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Caution and safety precautions

- Never use any other charger than the supplied or a type approved by Swiss Timing. This could destroy the battery, cause damage to unit, and possible cause personal injury due to fire or/and electrical shock.
- Never bypass a power cord ground lead by breaking off the ground pin, or by using inappropriate extension cords or adapters.
- Never plug a power cord into the AC power source until you have made sure that all installation, cabling and power levels, are proper, and that the applicable procedures in this manual have been followed.
- Protect the equipment against splashing, rain and excessive sun rays.
- Never use the device if it is damaged or insecure.
- Verify the selection of the power distribution.
- Verify that the voltage quoted on the rating plate is the same as your voltage. Connect the appliance only to power sockets with protective earth. The use of incorrect connection voids warranty.
- This program may be modified at any time without prior notification.
- Do not open the case; there is nothing that needs servicing inside it. Nevertheless, if the case must be opened, you must call for some qualified personnel. The power supply cable must be disconnected before opening the case.
- During the transport of all Swiss Timing equipment delivered with a reusable carry case, the said case should be used at all times. This is imperative to limit the damage, such as shocks or vibration that can be caused to the units during transport.
- The same cases should also be used when returning equipment to Swiss Timing for repair. Swiss Timing reserves the right to refuse all guarantees if this condition is not fulfilled.
- If the installation includes a horn, be sure to maintain a sufficient security distance from the public.

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Environment



This symbol indicates that this product should not be disposed with household waste. It has to be returned to a local authorized collection system. By following this procedure you will contribute to the protection of the environment and human health. The recycling of the materials will help to conserve natural resources.

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1 INTRODUCTION

1.1 Concept

For spectators, the interest of a competition is greatly enhanced by the instant display of the results and ranking of the different athletes taking part in the race.

The audience feels far more emotionally involved in an event if they know the results and distances separating the competitors at the same time as the officials.

Swiss Timing's main objective has always been to make the technological and innovative results derived from its Olympic experiences available as widely as possible.

The Piccolo has been designed in that spirit and meets this specific need; it is ideally positioned for all swimming pool operators who want to display the results of the 8 lanes but are looking for low initial and maintenance costs.

Designed for indoor use, the Piccolo benefits from a white LED display technology which guarantees clear and precise visibility.

Solidly built, but light and easy to handle, it is suitable for all kinds of different situations; the unit can be installed as a result repeater in zones where spectators cannot see the main panel or in the warm-up rooms or restaurants of multisport facilities.

The Piccolo scoreboard is compatible with Calypso protocol.

When it is connected to timer device, the Piccolo provides a real-time display of the running time; the reaction times at start, all the intermediate times with the ranking, the final times and the list of results with the ranking.

1.2 General view

1.2.1 Display

The Piccolo is a 96 alphanumeric scoreboard that uses LED technology. All the dots are white.

Beside the leading LED white technology, each 10 cm digit consists of 40 LED's for optimal contrast and crystal clear display up to 50 meters.

The display brightness is done **automatically by default** adapted to the surrounding light through an integrated sensor.

The compact grey aluminium housing has an acrylic finish to guarantee the best protection against the elements.

The scoreboard is designed to be installed against a wall. Easy front access for maintenance and cleaning is allowed.



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Figure 1 – Piccolo White front's view

	Description
DIGITS	12 digits
LINES	8 lines
BRIG. SENSOR	Location of the brightness sensor

1.2.2 Connections view

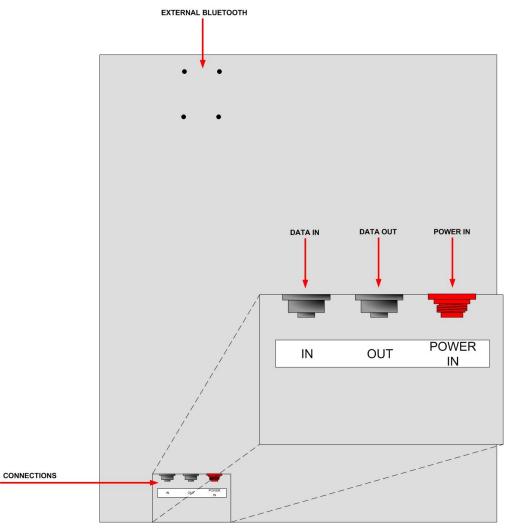


Figure 2 – Piccolo White rear's view

CONNECTIONS	Description
DATA IN	Input data connection
DATA OUT	Output data connection
POWER IN	AC power input
EXT BLUETOOTH	Bluetooth fixing



2 INSTALLATION

2.1 Mounting instruction

The scoreboard can be mounted on a wall or on a structure.

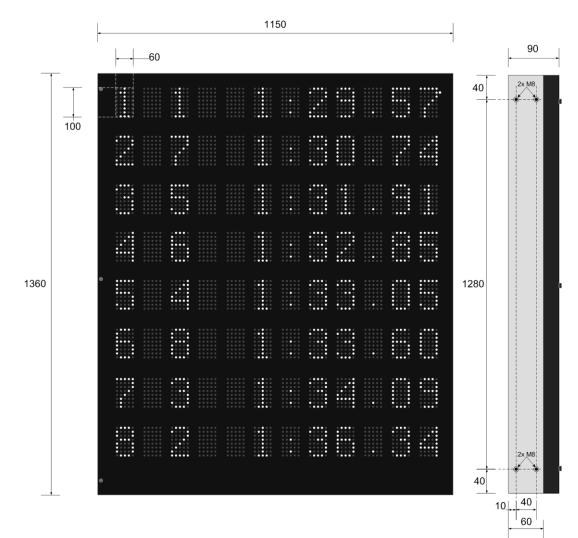


Figure 3 – Piccolo White dimensions

2.1.1 Mounting without kit

If you don't possess the original mounting kit, you can make a support by using the 4 side M8 fixings.

2.1.2 Mounting brackets (Option kit)

Some mounting brackets are delivered in a optional mounting kit and there will be delivered 2 brackets.

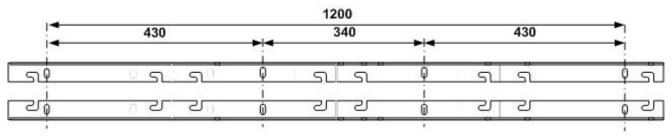
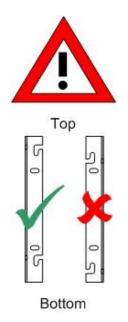


Figure 4 – Mounting brackets

FIX THE BRACKETS SO THAT THE HOOKS FACE DOWN





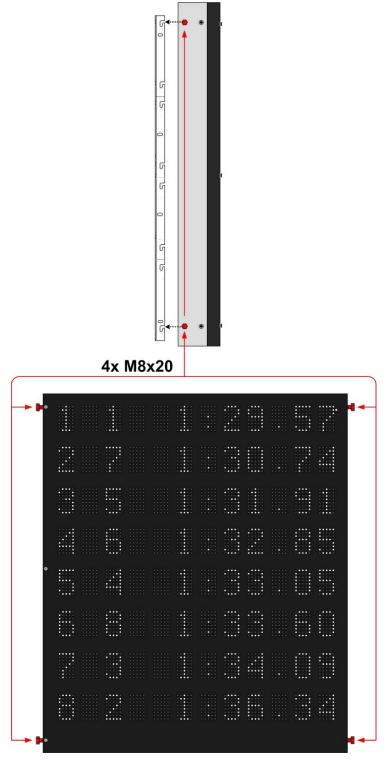


Figure 5 – Fixing the Piccolo on the brackets

3 CONFIGURATION

3.1 Opening the scoreboard

The scoreboard can be opened to configure the CPU cards.

To open the scoreboard, unscrew the 3 front screws then the face can be rotated to give access for wiring.

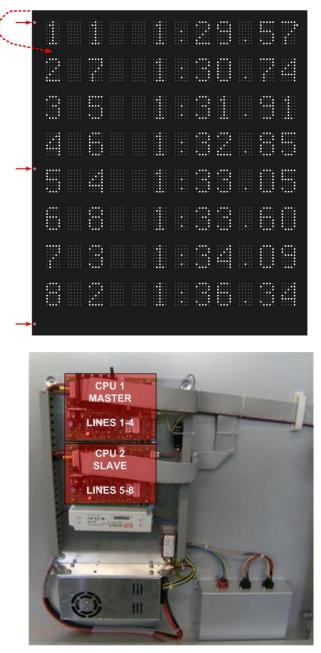
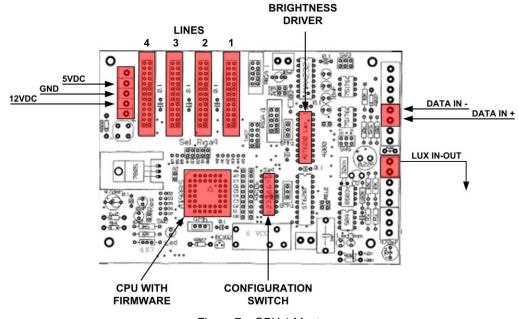


Figure 6 – CPU cards inside the Piccolo



3.2 CPU cards



3.2.1 CPU 1 Master (with LUXOME2 prom.)

Figure 7 – CPU 1 Master

3.2.2 CPU 2 Slave

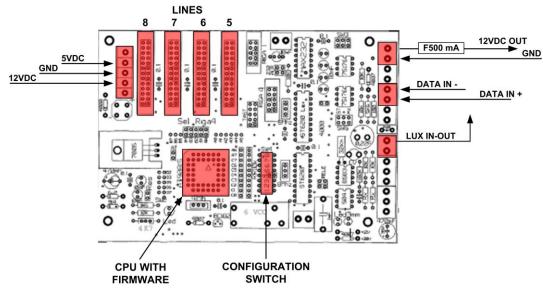


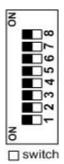
Figure 8 – CPU 2 Slave

3.3 CPU's configuration switch

3.3.1 CPU 1 Master

By default, all the switches on the CPU 1 (see Figure 7) are set to OFF to drive the lines 1 to 4.

The Test mode can be set using the switch 4.



		CPU 1 MASTER SWITCH						
Function	1	2	3	4	5	6	7	8
TEST	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
LINES 1-4	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

3.3.2 CPU 2 Slave

By default, only the switch 1 on the CPU 2 (see Figure 7) is set to ON to drive the lines 5 to 8.

The Test mode can be set using the switch 4.



		CPU 2 SLAVE SWITCH						
Function	1	2	3	4	5	6	7	8
TEST	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
LINES 5-8	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF



4 **OPERATION**

4.1 Connecting the Piccolo white

Connections have to be made at bottom rear of the Piccolo white.

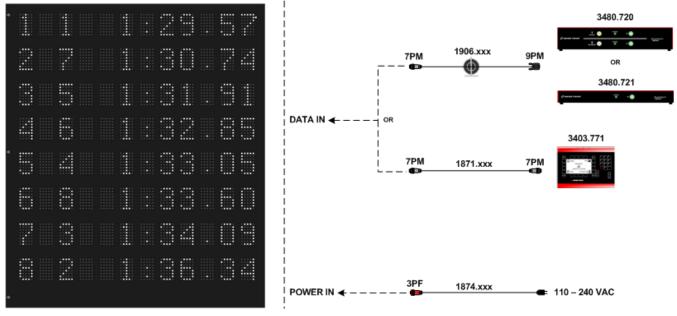


Figure 9 – Connections overview

5 ELECTRICAL PROPERTIES

5.1 PICCOLO WHITE Connectors pinning

Connector	Pinning	
DATA IN 7PFT Tuchel	1 : DATA OUT 1 2 : 12 VDC OUTPUT 3 : DATA OUT 5 4 :DATA OU 6 5 :INPUT - 6 :INPUT + E : GND	
DATA OUT 7PFT Tuchel	1 : DATA IN 1 2 : 12 VDC OUTPUT 3 : OUTPUT - 4 : OUTPUT + 5 : DATA IN 3 6 : DATA IN 4 E : GND	
POWER IN 3PMT Tuchel	1 : L 110-240 VAC 2 : 3 : N 110-240 VAC E : EARTH	



6 MECHANICAL PROPERTIES

6.1 Dimensions and weight

Dimensions	H1360 x W1150 x D90 mm
Weight	28 kg
Fixation (on each side)	4 x M8
Housing	Aluminium
Height of digits	10 cm
Viewing distance	Up to 50 m
Display type	White LED (40 LED per digit)
Display luminosity	4 steps automatically adjusted with a brightness sensor
Working temperature	0°C to 50°C
Temperature range storage	-30°C to 70°C
Protection	IP54

7 APPENDIX

7.1 Abbreviations and symbols

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7.3 Version history

Version	Date	Modifications since last version
1.0	01/11/12	Initial version
1.1	28/05/15	Wiring added in chapter 3.2



NOTES



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