdown>	USB Multijump Tester Body	PH-1260D	1
	Mat switch (including rubber cover)	PH-1261	1
	Connection cable (25m)	PH-1262A	1
	Measurement program	IFS-31E	1
	Storage case	PH-1267B	1
	Receipt printer	PH-1287	1
<Option>	Extenstion cable 25m	PH-1264	
	Large mat switch (1000 x 2000)	PH-1261A	
	Small mat switch (500 x 510)	PH-1266	
	Branch cable for small mat switch	PH-1269	
	Laptop Computer		

For training guidance and coaching

You can evaluate the basic jumping power and power display ability of each sports performance, and see the training effect. In addition, spring ability is one of the important basic abilities not only for athletes, but also for infants, school children, and the elderly to maintain, improve, and prevent decline in physical strength. Therefore, it is suitable for measuring evaluating, and diagnosing health and physical fitness for a wide range of age groups.

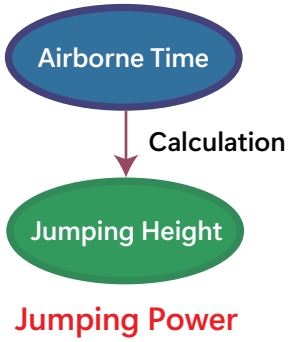
Connection to a computer is via one USB.
Easy to carry and measure anywhere.
Easy operation and immediate feedback of results.

See the essence of training

In order to improve jumping power, s pring ability (the ability to exert explosive force in a short period of time), and footwork ability, it is essential to measure and evaluate not only jump height and movement time, but also ground time and switch time.

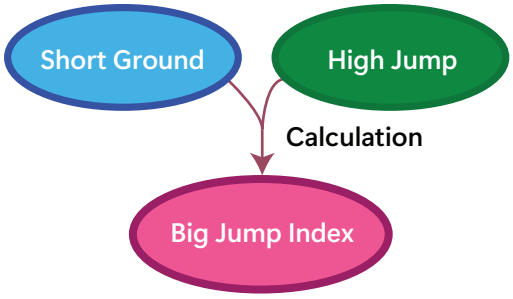
By using the multi-jump tester, you can clearly grasp points that are often overlooked in sports instruction and see the essence of training.

What is jumping power?



Jumping Power

What is excellent spring capacity?



Spring Ability

If these are good...

There are characteristics such as.

- Able to run fast.
- Able to jump high/ fly far.
- Able to quickly change directions and switch.
- Evade the enemy instantly with feints and skillful steps.

These motions include characteristics of lengthening-shortening cycle movements and ballistic movements.

The type of jump changes depending on the characteristics of each sport.
Let's perform measurement items that match the characteristics of the sports!

< Operating characteristics >

- Basketball Jump Shot.
- Volleyball Open Skies.
- Start phase in sprinting and ball game.

→ Vertical Jump Measurement

- Intermediate sprint in short distance running.
- Jumping events such as high jump, long jump, and triple jump.
- Gymnastics floor exercise.
- Volleyball quick spike
- Steps during a sudden change of direction in a ball game

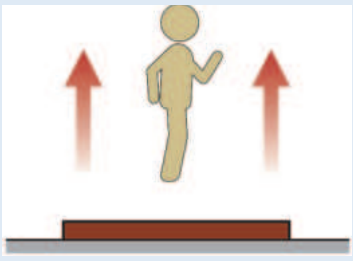
→ Rebound Jump Measurement, Drop Jump Measurement

Besides Jumping...

By connecting multiple mat switches, it is possible to measure footwork by continuously changing direction. It helps improve the ability to "change direction in a short period of time" in basketball, handball, etc..

In addition, stepping measurements can be performed by repeating steps on the mat switch within a certain period of time. you can evaluate your agility and check your fatigue level by doing them continuously.

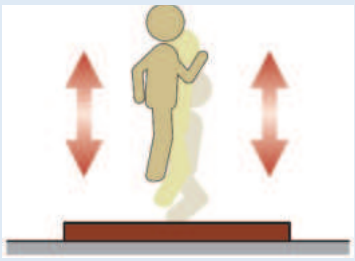
Measurement items and methods



Vertical Jump Measurement

Jump as high as possible from the basic position.

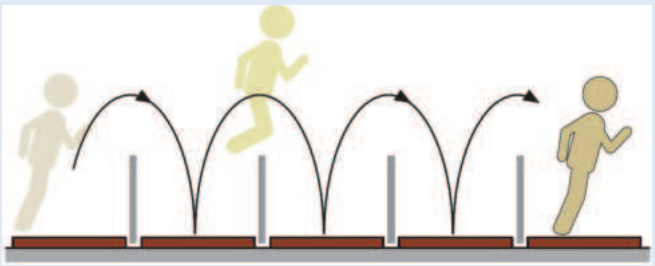
The objective of this measurement is to find presence or absence of a "reaction movement" such as crouching, or presence or absence of a "swinging movement" such as arm swing.



Continuous rebound Jump Measurement

This is a continuous jump using the ankles

The objective of this measurement is "how high you can jump in a hort time to take off." on a set number of jumps.



Hurdle Jump Measurement

The objective of this measurement is "how short of takeoff time you can jump over the hirdles set at equal intervals and move forward.".

Please note that there are variations to this measurement, such as changing the disatnce between hurdles and the height of the hurdles. (Example) Changing the height of the hurdles according to the athlete's ability, the height increases as you move towards the goal, etc...

Selectable startup modes to suit the situation and purpose

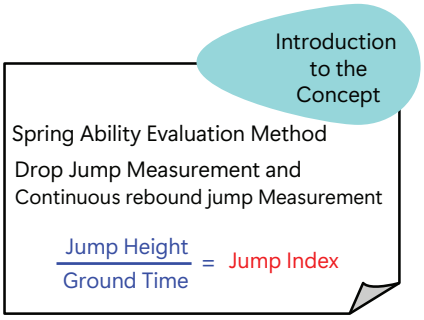
Simple Mode

- Easy Operation

  Easy to use without any specialized knowledge. By setting it upon a small tablet PC equipped with Windows OS, you can perform measurements with more intuitive operations. In addition, the highly visible display provieds excellent feedback to test subjets.

- Print the results using a small wireless printer

  Immediatley after measurement, all analysis items can be printed using a wireless receipt printer. No printing settings are required, and you can print quickly. In addition, it is battery powered and can be connected wirelessly (Bluetooth), so you can use it anywhere.



Full Mode

- The file management function facilitates continuous measurement of multiple people.

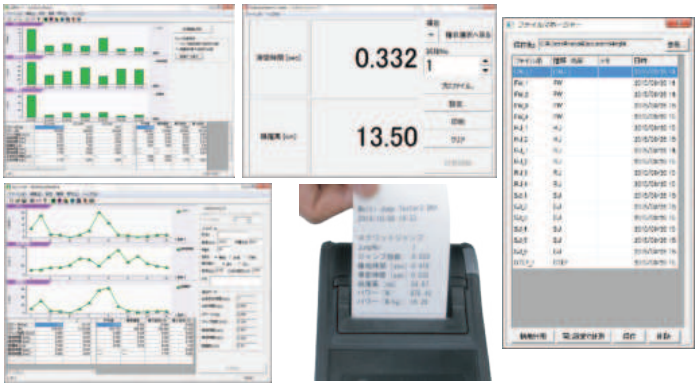
  The trail files in the specified folder will be displayed in a list in the table. Trail files in the specified folder are displayed in a list in a table. Simply selecting a table opens the corresponding file, making it easy to switch between files. Additionally, by using "New measuremtn" or "Measurement with same setting" to create files for the number of people required for the experiment in advance , you can conduct the experiment smoothly.

- Comparison between trails

  You can compare multiple trials, If multiple trials are saved in one life, the representative trial will be automatically selected.

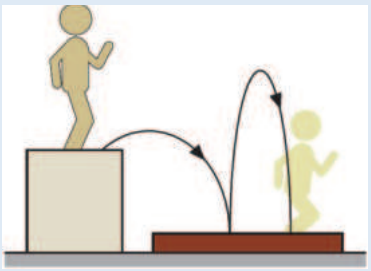
Comparison Image
Display Result

	File 1	File 2	File 3	Average	Standard Deviation	Maximum Value	Minimum Value
Power [W/Kg]	1.698	2.877	2.809	2.5	0.5	1.7	2.8
VJ Index [m/s]	0.086618	0.146767	0.14333	0.126	0.024	0.087	0.143
Ground Time [m sec]	697	295	247	413	175	697	247
Airborne Time [m sec]	222	188	170	193	19	222	170
Jumping Height [cm]	6	4.3	3.5	4.6	0.9	6	3.5



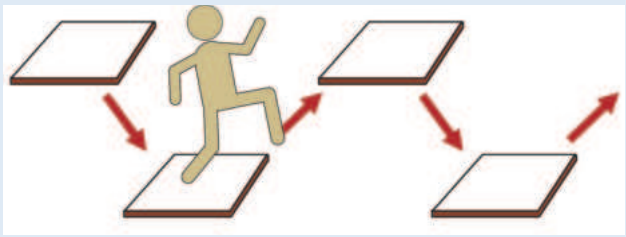
Main Analysis Items

Vertical Measurement	Drop Jump Measurement	Continuous Rebound Jump Measurement	Hurdle Jump Measurement	Footwork Measurement	Stepping Measurement
Ground Time				Ground Time	Total Number of times
Airborne Time				Travel Time	Decrease rate
Jumping Height				Moving Speed	Irregularity
Power					Number of instantaneous to right and left
SJ Index, CMJ Index	DJ Index	RJ Index	HJ Index		



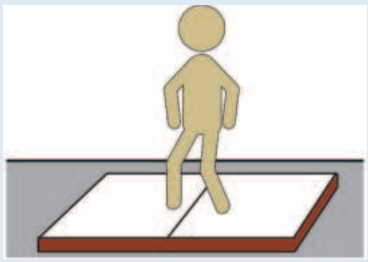
Drop Jump Measurement

Jumpoff the stand and jump up immediately after landing. The objective of this measurement is "how high you can jump in a short takeoof time." Possible variations include changing the spacings, angles, and place of the mat switches. and with and without anticipating the landing.



Footwork Measurement

Peform footwork movements while stepping on mat switches placed at equal or different spacings. The objective of this measurement is "how much the crossing time and section time can be shortened.". This will help improve your steps when making sudden changes in direction. Possible variations include changing the spacing, angles, and places of the mat switches.



Stepping Measurement

Use one or two mat switches and repeat the steps within a set time. You can evaluate your agility. You can also check your fatigue level by oding it repeatedly. The objective of this measurement is "how many steps you can complete within a certain amount of time."

Easy Measurements can be made without a computer

Portable MultiJump Tester

You can measure jumping heights and other measurements using device and a mat switch, without having to connect it to a computer like a multi-jump tester.

Since it is battery powered, it is ideal for outdoor use where it is difficult to take your computer out.

Measured results can be saved to comapct flash.

By loading it later with a measurement program (optional) on your computer, you can perform the same measurement and analysis as a multi-jump tester.

Everything can be stored in the storage case

Portable MultiJump Tester

Output Example

Vertical jump measurement/Drop jump measurement
- Jumping Height.
- Power.
- Maximum jump height, Power, Ground time, Airborne time.

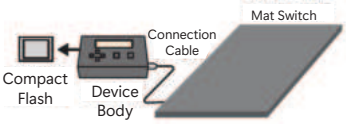
Consecutive rebound jumps measurement
- Each jump height and average jump height.
- Each power and average power.
- Highest jump height, power, goround time, and Airborne time in 1 trail

Hurdle Jump Measurement
- Jump height of each jump and average jump height.
- Each power and average power.

Footwork Measurement
- Speed and average speed for each section
- Maximum Speed for each section

Stepping Measurement
- Measurement Time
- Number of steps for match switch 1,2

Connection Example



System Cofiguration

Portable MultiJump Tester		PTS-118	1 set
<Breakdown>	Portable Multijump Tester Body	PH-1280	1
	Mat switch	PH-1261	1
	Connection cable (25m)	PH-1285A	1
	Compact Flash	PH-1262A	1
	Storage case	PH-1267B	1
<Option>	Measurement Program	IFS-31E	
	Card Reader	PH-1286	
	Extension Cable	PH-1264	
	Large mat switch	PH-1261A	
	Small mat switch	PH-1266	

Usage Details

	MultiJump Tester	Portable MultiJump Tester		
US MultiJump Tester Body PH-1260D Type	○	–	Number of inputs and terminals used	2 terminal RM12-BRD-2S Connect Mat Switch
			Number of outputs and terminals used	1 USB terminal Connect to Computer with USB Cable
			Power Supply	Usually supllied via USB, AC adapter included separately
			Dimensions and Weight	150W × 40H × 65Dmm about 160g
Measurement Program IFS-31E Type	○	Option	Measurement settings	Number of jumps, Chattering itime, Timeout, Number of mat switches, Name, Height, wieght, Distance travelled
			Measurement items	Vertical jump (Squat jump/Counter movement jump/) measurement, Drop jump measurement, Continuous rebound jump measurement, Hurdle Jump measurement, Footwork measurement, Stepping measurement
			Calculated items	Ground time, Airborne time, Jump height, SJ index, RJ index, DJ index, HJ index, Power, Travel time, Travel speed, Average/Standard deviation of each item, Minimum value, Maximum value
			Measurement time unit	1ms
			Opearting Environment	Windows XP ~ 8.1(32bit, 64bit) *See[System Requirements] below.
Portable MultiJump Tester Body PH-1280 Type	–	○	Number of inputs and terminals used	2 terminal RM12-BRD-2S Connect Mat Switch
			Power Supply	AA battery x 6 (20 hours of continuous use, alkaline batteries recommended)
			Recording result storage medium	Compact Flash Memory Card (Upto 4GB Confirmed)
			Dimensions and Weight	152W x 126H x 50Dmm (Not including Protrusions) about 800g (Batteries not included)
Compact Flash PH-1285A Type	–	○		
Card Reader PH-1286 Type	–	Option		
Mat Switch PH-1261 Type	○ (2nd and subsequent sheets are optional)	○ (2nd and subsequent sheets are optional)	Rubber plate material	**Upper side:** Foamed neoprene rubber **Lower side:** Flat black natural rubber
			Operating Load	6.5N (Over10 × 10mm When using pressing piece)
			Operating Temperature Range	-12°C~ 60°C
			Endurance Life (Only for sensors)	Over 3 Million times (DC24V, 0.3A With Relay Load)
			Load Bearing Capacity	1960N (Φ 100 Pressure plate 1 minute)
			Cable length and terminals used	2 System Output each 1.6m RM12-BPG-2PH RM12-BJB-2S
			Waterproof Ability	None
			Size and Weight	660 × 1000 × t7mm 4.6kg
Rubber Cover (accessory for PH-126) PH-1262 Type	○	○	Material	Flat Black Natural Rubber
			Size	660 × 1000 × t3mm
Connection Cable PH-1262A Type	○	○	Cable length and terminals used	25m RM12-BPG-2PH RM12-BJB-2S
Storage Case PH-1267B Type	○	○	Stored Items	Can store 2 mat switches, 1 device main unit, complete set of cable, etc. (Mat switch is only of PH-1261 type)
			Size and Weight	920L × 310W × 280Hmm about 6Kg
Large Mat Swicth PH-1261A Type Cover PH-1261B	Option	Option	Size	1000 × 2000 × t7mm
			Other Specifications	PH-1261 Same as type
Small Mat Switch PH-1266 Type Cover PH-1268B	Option	Option	Size	500 × 510 × t7mm
			Other Specifications	1 System output 1.6m RM12-BPG-2PH
Extension Cable PH-1264 Type	Option	Option	Cable length and terminals used	25m RM12-BPG-2PH RM12-BJB-2S

System Requirements

OS： Windows8.1(32bit/64bit), Windows8(32bit/64bit), Windows7(32bit/64bit), WindowsVista(32bit)sp1 or more, WindowsXP(32bit)sp2 or more.

CPU： Intel Core i3 Equal or Higher Recommended

RAM： 2.0GB or More recommended

USB Ports： 2 ports (required for connecting protect key and Data reciever)

*This product was jointly developed with the cooperation of professor Koji Zushi of the University of Tsukuba.

*Specifications may change without notice due to improvements

CABCS Group India Technologies Pvt. Ltd.
Address: CRN Square, No. 15, 2nd Floor, Kasturba Road, Bangalore - 560 001
Website : https://cabcsgroup-india.com/
Email : support@cabcsgroup-india.com
Phone : +91 9606023130