

# twall® Basic16 standard Color mobile / stationary

*Interactive sports and training device*

THE INTERACTIVE  
TOUCH WALL



**User manual** Rev. 1.0.3  
**Data-CD**



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# Hardware documentation

## 1 Product description

The twall® is an interactive sports device using light pulses to specifically initiate motion sequences. At a wall consisting of evenly arranged, large pads, colored signals light up (available separately as well as in combination) and have to be deactivated by touching them again which defines sterical movements. Depending on the training sequence used condition, agility, the ability to respond, and if required specific muscular endurance can be trained. The different elements can be predefined in the program so that they light up in a selective or random sequence, position and speed. The task is always the same: To deactivate the light as quickly as possible by pressing the buttons.

The software-controlled program sequences provide both individual training and group training. By controlling each touch element individually it is possible to adjust the twall® training settings according to size, sphere of activity, visual perception as well as the tactile situation of the person trained. Furthermore, product version twall® color allows to integrate cognitive tasks using various colors and sounds. Also, the small construction depth makes it easy to integrate twall® to existing room concepts.

### 1.1 Normal use

The twall® may only be used as an incentive for people to exercise or to generate light effects. It is the responsibility of the operator to check the suitability of the training programme for the users. Only the mains adaptor supplied with the twall® may be used to operate it. The twall® complies with the threshold values of EN55022, class A with regard to high-frequency emitted interference. Other devices such as heart pacemakers may be affected by it.

Continuous operation of all or individual touch pads is not permissible, as this can lead to overheating of the LED modules. Games programmes which force the lights of one or more of the touch pads to illuminate for longer than two minutes are not permissible and invalidate the guarantee.

## 2 Scope of delivery

### 2.1 Overview - scope of delivery of the twall®Basic16 mobile

<b>A1</b>	<b>1 x Frame base</b>
<b>A2</b>	<b>1 x Aluminium frame</b>
<b>A3</b>	<b>1 x twall® Basic module</b>
<b>A4</b>	<b>2 x Weights</b>
<b>C</b>	<b>Accessories</b> (included in scope of delivery)
<b>D</b>	<b>Required tools</b> (not included in scope of delivery)
<b>E</b>	<b>User manual and data-CD</b>

#### 2.1.1 Detailed list of components including assembling steps

▼	<b>A1</b>	<b>1 x Frame base consisting of:</b>	
	<b>A1a</b>	<b>2 x Frame base profiles</b>	(45 x 90 x 1100) mm   (1.77 x 3.54 x 43.31) inch
	<b>A1b</b>	<b>3 x Frame base profiles</b>	(45 x 90 x 1040) mm   (1.77 x 3.54 x 40.94) inch
	<b>A1c</b>	<b>2 x Frame base profiles</b>	(45 x 90 x 418) mm   (1.77 x 3.54 x 16.46) inch
	<b>A1d</b>	<b>2 x Profile angles</b>	(30 x 30 x 5) mm   (1.18. x 1.18. x 0.20) inch

#### **Assembling the frame base – two steps:**

##### **I. Mounting the frame base profiles**

- 20 x Profile connectors
- 4 x Rubber feet (black, adhesive)
- 4 x Cover caps (black, plastic)
- 1 x Seal rubber (black)

##### **II. Attaching the profile angles to the frame base**

- 6 x Fillister head screws with flange **M8x16** (3 per angle)
- 6 x T-Nuts **M8** (3 per angle)

▼	<b>A2</b>	<b>1 x Aluminium frame consisting of:</b>	
	<b>A2a</b>	<b>2 x Side supports</b>	(45 x 90 x 1766) mm   (1.77 x 3.54 x 69.53) inc
	<b>A2b</b>	<b>2 x Cross members</b>	(45 x 45 x 1040) mm   (1.77 x 3.54 x 40.94) inch
	<b>A2c</b>	<b>2 x Angle braces</b>	(45 x 45 x 1113) mm   (1.77 x 3.54 x 43.82) inch

#### **Assembling the aluminium frame – three steps:**

##### **I. Setting up the side supports**

- 4 x Profile connectors
- 2 x Cover caps (black, plastic)
- 2 x Combination profile (grey, PVC)

##### **II. Mounting the angles braces**

- 2 x Profile connectors with bended anchor 45° clockwise rotation
- 2 x Profile connectors with bended anchor 45° anticlockwise rotation

##### **III. Fitting the cross members**

- 4 x Profile connectors
- 2 x Socket head screws **M8x40**
- 2 x T-Nuts **M8**

- ▼ **A3**    **1 x twall® Basic module**  
**Assembling the basic module:**  
6 x Socket head screws **M8x30**  
6 x Washers  
6 x T-Nuts **M8**
- ▼ **A4**    **2 x Weights**
- ▼ **C**    **Accessories** *(included in scope of delivery)*
  - C1**    **1 x Power supply line** (with Euro connector)
  - C2**    **1 x USB cable** (A/B)
  - C3**    **1 x Adapter** (power supply unit)
  - C4**    **1 x Set of Allen keys** (4 mm, 5 mm and 6 mm | 0.16 inch, 0.20 inch and 0.24 inch)
- ▼ **D**    **Required tools** *(not included in scope of delivery)*  
Stepladder  
Spirit level  
Measuring tape  
Slot screwdriver 9 mm | 0.35 inch  
Cutting tools  
Torque wrench
- ▼ **E**    **User manual and data-CD**

## 2.2 Overview - scope of delivery of the twall®Basic16 stationary

- ▼ **A3**    **1 x twall® Basic module**  
**Assembling the basic module:**  
2 x Hexagon head wood screws **8x80**  
2 x Dowels **Ux10x60**
- ▼ **C**    **Accessories** *(included in scope of delivery)*  
Please see you accessories twall®Basic16 mobile
- ▼ **D**    **Required tools** *(not included in scope of delivery)*  
Stepladder  
Spirit level  
Measuring tape  
Hammer drill  
Drill bit 12 mm | 0.47 inch  
Wrench 13 mm | 0.51 inch
- ▼ **E**    **User manual and data-CD**

### 3 Assembly

**ATTENTION:** Before starting up an acclimatisation period of 2 hours is advised. Pay attention that no condensation appears.

#### 3.1 Mobile installation of the twall®Basic16 mobile

##### 3.1.1 Storage space requirements

In order to set up the twall® a compact and even stand space of a minimum of 2 x 2 m | 78.74 x 78.74 inch is required (**fig. 3.1-1**). It must carry a weight of at least 200 kg | 31.5 stone.

You will require the following tools:.

- ▶ Allen keys (included in scope of delivery)
- ▶ Stepladder
- ▶ Spirit level
- ▶ Measuring tape
- ▶ hammer drill
- ▶ Drill bit 12 mm | 0.47 inch
- ▶ Wrench 13 mm | 0.51 inch
- ▶ Cutting tools
- ▶ Torque wrench

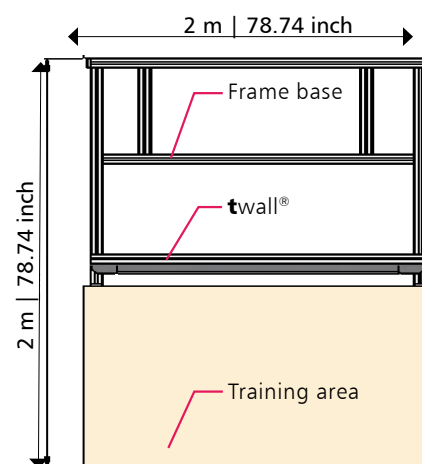


fig. 3.1-1

##### 3.1.2 Assembly principle of the profile connectors

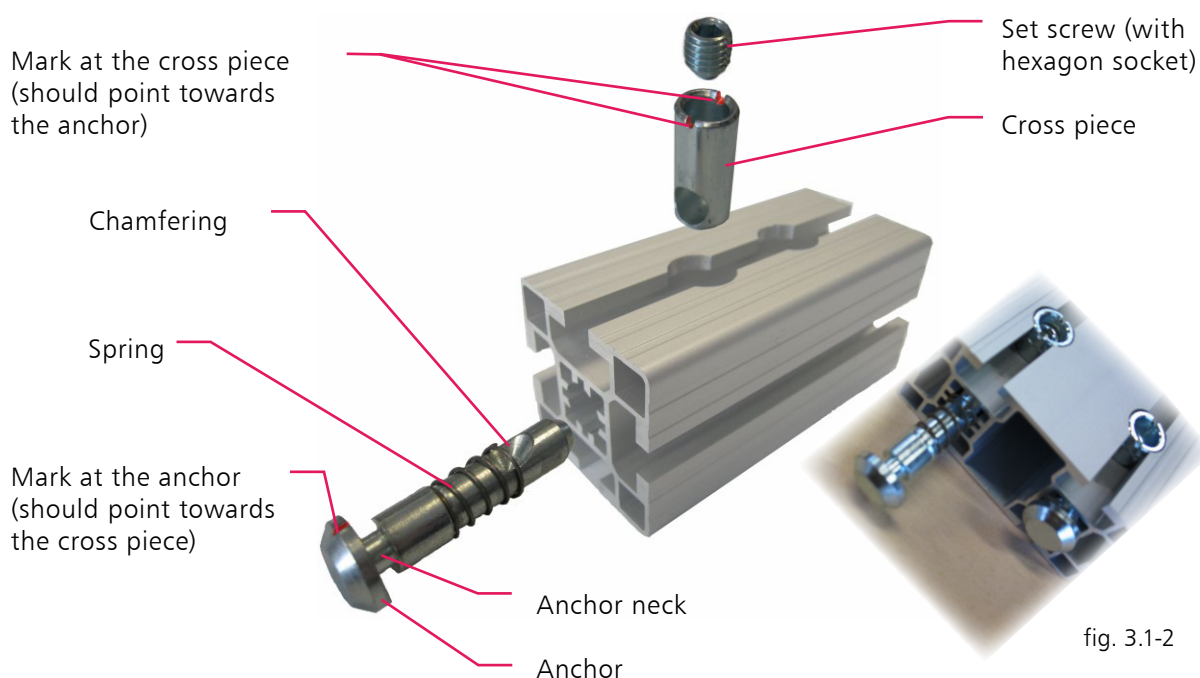


fig. 3.1-2

**PLEASE NOTE:** For more information, please see view of individual assembling steps on separate handout.



### 3.1.3 Assembly instructions

#### 3.1.3.1 Assembling the frame base

##### *1. Mounting the frame base profiles:*

**Step ❶** Please remove the packaging material. You can use it as a pad during the assembling to avoid that the components are scratched or damaged.

**Step ❷** Before you start putting together the frame base **A1** (*fig. 3.1-3*), please attach all the profile connectors to the provided positions at the frame base profiles first. In order to fasten the profile connectors, the chamfering should point towards the cross piece which is indicated by the mark at the anchor. Slightly screw the set screw into the cross piece using the corresponding Allen key. The anchor will be drawn into the profile automatically.

It is important that you can still see the neck of the anchor (*fig. 3.1-2*) to be able to insert it into the lead channels at a later point. It might be the case that you need to push the anchor slightly against the cross piece while screwing it in (*fig. 3.1-4*).

**Step ❸** Shove the two (2) frame base profiles **A1c** into the upper lead channels of the frame profiles **A1b** (*fig. 3.1-5*). Please make sure that the cross pieces of the connectors in the frame base profiles **A1c** point downwards and the cross pieces of the connectors in the frame base profile **A1b** point outwards (*fig. 3.1-6*).

**Step ❹** Place the third frame base profile **A2b** next to the frame profile **A1b** which is closest to you. The cross pieces of the profile connectors should point inwards (away from you).

**Step ❺** Now mount the frame base profiles **A1a** to the three (3) frame base profiles **A1b**. The profile connectors attached to the frame base profiles **A1b** will be inserted into the lead channels of the frame base profiles **A1a**. Please make sure that the projecting ends of the frame base profiles **A1a** point towards you. The rear ends should be on the same level as the frame base profile **A2b** and be flush-mounted by strongly tightening the profile connectors at the rear side of the frame base profile **A1b** (ca. 25 Nm), (*fig. 3.1-6*).

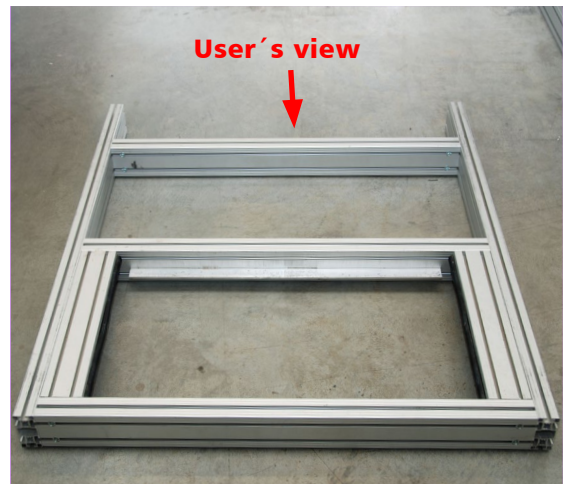


fig. 3.1-3

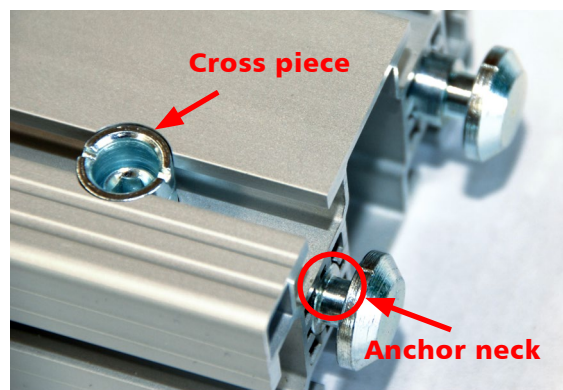


fig. 3.1-4



fig. 3.1-5



fig. 3.1-6



**Step ⑥** Lift the whole construction. You should face the bottom side now (the projecting profile ends point upwards). Now shove the frame base profile **A1c** outwards to place them exactly at the frame base profiles **A1a** and tighten the profile connectors, first the upper ones then the lower ones (ca. 25 Nm), (**fig. 3.1-7 and 3.1-8**). Afterwards, also tighten the profile connectors of the frame base profile **A1b** lying directly on the profiles **A1c**. In order to reach the cross pieces, you have to lift the last loose frame base profile **A1b** which will be tightened at a later point.

**Step ⑦** In order to attach the four (4) adhesive rubber feet, remove the protection film and position them at the outer lower edges of the frame base profiles **A1a** (**fig. 3.1-9 and 3.1-10**).



fig. 3.1-7



fig. 3.1-8



fig. 3.1-9



fig. 3.1-10

## II. Attaching the profile angles to the frame base:

**Step ⑧** The two (2) profiles angles **A1d** will be fitted to the inner sides of the frame base profiles **A1c** between the frame base profiles **A1b** (**fig. 3.1-11**).

Place three (3) T-Nuts **M8** in the front lead channel (the one that is closest to you) of the lower frame base profile **A1b** and three (3) T-Nuts **M8** in the front lead channel of the overlying frame base profile **A1b**. Insert the T-Nuts by half-twisting them into the lead channels with the spring ahead.



fig. 3.1-11

**Step ⑨** Roughly estimate the concentric position of the profile angles **A1d** and align the T-Nuts appropriately. Since the weights will be placed on the profile angles, the angle should be attached with the surface pointing away from you (**fig. 3.1-11**). Screw on the profile angles at the two (2) lower frame base profiles **A1b** using the T-Nuts and the six (6) fillister head screws with flange **M8x16** (3 per angle). Afterwards, place the whole construction down on the floor again. The projecting profile ends should point towards you.

**Step ⑩** Now pull up the last loose frame base profile **A1b** towards you. The distance between the ends of the projecting profiles **A1a** and the front edge of **A1b** has to be **183 mm | 7.2 inch**. Strongly tighten the profile connectors of the frame base profile **A1b** (ca. 25 Nm), (**fig. 3.1-12**).

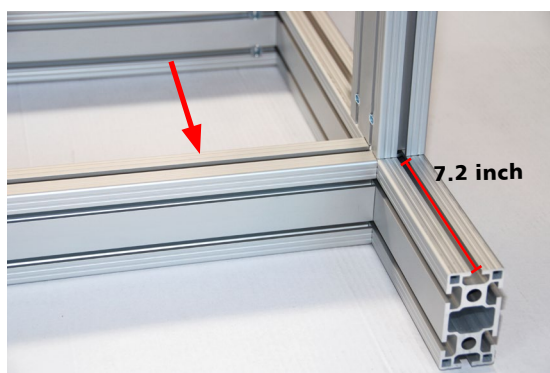


fig. 3.1-12

**Step ⑩** Cut the seal rubbers to the length of the frame base profiles **A1c** (418 mm | 16.46 inch) using a cutter and press them into the two lead channels (point inwards) of the frame base profiles **A1c** (fig. 3.1-13). The seal rubbers protect the edges when placing the weights at the rear side.

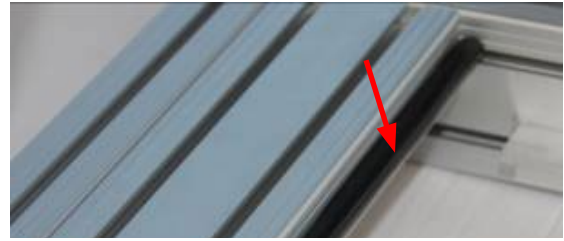


fig. 3.1-13

### 3.1.3.2 Assembling the aluminium frame

#### I. Setting up the side supports:

The aluminium profile serves as the frame of the twall®Basic16 in order to be installed free-standing (fig. 3.1-14).

#### Step ⑪

Place the frame base **A1** with the rubber feet at the lower side the way that the projecting profiles **A1a** are facing you (fig. 3.1-15). To ensure the twall® is firm and stable, a compact and even stand space is required. Before you start putting together the aluminium frame, please attach all the profile connectors to the provided positions at the side supports and the frame profiles (fig. 3.1-16).

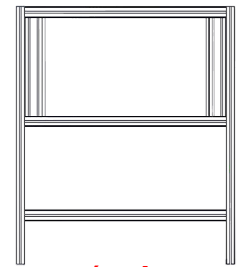
In order to fasten the profile connectors, the chamfering should point towards the cross piece which is indicated by the mark at the anchor. Slightly screw the set screw into the cross piece using the corresponding Allen key. The anchor will be drawn into the profile automatically.

It is important that you can still see the neck of the anchor (fig. 3.1-16) to be able to insert it into the lead channels at a later point. It might be the case that you need to push the anchor slightly against the cross piece while screwing it in. The profile connectors with the bended anchors will be assembled to the angles braces in the same way (fig. 3.1-17).

Please make sure that the alignment of the anchors matches the cant of the angles braces (45°).



fig. 3.1-14



User's view

fig. 3.1-15

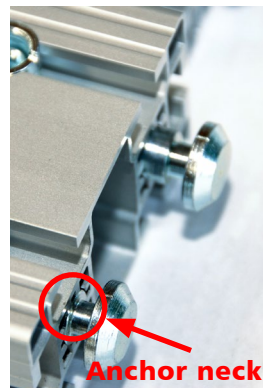


fig. 3.1-16



fig. 3.1-17

**Step ⑫** Shove the side supports **A2a** from the front into the lead channels of the frame base. Move them to a third of the whole length of the frame base profile **A1a** (fig. 3.1-18).

Please make sure that the cross pieces of the profile connectors at the side supports point inwards. At this stage the profile connectors should not be tightened yet.



fig. 3.1-18

## II. Mounting the angles braces:

**Step ⑩** Shove the two (2) angles braces **A2c** top down into the lead channels at the rear side of the side supports **A2a** (*fig. 3.1-19*). The cross pieces of the profile connectors should point inwards. Now you should be able to insert the profile connectors with the bended anchor at the end of the angles braces **A2c** into the lead channel of the frame base profiles **A1** (*fig. 3.1-20*).

**Step ⑪** Now move the side supports **A2a** together with the angles braces **A2c** towards the projecting ends again so that the side supports **A2a** are on the same level as the frame base profile **A1b** and can be flush-mounted (*fig. 3.1-21*). Strongly tighten the profile connectors at the side supports **A2a** and the profile connectors on both ends of the angles braces (ca. 25 Nm). Please make sure that the angles braces fit straightly to the side supports and the frame base (*fig. 3.1-22 and 3.1-23*).

**Step ⑫** Finally, attach the four (4) black cover caps at the ends of the frame base profiles **A1a**.

## III. Fitting the cross members:

**Step ⑬** The first cross member **A2b** will be inserted top down into the front lead channel (you are facing the projecting profiles) between the side supports **A2a** (*fig. 3.1-24*). Measure a distance of 1000 mm | 39.37 inch from the floor to the lower edge of the cross member and tighten the profile connectors of the cross member (ca. 25 Nm). The cross pieces of the profile connectors should point to the rear side.

**Step ⑭** Shove the second cross member **A2b** into the front lead channel of the side supports. It has to be on the same level as the top of the side supports **A2a** and should be flush mounted (*fig. 3.1-25*). The cross pieces of the profile connectors point to the rear side again. Now strongly tighten the profile connectors of the cross member using the torque wrench (ca. 40 Nm).

**Step ⑮** Place the two (2) weights **A4** at the rear side of the frame base **A1** (*fig. 3.1-26*). Please be aware of the industrial safety regulations (20kg . | 44 lbs per weight).



fig. 3.1-19



fig. 3.1-20



fig. 3.1-21

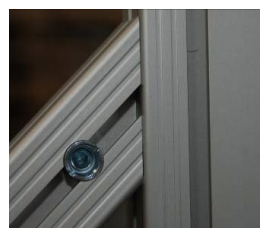


fig. 3.1-22



fig. 3.1-23



fig. 3.1-24

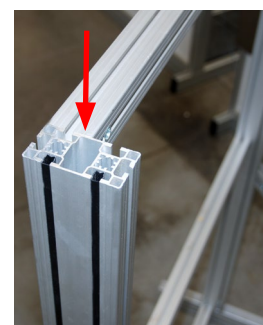


fig. 3.1-25



fig. 3.1-26



**Step 20** In order to assemble the basic module, please insert eight (8) T-Nuts **M8** into the front lead channels of the side supports **A2a** and the upper cross member **A2b** as follows:

Distances:	
2 x into the upper cross member: from the outer edge of the side support <b>A2a</b> to the middle of the T-Nut at each side	75 mm   2.95 inch
2 x into the upper cross member again: from the outer edge of the side support <b>A2a</b> to the middle of the T-Nut	100 mm   3.94 inch
2 x into the lead channel of the right side support and 2 x into the lead channel of the left side support	

**Step 21** Now screw the two (2) socket head screws **M8x40** into the pre-assembled T-Nuts at the upper cross member (**fig. 3.1-27**).

**Step 22** Finally, put the two (2) black cover caps on the top ends of the side supports **A2a** and press the four (4) grey PVC combination profiles into the outward lead channels of the side supports (above the cross pieces of the profile connectors, 2 x at the right side and 2 x at the left side).



fig. 3.1-27

**PLEASE NOTE:** Once having finished the assembly of the aluminium frame, please check whether all profile connectors at the frame base and the aluminium frame are bolted together strongly (ca. 25Nm).

### 3.1.3.3 Assembling the basic module

**Step 23** Loosen the eleven (11) fillister head screws **M6x10** at the left and right stainless steel frame covers using the corresponding Allen key and remove them from the basic module **A3**.

Please note: At the right frame cover, you will find the control panel of the twall®. The cable connections to the line filter are shown in **fig. 3.1-28**. **Fig. 3.1-29** displays the flat ribbon cables that connect the module to the manifold PCB.



fig. 3.1-28

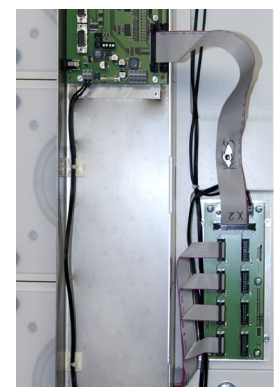


fig. 3.1-29

**Step 24** Fit the basic module **A3** to the socket head screws **M8x40** (*fig. 3.1-30*) and bolt it on to the aluminium frame using the six (6) socket head screws **M8x30** and the six (6) washers (*fig. 3.1-31*).

**Step 25** Remove the protection film at the stainless steel frame covers. Once you have checked and restored the cable connections (*fig. 3.1-28 and fig. 3.1-29*), screw them back on again using eleven (11) the fillister head screws. Please handle the electric cables very carefully.

Please do not tear off or jam any electric lines during the process.

**Schritt 25** Connect the barrel connector to the 24 V jack of the tWall®, the adapter to the power supply line (Euro connector) and the power supply line to a socket and switch on the tWall® (*fig. 3.1-32*)

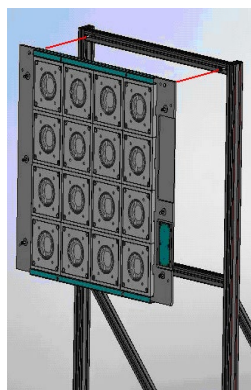


fig. 3.1-30



fig. 3.1-31

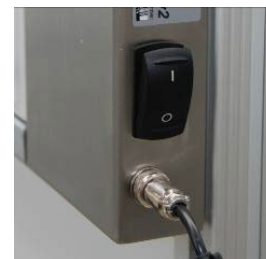


fig. 3.1-32

### 3.2 Assembling twall®Basic16 stationary

The twall®Basic16 basic module **A3** will be mounted to the wall (**fig. 3.2-1**). Required are 2 hexagon head wood screws **8x80** and 2 dowels **Ux10x60** as well as a hammer drill, a drill bit size **12 mm | 0.47 inch** and a wrench size **13 mm | 0.51 inch**.

**Step ❶** Drill 2 holes into the wall using the hammer drill at a height of **1720 mm | 67.72 inch** and at an interval of **735 mm | 28.94 inch** to each other. However, to avoid obstacles in the wall and to allow children to play at the twall®, the assembly height can be adjusted accordingly.

**Step ❷** Place the dowels in the wall and screw the 2 hexagon head wood screws into the dowels using the wrench. The distance between the dowel and the screw head should be **2,5 mm | 0.10 inch**.

**Step ❸** Mount the basic module to the wall by attaching it to the hexagon head wood screws. (**Please fig. 3.2-2**).

**Step ❹** Remove the protection film at the stainless steel frame covers of the basic module **A3**. If necessary, loosen the fillister head screws at the covers and screw them back on again once the whole protection film has been removed. We would recommend to dismantle the twall® while lying on the floor to avoid any damages.

**Step ❺** Connect the barrel connector to the 24V jack of the twall®, the adapter to the power supply line (Euro connector) and the power supply line to a socket and switch on the twall® (**Please fig. 3.2-3**).

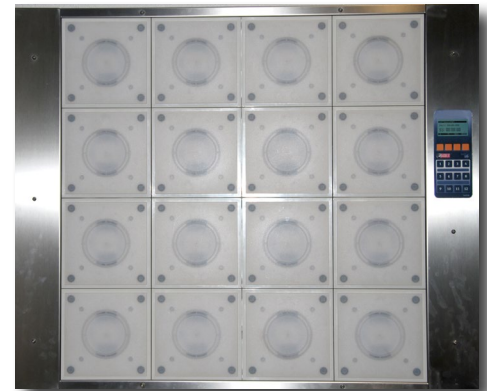


fig. 3.2-1



fig. 3.2-2

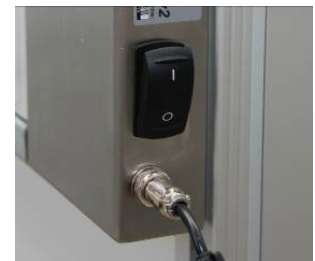


fig. 3.2-3

## 4 Maintenance

Every sport device is constantly committed to dust and sweat, also the twall®. During frequently use some soil deposit may occur at the touch element covers. To ensure a long durability clean the touch elements once a month, in case of strong frequently use twice a month. Use a soft, non fluffing and try tissue. If there is strong headed soil deposit you also can combine it with a mild detergent / disinfectant.

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**ATTENTION: Never use dissolver or petrol, otherwise the touch elements may be damaged!**

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## 5 Troubleshooting

### Potential malfunction source

- ▶ Check for sufficient power supply. Pay attention to correct connection between power supply pack to twall® power outlet.
- ▶ In case of hazard check for sufficient distance to devices that produce strong magnetic or electric fields like strong loudspeaker or microwaves.
- ▶ If any liquids or external objects attain into inner areas of the twall® contact your service partner

PLEASE NOTE: Further support will be provided on our twall® online Support website "www.twall.de". Documents in regard to troubleshooting and to register complaints with us can be found in our download area (please see page 28, step ①, ②).

## 6 Technical specifications

### 6.1 Data sheet twall®Basic16 mobile and stationary

- ▶ Autarkic, multicolored interactive indoor training device twall®Basic16
- ▶ Integrated control panel, 10 preinstalled training programs
- ▶ Graphic program surface to create favored programs
- ▶ 4 x 4 touch elements
- ▶ Active training area in mm | inch (h x w): 880 x 880 | 34.65 x 34.65
- ▶ Dimension of whole device
  - mobile in mm | inch (h x w x d): 1865 x 1135 x 1105 | 73.4 x 44,7 x 43.5
- ▶ Dimension of whole device
  - stationary in mm | inch (h x w x d): 930 x 1135 x 50 | 36.6 x 44.7 x 2.0
- ▶ Weight in kg | lbs (mobile) approx 115,3 | 509.3 lbs
- ▶ Weight in kg | lbs (stationary) approx 35,3 | 255.7 lbs
- ▶ Up to 7 fluorescent colors (red, green, blue and mixed colours)
- ▶ Frame: stainless steel
- ▶ Touch elements: plastic, color translucent white
- ▶ Power input: 40 W
- ▶ Power supply: 24 V (power supply jack and switch)
- ▶ Freestanding (mobile) or wall fastening (stationary)
- ▶ Maintenance intervals:
  - semi-annual and according to the terms of lease respectively (mobile)
  - once a year (stationary)
- ▶ Guarantee 1 year



fig. 6.2-1

### 6.2 Data sheet - Accessories

- ▶ Power supply line (with Euro connector)
- ▶ USB cable (A/B)
- ▶ AC adapter (power supply unit) with barrel connector (**fig. 6.2-1**)
  - AC adapter
    - Primary 90-264 V AC; 47-63 Hz
    - Secondary 24 V DC; 5 A
    - Dimensions (h x w x d in inch): 1.38 x 2.44 x 6.69
    - Weight (in lbs): approx. 1.17
    - Euro connector
  - Barrel connector (**fig. 6.2-2 and fig. 6.2-3**)
    - Pin 1 and Pin 2 + 24 V
    - Pin 3 and Pin 4 - 0 V



fig. 6.2-2



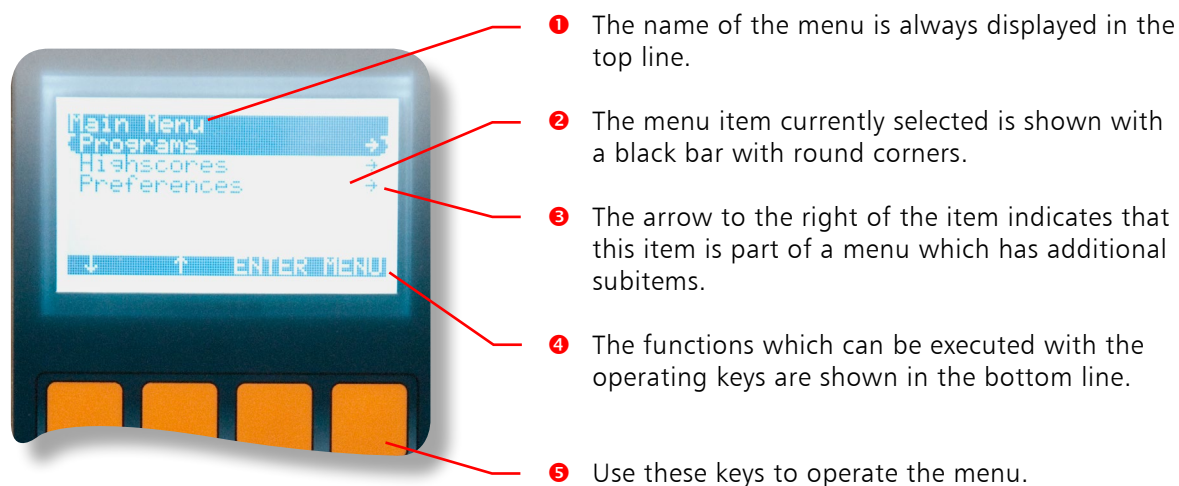
fig. 6.2-3



## Software Documentation

### 7 Operating the twall® without a computer

Using the control unit integrated in the twall®, the twall® can be fully operated without using a computer. To this end, a menu is shown on the display which can be operated using the four orange keys beneath the display.



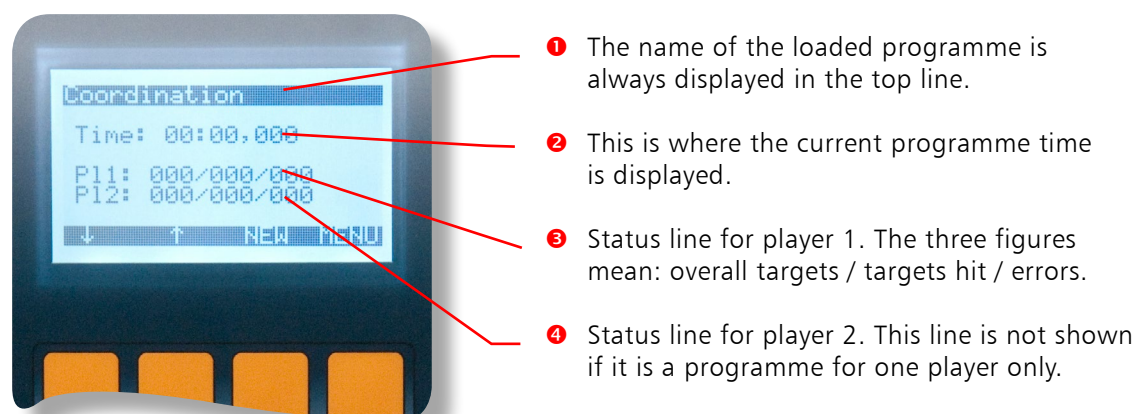
When navigating the main menu and its submenus, the functions for the operating keys are assigned as follows:

- ▶ The [arrow down] key selects the menu item underneath the one currently selected.
- ▶ The [arrow up] key selects the menu item above the one currently selected.
- ▶ The [ENTER] key accesses the selected submenu or activates the selected menu item.
- ▶ The [MENU] key exits the current menu.

When activating certain menu items, the assignment of the operating keys changes.

#### 7.1 Executing twall® Programmes

In order to execute a twall® Programmes by menu, select the menu item "Programmes" in the main menu and confirm this with [ENTER]. You are now in the submenu "programme". The Programmes installed on the twall® are displayed. Select the desired programme using the arrow keys and confirm with [ENTER] to start the programme. The status of the programme is now shown on the display.

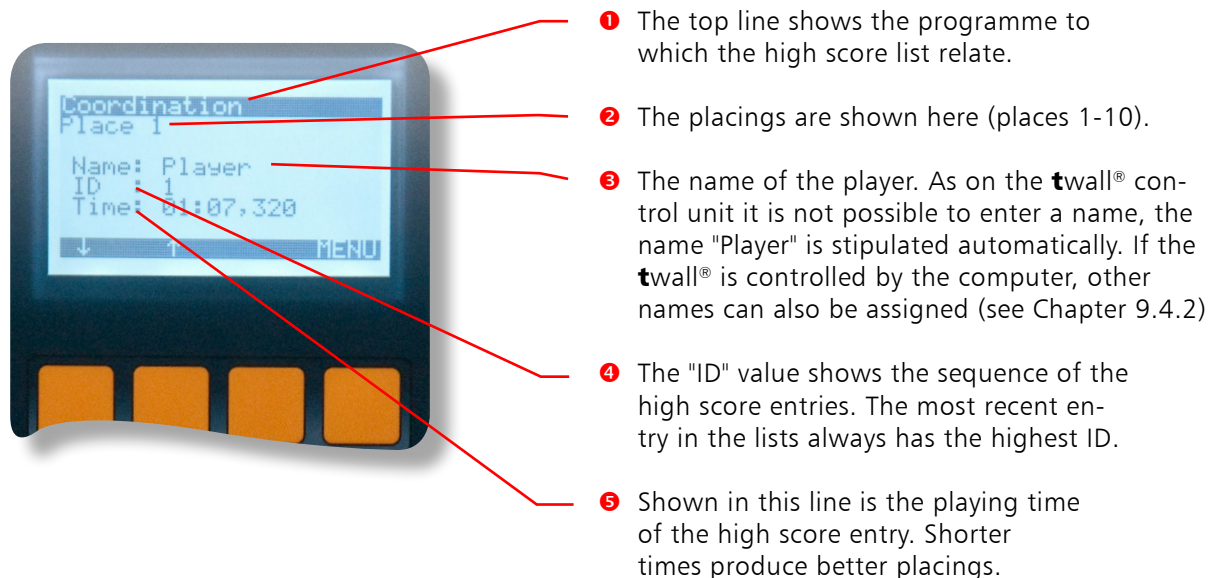


The layout of the operating keys is largely identical. The [ENTER] key is replaced in this screen by the [NEW] key with which the programmes can be restarted. The arrow keys load the next and/or previous Programmesme in the list of tWall® Programmes.

The time starts to run as soon as the first touch pad on the tWall® is pressed. The end of the programme is generally indicated by the brief flashing of all the touch pad.

## 7.2 Viewing high scores

Viewing high scores works in a similar way to implementing programmess. In the main menu, select the menu item "High scores" with [ENTER]. The "High scores" menu immediately opens, in which a list of the installed programmess is displayed. In order to display the high scores for a specific programme, select the programme using the arrow keys and then press [ENTER] to confirm. You can now navigate through the high score list using the arrow keys. A high score is always shown on a screen page.



## 7.3 Settings

The "Settings" menu contains the item "Version info" under which the following information regarding the tWall® can be accessed:

- ▶ Type of tWall® (exact model designation)
- ▶ Hardware version
- ▶ Software version

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**NOTE:** Always quote this information when sending a service inquiry to IMM.

---

## 8 Operating the twall® with a computer

The twall® is fully operational without a computer, using the integrated control unit. However, certain actions, such as creating a new programme, require the use of software. The following chapter describes how this is installed and what steps are necessary for its use.

System requirements of the PC:

- ▶ Operation systems Windows 2000/XP/Vista/7
- ▶ Microsoft .Net Runtime 2.0 (included on software-CD)
- ▶ Processor speed min. 1.0 GHz
- ▶ USB Interface
- ▶ Screen resolution: 1024\*768
- ▶ 50 MByte free HDD space
- ▶ keyboard/ mouse

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**NOTE:** The twall® drivers/software and firmware are constantly being improved. The current version at any given time can be downloaded in the download area at [www.twall.de](http://www.twall.de). For this you need the serial number of your twall® which can be found on left side of the stainless steel frame part.

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### 8.1 Connecting to the computer

The twall® is connected to the computer using USB. For this you need the USB cable **C2** (included in the product contents). Insert the square plug into the corresponding socket into the twall® and the flat USB connector on the computer.

When connecting the twall® to the computer for the first time, Windows will recognise this as a new device. You must now install the driver. To do this, insert the software CD into your CD/DVD drive. You need administrator rights on your computer for installation. The following five steps describe the driver installation under Microsoft Windows XP® and Microsoft Vista®.

### 8.2 Driver installation

#### 8.2.1 Driver installation under Microsoft Windows XP®



- ❶ The first step of the installation is to select "No, not this time" in answer to whether the driver is to be searched for using Windows Update.
- ❷ Select "Install software automatically (recommended)". The CD will automatically search for the driver.
- ❸ If the required driver file "usbser.sys" is not found on your computer, you must first of all indicate its storage location yourself. The file is located on the CD in the folder entitled "Driver\winxp" or "Driver\win2k". Select the file in the "winxp" folder if you are using Windows XP or the file in the "win2k" if you are using Windows 2000®.



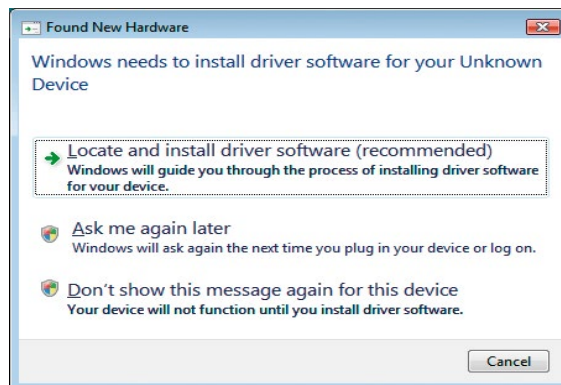
- ④ In this dialogue box select "Continue installation".



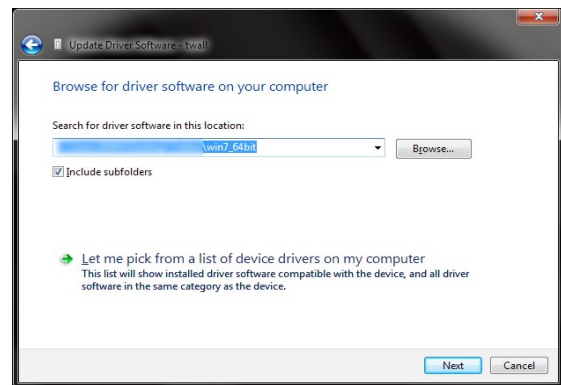
- ⑤ The installation has now completed successfully. You can now install and use the twall® software.

- ⑥ If the twall® is connected to another USB slot, the driver is installed again. This happens automatically however. Administrator rights are required even so.

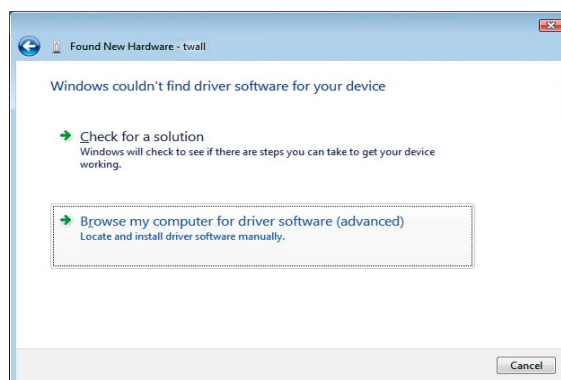
## 8.2.2 Driver installation under Microsoft Windows Vista®



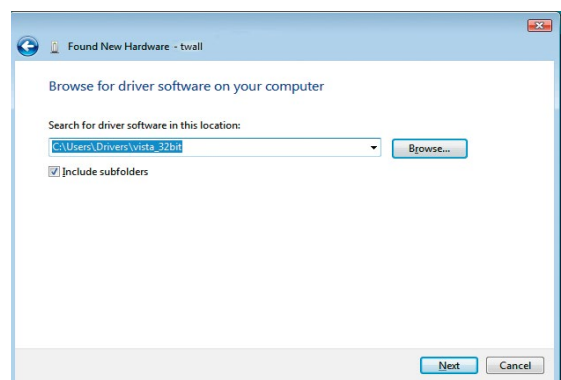
- ① The first stage of the installation is to select "Search for and install driver (recommended)".



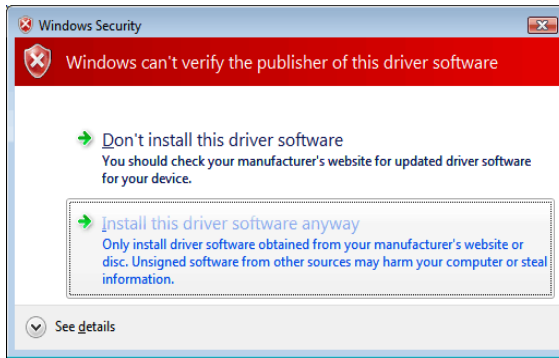
- ② If this dialogue does not appear, select under the green arrow "...Show other options".



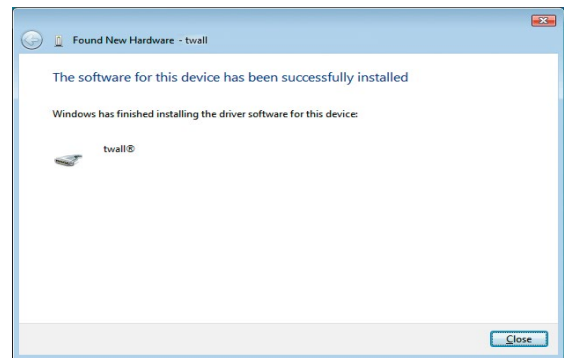
- ③ Select "Search for driver software on the computer (expanded)".



- ④ Click on the key [Search] and select the directory: Driver\vista\_32bit on the data CD. Then click on [Continue].



- 5 Select "Install this driver software anyway".

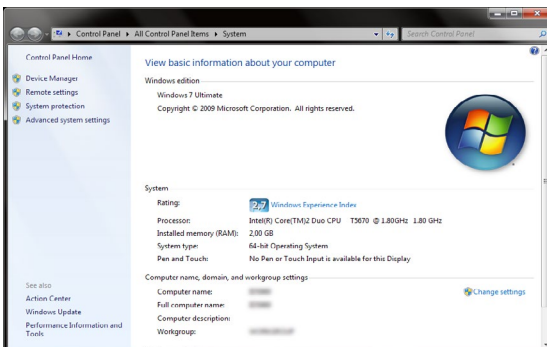
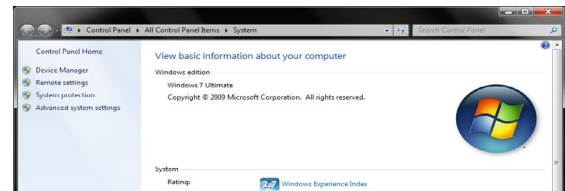


- 6 The installation of the driver for the twall® was completed successfully. The twall® can now be used.

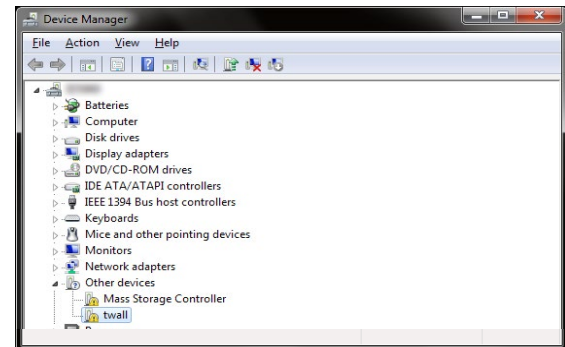
- 7 If the twall® is connected to another USB slot, the driver is installed again. This happens automatically however. Administrator rights are required even so.

### 8.2.3 Driver installation under Microsoft 7®

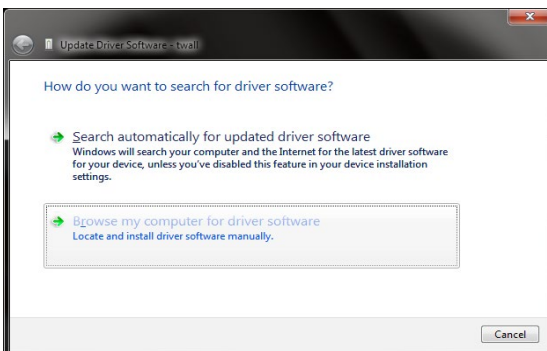
- 1 Windows attempts to install the driver automatically. If unsuccessful, the following message is displayed. Continue to point 2.



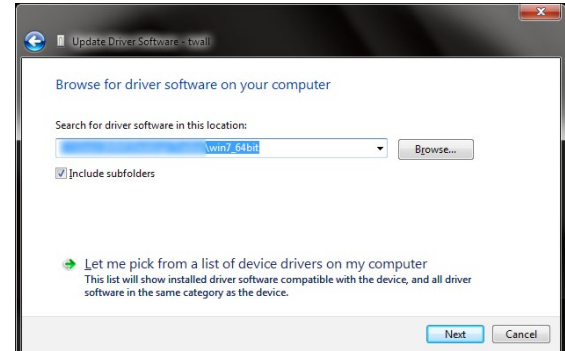
- 2 Start the device manager. To do this, open Start->System control ->System and security->System. A window with system information appears. Click on the left side of the page on "device manager".



- 3 In the device manager, the twall® is shown under the category "Other devices" and highlighted with a yellow warning sign. Right click on "twall®" and select "Update driver".



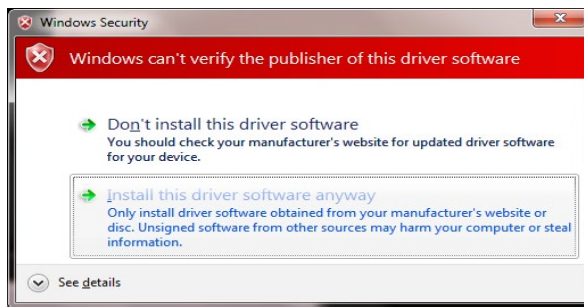
- 4 The driver installation assistant is now displayed. First of all, select "Search for driver software on the computer".



- 5 Secondly, enter the directory containing the driver for the twall®.



**CAUTION:** Windows 7 is available in 32-bit and 64-bit versions. Select the driver directory which is appropriate for your version of Windows. If you are unsure whether your version of Windows is 32-bit or 64-bit, you can check using the system information in the previously opened window.



- 6 If the correct driver was indicated, this is now installed. Confirm the warning message shown with "Install this driver software anyway".

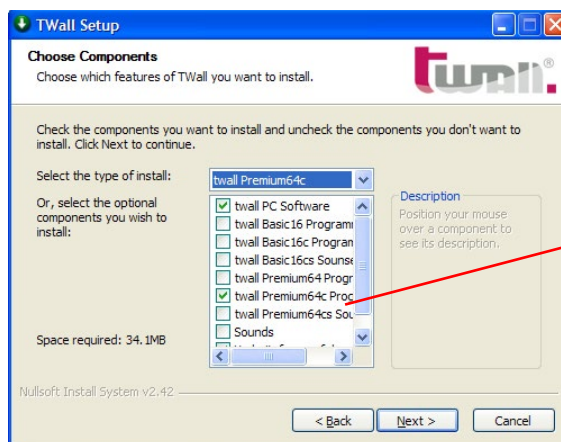


- 7 The driver installation is now complete.

### 8.3 Software installation

To install the tWall® software, insert the tWall® software CD into your computer's CD drive. Now start the file TwallSetup-1.0.exe and follow the on-screen instructions.

It is recommended that you select the installation type suitable for your tWall®. With the installation type "Full installation", the programmes for all tWall® variants are installed. However, bear in mind that a programme for tWall® variant A is not necessarily compatible with tWall® variant B.



Select the installation type which corresponds to your tWall® variant or full installation to be able to connect any tWall® products

After installation, three shortcuts are located in the start menu or on the desktop, which each start the tWall® software to a different extent in terms of function:

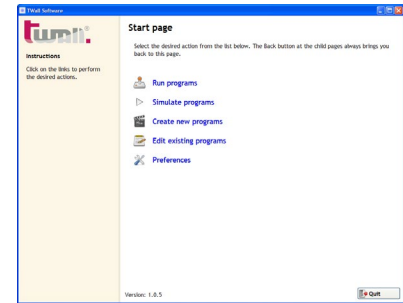
- ▶ TWall: full function (also editing settings).
- ▶ TWall (only executes programmes): Allows the execution of tWall® programmes on the tWall® and the simulation of tWall® programmes on the computer.
- ▶ TWall (executes and edits programmes): As 2. with the added option of editing tWall® programmes.

Limited software variants such as these can be used on computers installed in public areas.

## 8.4 Description of the software

### 8.4.1 The start page

After starting the software, the start page of the software is displayed. Click on the links to execute the corresponding action.



### 8.4.2 Programme settings

After the first programme start of the twall® software, the programme settings should be adjusted.

- ❶ Select the program which is to be used as standard screensaver.
- ❷ Using this button settings are transferred to the twall®. This requires entering of the password.
- ❸ Remaining time in minutes before the screensaver starts. Setting it to zero, the screensaver will be disabled.

- ❶ Stipulate here in which directories the twall® software is to search for programmes and/or sounds in order to complete the options displays for programmes and sounds.
- ❷ Add a new directory to the list using this key.
- ❸ The key deletes the selected entry from the list.
- ❹ This is where information regarding the connected twall® is displayed. This information must always be quoted in the case of service.

#### 8.4.2.1 Settings of the standard screensaver

Select the program from the program list, which is to be used as the standard screensaver. The time out for the screensaver is indicated in minutes. A zero value disables the screensaver. By using the button "set screensaver as standard" the settings will be transferred to the connected twall®. That requires the input of the password.

**WARNING:** The list of directories for twall® programmes contains after installation only the directories of the standard programmes in the software's installation folder. Your own programmes should not be stored in these directories as they would be deleted during deinstallation.

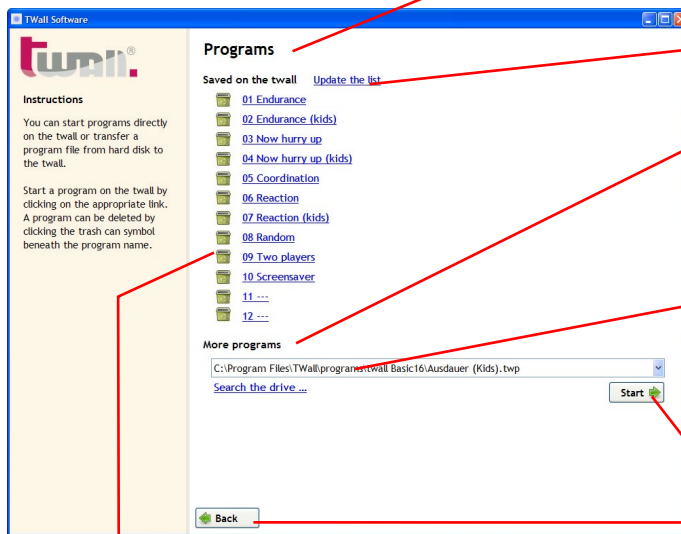
*For this reason, add a directory to the list outside the twall® software installation folder (e.g. a new directory in "Own files") in which you can save self-created programmes. To save the settings, click on the [Save] key after you have made all the settings.*

### 8.4.3 Executing the twall® programme

In this mode, you can:

- execute twall® programmes located on twall®.
- transfer to twall® and execute programmes located on twall®.
- save loaded twall® programmes.
- view high scores for twall® programmes.





1 List of the programmes on tWall®. You can start a programme by clicking on the appropriate link.

2 This function refreshes the list of programmes on the tWall®.

3 This optionshows all the tWall® programmes which were found in the folders to be searched for tWall®.

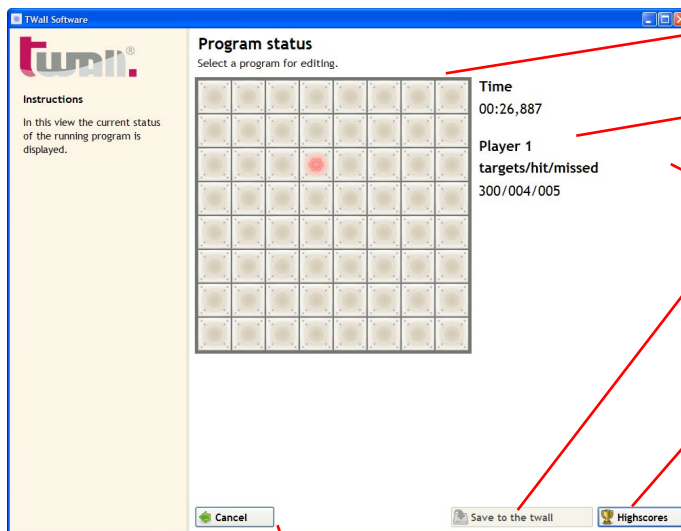
4 Using this link, you can add to the list an individual file which is not in one of the searched folders.

5 Click on this key to send to the tWall® and start the programme s elected in the box.

6 The [Back] key takes you back to the start page.

7 With the waste basket symbol, the programme site in question is emptied (deletes the programme).

If a programme has been loaded, the software changes to status display. The status of the programme (time elapsed, score etc.) is displayed. This is where the loaded programme can also be saved on the tWall®.



1 This fields indicates the current view of the tWall®.

2 Current playing time.

3 Status display for player 1.

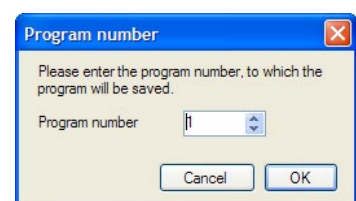
4 With this key, the currently loaded programme is saved on the tWall® (only for programmes transferred from the hard disk).

5 Shows the high scores for the programme.

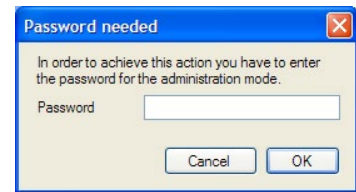
6 Aborts the execution of the loaded programme. Clicking again on this key returns the software to the "Programmes" page.

#### 8.4.3.1 Saving programmess on the tWall®

Clicking on the ["Save on tWall®"] key displays a dialogue first of all in which the programme number must be indicated under which the programme is to be saved. The number corresponds to the programme number in the list of programmes available on the tWall®.



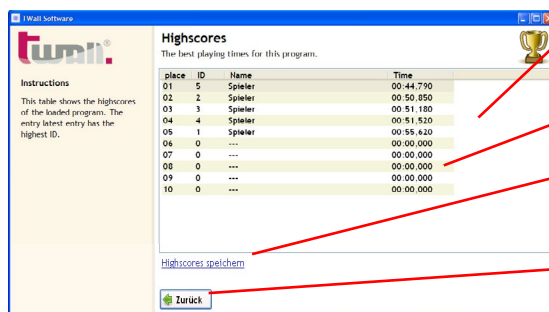
You have to enter a password to save a programme on the twall®. Enter this in the following dialogue box.



**NOTE:** The password is located on a label which is on the last page of the user manual. Only divulge this password to people who are also allowed to save programmes on the twall®.

### 8.4.3.2 High scores

Clicking on the [High scores] key in the status display loads the high scores for the programmes loaded. The most recent entry in the list is highlighted.



- ① The last entry added is highlighted.
- ② Empty entries.
- ③ With this function, the high score list is saved as a "high scores" file.
- ④ Back to status display.

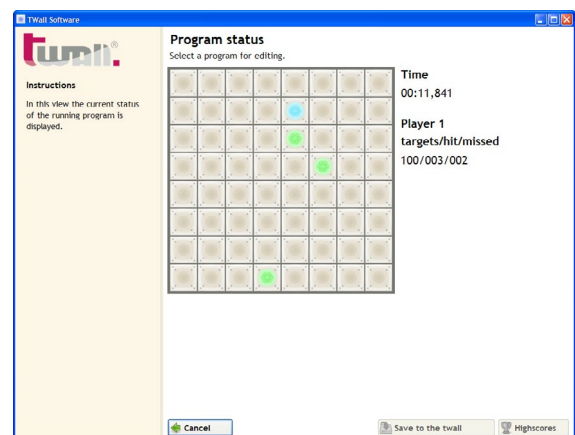
If the programme had been started directly from the twall®, the high scores are also read out. If the programme was transferred from the computer to the twall®, the high scores are saved automatically in a "high scores" file. In this case, it is also possible to enter a name when achieving a place in the high score list. If the programme is subsequently saved on the twall®, this high scores file can also be transferred along with the previous high scores.

### 8.4.4 Simulating the twall® programmes

The programme function "Simulate programmes" offers you the option of executing twall® programmes on the computer without needing a twall® itself. This can be useful when newly created programmes are to be tested for example.

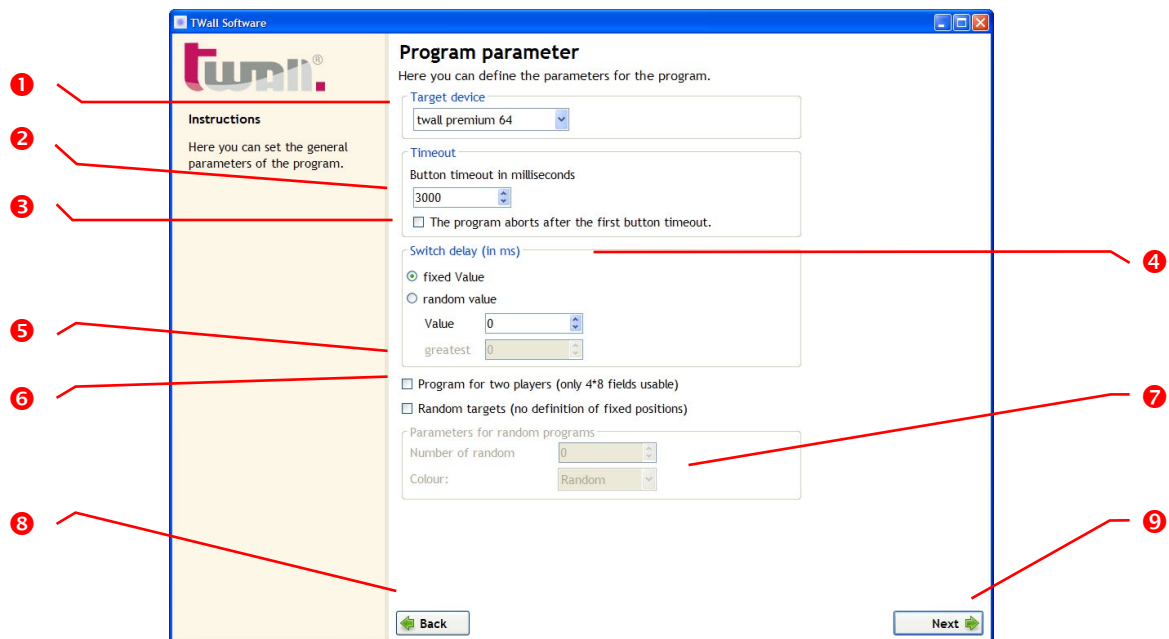
The software switches to status display depending on the selection of the programme to be simulated. The [Save on the twall®] and [High scores] functions are not possible with simulations.

In contrast to the status display for programmes which are executed on the twall®, the stylised twall® is an interactive element here. Instead of pressing the touch pads on the twall®, in the simulations you click with the mouse on the corresponding graphic key fields.



### 8.4.5 Creating new tWall® programmes

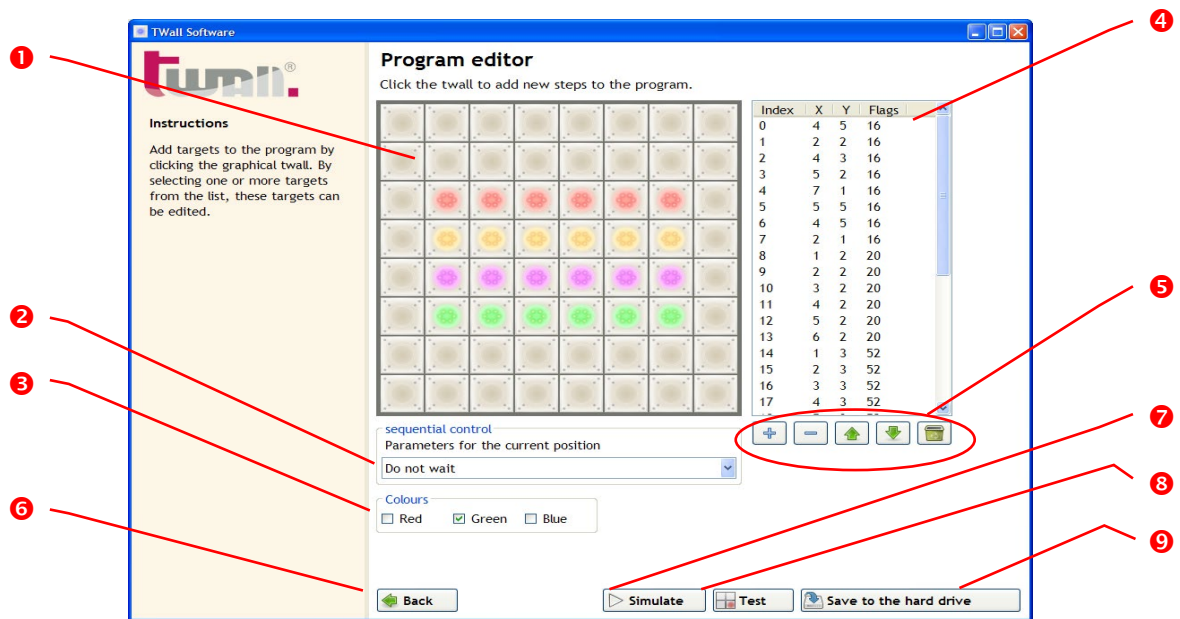
Using the tWall® programme editor software, new tWall® programmes can be created. General parameters are set on the first page of the programme editor.



- 1 Under this option, the tWall® type is set for which the programme is intended.
- 2 Enter a time-out here for the key fields. This is the maximum time which may elapse between activating (connecting) a key field and deactivating (pressing) a key field. The time-out is indicated in milliseconds between 1 and 65,000. Longer time-outs are not permitted for reasons connected with overheating. For this reason, avoid stipulating two identical targets with so high a time-out.
- 3 When a time-out is set and this field is activated, the programme aborts the execution as soon as a time-out has expired. The normal procedure in this case is that the current target is assessed as an error and the next key field is activated.
- 4 The input delay is the time between the deactivation of a key field and the activation of the next key field. The standard setting is zero (no delay). Selected "fixed value" and enter a number in the "Value" field in order to set a fixed delay of the time indicated. Select "random value" and enter two values in the "smallest" and "largest" fields in order to stipulate a random input delay for this area (the input delay is reselected for each new target).
- 5 Select this option to create a programme for two players. On the following page, you can only indicated targets on the left half of the tWall®. The programme will then run identically for the two players.
- 6 If this option is selected, the following page on which the individual targets are selected does not apply. Instead, clicking on [Proceed] will save the programme. When executing the programme on the tWall®, the positions of the targets are selected randomly.
- 7 Enter here the number of chance targets and their colour. A fixed colour can be selected or it can also be left to chance in exactly the same way as the targets.
- 8 Back to start page.
- 9 Proceed to the next page of the programme editor.

The individual targets can be stipulated on the second page of the programme editor. The programme editor operates in two different modes: Create and Edit. If no target is selected in the list of defined targets, clicking on the key field of the graphic twall® adds a new target to the list. The defined parameters/colours then refer to the next target to be added.

If an individual target is selected in the list, clicking on a key field of the graphic twall® changes the position of the target selected. The change to the parameters also corresponds to the target selected. If several targets in the list are selected, only the parameters of the targets selected can be changed.



- 1 Clicking on the graphic key fields adds new targets to the programme.
- 2 This is where to set the sequential procedure for the selected/next target. The parameter stipulates which event will cause the sequence to move on to the next target.
- 3 Using the three option fields you stipulate the colour for the selected/next target. The individual colour channels are created by combining colours (red + green + blue equals white).
- 4 List of defined targets. The index indicates the number of the target in the programme sequence, X and Y stand for the horizontal or vertical position of the target. The flags contain the colour and parameter for the sequence.
- 5 Use these keys to add targets to, delete targets from or rearrange the list, or to delete the entire list.
- 6 Back to page 1 of the programme editor.
- 7 Use this key to simulate the edited programme. To do this it must first be saved on the hard disk.
- 8 Transfers the programme to the twall® and executes it directly. It is not possible to save it on the twall® in this mode.
- 9 Saves the programme on the hard disk..

The following parameters are defined for the sequence:

- ▶ **wait until precisely this key was pressed:** this is the standard setting. The next target in the programme will only be activated when the current target is deactivated or the time-out has expired.
- ▶ **Wait until any active key was pressed:** the next target in the programme will only be activated when an active (illuminated) key is deactivated or the time-out has expired.
- ▶ **Wait until any key was pressed:** the next target in the programme will only be activated when any key - active or not - was pressed or the time-out has expired.
- ▶ **Wait until the last active key was pressed:** the next target in the programme will only be activated when the last active (illuminated) key has been deactivated or the time-out has expired. This mode is especially helpful when numerous key fields on the twall® light up and all need to be deactivated before the programme is ended or the programme sequence continues.
- ▶ **Don't wait:** the next target is activated immediately after the key field is switched on. This mode is required to connect numerous key fields simultaneously.

The following functions are available to edit the targets in the list:



Adds a new element to the list by duplicating the currently selected or the last element in the list.



Deletes the selected elements from the list.



These keys move the selected element one position down or up.



Deletes the entire list

#### 8.4.6 Editing twall® programmes

To edit twall® programmes at a later date, click on [Edit existing programmes] on the start page. Then select the programme to be edited from the options display. In other respects, editing a programme is similar to creating new programmes.

#### 8.4.7 Editing sound sets

Using sound sets, specific events of a twall® programme can be assigned sounds. Each twall® programme can be assigned a sound set<sup>2</sup>.

In order to transfer the sounds to the twall®, the programme must first be transferred from the computer to the twall® and then saved (**see Chapter 8.4.3.1**). The sounds are then automatically transferred to the SD card on the twall® (the card must be inserted into the SD card slot).

**1** Select here the twall® programme for which the sound set is to be processed.

**2** This list contains all the events which can occur in the twall® programme. The sounds assigned can be seen in the "Sound" column.

**3** This key can be used to test the sound selected.

**4** This key saves the settings made.

**5** If an event has been selected in the events list, this event can be assigned a sound using this options display.

## 8.5. Firmware update

### ATTENTION

Starting with version 1.2.9 of twall® PC software the firmware update feature is no longer supported. If needed, please contact your dealer.

## 9 Service

### Contact:

Monday to Thursday from 07.00 - 15.30

Friday from 07.00 - 14.30:

- tel. +49 3727 6205-80 fax +49 3727 6205-220
- e-mail [service@imm-electronics.de](mailto:service@imm-electronics.de)

The following information is needed from you to initiate a service call:

- Customer number, telephone, e-mail address
- Information regarding the tWall®
  - Version: *Premium64*, *Basic16* or *Basic* fold-away or *Compact32*
  - tWall® serial number
  - Sound: J/N, language G/E/F, hardware revision, software version
- Information regarding the system (in the case of software problems):
  - Operating system, version of the PC software, messages in device manager





[www.imm-electronics.de](http://www.imm-electronics.de) | [info@imm-electronics.de](mailto:info@imm-electronics.de)

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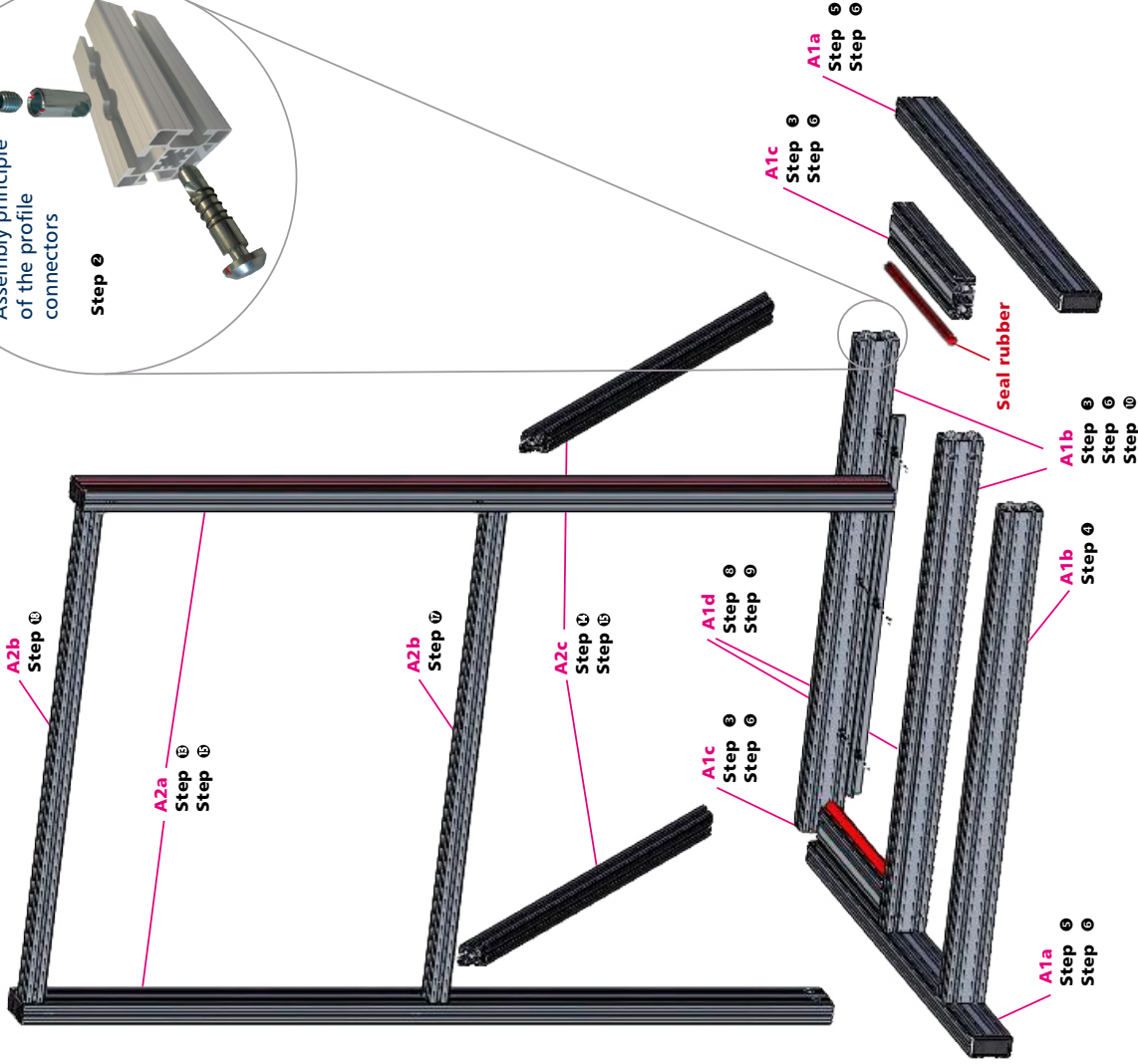
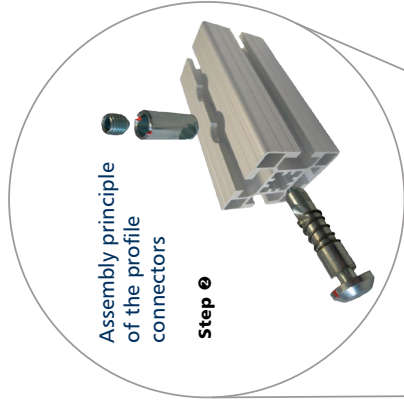
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All information in this document are carefully considered, because our products are constantly being developed, there may be variations! The current version can be found at:  
[www.twall.de / download](http://www.twall.de/download).

<b>manufacturer:</b>	IMM electronics GmbH
	Leipziger Straße 32 09648 Mittweida
<b>tel</b>	+49 3727 6205-90
<b>fax</b>	+49 3727 6205-55
<b>mail</b>	<a href="mailto:info@imm-electronics.de">info@imm-electronics.de</a>
<b>web</b>	<a href="http://www.imm-electronics.de">www.imm-electronics.de</a>

# Handout: Individual assembling steps - twall®Basic16 mobile

Assembling the frame base **A1** and  
Assembling the aluminium frame **A2**



We hope you will find that we have provided a useful manual to assemble and to operate the twall. However, please do not hesitate to contact us on [info@twall.de](mailto:info@twall.de) with any suggestions you may have to improve this document.

We appreciate your help.

## Wall mounting - twall®Basic16 stationary

Distances of the drill holes for wall fastening

