

# INSTALLATION MANUAL RAFFAELLO SCREEN

Before installing the Raffaello screen, please read the following instructions carefully:



- ***The Raffaello screen must be used INDOORS ONLY.***
- ***It is forbidden to stay under the Raffaello screen.***
- ***The Raffaello screen must be installed by qualified personnel only.***

Before installing the screen, please read the following instructions carefully. We would recommend that these instructions are stored safely for future reference.

When opening the packaging of the screen, please **DO NOT USE CUTTERS or OTHER SHARP TOOLS** that can damage the screen inside. During opening the packaging and during installation, it is recommended to use work gloves.

Depending on the screen weight, it has to be handled by at least two or three persons taking care to the following ratio **KG/PERSON: MALE 25 kg. – FEMALE 15 kg.**

The manufacturer does not take responsibility for any damage to property or personal injury if the screen is used outside of recommended specifications or in case of incorrect/poor quality installation.

## WARRANTY

This projection screen is guaranteed 2 years from the purchase date for manufacturing defects.

Responsibility is limited to repairing or substitution of the defected components and without any other charge at our expense.

Warranty is officially voided if the screen has been dismantled or it is returned with collision damage or defective due to incorrect installation. Repairs must be carried out by an Approved Screen International Certified Engineer.

Warranty is officially voided if:

- 1) the motor is removed / dismantled;
- 2) the screen has been transit damaged;
- 3) the instructions regarding the electrical connections have not been followed;
- 4) the products have to be installed following the electric regulations (CEI) and the other local specific laws;
- 5) in the installation are used electric interfaces that does not allow the correct time lapse between up and down operation (complete cut down of electric power on both phases for half a second)
- 6) electrical accessories have been used that are incompatible with the screen motor causing damage to its internal components;
- 7) the motor end stops have been modified without the authorisation of the factory;
- 8) the sticker regarding the serial number of the product has been altered, deleted, removed or is illegible.

**DO NOT** install this screen nearby or over heating or air conditioning systems, because PVC is a plastic material which dilates and remains damaged if it is subjected to heat and/or cool air.

**DO NOT** install this screen either facing direct sun light or blocking a window as PVC could be damaged and make waves for the explanations given above.

The PVC cloth is very sensitive to temperature range. We advise to mount the screen in environments with an ambient temperature in the range of 18°-25°C.

We advise you to wait 2 hours for the screen to acclimatise before using the screen after delivery, especially if screen is brought into a warm environment from cold.

In case the screen is new or it has been rolled up for long time, roll down the screen and leave it open for ca. 24/48 hrs. with an ambient temperature in the range of 18°-25° C in order to get a perfect flatness of the cloth

**DO NOT WASH** the projection surface with alcohol or solvent nor with commercial cleaners. Every now and then dust the surface with a dry and clean duster.

Please, be very careful because any kind of stain on projection surfaces is inerasable.

The screen has to be used showing the total projection sizes indicated on the packaging; therefore it is **NOT** allowed to adjust the end stops to restrict the total drop or extend it. Restricting the total drop of the screen is likely to cause your screen surface to lose its flatness.

When the screen is not completely rolled down (as by factory setting), flatness of the cloth is **NOT** guaranteed and therefore not covered by warranty.

**DO NOT HANG TO THE SCREEN** and **DO NOT HANG ANY OBJECT** to it. Please take care that children **DO NOT PLAY** with the screen as they can get severely injured.

The manufacturer will not accept returns of screens for repair without manufacturer's authorization (RMA number) and without a suitable packaging.

**IT IS FORBIDDEN TO STAY UNDER THE PROJECTION SCREEN.**

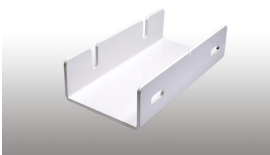
**IT IS FORBIDDEN TO USE THE PROJECTION SCREEN OUTDOOR.**

**ONCE PROJECTION IS FINISHED, ROLL UP THE SCREEN** (keeping the screen rolled down can cause deformations to the projection surface).

When you open the packaging, please **CHECK** that it contains **ALL** the components below.

In case one or more components are missed, please refer to the dealer you purchased the product from.

1. 1 Raffaello screen



2. 2 ceiling mounting brackets



3. 4 metal threaded rods 100 cm. long x M8
4. 16 washers M8
5. 16 nuts M8
6. 01 on/off switcher
7. 01 installation manual

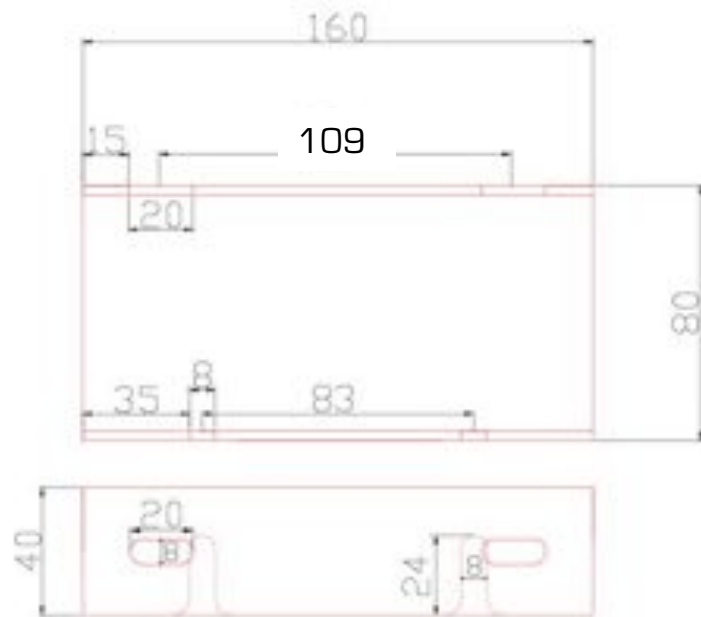
### INSTALLATION INSTRUCTIONS

The product has to be installed and used conform to the laws in force within the country where the product is used.

During installation, please take care to use security belts in order to secure the screen housing.

The Raffaello screen can be mounted either on a ceiling where afterwards the false ceiling will be built around the screen or into an existing false ceiling.

#### A- RAFFAELLO SCREEN INSTALLATION where afterwards the false ceiling will be built around the screen.

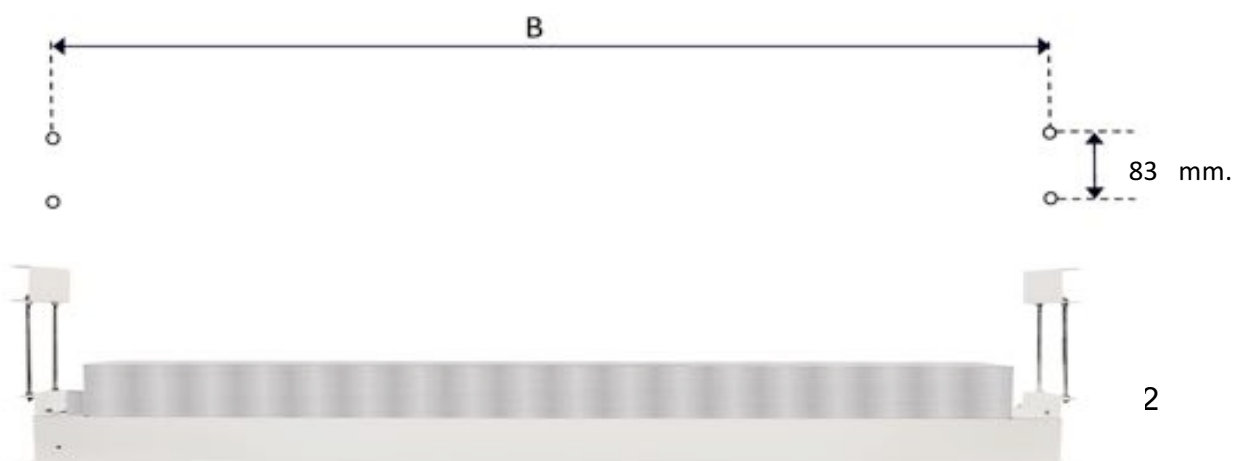


All measures in the drawing are expressed in millimeters.

#### TECHNICAL DRAWING CEILING MOUNTING BRACKET

In order to fix the Raffaello screen onto the concrete ceiling proceed with the following steps:

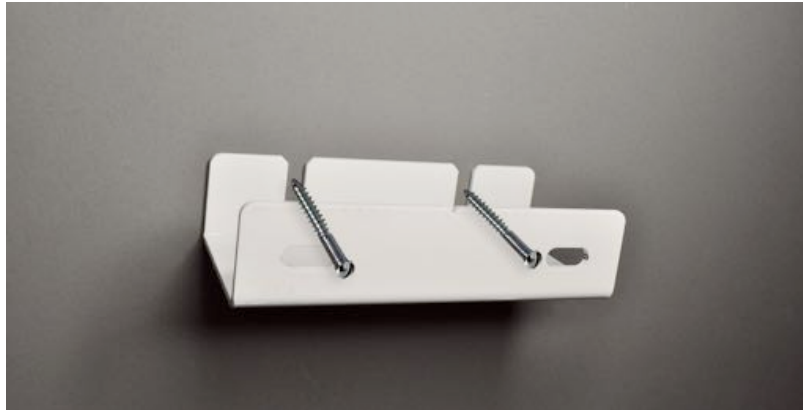
1. A Drill into the concrete ceiling two holes for the left bracket and two holes for the right one following the picture below:



<b>SCREEN MODEL</b>	<b>B</b>
RAFFAELLO without side borders	Width of the viewing area + 45 cm.
RAFFAELLO HOME CINEMA (with black side borders)	Width of the viewing area + 55 cm.
RAFFAELLO TENSIONED	Width of the viewing area + 74 cm.

Example: If you bought a RAFFAELLO HOME CINEMA 200X125, the width of the viewing area is 200 cm. and the distance B has to be 200 cm. + 55 cm. = 255 cm.

- 2. A** Fix the ceiling mounting brackets to the concrete ceiling with suitable wall plugs and bolts (NOT SUPPLIED) – see Fig. 1

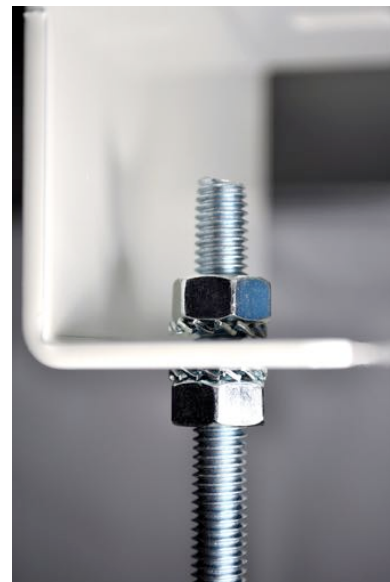


**Fig. 1**

- 3. A** Cut the metal threaded rods at the desired length, taking care that the metal rod has to go inside the top and the bottom mounting bracket, at least 3 cm.  
 Fix the two metal rods to the mounting brackets already fixed to the ceiling, taking care that at least 3 cm. of metal rod goes inside the bracket (Fig. 2)  
 Fix each metal rod tightly with two washers and two nuts, as shown in Fig. 3.



**Fig. 2**



**Fig. 3**

Repeat this operation for both mounting brackets.

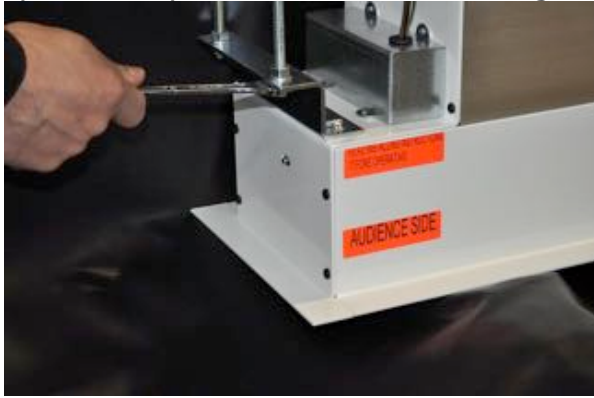


Fig. 4

Fix the lower end of the metal rods to the side brackets of the Raffaello screen, taking care that at least 3 cm. of metal rod goes inside the bracket.

Fix each metal rod tightly with two washers and two nuts M8, as shown in Fig. 3.

The final result should be as in Fig. 4.

**CAUTION: CHECK EVERY 6 MONTHS THAT SCREWS, WALL PLUGS AND BRACKETS ARE IN GOOD CONDITIONS AND WELL TIGHTENED.**

#### 4. A ELECTRIC CONNECTION

Connection of the power supply must be carried out by qualified personnel only, using the scheme showed on the drawing below (Fig. 5). Pay attention to wires colour and fix the switcher near the screen because the rolling up or down of the projection surface should be visible to the operator!! **NEVER CONNECT MORE THAN ONE SCREEN MOTOR TO THE SAME SWITCHER.** Use the supplied switcher only. IN CASE OF MAINTENANCE, UNPLUG THE POWER SUPPLY.

**In case the screen is controlled via relays, take care that the control system is programmed so there is no tension on the relays for at least 1 sec. during switching between rolling up and rolling down operations and viceversa.**

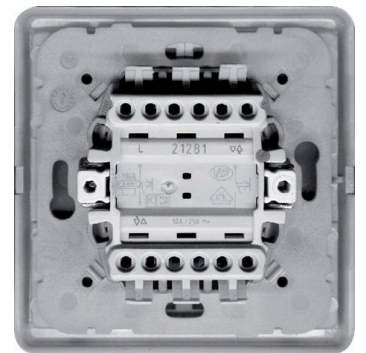
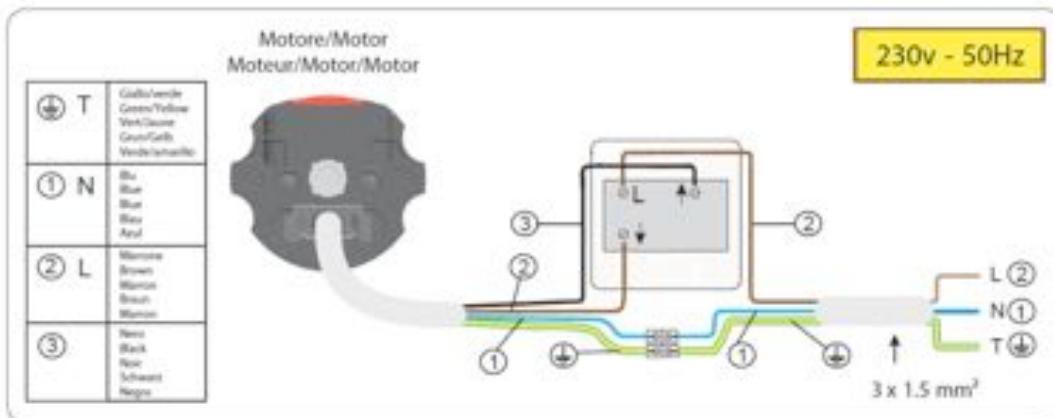


Fig. 5

Now you can build around the Raffaello screen the false ceiling.

**NOTE:** we recommend to make into the false ceiling preferably on the left side of the Raffaello screen, an inspection trapdoor.

**5. A** After construction work is finished and room is clean and dust free, remove the straps you find at the bottom side of the screen housing (Fig. 6). At this stage, the trapdoor will open (Fig. 7).

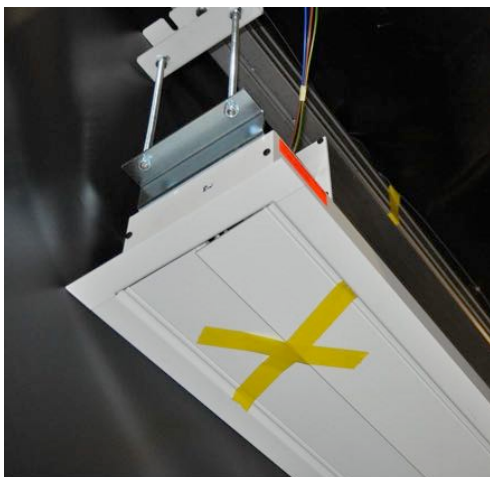


Fig. 6



Fig. 7

- 6. A** Remove the plastic bag that protects the projection screen roller inside the housing, indicated by the arrows in Fig. 8.  
**DO NOT USE SHARP TOOLS** to remove the plastic bags, unless you risk to damage the screen.



**Fig. 8**

- 7. A** Connect the plug into the socket as shown in Fig. 9



**Fig. 9**

- 8. A** Once you have inserted the plug, connect the mains to the screen and push the button of the switcher to roll down the screen. Once it is rolled down till the its automatic end stop, push the other button to roll it up completely. At the end of the screen roll up, the trapdoor will automatically close.  
In case the trapdoor is not perfectly aligned, you can make a final adjustment as described in step "C".

## B- RAFFAELLO SCREEN INSTALLATION into an existing false ceiling

In order to be able to mount the Raffaello screen into an existing false ceiling, you need to have access into the false ceiling.

- 1. B** Cut the hole in your false ceiling following the indications in Fig. 10 and drill into the concrete ceiling two holes for the left bracket and two holes for the right one following Fig. 10.

SCREEN MODEL	LENGTH OF THE HOLE (L)	DISTANCE (B)
RAFFAELLO without side borders	Width of the viewing area + 42 cm.	Width of the viewing area + 45 cm.
RAFFAELLO HOME CINEMA	Width of the viewing area + 52 cm.	Width of the viewing area + 55 cm.
RAFFAELLO TENSIONED	Width of the viewing area + 71,5 cm.	Width of the viewing area + 74 cm.

### WIDTH OF THE HOLE: 19 CM.

Example: If you bought a RAFFAELLO HOME CINEMA 200X125, the width of the viewing area is 200 cm. and the width of the hole L has to be 200 cm. + 52 cm. = 252 cm. and distance B has to be 200 cm. + 55 cm. = 255 cm.

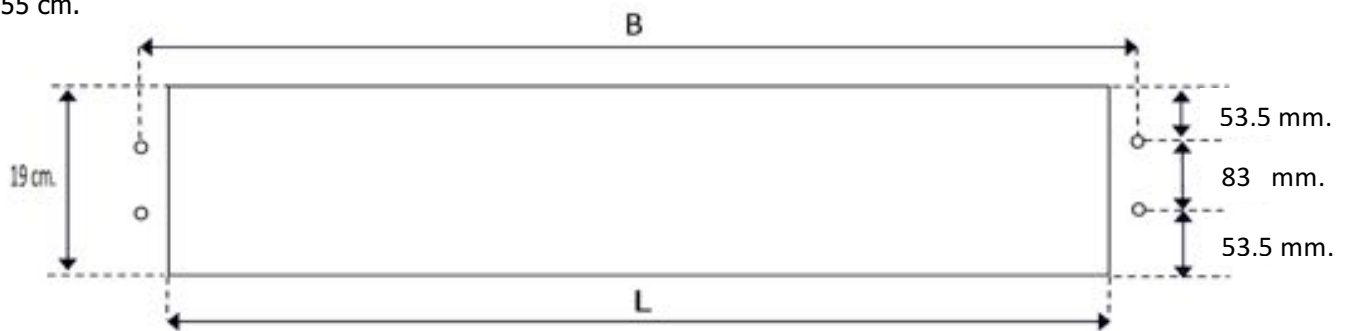
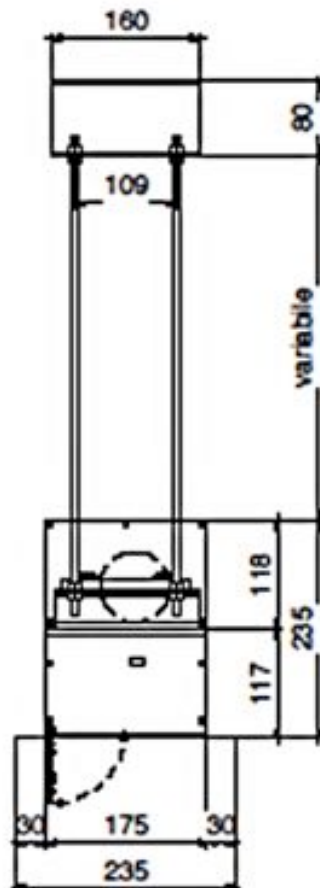


Fig. 10



**2. B** See instructions point 2.A

**3. B** See instructions point 3.A

**4. B** Now, in order to fit in the Raffaello screen into the hole of the false ceiling you need to remove the two side brackets from the Raffaello housing.

Turn upside down the Raffaello screen, remove the straps you find at the bottom side of the screen housing (see Fig. 6) and open the first part of the trapdoor.

In order to open the second part of the trapdoor, unscrew the screw as in Fig. 11 on both sides.

Now, unscrew the two bolts from each side bracket, as shown on Fig. 12 and remove the side brackets from the screen housing.

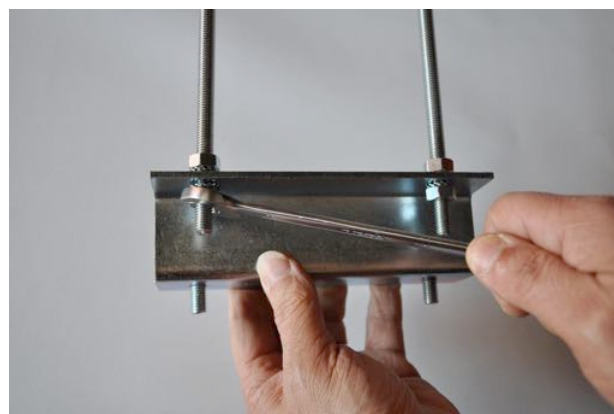


**Fig. 11**



**Fig. 12**

**5.B** Fix each side bracket to the threaded rods already mounted to the ceiling brackets. Fix the lower end of the metal rods to the side brackets of the Raffaello screen, taking care that at least 3 cm. of metal rod goes inside the bracket (see Fig. 13). Fix each metal rod tightly with two washers and two nuts M8, as shown in Fig. 3.



**Fig. 13**

**6.B** Lift up the screen housing with open trapdoor, inside the hole of the false ceiling and fix the side brackets (previously removed) again to the screen housing with the washers and nuts at both sides of the screen.

Close the part of the trapdoor with the motor and screw it tightly on both sides.

**7.B** ELECTRIC CONNECTION (See instructions point 4.A)

**8.B** See instructions point 6.A

**9.B** See instructions point 7.A

**10.B** See instructions point 8.A

In case the trapdoor is not perfectly aligned, you can make a final adjustment as described in step "C".

### **C- ADJUSTMENT OF THE TRAPDOOR**

If the trapdoor in closed position is not completely closed, you can adjust it as follows:

**1.C** Roll down the screen completely.

**2.C** In case, in closed position the trapdoor remains partially opened, using an Allen Key loose the screw that keeps the black steel cable fixed – see Fig. 14 – and shorten the steel cable a few millimeters and tight the screw again.

**3.C** In case, in closed position the trapdoor is too closed and pushes the other trapdoor too much, using an Allen Key loose the screw that keeps the black steel cable fixed – see Fig. 14 – and lengthen a few millimeters the steel cable a bit and tight the screw again.



**Fig. 14**