

DOOR LIFTING GEAR CM 500 BOX

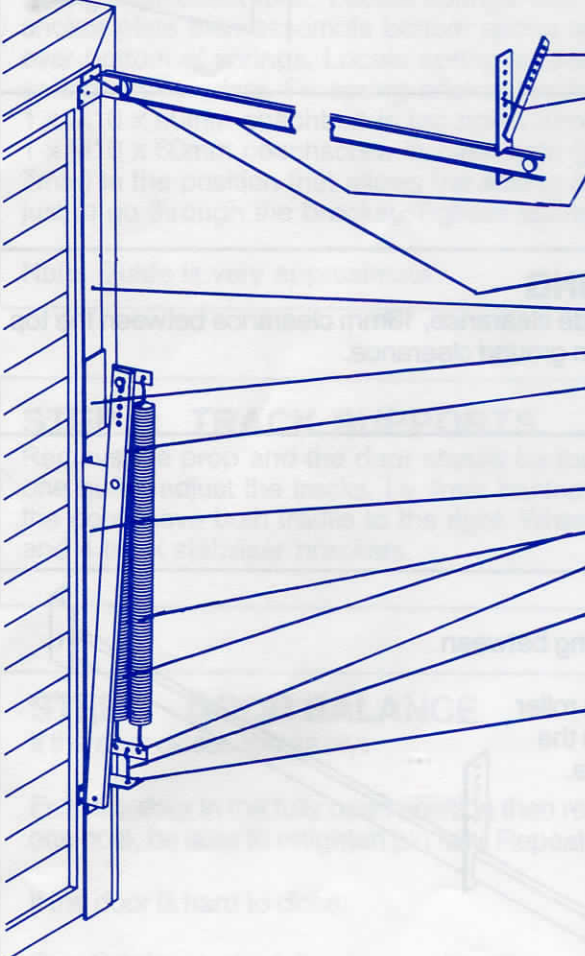
This door gear has been designed for quick and easy installation. Through careful design it is possible to adjust the door after installation for very smooth operation. To obtain these benefits read the instructions RIGHT through BEFORE installation.

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	Part No.
Track stabiliser bracket	4 off
Track support bracket	4 off
Track with track bracket and rubber buffer	2 off
M10 Washers	4 off
M10 x 30 Hex sets and nuts	2 off
Top roller bracket	2 off
Top weather strip	2 off
Intermediate weather strip	2 off
Activating arm with spring anchor pin fitted	2 off
Top roller spindles	2 off
Circlips	4 off
Bottom weather strip	2 off
Springs	4 off
Bottom spring anchor bolt	2 off
Spring anchor bolt	2 off
M12 nuts	4 off
M12 washers	2 off
Spring anchor bracket	2 off
Screw Pack	
M10 x 60 Hex head coachscrews	6 off
M10 Washers	12 off
M8 x 40mm Hex head coachscrews	18 off
No 12 x 3/4" self tapping screws	20 off
M8 x 20mm Hex head nuts, bolts and washers	4 off
M8 x 60 Hex head coachscrews	4 off
M8 Washers	26 off
M10 x 90 coachbolts	6 off

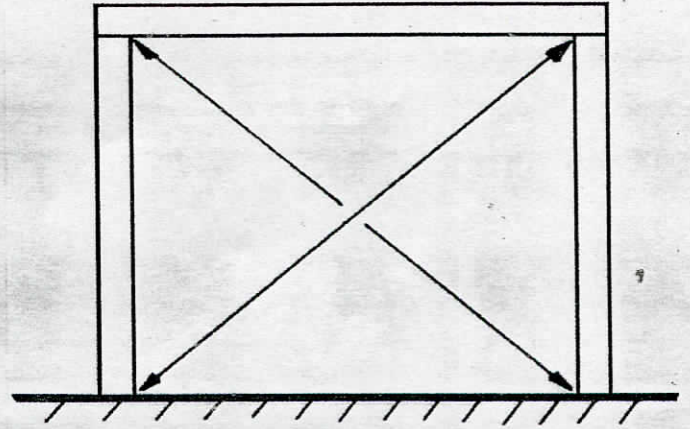
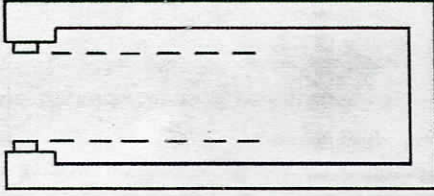
STEP 1 FRAME DETAILS

Recommended timber frame size 70mm x 70mm

Minimum frame size 50mm x 70mm

Frame must be square, check diagonals

Frame must also be square with opening

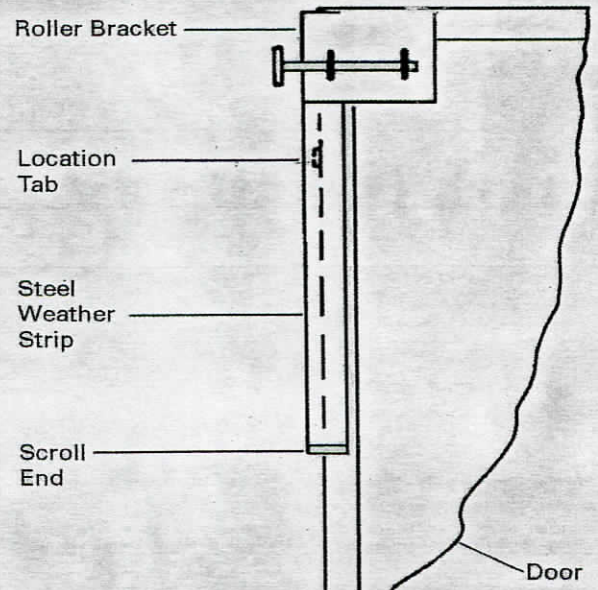
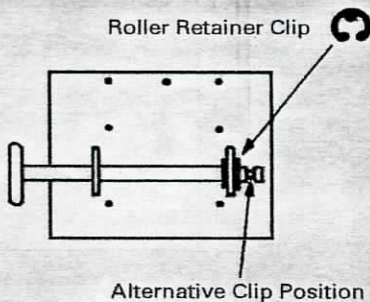


STEP 2 FIT TOP ROLLERS AND WEATHER STRIPES

GO STRAIGHT TO STEP THREE IF TOP ROLLER BRACKETS AND WEATHER STRIPS ARE PREFITTED

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



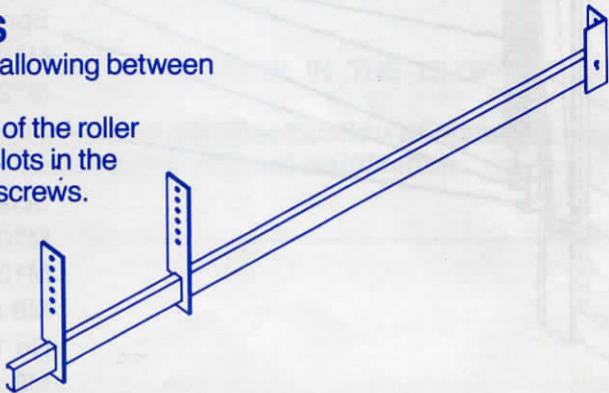
STEP 3 POSITION DOOR IN OPENING

Wedge the door in the opening and allow 10mm side clearance, 10mm clearance between the top of the door and the header and allow at least 10mm ground clearance.

STEP 4 INSTALL THE TRACKS

Locate track over roller, support rear of track allowing between 25mm and 40mm fall to the rear.

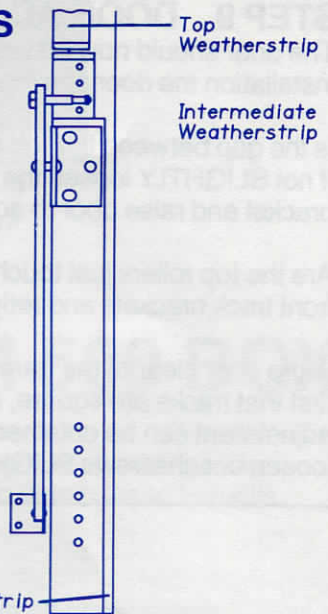
With the track JUST TOUCHING the bottom of the roller drill 2 x 6mm pilot holes in the middle of the slots in the track brackets. Fix using 2 x M8 xx 60 coachscrews.



Slide on BOTH track support brackets and fasten rearmost one 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 rear track hole.

STEP 5 INSTALLATION OF ACTIVATING ARMS

Locate and fix intermediate weather strip allowing 3mm ($\frac{1}{8}$ ") gap to top weather strip using 2 No. 12 x 25mm self tapping screws. Measure distance from bottom of intermediate weather strip to floor, cut excess from bottom weather strip. Mount weather strip using 4No. 12 x $\frac{3}{4}$ " self tapping screws. Locate activating arm vertically onto bottom weather strip and fit 2 M10 x 90mm (10mm hole) coachbolt through holes in activating arm bracket. Do not tighten yet. Fit bottom activating arm bracket ensuring that the arm does not foul the bottom weather strip. Drill 2 6mm pilot holes so that the 2 M8 x 40mm coachscrews fit in the top of the slotted holes.

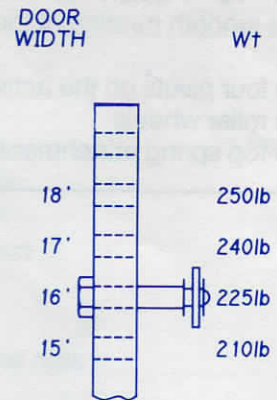


TAKE CARE NOT TO DRILL RIGHT THROUGH THE DOOR.

Tighten coachscrews in activating arm bracket.

STEP 6 INSTALLATION OF SPRINGS

OPEN door and prop it firmly in the fully open position. The top spring anchor is fitted. If needed reposition it according to the guide shown. This may save time on spring adjustment later. Locate springs over top spring anchor plate then assemble bottom spring anchor plate over bottom of springs. Locate spring anchor bolt over spring anchor plate. Fix spring anchor bracket using 1 x M10 x 90mm coachbolt in top hole (10mm hole) and 1 x M10 x 60mm coachscrew in other hole (pilot hole 7mm) in the position that allows the spring anchor bolt just to go through the bracket. Tighten spring 25mm (1").



Note: Guide is very approximate.

STEP 7 TRACK SUPPORTS

Remove the prop and the door should be touching both buffers. If the door is only touching one buffer adjust the tracks, i.e. from behind the door if the left hand buffer is not touching the door move both tracks to the right. When the door is square fasten middle track supports and 4 track stabiliser brackets.

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.

Fine adjustment can be carried out by adjusting the spring anchor bolts equally on both sides.

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

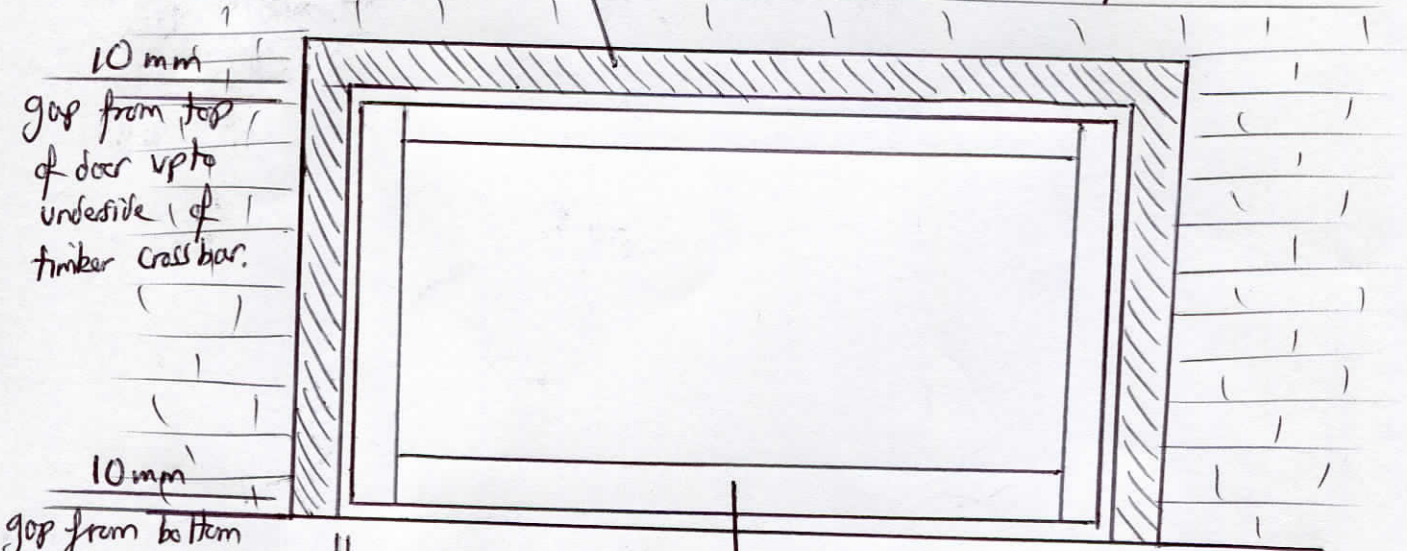
IMPORTANT SAFETY PRECAUTIONS

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.



10 mm
gap from top
of door upto
underside of
timber cross bar.

10 mm
gap from bottom
of door panel
and floor.

10 mm

perimeter stiles and
rails minimum
90 mm wide of
door panel itself.

10 mm gap between
edge of door and
frame.