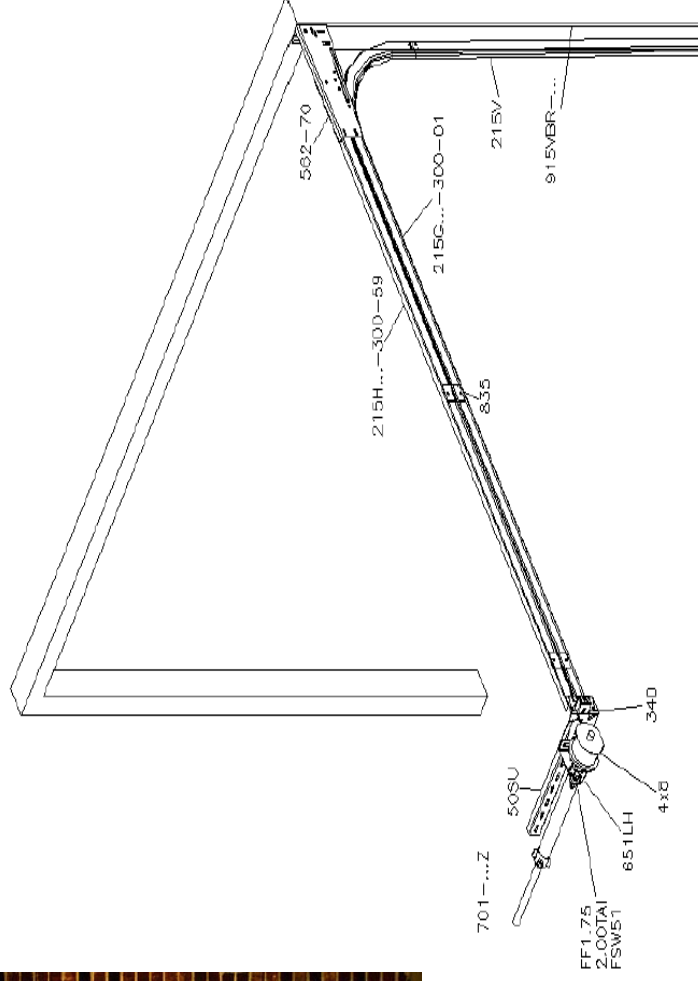


Sectional Garage door installation Manual 2009





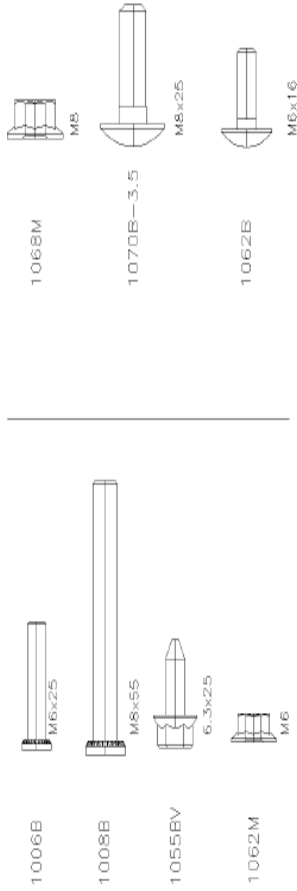
ATTENTION! GENERAL WARNINGS!

To install, use and maintain this hardware set safely, a number of precautions must be taken. For the safety of all concerned pay heed to the warnings and instructions given below! If in doubt, contact your supplier.



- ! This manual has been written for use by experienced fitters and as such is not suitable for d.i.y. purposes or for use by trainee fitters.
- ! This manual only describes the installation of the hardware set components and as such must be supplemented with instructions for any additional components.
- ! Before starting, read this manual carefully.
- ! Certain components may be sharp or have jagged edges. As such you are advised to wear safety gloves.
- ! All the components which have been supplied are designed for use with this specific overhead door. Including additional components may have an adverse effect on the safety of, and the guarantee on, the door.
- ! During tensioning, springs can exert large forces. Work carefully. Use the proper equipment. Ensure that you are standing in a steady position.
- ! Ensure that there is sufficient light during installation. Remove obstacles and dirt. Make sure that there is no one else present other than the fitters. Other people (children!) may get in the way or endanger themselves during the installation.

ACCOMPANYING FASTENING MATERIAL



Fastening of return pulley (570-60 en 570-80), spacer (2060-27) bracket (554BEU) to the side plate (562-70) of the horizontal tracks.				
Number	Code	Description	Fastening torque	Key size
2	1008B	head bolt M8 x 55		
2	1068M	Flanged nut M8	x Nm	13
Fastening of horizontal track set to the vertical track set..				
Number	Code	Description	Fastening torque	Key size
6	1070B-3.5	head bolt M8 x 55		
6	1068M	Flanged nut M8	x Nm	13
4	1006B	head bolt M6 x 55		
4	1062M	Flanged nut M6	x Nm	10
Bearing plate support at end of double horizontal tracks.				
Number	Code	Description	Fastening torque	Key size
8	1062B	head bolt M6 x 55		
8	1062M	Flanged nut M6	x Nm	10
Fastening of spring break device to bearing plate support.				
Number	Code	Description	Fastening torque	Key size
4	1070B-3.5	head bolt M8 x 55		
4	1068M	Flanged nut M8	x Nm	13
Fastening of 8 pieces side hinges, 8 pieces central hinges, 1 pair bottom bracket and 1 pair top roller holders to the door panel.				
Number	Code	Description	Fastening torque	Key size
104	1055BV	Self-tapping screw 6.3 x 25	10 Nm	10mm
Fastening of bearing roller holder (slide) to sheers of side hinge when applicable				
Number	Code	Description	Fastening torque	Key size
16	1062B	head bolt M6 x 55		
16	1062M	Flanged nut M6	x Nm	10

Fastening of bearing roller holder (slide) to bottom bracket					
Number	Code	Description	Fastening torque	Key size	
4	1006B	head bolt M6 x 55			
4	1062M	Flanged nut M6	x Nm	10	

Fastening of rubber cap as bumper in track					
Number	Code	Description	Fastening torque	Key size	
2	1062B	head bolt M6 x 55			
2	1062M	Flanged nut M6	x Nm	10	

Fastening of connection/suspension					
Number	Code	Description	Fastening torque	Key size	
8	1070B-3.5	head bolt M8 x 55			

8	1068M	Flanged nut M8	x Nm	13	
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Fastening of bearing holder/bearing plate					
Number	Code	Description	Fastening torque	Key size	
4	1070B-3.5	head bolt M8 x 55			
4	1068M	Flanged nut M8	x Nm	13	

Fastening of bearing plate/suspension profile					
Number	Code	Description	Fastening torque	Key size	
2	1070B-3.5	head bolt M8 x 55			
2	1068M	Flanged nut M8	x Nm	13	

Additional Items

- Door panels x 4
- End Caps x 8
- Bottom edge seal x 1
- Outer hinges x 6
- 6 x Roller bearing holders
- Middle hinges x 3 (Single Doors)
- Middle hinges x 6 (Double Doors)
- Teck Screws 8mm x 22mm =66
- Cable set
- 50mm Coach screws x 20 Washers x20
- Top weather seal x 1
- Installation Instructions
- Addendum (anti drop device)
- Track set , vertical and Horizontal
- Springs x 2 and shaft
- Connection /suspension profiles
- Warning labels
- M6 Push Screws and Bolts x 12
- Door Motor Strengthening Plate x1



Outer Hinge with roller bearing plate and cable .



50mm Coach Screw



Cables

Problems or advice call 0844 5821444

Tools Required .

Tools required for correct and rapid assembly.

Cordless drill

**Sockets (with adapter for use with drill)
sizes 13mm 10mm 8mm**

Hexagonal Key (Alan Key) size 3mm and 4mm

**Spanners size 10mm 13mm 15mm 16mm
17mm**

Socket Wrench 1/4" Drive

Socket Wrench

Cord

Clamp

Spirit Level

Wooden wedges

Hack Saw

2 x Tressles with carpet on top .

Check the Dimensions required .

CHECKING DIMENSIONAL DETAILS

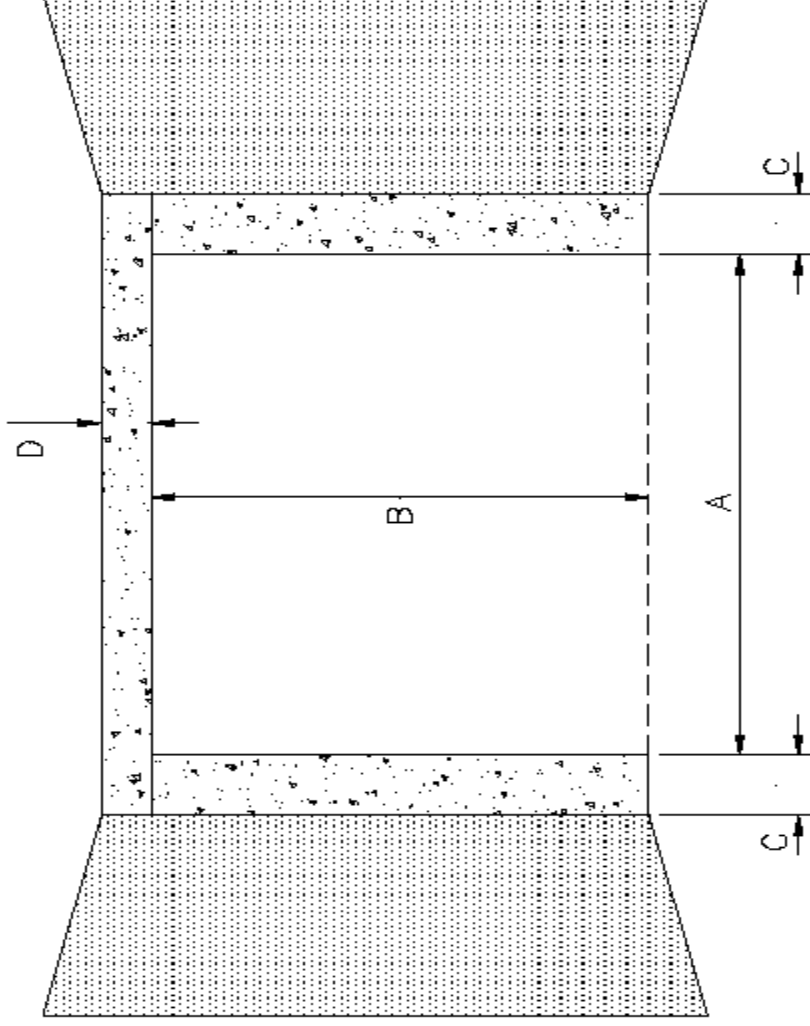
Before assembling the set the details below should be checked on the basis of this figure.

Figure 1

- A = Clear width
- B = Clear height
- C = Side area
- D = Top area

Panel assembly
See enclosure A

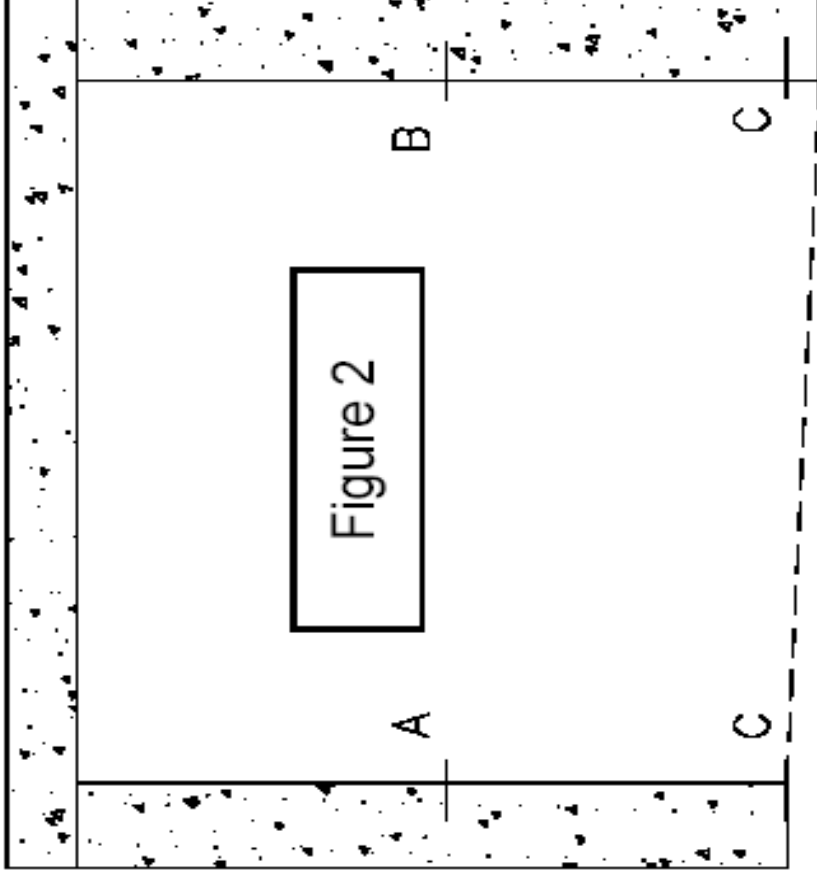
Figure 1



C = 90MM PER SIDE . D = 125MM / A = DOORSIZE SPECIFIED

B = DOOR SIZE SPECIFIED . Depth into garage = 3.3m inc motor.

Checks the Levels .



Tools required – spirit level / pencil

Firstly we need to find the correct level for installation , figure 2 shows point A and B being the level mark , as you can see the floor in this case slopes to one side , put a mark on the the wall as shown in C to denote the level starting point , you cannot install this door on a floor that is not level , use timber wedges to lift the bottom edge of the tracks so they are level . And check levels at all points of installation , most faults with door operation are caused by not checking levels as you go through this installation process.8 .

A = Assemble The panels



Using a set of pliers slightly bend the end caps as shown inwards to stop them catching the rubber seals later .



Slide each end cap over the end of the panel and using a cordless drill with an 8mm socket attached - drill in the self drilling and self tapping teck screws 22mm long with nylon washer . Ensure the end cap is pushed on firmly and level . Repeat the process for all panels .



Choose one of the taller panels and push the aluminium bottom seal onto the panel , ensure it is level on both ends and flush with the panel , if it hangs over cut to size .

Again using the 8mm teck screws with nylon washer position one screw every 280mm (not critical) the first one started 100mm in from the edge of the door.



Measure in from the edge of the panel to obtain the panel center and again using the 8mm teck screws attach the intermediate hinge , only attach it to the one panel at this stage .

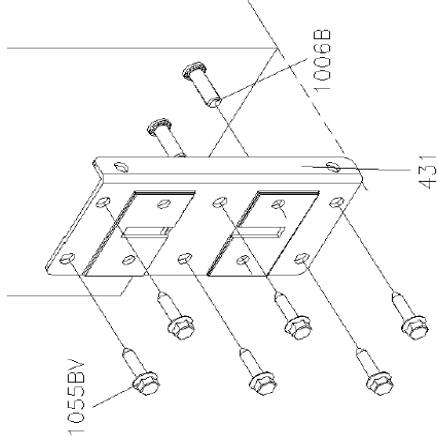
Fix the Hinges into place .



Assemble the outer hinges and attach to the end caps again with the 8mm teck screws with nylon washer.



At this stage attach the top bracket to the shortest panel as shown using again the 8mm teck screws. Only fix the two slotted holes at this stage .



Affix the bottom bracket to the panel as shown , this is flush with the bottom of the aluminium bottom edge . use 6 x 10mm self tapping screws pilot holed first. The bottom edge roller bracket (bearing Roller Holder)is also shown attached in this picture by use of the 1006b (m6 push bolts and m 6 flanged nuts .Assembled as shown in drawing to the left .

Vertical track installation



Place the bottom assembled door panel into the opening , level and square the panel into place using timber wedges, clamp the panel into place to prevent it falling back out and causing any damage .



Measure from the edge of the panel 55mm and mark the wall , repeat on the opposite side this denotes the outside point of the tracks . Remove the panel and store safely .



Put the Vertical track in position with the outer edge against your pencil mark , check the levels , mark the holes with the pencil and remove the track .



Drill the wall (Shown with track in place for illustration) using an 8mm Drill bit , insert 8mm Rawl plugs into the holes .

Place track back in position and loosely drive in the 50mm set screws with washers .

Check level again and firmly secure the tracks in place . Repeat to the other side .

Attach a piece of rope to the ceiling or the roof structure to maintain the elevation of the rear side of horizontal tracks during the assembly process.

Slide the horizontal tracks in the direction of the vertical track set. Ensure that the flange of the vertical angle comes to rest between the end plate and the shortened upper bend of the horizontal tracks. The end plate will now be on the exterior of the vertical angle line. See figure 6.

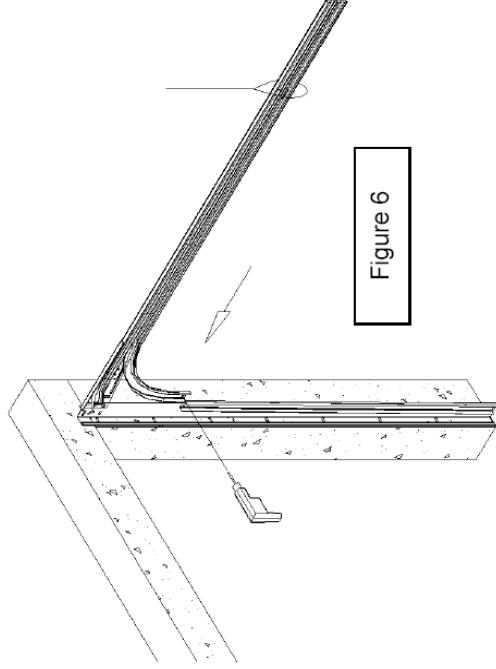
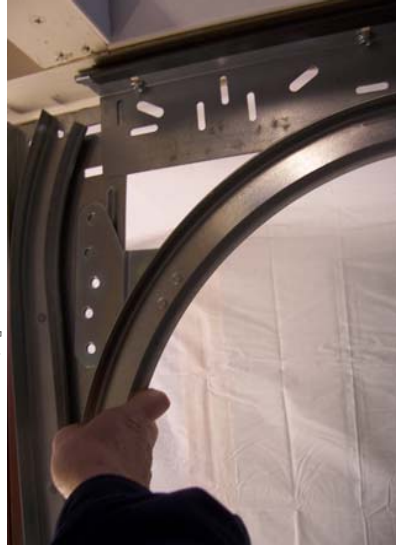
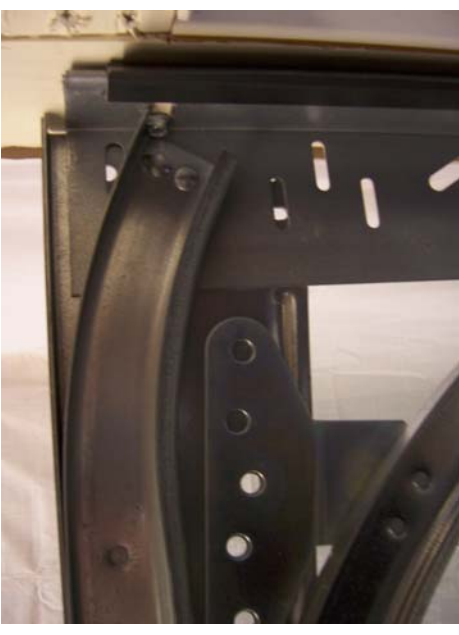


Figure 6



Insert the 2 M6 press bolts (1006B) from the inside through the holes in shortened upper bend, the slotted holes in the vertical angle line and the side plate. Fit the M6 flanged nuts (1062M) and secure hand tight. Position the end of the bend in line with the vertical. Insert the M6 press bolt from inside to outside through the drilled hole. Fit the M6 flanged nut.

Insert the 2 M8 press bolts (1070-3.5B) from outside through the holes in the side plate and the holes in the vertical angle line. Fit the M8 flanged nuts (1068M) and secure these hand tight.



Clip the hanger into place securely , this item is tight to fix into place .
Slide the ceiling hanger into place and fix to the ceiling joist with the 50mm set screws ,
Bolt the bracket to the hanger using m6 press bolts and m6 flanged nuts .

Horizontal connecting profile.

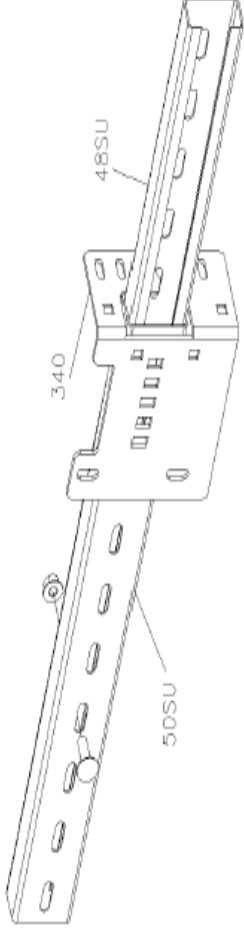


Figure 10

This model comes with a choice of suspension , as before you can fix to the ceiling joist or with the 48su extension that are supplied ,you can suspend the tracks from the side wall the 48su should not be extended more that 300mm from the brearing plate .

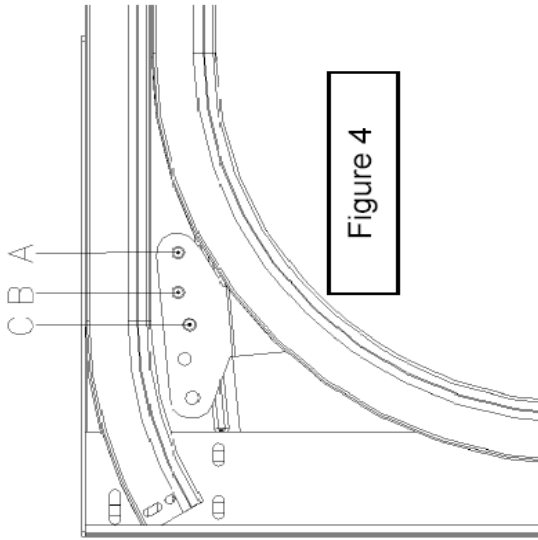


Figure 4

FITTING RETURN PULLEY AND BRACKET TO THE END PLATE

The side plate contains 3 holes in which to fit a return pulley (A, B and C). See figure 4.

- Single doors up to 8ft wide with electric motor use hole B
- Double doors use hole C

Figure 5 shows how to assemble the return pulley and 5a shows the finished left hand track .

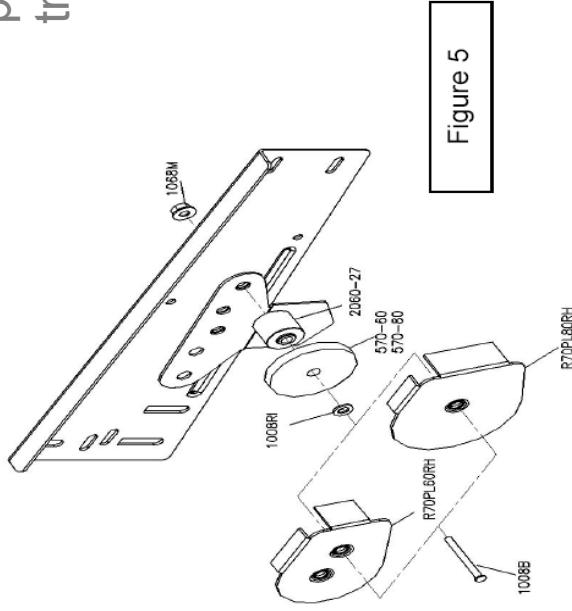


Figure 5

5a



Fit the top weather seal



Measure from the bottom of the tracks up and mark the tracks with a pencil at the door height specified .

Trim the seal so that it slides under the side seals and butts against the tracks as shown.

There are two heights available ,

6'6" / 1981mm

7' / 2134mm .



The white part of the upvc seal should line up with your pencil mark with the black rubber part lower to make a good seal .

There are varying ways to fit this item the best is with screws to the brickwork as shown .

Snap on the back cover to make a sound closing point for the panels .

Assemble the bearing plates

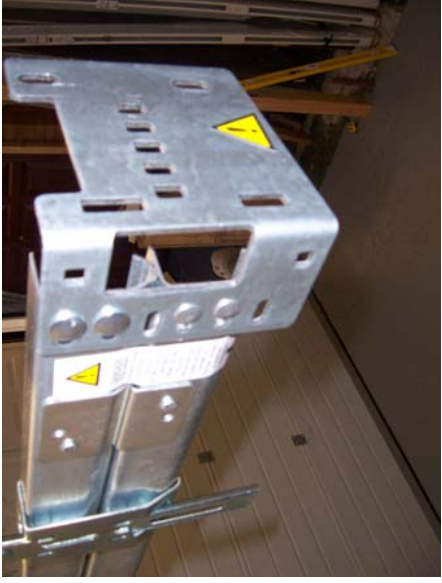
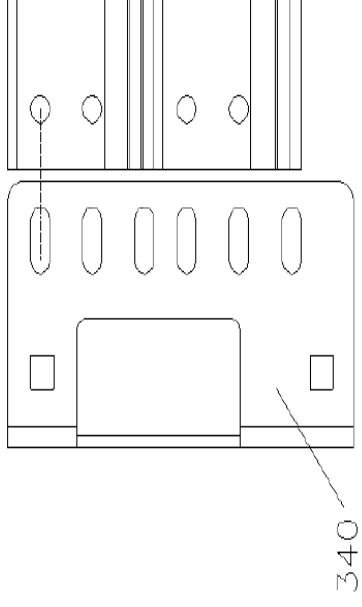


Figure 8



Fit the bearing plate support (340L/RH) to the end of the horizontal tracks. The position of the bearing plate support relative to the horizontal tracks will depend on the height available for installation (Figure 8).

The bearing plates are secured using 2 x M8 press bolts (1070b) with 2 x (1068) flanged nuts .



At the door opening measure across the top of the vertical tracks to find the overall width of the door and tracks . Add 15mm to this measurement to give the dimensions when assembling the rear horizontal connecting profiles and the spring shaft .



Saw the spring shaft to length . Check the measurement twice before cutting .



Saw the rear connecting profile to length again check carefully .

Fit the connecting profile .

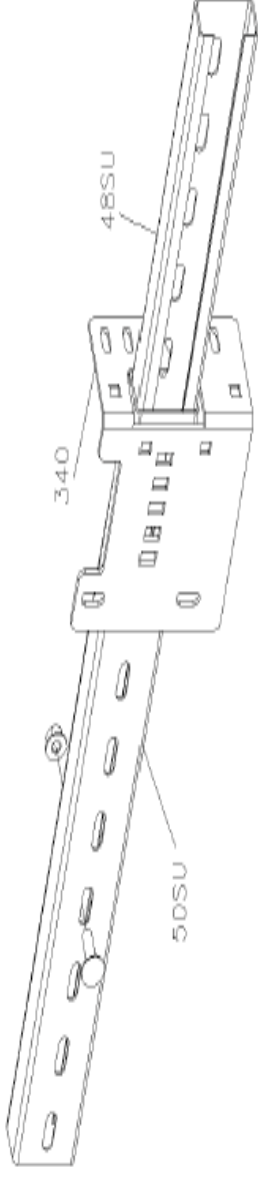


Figure 10

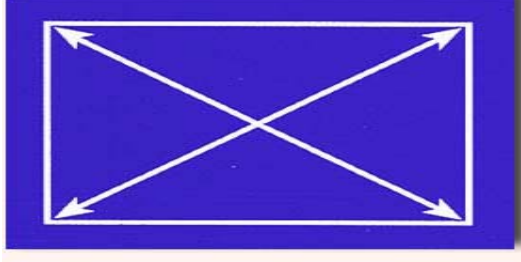
Insert the su50 horizontal connecting profile (rear) into the bearing plates and secure using 2 x M8 Mushroom Bolts and nuts (1070-3.5 and 1068mnuts) as shown in fig 10a secure both sides .



Figure 10a

Important size check

- At this point it is crucial to take a level and check the horizontal tracks , adjust if required .
- You must also take a diagonal measurement of the horizontal tracks from the front (left hand side front to the bearing plate right hand side rear), this measurement must be the same for the left hand and right hand diagonal , if not adjust .
Re fix the hangers if required .



Fitt the Panels

- Firstly slide the looped end of the cable over one of the rollers as shown . The cable should be located in the groove closest to the roller
- Place the botton panel into place , check the level and ensure it is square in the opening .

Insert the shaft of the bearing roller (577) through the loop of the lifting cable (k3x..k4x...) until the loop rests in the recess in the shoulder of the bearing roller shaft. Insert the shaft of the bearing roller in the bearing roller holder (447Z). Place the bearing roller holder with bearing roller on the 2 protruding M6 pressure bolts of the bottom bracket and secure them with 2 M6 flanged nuts (1062M). See figure 15.

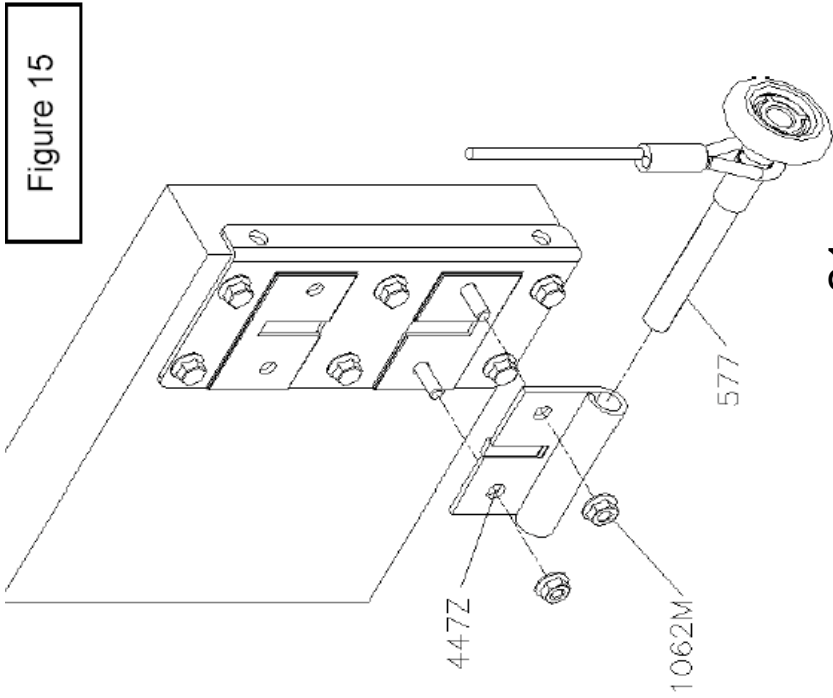
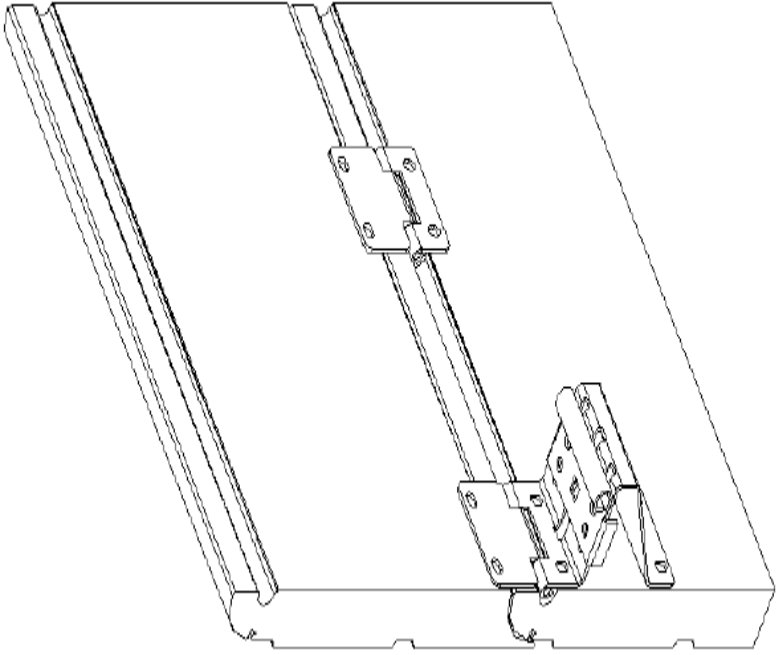


Figure 15



Assemble hinges as shown , ensure the panels are not tight against the weather strip at this stage use m6 bolts (1055bv) and m6 nuts (1062m)

Attach the central hinges to the upper panel using the self drilling and self tapping teck screws 22mm long with nylon washer .keep building the panels as shown , ensure to clamp or hold the panels as you go to prevent them falling out and causing injury or damage .

Adjust the bearing roller to the side hinge such that the nylon-bearing roller is located in the rounding of the track and that the play between panel and side seal is at a minimum. The shaft of the bearing roller should remain capable of turning by hand.

Slide the plastic bush (418BUS) over the bush of the top roller holder (418LH/RH). Then slide the shaft of the bearing roller (576) into the bush of the top roller holder (Figure 19).

Place the bearing roller in the shortened upper bend and fix the top roller holder (418LH/RH) to the upper side of the top panel with 2 self-tapping screws (1055BV) in both slotted holes. The remaining self-tapping screws (1055BV) will be secured at a later stage.

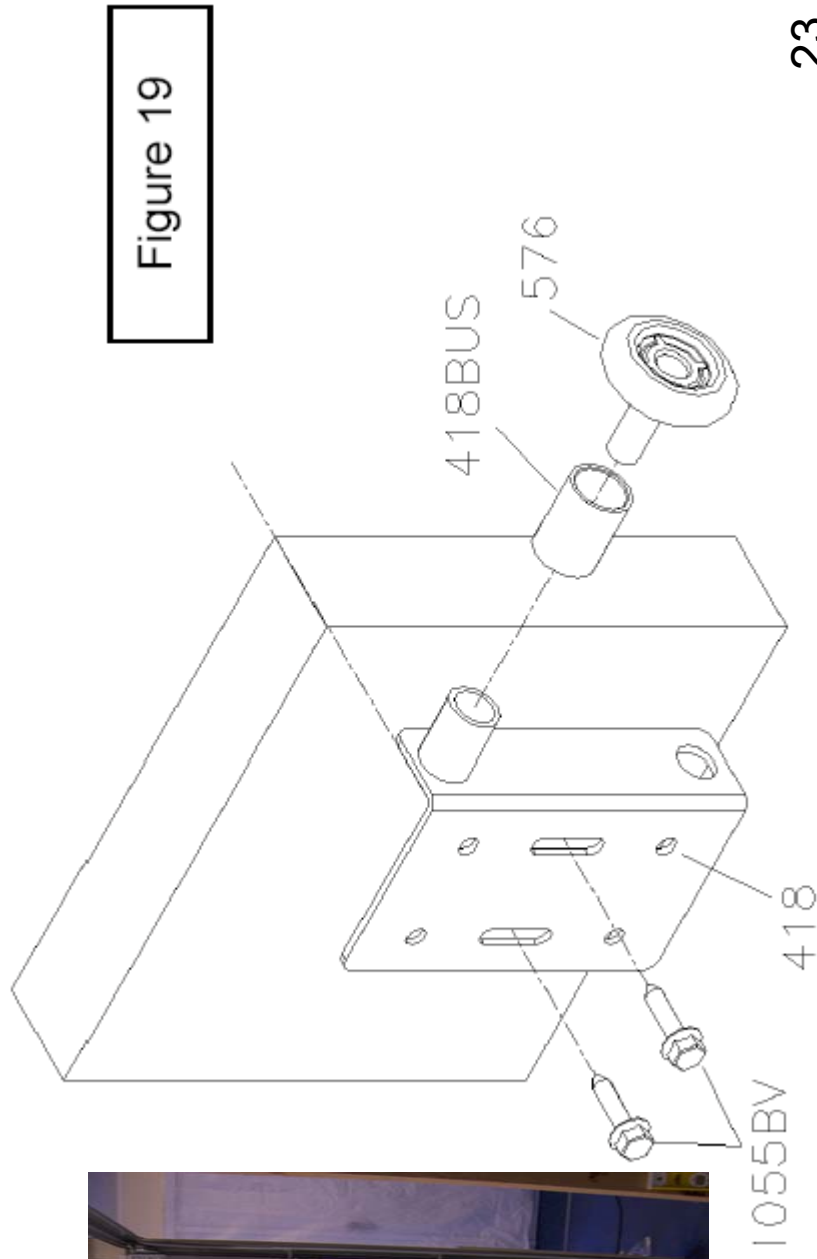


Figure 19

Guide the cable from the bottom bracket, behind the bearing roller shafts and over the return pulley to the cable drum. See figure 20.

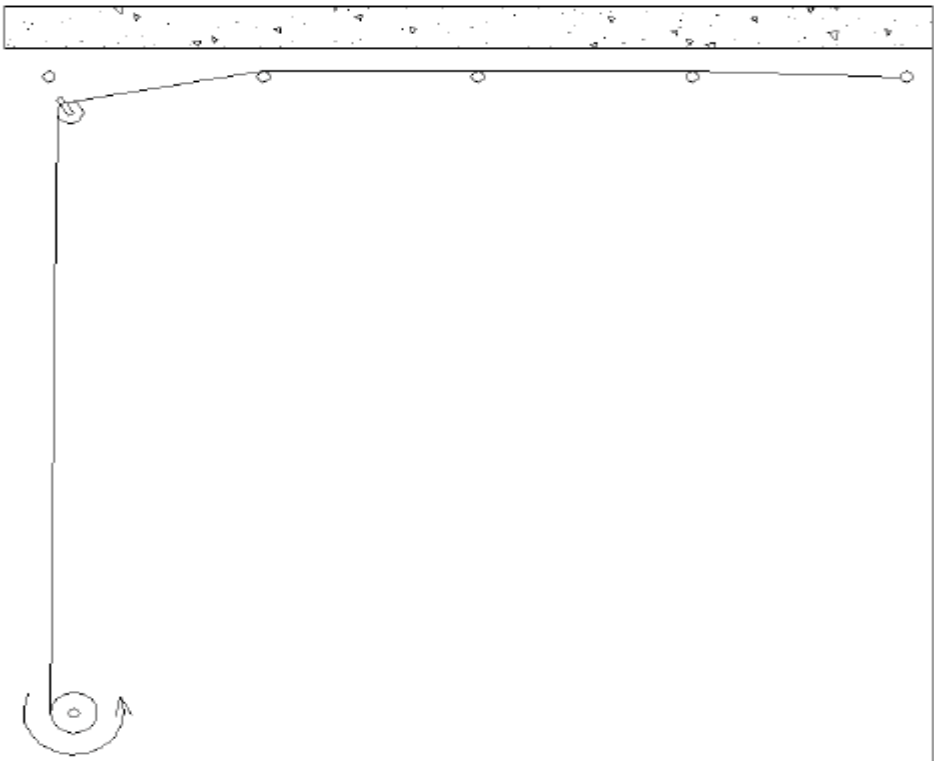
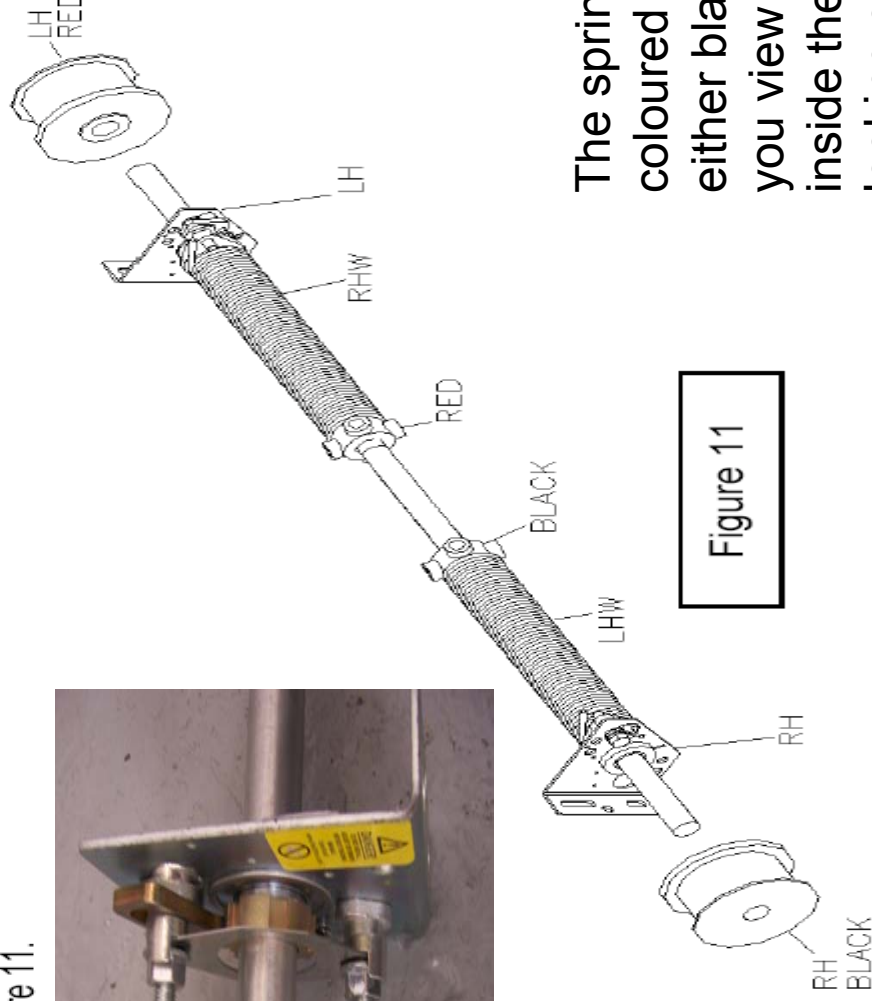


Figure 20

Assembly and fitting of spring package

Slide the tube spindle (CH<2500 the 701, CH>2500 the 705GB) through both springs. The tension plug of the anti-clockwise wound spring is coded black and should be fitted on the left. See figure 8.CW < 3000 and CH < 2500

Slide the shaft (701) through both springs. The tensioning plug of the left-wound spring is coded black and should be fitted on the left. See figure 11.



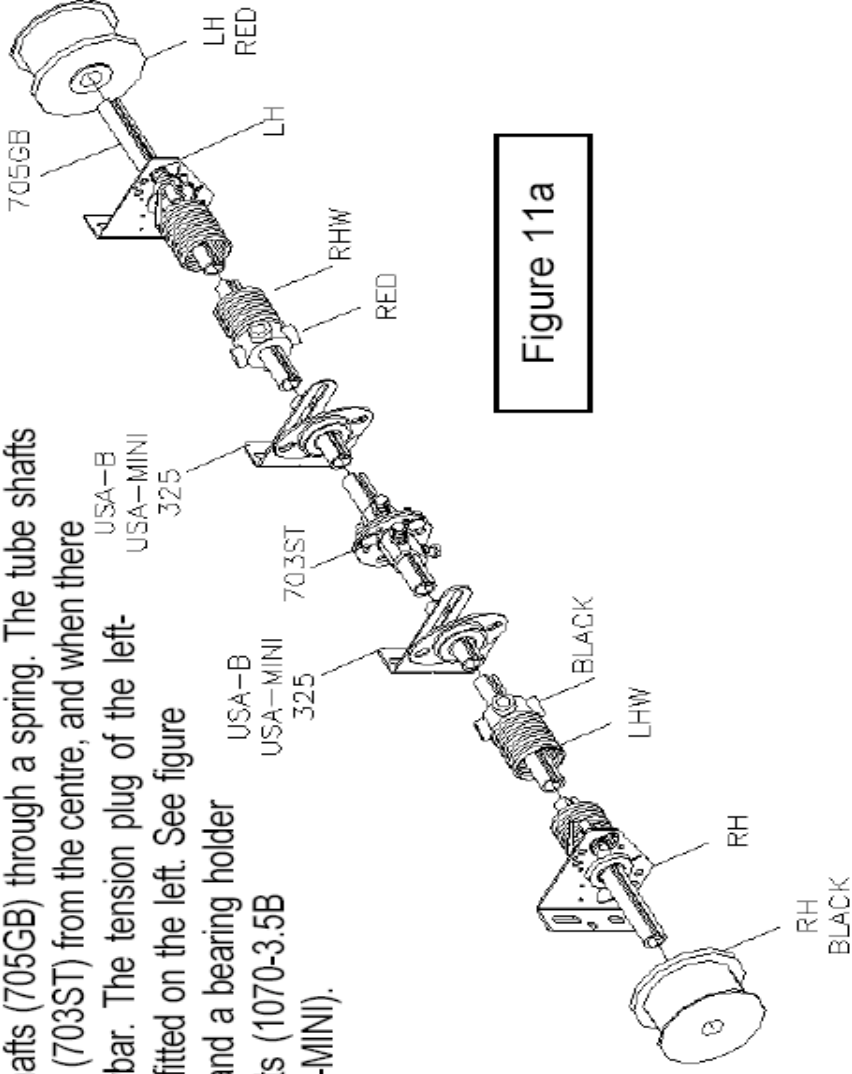
The spring is coloured on the end either black or red, you view this from inside the garage looking out when installing . 25

! Additional Addendum Instructions separate for the spring break device .

Double Door spring assembly

CW > 3000

Slide each of the two keywayed tubular shafts (705GB) through a spring. The tube shafts are of unequal lengths to avoid the coupling (703ST) from the centre, and when there is an electric drive, sitting under the drawbar. The tension plug of the left-wound plug is coded black and should be fitted on the left. See figure 11a. Fit to both shafts a bearing (USA-B) and a bearing holder (325) each with 2 M8 press bolts and nuts (1070-3.5B and 1068M) to the bearing plate (USA-MINI). Then fit disassembled halves of the coupler (703ST) with a cotter (711A-38).



Fit the spring breaking devices (651LH/Rhor 667LH/RH) to the stationary spring plugs, following the drawings that are included in the packaging with every spring breaking device.

! See handbook enclosed for the 651/667 spring breaking device.

Slide on both sides a cable drum (FF-4X8 or FF-4-13) onto the shaft. The cable drum coded RH, should be fitted on the left side. Turn the securing bolts of the cable drum FF-4x8 to secure these hand-tight to the tube shaft. Secure each cable drum FF-4-13 with a cotter (711A-75).

Fit the bearing plates with spring breaking device with shaft and spring package in conformity with figure 12 to the bearing plate supports, each with 2 M8 press bolts/nuts (1070B3,5 and 1068M).

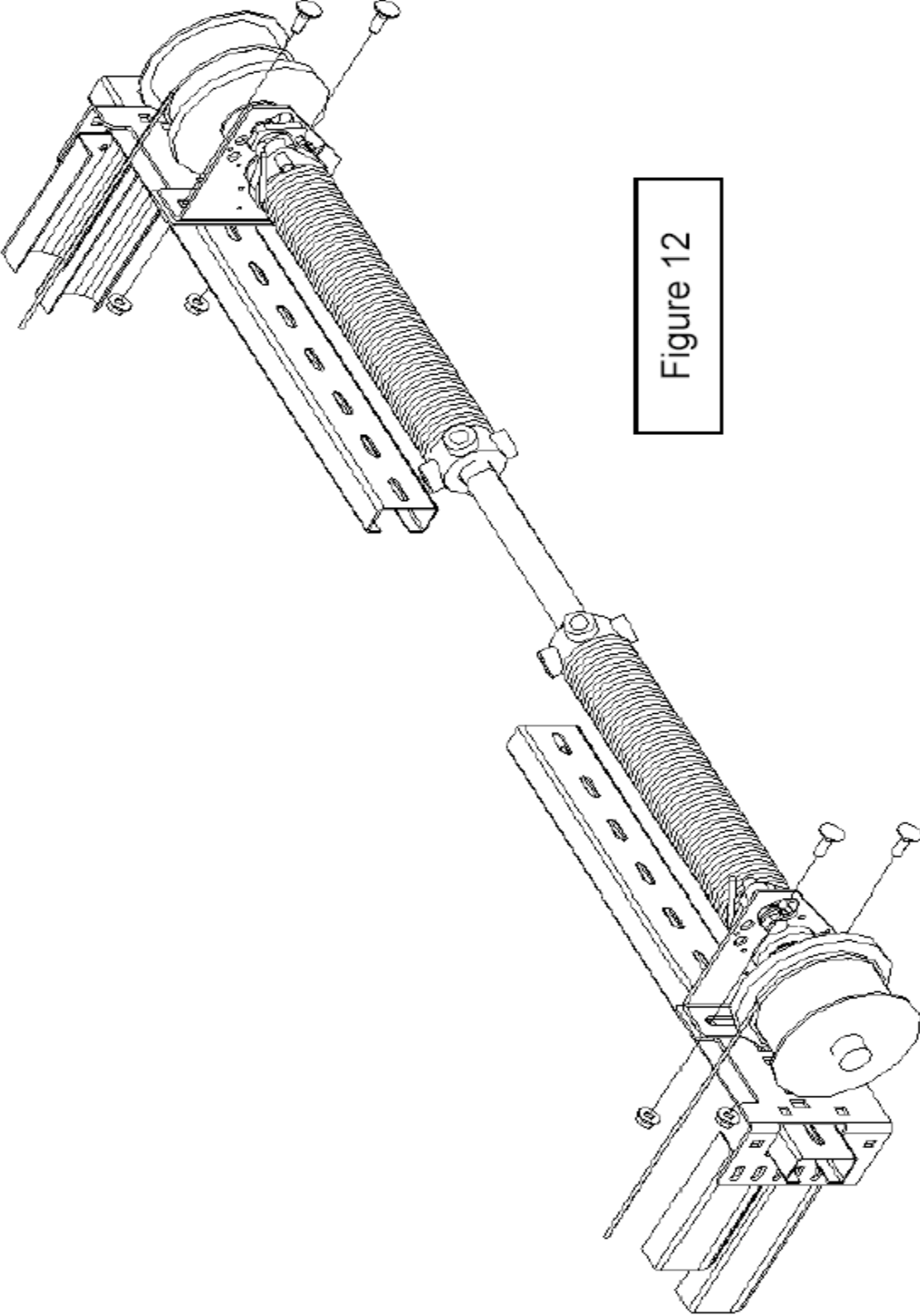
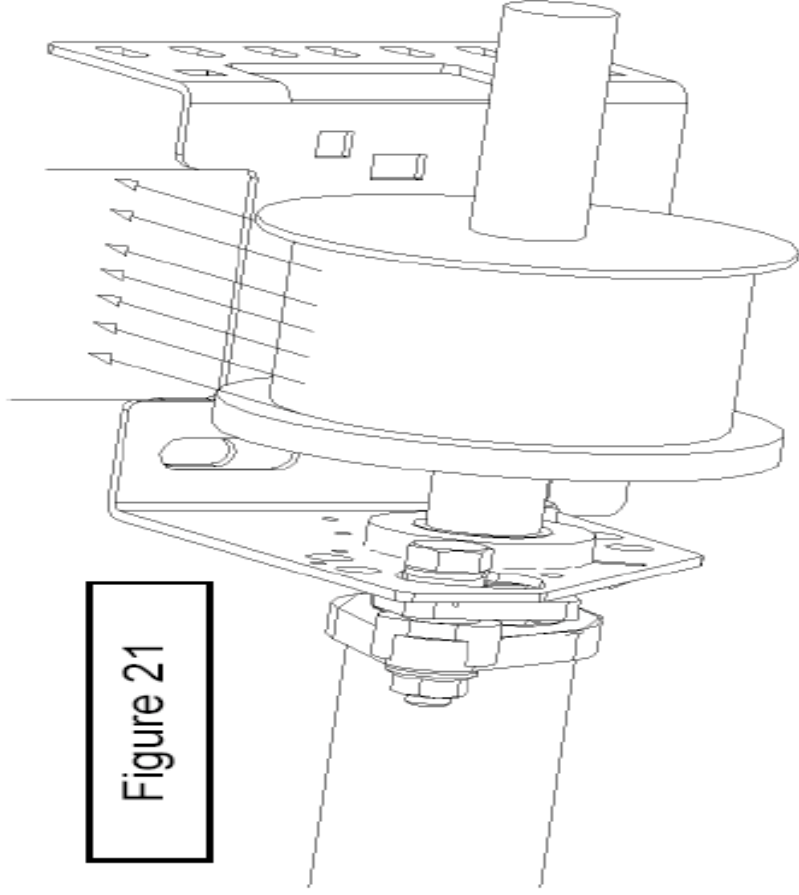


Figure 12

Hook the end of the cable with the end of the pressure clamp (circular) into the cable drum and turn the cable drum until the lifting cable is taut.

Align the cable drum in such fashion on the tube shaft that the lifting cable is free to wind up through the recess in the bearing plate (see figure 21) and the cable cannot interfere with the plastic bush (418BUS). Secure finally the drum with the hexagon bolts to the shaft (without keyway) (tightening moment 10Nm). For a tube shaft with a keyway the drum must be secured with a cotter (711A-75) and bolts.

Figure 21

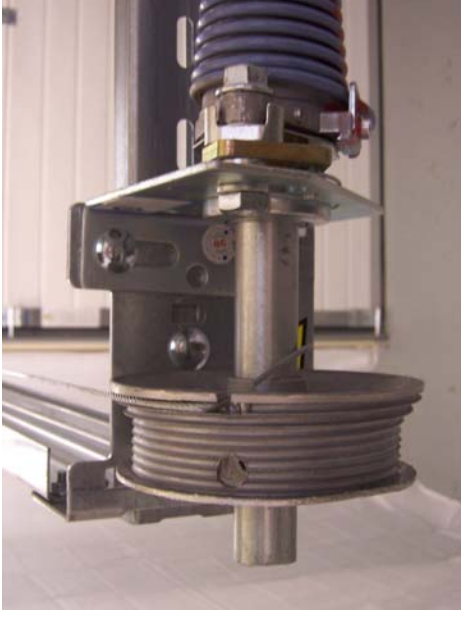


Block the shaft with for example a wrench.

Secure the other cable in the same fashion. Both cables must be tensioned equally while the door panel is truly level.

Ensure that the door does not elevate. You can do this for example by placing wrenches in the vertical bearing tracks.

Assembled spring



Tension The spring



CAUTION!

Torsion springs are subject to considerable tension. Proceed at all times with extreme caution.

Installation, maintenance and repair should be carried out only by experienced and properly trained overhead door fitters.

Use correctly fitting and properly maintained tension levers.



Tensioning the spring

- Make sure that the marking strip on the spring forms a sharp line.
- Insert the 1st tension lever completely into the tensioning slot.
- Turn the 1st tension lever a quarter turn such that the spring is tensioned.
- Insert the 2nd tension lever completely into the following tensioning slot.
- Take over the tension of the spring from the 1st tension lever to the 2nd tension lever.
- Remove the 1st tension lever from the slot.
- Turn the 2nd tension lever a quarter turn such that the spring is tensioned.
- Repeat steps 2 through 7 until the spring has realized the prescribed number of turns.
- Secure the spring plug on the shaft by turning the bolts in the tension plug in the tube shaft.
- Remove the final tension lever.
- Check the number of turns by counting the number of turns that the marking strip has made.

Number Of Turns

Depends on Height

6'6" High = 7 Turns

7' High = 7.5 Turns

Always turn clockwise
(uphill towards the door)

Correction of the spring tension

- a. Insert the 1st tension lever completely into the tension slot.
- b. Take over the tension from the spring with this tension lever.
- c. Loosen the bolts in the tension plug.
- d. Turn the 1st tension lever in the direction required.
- e. Insert the 2nd tension lever completely in the next tension slot.
- f. Take over the tension of the spring from the 1st tension lever to the 2nd tension lever.
- g. Remove the 1st tension lever from the slot.
- h. Turn the 2nd tension lever a quarter turn in the direction required.
- i. Insert the 1st tension lever completely into the next tension slot.
- j. Take over the tension of the spring from the 2nd tension lever to the 1st tension lever.
- k. Repeat steps 4 through 10 until the correction required has been realized.
- l. Secure the spring plug on the shaft by turning the bolts in the tension plug in the tube shaft.
- m. Remove the final tension lever.

When the door panel is not hanging completely horizontally in the lifting cables in (almost) closed condition there are three options for fine adjustment.

- A.** When the connection/suspension profile behind the horizontal tracks has not been finally adjusted the bearing plate support in the slotted holes may be adjusted relative to the horizontal tracks.
- B.** Loosen the securing bolts of the cable drum and the drum relative to the tube shaft. For slight movements there is always a risk that the securing bolts 'slide' into the same shallow in the tube shaft and the adjustment is not improved.
- C.** When a coupling is employed this may be adjusted to ensure a better horizontal setting.

Close the door and secure the door panel. Loosen the two self-tapping screws (1055BV) securing the top roller holder so that it can be displaced with a slight tick. Press the top panel against the side (upper) seal and slide the top roller holder as far as possible (minimum play between door panel and seal). For a manually operated door the bearing roller should be displaced downwards. The bearing roller lies snugly in the rounding of the bearing tracks. For an electrically driven door the bearing roller should be displaced upwards. The bearing roller lies snugly against the flat side on the bearing tracks. Then secure the 2 self-tapping screws. When the top panel cannot from outside be pushed inwards, the remaining self-tapping screws may be secured.

Fit the rubber doorstop (2100-15) supplied with a press bolt M6x16 (1062B) and nut M6 1062M), to the end of the top horizontal tracks (Figure 22).

Oil all hinges and all bearing rollers with one drop of oil.

Grease the cables.

Grease the bearing roller shafts.

The torsion springs are already lightly oiled.

Place your CE identification plate on the door together with any warning labels required.

Adjust hinges to tighten panels against weather seals .

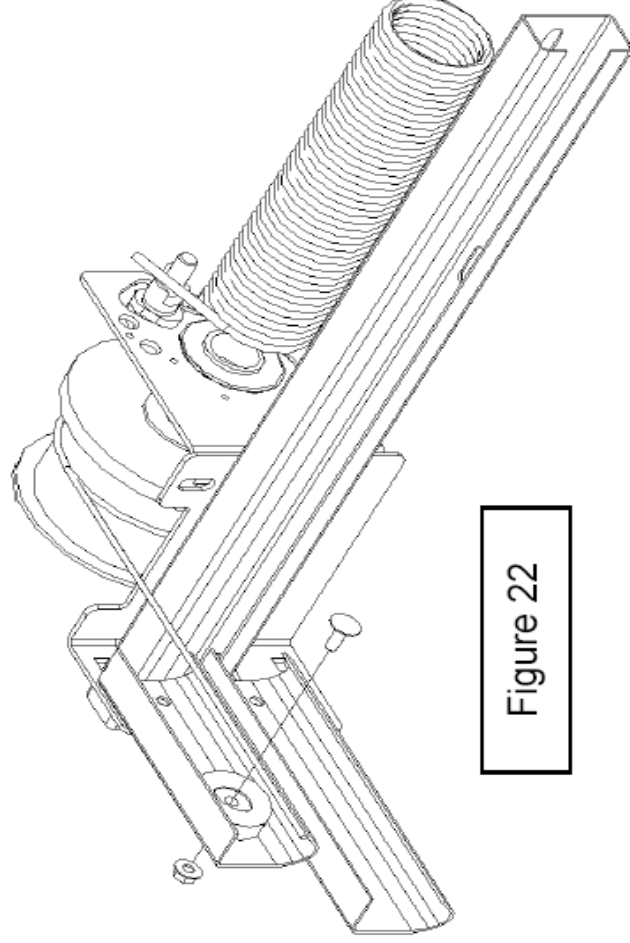


Figure 22

Contact

For warranty , assistance and technical help please call
08445821444
47 Bishop Street
Birmingham
B5 6lt
Uk

The Hardware and panels have been constructed to meet CE norms
Produced in the Netherlands .