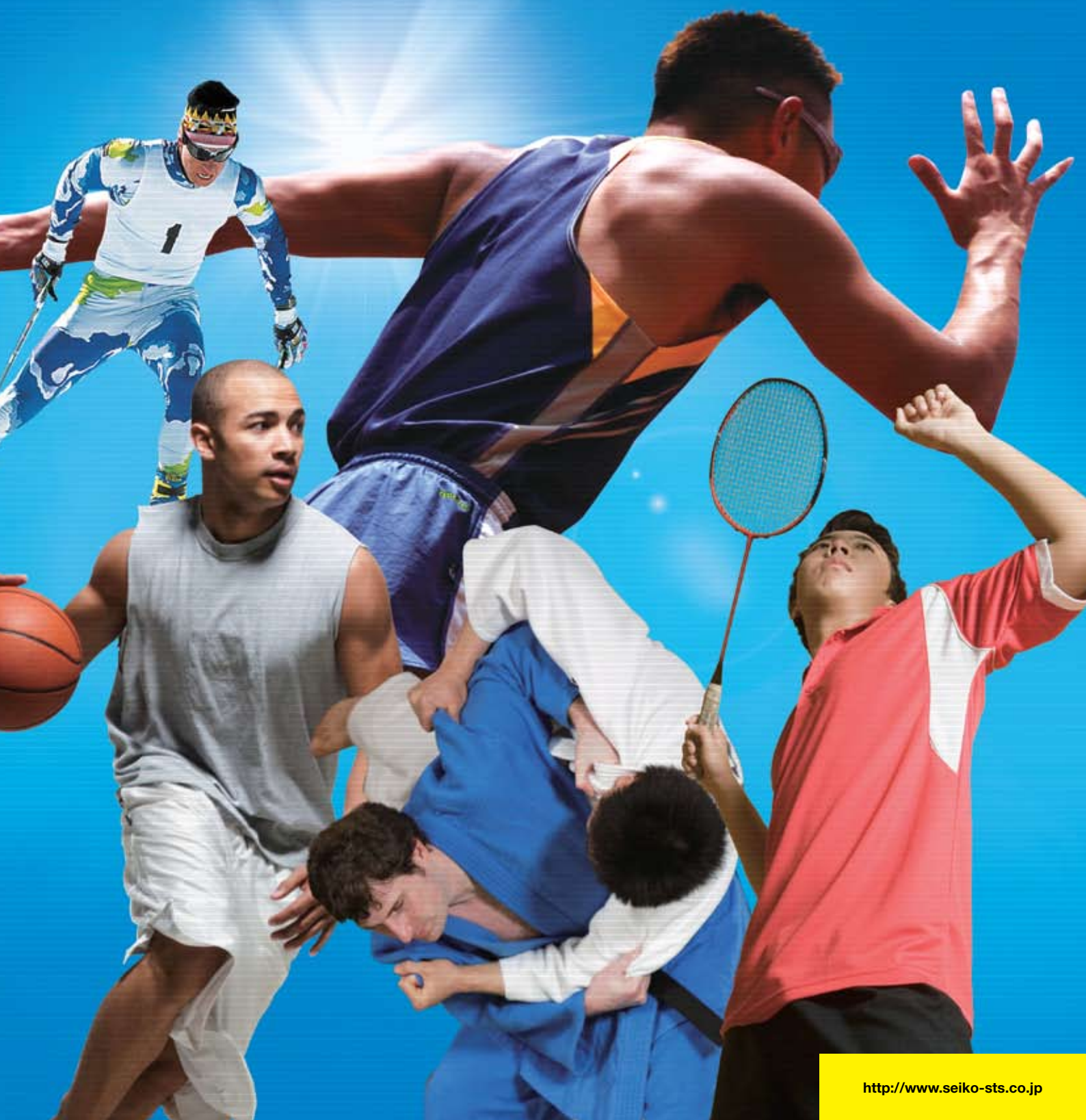# SEIKO MULTI TIMING SYSTEM

MULTI TIMING SYSTEM ／ SCORING SYSTEM ／ OTHERS

SEIKO

Battery-powered multi-timer for both indoor and outdoor use

RUNNING TIMER

ST-306 Main Unit

Grip Switch

Sports Timer ST-306

System Components

Sports Timer (ST-306): 1 unit   Battery Box: 1 unit
Grip Switch: 1 unit

■ Features

▌ **Being able to serve as either a count-up or count-down timer, ST-306 can be used as a timing display system for various sports events including swimming, track races, marathon, walking race, skiing, cycling, and soccer, rugby and basketball and other games.**

▌ **It can also display game points and deuce points in tennis.**

▌ **It can measure lap time, split time and finish time.**
Either lap or split times of up to 25 runners can be stored in memory for later recall.

▌ **It has an auto repeat function.**
That counts up/down a preset time repeatedly at given intervals and sounds a buzzer each time the preset time has been counted up/down.
ST-306 can be used as a pace -clock.

▌ **Being battery-powered, it can be used both indoors and outdoors.**

OPTION

Stand / **ST-020**
W1,000 × H1,000 × D1,000mm

Main Functions

● ST-306 can be set to count up/down up to 99 hours 59 minutes 59 seconds, 59 minutes 59 seconds 9 or 59 minutes 59 seconds 99 as required, being able to cover a wide range of sports events.

● The count-up timer can be set to start counting up from either zero or ,a preset time.

● The count-down timer can also be set to start counting up as soon as it has counted down the set time. This function is useful for the start of a marathon or other races.

● ST-306 can be used in combination with various SEIKO sports timing devices.

■ Specifications

Display			Magnetic rotary bar, yellow, character height 200mm, 6 digits
Time accuracy			±0.04 sec/hr.(+5℃～+35℃)
Measuring function	Counting-up	Maximum measuring time	99h 59m 59s (59m 59s 9, 59m 59s 99)
		Memory and memory call	Lap or split time.Up to 25 measurements can be stored.
	Counting-down	Preset time	99h 59m 59s ～ 1s
	Auto repeat (REPEAT)		A preset time is counted up/down repeatedly, with a buzzer sounding for approx. 5 sec. each time a count-up/-down of the preset time is completed.
Power supply			"AA" dry cell x 8 pcs.
Battery service life under continuous duty ★			LR06"AA" alkaline dry cell: approx. 50 hrs. (at +25℃)
Operating environment	Location		Indoors and outdoors (provided that permanent outdoor installation is prohibited.)
	Temperature	For use	0℃～+50℃ (non-condensing)
		For storage	－10℃～+55℃ (non-condensing)
Appearance	Dimensions		W1,230 x H330 x D150mm
	Material		Aluminum, yellow
Weight			12.5kg (including dry cells)
Grip switch			Cord length, 5m, φ60; w/START/STOP and LAP/SPLIT/RESET buttons
Devices available for connection with ST-306			PS-110/109/107/105, CT-2000/1000/916 CT-500/400/300, PT-8000/7000/6000 ST-2000/900/800 series, RT-120 WG-300/200, DM-400/200, KT-601, JT-601

★ A guideline when the timer is used to count up the time continuously. It should be noted that the battery service life varies depending on such factors as operating conditions, function settings, ambient temperature and other environmental conditions, and place of use.

Electronic start signal generator eliminating the use of gunpowder

Electronic Starting System

Cable with a termination box

Headset Microphone

Start Pistol

Speaker Box

Electronic Starter PS-110

System Components

Start Pistol (PS-78): 1 unit
Headset Microphone (PS-61): 1 unit

Speaker Box (PS-56): 1 unit
Cable with a termination box (PS-81): 1 unit

■ Features

❚ **PS-110 is an electronic audio-visual start signal generator that can be used for various types of sports events.**
It generates a start signal with both sound and flashlight.

❚ **It does not use gunpowder, and is safe for handling and storage.**
Problems involved in the use of a gunpowder pistol such as misfire and powder smoke have been eliminated.

❚ **A synthesized firing signal or an electronic beep can be generated, as required.**

❚ **The Headset Microphone can be used to amplify and communicate the starter's voice to the athletes.**

❚ **PS-110 can be used alone, with other units of PS-110, or in combination with other devices, to suit your needs.**

■ Specifications

Start Pistol (PS-78)

Strobe		Xenon lamp
Power supply		LR06 "AA" alkaline dry cell x 2 pcs. (DC 3V)
Battery life (alkaline dry cells)		Approx. 1,200 times (Number of times light can be emitted continuously in 1-minute intervals.)
Temperature	For use	−10℃〜+50℃ (non-condensing)
	For storage	−15℃〜+60℃ (non-condensing)
Appearance	Dimensions	W210 x H40 x D145mm
	Material	Aluminum, black gray
Weight		Approx. 410g (excluding dry cells, cord)

Headset Microphone (PS-61)

Output		Impedance, 1.6kΩ , ±30%
Sensitivity		−68dB±3dB
Type		Condenser microphone
Appearance	Dimensions	W160 x H68 x D170mm
	Material	ABS resin, black
Weight		Approx. 45g (including cord)

Speaker Box (PS-56)

Audio input		−20dB (100kΩ)
Rated output		6W (max. 10W)
Power supply		LR06 "AA" alkaline dry cell x 8 pcs. [DC 12V]
Battery life (alkaline dry cells)		Pistol sound: approx. 8,000 operations until sound pressure falls below 91dB (at a distance of 10m)
Operating sound pressure level		93dB (at a distance of 10m)
Temperature	For use	−5℃〜+40℃ (non-condensing)
	For storage	−15℃〜+50℃ (non-condensing)
Appearance	Dimensions	W102 x H258 x D216mm
	Material	ABS resin, ivory
Weight		Approx. 1.6kg (excluding dry cells)

Multi-timer suitable for a wide variety of sports events

Sports Printer
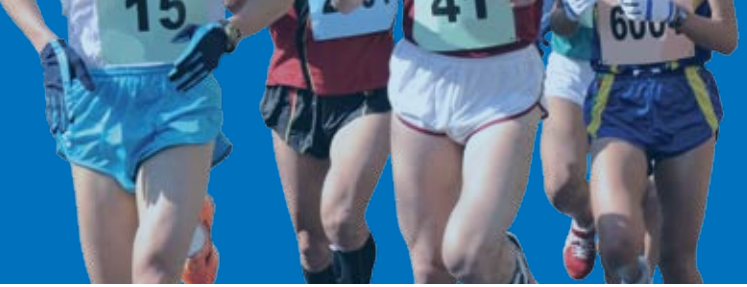
Grip Switch

CT-2000 Main Unit

Sports Printer CT-2000

Sports Printer (CT-2000): 1 unit   Grip switch with 2.5m cable (GS-51): 2 units
AC adapter with 5m cable: 1 unit   Roll Paper (RP-03): 1 roll   Ribbon Cassette (ERC-22): 1 unit

■ Features

❚ **Being equipped with various measurement modes, CT-2000 can be used for timing of all types of sports events.**

❚ **Timing down to 1/1,000 of a second is possible.**
   The method of calculating the fraction of a second can be selected from 10 types including rounding up, rounding down and rounding off, thus making it possible to comply with various timing rules adopted in different sports events.

❚ **A large-sized LCD monitor is used to make it easier to check various types of information displayed on it. (20 characters x 4 lines)**

❚ **The design of the grip switch is renewed so that it better fits into your palm and provides easier switch operation.**

❚ **By using resin case, high durability has been achieved.**

❚ **If the dry batteries are installed when CT-2000 is powered by AC adapter, the power source can be quickly switched over to the batteries in case of failure of AC power supply, to ensure constant operation. ***

❚ **Two sets of dry batteries (6 AA size cells per set) can be installed in the main body, and the power source is switched over automatically between them. By replacing the unused set of dry batteries with new ones, CT-2000 can be powered by the dry batteries continuously for a long time.***

❚ **Rechargeable batteries can be used in place of alkaline dry batteries.***

❚ **CT-2000 can also be powered by external battery.***

★ Dry batteries, rechargeable batteries and external battery are not included with CT-2000, and they should be purchased separately if required.

Main Functions

● The Auto Measurement Mode enables the measurement during individual practices performed alone. ★

- ● Reaction time (start reaction time: time after the start signal until swimmer's feet have left the starting block), lap time, and split time can be measured during swimming practices. ★
- ● Lap time and split time can be measured during practices of speed skating, track, and other races. ★
- ● By outputting a signal to an external buzzer device, CT-2000 can control the device to generate a starting sound automatically. ★

● Even if the actual start time has differed from the scheduled time, the Time Correction Mode (inputting time difference from start time) corrects the scheduled start time set in advance in the secondary CT-2000 units, enabling them to synchronize with the master CT-2000 unit.

● The Speed Measurement Mode measures the average speed over a given section of the entire distance. ★

● By connecting a Bib No. input device with CT-2000, the measured times can be printed out together with the Bib No. ★★

● CT-2000 can be connected with a personal computer via USB interface. ★

● Two types of time signals (RS-422) are output to the scoreboard (with or without running time data).

● A synchronization signal can be output to external devices.

● As CT-2000 is compatible with CT-1000, the grip switches, extension unit, synchronization cables, and cables to connect with scoreboard used previously with CT-1000 can also be used with CT-2000 (with the exception of a cable used to connect with a personal computer).

★ Optional device is required. ★ Bib No. input device will be released soon.

■ Options for CT-2000

Expansion Unit
EX-2000

An input channel can be expanded up to 10 channels.

Synchronization Cable / **SY-456**
Roll Paper / **RP-03**
Ribbon Cassette / **ERC-22**

Grip Switch
GS-51 (with 2.5m cable)
GS-52 (with 5.5m cable)
GS-53 (with 10m cable)

■ Specifications

Time accuracy	Accuracy of crystal oscillator: ±1 ppm (at a temperature of 25℃)
Maximum measurement duration	23 hours, 59 minutes, 59 seconds 999: Start time can also be set in hour, minutes and seconds up to the maximum duration.

		Method of calculation	Data and printout
Measurement unit	10 types of calculation methods are available.	1/1000 sec. digit is retained	1/1000 sec. increments
		1/1000 sec. digit is rounded down	1/100 sec. increments
		1/1000 sec. digit is rounded up	1/100 sec. increments
		1/1000 sec. digit is rounded off	1/100 sec. increments
		1/100 sec. digit is rounded down	1/10 sec. increments
		1/100 sec. digit is rounded up	1/10 sec. increments
		1/100 sec. digit is rounded off	1/10 sec. increments
		1/10 sec. digit is rounded down	1 sec. increments
		1/10 sec. digit is rounded up	1 sec. increments
		1/10 sec. digit is rounded off	1 sec. increments

Number of input channels	From panel: 3 channels From connectors: 2 channels (up to 10 channels when extension unit is used)
Number of data storable	Up to 3,000 data contained in up to 100 blocks
Speed measurement	Distance of section: 1～100m in 0.1m increments Measurement unit: km/h, mph and m/s Measurement range: 1～1000km/h, 1～250mph, 1～600m/s Number of input channels: Up to 10 channels when extension unit is used

Monitor display	Display device: LCD Number of characters: 20 characters x 4 lines Character height: 9.2mm
Printer section	Printer type: Dot impact printer (5 x 7 dot matrix, 24 characters/line) Printing speed: 2.5 lines/sec. Roll paper: 57.5 ±0.5mm (width) x 70mm (outer diameter) 　　　　　or a smaller size; Plain paper type
Power supply	1. AC 100V ～ AC 240V (used with AC adapter) 2. Built-in battery (2 sets of 6 AA size dry cells) 　　★ Rechargeable type batteries can also be used. 3. External battery (DC 12V)　★Do not use AC power supply at the same time.
Battery life	Alkaline dry batter: Approximately 8 hours (at ＋25℃) Nickel-metal hydride rechargeable battery: Approximately 14 hours (at ＋25℃) ★ The above battery lives may be shorter if measurement/printing is 　 performed more than once in 10 seconds.
Temperature range	During operation： −5℃～＋40℃ (non-condensing) ★ 0℃～＋40℃ for AC adapter During storage： −15℃～＋55℃ (non-condensing)
Appearance	Dimensions： W440 x H467 x D120mm Material： Resin
Weight	Approximately 5.5kg (excluding batteries)

Various measurement modes enable many useful functions including automatic measurement for individual training and speed measurement.

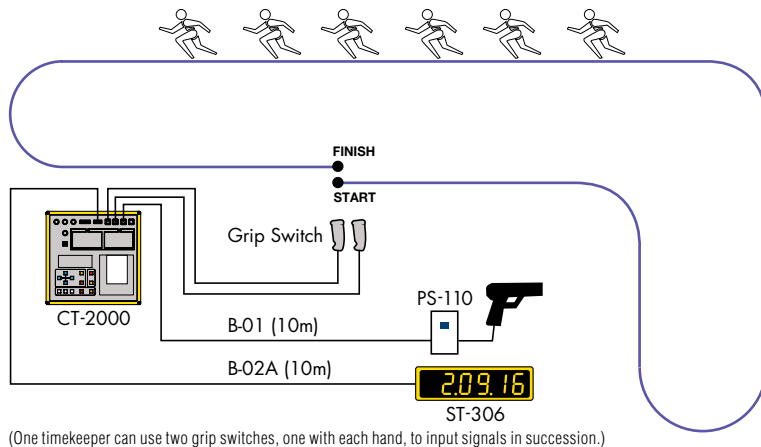*New model with significantly upgraded functions*

CT-2000

① Counting Mode

❍ Order of arrival is printed out from 0001 to 9999, but the measurement can be continued after the arrival of the 9,999th racer with the order of arrival being counted from 0000 (9999 → 0000 → 0001 → 0002).

❍ Order of arrival and split time are printed out each time a measurement is made from the start to the finish.

❍ Running time (time elapsed from the start) and split time measured can be displayed on the scoreboard (ST-306, etc.).

System Configuration (EX.)
- CT-2000 x 1
- ST-306 x 1
- B-01 x 1
- PS-110 x 1
- B-02A x 1

FINISH
START
Grip Switch
CT-2000
PS-110
B-01 (10m)
B-02A (10m)
2.09.16
ST-306

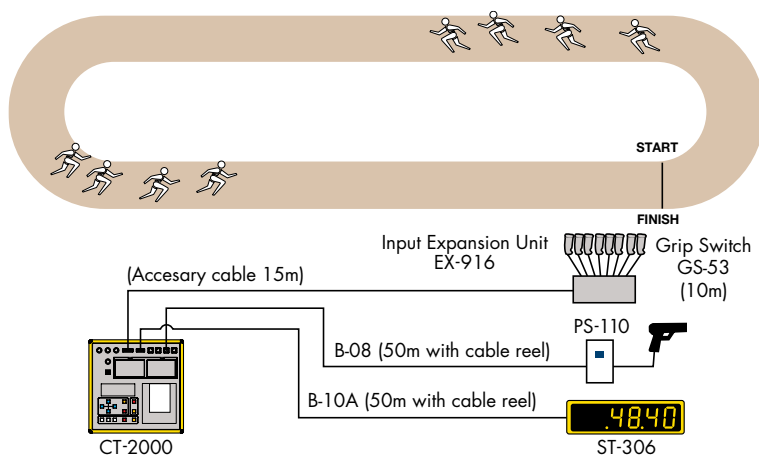(One timekeeper can use two grip switches, one with each hand, to input signals in succession.)

② Parallel Counting Mode

❍ Split time can be measured lane by lane (or racer by racer).

❍ Lane No. (CH No.), number of laps, and split time are printed out.

❍ Running time (time elapsed from the start) and split time measured can be displayed on the scoreboard (ST-306, etc.).

System Configuration (EX.)
- CT-2000 x 1
- EX-916 x 1
- B-08 x 1
- PS-110 x 1
- GS-53 x 8
- B-10A x 1
- ST-306 x 1

START
FINISH
Input Expansion Unit EX-916
Grip Switch GS-53 (10m)
(Accesary cable 15m)
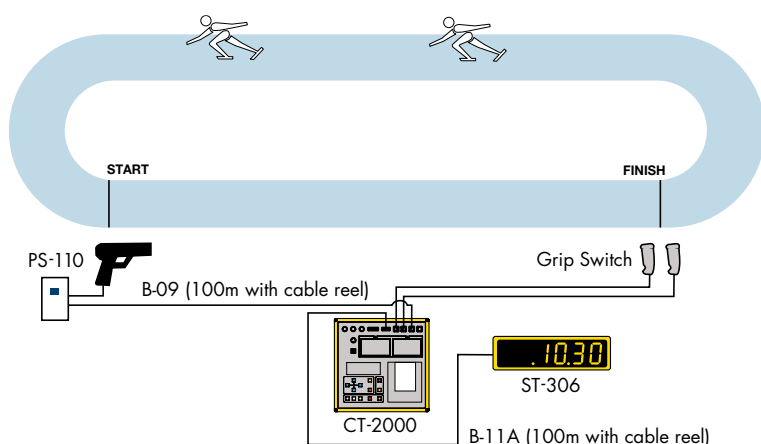PS-110
B-08 (50m with cable reel)
B-10A (50m with cable reel)
.48.40
CT-2000
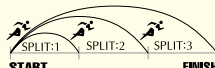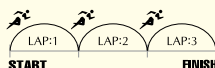ST-306

③ Parallel Lap/Split Time Measurement Mode

❍ Lap times and split times can be measured lane by lane (or racer by racer).

❍ Lane No. (CH No.), number of laps, lap time and split time are printed out.

❍ Running time (time elapsed from the start) and lap or split time measured can be displayed on the scoreboard (ST-306, etc.).

System Configuration (EX.)
- CT-2000 x 1
- ST-306 x 1
- B-09 x 1
- PS-110 x 1
- B-11A x 1

START
FINISH
PS-110
B-09 (100m with cable reel)
Grip Switch
.10.30
ST-306
CT-2000
B-11A (100m with cable reel)

■ Pictogram Explanations

|	
SPLIT Split time:	Time required to go from the start to any given point of the entire distance.
LAP Lap time:	Time required to go a given section of the entire distance.

SPLIT:1 SPLIT:2 SPLIT:3
START   FINISH

LAP:1 LAP:2 LAP:3
START   FINISH

Track Track Training Swimming Bicycle

Ski Skate Boat Canoe Motor sports

---

④ Parallel Delayed Start Mode   SPLIT

❍ Time measurement of each racer can be made in a race where not all the racers start at the same time but they start at different times at certain intervals.

❍ Different time measurements can be made according to the start times.

❍ Group No, finish time (current time at the finish line), order of arrival and split time are printed out as classified by the start time.

❍ Running time (time elapsed from the start) and split time measured can be displayed on the scoreboard (ST-306, etc.).
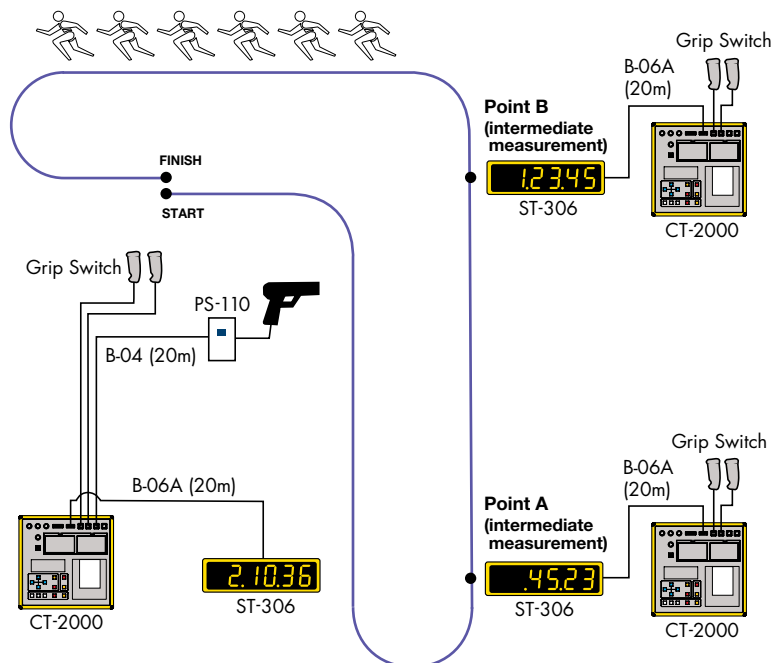
START
2. WOMAN
1. MAN

Grip Switch   FINISH
1. MAN
2. WOMAN

15.23.8
ST-306

CT-2000

B-07A (30m)
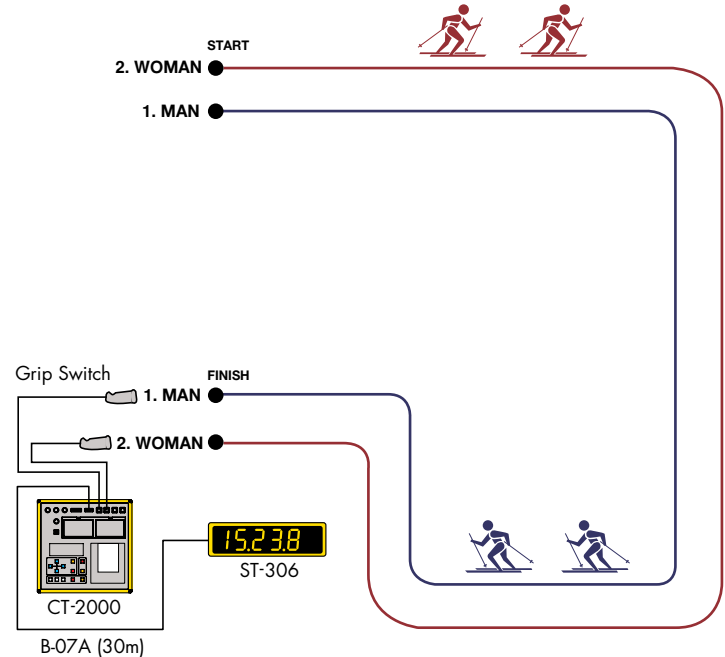
System Configuration (EX.)
● CT-2000 x 1   ● ST-306 x 1   ● B-07A x 1

---

⑤ Time Correction Mode   (Starting Time Difference Input)   SPLIT

❍ This measurement mode is designed to measure the times at intermediate points on the course in such sports events as marathon and Nordic ski races.

❍ The CT-2000 placed at the start point (Master) and the other units of CT-2000 placed at some intermediate measurement points (Secondary) can be synchronized.

❍ Scheduled start time can be set in advance.

❍ It is possible to input the time difference between the scheduled and actual start times into the Secondary units of CT-2000.

❍ Order of arrival and split time can be printed out.

❍ Running time (time elapsed from the start) and split time measured can be displayed on the scoreboard (ST-306, etc.).

FINISH
START

Grip Switch
PS-110
B-04 (20m)

B-06A (20m)

2.10.36
ST-306

CT-2000

Grip Switch
B-06A (20m)

Point B (intermediate measurement)
1.23.45
ST-306

CT-2000

Grip Switch
B-06A (20m)

Point A (intermediate measurement)
.45.23
ST-306

CT-2000

System Configuration (EX.)
● CT-2000 x 3   ● ST-306 x 3   ● B-04 x 1
● PS-110 x 1   ● B-06A x 3

⑥ Auto Measurement-1 Mode (Swimming Training)

⑦ Auto Measurement-2 Mode (Circling Training)

❍ These measurement mode are designed mainly for measurement in individual practice performed alone.

❍ A start sound can be generated at a random interval after a starting cue corresponding to "Take your marks."

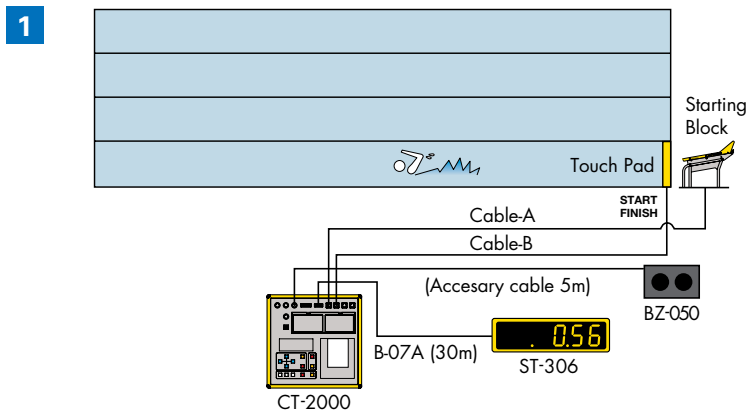❍ New measurement starts automatically after the interval time you have set has elapsed.

Automatic Measurement-1

❍ Reaction time (time after the start sound until swimmer's feet have left the starting block), lap time, split time are measured and printed out.

❍ Reaction time, and lap or split can be displayed on the scoreboard (ST-306, etc.).

System Configuration (EX.)

- CT-2000 x 1
- Starting block x 1
- B-07A x 1
- ST-306 x 1
- BZ-050 x 1
- Cable-A★ x 1
- Touch pad x 1
- Cable-B★ x 1

★ Custom-made item.

1

Starting Block
Touch Pad
START FINISH
Cable-A
Cable-B
(Accesary cable 5m)
BZ-050
B-07A (30m)
ST-306 `.0.56`
CT-2000

Automatic Measurement-2

❍ Lap time and split time are measured and printed out lap by lap.

❍ Lap or split time can be displayed on the scoreboard (ST-306, etc.).

System Configuration (EX.)

- CT-2000 x 1
- BZ-050 x 1
- B-07A x 1
- ST-306 x 1
- Cable-C★ x 1
- Photo Beam Unit x 1

★ Custom-made item.

★ In "Auto Measurement" modes, the time of only one athlete can be measured. It is not possible to measure the times of more than one athlete at a time.

2

START FINISH
Photo Beam Unit
Cable-C
(Accesary cable 5m)
BZ-050
B-07A (30m)
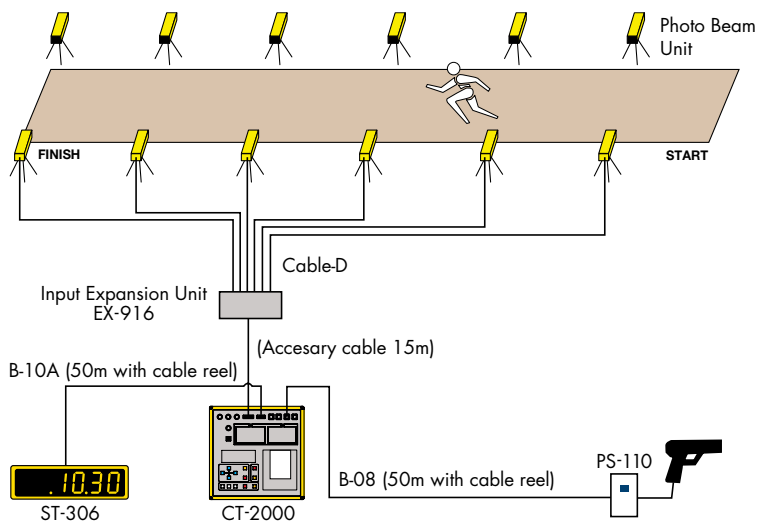ST-306 `.59.78`
CT-2000
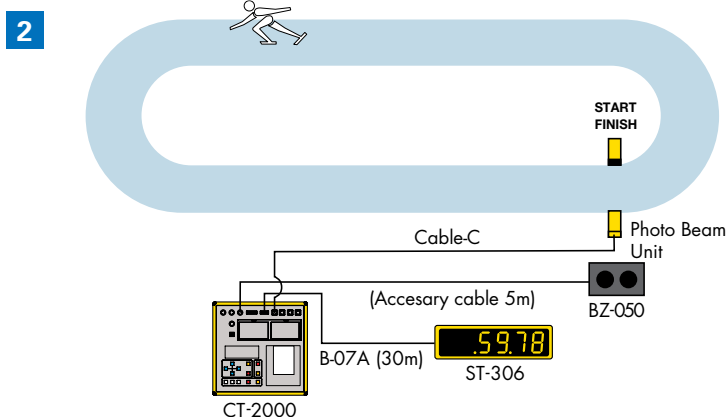
⑧ Speed Measurement Mode

❍ The average speed in a given section of the entire distance is measured.

❍ The distance of the measurement section can be set from 1m to 100m in 10-cm increments.

❍ The measurement unit of speed can be selected from km/h, m/s and mph (miles per hour).

❍ The speed measured is printed out.

❍ Speed measurement can be made within the range of 1~1,000km/h, 1~250m/s, or 1~600mph.

❍ The speed measured can be displayed on the scoreboard (ST-306, etc.).

System Configuration (EX.)

- CT-2000 x 1
- EX-916 x 1
- B-10A x 1
- PS-110 x 1
- Photo Beam Unit x 6
- B-08 x 1
- ST-306 x 1
- Cable-D★ x 6

★ Custom-made item.

Photo Beam Unit
FINISH
START
Cable-D
Input Expansion Unit EX-916
(Accesary cable 15m)
B-10A (50m with cable reel)
ST-306 `.10.30`
CT-2000
B-08 (50m with cable reel)
PS-110

Game timer / score counter for indoor sports events

TABLE-TOP SCORE BOARD

Operation panel

Back Side

Sports Counter
KT-601

System Components

Sports Counter (KT-601): 1 unit
Adapter with 5m power cable (KT-ADP01): 1 piece
Wireless remote controller with holder (KT-601RC): 1 unit

■ Features

▌ Infrared wireless remote control is available as standard.

▌ Clear multi-color LED display (white, orange, red and green) without uneven color contrast has been achieved.

▌ User-friendly button layout of the operation panel allows intuitive operation.

▌ The monitor on the operation panel shows the same display as shown on the score board, allowing easy checking of operation.

■ Main Functions

	event / function	Items shown on display panel	Ex.
1	Basketball		● Contest timer ● Home・Guest ● Possession ● Period ● Points ● 24/30-sec. timer
2	Basketball (time out), futsal, hand ball		● Contest timer ● Home・Guest ● Possession ● Period ● Points ● Timeout timer
3	Basketball (Team fouls)		● Contest timer ● Home・Guest ● Possession ● Period ● Points ● Team fouls
4	Volleyball, Table tennis, Badminton		● Points ● Serve ● Set ● Sets won ● Time out timer
5	Judo		● Contest timer ● Osaekomi timer
6	Tennis		● Points ● 1st or 2nd serve ● Serve ● Games won ● Sets won
7	Soft tennis		● Points ● 1st or 2nd serve ● Serve ● Games won

	event / function	Items shown on display panel	Ex.
8	Boxing		● Contest timer ● Interval timer ● Round No.
9	Programmable Timer		● Timer ● No. of times repeated ● Program
10	Pace Setter		● No. of times repeated ● Rhythm ● Tempo
11	Stopwatch		● Minute and second digits of time ● Hour digits of time ● LP/SP mark ● 1/100-second digits of time
12	Timer		● Minutes, seconds and 1/10 second digits of time
13	Clock & Alarm		● Hour and minute digits of time ● Second digits of time

■ Specifications

Display		High-intensity LED
Character height	Timer section	130mm
	Point section	120mm
	Second timer section	110mm
Power supply		AC 100V ～ 240V, 50/60Hz (maximum power consumption: 30W)
Appearance	Main unit	Apporox. W650 x H400 x D220mm
	Wireless remote controller	Apporox. W44 x H115 x D20mm
	Material	ABS resin
Weight		4.3kg (main unit), 0.7kg (adapter with power cable)

★ The dry batteries included with the infrared wireless remote controller are intended for checking its function, and their lives may be shorter than specified.

★ If cannot be interlocked with KT-101/101A.

★ By using interlocking cable KT-041(80m: option), up to four units of KT-601 can be connected as secondary units to the master KT-601 unit.

★ Sports Counter KT-601 is designed for indoor use only.

Basketball 24-/30-second timer provided with a large-sized, highly visible display board using high-intensity LED

SHOT Clock

~~Shooting~~ Timer
KT-401

System Components

24-sec. Display Board (KT-401DP): 2 units
24-sec. Display Operation Board (KT-401OP): 1 unit
AC Adapter with 5m power cable (KT-ADP01): 1 piece
Signal Cable〔50m〕(KT-401CA50): 1 piece
Signal Cable〔30m〕(KT-401CA30): 1 piece

Example use with tabletop stand KT-022

■ Features

▮ **Display board has a character height of 25 cm in conformity with the International Basketball Federation (FIBA) Official Basketball Rules.**

▮ **The timer starts counting down from 24/30 seconds, and the buzzer sounds when the time is up.**

▮ **Start, stop and restart of the timer can be performed easily with a press of a button.**

▮ **"+" and "-" buttons allow easy adjustment of countdown time.**

■ Specifications

Display		High-intensity LED
Character height		250mm
Power supply		AC 100V ～ 240V, 50/60Hz
Appearance	Display board	Apporox. W500 x H338 x D55mm
	Operation board	Apporox. W186 x H73 x D182mm
Weight	Material	Display board: ABS resin/Operation board: Steel plate with baked finish
	Display board	Apporox. 2.6kg
	Operation board	Apporox. 1.1kg/Adapter with power cable 0.7kg
	30 m cable	Apporox. 1.4kg
	50 m cable	Apporox. 2.1kg

★Shooting Timer KT-401 is designed for indoor use only.
★Stand KT-022 for exclusive with KT-401 (option).
★To use with KT-401, two units of KT-022 are required.

Game·~~Shot~~ Clock
KT-501

■ Features

▮ **A countdown timer that serves as a game clock as well as a 24-second clock for basketball. (It also supports the requirements of the 30-second rule of mini-basketball.)**

▮ **When the time is up, the buzzer sounds at the same time as the red LED lights up.**

System Components

Display Board (KT-501DP): 2 units
Game clock Operation Board (KT-501GC): 1 unit
Shot clock Operation Board (KT-501SC): 1 unit
AC Adapter with 5m power cable (KT-ADP01): 4 pcs
Signal Cable〔80m〕(KT-501CA80): 2 pcs
GC-SC Cable〔2m〕(KT-501CA02): 1 piece

★ Backboard attachment lug is optional (custom-made item).

■ Specifications

Display		High-intensity LED
Character height	24/30	250mm
	Game Time	130mm
	Time UP	φ 100mm
Buzzer		With two pitches and no volume control (it builds in an indicator)
Power supply		AC 100V ～ 240V
Appearance	Game - Shot Clock	W630 x H510 x D70mm
	Game Clock	W186 x H73 x D182mm
	Shot Clock	W186 x H73 x D182mm
	Stand	W520 x H1,400 x D750mm (Option)
	Material	Display board: ABS resin Operation board: steel Steel plate with baked finish
Weight	Game - Shot Clock	6.5kg
	Game Clock	1.1kg
	Shot Clock	1.1kg

KT-501GC   KT-501SC

Example use with KT-501 and dedicated stand KT-013
★ Stand KT-013 for exclusive use with KT-501 (optional).

A wide range of uses from physical education class in school and judo practice as an extracurricular activity to a full-fledged judo competition

JUDO Timer

JUDO Timer
JT-601

System Components

JUDO Timer (JT-601): 1 unit
AC Adapter with 5m power cable (KT-ADP01): 1 piece
Magnet plate: 2 pcs

■ Features

7 modes are provided that are convenient not only for contests but also for training.

① Judo 1 (for IJF Rules) ④ Pace setter ⑦ Clock & alarm
② Judo 2 (for Kodokan Rules) ⑤ Stopwatch
③ Programmable Timer ⑥ Timer

Clear multi-color LED display (white, orange, red and green) without uneven color contrast has been achieved.

The color of each contestant (blue, white or red) is indicated by LED.

During Osaekomi, the LED indicating the color of the contestant applying the hold flashes.

Contest and Osaekomi times can be set as desired, and they are retained in memory.

"Golden Score" contest time can also be set as desired.

Point is awarded automatically according to the lapse of Osaekomi time. (Manual awarding can be selected.)

When the contest is ended, the point and color of the winner flash.

■ Main Functions

	event / function	Items shown on display panel	Ex.
1	Judo 1 (for IJF Rules)	5:00 12 25 103	●Contest timer ●"Golden Score"contest timer ●Osaekomi timer ●Point (I: Ippon, W: Waza-ari, Y: Yuko) · ●Shido (S1, S2, S3) ●Hansoku ("H") ●Number of injuries (0〜2) ●Color of contestant
2	JUDO 2 (for Kodokan rules)	5:00 12 30 103	●Contest timer ●"Golden Score"contest timer ●Osaekomi timer ●Point (I: Ippon, W: Waza-ari, Y: Yuko) ●Shido (S1, S2, S3) · ●Keikoku, Chui, Shido (K, C, S) ●Hansoku ("H") ●Number of injuries (0〜2) ●Color of contestant
3	Programmable Timer	5:30 15-P 1	●Timer that counts from 0 up to 99 minutes 59 seconds ●No. of times repeated (up to 199 times) ●Program No.
4	Pace Setter	: 1 2 120	●Rhythm(1〜9) ●Tempo(30〜255 times/minute) ●No. of times repeated ●● marks on both sides of the display panel visually indicate the tempo
5	Stopwatch	59:59 199 LP 99	●Up 199 hours, 59 minutes, and 59 seconds 99 can be measured and displayed ●Lap time (LP)/split time (SP) mark
6	Timer (with Warning Buzzer)	99:59 9	●Count down or up timer (Any desired amount of time up to 99 minutes and 59 seconds can be set for the Timer) ●Measurement in one or 1/10 second increments
7	Clock & Alarm	10:08 59	●Current time (hour, minutes and seconds are displayed)

■ Specifications

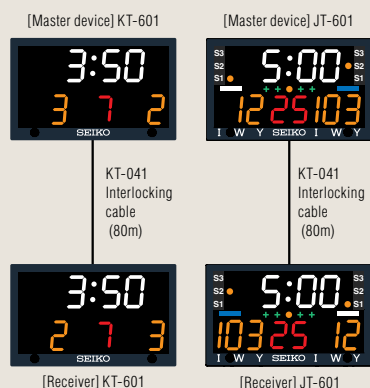| Display		High-intensity LED
Character height	Contest time section	130mm
	Point section	120mm
	Osaekomi time section	110mm
Power supply		AC 100V 〜 240V, 50/60Hz (maximum power consumption: 30W)
Appearance	Main unit	Apporox. W650 x H400 x D220mm
	Material	ABS resin
Weight		Apporox. 4.3kg (main unit), 0.7kg (adapter with power cable)

★By using interlocking cable KT-041 (80m: option), up to four units of JT-601 can be connected as secondary units to the master JT-601 unit.

★JUDO Timer JT-601 is designed for indoor use only.

■ Examples of Equipment Connection to KT-601/JT-601

KT-601〜KT-601／JT-601〜JT-601

By using interlocking cable KT-041, KT-601/ JT-601 can be interlocked with up to 4 other units of KT-601/JT-601, respectively, as receivers.

[Master device] KT-601   [Master device] JT-601

KT-041 Interlocking cable (80m)   KT-041 Interlocking cable (80m)

[Receiver] KT-601   [Receiver] JT-601

KT-601/JT-601〜ST-306

A part of data being measured or counted by KT-601/JT-601 can be displayed on the Running Timer ST-306.

KT-601 or JT-601

Cable for exclusive use with KT-601/JT-601 (option)

ST-306

CT-2000〜KT-601/JT-601

The time data being measured by the Sports Printer CT-2000 can be displayed on KT-601/ JT-601.

CT-2000

Cable for exclusive use with KT-601/JT-601 (option)

KT-601 or JT-601

■ Options for KT/JT Series

Example use with KT-601   Example use with KT-401   Example use with KT-501   Example use with KT-601 and dedicated stand

Stand for exclusive use with KT-601/401 and JT-601
KT-011

Outer dimensions	W480 x H870 x D558mm
Material	Steel plate with baked finish
Weight	Approx. 5.1kg

★ To use with KT-401, two units of KT-011 are required.

Stand for exclusive use with KT-501
KT-013

Outer dimensions	W520 x H1,400 x D750mm
Material	Steel plate with baked finish
Weight	Approx. 12kg

★ To use with KT-501, two units of KT-013 are required.

Team Name Display Plate
KT-021

Outer dimensions	W905 x H305 x D65mm
Weight	Approx. 1.6kg

Carrying bag for KT-601/JT-601
KT-032

External High-Volume Buzzer
BZ-050

Outer dimensions	W220 x H128 x D120mm
Weight	Approx. 1.7kg

★ Two different sounds can be generated.

Interlocking Cable (80m) KT-041   ★ Cable for interlocking operation between more than one unit of KT-601 or JT-601.

Time-Out Request Device (Possession Display Device) TO-200

❙ **Display device that indicates, with the arrow, the team requesting time-out in volleyball, or the team entitled to the alternating possession throw-in in basketball.**

❙ **Request of time-out and cancellation of request can be made either on the display device or on the operation boards placed at each side of the teams.**

❙ **By connecting a buzzer device, a signal to sound a buzzer can be output.**

Official side

■ Specifications

|	
Display	Display with built-in lamp (covered with red acrylic resin)
Character height	Approx. 200mm
Power supply	AC 100V, 200VA
Outer dimensions	W400 x H135 x D200mm (excluding protrusions)
Weight	Approx. 6kg

Court side

Buzz Device BZ-330

❙ **Buzzer device that signals, with high-volume sound, the end of the game, etc. to the athletes, officials and audience.**

❙ **Three buzzers with different tones are available, and they can be used respectively as a signal for the end of 24-/30-second countdown, or the end of the game, or other signals given manually, as desired. (Volume control available)**

■ Specifications

Power supply	AC 100V
Outer dimensions	W300 x H250 x D340mm (excluding protrusions)
Weight	Approx. 9kg

Front side   Back side
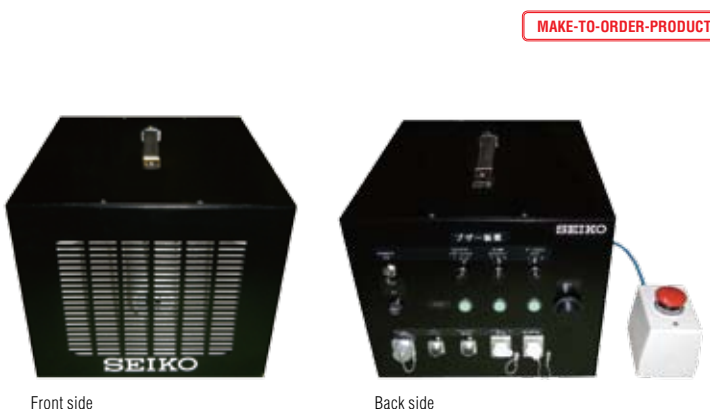
Number of Fouls Display Board FH-200

❙ **Portable three-sided display board that indicates the number of team and personal fouls.**

❙ **By connecting an operation board, the number of team and personal fouls is displayed automatically.**

■ Specifications

Display		7-segment red LED
Character height		Approx. 200mm
Power supply	Display board	24V is supplied from the operation board via a cable.
	Operation board	AC 100V
Outer dimensions	Display board	W220 x H600 x D315mm (excluding the height of the stand [1,030~1,585mm])
	Operation board	W400 x H80 x D215mm (excluding protrusions)
Weight	Display board	Approx. 18kg
	Operation board	Approx. 4kg

Display board   Operation board

Capable of displaying scores and other information in various indoor sports events.

Multiple-purpose game display system

Available for basketball, volleyball, badminton, table tennis, judo, and karate.

■ Features

▌ **Multi-purpose scoreboard equipped with a large-sized full-color display.**

▌ **Capable of displaying scores and other information in indoor games including basketball (supporting period system, two-halves system, and mini basketball), volleyball, badminton, table tennis, judo, and karate.**

▌ **Easy time measurement and score input via a dedicated operation board.**

★ Example use with a stand to guard against balls.

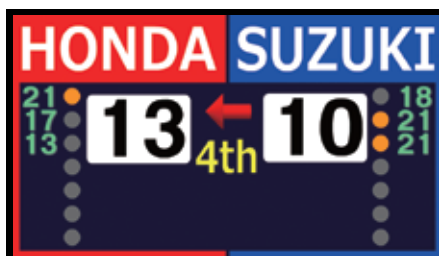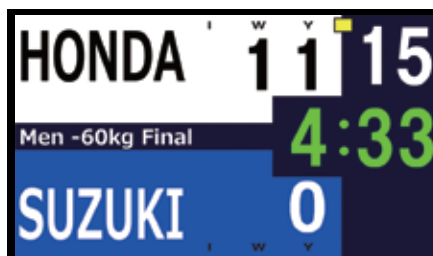## ■ Example displays

Basketball

Volleyball

Badminton

Table tennis

Judo

Karate

System configuration **MAKE-TO-ORDER-PRODUCT**

Game Operation Board: 1 unit
Time Operation Board: 1 unit
Team Name/Score Input Device: 1 unit
Budo (martial arts) Time Operation Board: 1 unit
Carrying case: 1 unit
Accessory cables: 1 set

OPTION

Multi-Purpose Game Display Board (including a floor stand): 2 units
Stand to guard against balls: 2 units
Megaphone (large-volume horn): 1 unit

From left, Budo Time Operation Board, Game Operation Board, Time Operation Board, and Team Name/Score Input Device

Suitable for installation in parks and parking lots, and on walls of gymnasiums

OUTDOOR CLOCK

Being superior to conventional glass in resistance to breakage, heat resistance and durability, polycarbonate is used for cover glass to enhance safety and light weight.
Optional protector is recommended as a precaution against balls or the like that may hit the clock.
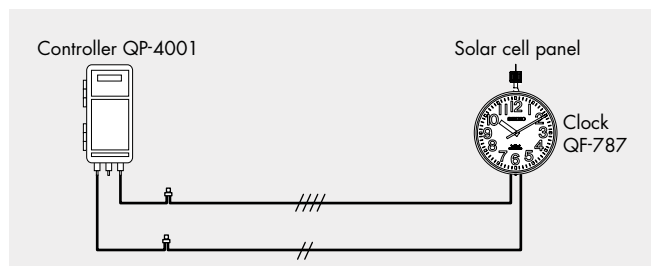
Solar-Powered Clock

QF-787

■ Specifications

Frame	Stainless steel
Cover glass	Polycarbonate
Thickness	300mm
Weight	18kg
Visibility Distance	Approx. 56～112m

The pole is sold separately.

Distribution diagram

Controller QP-4001   Solar cell panel

Clock
QF-787

★ A controller for exclusive use with QF-787 (QP-4001) is required.

Large-Sized Wall Clock

FC-703

■ Specifications

Frame	Steel, Coffee brown color
Cover glass	Polycarbonate
Thickness	99mm
Weight	7.5kg
Visibility Distance	Approx. 56～112m

Distribution diagram

Controller AP-4031

Clock
FC-703

AC220V
～240V   Extension cable
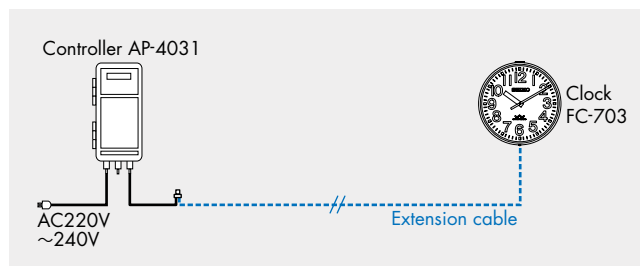
★ A controller for exclusive use with FC-703 (AP-4031) is required.

Controller

★ The controller is for indoor use only.

QP-4001

■ Specifications

Size	W110 x H211 x D77mm
Weight	530g

AP-4031

■ Specifications

Size	W110 x H211 x D77mm
Weight	530g

Protector for 700-mm Outdoor Wall Clock

TK-S2

■ Specifications

Frame	Stainless steel, Coffee brown color
Pipe	φ 6mm

Mount the protector directly on the clock. It is necessary to drill mounting holes on the clock, using an electric drill or the like.
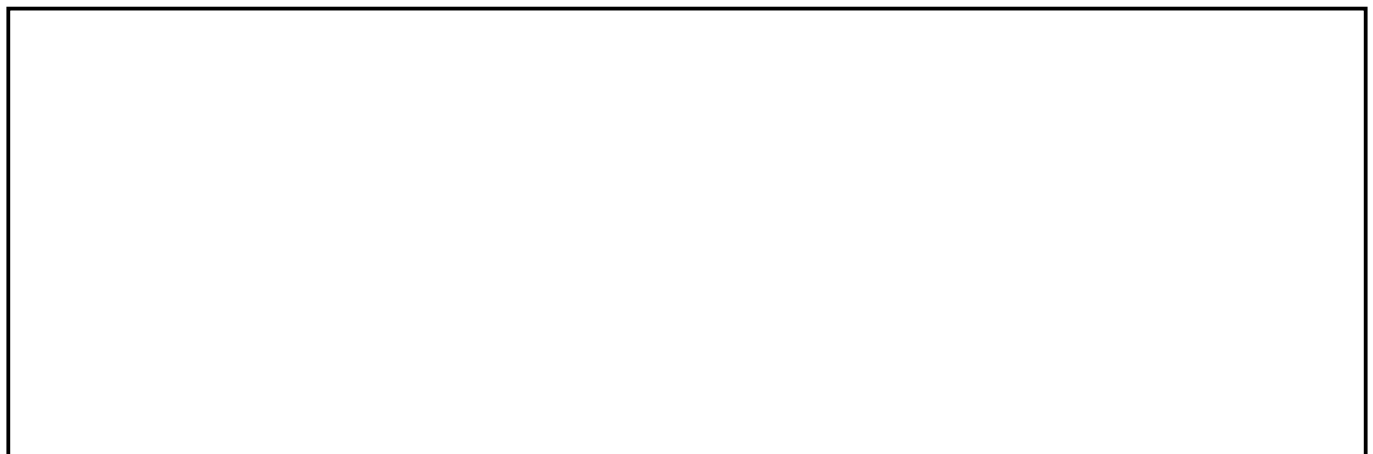
★ Photo TK-S2 on FC-703.

SEIKO

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★ The design and specifications are subjects to change without prior notice for product improvement.