CompassPools Rollo Cover®

Installation Manual

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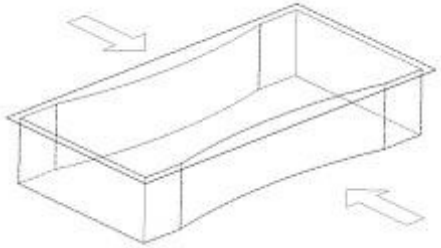
- I. General Installation Instructions
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I. General Installation Instructions

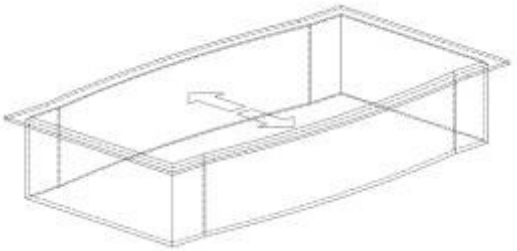
- An automatic roller cover demands level control. This level controller can be connected to the control panel on J4 between 10-11 (see chapter VII for the electrical installation instructions).
- An overflow and refilling system to maintain a correct water level is highly recommended.
- Do not place any obstacles in the sidewalls of the pool which can interfere with the cover. E.g.: skimmers, ladders, etc…
- Correct tools for the mechanical and electrical installation are inevitable.
- You need 2 persons to install the CompassPools Rollo Cover®

I. General Installation Instructions

- The pool needs to be aligned properly during installation. Distortion of the pool can have a big influence on the operation of the roller cover.



Roller cover can get blocked



Reduced safety as the cover
does not rest on the safety edge

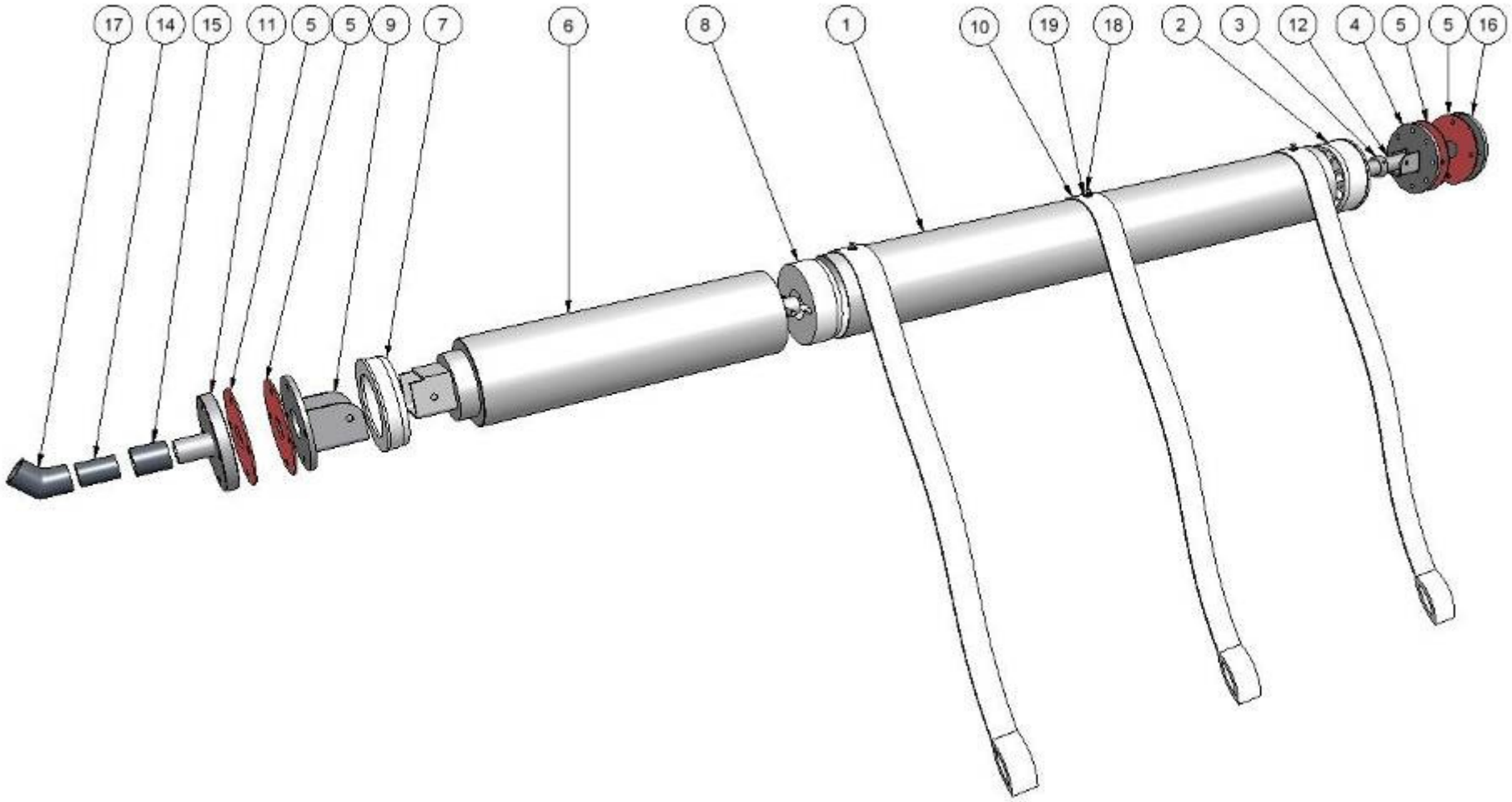
- Use enough cement to fill up around the pool in order to have a strong matrix to support it.
- Before filling up the last 50cm around the pool with a sand-concrete combination you have to fill up the pool with water till about -20cm. This will prevent a narrowing of the pool at water level.

II. Installation of the Mechanism

- You have to install the mechanism (roller shaft + fixation parts) before the space around the pool is filled up with a sand-concrete combination .
- On the following pages you find an exploded view of the different parts together with a detailed part list (II.1)
- To install the mechanism follow the installation sequence (II.2)



II.1 Exploded view of the different parts of the mechanism



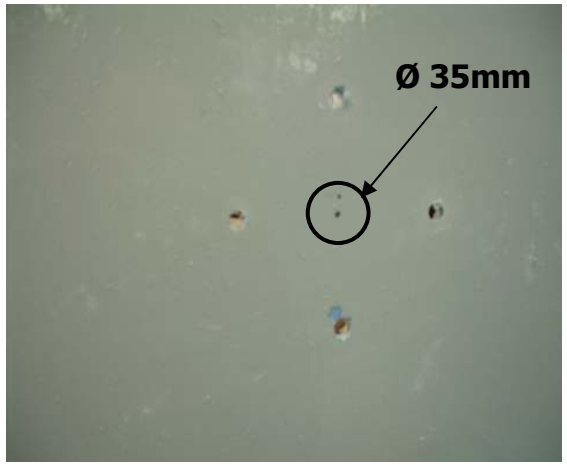
II.1 Summary of the different parts of the mechanism

Drawing Number	Part Name	Part Number
1	SS AISI 316L tube Ø 139,7x2 mm – L=4m	AT-001978
2	POM bearing for tube Ø 139,7x2 mm	AT-002019
3	Ring to lock/secure the roller shaft	AT-002052
4	Non-motor flange	AT-002054
5	Seal in PUR	AT-002066
6	In-roller motor 24Vdc	AT-002581
7	POM bearing for tube Ø 139,7x2 mm (drive side)	AT-002018
8	Drive block for tube Ø 139,7x2 mm	AT-002017
9	Motor flange	AT-002010
10	Strap to connect the slats to the roller shaft	AT-002034
11	Wall duct flange	AT-002009
12	Shaft SS AISI 316L Ø 30 mm – L=170mm	AT-002047
14	PVC tube Ø 32mm PVC PN10	AT-002057
15	PVC socket	AT-002497
16	Counter flange	AT-002598
17	45° PVC elbow Ø 32mm	AT-002524
18	Bolt M6x12 to fix the straps to the shaft	AT-002326
19	Washer	AT-001959

II.2 Installation sequence

Installation of the mechanism: motor side





- Use the motor flange as a template
- The center of the roller shaft will be marked at the Compass factory
- Mark the 4 bolt holes
- Mark the centre hole for the motor cable

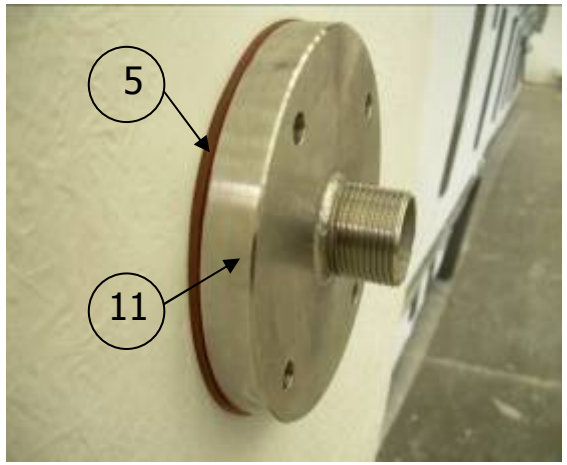
- Drill the 4 bolt holes: Ø 9mm
- Drill the center hole: Ø 35mm

II.2 Installation sequence

Installation of the mechanism: motor side



- Install the motor flange at the inside of the pool with bolts M8x35
- Put a seal between flange and pool wall



- Screw the bolts M8x35 into the wall duct flange
- Put a seal between flange and pool wall

II.2 Installation sequence

Installation of the mechanism: motor side



- Use silicone to seal off the wall duct flange
- Use teflon tape to seal the thread



- Screw the threaded side of the PVC socket on the wall duct flange
- In the non-threaded side of the PVC socket you glue a Ø 32mm rigid PVC tube

II.2 Installation sequence

Installation of the mechanism: non-motor side

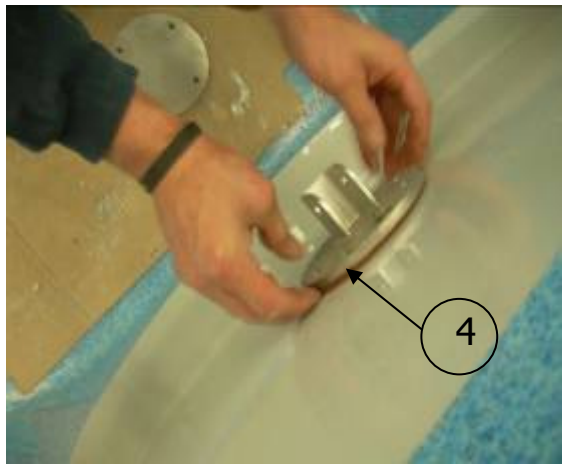




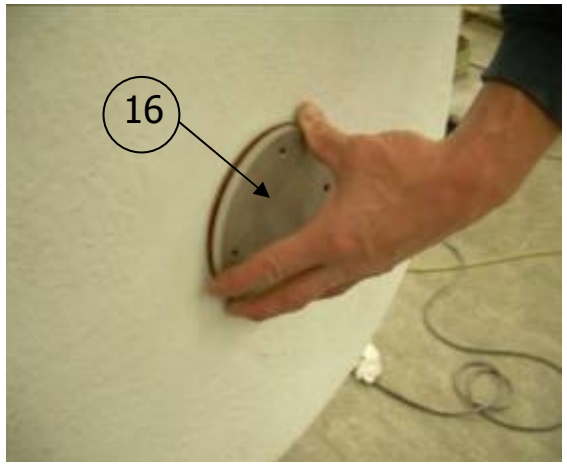
- Use the motor flange as a template
- The center of the roller shaft will be marked at the Compass factory
- Mark the 4 bolt holes
- Drill the 4 bolt holes: Ø 9mm
- DO NOT drill a center hole on this side !!!

II.2 Installation sequence

Installation of the mechanism: non-motor side



- Install the non-motor flange inside the pool with bolts M8x30
- Put a seal between flange and pool wall



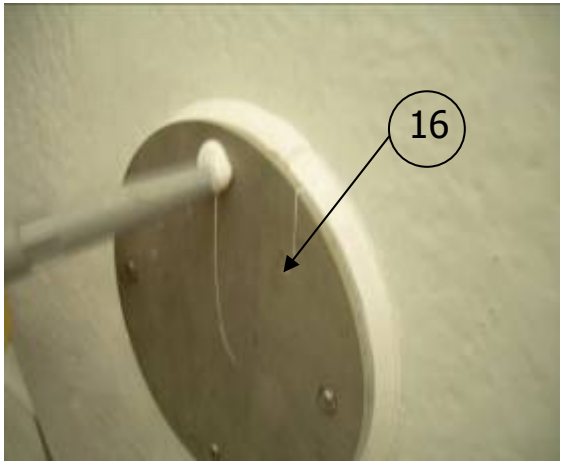
- These bolts are screwed into the counter flange
- Put a seal between flange and pool wall

II.2 Installation sequence

Installation of the mechanism: non-motor side



- Install the necessary parts inside the pool



- Seal off the counter flange with silicone

II.2 Installation sequence

Installation of the mechanism: roller shaft

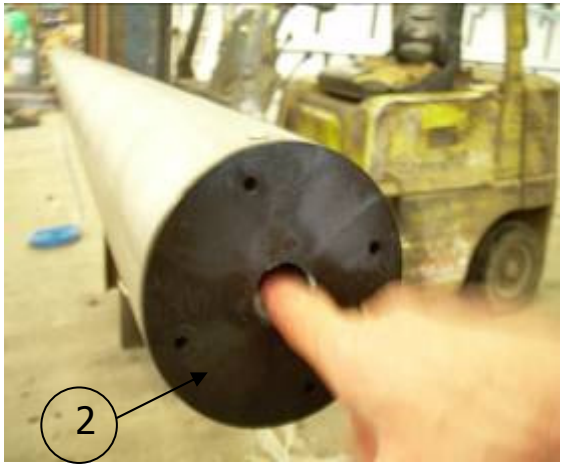




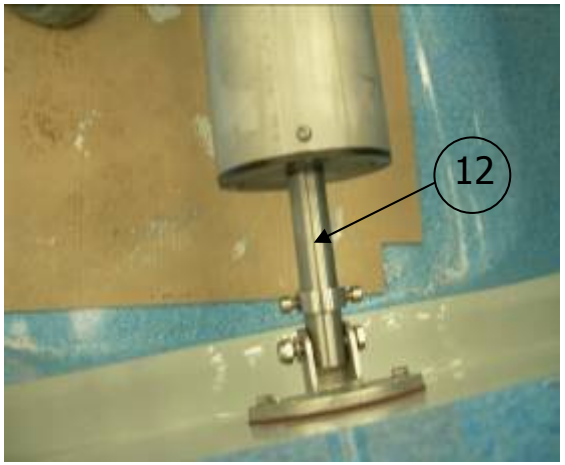
- Make sure you do NOT damage the motor cable while installing the roller shaft
- Weight of roller shaft including the in-roller motor: 50kg

II.2 Installation sequence

Installation of the mechanism: roller shaft



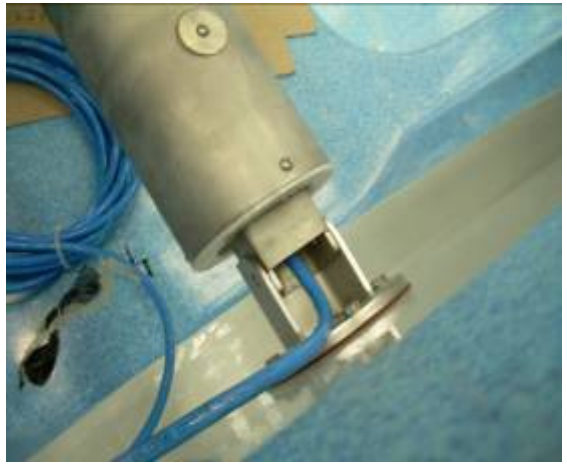
- Put enough vaseline in the plastic bearing at the non-motor side of the roller shaft



- Put the non-motor side of the roller shaft with the plastic bearing over the stainless steel shaft Ø 30mm

II.2 Installation sequence

Installation of the mechanism: roller shaft



- Place the motor side of the roller shaft in the motor flange
- Again take care that you do NOT damage the motor cable

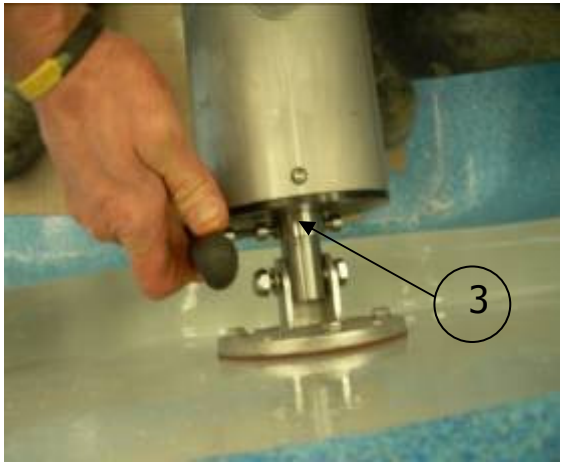


- Lock the motor with 1 bolt

  M8x90 + 2 washers and 1 nut

II.2 Installation sequence

Installation of the mechanism: roller shaft



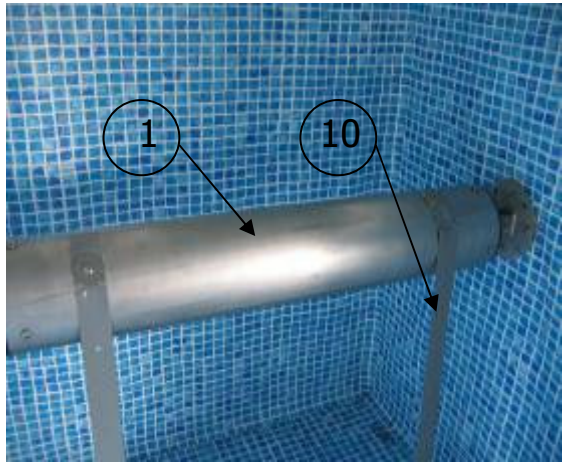
- Lock the stainless steel ring at the non-drive side onto the Ø 30mm shaft with 2 bolts M8x10



- Lock the Ø 30mm shaft with a bolt M10x60 and nut

II.2 Installation sequence

Installation of the mechanism: roller shaft



- Attach the straps to the roller shaft so the slats can easily be installed as soon as the pool is filled with water

III. Installation of the panel

- You have to install the panel before the space around the pool is filled up with a sand-concrete combination.
- To install the panel, follow the installation sequence (III.1)
- Compass Pools delivers you the correct panel together with the pool

III.1 Installation sequence



- Bring the panel into position
- The top of the panel has to be at the same level as the safety edge







III.1 Installation sequence



- Drill 3 holes (Ø10mm) through pool and panel on the left and right hand side







III.1 Installation sequence



- Smooth the pool wall
- Inject enough silicone type INNOTEC







III.1 Installation sequence



- Use M10x60 SS bolts (V4A – AISI 316) together with the right washers and nuts to fix the panel properly





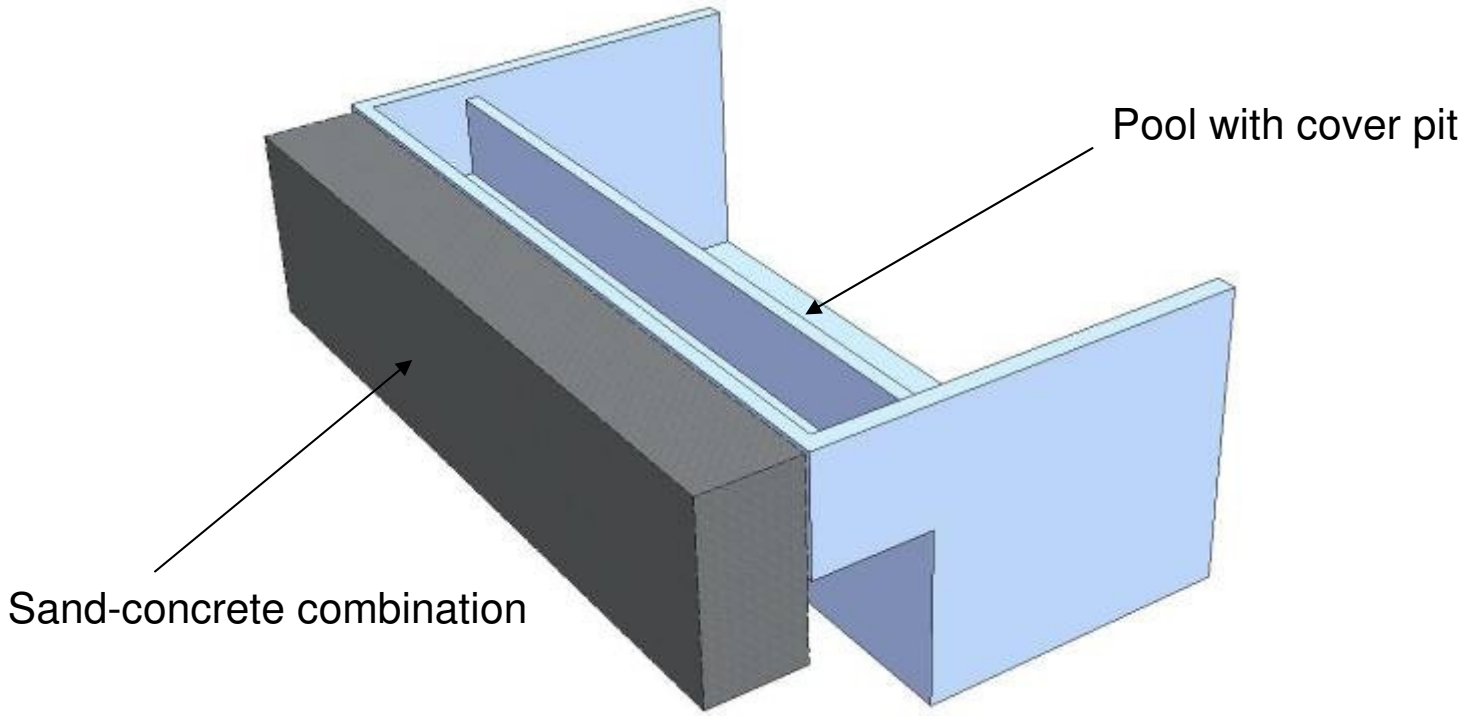
IV. Installation of the SS Frame *

- You have to install the stainless steel frame before the space around the pool is filled up with a sand-concrete combination.
- This system has an integrated skimmer over the full width of the pool. You need to connect this skimmer to a drain pipe. This drain pipe goes through the pool wall.
- Standard frame is made out of SS AISI 304L (V2A). In case you use a salt chlorinator (<0,5% salt) we recommend to use the frame out of SS AISI 316L (V4A). The standard frame made out of SS AISI 304L comes with 1 drain. The frame made out of SS AISI 316L comes with 2 drains.
- The SS frame has been treated after welding to have an optimal resistance against corrosion. Do not damage or scratch the frame during the installation.
- The stainless steel frame has to be earthed to have an optimal resistance against corrosion ($R_{earth\ connection}$ < 30 Ohm). The earth connection is provided on the frame. It is recommended to use a separate earth electrode for the frame.
- Maximum permitted load: 100kg/m
- See IV.1 for the technical drawing of the SS frame
- To install the SS frame, follow the installation sequence (IV.2)

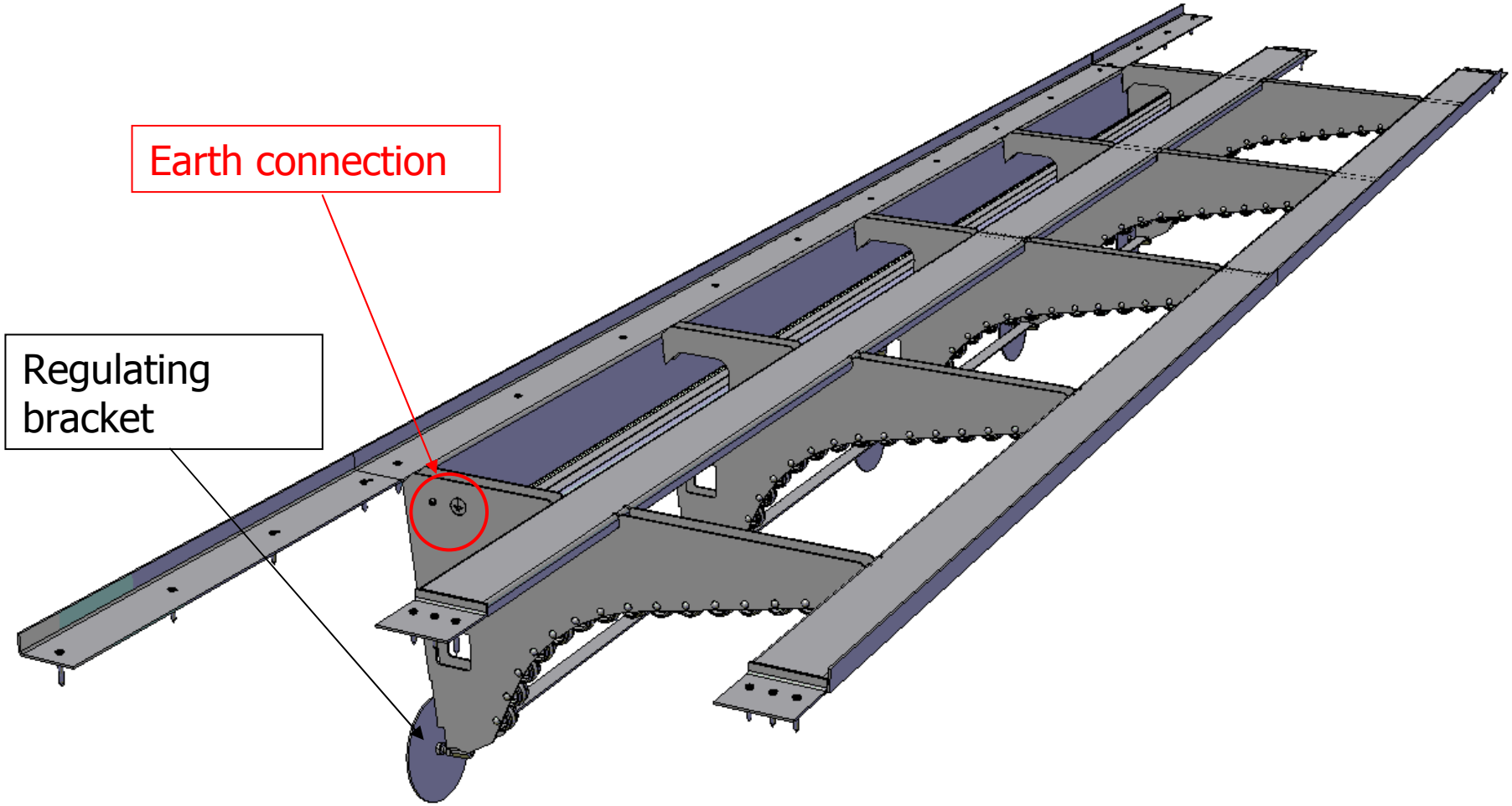
(*) Only valid with OVERFLOW LINE

IV. Installation of the SS Frame *

- Behind the cover pit you have to make a strong matrix of a sand-concrete combination to support the stainless steel frame. Put the matrix over the complete width of the pool (LxDxW = 400x100x50 cm)



IV.1 Technical drawing of the SS frame



IV.2 Installation sequence



- Connect the 90° PVC elbow to the main drain of the skimmer
- Use the side of the elbow with the internal thread



- In the other side of the elbow a rigid PVC tube of 50 mm must be glued

IV.2 Installation sequence



- Cut the rigid PVC tube at 6cm away from the last bracket



- Use glue to connect the coupling to the rigid PVC tube

IV.2 Installation sequence



- Use the PVC coupling with a double 50mm glue connection



- This coupling makes it possible to take the SS frame out of the pool in case of a repair

IV.2 Installation sequence



- Install the 5 regulating brackets to the SS frame
- These brackets make it possible to level the SS frame after installation



- Do NOT forget to place the extra nut M10 on each bracket

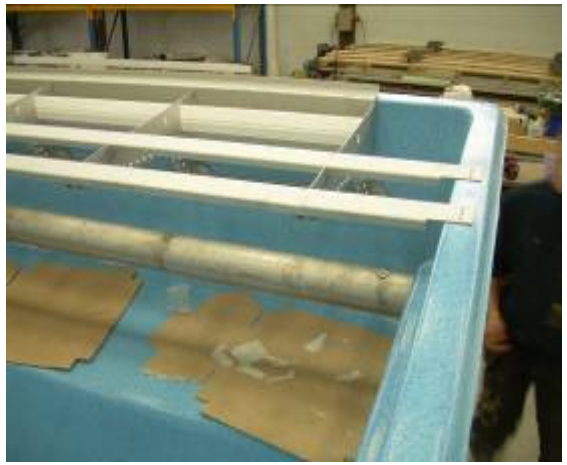
IV.2 Installation sequence



- Turn the bracket till the end before putting the frame inside the pool
- Glue some armed PVC liner of 1,2 – 1,5 mm thick onto the bracket. This PVC liner between bracket and pool wall will avoid scratches on the pool wall.

IV.2 Installation sequence





- Put the SS frame in the pool
- Be careful not to damage the pool
- Weight of the SS frame: 65kg

IV.2 Installation sequence



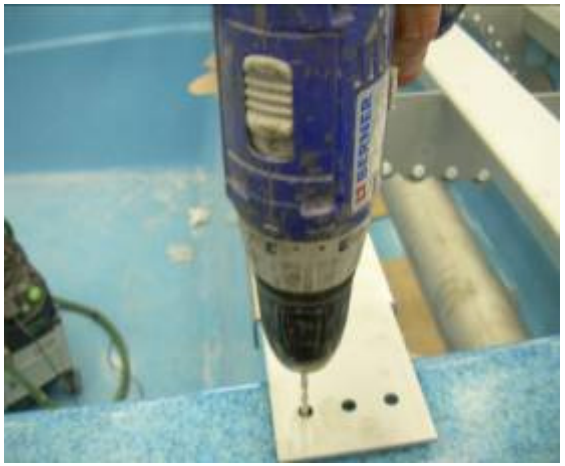


- Use 3 cramps to bring the frame in the correct position
- Use 1 cramp in the middle together with 1 cramp on each side of the frame

IV.2 Installation sequence



- When the frame is in the right position you can start to fix it with stainless steel screws



- Pre-drill the holes in the pool (Ø 2mm) before fixing them with stainless steel screws

IV.2 Installation sequence

Connection of the skimmer to the main drain





- Use 1 piece of flexible PVC tube Ø 50mm with a length of 30cm
- Use 1 piece of rigid PVC tube Ø 50mm with a length of 6cm
- Use 2 90° PVC elbows in which the tubes can be glued
- Look at the drawing for the right way to put the different parts together

IV.2 Installation sequence

Connection of the skimmer to the main drain





- Connect the prepared part to the coupling you have fixed before
- Mark the spot on the pool wall where the hole needs to be drilled
- Drill a hole Ø 60mm

IV.2 Installation sequence

Connection of the skimmer to the main drain





- Smooth and clean the surface around the hole so the wall duct can be installed properly

IV.2 Installation sequence

Connection of the skimmer to the main drain





- Use the wall duct to make a watertight connection

IV.2 Installation sequence

Connection of the skimmer to the main drain





- Use enough silicone as an extra seal around the wall duct
- Place the white plastic ring before fixing the grey plastic nut

IV.2 Installation sequence

Connection of the skimmer to the main drain





- Lock the plastic nut with a an adjustable spanner

IV.2 Installation sequence

Connection of the skimmer to the main drain





- Use silicone again as an extra seal around the plastic nut

IV.2 Installation sequence

Connection of the skimmer to the main drain





- At the inside of the pool you glue the PVC tube into the wall duct
- The coupling makes it possible to take the SS frame out of the pool in case of a repair

IV.2 Installation sequence

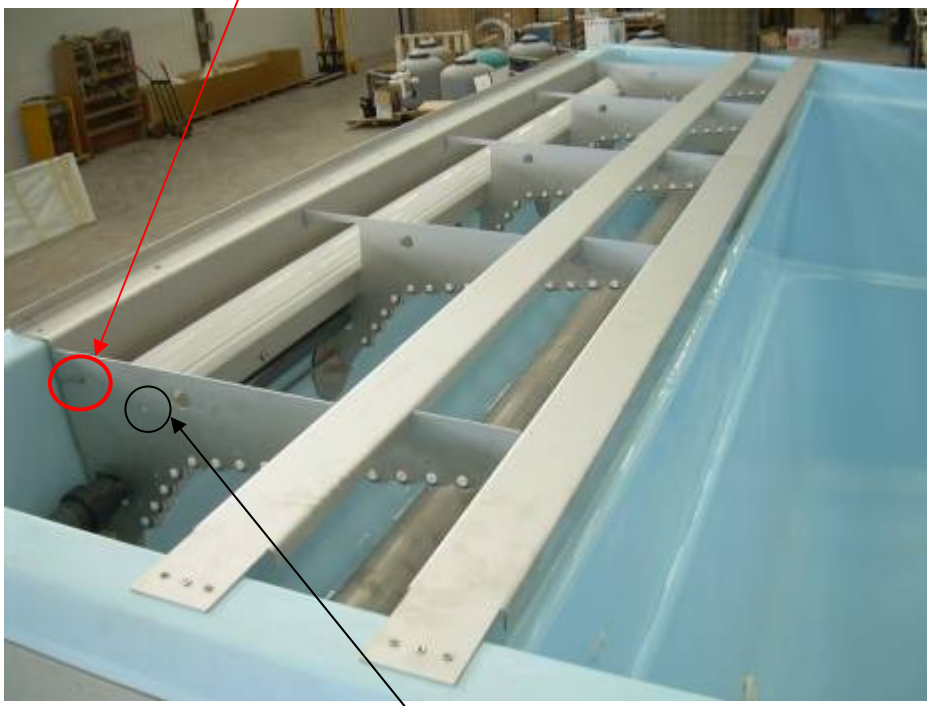
Connection of the skimmer to the main drain





- At the outside of the pool you glue a PVC tube Ø 50mm into the wall duct
- Lock the plastic nut with the white seal as an extra safety

IV.2 Installation sequence



- The mechanism and SS frame have now been installed
- Before filling the area around the pool with a sand-concrete combination make sure you earth the the frame as an extra protection against corrosion ($R_{earth\ connection}$ < 30 Ohm).
- There is a mounting hole on the frame to install a water level controller

IV.2 Installation sequence



- On the front of the SS frame you put the coping stones
- At the back of the SS frame you put wooden panels/grates to close the cover pit.
- The wooden panels can easily be removed to clean the pit or to do service.
- Make sure the corner coping stones are glued to the frame with silicone so they can be removed in case the frame has to be taken out of the pool

V. Installation of the Aluminium Beam *

- You have to install the aluminium beam before you install the coping stones around the pool.
- Dimensions aluminium beam: 110x65mm
- The aluminium beam has been anodised as an extra protection against corrosion. Be careful not to damage or scratch the beam during the installation.
- The aluminium beam has a SS bracket on each side to adjust its level.
- In the back wall behind the roller cover you install a skimmer with water level controller.
- The cover pit can be covered with wooden or polypropylene grates.
- Chapter V.1: Installation sequence

(*) Only valid with COMFORT LINE

V.1 Installation sequence



- The aluminium beam has an adjustable bracket on each side to regulate the level
- Make sure you have minimum 30mm between waterlevel and panel AND between water level and beam !!! If not, slats might get stuck !!!

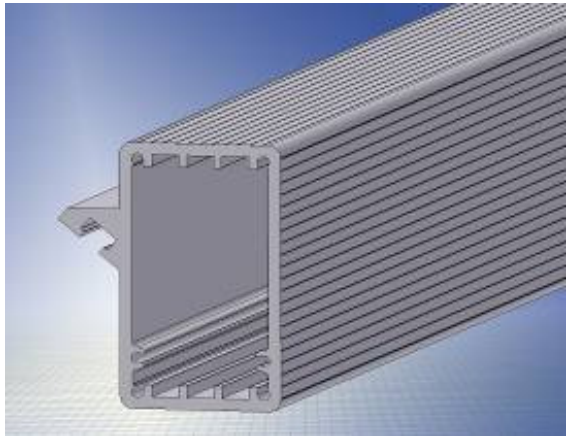


- Put the bracket on the pool wall

V.1 Installation sequence

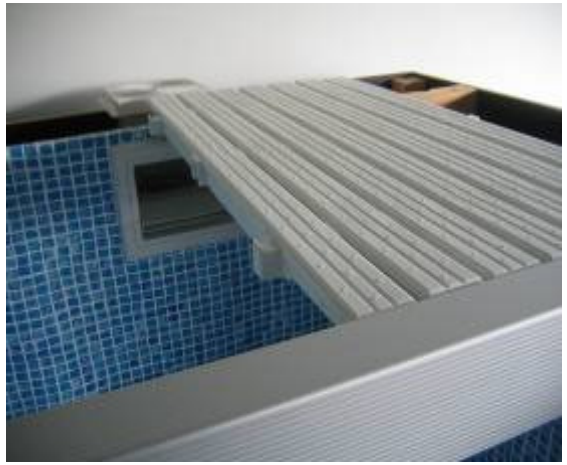


- Top view of the aluminium beam with the adjustable bracket
- Optional you can fix the bracket on top of the pool to prevent it from moving
- Use SS screws and plugs or bolts to fix the beam

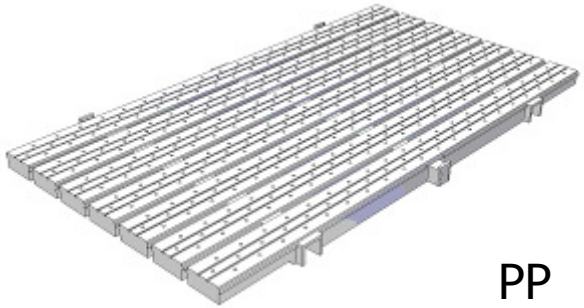


- Detail of the aluminium beam with support for the grates

V.1 Installation sequence



- You can close the cover pit with polypropylene (PP) grates
- On 1 side the grates rest on the pool wall, on the other side the grates rest on the aluminium beam



PP

- Dimenions of the PP grates: 750/925 x 500 mm
- If necessary the grates can be cut to size on site

V.1 Installation sequence



- Another option is to install grates out of tropical wood



- Dimenions of the wooden grates: 750/925 x 600 mm
- If necessary the grates can be cut to size on site

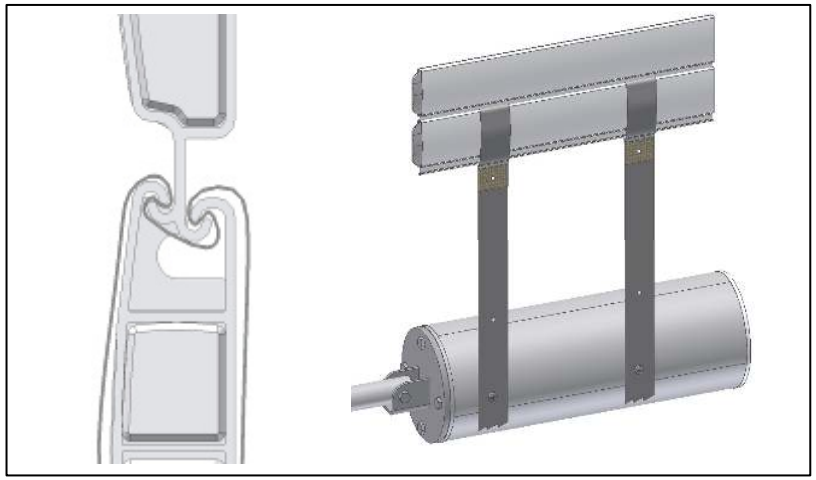
VI. Installation of the Slats

- The slats may only be exposed to the sunlight when floating on the swimming pool water. The slats have to be put immediately from the box onto the water. The remaining slats in the box always have to be covered from the sunlight !!!
- Respect the sequence of the slats in the crate: the slats for the pool end are on top, those connecting to the shaft are at the bottom.
- Orientation of the slats: the curved side is the top side, open side towards pool end.
- Roll up the slats while carrying them to the pool. They come in a carboard box with different layers. Each layer has 9 slats.
- With solar slats the filtration pump must always be switched on when the cover is closed !!





- Hook up the slats at 1 end
- Move the slats up and down at the other end and the slats will slowly come together

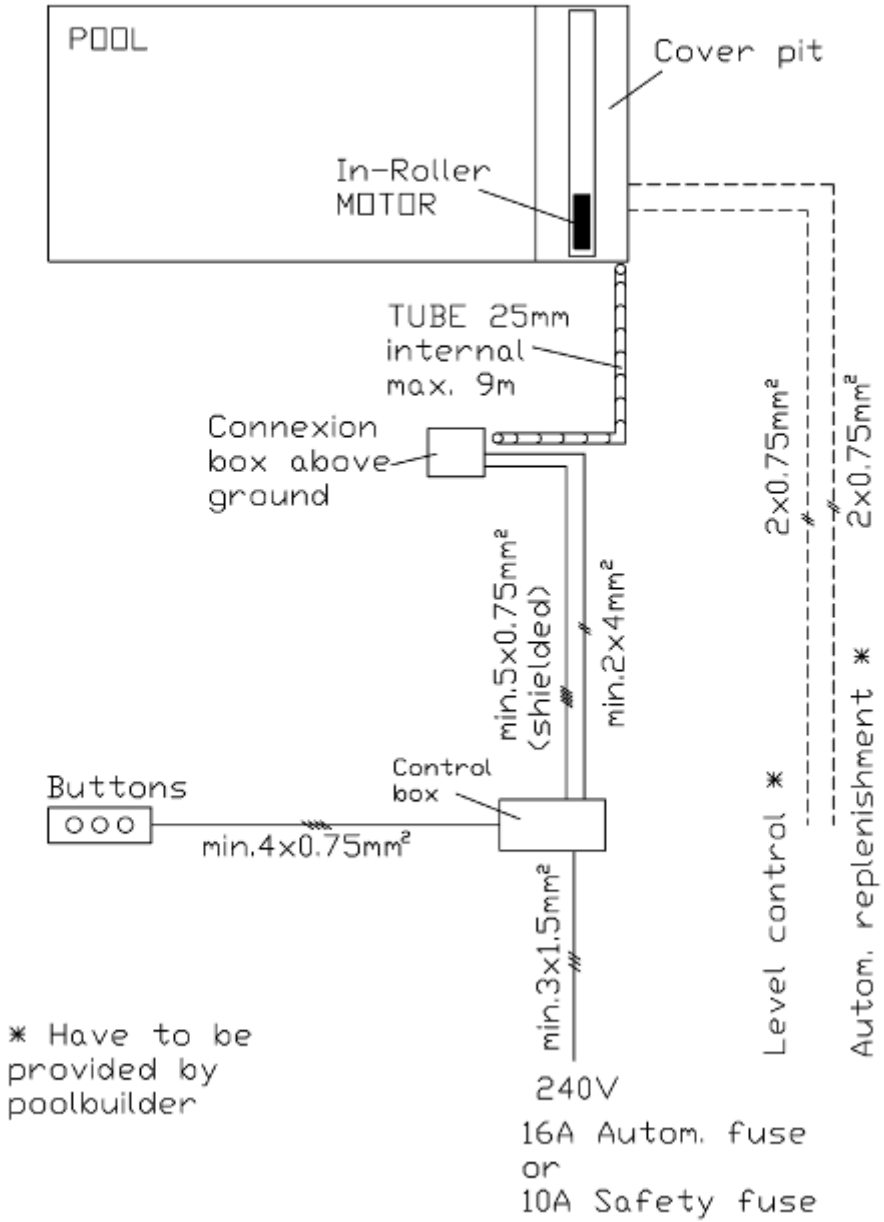


- Use the straps to connect the slats to the roller shaft. Threaded holes with bolts and washers are provided in the shaft.
- Different holes are provided in the straps so they can be cut to size. Do not fix the slats directly to the roller shaft

VII. Electrical Installation

- VII.1 : Electrical preparations
- VII.2 : Overview of the different parts
- VII.3 : Wiring diagram
- VII.4 : Technical chart
- VII.5 : Initializing of the control box
- VII.6 : Remote control
- VII.7 : Extended manual
- VII.8 : Problem solving with overview of the error codes

VII.1 : Electrical preparations



- Motor cable is always 10m long !!!

VII.2 : Overview of the different parts





- Control board: This box has to be installed in the plant room (never outdoor!)
- Use flexible wires for all connections
- Key switch: This box has to be placed there where you can see the pool
- Put the key on “0” as an emergency stop or to reset an error message

VII.2 : Overview of the different parts

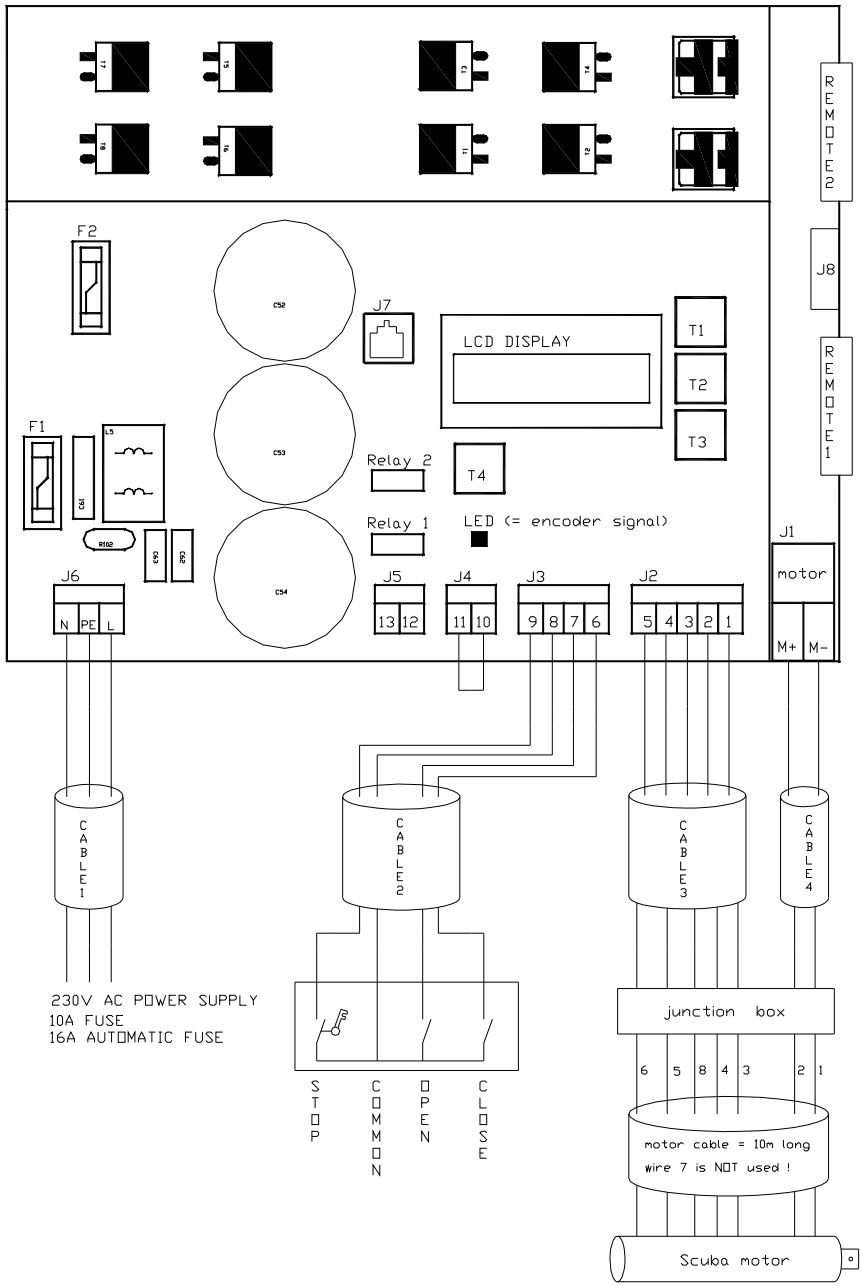


- In-roller motor with 10m chlorine resistant cable
- Use flexible wire to extend this cable



- Use the connection box with the polyester resin to make a watertight connection

Wiring diagram universal control board with in-roller motor (= scuba motor)



VII.3 : Wiring diagram

Attention:

- Use shielded cable with flexible wires
- Motor cable = 10m long
- Use the connection box to extend the cable
- Test the motor before filling up the connection box with resin
- The resin makes the connection waterproof
- (Replace the bridge between 10-11 by the water level contact)

VII.4 : Technical chart

Code		**Description**	
CABLE1		Min. 3 x 1,5 mm²	**Use flexible wires !**
CABLE2		Min. 4 x 0,75 mm²	**Use flexible wires !**
CABLE3		Min. 5 x 0,75 mm² shielded	**Use flexible wires !**
CABLE4		Min. 2 x 4 mm²	**Use flexible wires !**
Remote 1		Connection receiver print remote control	
Relay1		Connector relay card 1	
Relay2		Connector relay card 2	
J1	M1	Motor + or -	
	M2	Motor + or -	
J2	1	Brake	
	2	Brake	
	3	Sensor -	
	4	Sensor +	
	5	Sensor signal	
J3	6	Push button CLOSE	
	7	Push button OPEN	
	8	Common	
	9	Key switch STOP	
J4	10	Bridge or water level contact	
	11	Bridge or water level contact	

J5	12	Programmable input	Optional
	13	Programmable input	Optional
J6	L	Power supply 230V	
	PE	Earth	
	N	Power supply 230V	
J7		Ethernet connection	
J8		Extra connector for remote control signal	
F1		Glass fuse 2A	
F2		Fuse 20A	
T1		Scroll up / OPEN	
T2		Confirm your choice (=enter)	
T3		Scroll down / CLOSE	
T4		Menu or RTN (return)	

VII.5 : Initializing of the control box

After you have wired the control box according to the wiring diagram, you start by initializing the control box. Follow the next steps:

- Use pushbuttons T1 and T3 to scroll up and down.
- To confirm your choice use pushbutton T2 (= enter).
- To enter the Menu use pushbutton T4. Use T4 also to return to the previous step.

STEP1 : Display A: Enter the menu



Push T4 (MENU)

STEP2 : Display B: Select language



Select your language and confirm with T2

STEP3 : Display C: Select motor type



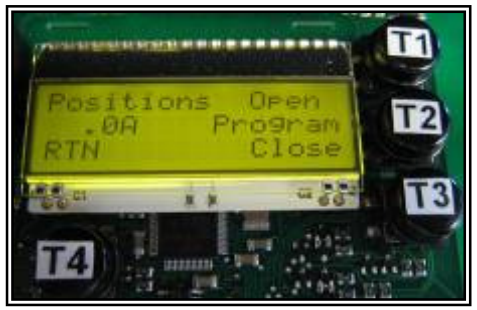
Select SCUBA-A and confirm with T2

STEP4 : Display D: Check direction of rotation



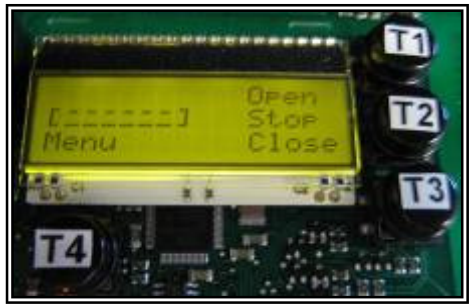
Check motor direction of rotation by pushing T1. If the cover is opening, push T2. If not, change by pushing T4 and confirm with T2.

STEP5 : Display E: Program end positions



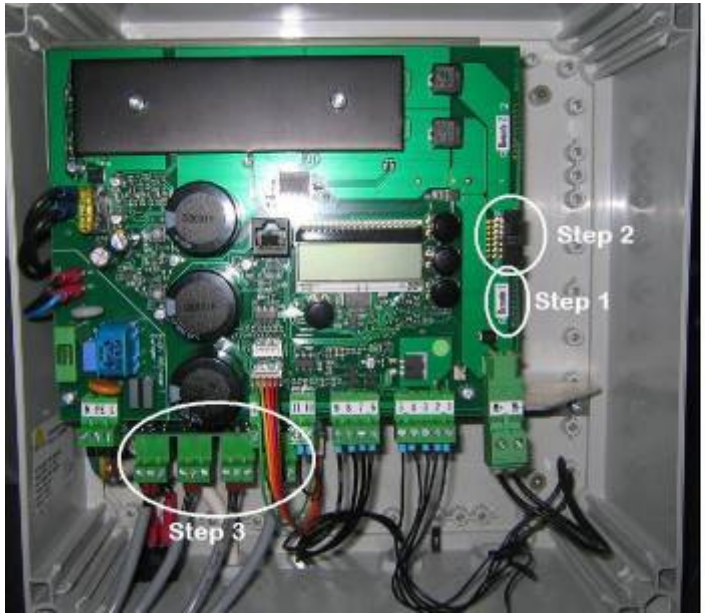
Push T1 and hold the button to open the cover to the end position. To save the OPEN position, first push T2, hold and simultaneously push T1. Confirmation will appear on the LCD screen. Push T3 and hold the button to close the cover to the end position. To save the CLOSE position, first push T2, hold and simultaneously push T3. Confirmation will appear on the LCD screen.

STEP6 : Display F: Cover is ready for use



The cover is now ready for use: you can use the control buttons on the key-switch to operate the cover

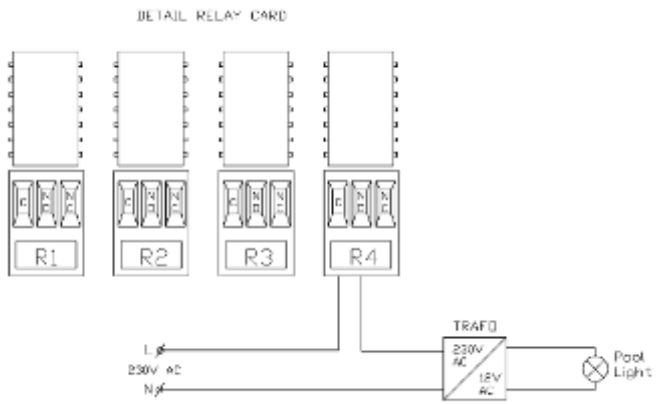
VII.6 : Remote control







Wiring diagram for the pool lights



Step 1: Plug the remote control receiver on “Remote 1”

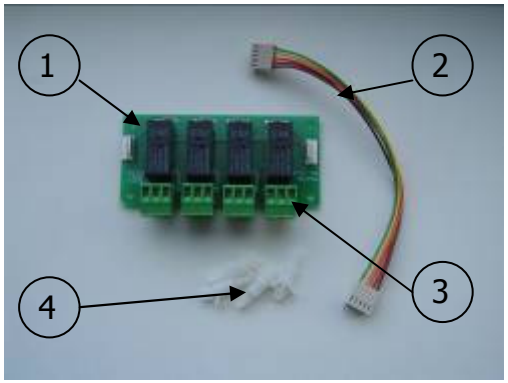
Step 2: Make the extra connection between receiver and J8 with the small data cable

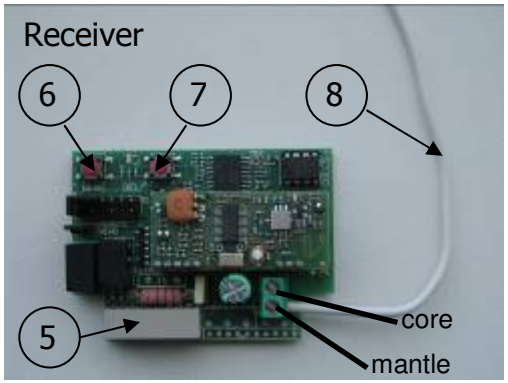
Step 3: Install the relay card with the plastic plugs and connect the card to “Relay 1” on the control board
(Step 4): Switch your pool lights with relay 4. **ATTENTION: the relays can have maximum 16A !**
Step 5: Test your remote control using the transmitter. If necessary install the antenna. Channel A is used to control the roller cover. Channel B is used to switch the pool lights

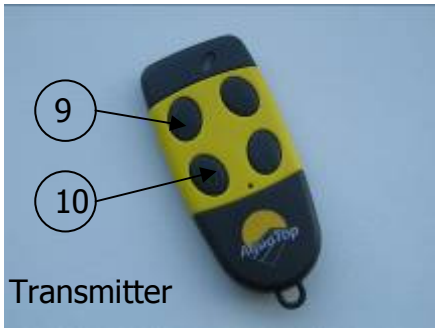
VII.6 : Remote control

Nr	Part description
1	Relay card with 4x 16A relays
2	Data cable to connect the relay card to the control board
3	Relay 4: Use this relay to switch the pool lights
4	Plastic plugs to connect the relay card to the control box housing
5	Connector to plug the receiver on the control board
6	MEMO button
7	DELETE button
8	Antenna
9	Channel A of the remote control
10	Channel B of the remote control
11	Antenna with coax cable









VII.7 : Extended manual

ATTENTION: DO NOT CHANGE ANY SETTINGS IF YOU HAVE NOT FOLLOWED THE NECESSARY TRAINING !!!

After you have initialized the control box, you can enter the menu to reprogram the end positions or to set further options.

- Use pushbuttons T1 and T3 to scroll up and down.
- To confirm your choice use pushbutton T2 (= enter).
- To enter the Menu use pushbutton T4. Use T4 also to return to the previous step.

Enter the menu



Push T4 (MENU)

Setting 1: Language settings



Select your language and confirm with T2 .
Use T4 to return to the menu.

Setting 2: Setting of the motor type



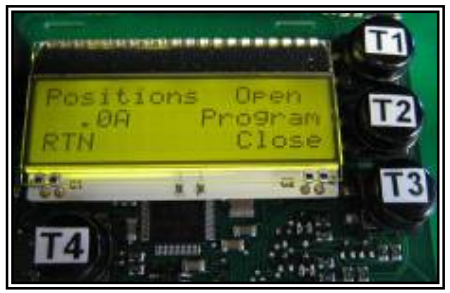
Select SCUBA-A and confirm with T2
Use T4 to return to the menu.
ATTENTION: When you change the motor type, you are obliged to reprogram the end positions.

Setting 3: Change direction of rotation



Check motor direction of rotation by pushing T1 or T3 and correct if necessary by pushing T4. As soon as the direction of rotation is correct, confirm with T2.
ATTENTION: When you change the direction of rotation, you are obliged to reprogram the end positions.

Setting 4: Program end positions



Push T1 and hold the button to open the cover to the end position. To save the OPEN position, first push T2, hold and simultaneously push T1.
Confirmation will appear on the LCD screen.
Push T3 and hold the button to close the cover to the end position. To save the CLOSE position, first push T2, hold and simultaneously push T3.
Confirmation will appear on the LCD screen.

VII.8 : Problem solving with overview of the error codes

ERROR MESSAGE	EXPLANATION	ACTION
RUNTIME ERROR	MAXIMUM RUNTIME (10 MINUTES) OF THE MOTOR HAS BEEN REACHED	WAIT 10 MINUTES – RESET THE ERROR WITH THE KEY FACTORY SETTING OF MAXIMUM RUNTIME = 10 MINUTES
STOP ACTIVATED	NO CONNECTION BETWEEN 8-9 ON THE CONTROL BOARD.	TURN THE KEY ON THE KEYSWITCH TO “1”
WATER LEVEL 1	NO CONNECTION BETWEEN 10-11 ON THE CONTROL BOARD WATER LEVEL NOT CORRECT OR NO BRIDGE BETWEEN 10-11	CHECK WATER LEVEL OF THE POOL AND RESET THE ERROR WITH THE KEY AS SOON AS IT IS CORRECT
MAXIMUM CURRENT	THE MAXIMUM CURRENT OF THE MOTOR HAS BEEN REACHED	CHECK IF THE ROLLER IS NOT BLOCKED IF ALL IS OK RESET THE ERROR WITH THE KEY IN CASE THE ROLLER IS FREE AND YOU STILL HAVE THE SAME ERROR CONTACT YOUR DEALER
NO PULSES	THE CONTROL BOARD DOESN’T GET ANY PULSES FROM THE ENCODER	CHECK YOUR CABLES IN CASE THE CABLING IS OK, MEASURE THE DC VOLTAGE BETWEEN 3-4 (12 Vdc) IF CABLES AND PRINT ARE OK, CONTACT YOUR DEALER
TEMPERATURE	MAXIMUM TEMPERATURE OF THE CONTROL BOARD HAS BEEN REACHED	WAIT 20 MINUTES – RESET THE ERROR WITH THE KEY

Errors can be reset by turning the key switch to “0” and again to “1” !!!

VIII. Use and Maintenance

1. Opening and closing

- Empty the swimming pool from obstacles and toys before you close the cover.
- People, pet animals or objects must be kept out of and away from the pool while the cover is in operation.
- Check if the water level of the pool is correct or equip the pool with an automatic level control and overflow.
- Keep an eye on the movement of the pool cover during the opening and closing.
- In case of irregularities stop the pool cover immediately by turning the key switch to “0”.
- It is not allowed to manually open and close the cover.

2. Maintenance

- The in-roller motor is maintenance free.
- Maintenance of the slats:

▪At least twice a year the slats have to be cleaned from lime and dirt using a high-pressure cleaner. Do NOT use a steamer.
▪The open side of a transparent or solar slat can contain algae. Use an algaecide and spread it over the cover. The water needs to meet the normal demands for chlorine- and ph value.
▪The water temperature may not exceed the 32 °C.
▪Do not walk needlessly on the pool cover. The cover is not a playground for children!
▪When exposed to sunlight the slats must always be in contact with the swimming pool water, this means floating on the water (the cover is closed) or rolled up around the shaft under water (the cover is open). Without water, the slats must be protected against direct sunlight. Therefore, check the water level regularly.
▪At extremely low temperatures (frost) the slats become more fragile. The pool cover may not be trod on or come into contact with hard objects.
▪During a hail-storm the pool cover must be opened in order to prevent damage.
▪The filtering installation must **always** be operational when the cover is closed.
Just underneath the slats the water is strongly warmed up by the solar slats. **The filtering installation** must be operational in order to distribute this heat and to cool off the slats. In extreme situations damage to solar slats can occur when the heat immediately below the slats is not circulated.
▪**Condensation**: the slats are waterproof and finished with end caps. PVC lets the vapour through and condensation in the closed chambers of the slats is inevitable. These water drops are visible inside the solar and transparent slats.

- Wintering:

  ▪Pool in operation and frost free → normal operation of the cover
  ▪Pool not in operation (filtration stopped and lower water level)→ Clean the slats and roll them onto the roller shaft. Protect the slats from sunlight.

- Failure:

  ▪In case of a failure → contact your dealer

IX. GUARANTEE CERTIFICATE

Technics and Applications bvba guarantees its delivered goods as follows:
The general guarantee period is 2 years for all components.

Conditions

The invoice serves as proof of guarantee. The guarantee covers the costs of replacing rejected or defective materials, to the extent that these form part of the delivery itself and are not the consequence, either directly or indirectly, of misuse, unusual weather conditions or force majeure. If the complaint is shown to be justified and accepted by T&A, we are only required to replace or provide compensation for the articles or components to which the complaint relates. The complaint should be submitted to us in writing within 7 days of the development of the problem.

Consequential damage and the costs of assembly, dismantling and transport are not covered by the guarantee. The manufacturer's responsibility ceases to apply if the defect arises as a result of injudicious behaviour by the user or failure to comply with the instructions regarding installation, connection and use.

Changes of colour may not be regarded as a defect, and are inherent to the product. Water seepage in components which are not presumed to be watertight may not be used as the basis for a guarantee claim under any circumstances.