

# DOOR LIFTING GEAR AP 150-200-250

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

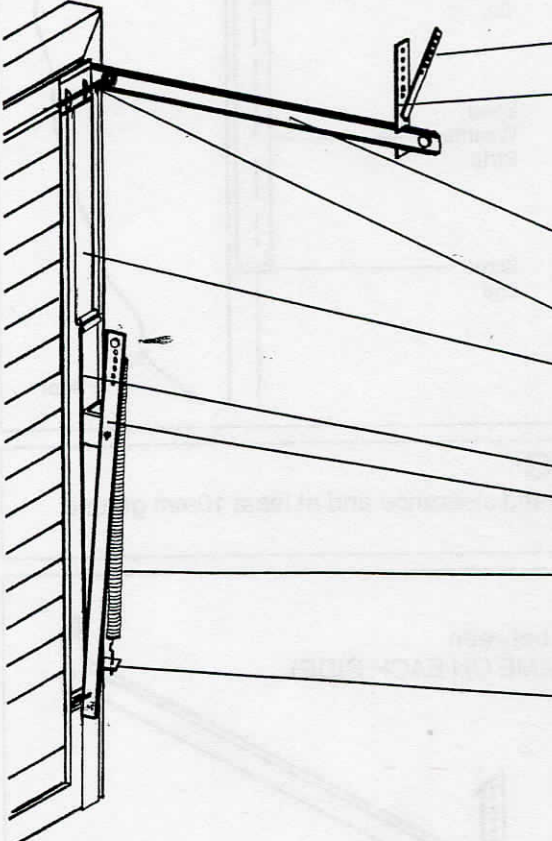
This door gear has been designed for quick and easy installation. Through careful design it is possible to adjust the door after installation for very smooth operation. To obtain these benefits read the instructions RIGHT through BEFORE installation.

## CAUTION

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

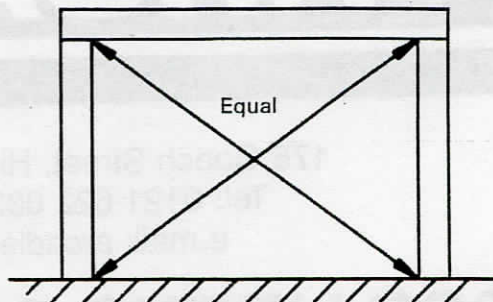
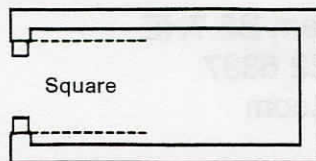
All instructions are given from within the garage.

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 30 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.

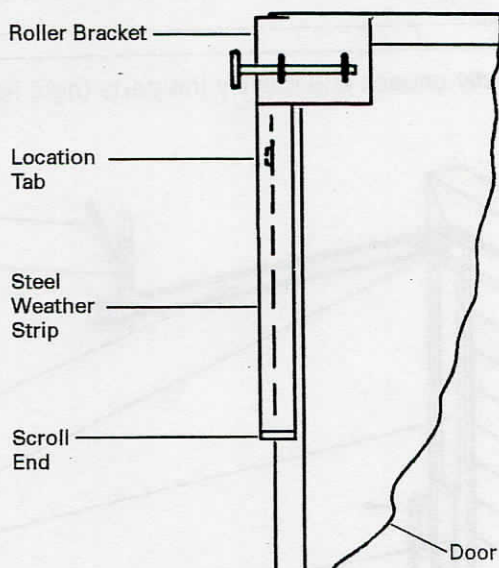
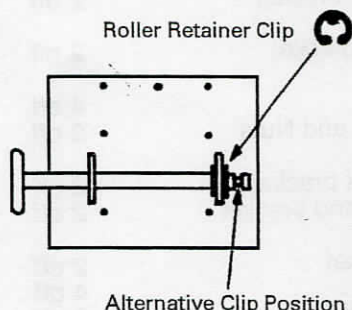


## STEP 2 FIT TOP ROLLERS AND WEATHER STRIPS

**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 (2 1/2") lower the bracket by 12.5mm (1/2"). Fix the roller bracket and weather strip using No. 12 x 3/4" self tapping screws.

**TAKE GREAT CARE NOT TO DRILL RIGHT THROUGH THE DOOR FACE**

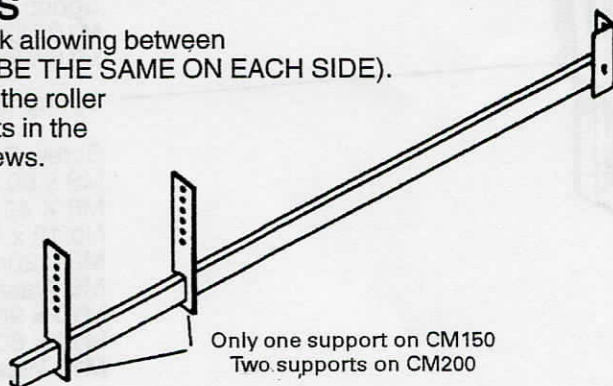


## STEP 3 POSITION DOOR IN OPENING

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.



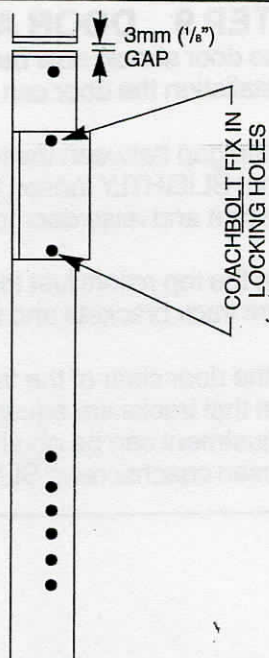
Slide on track support brackets and fasten to a suitable support square to the door and allowing the fall as above with 1 M8 x 40mm coachscrew. (Other supports will be fitted later).  
Fit rubber Buffers in rearmost track hole and adjust later to correct hole for door open position.

**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.



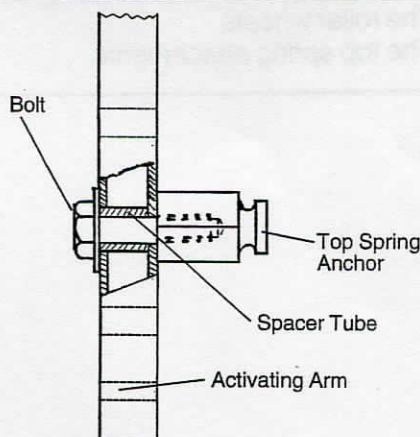
**TAKE CARE NOT TO DRILL RIGHT THROUGH THE DOOR**

**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.*



70 x 70 Fin timber goalpost in the opening  
fitted in between brick / underneath lintel.

