



AQUATICS SALES CONSULTING

Overview

Swiss Timing provides unsurpassed range of products and services for AQUATICS, including timing & scoring devices in full compliance with the International Swimming Federation (FINA).

This consulting document explains the various aspects of every discipline in aquatic sports as well as the high standard requirements for the configuration of the installations of timing equipment ensuring the precision to the 100th of a second.





TRUST SWISS TIMING!

Swimming has been included in the Summer Olympic Games programme since the first edition of the modern Olympic Games in 1896. With athletics, it is the sport with the highest number of participants and which usually gathers most of the medals.

It's indeed a long love story between aquatic sports and Swiss Timing. Both OMEGA and Swiss Timing have revolutionised the timing and scoring services of the aquatic disciplines with advances such as the timing system Quantum, the Touchpads, the Relay Break Detection Starting Block and the most recent innovation, the Backstroke Ledge.

MAIN INNOVATIONS IN AQUATIC SPORTS

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- 1968** touchpads are introduced in the swimming pools for the Olympic Games. The swimmers stop their own clock by applying a force of about 2 kg to the touchpad.
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- 1994** introduction of the Commentator Information System (CIS) at the 1994 Europrint Swimming in Norway.
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- 2000** launch of the live timing which permits to get the results of each race being posted to omegating.com just 15 seconds after the pads have been touched at the finish.
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- 2003** introduction of the "virtual record line" at the FINA World Championships in Barcelona which allows broadcasters to electronically superimpose a moving red line across the pool which shows the world record pace.
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- 2004** open water swimming: introduction of a finish gate with manual contact of each swimmer.
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- 2007** swimming competitions: digital high-speed video cameras are placed above the pool at the end of each lane and provide a reliable back-up system to the electronic main system.
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- 2010** with an enhanced resolution of 1 μ s (one millionth of a second) the Quantum Aquatic Timer is the beginning of a new generation for OMEGA Timing products.
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- 2011** open water swimming: an intermediate gate captures the passage of swimmers wearing transponders.
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- 2012** introduction of the Virtual Diving Animations. These are animated two-dimensional clips which are also superimposed on television screens and demonstrate the type of dive to be performed by the athlete.
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- 2014** introduced at the FINA 2014 Short Course Swimming Championships in Doha, the Underwater Lap Counters count down the number of remaining laps for each swimmer in long distance races.
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- 2015** the Backstroke Ledge improves the start push and trajectory of the swimmers when competing in the backstroke events.
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VALUABLE PARTNERSHIP WITH FINA

Swiss Timing is very proud of its relationships with the main International Sports Federations and especially with the FINA. This association dates back to 1973, when OMEGA served as official timekeeper during the first FINA World Championships in Belgrade.

The long-term agreement has been extended through to 2021 and includes some of the world's major aquatic events.

Essential to mention that, in addition to aquatic systems, Swiss Timing also provides services such as timing & scoring, on-venue results and broadcast solutions for major sporting events throughout the world. Today, Swiss Timing is composed of more than 400 employees spread over three companies located in Europe.

More information at www.swisstiming.com

REFERENCES

EVENTS SERVICED BY SWISS TIMING		T&S*	OVR**	TV GRAPHICS	VIRTUAL GRAPHICS	CIS***
SWIMMING	IOC	SUMMER OLYMPIC GAMES	•	•	•	•
		SUMMER YOUTH OLYMPIC GAMES	•	•	•	•
	FISU	SUMMER UNIVERSIADE	•	•	•	•
	OCA	ASIAN GAMES	•	•	•	•
	CGF	COMMONWEALTH GAMES	•	•	•	•
	FINA	WORLD CHAMPIONSHIPS	•	•	•	•
		WORLD CUP	•	•	•	•
	LEN	EUROPEAN CHAMPIONSHIPS	•	•	•	•
	US Swimming	US TRIALS	•	•	•	•
US NATIONALS		•	•	•	•	
DIVING	IOC	SUMMER OLYMPIC GAMES	•	•	•	
		SUMMER YOUTH OLYMPIC GAMES	•	•	•	•
	FISU	SUMMER UNIVERSIADE	•	•	•	•
	OCA	ASIAN GAMES	•	•	•	•
	CGF	COMMONWEALTH GAMES	•	•	•	•
	FINA	WORLD CHAMPIONSHIPS	•	•	•	•
		WORLD CUP	•	•	•	•
LEN	EUROPEAN CHAMPIONSHIPS	•	•	•	•	
SYNCHRONIZED SWIMMING	IOC	SUMMER OLYMPIC GAMES	•	•	•	
	FISU	SUMMER UNIVERSIADE	•	•	•	•
	OCA	ASIAN GAMES	•	•	•	•
	FINA	WORLD CHAMPIONSHIPS	•	•	•	•
	LEN / FINA	SYNCHRO TROPHY	•	•	•	•
	LEN	EUROPEAN CHAMPIONSHIPS	•	•	•	•
OPEN WATER	IOC	SUMMER OLYMPIC GAMES	•	•	•	
	FINA	WORLD CHAMPIONSHIPS	•	•	•	•
	LEN	EUROPEAN CHAMPIONSHIPS	•	•	•	•
WATER POLO	IOC	SUMMER OLYMPIC GAMES	•	•	•	
	FISU	SUMMER UNIVERSIADE	•	•	•	•
	OCA	ASIAN GAMES	•	•		
	FINA	WORLD CHAMPIONSHIPS	•	•	•	•
	LEN	EUROPEAN CHAMPIONSHIPS	•	•	•	•
	SOUTH AMERICAN GAMES		•			

* T&S: Timing & Scoring

** OVR: On-Venue Results

*** CIS: Commentator Information System



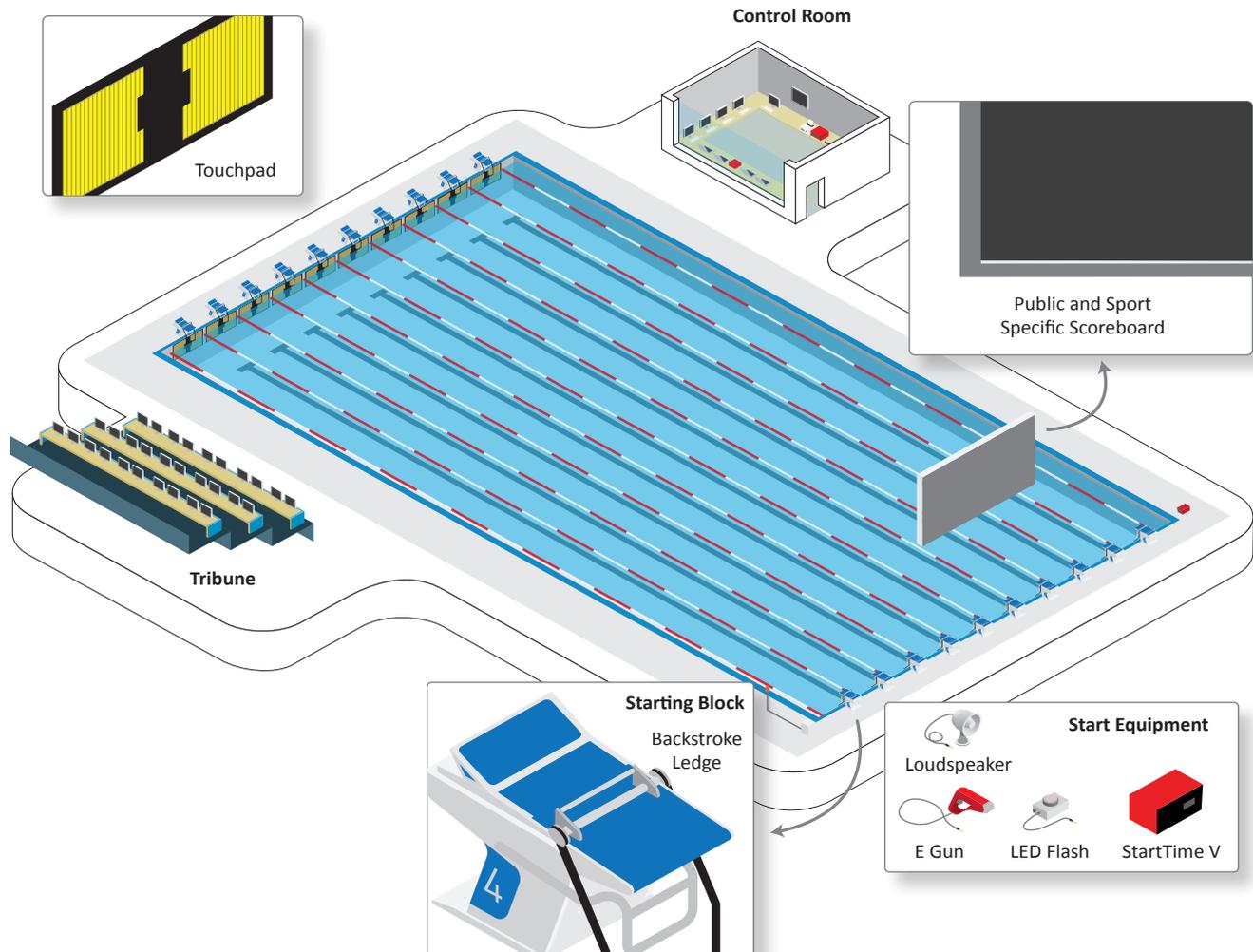
SWIMMING



CHOOSE THE BEST EQUIPMENT

CONTROL ROOM SPECIFICATIONS

- Lockable room
- (indoor) temperature: 20-23°
- Power supply: 110/240V 50-60Hz



KEY POINTS OF THE POOL

Pool length:

- Long course, 50m
- Short course, 25m
- Non-FINA 50m
- Non-FINA 25m or 25yd

QUANTUM AQUATIC



The **Quantum** is an intelligent timer with inputs/outputs interface and on-board memory buffers. All swimming events are recorded through each input port and are identified with a unique data code. Data from the timer interface is transmitted to the related computers through a USB port.



To ensure the security of the results, the Quantum offers primary & secondary solutions. To be used in such a way, two timing computers are necessary.

Primary & Secondary Quantum timers provide high precision. All information and pulses entering in Quantum are always received by both Primary & Secondary timers.

In terms of data handling this system allows:

- start lists and event data including titles and records to be loaded into the main timer database
- a full result list to be generated by the timer, including competitor names

The contact strips within the pad will close and thus give a timing signal, when about 2 kg of localised pressure is applied to any point on the surface of the pad. The clever design of the touchpad is such that whilst it is highly sensitive to localised impact, it will not react to an overall change in surface pressure, thus eliminating false impulses from waves and wash.

Specifications

Touchpad Types	Length	Height	Lane width	Weight
OCP5 240-90 FINA	2403	905	2500	18.0
OCP5 227/90 FINA	2265	905	2500	17.0
OCP5 190/90	1908	905	2000	12.8
OCP5 200/60	2003	605	2100	10.2
OCP5 150/160	1503	605	1600	7.3

Unit: mm / kg

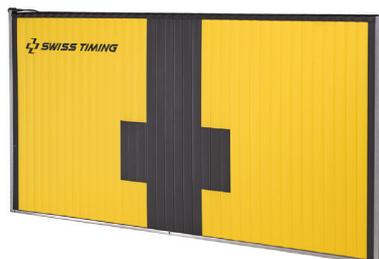
OCP5 - TOUCHPADS



TOP FEATURES

- High sensitivity
- Easy on-site maintenance
- Non-slip, non-abrasive, non-corrosive
- Low weight
- Easy storage and transport
- 4 standard sizes
- FINA recommended

The **OCP5 Touchpad** consists of a high-grade stainless steel frame, supporting interlinked individual PVC slats. The slats are hard-wearing, non-abrasive and provide an excellent non-slip surface. The touchpad is designed for sustained heavy use. Reliability and durability are unaffected by hard water or chemical corrosion.

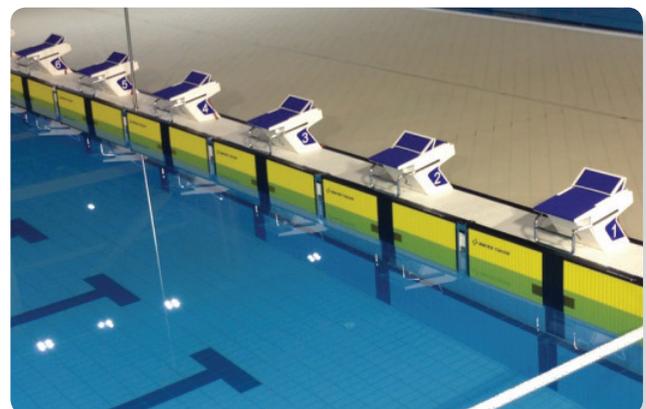


TROLLEY FOR TOUCHPADS

A specially designed storage and transport trolley is also available and can accommodate up to ten full height OCP5 touchpads.



This recommended option can be combined with a PVC protective cover to preserve the pads during storage periods.



STARTING BLOCK - OSB11



TOP FEATURES

- Adjustable footrest
- Anti-slip surface
- Extended platform surface
- Easy handgrip
- Available versions: standard or with RBD (Relay Break Detection)

The **OSB11** presents a powerful feature, revolutionising the way swimmers start from their blocks. Physical tests undertaken by top level swimmers showed faster starts versus a standard block.

OSB11 starting blocks have been tested by world-class swimmers, who have helped to specify the optimum angles of both the platform and the footrest for racing starts. Design research also applied to the top surface, resulting in a very comfortable yet rough enough platform to guarantee the swimmer a feeling of total security.



STARTING BLOCK - OSB14



TOP FEATURES

- Adjustable footrest
- Small footprint
- Anti-slip surface

The **OSB14** is a part of the new generation of swimming starting blocks. It includes an inclined footrest which allows a significant improvement of thrust when the swimmer starts. This proven technology has been adapted to this new starting block.

The OSB14 is made of fibreglass to ensure the platform's robustness while optimising its weight (28kg). The platform is covered with an anti-slip top providing comfort and safety to the swimmer.



With a smaller base (200x320mm) than the OSB11 (350x570mm), this starting block can be installed in pools with minimal floor space.

BACKSTROKE LEDGE - OBL2 PRO



TOP FEATURES

- 5 different adjustment positions with a manual rotating system
- Greater angle between the legs and the water level
- Thicker handle for a better grip
- Simply and easily mounted and removed
- Full FINA compliance
- Fully compatible with OSB11, OSB12 and OSB14

The **OBL2 Pro** is the ideal complement to the starting blocks OSB11 and OSB14 for backstroke swimming starts.



Using this device, the angle between the legs and the water surface during the final push off the wall is greater. As a result, the arc made by the swimmer's feet and legs during the start phase will be with less contact with the water.



BACKSTROKE LEDGE TROLLEY

The ideal solution for the Backstroke Ledge storage. This trolley permits to store and transport easily up to 12 devices.



STARTTIME V - ELECTRONIC STARTING DEVICE

KEY
PRODUCT

TOP FEATURES

- Menu-driven setup through LCD and keypad
- Integrated and extra luminous flash signal
- Improved waterproof protection
- Built-in high fidelity loudspeaker and amplifier
- E-gun, headset with microphone and transportation case included
- Easy to use

Swiss Timing introduces the **StartTime V**. This version is composed of a flash gun (E-gun) or a microphone unit, and a sound generation box. It amplifies verbal commands and transmits start signal directly from the E-gun or the microphone to the timing device.



HARNESS

Used in case of mobile installation, the purpose of the **Harness** is to connect the different elements (touchpad, starting block and pushbuttons) of a swimming lane to the timing system (Quantum).

The mobile harness is a case which shows the number of the corresponding swimming lane and it is available from lanes 0 to 9.



ODB10 - DECK PLATE

The **ODB10** is a distribution box which allows accessibility to all cables from the pool. The Deck Plate is an integrated socket for a lane speaker, touchpad, pushbuttons and platform. Both devices are used in case of a fixed cabling installation.

LOUDSPEAKERS

Depending on the installation, Swiss Timing provides two kinds of speakers. Both systems are available as single pieces or as sets.

Internal loudspeaker: to use in case of a fixed cabling installation. The loudspeaker is installed inside the starting block in order to keep a tidy start area.



External loudspeaker: to use in case of a mobile cabling installation. This device can be placed around the starting block.



FLASH START - LED STARTING SIGNAL

TOP FEATURES

- Powered by the StartTime V
- Self-contained
- Extra luminous
- Best complement to acoustic start system
- Flash Start and acoustic start system are fully synchronised
- Visible from anywhere in the venue (360°)

The **Flash Start** is a self-contained optical starting signal for swimming competitions which enables one to see the exact starting moment of the race.

The Flash Start is the best complement to the acoustic system. Both systems are driven by the StartTime V.

This technology is helpful for the athlete who often wears earplugs which decrease the hearing capacity, and for the spectator who can see the start of the race from anywhere in the venue.





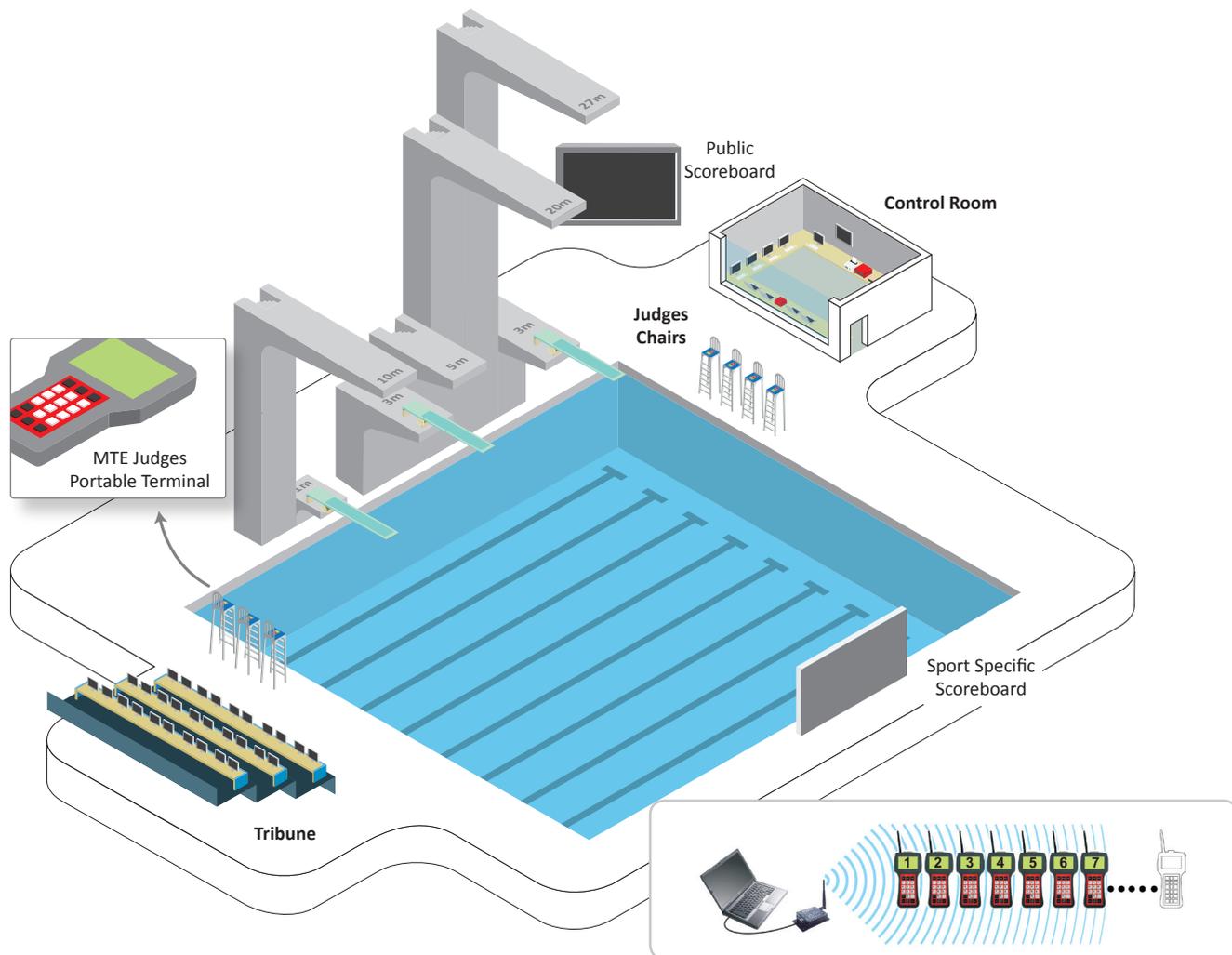
DIVING HIGH DIVING



CHOOSE THE BEST EQUIPMENT

CONTROL ROOM SPECIFICATIONS

- Lockable room
- (indoor) temperature: 20-23°
- Power supply: 110/240V 50-60Hz



MTE - JUDGE'S PORTABLE TERMINAL



TOP FEATURES

- Lightweight, ergonomic housing
- Easily understandable graphic user interface
- Wide range wireless connection
- Up to 15 MTEs connected in series

The handheld unit is wirelessly linked to a centralised scoring system using the industry-standard ZigBee transmission protocol.

It is equipped with an 18-key keypad including 11 numerals and 7 function keys. Each key is made of a separate microswitch, the whole being protected by an embossed plastic sheet.





SYNCHRONIZED SWIMMING

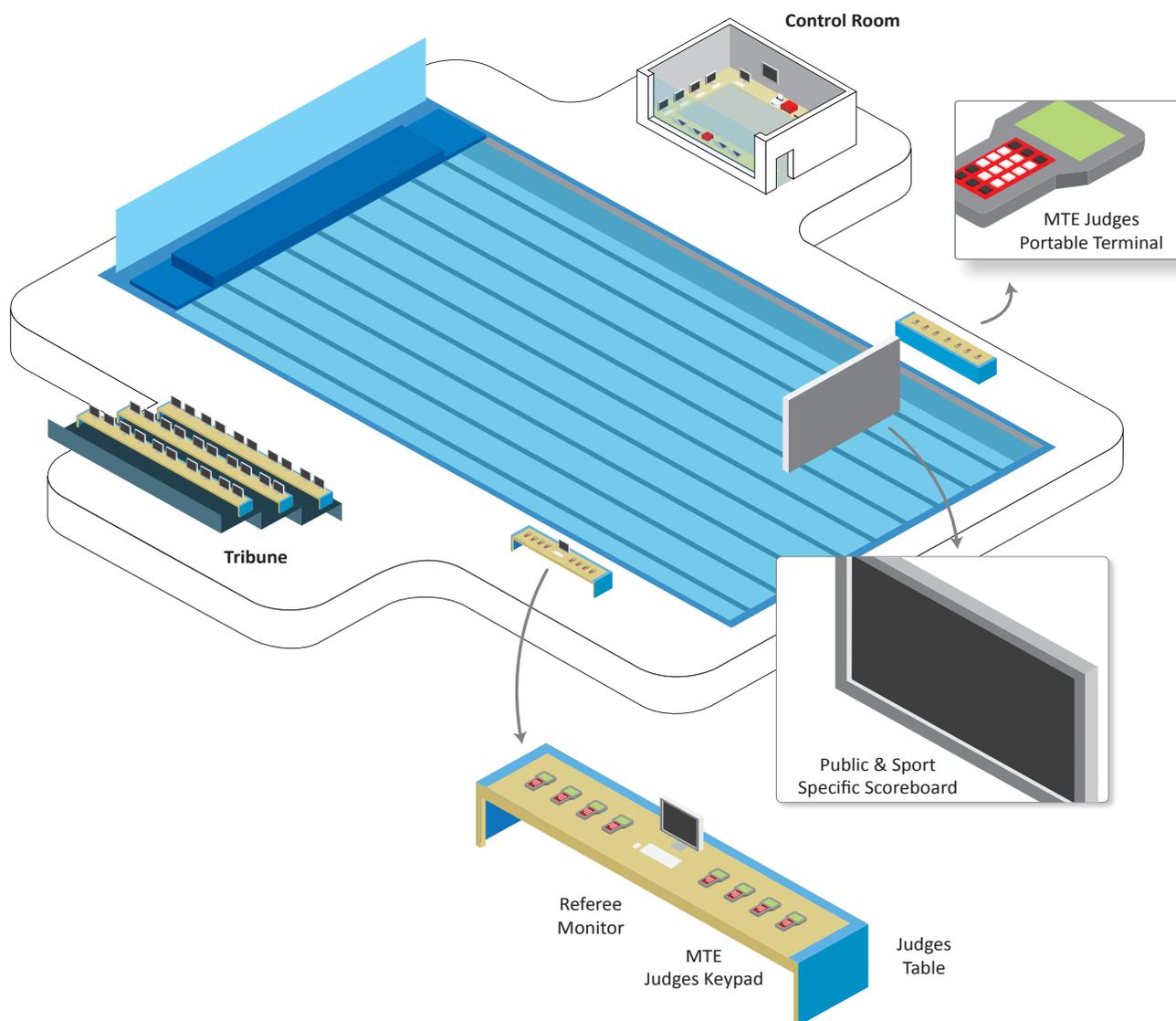


The **MTE** features a 128 x 64 pixel LCD, able to display up to 8 lines of 21 characters and offering graphic possibilities.

A single connector at the top of the unit provides the connections for external power and recharge, as well as wired data transmission. The MTE is fitted with an orientable antenna for data transmission, providing 100 meters of range in open space.

CONTROL ROOM SPECIFICATIONS

- Lockable room
- (indoor) temperature: 20-23°
- Power supply: 110/240V 50-60Hz



SCORING MANAGER SOFTWARE FOR DIVING AND SYNCHRO SWIMMING

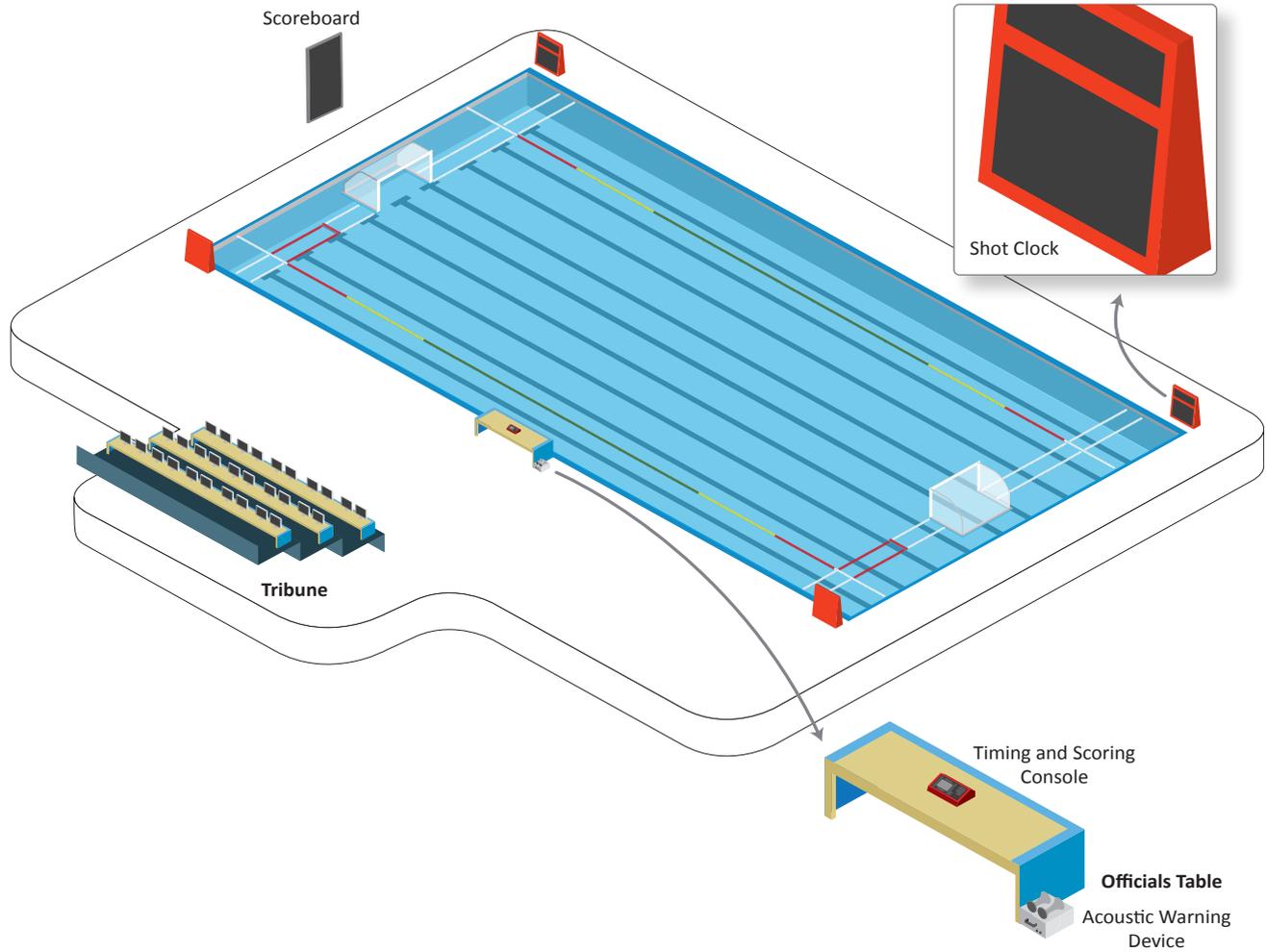
This software with MTE integration, is the ideal solution to easily manage your competitions.



WATER POLO



CHOOSE THE BEST EQUIPMENT



CALYPSO WATER POLO CONTROLLER



TOP FEATURES

- User-friendly display showing the scoreboard status and controls
- Self-explaining icons to navigate through the functions
- Upgradeable firmware

Both the Calypso scoreboard and shot clocks are driven by the **Calypso Controller** to provide the timing and scoring for water polo events.

A controller available with a start/stop/reset switch.



CALYPSO WATER POLO LED SHOT CLOCKS



TOP FEATURES

- Horn (110 dB @ 1m) (included in the set)
- Wide and stable base
- Excellent visibility

The **Calypso Shot Clocks** are powered by an external power module which also includes a powerful horn. Connected to and synchronised with a Calypso controller as a main timing device, the shot clocks follow the start/stop commands of the referee. As soon as the 30-second shot clocks run to zero, an acoustic signal is emitted from the Power + Horn module.

The angled, wide based design makes the display extremely stable, and the 24cm height of the LED digits ensure excellent visibility for the players and spectators alike.



MONTREAL WATER POLO LED SHOT CLOCKS

TOP FEATURES

- Powerful sound
- Gametime display
- Wide legs for maximum stability
- Big LED digits for excellent visibility
- Battery-powered for maximum security

The **Montreal Shot Clocks** are connected to and synchronised with a Calypso Water Polo Controller as the main timing device. The shot clocks follow the start/stop commands of the referee.

It features a two-digit display for the 30-second shot time countdown and a game timing clock.

As soon as the shot time runs to zero an acoustic signal is emitted.

The angled, wide based design makes the display extremely stable, and the 40 cm height of the LED digits ensure excellent visibility for the players and spectators alike.



COYOTE HORN

The **Coyote Horn** is a powerful acoustic signal with an internal battery allowing more than 500 acoustic signals.





AQUATICS SCOREBOARDS



CALYPSO SCOREBOARDS

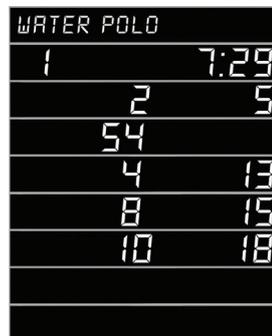


TOP FEATURES

- Display intensity adjusts to ambient light conditions
- Indoor & outdoor use
- Aluminium construction
- Viewing distance up to 150m
- Easy maintenance from front
- Wireless Bluetooth link (option)

The **Calypso** range of products propose modular, mixed numerical/alphanumeric scoreboards with advanced LED technology, suitable for both indoor and outdoor events. Calypso scoreboards feature large digits and a light sensor to adapt the brightness to the ambient light conditions.

The compact grey aluminium housing has an acrylic finish to guarantee the best protection against atmospheric conditions. The scoreboard is designed to be installed on a wall and having all inter-module wiring hidden from view. These scoreboards are made of the highest quality materials, and all components are thoroughly tested before assembly. It can also be used for swimming competitions (connected to Quantum).



PICCOLO SCOREBOARD

TOP FEATURES

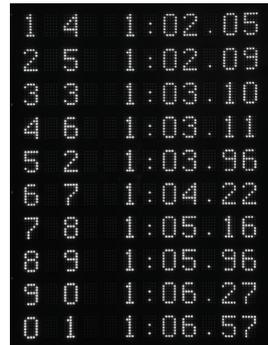
- Can display alphanumeric characters when used with Quantum
- Viewing distance of up to 50 m
- Excellent money value - Low maintenance costs
- Also available in Bluetooth version

The **Piccolo**, an LED scoreboard for indoor and outdoor swimming competitions, has been designed in that spirit and meets this very specific need; it is ideally positioned for all swimming pool operators who want to display the results of the lanes but are looking for low initial and maintenance costs.

Designed for indoor use, Piccolo is based on high efficiency white LEDs, which guarantee clear and precise visibility.

The digits are 10 cm high, and thus readable at distances of up to 50 metres.

When it is used with the Quantum and thanks to its alphanumeric feature, Piccolo can display event titles and startlists among others.



SATURN SCOREBOARDS

TOP FEATURES

- Indoor & outdoor use
- Can be used in a wide range of team sports
- Viewing distance up to 125m
- Easy maintenance from front

The **Saturn 2** can be used for a wide range of team sports such as Water Polo.

With these more than 19'000 very bright LEDs, the contrast ratio can be adjusted to match with the luminosity of a video display when it is installed beside.

The design of the sheet steel modular casing makes the Saturn 2 very strong but also easy to install due to its thickness of just 85mm.

Maintenance of the Saturn 2 is made simple by the access to the front of the display.



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