

ARCADIAN PRODUCTS

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DOOR LIFTING GEAR AP 150-200-250

Maximum Door Weight: AP 150 = 68kg (150lbs) AP 200 = 90kg (200lbs) AP 250 = 114kg (250lbs)

This door gear has been designed for quick and easy installation. Through careful design it is possible to adjust the door after installation for very smooth operation. To obtain these benefits read the instructions RIGHT through BEFORE installation.

CAUTION

ALWAYS raise and prop the door in the open position before fitting, adjusting or removing the springs.

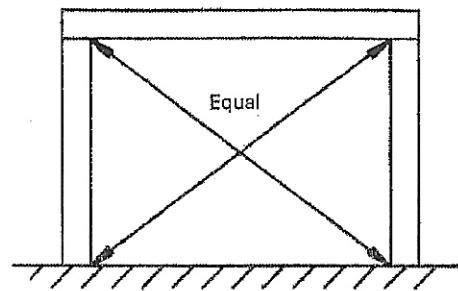
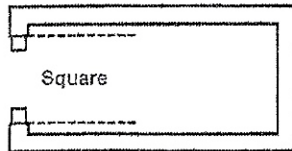
All instructions are given from within the garage.

Firstly unpack and identify the parts (right hand assembly shown).

Description	AP 150		AP 200- AP 250	
Track stabiliser bracket	2 off		4 off	
Track support bracket	2 off		4 off	
M10 Washer	4 off		4 off	
M10 x 80 Sets and Nuts	2 off		2 off	
Track with track bracket	2 off		2 off	
Rubber buffer and bracket	2 off		2 off	
Top roller bracket	2 off		2 off	
Circlips	4 off		4 off	
Top roller spindles	2 off		2 off	
Top weather strip	2 off		2 off	
Rubbing strips	2 off		2 off	
Bottom weather strip with Activating arm and top spring anchor fitted	2 off		2 off	
Spring	2 off		2 off	
Spring anchor bolt	2 off		2 off	
M10 Nuts	4 off		4 off	
M10 Washers	4 off		4 off	
Spring anchor bracket	2 off		2 off	
Screw Pack				
M8 x 60 Hex head coachscrews	4 off		4 off	
M8 x 40 Hex head coachscrews	8 off		8 off	
No 12 x 3/4" self tapping screws	14 off		14 off	
M8 x 20mm bolts & nuts	8 off		8 off	
M8 Washers	16 off		16 off	
M10 x 90 coachbolts & nuts	8 off		8 off	
M10 x 60 Hex head coachscrews	4 off		4 off	
M10 Washers	12 off		12 off	
FOR ARCADIAN ADD EXTRA				
M8 x 40 coachscrews	4 off			
No. 12 x 3/4" self tapping screws	22 off			

STEP 1 FRAME DETAILS

Minimum timber frame size 70mm x 70mm.
Frame must be square, check diagonals.
Frame must also be square with opening.

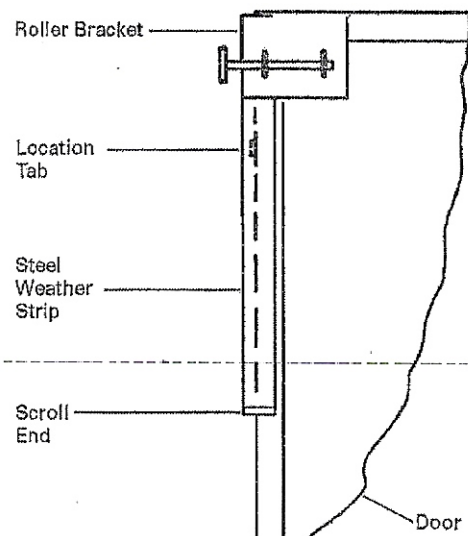
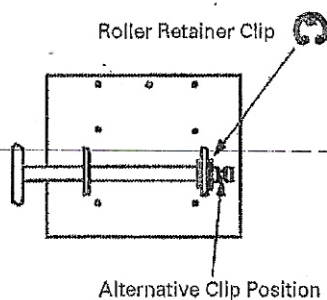


STEP 2 FIT TOP ROLLERS AND WEATHER STRIPS

GO STRAIGHT TO STEP THREE IF TOP ROLLER BRACKETS AND WEATHER STRIPS ARE PRE-FITTED

Locate the top roller bracket flush with the top of the door matching the same overhang as the top weather strip. On doors OVER 50mm (2") thick, lower the top roller bracket by the same amount. i.e. door thickness 62.5mm (2½") lower the bracket by 12.5mm (½"). Fix the roller bracket and weather strip using No. 12 x ¾" self tapping screws.

TAKE GREAT CARE NOT TO DRILL RIGHT THROUGH THE DOOR FACE

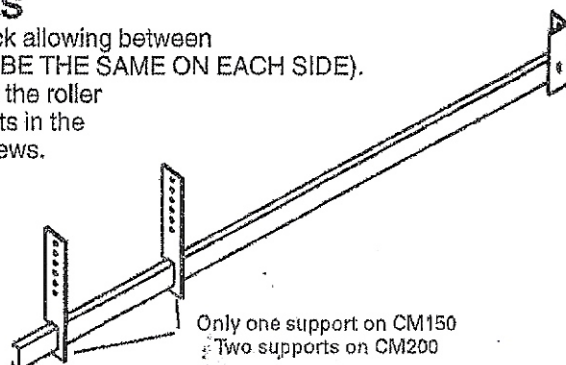


STEP 3 POSITION DOOR IN OPENING

Wedge the door in the opening allowing 10mm side and head clearance and at least 10mm ground clearance.

STEP 4 INSTALL THE TRACKS

Locate track over roller, support rear of the track allowing between 25mm and 40mm fall to the rear. (THIS MUST BE THE SAME ON EACH SIDE). With the track JUST TOUCHING the bottom of the roller drill 2 x 6mm pilot holes in the middle of the slots in the track brackets. Fix using 2 x M8 x 60 coachscrews.

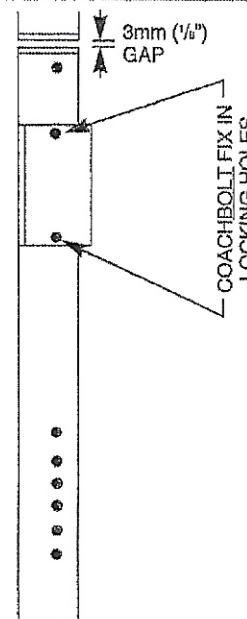


Slide on track support brackets and fasten to a suitable support square to the door and allowing the fall as above with 1 M8 x 40mm coachscrew. (Other supports will be fitted later). Fit rubber Buffers in rearmost track hole and adjust later to correct hole for door open position.

IMPORTANT TRACK HANGERS & STABILISERS MUST BE FITTED AS RECOMMENDED

STEP 5 INSTALLATION OF ACTIVATING ARMS

Locate the bottom weather strip allowing 3mm ($\frac{1}{8}$ ") gap, fix using No. 12 x $\frac{3}{4}$ " self tapping screws. Identify the two activating arm bracket holes in the weather strip (outer holes). Drill two 10mm holes through the frame to accept the M10 x 90mm COACHBOLTS. Feed coachbolts from the outside and securely fasten the activating arm. On doors with bottom slotted plate; locate and fix bottom door bracket using nuts, bolts, washers and strengthening plate provided. On doors without bottom slotted plate; locate door bracket and mark fixing position in the MIDDLE of the slots, drill 2 x 5mm PILOT holes and fix using M8 x 40mm coachscrews and strengthening plate.



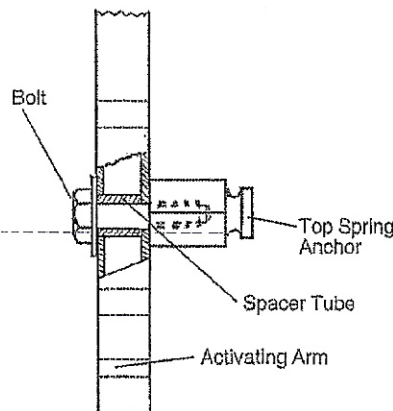
TAKE CARE NOT TO DRILL RIGHT THROUGH THE DOOR

IMPORTANT. For proper operation the frame must be square. If the frame is out of square the bottom weather strip **MUST** be square to the door otherwise the door will not operate correctly.

STEP 6 INSTALLATION OF SPRINGS

OPEN the door and prop it firmly in the fully open position. The top spring anchor is fitted as shown. (REFER TO STEP 8 IF RE-ADJUSTMENT IS REQUIRED FOR A GOOD BALANCE).

Locate spring over top spring anchor pin, hook spring anchor bolt over bottom of spring, locate bottom spring anchor bracket through spring bolt by about 25mm. Locate suitable fixing position and through one hole drill 10mm hole to accept M10 x 90mm coachbolt and drill 6mm pilot hole in the other fixing for M10 x 60mm coachscrew. Tighten spring about 25mm each side at this stage.



STEP 7 TRACK SUPPORTS

Remove the prop and if the arms are not in the vertical position, re-adjust the rubber buffer bracket the **SAME** at each side.

If the door is only touching one buffer the tracks are **NOT** square. From behind the door if the left hand buffer is not touching the roller move **BOTH** tracks to the **RIGHT**. When both rollers are touching both buffers and the activating arms are both at the same position the tracks are square. Now secure the track hangers and stabilisers. Finally recheck all is square.

STEP 8 DOOR BALANCE

If the door closes too easily:

Prop the door in the fully open position then remove spring and move the spring anchor pin **DOWN** one hole, be sure to retighten pin fully. Repeat for both sides.

If the door is hard to close:

Prop the door in the fully open position then remove spring and move the anchor pin **UP** on hole, be sure to retighten pin fully, repeat for both sides.

The **BOTTOM** spring adjustment will assist in enabling the door to cover the top one third of opening increasing the tension will increase the spring pretension improving the opening and closing at the higher end of the door.

STEP 9 DOOR ADJUSTMENT

The door should now be working in a satisfactory manner however, after installation the door can drop slightly check:

Is the gap between the top and bottom weather strips still 3mm ($\frac{1}{8}$ ").
If not SLIGHTLY loosen the coachscrews in the bottom activating arm bracket and raise door to achieve gap, then retighten coachscrews.

Are the top rollers just touching the bottom of the tracks? If not adjust front track brackets and retighten.

Is the door clear of the frame during opening and closing? If not check first that tracks are square, see STEP 7. If door still catches frame adjustment can be obtained by adjusting main activating arm brackets, loosen coachscrews SLIGHTLY adjust then retighten screws.

STEP 10 OILING THE DOOR GEAR

For the smooth running of the door it is important to oil the moving parts.

1. The four pivots on the activating arms
2. The roller wheels
3. The top spring attachments

IMPORTANT SAFETY PRECAUTIONS

Adjust springs only when the door is in the open position. Before removing springs or spring anchor brackets use a prop to securely keep the door in the open position. Release the spring tension by unscrewing adjustment nuts.

NEVER ADJUST OR REMOVE THE SPRINGS WITH THE DOOR IN THE CLOSE POSITION.

In the light of the progress we reserve the right to alter the specification of materials and the method of assembly of these door gears, without notification.

PACKED BY:-

DATED

**WARNING TRACK END STOPS MUST BE FITTED BEFORE
OPENING THE DOOR.**

**PLEASE NOTE WHEN FITTING AP150/200/250/350/500
SHORT ARM GEAR YOU MAY NEED TO CUT AND RE-DRILL
THE TRACK SO THE SPINDLE FITS THE END STOP WHEN THE
DOOR IS OPEN**