ENG

Installation instruction

g60

TEN, TEL

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EC-DECLARATION OF PRODUCER

We hereby declare that the following described product, with regard to its conception and construction and in the design produced by ourselves, is in conformity with the relevant, basic EC directives. Any alteration to the product without our consent will invalidate this declaration.

Product description

Garage door, manually operated

Manufacturer

Cardo Door Production AB
Box 160
SE-423 21 Torslanda

Model

Overhead sliding sectional door

Relevant EC directives applied

- 89/106/EEC Construction Product Guideline

Harmonised standards applied

- DIN EN 12604
- DIN EN 13241

EC-DECLARATION OF CONFORMITY

We hereby declare that the following described product, with regard to its conception and construction and in the design produced by ourselves, is in conformity with the relevant, basic EC directives. Any alteration to the product without our consent, such as the attachment or use of a door operator of a make other than as specified below, will invalidate this declaration.

Product description

Garage door, electrically operated

Manufacturer

Cardo Door Production AB

Model

Overhead sliding sectional door with Drive
Normstahl Ultra/Ultra-S/Ultra Excellent
Crawford Ultra/Ultra-S/Ultra Excellent
Henderson Ultra/Ultra-S/Ultra Excellent

Relevant EC directives applied

- 98/37/EC Machine Guideline
- 89/106/EEC Construction Product Guideline
- 89/336/EC Guideline Electromagnetic Compatability (EMC)
- 73/23/EC Low Voltage Guideline

Harmonised standards applied

- DIN EN 12604
- DIN EN 12453
- DIN EN 13241
- EN 55014-1/-2
- EN 60335-1/-2

Torslanda 2007-01-08

Ove Bergkvist
President

GENERAL & INTRODUCTION

Where 'left' and 'right' hands are specified, the door is always viewed from inside the garage looking outwards.
These instructions show right hand side parts.

For your safety, please read these instructions thoroughly and ensure you understand them before starting the installation.

These installation instructions are supplied together with an illustration plan. Please keep both together in a safe place for future reference .

The manufacturer shall not be held liable for damage or operational faults due to non-compliance with these installation instructions. For safety, unauthorised modification or alterations of this door are not permitted. Modification of this door, its operational parts or the attachment of additional door weight will lead to invalidation of the door guarantee.

The installation of a garage door requires technical knowledge and skills. The manufacturer shall not be held liable for any damages or injuries incurred during installation. If you are in any doubt about your ability to install this door correctly and safely, contact a qualified tradesperson.

DOOR VARIATIONS

This g60 sectional door is supplied with one of two different balancing systems. Most installation steps shown in these instructions cover those two systems. Where the steps differ for each balancing system, symbols are shown to guide you to follow the system supplied with your door. Please take a minute to familiarise yourself with the symbols (shown below). The clearances required for installation are also shown.

INSTALLATION CLEARANCES REQUIRED FOR EACH BALANCING SYSTEM

Clearances Required	Side room	Headroom Manual	Depth* Manual	Headroom El-operated	Depth El-operated
 Tension (TEN)	80	150	B+700	150	B≤ 2250 = 3445 B≥ 2375 = 4450
 Tension (low headroom) (TEL)	120	100	B+750	120	B≤ 2250 = 3445 B≥ 2375 = 4450

***When B = 1900 mm add 100 mm to the depth shown**

When installing an electric operator to this door, always consult the installation instructions supplied with the operator.

STORAGE

Prior to installation, this garage door must be stored in a dry, sheltered place, protected from risk of damage and / or loss of components.

SAFETY

The fixings supplied with this door are for use in general brickwork, walls, ceiling, timber, steel and concrete. If this door is to be installed to any other material or if the structure is of poor quality, it is the responsibility of the installer to use suitable, good quality, fixing items. These are readily available through trade outlets. It is important to use plugs and fastening screws with washers that are suitable for the type of masonry involved, with a minimum screw diameter of 8 mm. An option kit of installation brackets can be used to fix the wall tracks (require extra side room 40 mm).
When an operator other than Ultra or Ultra Excellent is connected to the g60 door, only the automatic version of top- brackets must be used to fulfil the EC-regulation. A kit with automatic top-brackets is supplied as an option.
Important instructions and notes are highlighted as follows:
They identify operations and information, which must be strictly observed and followed to avoid endangering persons or damage to the door.

CAUTION
This identifies operations, which must be strictly observed to avoid endangering persons.

ATTENTION!

This contains information, which must be strictly observed to avoid damage to the door

PACKAGING

Recyclable materials are used for the packaging supplied with this door. Please dispose of packaging materials in accordance with your relevant national regulations.

WORK SPACE

The door opening and garage floor should be finished before installing the garage door.
Always place the door sections on suitable packing (such as clean cardboard) to prevent damage to the door surfaces.
Ensure you have all the tools you require to install this door inside the garage before you begin the installation.
Ensure you have adequate lighting within the garage to complete the installation

ATTENTION
To ensure the correct operation of the door, please note the following:
1. Read and follow these instructions thoroughly.
2. It is important to make a accurate installation of the wall-tracks. If necessary prepare the walls prior to installation so to achieve a square and level opening. This will allow for the correct vertical and horizontal measurements on all sides.. See points 3 – 6.
3. All hinges must be correctly installed so to prevent any risk to personal safety. Note fixing position of hinge part into the panel. The lubrication hole must be visible. See point 17.
4. Cross measure track sealing corners, and if necessary adjust to have the x-measurements equal. See point 10.
5. Make sure not to twist the two door-cables. See point 11TEL and 14 TEN, TEL.

CARE & MAINTENANCE

- **Every 6 months**

Check the condition of the door cables and replace them if damaged.
Check the integrity of the fixtures to the wall, ceiling and floor. Re-secure if necessary
To preserve the appearance of the door, clean the door sections using a soft sponge and normal car shampoo.
Rinse thoroughly with clean, cold water.
Do not use corrosive or solvent-based cleaners or materials that may scratch the door.

- **Every 12 months**

Clean the rubber seals, and lightly coat the top- and bottom-sealing with Vaseline or similar product.
Lubricate the hinges with standard household lubricating oil.

SPARE PARTS

For your safety, ensure you use only genuine manufacturer supplied spare parts. Failure to do so can endanger your safety and will invalidate the guarantee. For spare parts and/or service, first contact the installer of this door. When in need of replacement parts, please refer to the door number stated on the identification sticker placed on the upper part inside of the right hand track.

HANDLING MANUAL DOOR

To open the door from inside, release the latch at the lock. Then pull the lower rope simultaneously to lift the door
The door can be locked from the inside by the lock button (see installation manual sketches page 20).
If the button is in locked position when the door is closed, the door cannot be opened from the outside without first unlocking with the key.
To open the door from outside, use the handle and pull up the door.
To close the door from the inside, pull the door down by firstly pulling the lower rope and then pull upper rope. Let the latch fall into locked position.
To close the door from outside, first pull the lower rope until the outside handle can be reached, then use the handle to close the door.

1.

CHECK THE GARAGE OPENING
Check opening measurements A (width) and B (height) to ensure you have the correct size of door for the opening.

CHECK THE FLOOR LEVEL
Use the spacer bar and spirit-leveller to ensure the bottom of the wall-tracks are level and that the position of the door will be centred in the opening. The spacer bar is supplied to the width required between the tracks.

2.

On the floor of the garage, assemble the wall-tracks for both right and left hand sides (1-3), by using 3 track screws and collar nuts per track, tighten the nuts in shown order (2, 3)

3.

IMPORTANT: It is essential that the wall tracks are installed level,square and flush to achieve the correct door operation.
Clamp the right side wall-track to the opening (1); ensuring the track is at the correct height from the floor.
Use the spacer bar to establish the position of the right hand track, relative to the left side, to ensure the door will be central to the opening. (2)
Use a spirit-leveller to ensure the track is vertical. (3)
Drill and fix the track with two 50mm screws and washers, in the centre of slot-hole.
Use only 1 screw in the bottom and 1 screw in the middle of the wall track to allow for later adjustment (4). Do not yet enter the screws in the upper wall track profile.

Drill:	Timber	= Ø 3,0 mm, no plugs required
	Steel	= Ø 5,5 mm, no plugs required
	Concrete, bricks	= Ø 10,0 mm, use the blue plugs

Make sure to insert the plugs according to sketch to avoid cracking of the wall. (5)
An alternative way of fixing the wall tracks is to use side brackets (option) for behind and inside the reveal (although this will require 40 mm extra side-room), which allows for adjustment of the wall track in all directions. Pre punched holes for brackets in the wall track.

4.

Clamp the left hand track to the wall opening. (1)
Use the spacer bar at the bottom to position the left track, relative to the right hand track. (2)
Drill through the bottom hole and insert a 50mm screw and washer in the centre of the slot-hole. (3)

5.

Move the spacer bar up to the top of the wall track, into the slot-holes in both right and left hand tracks. This gives the correct distance between the wall tracks at the top. (1)
Drill and fix the left hand track with one 50 mm screw in centre of the slot-hole (as previously done on the right hand side track). (2)
Remove the spacer bar.

6.

Apply the top rubber sealing to the lintel profile (1)
Click the centre clip in place, off centre by approximately 100-150mm. (2)
Insert a lintel end bracket at each end of the lintel (3)
Hook the lintel beam on to the wall-tracks, using the slot at the top of the end bracket. (4)

7.

Start to assemble the ceiling track parts by using 2 x track screws and collar nuts (1).
Put the angle steel above the joint and then fixing by 4 x track screws and collar nuts (2). At the rear end of the ceiling-tracks use the 12 mm screws. (3)
Place the ceiling tracks at a 90° angle to the floor (5). This will give you an approximate position to fix the L-angle track support to the ceiling.
Fix the ceiling profiles approx. 200 mm inside from the ceiling track with 2 x 50 mm screws. (6)
Install the L-profile hanger with one coach-bolt M-8 and a collar nut at the approximate end position of the ceiling track. (7)
Fix the two spacer bar clips to the hanger L-profile at the approximate height of the door (one for each track), with coach-bolt M-8 and collar nuts. (8)

8.

Fix the clips to the two 'L' shaped ceiling hangers and to the spacer bar, using coach-bolt M-8 and collar nuts without tightening the nuts (1) (At this stage, the spacer bar does not need to be in its final position. It will be tightened later). Hook the ceiling-tracks to the wall-track hooks (2). Hook the ceiling-tracks on to the distance beam by placing the rear end of the right hand ceiling track to the spacer bar, fix with a collar nut (3) Fix both ends of the lintel to the wall-tracks (4). If TENSION low, fix the corner plate by sliding the plate on to the track (5), then put in the track screw (6) from outside and then the nut. If TENSION normal position track screws in top hole from outside the track(6). Use collar nuts. (Do not tighten the nuts (4, 6). The movement is of use when fitting the curve.
Complete the fixing of the wall tracks in the centre of the slotted holes to the wall by 50mm screws and washers (7).
Fix the centre clip (8), by 2 x 50 mm screws, including washers.

9.

Ensure both ceiling tracks are level (1), by adjusting the position of the spacer bar (2). Fix the curves (no left or right version). Start to fix and adjust the ceiling-joint (3), then the joint to the wall-track (4). Use the special round flat-headed coach-bolt M-6 and collar nuts. Tighten the lintel / ceiling-track screws (5, 6). Fix the upper ceiling wall-track part to the wall by the 50 mm screws right and left track (7).

10.

Fix clips to both ceiling tracks to secure the spacer bar, using panel screws. (1)
Cut any excess from the support bars left protruding from below the spacer bar on both sides of the spacer bar and grind the sharp edges (corners) off on all hangers (2.)
Clip the side sealing on, start from bottom (3)

Adjustments
Measure from corner to corner. This measurement should be equal and if not reposition the tracks to ensure they are parallel and square to the opening. (4)
Adjust the tracks to the door section to ensure the same distance from door to ceiling track, both right and left side. Adjust by loosing the distance beam clips, for adjustment of the distance beam side-ways. (5) Put on the bracing on both hangers by drilling 4,5 mm holes in the spacer beam and fix by track screw (6).
Tighten all screws and nuts at the ceiling hangers.

11. TEN

Take the spring-box and position it, resting inside the wall track (1)
(PLEASE NOTE: the spring boxes are right and left-handed).
Put the door-cable through the rectangular hole in the ceiling track section. (2)

CAUTION: Be careful when putting the spring-box up to prevent it from falling down from the ceiling tracks.
Position the spring-box on the ceiling track and use 3 x 10mm collar screws to fix the spring-box to each track (3). Put the cable hook into the curve and lay the cables over the hook. (4) Repeat for the left hand side.

11. TEL

Assemble the end-brackets to the spring-boxes (right and left handed spring-box versions) (1). Put the screws into the spring-boxes and leave 5 mm of threads outside (2).
Slide the front bracket on the ceiling-track approximately 1800 mm in from the distance beam (3).
Slide the spring-box along the side of the ceiling-tracks; the pulley wheel turned inwards the door area (4). Hook the front (5 mm out) screw to the front bracket (5).

Drill 6,5 mm holes in the ceiling track for the front -bracket. Fix by 2 track screws and nuts (6). Tighten the (5 mm out) screw (7). Fix the end bracket by two track screws and nuts (8).
Extend the door cables (9).
Hang the doorcable over the pulley wheel, slide the pulley wheel cover in position and fix
with two panel screws (10-13).
ATTENTION: make sure not to cross or twist the two door-cables. Position the cable hook in the curve and lay the door cables over the hook (12).

12.

The bottom rubber weather seal has an inbuilt ventilation function. By separating the rubber sealing from the perforated plastic profile, the ventilator can be closed. Just turn the rubber part 180° from its original position and re-assemble the sealing. (1-3)
Sections are packed in the following order: bottom section, first mid section, second mid section etc, and top section (65 mm shorter than the other sections).
Apply the bottom door section rubber seal to the bottom section, as shown (2,4)
Fix the bottom rubber seal bracket to the centre of the panel using 2 panel screws (5).

13.

Assemble the mid-rollers as shown. Oil the roller shaft. (1)
Place two supports, approximately 350mm high on the floor on which you will place the bottom section. (2)
Position the bottom section on the supports and in the wall-tracks. (3)
Insert the mid-rollers to the right and left hand sides (this will hold the bottom section in position). (4) Fix the mid-roller with 1 x panelscrew.

ATTENTION: Do not allow the door cables to twist behind the roller-shaft when TENSION balancing.

14.

Put the cable guide into the bottom of end cap, right and left side of bottom section. (1)
Put the spring on the shaft and oil the shaft. (2).
ATTENTION: Don't twist or cross the door cables before putting them on to the roller shaft.
Slide the roller shaft on to the bottom bracket. (3)
Make sure that the door cables run correctly behind the cable guide, and the mid-roller, after turning the bottom rollers into the wall track.
ATTENTION: Use upper hole (4), when fixing the bracket to the section. If wrong hole is used, the cable guide may be damaged. Fix the bracket to the section using 5 x panel screws. Repeat for the left hand side.

15.

Lift the panel and take away the two supports, and then let the panel down to the ground carefully. (1)
Check that the door-cables are positioned correctly on the cable guides (2), at the bottom roller holders and behind the mid roller shafts(2). Check that the panel section hangs centrally between the tracks.
Put the 1st midsection in place (with the handle hole). (3)
If the door has no handle, use the "bottom" section (the first section in the package).
Slide in the mid-rollers right and left. (4)
Insert the handle from outside (if the door has a cylinder, this must be installed in the handle, see separate instruction in the handle bag) and the handle cover from the inside.
Insert the screws from the inside. Ensure the locking button on the back of mechanism is switched to 'unlocked'. (5)

16.

Put the 2nd mid-section in place. Slide in the mid-rollers on the right and left hand sides.
Put the remaining mid sections in place (the number of sections depends on the door height) (1), but do not put the top section in place (the top section is 65 mm shorter than other sections).
Carefully release the door-cables from the temporary cable hook using a screwdriver (2), take the cable-hooks out and store them for future need in the lintel profile.
Press the door down to release the spring lock bars (on each side).
The spring lock is always supplied at the rear hole position. When the door height (B)= 1900, it will stay in this position. (3) For other door heights, it should be moved to the position indicated. Press the door sections down to put both spring lock bars into the correct position. (4)

17.

CAUTION: Position a clamp to one side to support the top section. (1)
Put the top section in position (the top section is 65 mm shorter than the other sections). (2)
ATTENTION: Start to put in all the hinges NOTE: The hinge-part when fixed into the panel must have the lubrication hole visible
(If not the hinges are upside down).
Ensure that the sections are correctly positioned sideways. (3)
Complete the fixing of side hinges. (4-5)
Repeat for left hand side.
Fix all mid hinges. (6)

18.

Fix the pre-assembled top roller by 5 panel screws. (1)
Remove the spring-bars right and left side (2).
Store the spring lock bars in the lintel profile they might become handy for future maintenance and service purpose.

19.

Adjustments

Move the lock button on the inside handle to open position.
Open the door fully. Be aware of the area the door moves through and ensure people and objects are out of the way

20.

Close the door and fix the logo outside upper right corner of the door.

TROUBLESHOOTING
The door is difficult to open and / or close
Align ceiling runners and curved segments.
Measure corner to corner on the ceiling tracks. This measurement should be equal. If not, reposition the tracks to ensure they are parallel and square to the opening.