DOOR LIFTING GEAR AP100
MULTI SPRING

Maximum Door Weight: 45kg (100lbs)

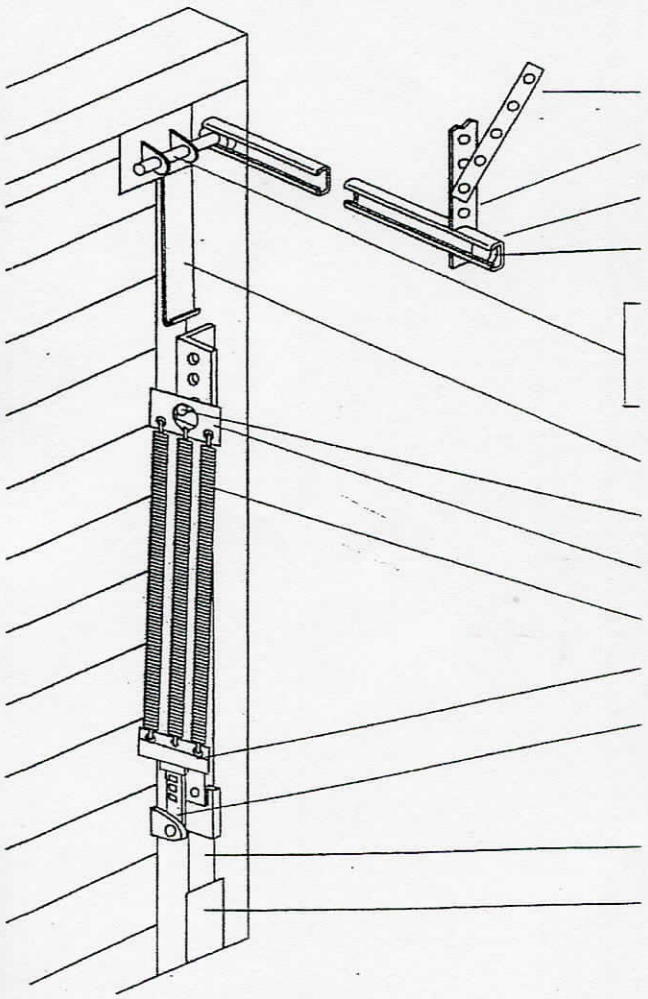
This door gear has been designed for quick and easy installation. Through careful design it is possible to adjust the door after installation for very smooth operation. To obtain these benefits
read the instructions RIGHT through BEFORE installation

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

NOTE. Although a confident D.I.Y person should be able to carry out this work we recommend that you engage the services of a specialist installer

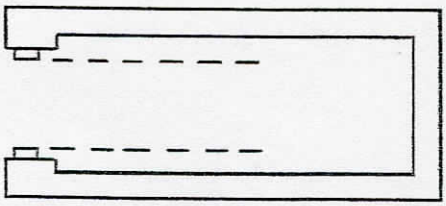
Firstly unpack and identify the parts (right hand assembly shown)

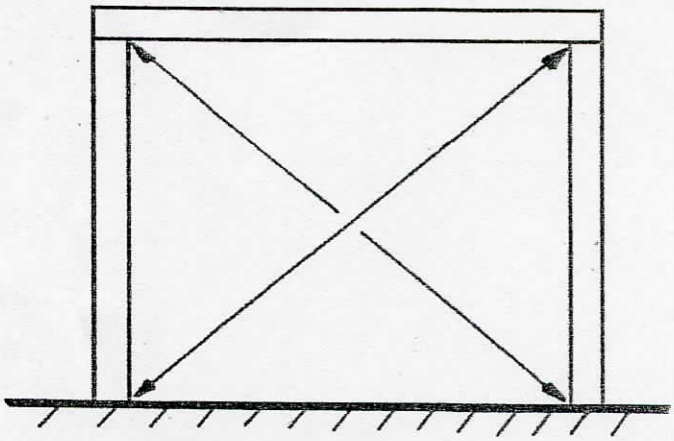


Track Stabiliser	2 off
Track Support Bracket	2 off
Track With End Bracket	2 off
Rubber Buffer	2 off
Top Roller	2 off
Top Roller Bracket	2 off
Roller Retaining Clips	4 off
Top Weather Strip	2 off
Spring Anchor Bolt	2 off
Spring Yoke	2 off
Springs	6 off
Spring Clip	2 off
Door Arm Assembly C/W Post Bracket, Door Bracket and Spring Adjustment	2 off
Rubber Weather Strip	3 Metre Roll
Door/Latch Striker Plate	2 off
Screw Pack	

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



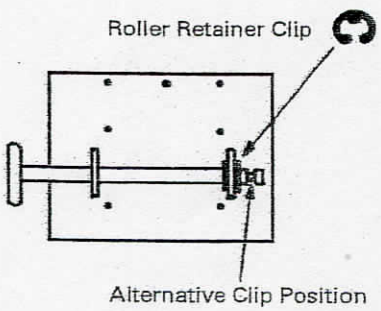


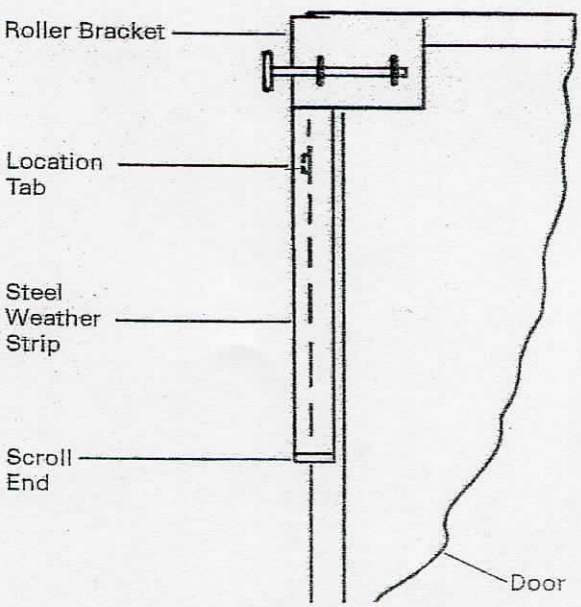
STEP 2 FIT TOP ROLLERS AND WEATHER STRIPES

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



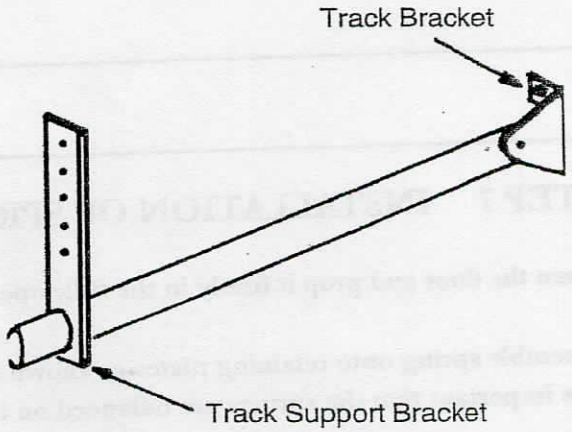


STEP 3 POSITION DOOR IN OPENING

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

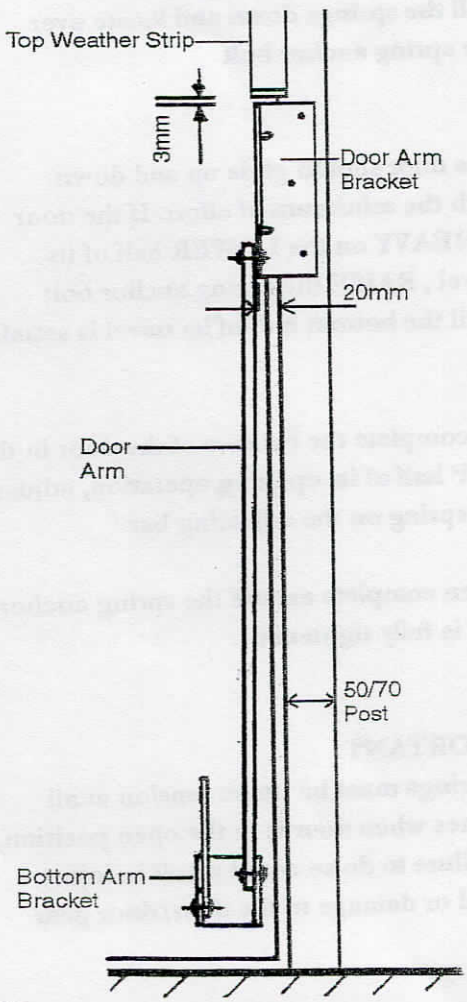
Locate the track over roller, support rear of the track allowing between 25mm and 40mm fall to the rear.
With the track JUST TOUCHING the bottom of the roller drill 2 x 6mm pilot holes in the middle of the slots in the track brackets. Fix using 2 x M8 x 60 coachscrews.



Slide on track support bracket and fasten to a suitable support using 1 x M8 x40mm coachscrews and washer ensuring track is square to door and allowing fall as above. Fit rubber buffer by drilling 9mm hole in track and secure with M8 x 30mm bolt / nut / washer as fitted. Position rubber buffer towards rear of track but not so far as to allow door arm to hit spring anchor bolt. Door must stop against rubber buffer not arm against anchor bolt.

STEP 5 INSTALLATION OF ACTIVATING ARMS

Fit door arm onto the 50mm or 70mm wide post allowing 3mm gap between the top weather strip and the door arm bracket, with the door arm bracket protruding past the post into the opening by 20mm. Drill 3 x 6mm pilot holes as indicated and secure with 3 x M8 x 60mm coachscrews and M8 washers, ensuring arm is vertical and parallel to door edge



Fit bottom arm bracket to door with M8 x 20 Hex bolts

TAKE CARE NOT TO DRILL RIGHT THROUGH THE DOOR

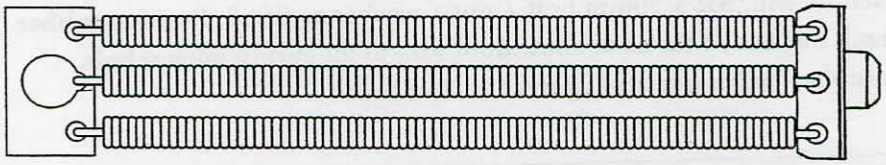
STEP 6 INSTALLATION OF DOOR/LATCH STRIKER PLATE

Position bottom of striker plate on floor with vertical edge projecting past post into opening by 20mm. Mark holes with bradawl and secure plate to post using 4 x No. 12 x 19mm self tapping screws

STEP 7 INSTALLATION OF SPRINGS

Open the door and prop it firmly in the fully open position

Assemble spring onto retaining plates as shown ensuring that slots at each end are in line
It is important that the springs are balanced on the spring retaining plates

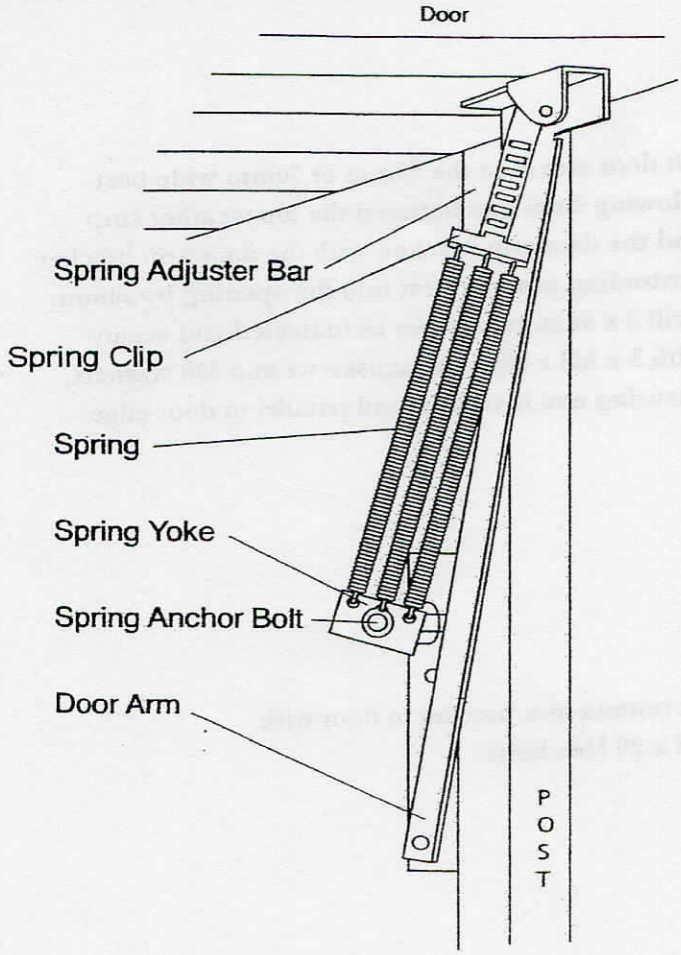


Attach spring clip to spring bar pull the springs down and locate over the spring anchor bolt

The door should glide up and down with the minimum of effort. If the door is HEAVY on the LOWER half of its travel , RAISE the spring anchor bolt until the bottom half of its travel is satisfactory

To complete the balance of the door in the TOP half of its opening operation, adjust the spring on the adjusting bar

When complete ensure the spring anchor bolt is fully tightened



IMPORTANT
**** Springs must be under tension at all ****
**** times when door is in the open position, ****
**** Failure to do so could result in injury ****
**** and or damage to the door/door gear ****

NOTE: ALL ADJUSTMENTS MUST BE ONLY CARRIED OUT WITH THE DOOR FIRMLY PROPPED IN THE FULLY OPEN POSITION

STEP 8 INSTALLATION OF BLACK WEATHER STRIP

Unroll weather strip, position top end immediately beneath door arm allowing 10mm to overlap the door and nail onto post using 6 x 25mm clout nails. Cut off excess at bottom and repeat for other side

STEP 9 (optional) FITTING LOCK

Drill out for lock from external face of door so that hole ' break-out ' is inside garage. Fit in accordance with lock instructions

STEP 10 (optional) FITTING LOCK LATCHES

Close door from inside. Fit latches to door by drilling 4 x 4mm pilot holes and secure with 4 x 6mm x 25mm self tapping screws.

Ensure body of catches clear the door latch striker plate but not enough for the catches not too register behind the striker plates. Attach cables onto catches and secure with cable clips.

Open and close the door to check latch operation

TAKE CARE NOT TO DRILL THROUGH THE DOOR FACE

STEP 11 OILING THE DOOR

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

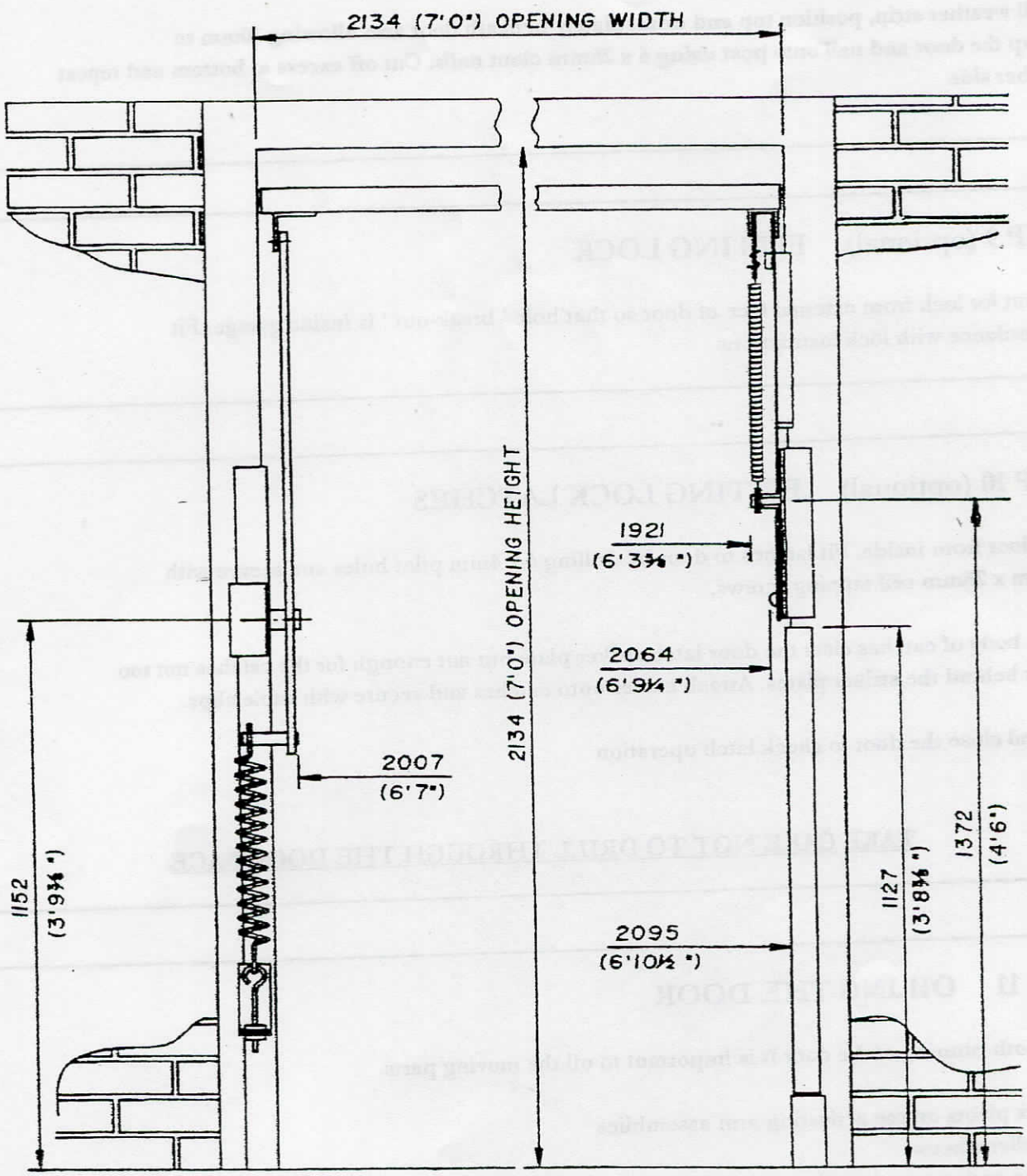
1. The six pivots on the activating arm assemblies
2. The roller wheels
3. The top spring attachments

IMPORTANT SAFETY PRECAUTIONS

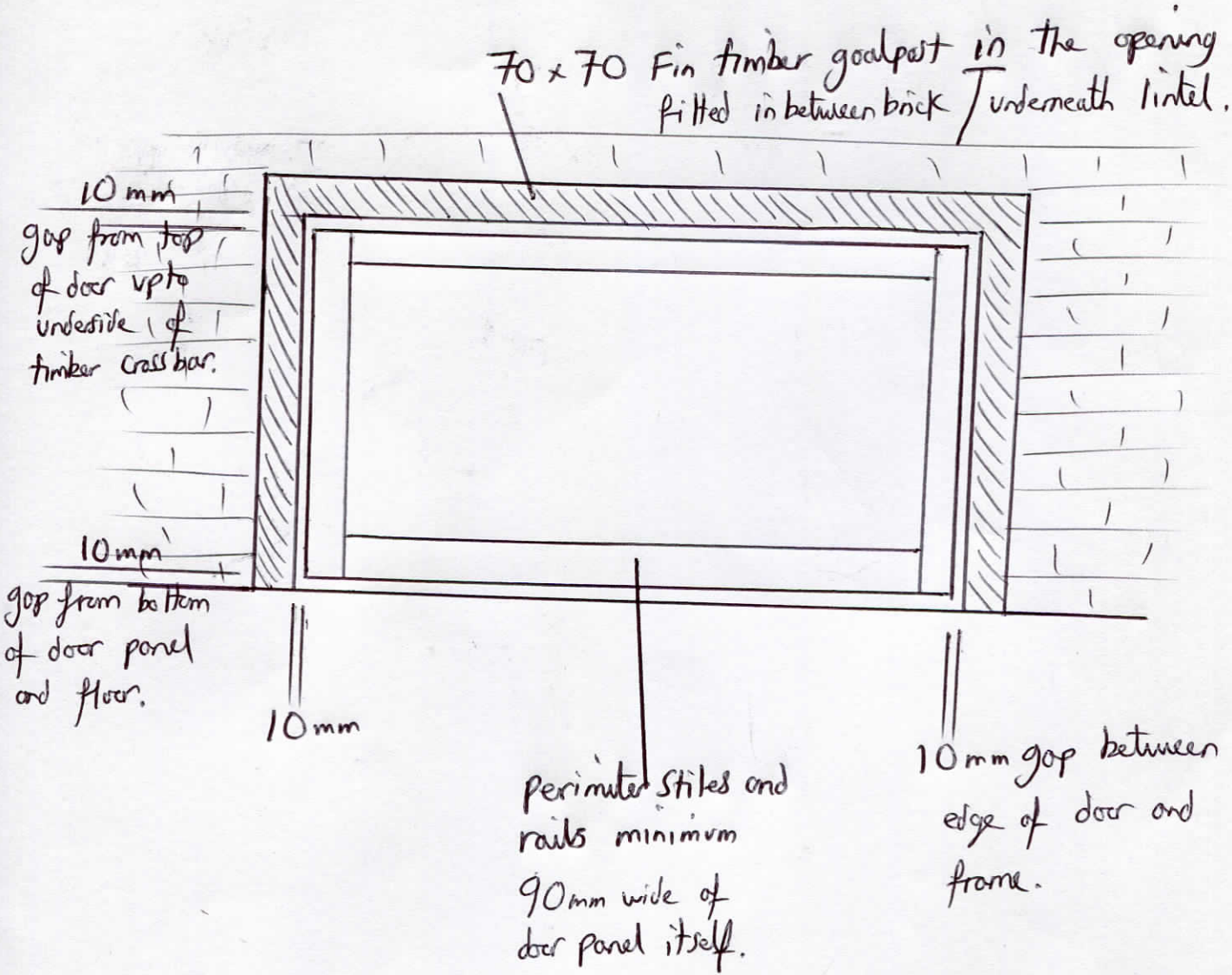
Adjust springs only when the door is in the open position. Before removing springs or spring anchor bolts use a prop to securely keep the door in the open position

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

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



The above diagram illustrates the side room advantages of 100 over the standard gear


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 90mm wide of door panel itself.
10 mm gap between edge of door and frame.