

2376 BALANCER FITTING

APPENDIX



The 2376 Open Spring Balancer is supplied with 2 mounting brackets and a centre torque bracket (normally fitted to balancer for transport purposes). The centre torque clamp comprises of a mounting bracket & a torque clamp, the torque clamp has two studs which fit into the mounting bracket and held in place with two nuts.

1 BALANCER BRACKET MOUNTING

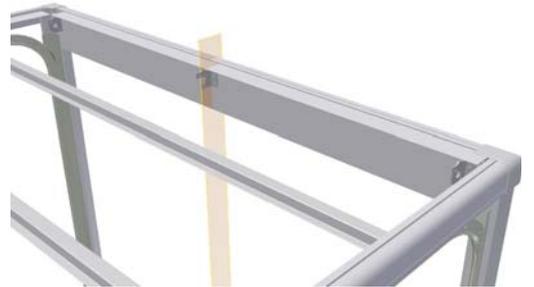
Remove all brackets from balancer shaft. Identify end brackets and centre bracket.

Mount the end brackets in line, as high as possible
(the dimension from the top pip of bracket to the underside of the header must be equal or greater than the declared header) and equidistant from the aperture centre line in accordance to the label attached to the balancer assembly.

Mounting face of brackets must be in line with the rear pillar/mounting face of the vertical track assemblies

Mount the centre torque bracket in line with end brackets as high as possible on the aperture centre line

Brackets may be bolted or welded to body



2 WIND CABLE ON TO CONE

Taking each cable in turn, insert nipple end of cable into slot on end of cable drum, wind cable around cable drum following grooves. Continue until there is approx 300mm (12") of free cable to eyelet



Secure cable to drum temporarily with tape.

Repeat on opposite end.

(N.B. Ensure the free cable lengths will hang between cable drum and header after installation of balancer)

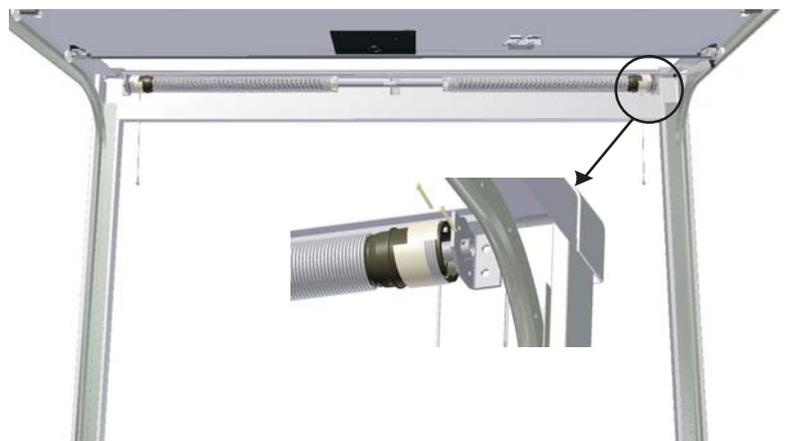


3 INSTALL BALANCER

The balancer shaft is drilled on one end to accept two split pins, (cable drum is also colour coded red) this is the right hand end of the balancer (when viewed from inside the body).

Taking the balancer slide the left hand end of the shaft into the left hand mounting bracket, until the right hand end can be located into its mounting bracket. Slide back through right hand bracket and fit split pins through pre drilled holes one either side of the bracket, open split pins to hold in place.

Relocate torque clamp on centre bracket, DO NOT tighten nuts at this stage.



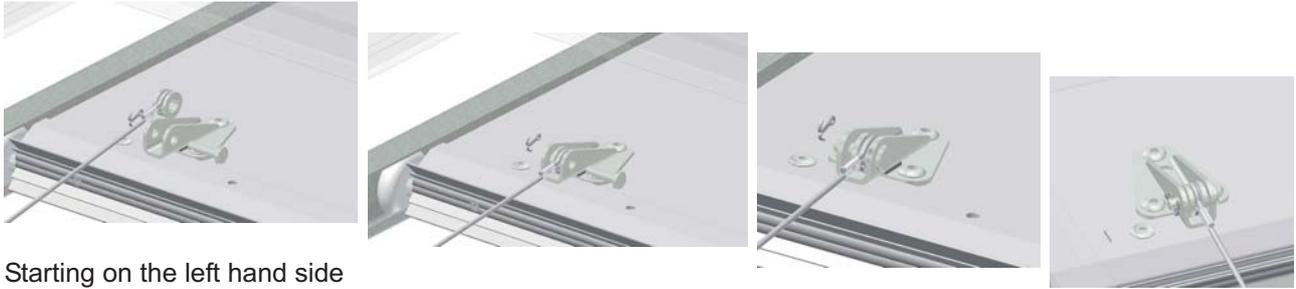
4 INSTALL LOWER PART OF SHUTTER

It is necessary to use the shutter to tension the balancer,

With this part of the installation complete, return to shutter instructions and install the lower part of shutter.

Once installed secure this section of the shutter in the horizontal tracks, approx 300mm back from header. and continue to attach balancer to shutter

5 ATTACH CABLE TO SHUTTER



Starting on the left hand side (Near side). Insert the thimble end of the cable into anchor bracket on front of shutter.

Retain in place with cotter pin

Retain cotter pin with split pin

Repeat for other cable

6 PRE-TENSION BALANCER

With the lower section of the shutter secured in the horizontal tracks, and both cables attached to the bottom panel.

To wind both springs at the same time, **do not loosen set screws and do not clamp the shaft in the centre**, until later. Rotate the entire balancer, shaft and all, until cables are tight. Use two 13/16" open ended spanners on the centre section of the shaft or two 3/8" bars in the winding cones.

Turn the shaft by pulling **down** until **3 to 4** turns are wound onto the spring.

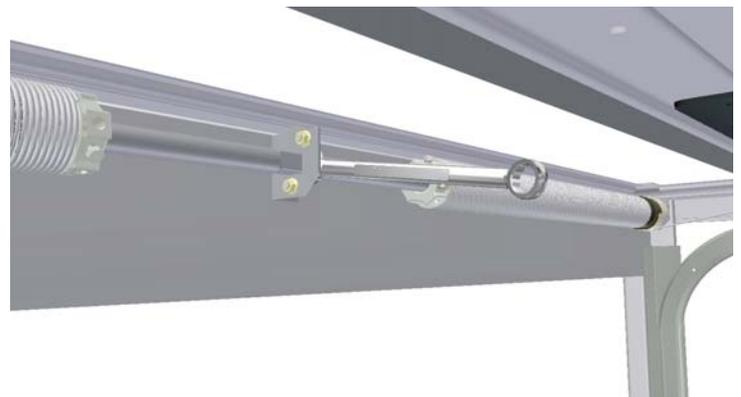


Whilst holding this light tension, place the centre torque clamp on square portion of shaft and secure to bracket with two nuts.

Carefully remove clamps from track.

Be aware the shutter will rebound down to normal open position.

Secure shutter in place and continue to build shutter.



TESTING AND FINE TUNING

Once shutter is fully fitted, test operation.

With the door nearly closed, release it and allow the shutter to open. A properly adjusted balancer will cause the door to slowly open, neither fly open, nor dropping shut. If further adjustment is necessary, follow the above procedures.

****Remember, a new spring will lose a small amount of tension once it is used for a while.****

Check cables wind onto drum evenly and not be pulled over spring area, or on top of cable already on the drum.

*****Please note that before the torque clamp is removed, the spring tension MUST held by a 13/16" spanner on the centre square section*****