

# Laird Security Hardware Ltd.

## Toeing and heeling.

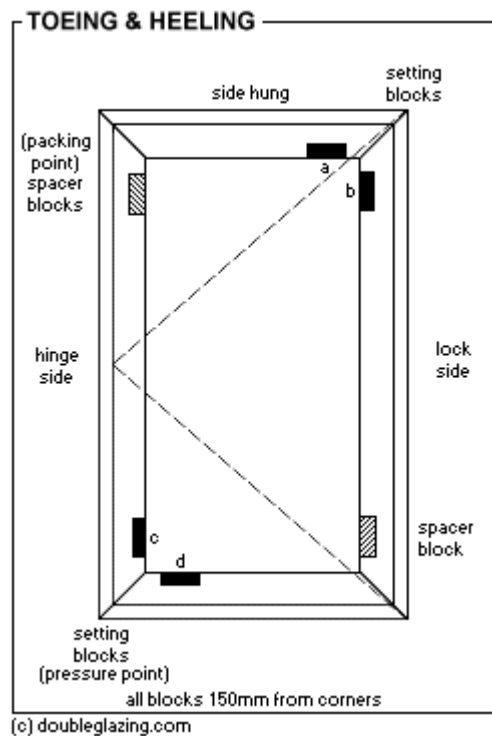
No, we don't mean the car racing practice of having your right foot on the brake and throttle at the same time, or tap dancing either!

### What *is* Toeing and Heeling, and *why do it anyway?*

PVC-U doors are heavy, and although the dead weight is supported on the hinge side when it is opened, there is nothing on the lock side to support the weight, and without the procedure of toeing and heeling the door will 'drop' on the handle side, sooner or later. To stop a door dropping the glass itself has to be braced diagonally corner to corner by the insertion of plastic packers slipped in the gap between the glass and frame, under the beading. On the hinge side the packers go at the bottom corner, whilst on the lock side, the packers go at the top (opposite) corner - get it?

### To explain further:

To picture this in your mind more easily, look at or visualise the back of a normal wooden side gate and you will see three 'ledges', that is horizontal planks - one top, one middle, and one bottom. These ledges are used for the diagonal planks of wood to sit on so as to brace across, and therefore to stop the gate dropping on the lock/handle side.



### So does *my* door need toeing and heeling?

When a PVC-U door has 'dropped' the first thing people usually notice is that the lock

is not working as easily as it did, or will not lock all. The door may also possibly rub on the bottom as it is closed. Closer inspection may reveal that the mitred welds do not line through at the top and the bottom of the lock side of the door to its framework. If this is the case on any door, then the door will need bringing back to square (called 'jacking' in the trade) and it will then need 'toeing and heeling' to prevent it from dropping again in the future. If you suspect that your door may have dropped, then the easiest way to check is to measure corner to corner across the diagonals of the door, and verify that the measurements are near enough the same, or to within a couple of mm or so. A quarter of an inch difference in measurements is too much!

### **Are dropped doors a BIG problem?**

The dropping of PVC-U doors is the most common complaint by customers after they have had a new PVC-U door installed, even when the rest of the installation seemed 'perfect'. Part of the reason why so many doors drop is laziness, and that fitters are insufficiently educated and aware of how imperative it is to get the toeing and heeling right the first time. The best way to educate fitters is for their boss to send them out in their own time to do a free of charge service call on a dropped door that they fitted! Mind you, it has often been pointed out that all fitting problems can usually be traced back to management, and that could just be true, as most fitters are animals that need to be trained (that statement - although true - definitely did NOT come from the book: 'how to win friends and influence people'). Also, just maybe the management is buying in a cheaper alternative packer to the one the system supplier recommends and specifies. To put that comment in perspective, the correct Eurocell system bridge packers for example are something under 10p each, whereas flat generic packers of the same width, length, and height build, and "they do the job, don't they" are around say 2p each. Multiply the pence difference by the many thousands used a year by just a small outfit, and you get the idea!

### **How to Toe and Heel a door, *properly*:**

OK, so we used the word 'properly', and this, although maybe a provocative statement, hopefully will not only instruct but also be helpful in training up any double glazing fitter, or fitters mate reading this.

1.  
The glazing beading must be removed, and the double glazed sealed unit must be in place, and resting on its plastic setting blocks, for correct drainage to work properly before beginning the procedure.
2.  
The opening door leaf must be raised on the lock side to the desired height, to square it up again. For one person to do this on their own; open the door slightly, place a small piece of wood on the floor to use as a fulcrum and in line with the door. Next, place a plank under the lock side of the door to push down on with your foot to raise up the side of the door that has dropped. A word of warning: Some doors will rise up and come off of their hinges, and these are harder to 'jack'.
3.  
You should notice a gap between the sealed unit and the door, and this is where the packers are inserted to achieve your toeing and heeling correctly to brace across the

glass to stop the lock side of the door dropping out of square.

**Get it? - Got it? - Good!**

Hopefully the above will give you a good understanding of what is involved. Its an important principle - but not easy to explain in words - much easier to demonstrate in practice