

# AQUATICS



## OSB 14

Swimming Starting Block

User's Manual

**3454.519.02**

Version 1.3

Edition September 2016

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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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## TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION.....</b>	<b>1</b>
1.1	Construction of OSB14-RBD starting block (Relay Break Detection) .....	2
1.2	Construction of OSB14-starting block without RBD.....	3
<b>2</b>	<b>INSTALLATION.....</b>	<b>4</b>
2.1	Positioning of the OSB14 starting blocks .....	4
2.2	Fixation of the starting block .....	5
2.3	Drilling and mounting of the OSB14.....	5
2.4	Drilling and mounting of the Deckplate.....	5
<b>3</b>	<b>TECHNICAL SPECIFICATIONS .....</b>	<b>6</b>
<b>4</b>	<b>CONTROL OF THE STARTING BLOCK .....</b>	<b>7</b>
4.1	Control without application of pressure .....	7
4.2	Pressure sensitivity control .....	7
4.3	Connection to the timing system .....	7
4.4	Inspection .....	8
4.5	Troubleshooting .....	8
4.5.1	Detection of a short-circuit.....	8
4.5.2	No contact.....	8
4.5.3	Sensitivity adjustment.....	8
4.6	Assembly of the RBD / intermediate plate and platform .....	9
4.7	Dismantling of the platform .....	10
4.8	Dismantling of the footrest .....	10
<b>5</b>	<b>PREVENTION AND MAINTENANCE  .....</b>	<b>12</b>
<b>6</b>	<b>APPENDICE .....</b>	<b>14</b>
6.1	Index figures .....	14
6.2	Version history .....	14



## 1 INTRODUCTION

OSB14 presents a powerful patented feature, revolutionising the way the swimmers start from their blocks. Diving from the starting block with the body propelled by the knee at a 90° angle drastically increases the explosiveness of the start. Physical tests undertaken by top level swimmers showed faster races versus a standard block.

OSB14 starting blocks are designed with the optimum angles of both the platform and the footrest for racing starts.

Design research also applied to the top surfaces, very comfortable yet roughs enough to guarantee the swimmer a feeling of total security.

The length of the platform 74cm adapts to the new styles of start.

The diameter and position of the handgrips have also been carefully considered to respond to all the requirements of different hand positions. A door at the back of the block allows easy access to the interior to connect the cabling.

OSB14 allows an easy mounting of OBL1 (Omega Backstroke Ledge) on the platform.

## 1.1 Construction of OSB14-RBD starting block (Relay Break Detection)

1. 3454.070 OSB14 base with rear door and handle
2. 3454.041 Platform OSB12 with footrest
3. 3454.600 Complete RBD
  - 3454.010 Upper frame
  - 3454.011 Lower frame
  - 2659.056 Rubber shock absorber (silentbloc)
  - 3393.018 Spring loaded contact
  - 3393.019 Contact screw
  - 3393.020 Adjustment screw
  - 3393.021 Isolation plate
  - 3454.035 Isolation washer
  - 3393.601 Connection cable
4. A4 conical screw M8 for platform fixing (6x)
5. Fixation material
  - 3454.726 Material 6 lines
  - 3454.728 Material 8 lines
  - 3454.730 Material 10 lines

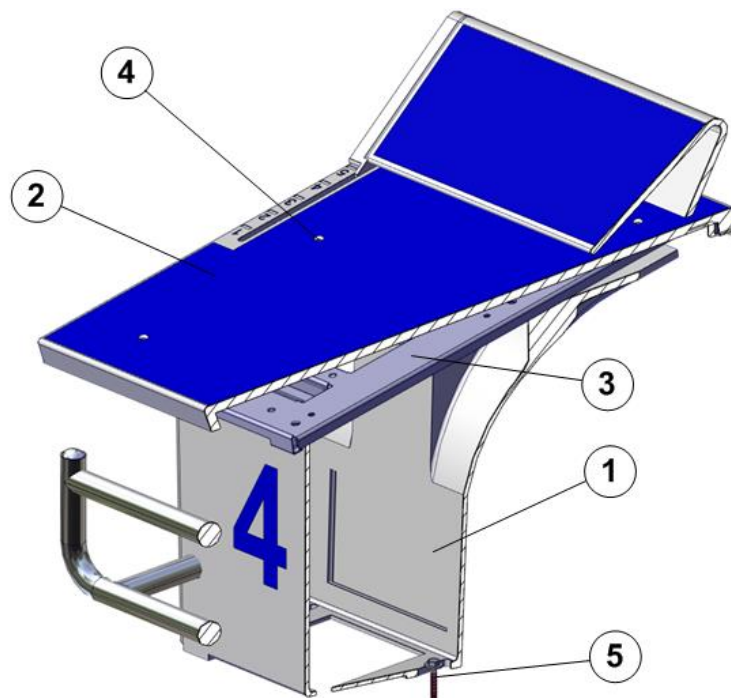


Figure 1 - OSB14-RBD

## 1.2 Construction of OSB14-starting block without RBD

1. 3454.070 OSB14 base with rear door and handle
2. 3454.041 Platform OSB12 with footrest
3. 3454.019 Intermediate plate
4. A4 conical screw M8 for platform fixing (6x)
5. Fixation material
  - 3454.726 Material 6 lines
  - 3454.728 Material 8 lines
  - 3454.730 Material 10 lines

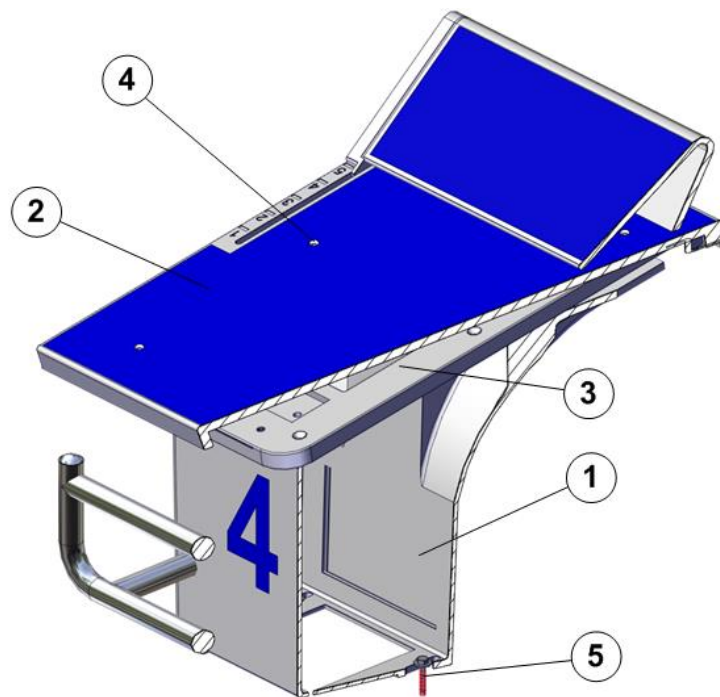



Figure 2 - OSB14 without RBD

## 2 INSTALLATION

### 2.1 Positioning of the OSB14 starting blocks

The **OSB14** starting blocks are positioned according to the measures indicated: 238mm from the swimming pool border (248mm with the OCP5 touchpad) to the front of the base.

 **The handle of the OSB14 must be aligned with the border of the touchpad (Ex. OCP5).**

Are the touchpads missing or is the swimming pool too small with touchpads, align the **OSB14** starting block with the border of the swimming pool.

The drilling oblong fixations permits a play of the block; this permits a possible correction of the alignment.

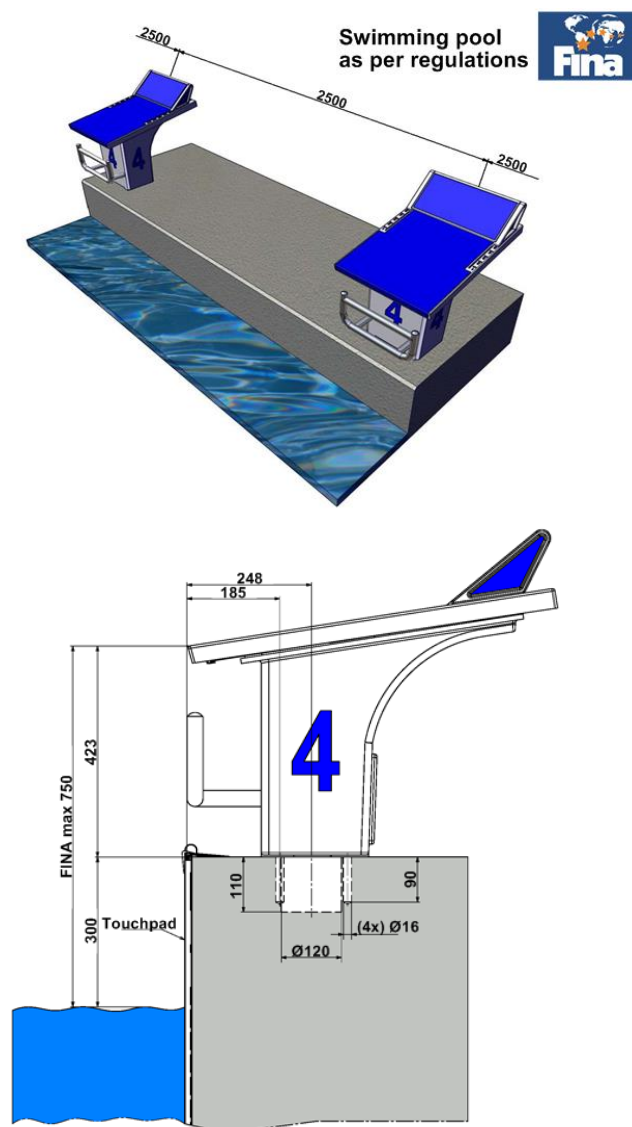



Figure 3 – Positioning of the OSB14



## 2.2 Fixation of the starting block

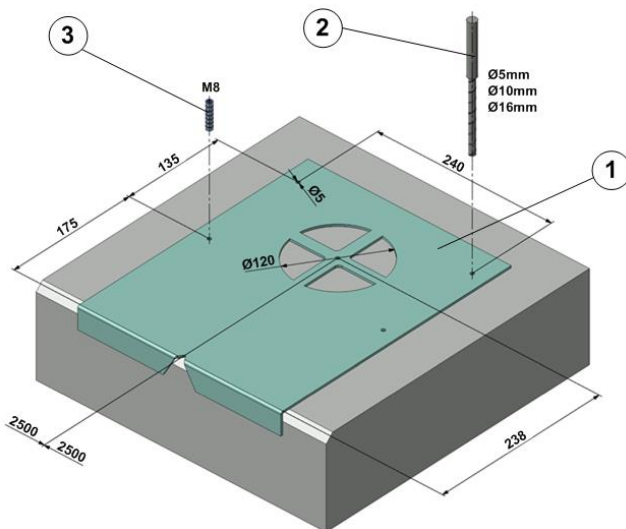
 To ensure proper functioning of the OSB14 starting block system, the fixation must be absolutely rigid.

## 2.3 Drilling and mounting of the OSB14


Put the drilling gauge (1) on the border of the swimming pool and mark the 4  $\varnothing 5$  holes of the gauge with a  $\varnothing 5$  drill (2).

Drill the 4 holes respectively with drills  $\varnothing 5$ ,  $\varnothing 10$  and  $\varnothing 16$ mm (2).

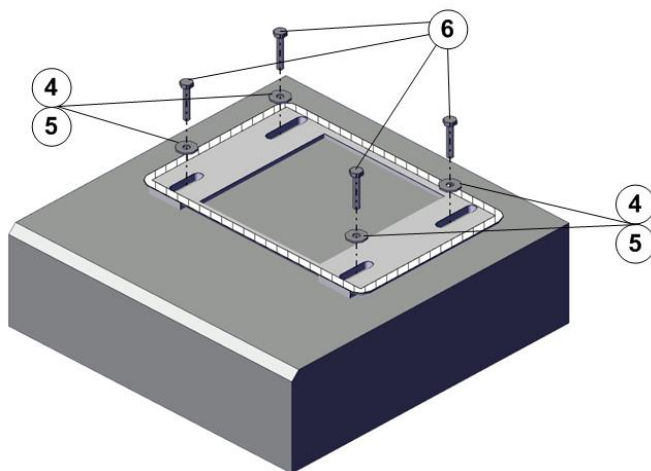
 Minimal depth: 90mm, maximal depth: 95mm



- |    |           |                        |
|----|-----------|------------------------|
| 1. | 3454.074  | Drilling gauge         |
| 2. | 9051.9803 | Drill $\varnothing 5$  |
|    | 9051.9008 | Drill $\varnothing 10$ |
|    | 9051.9814 | Drill $\varnothing 16$ |
| 3. | 9039.8582 | Pegs M8 x 90 (4x)      |


 As per instruction manual **3393.505 Preparing the drillings**, push the pegs M8 (3) in the  $\varnothing 16$  holes and put the OSB14 starting block on the 4 fixation points.

Fix the base with the 4 screws M8 x 45 (6) and the 4 washers M8 x 30 (4). If the space it's too small, use the 4 washers M8 x 24 (5).



- |    |          |   |
|----|----------|---|
| 4. | 3454.032 | Inox washer A4 M8 $\varnothing 30$ (4x) |
| 5. | 3454.034 | Inox washer A4 M8 $\varnothing 24$ (4x) |
| 6. | 3454.037 | Screws A4 M8 x 45 (4x)                  |

## 2.4 Drilling and mounting of the Deckplate

 For fix cabling, a hole with  $\varnothing 120 - 122$ mm at 238mm away from the pool's border must be foreseen in order to provide space for the cables (the gauge has a hole  $\varnothing 120$ mm).

### 3 TECHNICAL SPECIFICATIONS

	OSB14-RBD	OSB14-Simple
Dimensions	737 x 314 x 655 mm Platform 740 x 520 mm	
Weight [kg]	29	27
Colours	White RAL9010 with non-skidding surface dark blue RAL5002	
Contact	Closing the moment of start (NO)	
Action force	13.0 Kg à 18.0 Kg	
Connection	Cable with 2 pole plug (L1400 mm)	

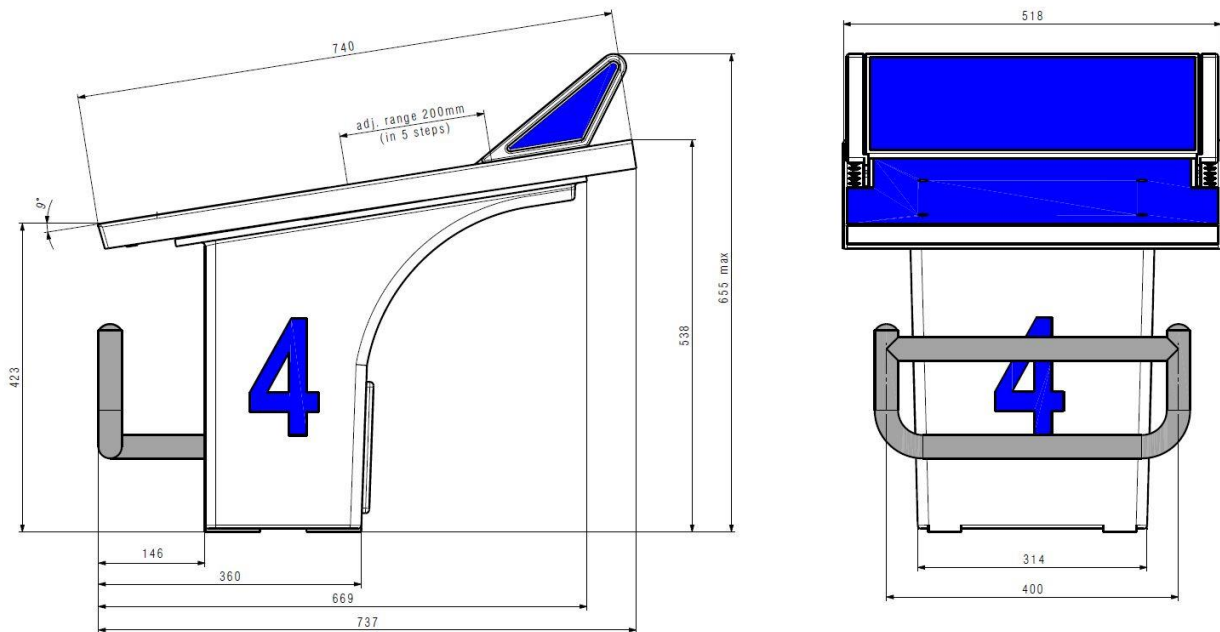


Figure 4 – Technical specifications

## 4 CONTROL OF THE STARTING BLOCK

### 4.1 Control without application of pressure

Connect the buzzer (7) to the connection cable (6).

If there is no pressure on the platform, the buzzer (7) remains silent.

However if the buzzer (7) emits a sound, proceed as described in paragraph 4.5.

### 4.2 Pressure sensitivity control

Press with the dynamometer (8) against the middle of the platform (2).

Read on the dynamometer (8) the necessary pressure to activate the buzzer (7).

If the sensitivity is out of the range between 13kg and 18kg, see paragraph 4.5.3.

### 4.3 Connection to the timing system

If the results are ok in points 4.1 and 4.2, connect the connection cable (6) to the timing system.

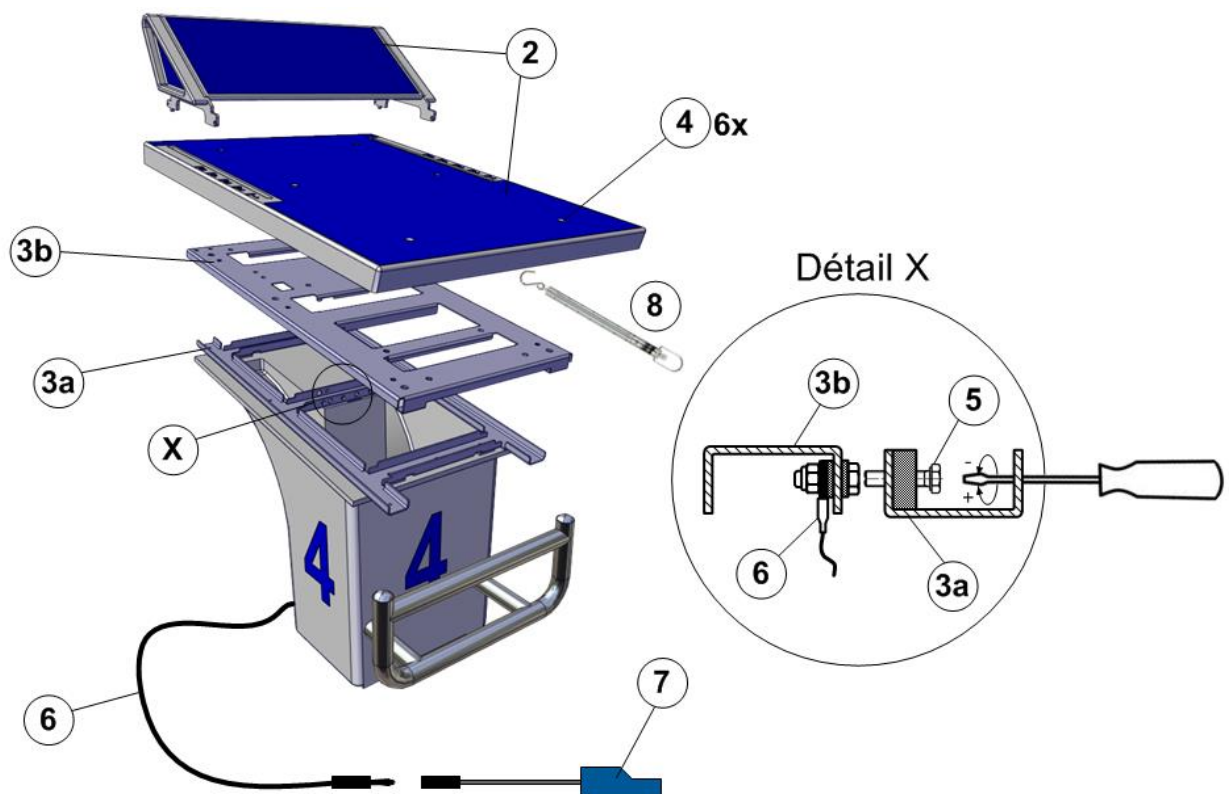


Figure 5 - Maintenance

## 4.4 Inspection

- Every 6 months:           check cable connections.  
Once a year:               check rigidity of block fixation.

## 4.5 Troubleshooting

### 4.5.1 Detection of a short-circuit

If the buzzer (7) emits a sound while there is no pressure on the platform, proceed as follows:

- Unscrew the 6 A4 conical screws M8 (4) on the platform (2).
- Remove platform (2) and connect the buzzer (7) to the connection cable (6).
- Insert a screwdriver into the 2 holes of the lower frame (3a) and unscrew each of the adjustment screws (5) until they do not touch the contact head any more (see Detail X).

If the sound continues, verify if the wiring or the frames (fix or mobile) are not in short-circuit (mechanical or electrical connection).

### 4.5.2 No contact

If the buzzer (7) does not emit a sound during the sensitivity adjustment, proceed as follows:

- Make sure that the platform (2) and the RBD (3) are correctly assembled; there must be a visible movement (Paragraph 4.6).
- Make sure that the 2 adjustment screws (5) are not too far apart.

### 4.5.3 Sensitivity adjustment

If the sensitivity is out of the range between 13kg and 18kg (as indicated in paragraph 4.2), make an adjustment by proceeding as follows:

- Connect the buzzer (7).
- Insert a screwdriver in one of the holes of the lower frame (3a) then screw the adjustment screw (5), facet after facet of the hexagonal head until the buzzer emits a sound.
- Unscrew the adjustment screw (5) by turning it 4 facets backwards (0,16mm/facet).
- Adjust the second screw (5) in the same way.
- Make a test with the dynamometer (8) by pushing or pulling the upper frame (3b).
- If the measured pressure is higher than 18kg, continue screwing the screw in and test at every facet.
- If pressure is lower than 13kg, unscrew and test at every facet.

It is recommended to proceed systematically with the adjustment (a regular play between the 2 contacts).

#### 4.6 Assembly of the RBD / intermediate plate and platform

When assembling the RBD / intermediate plate (3), insert the 5 screws/washers (A) and tighten them with the 5 nuts/washers (B).

When assembling the platform (2), insert the 6 A4 conical screw M8 (4) and tighten them.

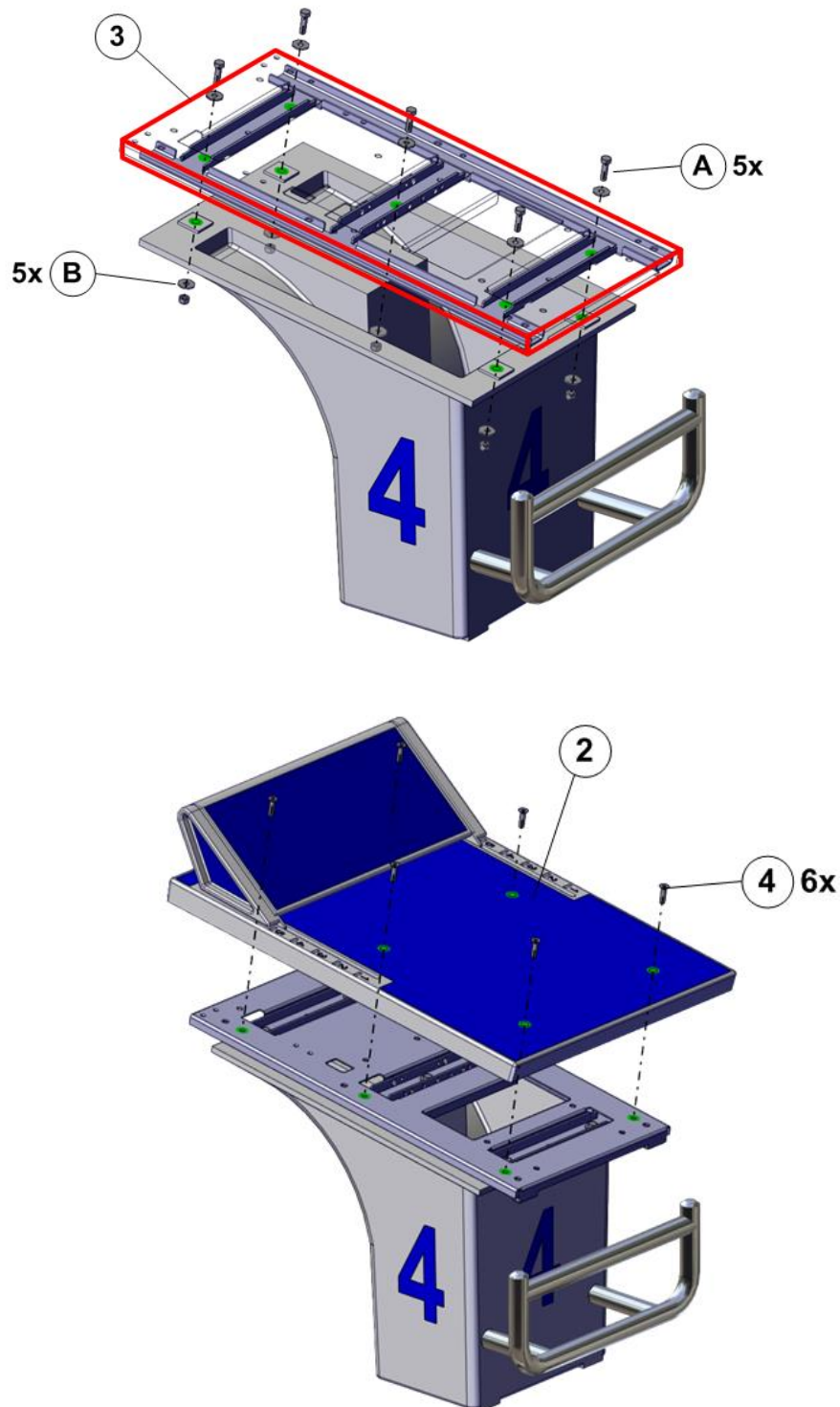


Figure 6 – Assembly RBD / intermediate plate and platform

#### 4.7 Dismantling of the platform

Unscrew the platform (2) by removing the 6 A4 conical screws M8 (4) on the top.

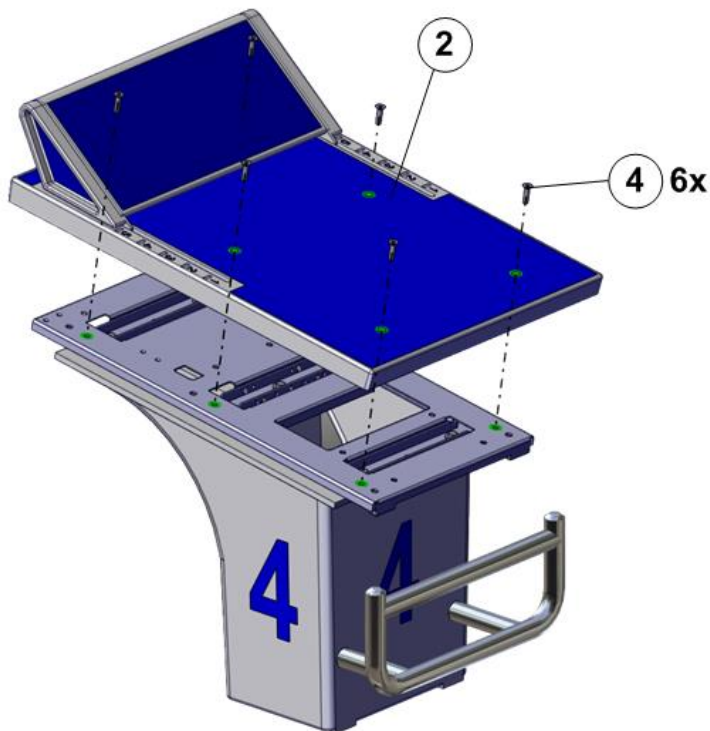


Figure 7 – Dismantling of the platform

#### 4.8 Dismantling of the footrest

Put the footrest in position 3 to access the screws between the footrest and the guides.

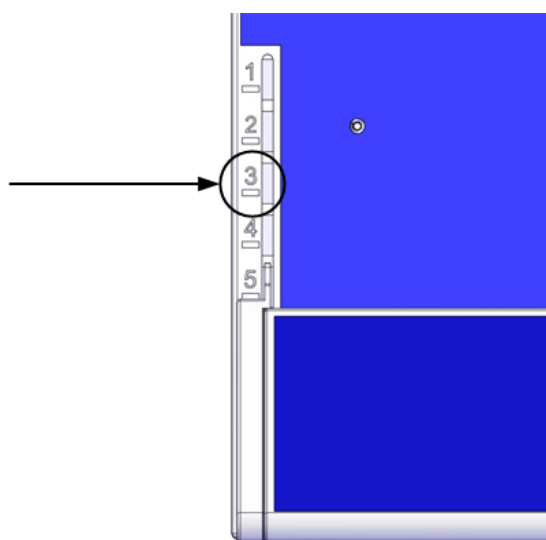


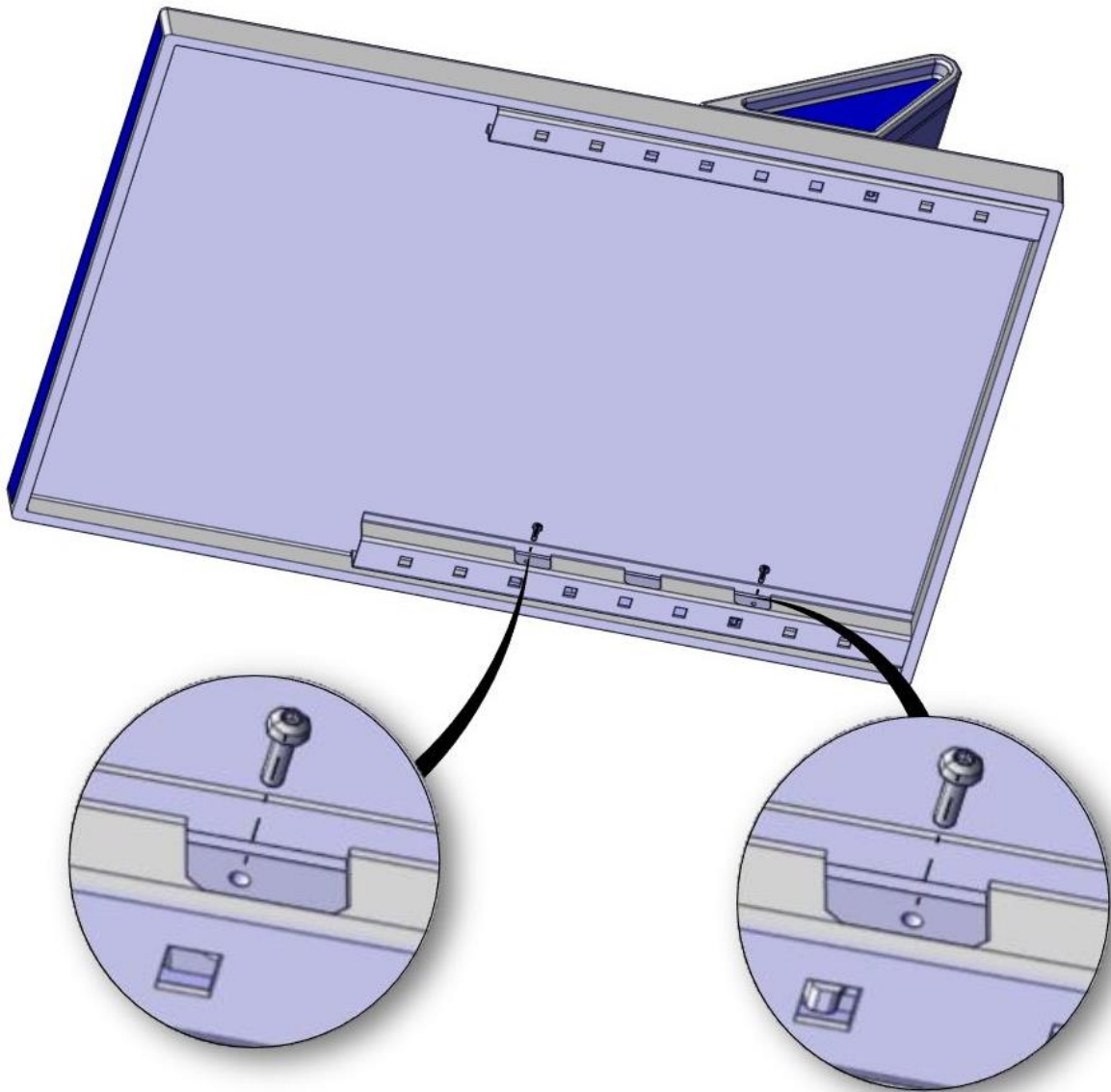
Figure 8 – Dismantling of the footrest



Rotate the platform to access the lateral screws and unscrew the 4 screws (2 on each side).

Pull to remove the footrest.

To reassemble the footrest, start from this point and follow the instructions backwards.





*Figure 9 – Dismantling of the footrest*

## 5 PREVENTION AND MAINTENANCE

Equipment installed in aquatic complex, often sealed with a high moisture level, require special attention in regards to their maintenance. In fact, the stainless steel parts found on ladders, fences or swimming starting blocks can have corrosion if they are not frequently cleaned.

**Stainless steel is an excellent product that needs to be very clean to keep its stainless quality.**

<b>MAINTENANCE</b>	 <p>When you receive your new equipment, it is important to establish a maintenance program to avoid the stainless steel parts to deteriorate. Indeed, lack of maintenance can make the chromium oxide film inefficient, which could cause corrosion on your equipment. A dirty surface is the biggest ally of corrosion and your biggest enemy.</p> <p>Dirt, grease and deposit left by users or by contaminated water deposit must be removed by cleaning the surface with <b>fresh water</b> (do not use the pool's water) and wiped, if possible, with a clean dry cloth.</p> <p>A <b>basic cleaning</b> of the starting blocks' inner and outer surfaces (without disassembling) must be done <b>regularly</b>, preferably every week.</p> <p>A <b>thorough cleaning</b> with removal of the top (see manual) must be done <b>regularly</b>, several times a year, depending on the degree of contamination of the stainless steel. You must pay extra attention to the RBD (Relay Break Detection) and the handles (backstroke ledge).</p> <p>Concerning dismantling, it is imperative to use tools that are specially designed for stainless steel.</p> <p>Applying a hydrophobic (insoluble in water) silicone type B 431 also increases the protection of the sensitive areas of the OSB14 against corrosion.</p> <p>A tube of this silicone is provided with each mounting set and must be used in case it is dispersed and after each thorough cleaning or rehabilitation.</p>
<b>REMEDIACTION</b>	 <p>If your equipment is already showing significant dirt deposits, you need to get rid of them in order that the oxygen from the air gets in contact with the chromium in the stainless steel to form the protective chromium oxide film.</p> <p>A <b>thorough cleaning with fresh water</b> should be sufficient. If some dirt remains, rub with a nylon pad or a cotton cloth. Make sure the pad you use is not rough to prevent it damaging the protective film or the aesthetic finish of the product.</p> <p>After a <b>thorough cleaning</b>, clean the stainless steel with fresh water <b>twice a week</b> during a few months and then decrease the frequency.</p>



Never use a metal brush, steel wool, emery paper or any abrasive material to clean. Indeed, stainless steel would be contaminated by a large quantity of undesirable particles which inevitably would cause rust stains.



*OSB properly maintained*



*OSB poorly maintained*

### REMINDER



- A weekly **basic cleaning** is required.
- A **thorough cleaning** must be done regularly, several times a year.
- You must use **fresh water** for cleaning.
- Never use abrasive material to clean the stainless steel parts.
- Drying the stainless steel parts must be done using a clean dry cloth.
- Use specially dedicated stainless steel tools for dismantling the starting blocks.
- Applying a hydrophobic silicone type B431 increases the protection of the sensitive areas against corrosion.

## 6 APPENDICE

### 6.1 Index figures

Figure 1 - OSB14-RBD .....	2
Figure 2 - OSB14 without RBD .....	3
Figure 3 – Positioning of the OSB14 .....	4
Figure 4 – Technical specifications .....	6
Figure 5 - Maintenance .....	7
Figure 6 – Assembly RBD / intermediate plate and platform .....	9
Figure 7 – Dismantling of the platform.....	10
Figure 8 – Dismantling of the footrest.....	10
Figure 9 – Dismantling of the footrest.....	11

### 6.2 Version history

Version	Date	Modifications since last version
1.0	15/05/14	Initial version
1.1	26/06/14	Improvement of prevention and maintenance chapter (addition of silicon type B 431)
1.2	11/01/16	Updated screws M8x40 by screws M8x45 and new drilling depth max 95mm instead of 100mm
1.3	14/09/16	Update drawing dimensions page 6

## NOTES



