SEIKO

AQUATIC SYSTEMS

Catalogue

SEIKO TIME CREATION INC.

Swimming System

Accurate Measurement,Quick Processing,and Real-Time Display-
SEIKO supports swimmimg competitions in a comprehensive manner.

SEIKO has always been on the leading edge of the advances in swimming systems,taking the advantage of the know-how it has accumulated while being involved in a numerous number of international competitions. SEIKO's constant pursuit of innovation in technology has been realized in each of its products,ranging from highly precise timing devices to large scoreboard system to control the progress of the competition.

Scoreboard system <Refer to P8>

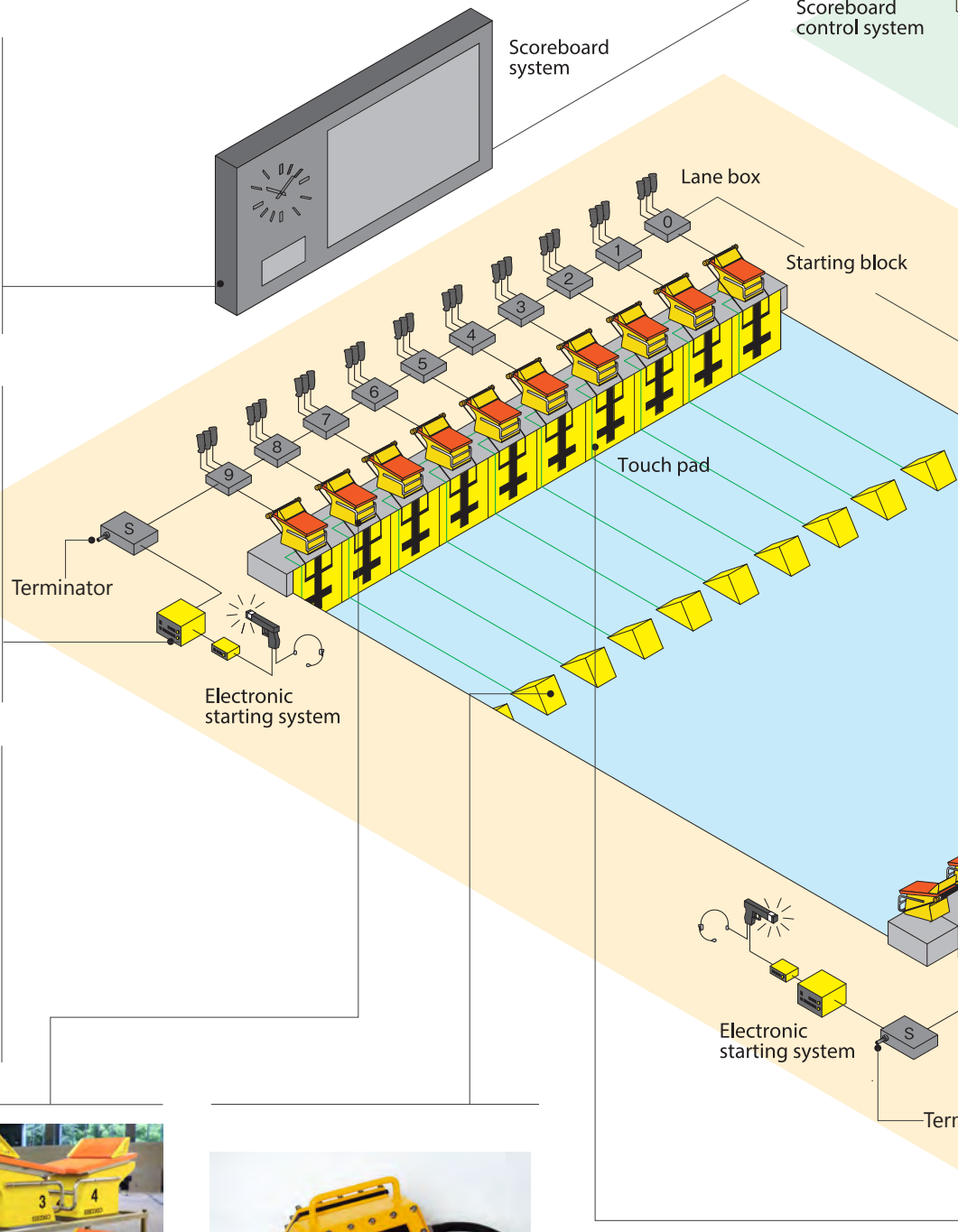
Electronic starting system
PS-1300 <Refer to P6>

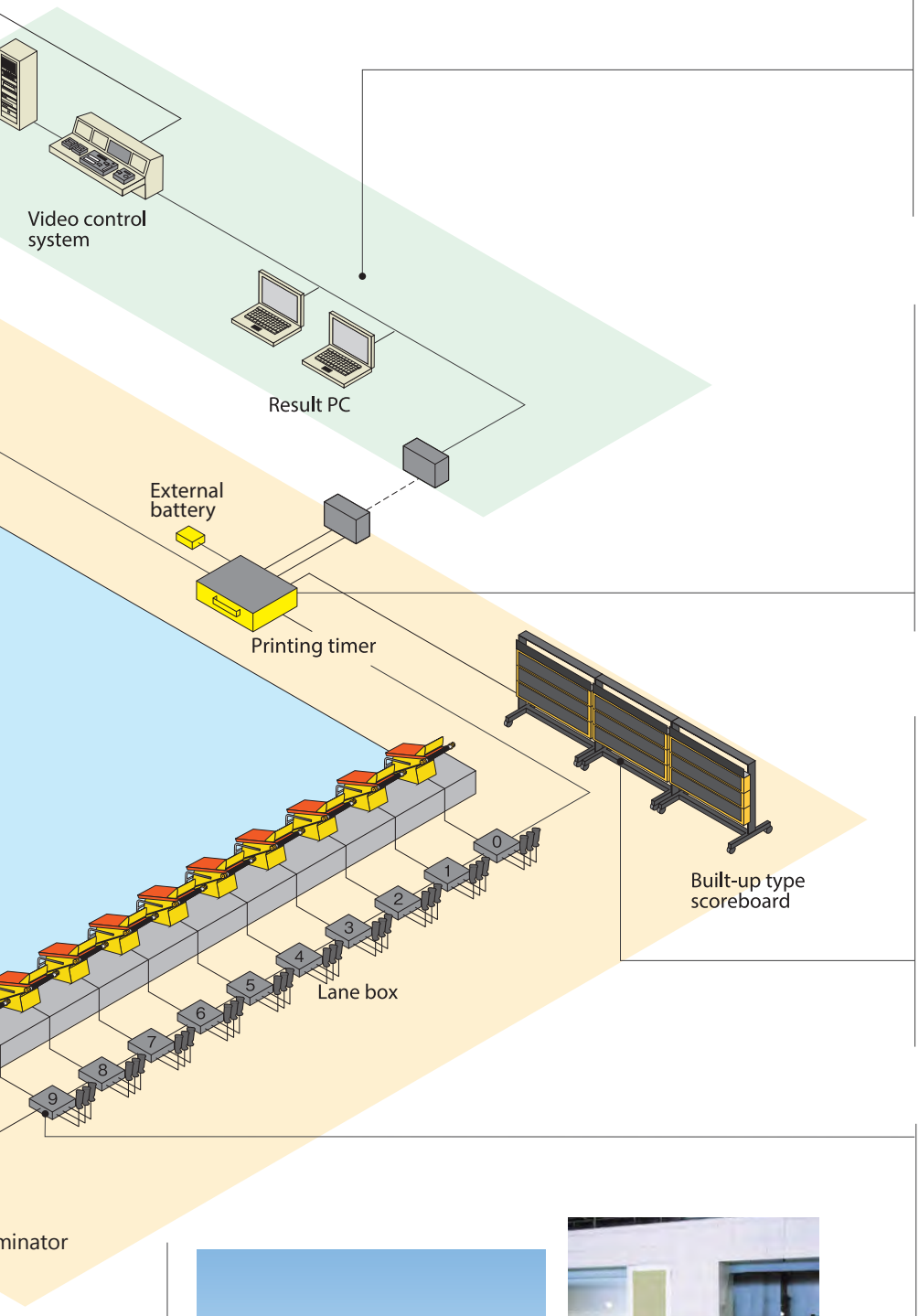
Backstroke ledge
BSL-120 <Refer to P5>

Starting block
SB-400/SB-420 <Refer to P4>

Starting block cart
SB-460 <Refer to P4>

Under water lap counter system
<Refer to P7>





Result system <Refer to P7>

Printing timer
PT-8000X <Refer to P3>

Built-up type scoreboard
SB-5010 <Refer to P8>

Lane box
LB-90～99/LB-9S/LB-9M <Refer to P6>

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

Touch pad
TP-3000/TP-3019 <Refer to P5>

Touch pad storage cart
TF-40 <Refer to P5>

PRINTING TIMER PT-8000X

In accordance with FINA Rules

Multi-Functional and User-Friendly

1. Automatic operation backup function to offset mistakes in operation.
2. All the functions required for a swimming timing system is integrated into one unit to offer constant, stable performance.
3. Specially designed for timing of swimming races - no need of all-purpose PCs or software.
4. Dedicated keys for inputting event names and other data, and LED display for confirming the settings have further enhanced the operationability of the system.
5. Memorizes data of up to 400 races.
6. Easy-to-read display panel of intensified LCD.
7. High-speed built-in printer to print out large volume of data.

Race details setting section

Button switch section

■DATA PRINTOUT

```
          HEAT:   1-01
MEN   50M      FREESTYLE
                 RESULT
P L TURN         TIME
1 5  1S         25.77 G
2 6  1S         26.35 G
3 7  1S         26.88 G
4 4  1S         27.56 G
5 8  1S         28.14 G
6 3  1S         28.67 G
7 1  1S         29.28 G
8 2  1S         29.88 G
```

Finish data in order of finish

```
          HEAT:   1-01
MEN   50M      FREESTYLE
                 RESULT
L P TURN         TIME
1 7  1S         29.28 G
2 8  1S         29.88 G
3 6  1S         28.67 G
4 4  1S         27.56 G
5 1  1S         25.77 G
6 2  1S         26.35 G
7 3  1S         26.88 G
```

Finish data in order of Lane No.

```
          HEAT:   1-**
MEN   50M      FREESTYLE
          RANKING RESULT
P   PROG L     TIME
1   1-03 5     25.55
2   1-02 5     25.74
3   1-01 5     25.77
4   1-03 6     26.11
5   1-02 6     26.33
6   1-01 6     26.35
7   1-03 7     26.49
8   1-01 7     26.88
9   1-03 4     26.97
10  1-02 4     27.02
```

Ranking data

```
          HEAT:   2-01
MEN  400M   FREE RELAY
          RELAY ERROR
LANE:1
     TURN       TIME
       1S     + 0.36
       2S     - 0.13   RE
       3S     + 0.27
LANE:2
     TURN       TIME
       1S     + 0.31
       2S     + 0.11
       3S     - 0.10   RE
LANE:3
     TURN       TIME
```

Relay exchange data

■SPECIFICATION

Time accuracy	Crystal oscillator type, less than 1 ppm at normal temperatures
Measurement unit and place judgment	1/100 sec., same place assigned to same finish time
Maximum time measured	59 minutes 59 seconds 99
Maximum number of lanes for measurement	10 lanes
Selection of distance	25, 50, 100, 200, 300, 400, 800, 1,500m and (not specified)
Memory capacity	Up to 400 races
Selection of pool length	25/50m
Power supply	DC 12 V battery with recharger for exclusive use with PT-8000X (built-in NiCd battery)
Operational temperature and humidity ranges	0～+40℃, 30～80 %
External view	Attache case type with control panel on the top
Overall dimensions	W474×H136×D328mm (excluding protruded portion)
Weight	Approx. 8.0kg (including the case)

STARTING BLOCK SB-400/SB-420

In accordance with FINA Rules

Securely Detects Illegal Takeoff in Relay Race with relay error sensor

- The starting block has a built-in sensor, which detects even the slightest illegal take-off of a swimmer in a relay race.
- Starting block without relay error sensor, SB-420 is also available.
- Built-in speaker, back stroke ladge are available as options.

Platform
with relay error sensor PF-400

●Starting block cart SB-460

■SPECIFICATION

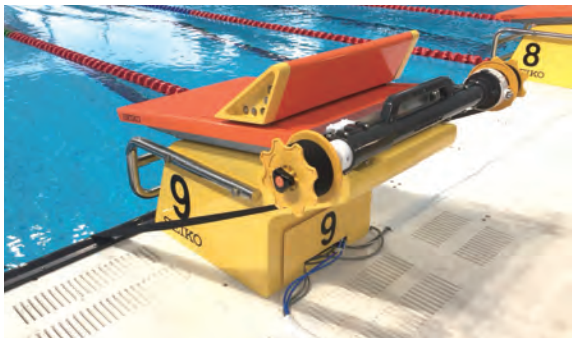
Material	FRP & Stainless steel
Platform dimentions	500×750mm 670mm above the water surface
Footrest	5steps variableness-style footrest avilable (30°)
Total weight	Approx.43kg

BACKSTROKE LEDGE BSL-120

In accordance with FINA Rules

Nine adjustable positions for the height of ledge (±40mm from water level)

The SEIKO Backstroke ledge BSL-120 is a starting aid for backstroke swimmers designed for exclusive use with the SEIKO starting block SB-400 series for swimming competition.



■SPECIFICATION

Material	Main body: resin (with aluminum pipe) Strap: PP Footrest: resin (with stainless steel rear plate)
Dimensions	Footrest: W800×H80×D20mm (slope angle: 10°)
Weight	Main body: Approx. 4.5kg Attachment fitting for Backstroke Ledge: Approx. 1.5kg

TOUCH PAD TP-3000/TP-3019

In accordance with FINA Rules

Securely Detects Swimmer's Touch

- Swimmer's touches detected are instantly converted into electric signals and sent to the printing timer.
- Does not react to water pressure or splashes.

●Touch pad storage cart TF 40

■SPECIFICATION

Material	Frame: Aluminum & Stainless steel Front panel: PVC
Surface treating	Frame: Almite & painted Black Front panel: Resin fine particle coating Yellow
Overall dimentions	TP-3000: W2420×H917×D68mm TP-3019: W1980×H917×D68mm
Thickness	10mm
Weight	Approx. 20kg

ELECTRONIC STARTING SYSTEM PS-1300

In accordance with FINA Rules

Generating Electronic Start Sound/Start Signal

- As electronic start sound is generated, start signal is sent to the printing timer simultaneously.
- Two types of start sounds(beep, gun fire) are available.
- Strobe position is top of the pistol easily viewable point.

Electronic starter PS-110

SPECIFICATION

PS-1300 main unit

Power supply	DC12V,17Ah Small-sized valve regulated acid batteries
Overall dimentions	W264×H203×D390mm
Weight	Approx. 14.5kg

Starter box

Overall dimentions	W183×H62×D150mm
Weight	Approx. 1.3kg

Pistol

Power supply	DC 3V (LR06"AA" alkaline dry battery, 2 pieces)
Material	Aluminum
Overall dimentions	W210×H40×D145mm
Weight	Approx. 0.4kg (excluding dry cells,cord)

LANE BOX LB-90~99/LB-9S/LB-9M

In accordance with FINA Rules

Sorting Data Lane by Lane

5 signals sent from touch pads, relay error sensors and 3grip switches are sent to the printing timer by one unit.

LB-90~99 (Lane 0~9)

LB-9S (Start box)

LB-9M (Multi lane-type)

Grip switch

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

SPECIFICATION

Power supply	PT-8000X supply
Overall Dimensions	W140×H105×D52mm
Material	Plastic (ABS) PANTONE 432C (Gray)
Weight	Approx. 0.4kg

RESULT SYSTEM

In accordance with FINA Rules

For Smooth and Efficient Management of a Sports Meet

The result software is equipped with basic functions required in running a competition. It performs a series of data processing operations, including creation of start lists, automatic input of lap and goal times to a printing timer connected to it, and printing of race results. The language of the button names and title of each screen can be changed as desired in the screen for language setting.

UNDERWATER LAP COUNTER SYSTEM

In accordance with FINA Rules

Accurately informs the remaining namber of laps.

The SEIKO underwater lap counter system for swimming competition displays to the swimmer the remaining number of laps in a long-distance race in a visible manner using a display board installed underwater. Operating in sync with the printing timer, the operation board automatically calculates the remaining number of laps, and displays in on the underwater display board installed in each lane. With the use of the two-digit high-intensity LED display that enables the swimmers to know the remaining number of laps to swim easily, this system supports the safe and smooth progress of the swimming competition.

■SPECIFICATION

Overall dimensions	Underwater display board: W150×H117×D200mm Repeater for underwater display board: W171×H55×D121 mm Operation board: W305×H155×D255mm (excluding protrusions)
Material	Underwater display board: Stainless (yellow matte baked acrylic resin coating) Repeater for underwater display board: ABS resin Operation board: Stainless/Aluminum trunk (Panel: gray matte acrylic resin coating)
Display	Underwater display board: 7-segment LED, Red, 45mm of character height Operation board: 7-segment LED, Red, 15mm of character height
Input power supply	Underwater display board: DC12V (supplied from repeater) Repeater for underwater display board: DC12V
Weight	Underwater display board: Approx. 9.5kg (including cables) Repeater for underwater display board: Approx. 0.6kg Operation board: Approx. 5.1kg

BUILT-UP TYPE SCOREBOARD SB-5010

Easy to Move, Easy to Set Up

- Up to 11 display units can be built into a scoreboard according to the number of lanes used in the competition.
- Visible distance is approximately 100 m.
- The height of the scoreboard stand (PL-04S) can be adjusted as required.
- A fixed-type scoreboard can be constructed by using desired number of display units.
- Powered by battery, the scoreboard can be relocated easily.

* AC-powered model is available as an option.

■SPECIFICATION

◆Display unit SB-5010 (For 1 lane)

Power supply	DC 12 V (supplied to the controller SB- 5020 from an external battery)
Display element	Electromagnetic 7-segment type
Character height	200mm
Overall dimensions	W2030×H330×D150 mm
Weight	Approx. 22 kg

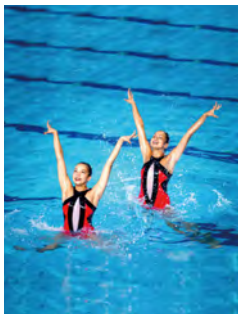
SCOREBOARD SYSTEM

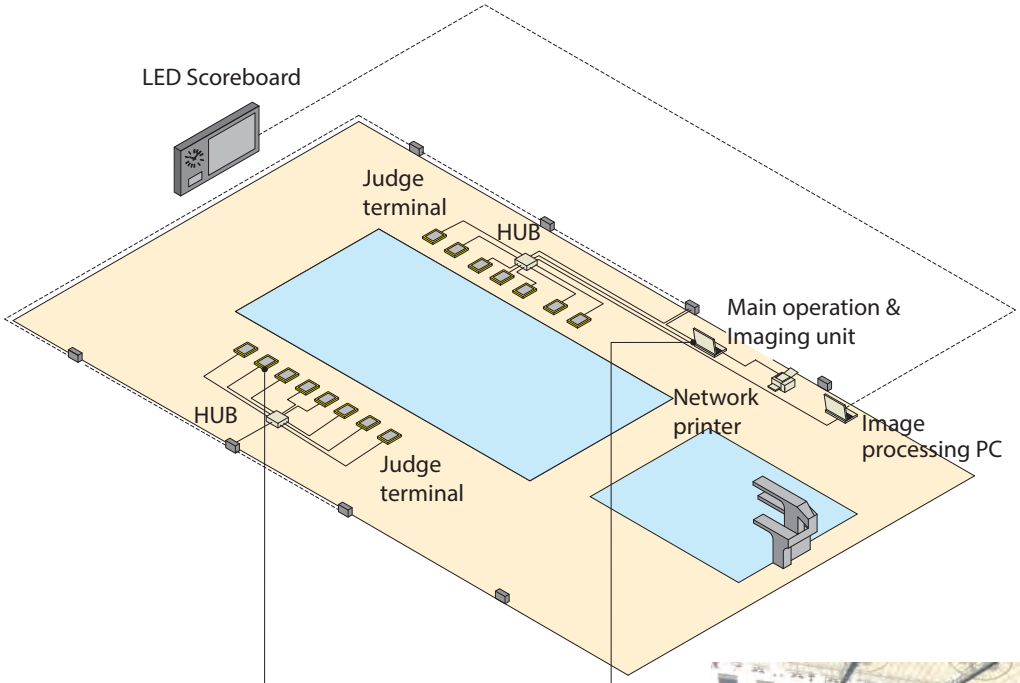
More Vivid and Appealing to the Eye

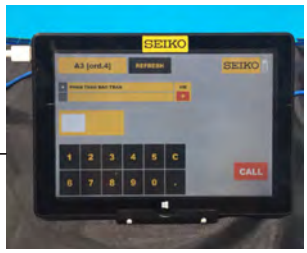
The moment all the people in the swimming arena — from the swimmers and audience to the officials—direct their eager attention to the scoreboard, the excitement and emotion among them reach their peak. SEIKO's scoreboard helps augment such dramatic moment.

ARTISTIC SWIMMING (SYNCHRONIZED SWIMMING) SYSTEM

In accordance with FINA Rules





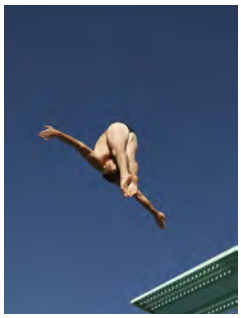


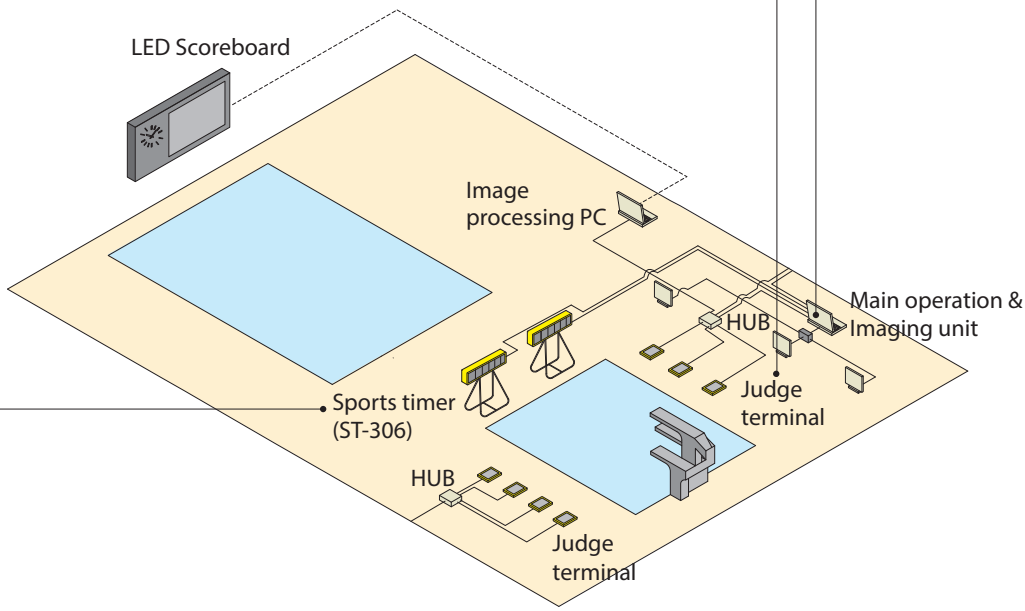
Judge terminal

Main operation Unit

DIVING SYSTEM

In accordance with FINA Rules





Sports timer (ST-306)

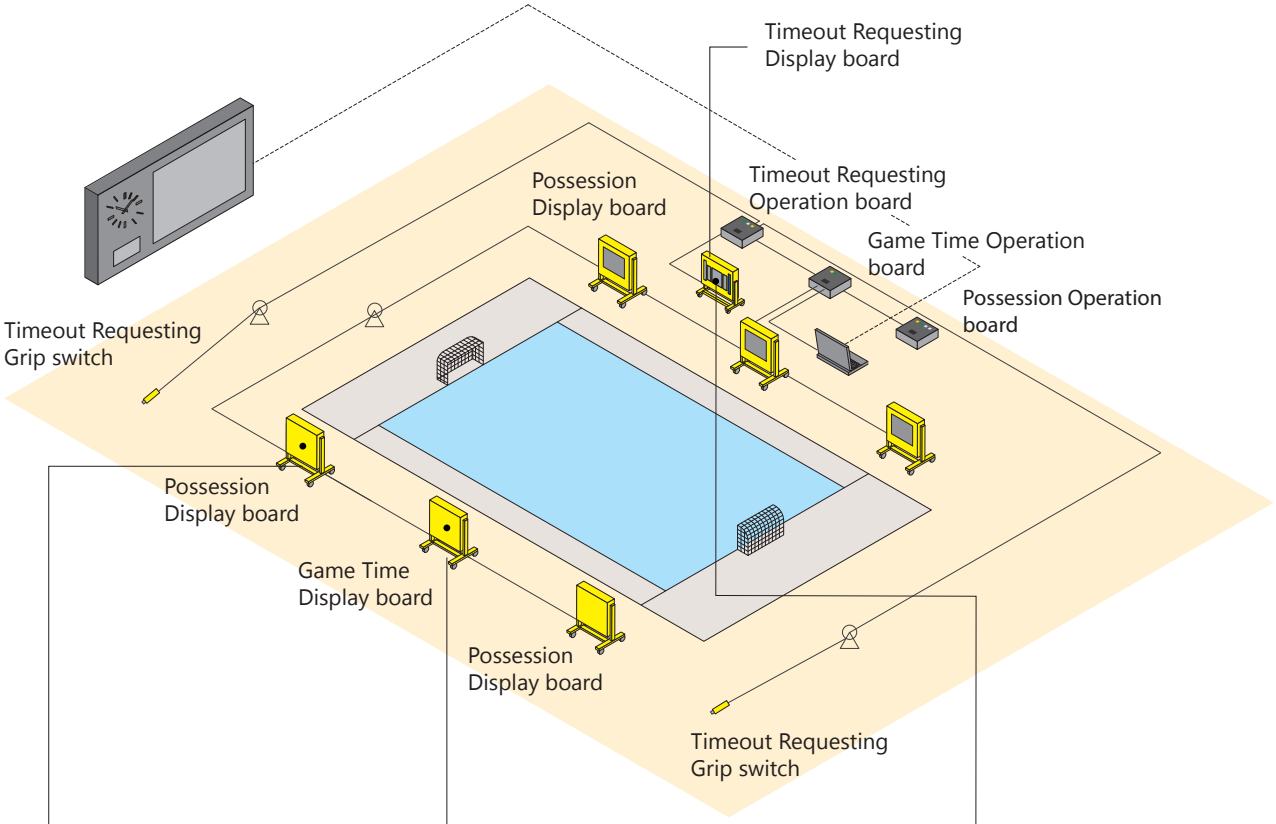
WATER POLO SYSTEM

In accordance with FINA Rules

Possession Operation board

Timeout Requesting Operation board

Game Time Operation board

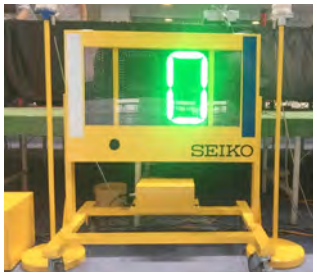


Possession Display board

Power supply	Rechargeable battery 12V
Display element	RED LED,7-segment
Character height	330mm
Overall dimensions	W660×H920×D680mm
Weight	Approx. 17kg (Equipped with a built in horn)

Game Time Display board

Power supply	Rechargeable battery 12V
Display element	RED LED,7-segment
Character height	330mm
Overall dimensions	W960×H1122×D704mm
Weight	Approx. 20kg (Equipped with a built inhorn)



Timeout Requesting Display board

Power supply	Rechargeable battery 12V
Display element	RED LED,7-segment
Character height	330mm
Overall dimensions	W660×H920×D680mm
Weight	Approx. 17kg (Equipped with a built in horn)

SEIKO

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