



DOUBLE TIMBER SECTIONAL DOOR

INSTALLATION INSTRUCTIONS



These instructions are intended for the DIY enthusiast, and the professional installer.

It is assumed that the DIY installer will fully read these instructions and where further understanding is required, our technical support number will be contacted before proceeding with the installation.

It is assumed that the DIY enthusiast has the required skills to mark out, drill and bolt into concrete, steel and wood, and understands measuring and levelling concepts.

The DIY enthusiast or installer should be aware that Garage Doors are heavy and must be correctly counter balanced, which is achieved by energy stored in a spring system.

The DIY enthusiast must have a reasonable working knowledge relating to Sectional Overhead Door Installation.

Technical Support Number	0861 34 8324	Hours:		
	0861 DG TECH		Monday to Friday	08:00 to 17:00
			Saturday	08:00 to 16:00
			Sunday & Public Holidays	08:00 to 13:00

IMPORTANT



The following has been identified as being hazardous when installing sectional doors.

- Risk of injury to yourself and other people or animals in the work area
- Working at heights and working with ladders
- Manual handling when installing tracks, torsion springs, door operators and springs
- Sharp edges on doors tracks, cables and brackets, pinch points on hinges and doors
- Incorrect use of hand tools
- Torsion springs and torsion winding bars

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Preparation

Read through the Instruction booklet to gain an overall understanding of the stages involved in the task.

Important: If the garage does not have access other than the vehicle entrance, to avoid becoming trapped, ensure that **all** that is needed to complete the installation is placed **inside** the garage before starting.

Remove vehicles to protect them and to provide space to work.

Floor space:

Ensure that there is adequate space to place the door panels, box and equipment inside the garage, well clear of the doorway (at least 2m).

Front wall surrounding the doorway:

This wall must be reasonably smooth and clear of obstructions and fittings at least 150mm either side of the doorway, and 450mm above.

Sidewalls:

There must be space for the overhead tracks to project back 2,75m from the front wall, 150mm left and right of the doorway, and 300mm above the doorway. Ensure that sidewall fittings (such as shelves) do not encroach into this space.

Headroom:

Ensure that no overhead fittings or fixtures (lights, shelves, beams, pipes etc.) intrude into the headroom space of 350mm above the doorway and 2,75m back from the front wall. (Increase the 350 figure to 390mm if the door is to be automated.)

Recommended Tools and Equipment for this Installation

Electric Drill – Impact, Variable Speed, Reversible

Drill Bits:

Masonry: 6mm, 10mm

Steel: 6mm, 10mm, 12mm

Hacksaw

Wood saw

Screwdriver – 6mm

Spirit Level

Tape Measure – 5m

Hammer

Spanners

Sockets: 8mm, 11mm, 13mm

Flat/Ring: 10mm, 11mm, 13mm, 14mm

Step Ladder: 1,7m - 2m high

Extension Lead to suit

Grease – general purpose

Double Door in a Box – HC 1725

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	HC1165	Torsion Assembly Screw Kit	1	21	HC2701	Torsion Spring 70kg Black End Green Stripe	1
2	HP0270	Flag Bracket Right Hand	1	22	HC2702	Torsion Spring 70kg Red End Green Stripe	1
3	HP0271	Flag Bracket Left Hand	1	23	HC1122	Track Set 2200mm Vertical & Horizontal	1
4	HS0100	J Bracket #1	2	24	HC0061	Double Door Brace	10
5	HS0102	J Bracket #2	2	25	HC0062	Brace Joiner 1200mm	5
6	HS0105	J Bracket #3	2	30	HC0028	Pine Door Jamb 2,62m	4
7	HP0450	Danger Label	1	31	OC0008	Pine Centre Piece 300x145x16	2
8	HP0414	Cable Drum Right Hand	1	32	HC0150	Centre Lock Set d/d	1
9	HP0415	Cable Drum Left Hand	1	33	HC0197	Door Hinge Screw Kit(100 pcs)	2
10	HS0315	Cable D/D Torsion 3 x 2700mm	2	34	HP0295	Hanging Straps Heavy Duty	4
11	HP0510	Centre Bearing Bracket	1	35	HP0460	T Lock Handle Keyed	1
12	HP1930	Double Hardware kit	1	36	HP0172	Bolt m6 x 65 Cup Square Plated	2
13	HP0194	Installation Instructions	1	37	FP0206	Nut m6 Plated	2
16	HP0005	Curve Assembly Instruction	1	38	HP0175	Bolt m6 x 40 ms with 8mm Thread	2
17	HC1115	15" Steel Curve	2	39	FP0226	Nut m6 Nyloc	2
19	HC1105	Double Door Track Angle 2150	2	40	HC0079	Cross Shaft Coupler	1
20	HC0082	Shaft 25mm x 1.6mm x 2620mm	2	41	HC0087	Winding Bar	2



Section 1: Marking out and fitting Jamb Lining

1. Centre the Bottom Panel in the doorway.

Bottom Panel



2. Set and mark the Left jamb 40mm in from the edge of the Bottom Panel.

Left Jamb

Bottom Panel



3. Set and mark the Right jamb 40mm in from the edge of the Bottom Panel.

Right Jamb

Bottom Panel



4. Fitting Jamb Lining

4a. Uprights

- 4a.a. Fit a Jamb Lining Upright on the Left, using masonry fixings (trim to length if necessary).





4a.b. Fit a Jamb Lining Upright on the Right, using masonry fixings (trim to length if necessary).



4b. Cross Pieces

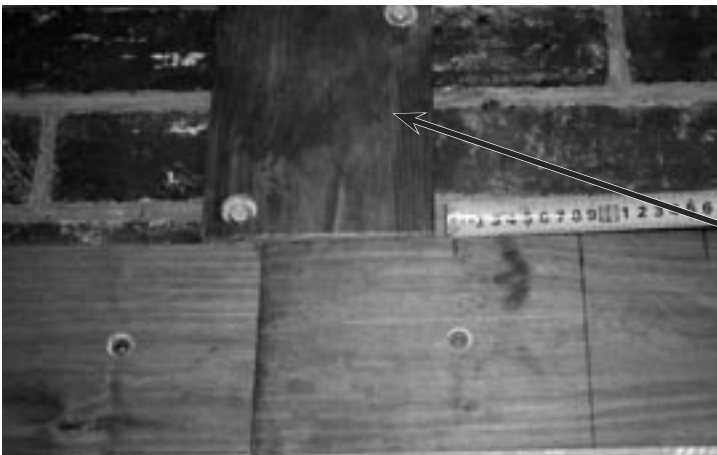
4b.a. Fit a Cross Piece to the Left of the doorway, flush with the underside of the lintel (trim to length if necessary).

Lintel



4b.b. Fit the other Cross Piece to the Right of the doorway, flush with the underside of the lintel (trim to length if necessary).

Lintel



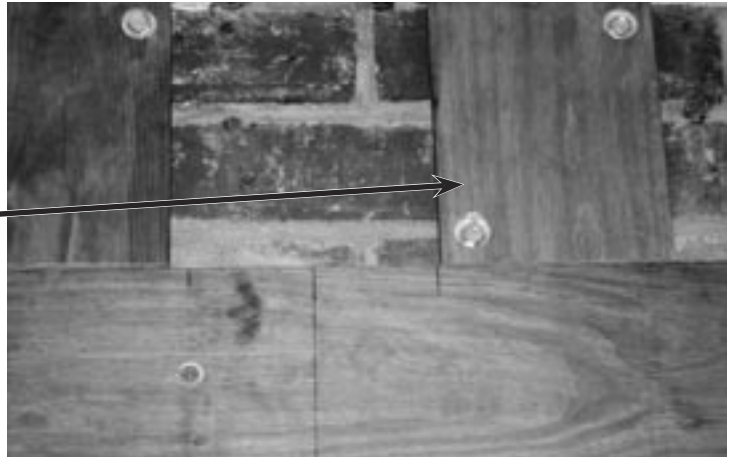
4c. Fit a short Centre Piece vertically 75mm Left of centre (trim to length if necessary).

Short Vertical Piece, Left

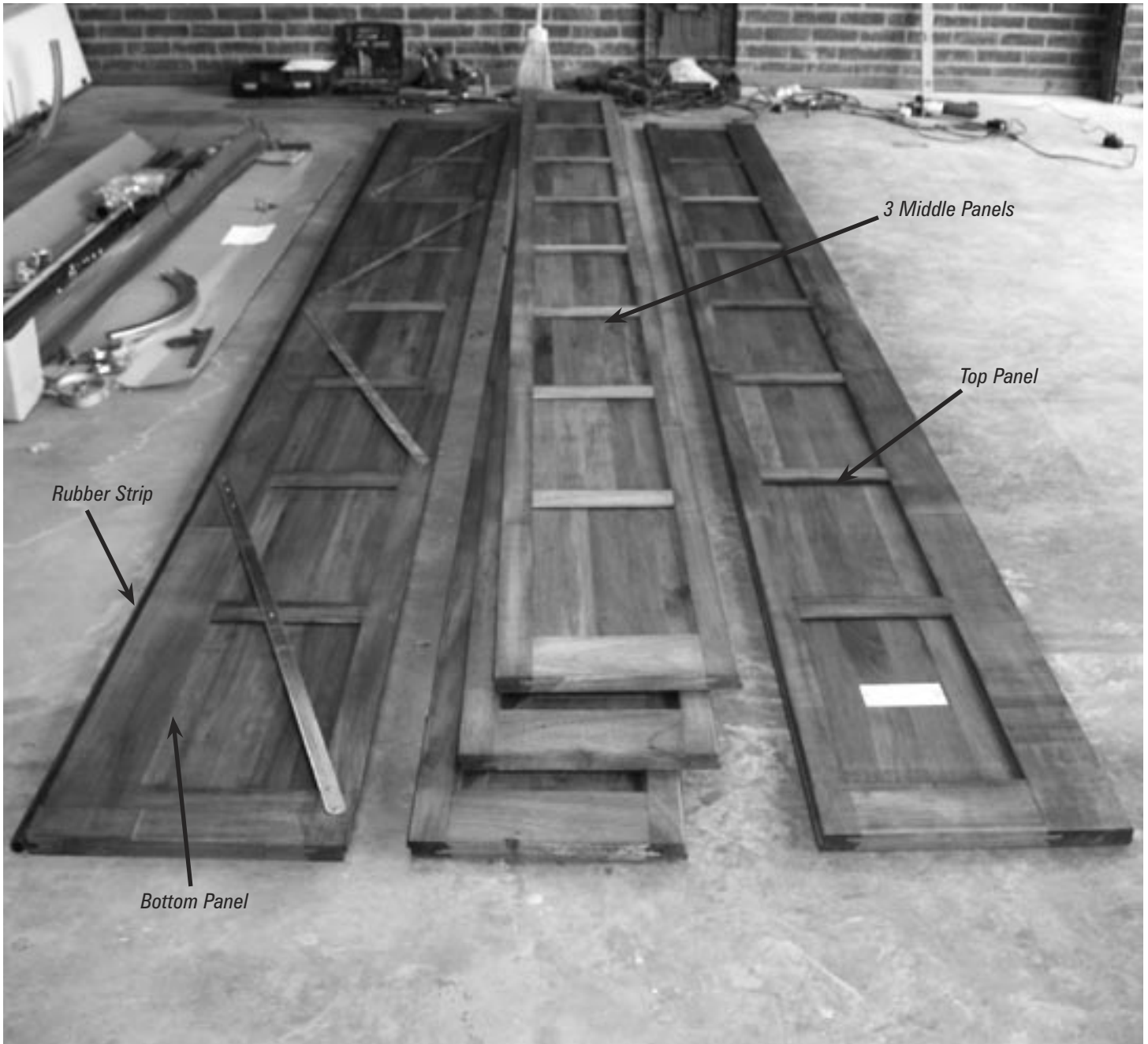


- 4d. Fit a short Centre Piece vertically 75mm Right of centre (trim to length if necessary).

*Short Vertical Piece,
Right*



5. Identify the Panels and reverse-stack them, with the Bottom Panel on top.



6. Marking verticals at 45mm

6a. Make a mark 45mm from the panel edge on the Left upright.

Mark for Left Track placement



6b. Make a mark 45mm from the panel edge on the Right upright.

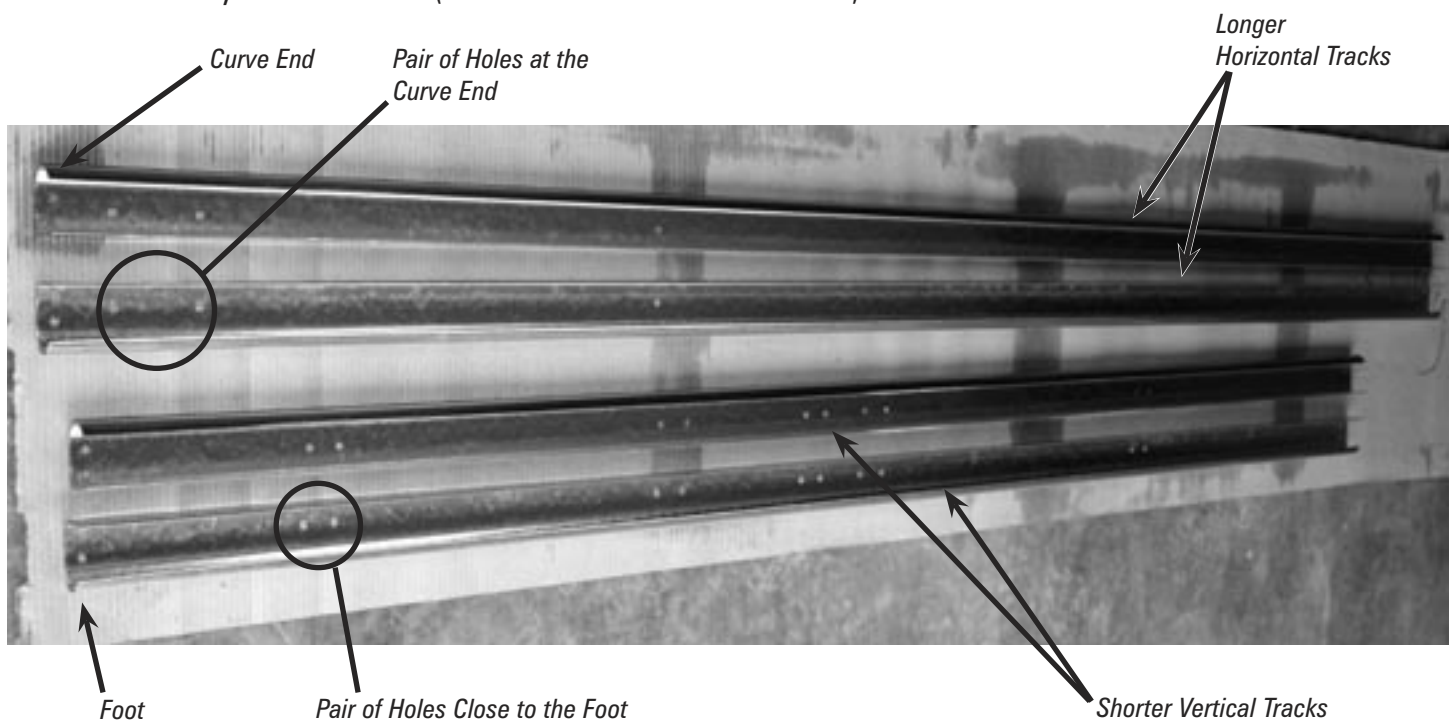
Mark for Right Track placement



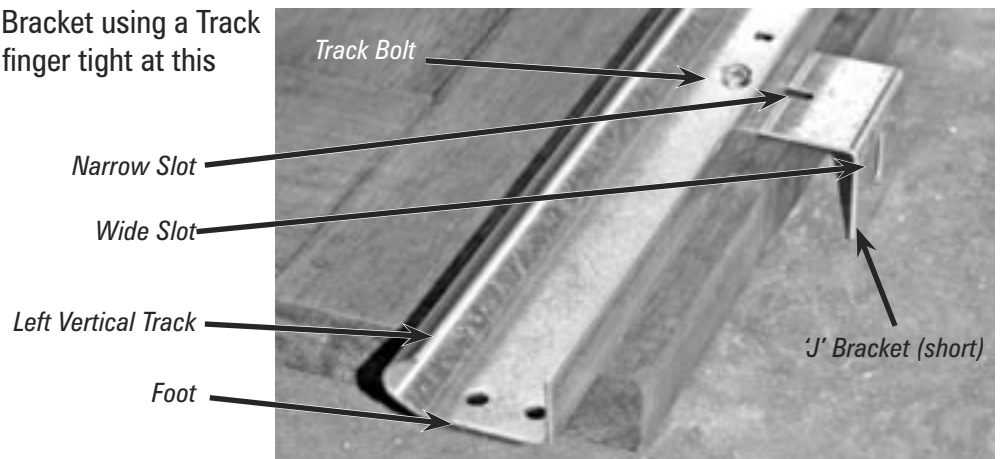
Section 2: Fitting 'J' Brackets and Vertical Tracks

7. Fitting the 'J' brackets to the Left vertical track

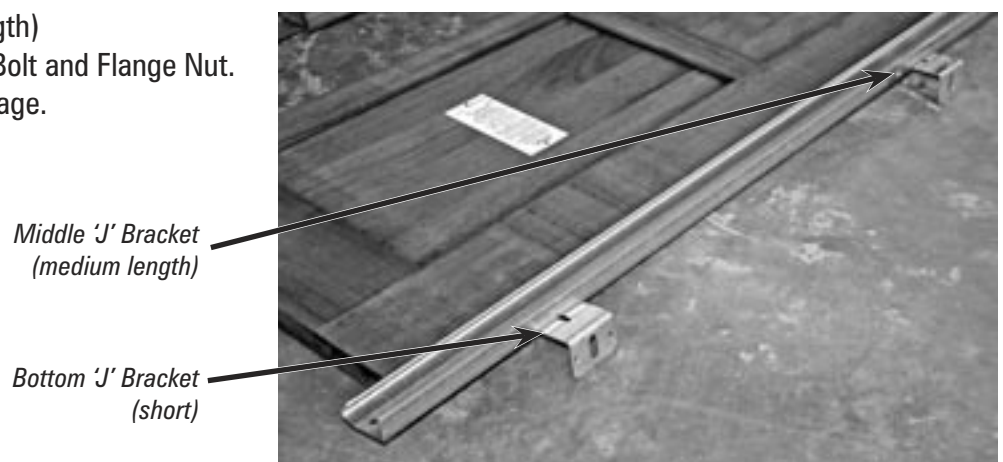
7a. Identify the bottom end (shorter track and number of holes)



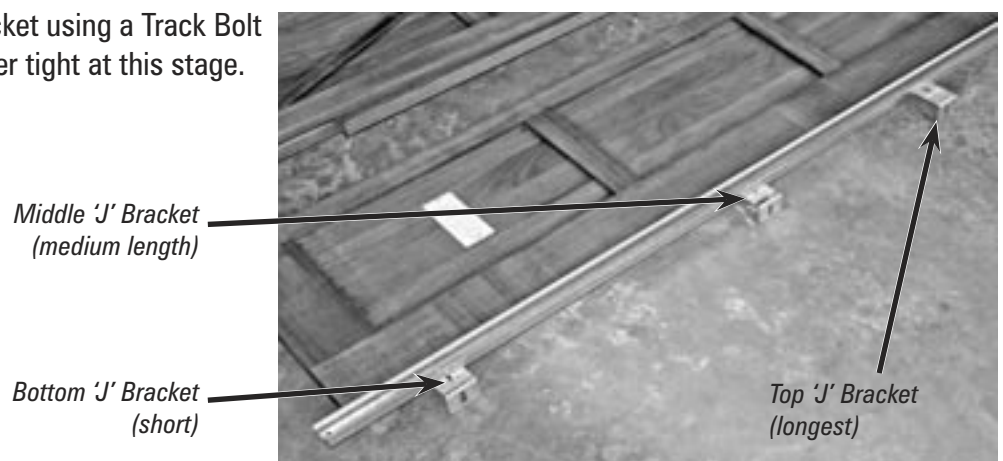
7b. Fit a Bottom (shortest) 'J' Bracket using a Track Bolt and Flange Nut. Only finger tight at this stage.



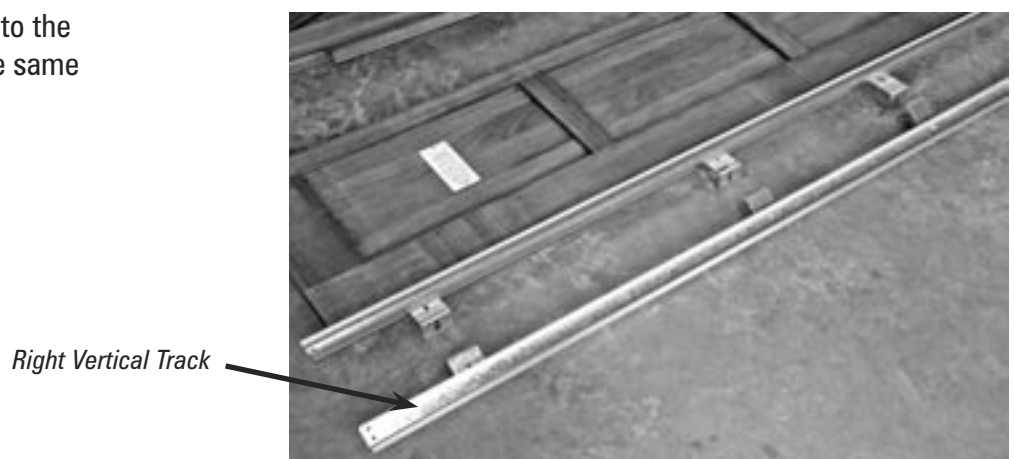
7c. Fit a Middle (medium length) 'J' Bracket using a Track Bolt and Flange Nut. Only finger tight at this stage.



7d. Fit a Top (longest) 'J' Bracket using a Track Bolt and Flange Nut. Only finger tight at this stage.



7e. Fit the three 'J' Brackets to the Right Vertical track in the same way.



8. Check the floor for level across the doorway.



Bottom Panel

9. Fit the Left or Right Vertical track standing on higher side.



Stand the Foot of the Track on the floor on whichever side is higher

10. By measurement, fit the other Vertical Track level with first.



Section 3: Installing the Panels

11. Prop the first panel (with the rubber strip at the bottom) in position and level it by means of wedges.

Bottom Panel

Wedge



12. Left Bottom Bracket

- 12a. Fit the loop of one cable to the Pin of the Left Bottom Bracket

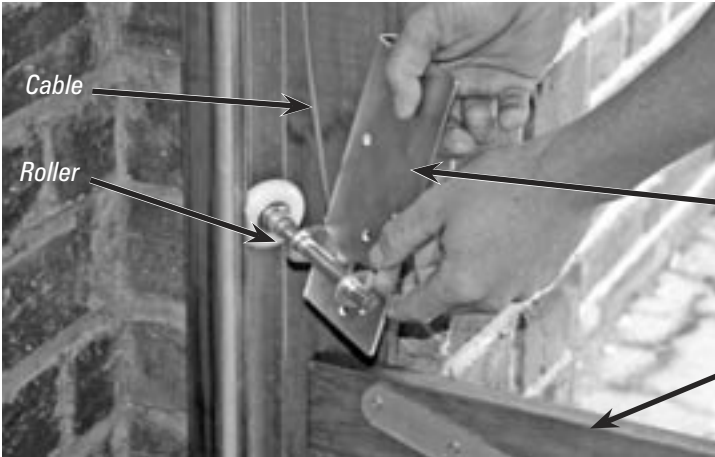
Left Bottom Bracket

Pin



- 12b. Place the cable over and behind the track



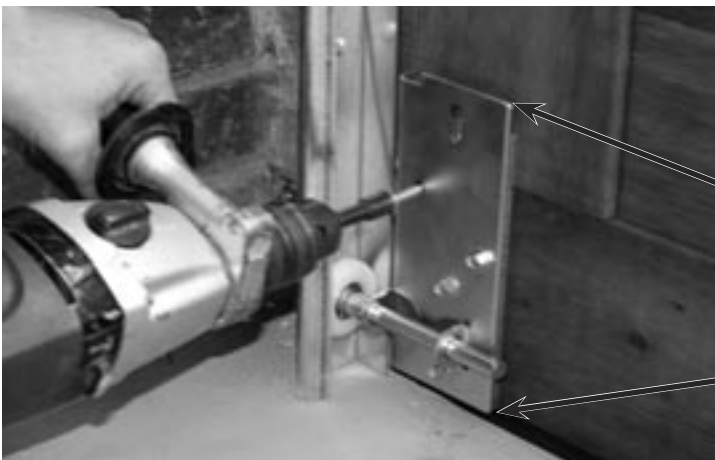


13. Fit a Roller and the Left Bottom Bracket

13a. Manipulate a Roller and the Left Bottom Bracket into the track and slide the bracket down past the left edge of the panel.

Left Bottom Bracket

Bottom Panel



13b. Screw the Left bottom bracket to the Bottom Panel.

Flush with the Left Edge

Flush at the Bottom Edge



14. Fit a roller and a #1 hinge (left side)

14a. Manipulate a roller and a #1 hinge into the track and position the hinge on the Left edge of the panel.

Roller

#1 Hinge

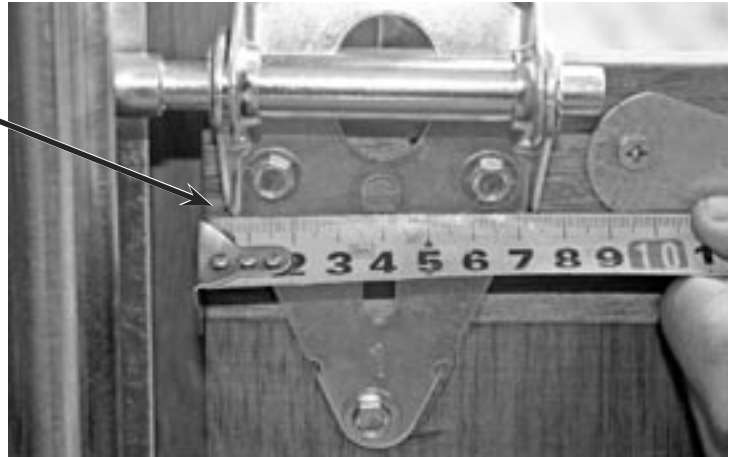


14b. Screw the hinge to the top corner of the panel, with a 5mm gap and the middle of the hinge flush with the top edge of the panel.

Middle of Hinge



5mm Gap

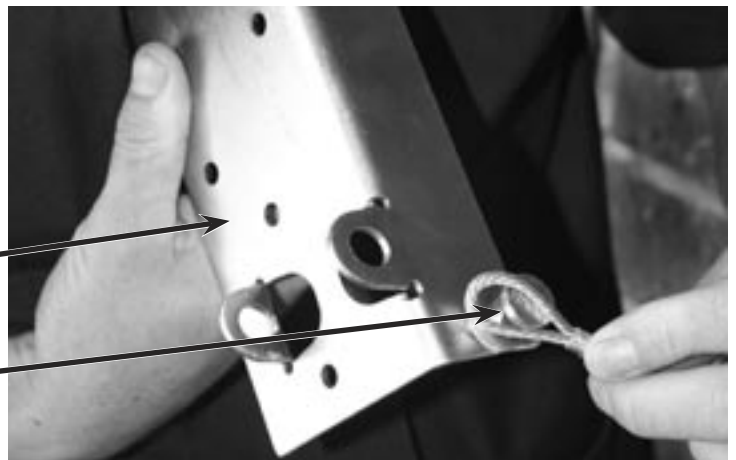


15. Right Bottom Bracket

15a. Fit the loop of the other cable to the Pin of the Right Bottom Bracket

Right Bottom Bracket

Pin



15b. Place the cable over and behind the track





16. Fit a Roller and the Right Bottom Bracket

16a. Manipulate a roller and the Right Bottom Bracket into the track and slide the bracket down past the Right edge of the panel.

Roller

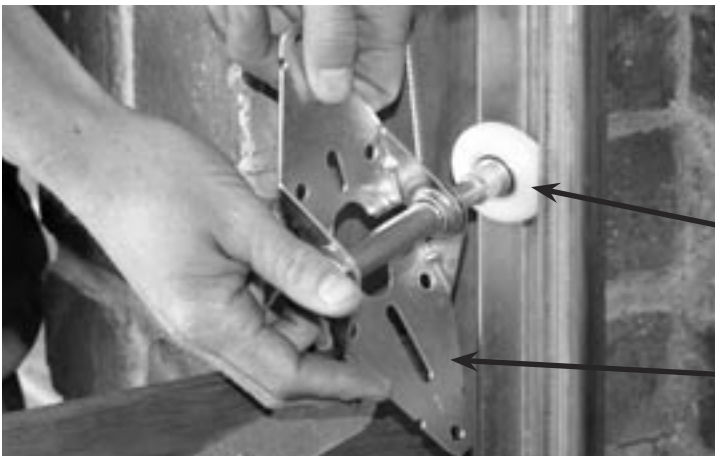
Right Bottom Bracket



16b. Screw the Right bottom bracket to the Bottom Panel.

Flush with the Right Edge

Flush at the Bottom Edge



17. Fit a roller and a #1 hinge (Right side)

17a. Manipulate a roller and a #1 hinge into the track and position the hinge on the Right edge of the panel.

Roller

#1 Hinge



17b. Screw the hinge to the top corner of the panel, with a 5mm gap and the middle of the hinge flush with the top edge of the panel.

Middle of Hinge



17b. Continued.



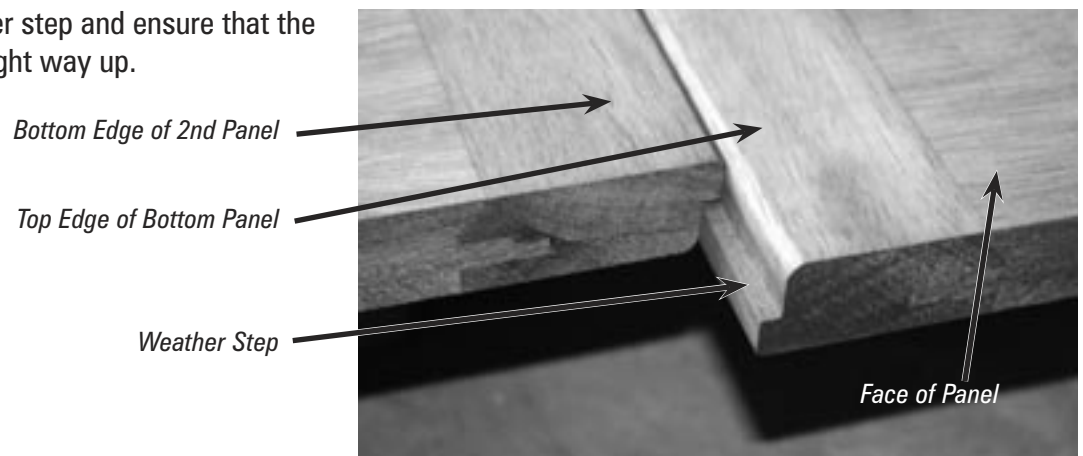
18. Fit the 3 intermediate #1 hinges



19. Place and prop the 2nd panel.



19a. Identify the weather step and ensure that the next panel is the right way up.





20. Fit a roller and a #2 hinge (left side)

20a. Manipulate a roller and a #2 hinge into the track and position the hinge on the Left edge of the panel.

#2 Hinge



20b. Screw the #2 hinge to the top corner of the panel, with a 5mm gap and the middle of the hinge flush with the top edge of the panel.

Top of 2nd Panel



21. Secure the top of the #1 hinge below to the 2nd panel.

#1 Hinge

2nd Panel

Top of Bottom Panel



22. Fit a roller and a #2 hinge (Right side).

22a. Screw the hinge to the top corner of the panel, with a 5mm gap and the middle of the hinge flush with the top edge of the panel.

Right Track

Roller

#2 Hinge



23. Secure the top of the #1 hinge below to the 2nd panel.

#1 Hinge



24. Secure the tops of the 3 previous intermediate #1 hinges.



25. Fit the next 3 #1 hinges to the top of the 2nd panel.

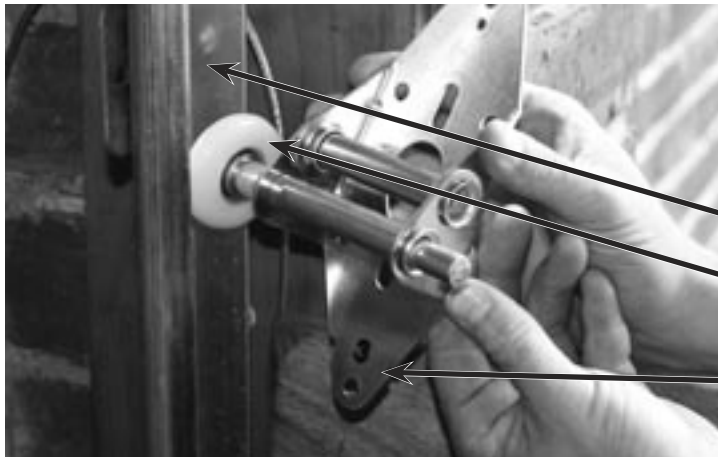
#1 Hinges



26. Place and prop the 3rd panel.

3rd Panel





27. Fit a roller and a #3 hinge (left side)

27a. Manipulate a roller and a #3 hinge into the track and position the hinge on the Left edge of the panel.

Left Track

Roller

#3 Hinge



27b. Screw the #3 hinge to the top corner of the panel, with a 5mm gap and the middle of the hinge flush with the top edge of the panel.



28. Secure the top of the #2 hinge below to the 3rd panel.

3rd Panel

#2 Hinge



29. Fit a roller and a #3 hinge (Right side)

29a. Manipulate a roller and a #3 hinge into the track and position the hinge on the Right edge of the panel.

Right Track

Roller

#3 Hinge



29b. Screw the #3 hinge to the top corner of the panel, with a 5mm gap and the middle of the hinge flush with the top edge of the panel.



30. Secure the top of the #2 hinge below to the 3rd panel.

3rd Panel

#2 Hinge



31. Secure the tops of the 3 previous intermediate #1 hinges.



32. Fit the next 3 #1 hinges to the top of the 3rd panel.

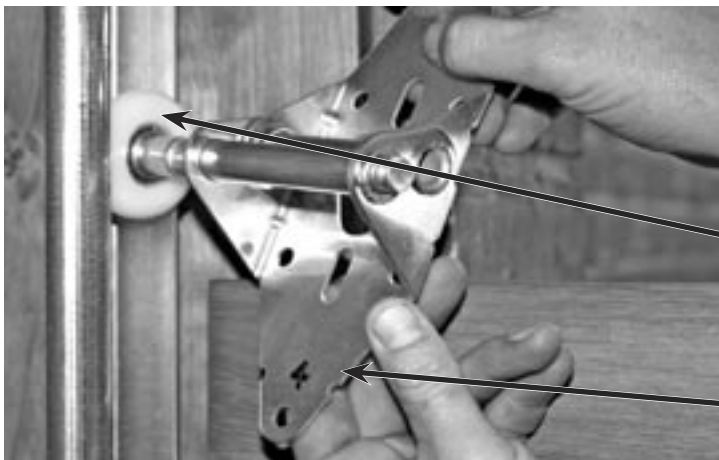
#1 Hinges





33. Place and prop the 4th panel.

4th Panel



34. Fit a roller and the #4 hinge (left side)

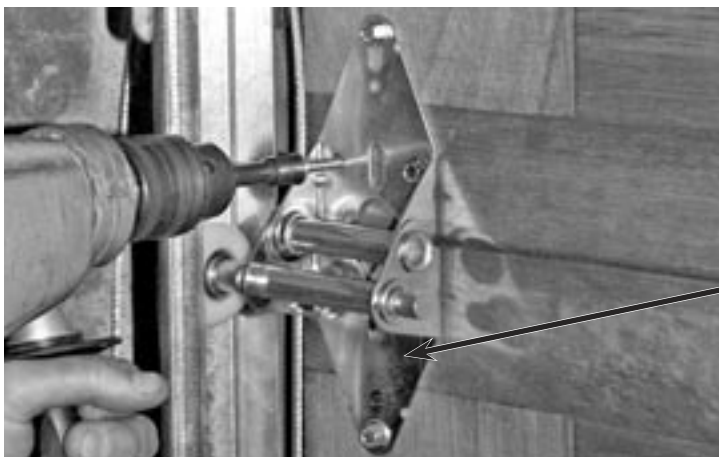
34a. Manipulate a roller and a #4 hinge into the track and position the hinge on the Left edge of the panel.

Roller

#4 Hinge



34b. Screw the #4 hinge to the top edge of the pan, with a 5mm gap and the middle of the hinge flush with the top edge of the panel.



35. Secure the top of the #3 hinge below to the 4th panel.

#3 Hinge



36. Fit a roller and the #4 hinge (Right side)

36a. Manipulate a roller and a #4 hinge into the track and position the hinge on the Right edge of the panel.

#4 Hinge

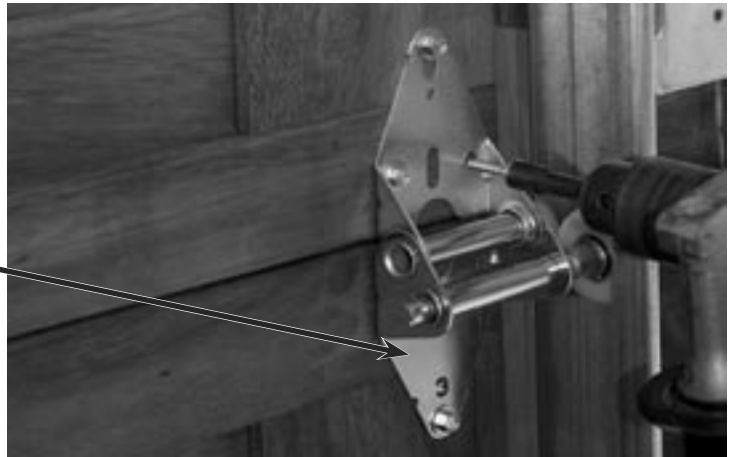


36b. Screw the #4 hinge to the top edge of the panel, with a 5mm gap and the middle of the hinge flush with the top edge of the panel.



37. Secure the top of the #3 hinge below to the 4th panel.

#3 Hinge



38. Secure the tops of the 3 previous intermediate #1 hinges.



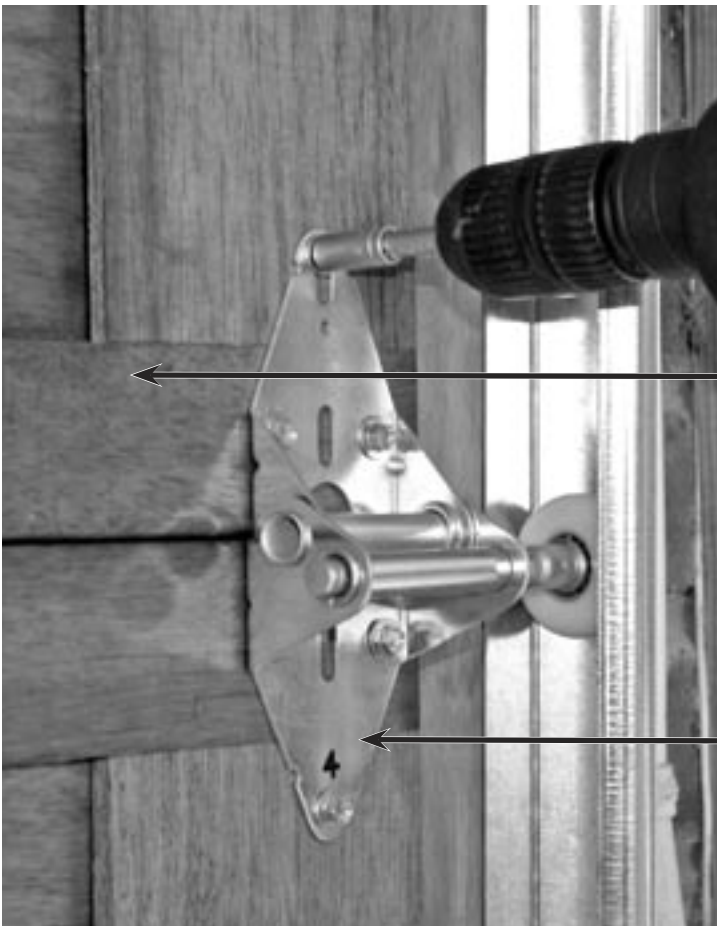


39. Fit the next 3 #1 hinges to the top of the 4th panel.



40. Place and prop the 5th panel.

5th (Top) Panel



41. Secure the tops of all the previous hinges to the bottom of the 5th panel.

5th (Top) Panel

#4 Hinge



Section 4: Adjusting the 'Fit' of the Door

42. Adjust the J-Brackets (Left)

Slacken the flange-nuts on each 'J' bracket.

Starting at the bottom, press the panels and the track forward to leave a slight gap between the face of the panels and the jamb lining, and tighten the flange-nut of the 'J' Bracket along side.

Move up and repeat these steps at each bracket in turn.



Flange Nut
Inside



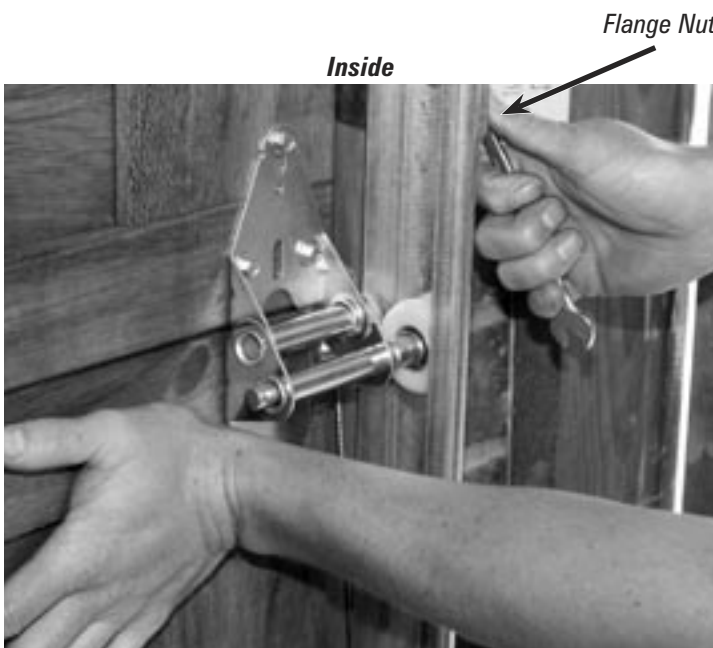
Slight Gap
Outside

43. Adjust the J-Brackets (right)

Slacken the flange-nuts on each 'J' bracket.

Starting at the bottom, press the panels and the track forward to leave a slight gap between the face of the panels and the jamb lining, and tighten the flange-nut of the 'J' Bracket along side.

Move up and repeat these steps at each bracket in turn.



Flange Nut
Inside



Slight Gap
Outside



Section 5: Mounting the Flag Brackets

44. Mount the Flag Bracket (left)

44a. Use two Track Bolts and flange-nuts to fit the top of the track to the bottom slot of the flag bracket.

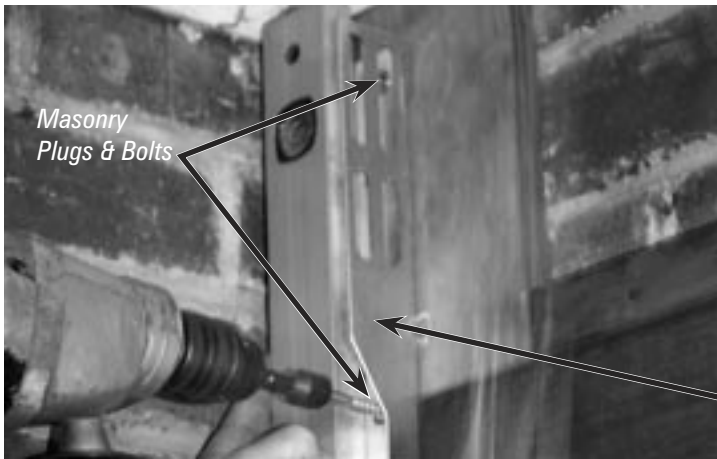


Left Flag Bracket

2 Flange Nuts

2 Track Bolts

44b. Ensuring they are vertical, use masonry plugs and bolts to secure the Flag bracket through the jamb lining.

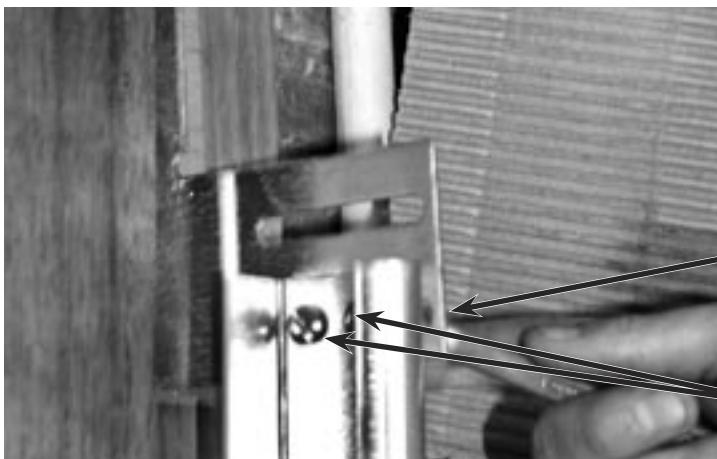


*Masonry
Plugs & Bolts*

Left Flag Bracket

45. Mount the Flag Bracket (right)

45a. Use two Track Bolts and flange-nuts to fit the top of the track to the bottom slot of the flag bracket.



2 Flange Nuts

2 Track Bolts



- 45b. Ensuring they are vertical, use masonry plugs and bolts to secure the Flag bracket through the jamb lining.

Masonry Plugs & Bolts



Section 6: Assembling and fitting the Horizontal Tracks

46. Assemble the track angle, horizontal track and bend (left)

- 46a. Identify the left horizontal track (with the group of 3 single holes at the far end), and, using track bolts and flange-nuts, double bolt it to the track angle using the rear pattern of 4 holes. Do not tighten fully at this stage.

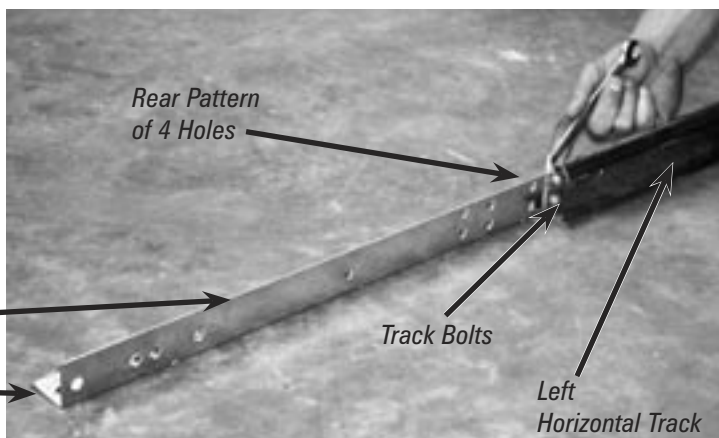
Track Angle

Front End

Rear Pattern of 4 Holes

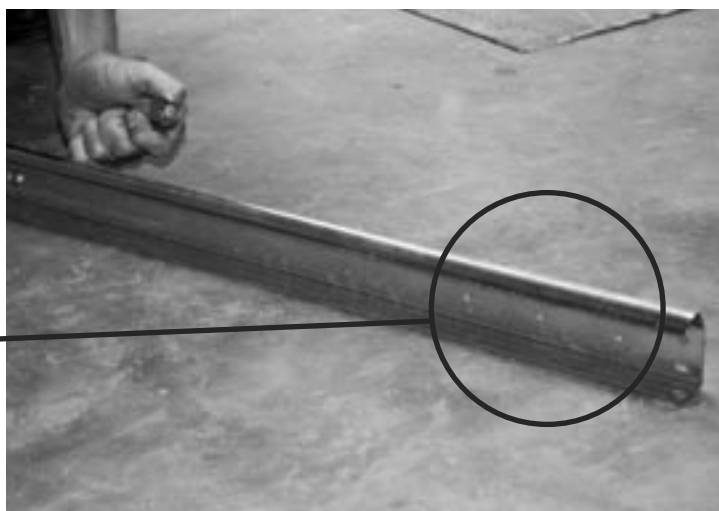
Track Bolts

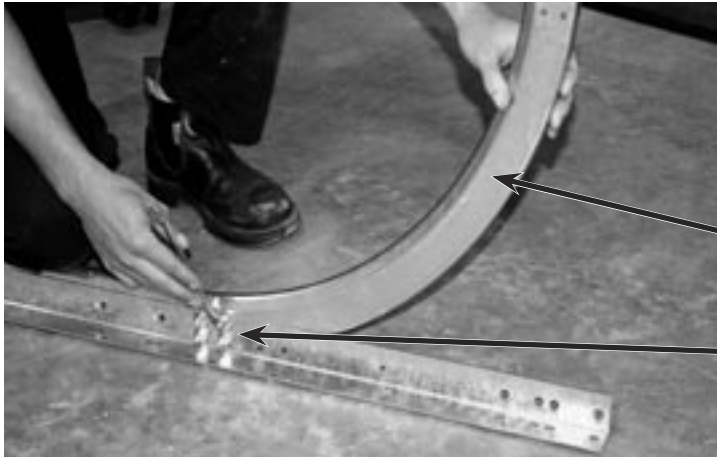
Left Horizontal Track



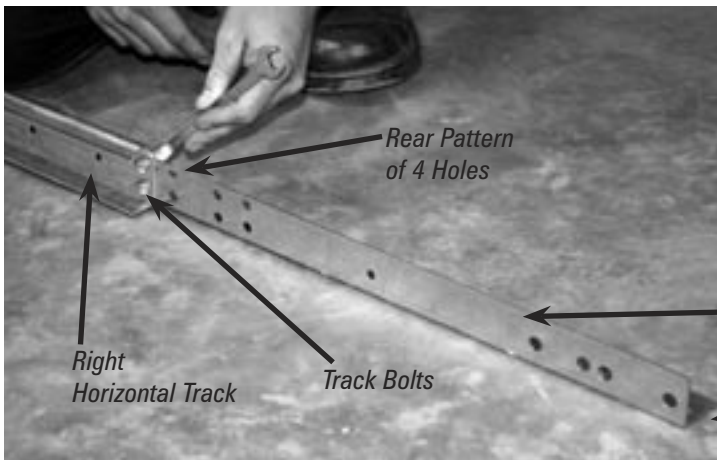
- 46b. Bolt the middle and the end of the track angle to the track. Do not tighten fully at this stage.

3 Holes at the Rear of Track



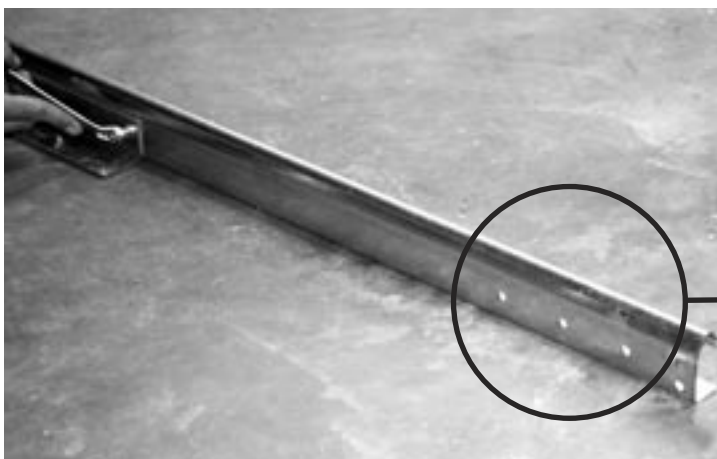


46c. Using track bolts and flange-nuts, double bolt a curve to meet the track. Do not tighten fully at this stage.



47. Assemble the Track Angle, horizontal track and bend (Right)

47a. Identify the left horizontal track (with the group of 3 single holes at the far end), and, using track bolts and flange-nuts, double bolt it to the track angle using the rear pattern of 4 holes. Do not tighten fully at this stage.



47b. Bolt the middle and the end of the track angle to the track. Do not tighten fully at this stage.



47c. Using track bolts and flange-nuts, double bolt a curve to meet the track. Do not tighten fully at this stage.



48. Bolt the horizontal tracks and bends to the flag brackets (left)

48a. While holding the curve assembly in place, fit a 3/8" bolt and nut through the front hole and slot in the angle flag bracket. Do not tighten fully at this stage.

3/8" Bolt & Nut

Front Hole & Slot



48b. Using two track bolts and flange-nuts, bolt the bottom of the Curve to the top slot of the flag bracket. Align the curve where it meets the track below, and tighten the flange-nuts.

48c. Align the curve where it meets the horizontal track and, while holding the track level, tighten the 3/8" nut and bolt and all the flange-nuts on the horizontal track.

Track Bolts & Flange Nut

Align the Curve with the Track



49. Bolt the horizontal tracks and bends to the flag brackets (right)

49a. While holding the curve assembly in place, fit a 3/8" bolt and nut through the front hole and slot in the angle flag bracket. Do not tighten fully at this stage.

3/8" Bolt & Nut

Front Hole & Slot



49b. Using two track bolts and flange-nuts bolt the bottom of the Curve to the top slot of the flag bracket. Align the curve where it meets the track below, and tighten the flange-nuts.

49c. Align the curve where it meets the horizontal track and, while holding the track level, tighten the 3/8" nut and bolt and all the flange-nuts on the horizontal track.

Track Bolts & Flange Nut



Section 7: Fitting the Top Brackets and Rollers



50. Fit a Top Bracket with a roller to the top Left corner of the top panel.

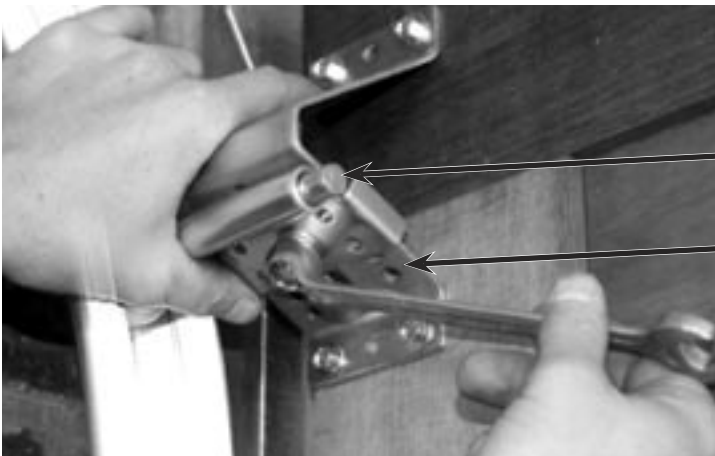
50a. 120mm from the centre of the Roller to joint between the track and curve, and –

Roller

Top Bracket



50b. – 5mm from the edge of the panel.



51. While pushing the top panel forward and holding the roller back, tighten the adjusting nut.

Roller

Top Bracket



52. Fit a Top Bracket with a roller to the top Right corner of the top panel.

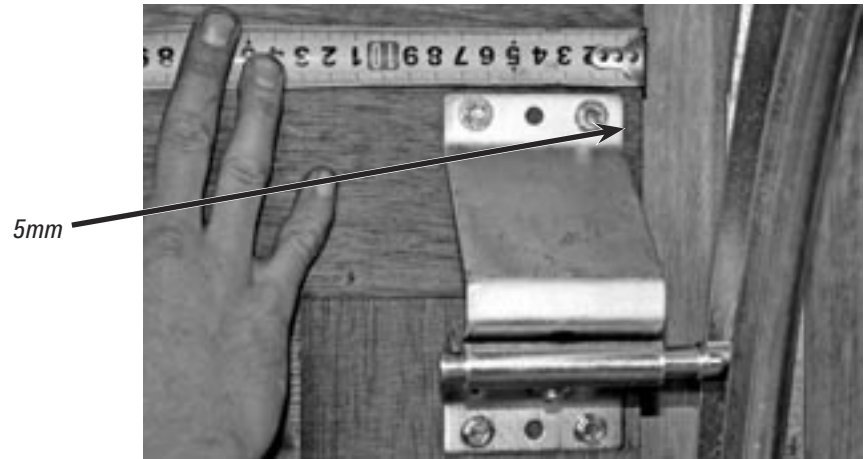
52a. 120mm from the centre of the Roller to joint between the track and curve, and –

Roller

Top Bracket



52b. – 5mm from the edge of the panel.



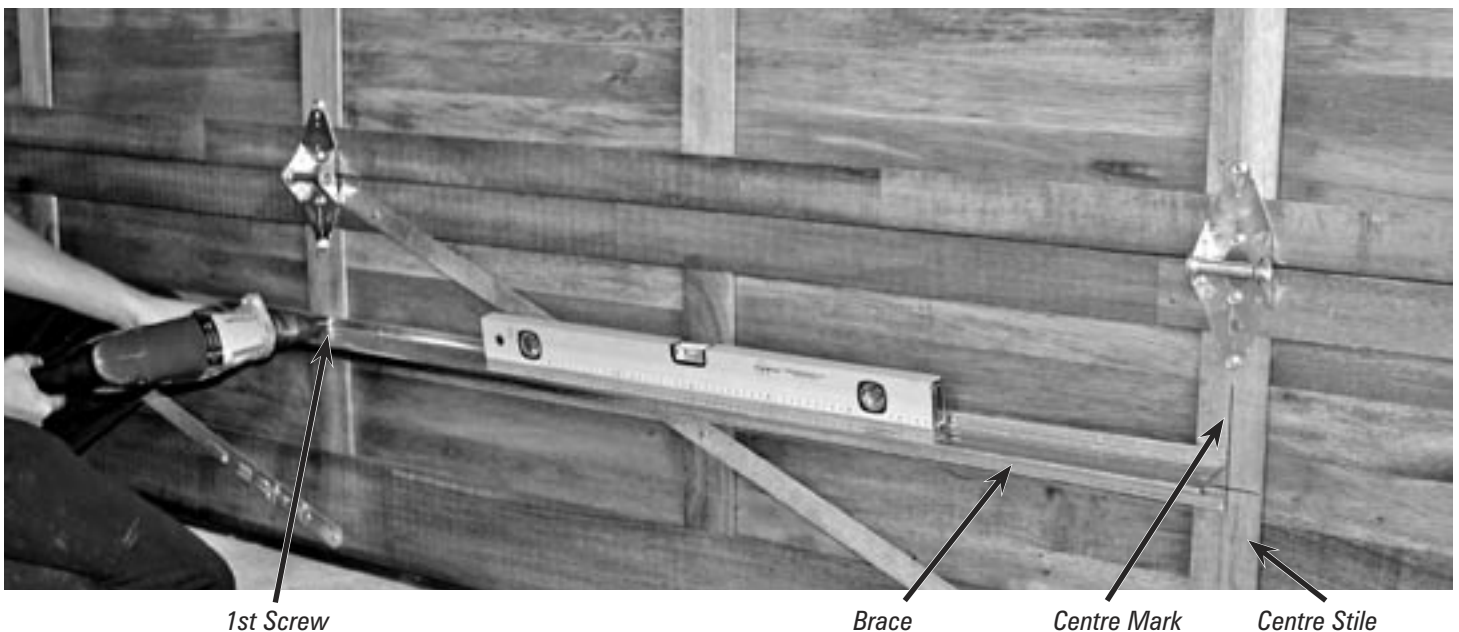
53. While pushing the top panel forward and holding the roller back, tighten the adjusting nut.



Section 8: Fitting the Double Door Braces

54. Fitting the Double Door Braces on each Panel

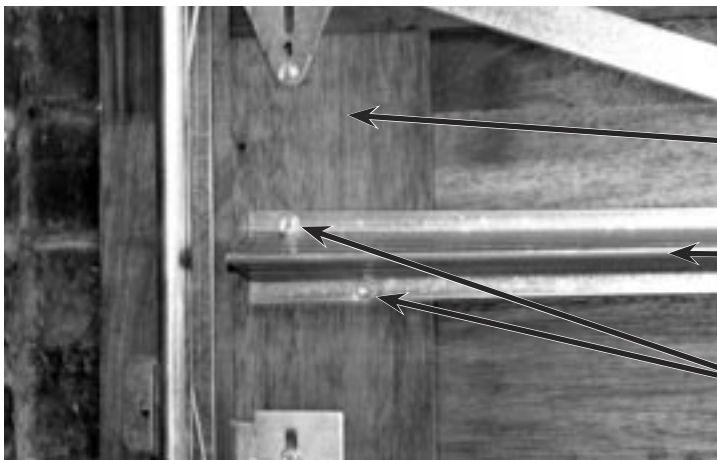
54a. Fit the Left half midway, 2mm left of center and level, putting the 1st screw 2 away from centre stile.





54b. Fit the 2nd screw below, and in the centre of the next stile to the left.

2nd Screw



54c. Fit 2 screws, 1 above and 1 below, at the end of the brace and into the end stile.

End Stile

Brace

2 Screws

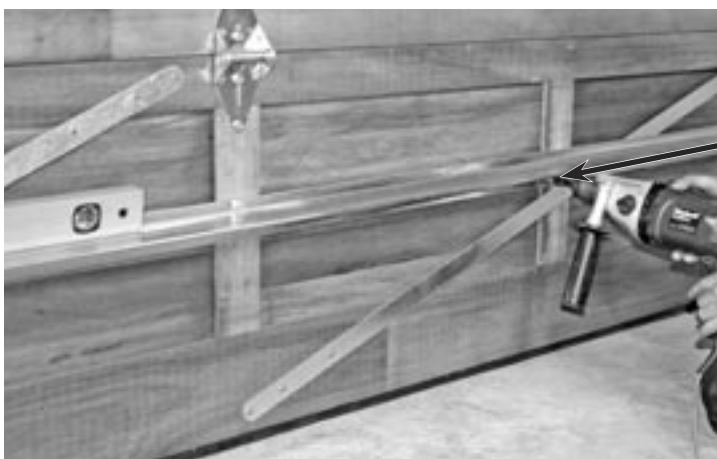


Centre Stile

54d. Fit the Right half midway, 2mm right of center and level, putting the 1st screw 2 away from centre stile.

1st Screw

Brace



54e. Fit the 2nd screw below, and in the centre of the next stile to the left.

2nd Screw



54f. Fit 2 screws, 1 above and 1 below, at the end of the brace and into the end stile.

End Stile

Brace

2 Screws

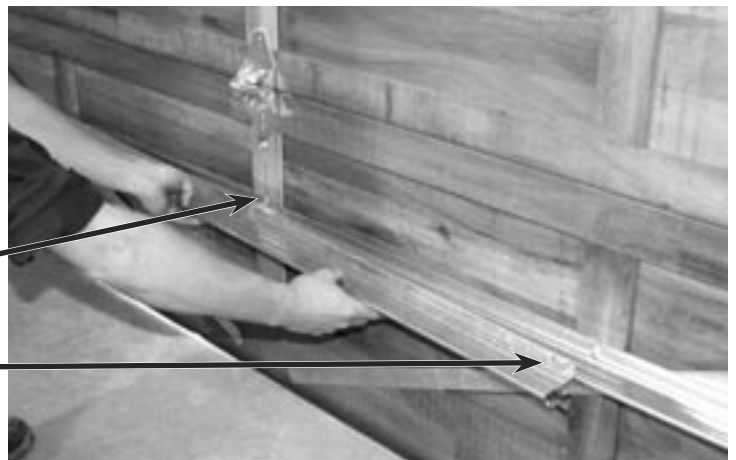


54g. Place the joiner over the Left and Right halves, with the centre holes aligned with the gap between the halves.

Drive six screws in through the pre-drilled holes in the joiner.

Gap

Pre-drilled Holes



55. Repeat these steps to fit braces to the rest of the panels.



56. Fit the Inside Handle at the foot of the bottom panel as shown.



Section 9: Installing the Counter-balance System



57. Check the half-shaft lengths from the middle of the door –

Half-shaft

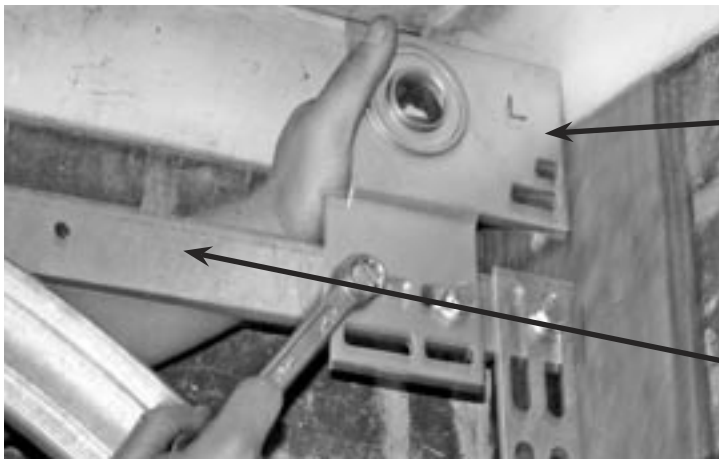
Centre Mark



58. – to the side wall; trim to leave about a 30mm gap.

Half-shaft

Side wall



59. Bolt the Left Bearing Plate to Left track angle.

Left Bearing Plate

Left Track Angle



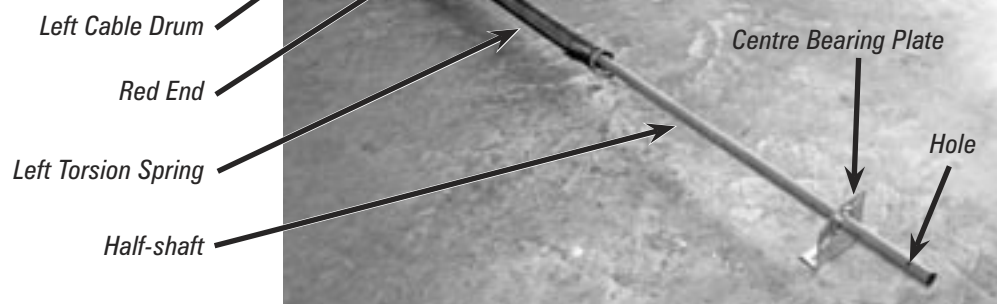
60. Bolt the Right Bearing Plate to Right track angle.

Right Bearing Plate

Right Track Angle



61. Slide the following parts onto the left cross shaft half in this order, from left to right: Left Cable Drum, Left Torsion Spring (with the Red end to the left), and a Centre Bearing Plate.



62. Slide the Left end of the shaft through the Left Bearing plate and Bolt the Centre Bearing Plate, so that the shaft is level.

Masonry
Plugs & Bolts

Centre Bearing Plate
Note the Cut Corner at the Bottom



63. Slide the Coupling over the end of the shaft next to the Centre Bearing plate.

Coupling



64. Slide the following parts onto the right cross shaft half in this order, from right to left: Right Cable Drum, Right Torsion Spring (with the Black end to the right), and the other Centre Bearing Plate.

Hole

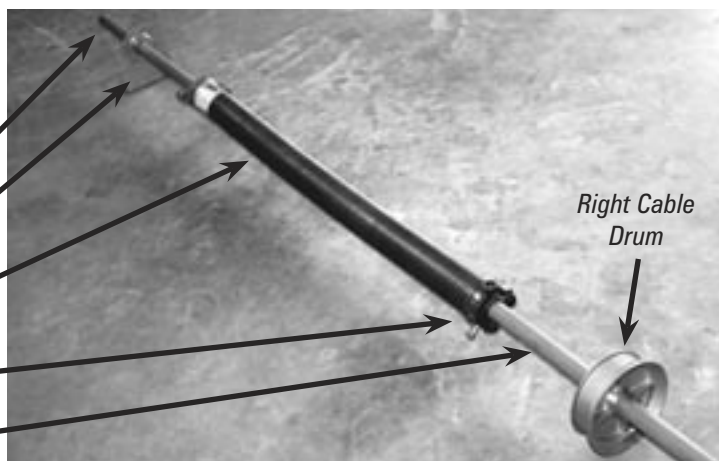
Centre Bearing Plate

Right Torsion Spring

Black End

Half-shaft

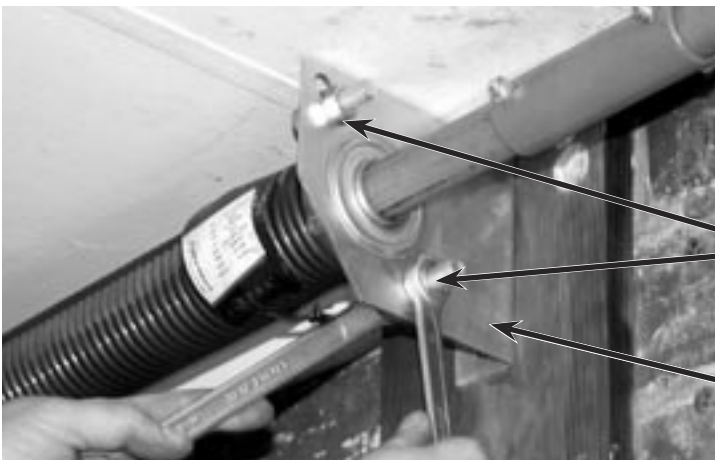
Right Cable Drum





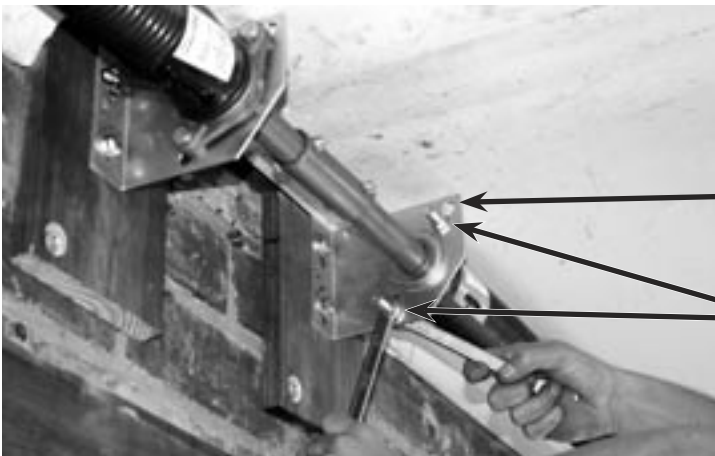
- 65. Slide the Right end of the shaft through the Right Bearing plate, and slide the other end into the coupling.
- 66. Slide the coupling to the centre and fit the two M6 bolts and lock nuts.

Centre Bearing Plate
Masonry Plug & Bolt
M6 Bolt & Lock Nut



- 67. Bolt the Centre Bearing Plate, ensuring that the shaft halves are level.
- 68. Bolt the Left spring to the Left centre bearing plate.

3/8" Bolts & Nuts
Left Centre Bearing Plate



- 69. Bolt the Right spring to the Right centre bearing plate.

Right Centre Bearing Plate
3/8" Bolts & Nuts



- 70. Locate the 3mm cable in the slot on the left cable drum and draw in the cable so that the loop abuts inside the drum.

Slot



71. While holding the cable in the groove, hold the left cable drum against the Left Bearing Plate, and –

Left Cable Drum

Left Bearing Plate



72. -tighten the grub screws.

Grub Screws



73. While turning the drum by hand to keep the cable taut in the groove, clamp vise grip pliers on the cross shaft, with the handle against the ceiling or the front wall.

Vise Grip Pliers



74. Locate the 3mm cable in the slot on the Right cable drum and draw in the cable so that the loop abuts inside the drum.

Slot





75. Move the Right cable drum up against the Right Bearing Plate, and –

Right Cable Drum

Right Bearing Plate



76. – while turning the drum to keep the cable taut in the groove, tighten the grub screws.

Grub Screws

Section 10: Winding the Springs



Note. Before winding, apply a coating of general-purpose grease to the springs.

Note. Make sure the ladder is stable and suitably positioned.

Important. Springs can be dangerous; work carefully and deliberately.



77. Winding the Left spring

77a. Insert one winding bar into one of the sockets of the fitting on the left spring.

Socket

1st Winding Bar

Shaft

Vise Grip Pliers



77b. Lift the 1st bar and insert the other bar.

2nd Winding Bar



78. Repeat steps a. and b., noting that the coloured stripe starts to twist around the spring.

79. Continue winding, occasionally resting the bar against the door to check the number of turns, by counting the stripe segments, starting at 'zero'.

Stripe Segments



80. When $7\frac{1}{2}$ turns have been applied, hold the bar against the shoulder and tighten the grub screws.

Grub Screws



81. Winding the Right spring

81a. Insert one winding bar into one of the sockets of the fitting on the Right spring.



Socket

1st Winding Bar

81b. Lift the 1st bar and insert the other bar.



2nd Winding Bar

82. Repeat steps a. and b., noting that the coloured stripe starts to twist around the spring.

83. Continue winding, occasionally resting the bar against the door to check the number of turns, by counting the stripe segments, starting at 'zero'.



Stripe Segments

84. When 7 1/2 turns have been applied, hold the bar against the shoulder and tighten the grub screws.



Grub Screws



85. Fit the Spring Warning Label in a prominent position.



Section 11: Supporting the Horizontal Tracks

86. Using the punched angle material supplied, support the tracks to the roof structure by means of vertical struts or fabricated triangular brackets to the side walls, as in the following examples:

Triangular Bracket to the Side Wall

86a. Note the distance to the sidewall.

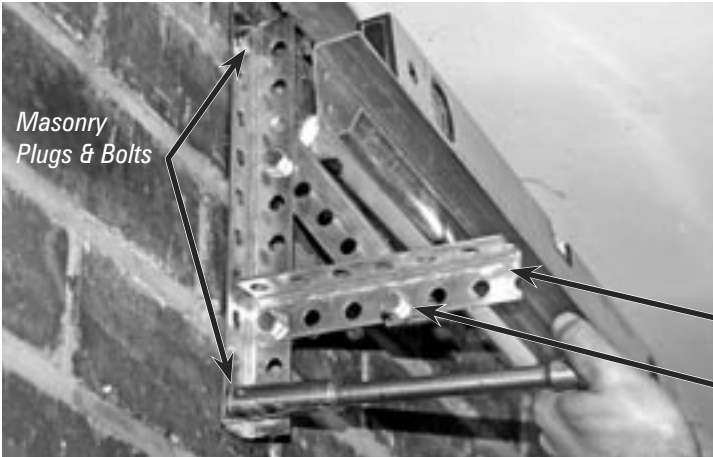
Horizontal Track

Side Wall



86b. While holding the horizontal track level, note the distance above the track.





86c. Using these dimensions, make up a triangular bracket and bolt it securely to the sidewall.

Note that this bracket must be sturdy enough to carry the full weight of the door when it is open.

Also note that the horizontal part of the bracket is made slightly longer to allow the track to be correctly positioned to suit the door, when it is opened.

Horizontal Part Slightly Longer
3/8" Bolts & Nuts



87. Triangular Structure from the Ceiling

87a. Take the outside measurement from the Left to the Right vertical tracks.

Measurement from Left to Right Track



87b. Use this dimension to position the Right horizontal track, and mark this position on the ceiling, using a spirit level.

Mark



87c. While holding the horizontal track level, note the distance from the ceiling to the lower edge of the track.

Measurement to the Ceiling

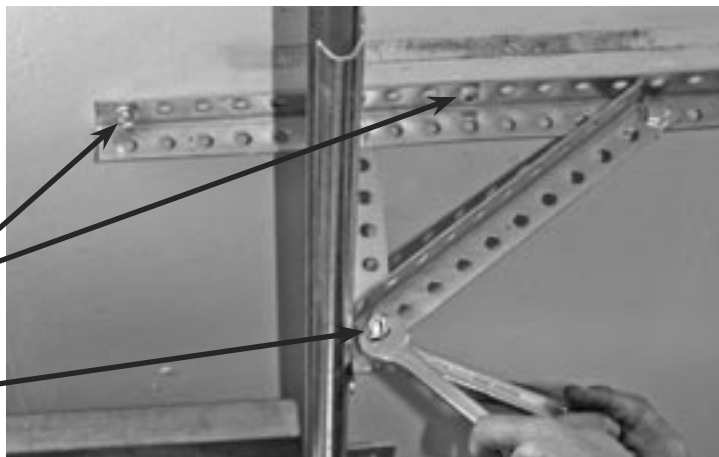


87d. Using these dimensions, make up a triangular bracket and bolt it securely to the timber above the ceiling board.

Note that this bracket must sturdy enough to carry the full weight of the door when it is open.

Coach Screws into timber above ceiling

3/8" Bolts & Nuts



88. Remove the vise grips from the cross shaft.

89. Carefully open the door by hand, noting that it may be necessary to move the horizontal tracks slightly to the left or right, as the door establishes its correct position.

90. The gaps, left and right, between the door edges and the horizontal tracks should be parallel and equal.

TEST THE DOOR FOR CORRECT BALANCE.

Move the door by hand and release it in any position. The door should remain in that position, although it is acceptable for the door to rise or fall a small amount (about 25mm).

If adjustment is needed, refer to the section 'Winding the Springs'. Re-fit the vise grips to lock the cross shaft. As needed, increase or reduce the turns of each spring, a quarter turn at a time. Remove the vise grips and test for correct balance. Repeat this procedure if necessary.

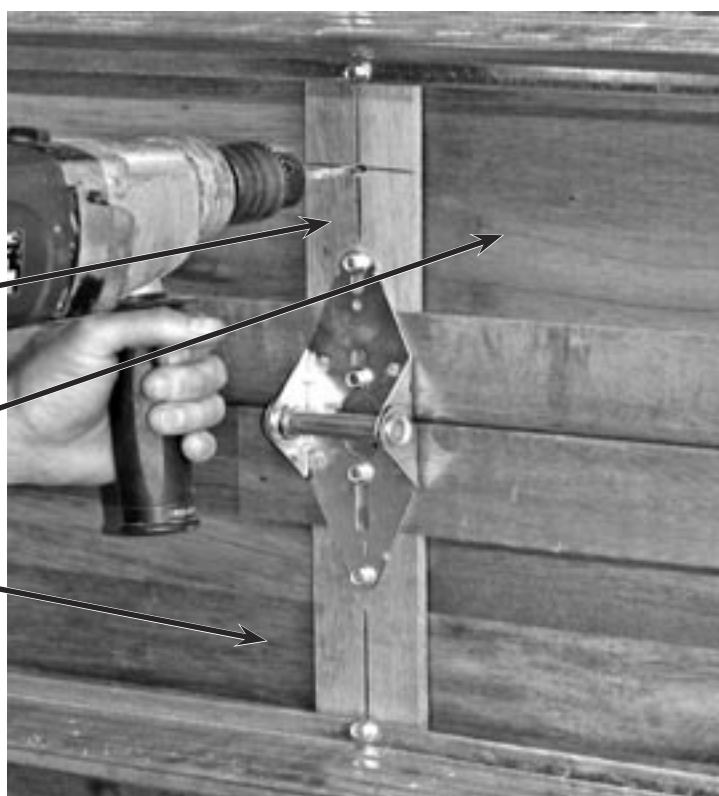
Section 12: Fitting the Centre Lock

1. From the inside, on the centre stile of the second panel from the floor, mark a point on centreline below the brace, midway between the hinge and the brace.
2. Holding the drill straight and level, drill a pilot hole (about 4 to 6mm) through the panel.

Centre Stile

2nd panel

Bottom Panel





3. From the outside, drill a 10mm hole through the pilot hole.

Centre Stile

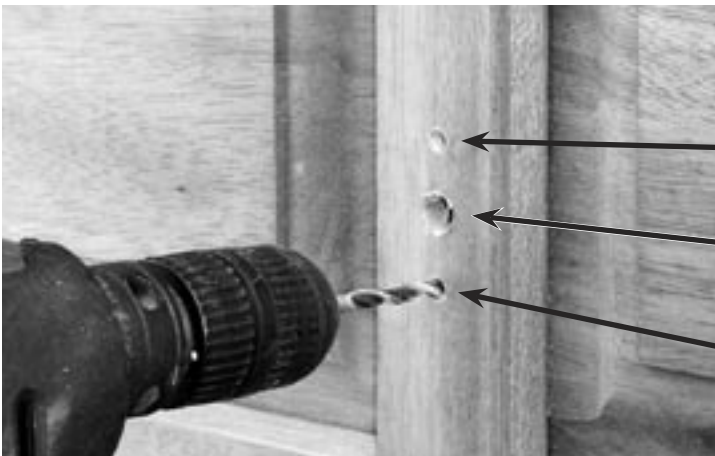
2nd panel



4. Insert the Centre Handle and mark the mounting holes.

Mounting Hole

Centre Handle



5. Drill, straight and level, 6mm holes for the mounting screws.

6mm Holes

10mm Hole

6mm Holes



6. Fit the inside swivel handle and tighten the nuts.

Swivel Handle



7. Cut off the surplus shank, leaving about 10 to 20mm

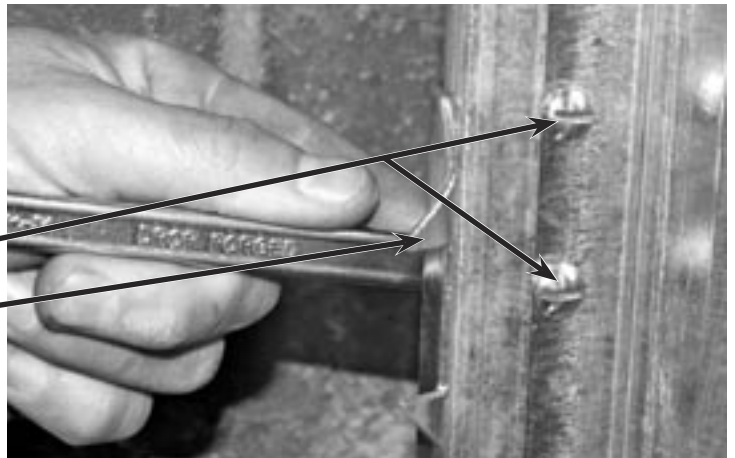
Shank



8. Bolt a catch plate on the outside of the Left track.

Track Bolts

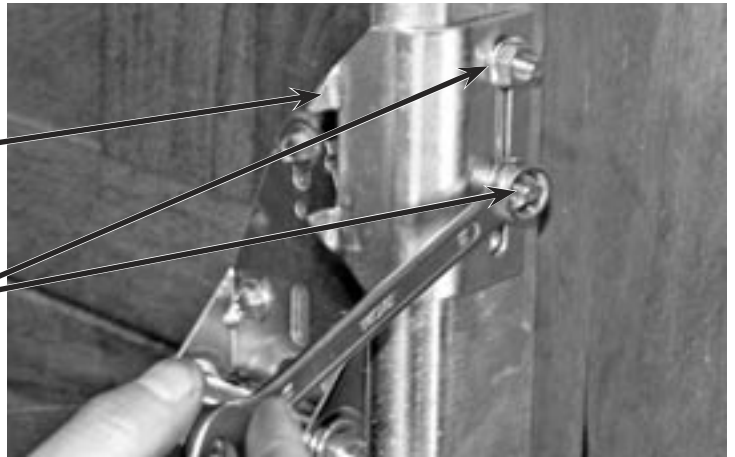
Catch Plate



9. Bolt the other catch plate on the outside of the Right track.

Catch Plate

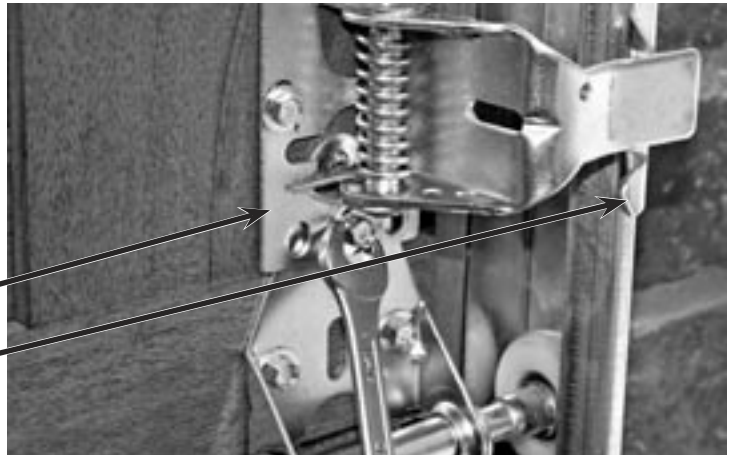
Flange Nuts

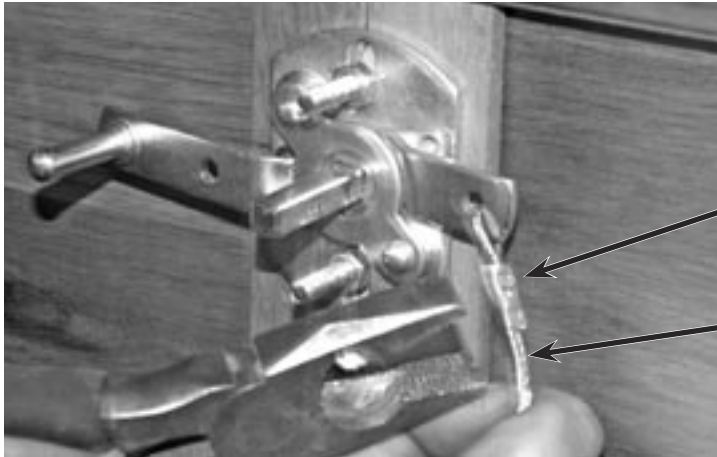


10. Bolt a lock to the Left and the Right sides of the door so that they engage with the catch plates.

Lock

Catch Plate

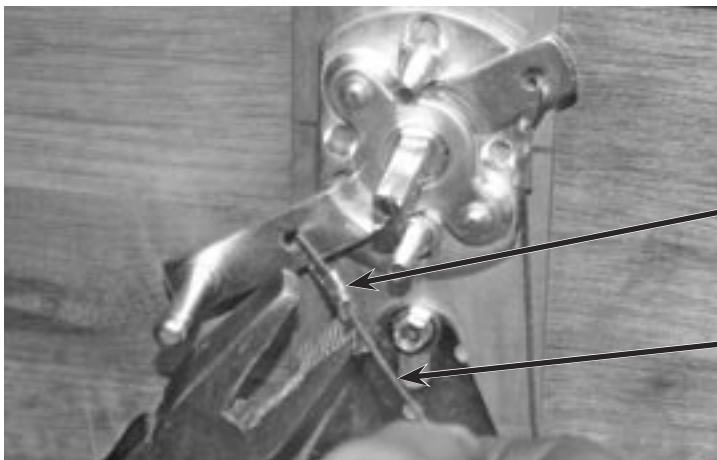




11. Crimp one cable to the free end of the swivel handle.

Crimp

Cable



12. Crimp the other cable to the other end of the swivel handle.

Crimp

Cable



13. Thread the cable through the Left lock, take up the slack, and crimp the cable.

Crimp

Cable



14. Thread the other cable through the Right lock, take up the slack, and crimp the cable.

Crimp

Cable



