



MAESTRO PERGOTENDA®

Installation manual

### TRANSLATION OF THE ORIGINAL INSTRUCTIONS

### CONTENTS

#### Dear installer,

In this manual you will find all recommendations for a fast and precise installation of the components. Sure of your expertise in the use of our products, we recommend you to strictly respect our indications. We are also willing to accept suggestions and useful information on possible improvements both in installation techniques and form of this manual.

We would like to remind you to always consider the installation conditions by checking with the most attention the conformity of the chosen materials with the environmental conditions.

It is also a good rule to issue a final declaration of correct installation according to the specifications provided for in this manual, beside the mandatory declarations of conformity required by law, where requested.

#### MAESTRO is a product by CORRADI S.r.l.

Any technical operation necessary during the installation must be carried out exclusively by skilled and authorised personnel.

Any personal operation (tampering with, technical changes, etc.) performed during the warranty period voids the warranty immediately.

CORRADI S.r.l. reserves the right to apply technical changes to the components or the product, except for the main features, at any time and without notice.

| SYMBOLS  | 4  |
|--|----|
| CONTROLS AND VERSIONS  | 6  |
| MATERIAL CHECK, UNPACKING AND PREPARATION  | 7  |
| 1 WALL INSTALLATION  | 8  |
| 2 PILLAR INSTALLATION  | 12 |
| 3 CROSSBEAM INSTALLATION   | 17 |
| 4 RUNNER INSTALLATION  | 26 |
| 5 CENTRAL RUNNER INSTALLATION OF A THREE-RUNNER STRUCTURE                            | 27 |
| 6 TRANSMISSION SHAFT INSTALLATION  | 28 |
| 7 CONTROL UNIT INSTALLATION  | 30 |
| 8 IMPACT AWNING CANVAS INSTALLATION  | 31 |
| 9 MOTOR CABLE INLET COVER CASING   | 32 |
| 10 MOBILE GUTTER   | 34 |
| 11 GUTTER PROFILE INSTALLATION   | 38 |
| 12 SUPPORTING PROFILE INSTALLATION   | 40 |
| 13 SUPPLEMENTARY PILLAR  | 41 |
| 14 SCREEN INSTALLATION   | 42 |
| 15 SLIDING GLASS DOORS INSTALLATION  | 45 |
| 16 DRIP GUARD PLATE INSTALLATION   | 46 |
| 17 CASING INSTALLATION   | 46 |
| 18 WALL-MOUNTED OPTION WITH PILLARS  | 50 |
| 19 WALL-MOUNTED OPTION WITHOUT PILLARS   | 51 |
| 20 SILICONE APPLICATION AREAS  | 52 |
| 21 ANGLE PLATE INSTALLATION  | 53 |
| 22 ANTI-REBOUND SYSTEM INSTALLATION  | 54 |
| ELECTRIC SYSTEM  | 61 |
| TABLES   | 62 |
| EXAMPLE - DETERMINATION OF THE WIND RESISTANCE ACCORDING TO THE LOADS AND THE DOWELS | 64 |

# SYMBOLS

## SYMBOLS

These symbols are used to draw the installer's attention to specific operating conditions or subjects of particular importance for the safety of persons or the integrity of the product.



Attention: general operating note



Attention: pay utmost attention to the indications provided herein



Attention: general hazard - possibility of damage to people, property, components



Attention: electrical hazard



Attention: hand crushing hazard

Contact CORRADI S.r.l. or an authorised retailer

#### **GENERAL PRECAUTIONS**



Before performing any installation, maintenance or cleaning operation, make sure to have understood the content of this manual. Failure to respect the instructions provided herein relieves CORRADI S.r.l. from any responsibility on damages to people, animals, property and/or components. The installation personnel must thoroughly respect the local prevailing accident-prevention regulations.



The electric connections for handling, installing automation accessories etc. must be performed exclusively by skilled personnel.

If the structure is connected to a motor and installed at less than 250 cm from the ground, the control button must be a "dead-man" switch button and the opening and closing movements must be perfectly visible.



Should you find any inconsistency, please contact CORRADI S.r.l.

### **GENERAL SAFETY WARNINGS**

#### Intended use

Any misuse of MAESTRO relieves CORRADI S.r.l. from any responsibility.

Please remember that each moving part can represent a hazard.



Do not remove any casing after the installation; for structures provided with motors, we recommend cutting off the power supply before performing any maintenance operation.

We recommend not to intervene on a moving part and make sure that no one is close to the structure before reactivating it after a technical and maintenance operation.



During the installation, maintenance, repair or adjustment operations, it is compulsory to cut off the power supply.



We recommend putting a warning sign on the power supply main switch with the following indication:

"Attention! Do not touch. Service personnel at work".

#### WARNINGS AND CAUTIONS

The installation personnel (installers, electricians, etc.) must have the specific skills and mental and physical requirements necessary to perform the assigned tasks.

Upon installation, always perform preventive checks of the correct assembly, operation and efficiency of the manual and electric controls.

According to the profile length and weight, handle the same with the help of the suitable number of operators specified by the regulations.



In case of faults, stop the movements immediately and contact the technical service of CORRADI S.r.l.



The use of non-original spare parts, tampering with and unauthorised changes relieve CORRADI S.r.l from any responsibility on damages to people, property or animals. It is strictly forbidden to tamper with the connections, supports, runners, retainers, control and transmission units, and any other component of MAESTRO.



#### ATTENTION

All indicated measures (unless otherwise specified) are expressed in centimetres.

### PRELIMINARY CHECKS

When receiving the packed goods and before proceeding with the installation, check the material integrity and the presence of all components necessary for the installation.

Thoroughly follow the information provided in the paragraph "Material check, unpacking and preparation".

#### STORAGE AND MAINTENANCE

The packed components must be handled following consolidated procedures that prevent damages to the product.

Before the installation, the goods can be stored, if necessary, in suitable areas to prevent damages and deterioration.



In case of faults, contact CORRADI S.r.l. or an authorised retailer

## WALL-MOUNTED CONTROL (BY THE CUSTOMER)

To orient the cover canvas, press the button on the upper or lower side; when releasing it (neutral central position), the canvas will stop in the desired position.

### **REMOTE CONTROL**

MAESTRO has a motor with remote control. To open, close, and stop the blades use the relevant buttons (see figure).

#### Replacement of the remote control battery 1

To replace the battery, remove the screw on the rear side of the remote control and replace it with a similar model (12 Vdc alkaline battery, mod. 23 AE).



The use of the multi-channel remote control allows checking also accessories (optional) like lights and side closures.



This transmitter is supplied by a 3 Volt CR2032 battery. To replace the battery, open the flap on the rear side, slide out the exhausted battery and replace it with a new one respecting the polarity. Then fit the flap in the relevant seat.

Pay attention not to invert the polarity. Pay attention not to use a wrong model. Explosion hazard if the battery is replaced with a model other

than the specified one.

Dispose of the used battery in suitable containers.

# **MATERIAL CHECK, UNPACKING AND PREPARATION**

#### PRELIMINARY INSPECTIONS

MAESTRO is delivered in sturdy packages that protect it from impacts or dents. The package has a label indicating:

- the manufacturer data
- the order number
- the recipient name
- the customer reference name
- the package number
- The weight

Before opening the package, check that the data correspond to the ones you have.

The packages contain the elements and accessories required for the installation and the User manual. Packages weighing between 25 kg and 55 kg must be handled by at least two people.



LABEL FACSIMILE

#### Note:



there are no retaining elements like screws and dowels since they must be decided by the installer according to the type of mounting (wall-mounting, wood, metal, etc.).



Proceed as follows: - remove the components from the packages.

## Attention:

do not use a cutter to avoid damaging the metal element paint.

CONTENTS

# **1 WALL INSTALLATION**



## fig. 1 - Trace on the wall

- the slot fixing line at the height indicated in the project drawing (3) + 20.8 cm;
- the external line of the total width (1);
- in case of side-by-side structures, trace the intermediate fixing measures of the central brackets.

# fig. 2A

- Plate-to-wall fixing drawing for single module.

fig. 2B

- Plate-to-wall fixing drawing for side-by-side module.

# 1 WALL INSTALLATION



ose a watch level to encert the linearity of the drawn at





- Drill the fixing holes of the brackets on the wall using a suitable bit.

#### Fig. 6

- Insert the dowels (suitable to the wall and the loads), (see table on page 51);
- tighten the screws;
- check the planarity of every single bracket.

# 1 WALL INSTALLATION





- fix the central pillar for wall installation (A) to plate (B) using 6 M8x16 screws (C).

# Fig. 7

- Bracket fixing to wall for central and/or side pillar;
- if the project indicates a side-by-side module, use the bracket (**B**) as central component by fixing it to the wall following the operations described before.

**NOTE:** in case of side pillar, the wall-mounted bracket is not present.

#### REV.1 - 11.2019

- Bracket fixing to wall for central pillar;

IMPORTANT: the 4 pillars must be positioned so as to obtain a "PERFECTLY" flat structure; this is fundamental to ensure that rainwater correctly flows inside the pillars and does not spill over the gutters.



# Fig. 9

- Loosen the M8x16 BUTTON screw (C) and remove foot (A) from the pillar (B).
- The other 3 screws required for the next fixing operation are in the accessories box.
- Note: perform this operation on all pillars of the structure.



# Fig. 10

- Orient the pillar feet (**A**) correctly and fix them to the ground using suitable dowels. In doing this, respect the parallelism and diagonals referring to the 4 holes at the corners of the ground plate.

ATTENTION TO THE INSTALLATION: The foot sides with the holes for the pillar retaining screws are those of side (PROJECTION). In case of floor water drain, before fastening to the ground, trim the punched sticker with a cutter in the area of the drain hole and apply a bead of silicone in the hole as shown in (Det. X).

#### SELF-SUPPORTING VERSION WITH SUPPLEMENTARY MODULE ON WIDTH SIDE

Important: the pillars must be positioned so as to obtain a "PERFECTLY" flat structure; this is fundamental to ensure that rainwater correctly flows inside the pillars and does not spill over the gutters.



#### Fig. 11

- Orient the pillar feet (A) correctly and fix them to the ground using dowels suitable to the floor. In doing this, respect the parallelism and diagonals measures referring to the 4 holes at the corners of the ground plate.

ATTENTION TO THE INSTALLATION: The foot sides with the holes for the pillar retaining screws are those of side (PROJECTION). In case of floor water drain, before fastening to the ground, trim the punched sticker with a cutter in the area of the drain hole and apply a bead of silicone in the hole as shown in (Det. X).

Important: the pillars must be positioned so as to obtain a "PERFECTLY" flat structure; this is fundamental to ensure that rainwater correctly flows inside the pillars and does not spill over the gutters.



#### Fig. 12

- Orient the pillar feet (A) correctly and fix them to the ground using dowels suitable to the floor. In doing this, respect the parallelism and diagonals measures referring to the 4 holes at the corners of the ground plate.

ATTENTION TO THE INSTALLATION: for the side pillars, the foot sides with the screw fixing holes of the pillar are those of the PROJECTION side (Y), whereas for the common central pillars the foot sides with the holes for the pillar fixing screws are those of the WIDTH side (Z). In case of floor water drain, before fastening to the ground, trim the punched sticker with a cutter in the area of the drain hole and apply a bead of silicone in the hole as shown in (Det. X).

IMPORTANT: the 4 pillars must be positioned so as to obtain a "PERFECTLY" flat structure; this is fundamental to ensure that rainwater correctly flows inside the pillars and does not spill over the gutters.



# Fig. 13

- Insert pillars (A) into feet (B).

Note: The pillars feature reinforcements on the upper side.

Note: The recesses (C) on the top edge of the pillar (that will act as drain holes for the gutters) must be positioned inside the structure (det. X).

Apply a bead of silicone in the pillar/foot areas as shown in (det. Y).

Fix the pillars to the feet using M8x16 BUTTON screws (**A**) (q.ty 4 each).

Note: Should it not be possible to reach the screws because the pillar is against a wall, after the structure installation it is COMPULSORY to use the wall-mounting system on the upper beam.

#### SELF-SUPPORTING VERSION WITH SUPPLEMENTARY MODULE ON WIDTH SIDE

#### SELF-SUPPORTING VERSION WITH SUPPLEMENTARY MODULE ON PROJECTION SIDE



#### Fig. 15

- Repeat the operations described in figures 13 and 14 following the installation drawings described in this image (det. X).



- repeat the same operations on the opposite side.

Note: the beams are already fitted with the brackets fixed by Corradi S.r.l. for a possible side closure (Z).

ATTENTION: If side closures are foreseen to be installed on the lateral sides it will be necessary to cut the profile as indicated in det. Y. Repeat the operation on the opposite side if the side closure is foreseen.

#### WALL-MOUNTED VERSION



# Fig. 18

- Lay the beam (A) on the brackets (B) fixed to the wall.

Fig. 19 - Anti-lifting bracket assembly Note: the anti-lifting plate is foreseen to be fixed on the 4 side brackets (A).





#### Fig. 20 - Anti-lifting bracket assembly

- Fix the plate (A) to the wall-mounted bracket (B) using the 2 supplied M8x16 screws (C).

WALL-MOUNTED VERSION



Fig. 21 - Side beam assembly

Note: before the installation, check that the pillars are positioned correctly (see page 12).

- Insert the side beam (A) in the rear brackets (B) and the screws (C) in the relevant slots (D), see det. X-Y.

WALL-MOUNTED VERSION



## Fig. 22 - Side beam assembly

- Tighten the M8x16 screws (A) to the side beam (det. X);
- tighten, without forcing, the screws (B) to the pillar (det. Y);
- repeat the operations on the opposite side.



fig. 23 - Main diagram

SELF-SUPPORTING VERSION WITH SUPPLEMENTARY MODULE ON PROJECTION SIDE



fig. 24 - Main diagram



- Insert the first crossbeam (**A**) into pillars (**B**) by inserting without tightening (**det. X**) the three screws (**C**) into the slotted seats (**D**).

### Note: Use the same method for the following crossbeams.



#### Fig. 26 - Motor installation

- Hang the motor/support unit (A) on the relevant screws (B) which have been previously screwed to the motor bearing crossbeam (C), and then tighten them;
- introduce the cable (**D**) inside the slot on the motor bearing crossbeam routing it out of the crossbeam side in the direction where it will be connected to the control unit.





#### Fig. 27 - Motor bearing crossbeam

Fit the fourth crossbeam (motor crossbeam) (A) with the same method used before.
Note: Insert the motor cable coming out of the beam inside the pillar through hole (B).
We recommend that pillar to be the one with the power supply for the structure.

## Fig. 28

- From the accessories box, take the 16 M8x16 BUTTON screws needed to fix the beam and the pillar;
- insert the 4 screws (**A**) through the inspection hole on each pillar without fully tightening them (leave a few millimetres) to allow the following installation of the perimeter gutters.





- Lift the runners (A) until positioning them in the relevant supports (B) fixed to the crossbeams (C). Note: The 4 screws with washers (D) on the IMPACT runners will allow the following positioning of the canvas lifting kit and therefore they must be inserted towards the inside of the structure and slid close to the motor side.

## Fig. 30

- Position the runners with their ends at 1.5 cm from the motor crossbeam;
- fix the top part of runners (**A**) with plates (**B**) by screwing them with self-drilling screws (**C**). Position the plates at approximately 1 m from one another.

# **5 CENTRAL RUNNER INSTALLATION OF A THREE-RUNNER STRUCTURE**



## Fig. 31

- Motor "Y" is already installed on the side of the beam (see page 24);
- fit the central runner (A) in the lower screw (B) on the crossbeam, then tighten the upper screw (C).
- AFTER INSTALLING THE MOTOR SHAFTS, fit the RH-LH casings (D) and fix them with the relevant self-drilling screws.

AFTER INSTALLING THE MOTOR SHAFTS, fit the central casing (D) and fix it with the relevant self-drilling screws.



## Fig. 32 - Sliding block alignment

- Move the runner drive slider against the limit switch (towards the motor) in order to group all intermediate sliders at limit stop.



## Fig. 33 - Shaft installation

- Slide shaft (A) into the motor hexagon shaft (B);
- if the two shafts do not match (male and female), slightly rotate shaft (**A**) keeping it against the motor until the first engagement point;
- tighten screw (B).

# 6 TRANSMISSION SHAFT INSTALLATION





#### Fig. 34 - Shaft installation

- Slide shaft (A) until inserting it into the motor hexagon pin (B);
- if the two hexagon ends (male and female) do not match, slightly rotate shaft (**A**) keeping it against the motor until the first engagement point;
- tighten screw (B).

# **Note**: to set the motor, refer to the instructions provided inside the control unit box; otherwise, you can find them in the reserved area of the CORRADI.EU website.

### Fig. 35 - Shaft installation

- Perform a general tightening check of the motor shaft screws;
- Check that the movements are correct by temporarily connecting the electric motor.

Note: then, perform a final tightening of each runner retaining screw.

# **7 CONTROL UNIT INSTALLATION**





# Fig. 36

- Connect the motor cable connector to the control unit (C) (det. X), then place it inside the pillar (det. Y) with internal reinforcement.





#### Fig. 37 - Canvas installation on runners

- Position the lifting kits of the side runners by hanging them on the screws/washers (det. Y) on the runner channels.
- To prevent lifting kit deformations, fit a duly sized wooden block inside space "X".
- In case of 3 runners, the lifting kits on the central runner (standard method) must be positioned at maximum 50 cm from the motor beam to prevent the central runner from bending during the lifting.
- Start by inserting the front terminal tube (D1) on the first slider (C1); then insert the other tubes, except the last terminal on motor side (D2).
- Activate the awning closure by moving the already inserted sliders closer to the last fixed one (C2). Then, fit the terminal tube (D2) on slider (C2) and tighten the retaining nut. Adjust the limit switches (see relevant chapter) and fit the closing covers (E).

# **NOTE:** The nuts of the drive slider (C1) and of the fixed one (C2) must be tightened until the terminal plug perfectly adheres against the slider. The intermediate slider nuts must be slightly tightened, i.e. only until the end of the thread, without further forcing.

# **9 MOTOR CABLE INLET COVER CASING**



#### Fig. 38

- Clean the areas of the casing and of the beam where the double-sided adhesive tape will be applied with the supplied wipe;
- Press the bottle in the middle until it breaks then dampen the top of the block and apply;
- Apply a strip of double-sided adhesive tape (A) with the same length of the cover casing (B) under the motor cable inlet slot;
- make the cover casing (B) perfectly adhere against the double-sided adhesive tape (A).

Note: in presence of EXPERIENCE lights (on the canvas), this "casing" must be installed exclusively after the lights installation in order to use the cable passage on the second slot of the casing.

When using EXPERIENCE lights, refer to the relevant manual.



- fix the plate on both MOBILE GUTTER PLUGS.

NOTE: see page 56 to bring the spring against the mobile gutter.



- Thoroughly clean the external end of the gutter profile (1) and inside the gutter plug with the supplied wipe,
- press the bottle in the middle until it breaks (3) then dampen the top of the block and apply;
- remove a small part of external adhesive tape cover (4) for the GUTTER PLUG (2) installation;
- insert the indicated side of the GUTTER PLUG (2) in the end of the gutter profile (1) with a slight rotation until it is fully engaged;
- then remove the remaining adhesive tape cover (4);
- press to ensure perfect adherence to the gutter profile.





- Insert a 3-mm shim in the relevant GUTTER PLUG seat (1) until fully home. (2).

## Fig. 42

- Apply silicone along the profile/GUTTER PLUG junction line as shown in the figure. **Note: repeat these operations on the structure opposite side.** 



- Rotate the gutter profile (1) to facilitate its insertion in the relevant seat on the terminal tube (2).



# Fig. 44

- Fit the lower striker bracket (1) at the end of the terminal tube seat (2) by rotating it as shown in detail X;
- fit the upper striker plate (3) in the internal profile of gutter (4) by rotating it as shown in **detail Y**;
- tighten screw (5) close to the terminal tube, see detail Z;
- the external screw (6) (with dead hole) allows adjusting the gutter height, see detail W;
- repeat the operation on the opposite side.


- Position the gutter at the centre of the terminal tube ensuring that the gutter does not scrape;
- first drill the gutter two ends, then its central part at steps of approximately 50 cm, in the suitable groove and the terminal tube with a ø4 bit.



- Use the suitable rivets to fit the gutter in the previously drilled points;
- repeat these operations (symmetrically) on the structure opposite side.



- Fit the perimeter gutters one at a time (handling them with extreme care).

Note: the accessories box contains a bag with "small parts" of seal needed to temporarily fix (secure) each gutter profile.



### Fig. 48

- After fitting all perimeter gutters and securing them with small seal parts, tighten the structure screws to make the gutters better adhere to the pillars;
- proceed with the final installation of the perimeter seals (A) having care to position the seal "lip" downwards.

ATTENTION: a wrong positioning of the seal could lead to seepage problems.

# 11 GUTTER PROFILE INSTALLATION



# < cApply silicone

### Fig. 49

- Insert the plastic elements (A) on the four junction sides of the gutter profile;
- if you wish to let water flow inside the pillar, it is necessary to remove the vertical part (**det. X**) having care to follow the cutting line on the plastic component.

Note: IMPORTANT - Each structure must feature at last 2 out of 4 drainage pillars.

### Fig. 50

Note: apply silicone under the plastic component before the installation to avoid any leak.

- We recommend applying silicone also inside the gutter before positioning the plastic component;
- silicon must be applied in all cases, regardless if the pillar is a drainage pillar or not.



- If SCREEN is not to be installed on the side, close the gap with the suitable profile (A) (Det. X);
- fix the profile with the suitable short self-drilling screws (**B**), by placing one every 100 cm (approximately).





- 1- Fix plate (A) to the ground (in a position according to the opening to obtain).
- 2- Fix plate  $(\mathbf{B})$  on the pole using the supplied Button screws.
- 3- Insert the pole first to the ground and then bring the upper plate against the profile.
- 4- Fix the upper plate using the (short) self-drilling screws, keeping the pole perfectly vertical.
- 5- Fit the SCREEN support plate (C) using the short self-drilling screws keeping it aligned to the pillar side surface.

## **14 SCREEN INSTALLATION**





### Fig. 53

- On each side chosen for the SCREEN closure installation, install the suitable connections on the internal sides: the motor support (**A**) on the pillar or on the intermediate pillar, and the idle pin support (**B**) on the opposite pillar.

### Fig. 54

- Fit brackets (**C**) fully home on both sides with short self-drilling screws in the areas indicated in the figure.

# 14 SCREEN INSTALLATION





- The wirings must be distributed on the perimeter, using the channels, by introducing them into holes (A) and (B).

# 15 SLIDING GLASS DOORS INSTALLATION





### Fig. 57

- Configuration with or without SCREEN.
- 2 Ways 2 Doors.
- Screw using short self-drilling screws (A).

- Configuration without SCREEN
- 4 Ways Doors.
- Screw using short self-drilling screws (A).

### **16 DRIP GUARD PLATE INSTALLATION**

# 17 CASING INSTALLATION

### STRETCHED CANVAS WITH SPACERS





#### Fig. 60

Fix the additional safety block (A) to the cover (B) of the beam in correspondence of the holes. Repeat on both cover sides.

### **Fig. 59** Lower the canvas. Fix the plate (**A**) as shown in the figure on both sides.

# 17 CASING INSTALLATION



### Fig. 61

- Fit casings (A) by introducing them slightly inclined into the coupling seats on the crossbeams, then rotate them and bring them against the profiles (B) (det. X);
- block casings (A) by means of the lateral stops (C);
- let the screw (D) project of approx. 10 mm.

ATTENTION: if SCREEN is to be installed, insert the "brush" profile (D) (in the SCREEN accessories box) in the relevant space on the external casing before fitting it on the structure.

### **17 CASING INSTALLATION**





### Fig. 62

- Position the two casings (A) above the crossbeams (B);
- fix the two casings (**A**) above the crossbeams (**B**) by means of self-drilling screws (**C**) at a distance of approximately 50 cm from one another.

### Fig. 63

Apply the punched sticker (A) to the cover (B).

In case of coupled maestro modules, in the pillar shared by the modules, cut two covers along the dotted line (halfway) and apply the punched stickers cut in the same way.

NOTE: the punched sticker must be applied to the lower side of the cover.

# 17 CASING INSTALLATION





### Fig. 64

- Engage casings (A) in the relevant engagement seats on pillars (B), see (det. X);
- Trim the excess punched sticker with a cutter paying attention not to scratch the aluminium profile (**Det. Y**).

### Fig. 65

- Position the four plugs (C) in the upper side of the pillars and tighten with self-drilling screws.

## **18 WALL-MOUNTED OPTION WITH PILLARS**



### Fig. 66

- On the structure left and right side, use self-drilling screws to fix the angle bar (A) and (B) to the crossbeam (C);
- fix plates (A), previously screwed to the structure, to the wall using suitable fixing systems (D) (not supplied by Corradi);
- use the upper profile (E) to close, and use the self-drilling screws to fix it to the structure;
- apply silicone along the entire profile close to the wall.

CONTENTS

# 19 WALL-MOUNTED OPTION WITHOUT PILLARS



- Loosen the pre-assembled screw (A) and fix the angle plate (C) to the crossbeam (D) with the pre-assembled screw and a self-drilling screw (B);
- fix the angle plate (**C**) to the wall using the suitable fastening systems (not supplied by Corradi);
- use the upper profile (E) to close, and use the self-drilling screws to fix it to the structure;
- apply silicone along the entire profile close to the wall.



- Apply silicone in the areas indicated in the figures;
- in **det. X** the dashed lines indicate that the silicone must be applied inside the openings.



### **Fig. 69** Fit the angle plate **(A)**. Repeat on each drain.



Fix support (A) to the anti-rebound barrier profile (B) through screws (Det.A). Fix the hinges (D) with gummed paper (E).

Prepare the junction plate (C) fixing it with screws to the anti-rebound barrier profile on the folded awning side (Det. B).

Fix the screw (Det.C).

Fix the screw (F). Fit the plate without fully tightening the screws (F) (Det.D).



### Fig. 71

Complete the assembly operations of the anti-rebound system:

- insert the anti-rebound barrier complete with supports (A) inside the gutters (B) on the projection sides. - Det. X

- Fit first those near the stacked gutter (first 1 then 2). Position the profile at 10 mm from the corner.



### fig. 72

Fit the folded awning side profiles.

Cut the gummed paper and rotate the anti-rebound barrier support **(C)** until it engages with the gutter **(D)**.

Fit the remaining profiles.

Cut the gummed paper and rotate the anti-rebound barrier support ( $\mathbf{C}$ ) until it engages with the gutter

### **(D)**.



### Fig. 73

Fix the central junction plate (A) with screws.

#### ONLY CURVED CANVAS



### fig. 74

Open and close the awning to check the operation of the tilting blade. Mark the position of tubes (**A**) with tape (**B**). Measure the distance (**L**) between the tilting blade (**C**) and the drip guard edge (**D**) (this gap will then be closed with the brush). Place the tilting blades back on the work table.

Mark the  $\ensuremath{\textbf{BACK}}$  of the tilting blade at the points highlighted with the tape.

On the **BACK**, throughout the tilting blade length, mark the brush fixing height (**H**).



### fig.75

Trim the brush (A) support so that it begins with the brush.

Add the brush (A) in correspondence of one of the marks, measure and cut the first brush. Measure the additional brush up to 10-15 mm from the plate on the mobile gutter side and cut.

Clean the surfaces on which the double-sided tape will be applied with the wipe (**B**) both on the tilting blade and on the brush support. Spread the primer (**C**) at the same points, position the tape (each strip has to be split in two parts), remove the film and fix the brush at the brush height previously marked. Refit the tilting blades (**D**).





### fig. 76

Place the plastic gasket (**D**) on the lower end throughout the tilting blade length. Adjust the screw (**A**) so that the upper edge (**B**) of the anti-rebound barrier, when the canvas is open, remains flush to the outer edge of the side drip guard (**C**).



### Fig. 77

Bring the spring fully against the mobile gutter.

Move the plate (**A**) in position 1 without fully tightening the 2 screws (**B**) and fully open the canvas. With the canvas fully opened, push the plate (**A**) fully home against spring on the gutter plug and tighten the screw (**B**).



### Wind resistance classes according to EN 13561: 2015

Cover

### Class 3 = 110 N/sg.m = 47 km/h

### Side closures

Side closures= 110 N/sa.m =

47 km/h (attention: The value must be compared with the resistance value of the side closure)

### TAB.2 TRACTION EFFORT ON FOOT DOWEL - PERGOTENDA MAESTRO 2G

Maximum effort\* [daN=1Kg] on single traction dowel considering 4 bolts per feet and a 300 cm high structure. Values relating to the corresponding classes specified in table 1.



\*The indicated values must be considered in combination to a shear effort on the single dowel equal to 120 daN.



Maximum effort\*\* [daN=1Kg] on single traction dowel considering 4 bolts per foot and a 300 cm high structure. Values relating to the corresponding classes specified in table 1.

### 2250 daN

\*\* The indicated values must be considered in combination to a shear effort on the single dowel equal to 240 daN

### TAB.3 TRACTION EFFORT ON FOOT DOWEL - PERGOTENDA MAESTRO 3G

Maximum effort\* [daN=1Kg] on single traction dowel considering 4 bolts per feet and a 300 cm high structure. Values relating to the corresponding classes specified in table 1.



|                 |     | Width (cm) |     |      |      |  |  |
|-----------------|-----|------------|-----|------|------|--|--|
|                 |     | 400        | 500 | 600  | 700  |  |  |
| î               | 300 | 960        | 960 | 960  | 960  |  |  |
| u) (cu          | 400 | 960        | 960 | 1090 | 960  |  |  |
| tion            | 500 | 960        | 960 | 1090 | 1110 |  |  |
| projection (cm) | 600 | 960        | 960 | 1100 | 1310 |  |  |
| pro             | 700 | 960        | 960 | 1320 | 1390 |  |  |

\*\* The indicated values must be considered in combination to a shear effort on the single dowel equal to 120 daN.



Maximum effort\*\* [daN=1Kg] on single traction dowel considering 4 bolts per foot and a 300 cm high structure. Values relating to the corresponding classes specified in table 1.

### 2250 daN

\*\* The indicated values must be considered in combination to a shear effort on the single dowel equal to 240 daN

### TAB.4 TRACTION EFFORT ON WALL DOWEL - PERGOTENDA MAESTRO 2G

Maximum traction effort in daN (1 daN~1 Kg) on the single wall dowel. Values relating to the corresponding classes specified in table 1.



|                 |     |      | Width (cm) |      |
|-----------------|-----|------|------------|------|
|                 |     | 300  | 400        | 550  |
| 2               | 300 | 650  | 830        | 1110 |
| (cu             | 400 | 810  | 1020       | 1350 |
| projection (cm) | 500 | 970  | 1200       | 1560 |
| ojec            | 600 | 1135 | 1400       | 1760 |
| pro             | 700 | 1320 | 1580       | 1970 |

### TAB.5 SHEAR EFFORT ON WALL DOWEL - PERGOTENDA MAESTRO 2G

Maximum shear effort in daN (1 daN~1 Kg) on the single wall dowel. Values relating to the corresponding classes specified in table 1.



|     |     | Width (cm) |     |
|-----|-----|------------|-----|
|     | 300 | 400        | 550 |
| 300 | 330 | 430        | 580 |
| 400 | 360 | 460        | 620 |
| 500 | 380 | 480        | 640 |
| 600 | 400 | 500        | 670 |
| 700 | 410 | 520        | 680 |

### TAB.6 TRACTION EFFORT ON WALL DOWEL - PERGOTENDA MAESTRO 3G

Maximum traction effort in daN (1 daN~1 Kg) on the single wall dowel. Values relating to the corresponding classes specified in table 1.



|                 |     | Width (cm) |      |      |      |  |  |
|-----------------|-----|------------|------|------|------|--|--|
|                 |     | 400        | 500  | 600  | 700  |  |  |
| Ē               | 300 | 470        | 570  | 670  | 770  |  |  |
| (C              | 400 | 610        | 720  | 830  | 950  |  |  |
| projection (cm) | 500 | 750        | 870  | 990  | 1110 |  |  |
| ojec            | 600 | 910        | 1030 | 1160 | 1280 |  |  |
| pro             | 700 | 1100       | 1210 | 1280 | 1470 |  |  |

### TAB.7 SHEAR EFFORT ON WALL DOWEL - PERGOTENDA MAESTRO 3G

Maximum shear effort in daN (1 daN~1 Kg) on the single wall dowel. Values relating to the corresponding classes specified in table 1.



|                 |     | Width (cm) |     |     |     |  |  |
|-----------------|-----|------------|-----|-----|-----|--|--|
|                 |     | 400        | 500 | 600 | 700 |  |  |
| 2               | 300 | 340        | 430 | 510 | 600 |  |  |
| (cu             | 400 | 370        | 460 | 550 | 640 |  |  |
| tion            | 500 | 390        | 480 | 580 | 670 |  |  |
| projection (cm) | 600 | 400        | 500 | 600 | 690 |  |  |
| pre             | 700 | 420        | 520 | 690 | 710 |  |  |

projection (cm)

### **EXAMPLE** - DETERMINATION OF THE WIND RESISTANCE ACCORDING TO THE LOADS AND THE DOWELS

#### Determination of maximum load on dowel.

Based on the dimensions of the structure and on the runner number, enter in the load tables 3, 4, 5 or 6 (according to the resistance at the desired wind speed) and identify the maximum load on the single dowel. The obtained value is expressed in daN (1daN  $\approx$  1kg).

In the example below the input data are:

- Width: 550 cm
- Projection: 350 cm
- Runner number: 3
- Maximum desired wind speed: 49 km/h

TABLE 4 - Maximum load in daN (1daN  $\approx$  1kg) on the single dowel (considering 2 dowels with counterplate (optional) or 4 dowels without counterplate, for each foot support and 2 dowels per wall support) traction and shear (not combined) for a maximum wind speed of 49 km/h (beaufort Scale 6 - Class 3 according to EN 13561)

|                 |     |     |     |     |           |     |     |     |     |     |     | Width | n (cm)    |
|-----------------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----|-----|-------|-----------|
|                 |     | 200 | 250 | 300 | 350       | 400 | 450 | 500 | 550 | 600 | 650 | 700   | 750       |
|                 | 250 | 35  | 41  | 47  | 53        | 59  | 65  | 76  | 82  | 88  | 94  | 100   | 106       |
|                 | 300 | 40  | 47  | 54  | 61        | 68  | 75  | 88  | 95  | 102 | 109 | 116   | 123       |
| (               | 350 | 46  | 54  | 62  | 70        | 78  | 86  | 100 | 108 | 116 | 124 | 132   | 140       |
| Projection (cm) | 400 | 51  | 60  | 69  | 787       | 87  | 96  | 112 | 121 | 130 | 139 | 148   | 157       |
| ctio            | 450 | 56  | 66  | 76  | 86        | 96  | 106 | 123 | 133 | 144 | 154 | 164   | 174       |
| Proj            | 500 | 61  | 72  | 83  | 94        | 105 | 117 | 135 | 146 | 157 | 168 | 179   | 191       |
|                 | 550 | 67  | 79  | 91  | 103       | 115 | 127 | 147 | 159 | 171 | 183 | 195   | 207       |
|                 | 600 | 72  | 85  | 98  | 11        | 124 | 137 | 159 | 172 | 185 | 198 | 211   | 224       |
|                 | 650 | 77  | 91  | 105 | 119       | 133 | 147 | 171 | 185 | 199 | 213 | 227   | 241       |
|                 |     |     |     |     | 2 runners |     |     |     |     |     |     | (     | 3 runners |

Abstract from table of maximum loads on single dowel

IT FOLLOWS THAT:

- MAXIMUM LOAD ON SINGLE DOWEL: 108 DAN

FOR THE DETERMINATION OF THE FIXING SYSTEM SEE PARAGRAPH ON THE SIDE.

#### Attention

The load indicated in the tables is the maximum load in daN on the single dowel (considering 2 dowels for each support) for traction and shear (not combined)

### **Determination of Anchoring System**

According to the type of support on which the dowels are to be fixed, refer to the selected fixing system manufacturer manual to identify the most suitable system. Dowels must comply with what stated in table 6.

| ANCHORING SYSTEMS ON | STANDARDS, REGULATIONS, REFERENCE GUIDELINES  |
|----------------------|---|
| CONCRETE             | GUIDELINES ETAG 001 QUALIFICATION AND DIMENSIONING OF METAL ANCHORS FOR USE IN CONCRETE             |
|                      | TECHNICAL REPORT EOTA TR029 DESIGN OF BONDED ANCHORS  |
|                      | ETAG001 ANNEX E QUALIFICATION OF METAL ANCHORS FOR USE IN CONCRETE UNDER SEISMIC ACTION             |
|                      | TECHNICAL REPORT EOTA TR045 DESIGN OF METAL ANCHORS FOR USE IN CONCRETE UNDER SEISMIC ACTION        |
|                      | TECHNICAL REPORT EOTA TR020 EVALUATION OF ANCHORAGES IN CONCRETE CONCERNING RESISTANCE TO FIRE      |
| MASONRY              | GUIDELINES ETAG 029 QUALIFICATION AND DIMENSIONING OF METAL<br>INJECTION ANCHORS FOR USE IN MASONRY |
|                      | GUIDELINES ETAG 020 PLASTIC ANCHORS   |

### Table 6 - Reference regulations for anchoring systems

For most of the applications category C2 of seismic performance is required (see table 7).

| SEISMIC      | STRUCTURAL APPLIC | ATIONS           | NON-STRUCTURAL APPLICATIONS |                  |  |  |  |
|--------------|-------------------|------------------|-----------------------------|------------------|--|--|--|
| ACCELERATION | USE CLASS IV      | USE CLASS II/III | USE CLASS IV                | USE CLASS II/III |  |  |  |
| <0.05 G      | ETA (NO SEISMIC)  |                  |                             |                  |  |  |  |
| 0.05-0.1     |                   |                  | ETA C1                      |                  |  |  |  |
| > 0.1G       |                   |                  |                             |                  |  |  |  |

### Table 7 - Seismic performance categories for dowels (ETAG001, Annex E)

#### Load comparison

The recommended load to be used as comparison is the **lower** one between the traction and the shearing load.

The **lower** one between the maximum traction recommended load and the shearing one must be higher than or

equal to the maximum load on single dowel identified from the load table relevant to the desired wind speed. Vice versa, if the recommended load is lower than the maximum load on the dowel, assess the following options: A) change the type of dowel

B) Duly reinforce the wall or the floor

C) Refer to a load table in case of a lower wind speed and assign the installed product to the relevant wind resistance.

### Attention

For a correct selection of the dowels, **exclusively refer to the manual provided by the fixing system manufacturer.** 





**Corradi srl** Via M. Serenari, 20 • 40013 Castel Maggiore (BO), Italy **T** +39 051 4188411 • **F** +39 051 4188400 hello@corradi.eu

www.corradi.eu