



Patio Doors Replacement

One of the most popular works in the UK is the retrofitting of patio doors. Recently, there is no project without full-height glazing that provides natural light. In the UK houses built in the 18th and 19th century have a different layout that suited and reflected the lifestyle of homeowners of Victorians, Georgians or Edwardians homes.

Nowadays, modern houses designs incorporate natural light and open spaces. The most straightforward solution to transform the existing house is to remove the wall separating the lounge and the kitchen and install the sliding doors, French doors or bi-folds. This provides light and feeling of connection with the outside patio and garden.

On the market, there is a broad choice of French doors, sliding doors or bi-folds, on aluminium, timber or PVC profiles. Here is a brief step by step guide for patio doors replacement.

1. Building Regulations - there are certain requirements for windows installation.

- External windows are “controlled fittings”-

have to installed by certified installers only

- Thermal Efficiency (heat gain / loss)
- Safety for Glazed Areas
- Ventilation
- Fire Safety

2. Permitted Development - adding patio doors often will be treated as the permitted development, so planning permission is not required. However, it is recommended to seek the local authority advice as there might be some restrictions, eg. conservation area, designated area, etc.

3. Structural details - in most cases the structural engineer will have to provide calculations and





specification for structural support, especially when the retrofitting will include increasing the size of the opening. The impact of the larger opening on the existing building will have to be offset by the additional support. In such case, the load-bearing wall will be supported by the installation of new lintel or steel beam. All depends on the size of the wall opening and wall structure.

4. Enlarging the opening - reframing is quite a big task that depending on the size required might be considered as a demolition. There is need to cut into the wall and install support beams. If in the wall under the existing window are electrical cables, electricians will have to rewire them. Sometimes the roof overhang will have to be extended to accommodate new patio windows.

5. Threshold - patio doors can be installed with a flush low threshold or weathered threshold. A flush low threshold is when the profile of sliding doors is installed entirely flush with the floor. A weathered threshold is when the track profile is over the floor level. Such solution ensures better protection from rain.

6. Patio door types - there are various models available from French doors, folding or sliding. Bi-



folds allows for the whole window to open giving even 5 meters of open space. Traditional hinged French doors are perfect for smaller openings.

7. Size of track profiles - the larger the track profile, the more space it will take up. Bi-fold doors range from 1.4m to 9m; sliding doors can reach 12.2m on a three-track system. Available heights are to a maximum of 2600mm. There are ultra thin profiles available with slim units of 11mm, 12mm, or 14mm.

8. Window Opening - the opening should be structurally sound, symmetrical and appropriately measured. The threshold could be built from solid bricks, or any holes must be filled with concrete. The opening should have the flat level base, vertical levelled sides and head. Leave the internal finishing and decorating after the doors are installed. Flooring should be laid also after installation.

Step 1. Install the steel props or stud work support through the holes in the brickwork and carefully remove the bricks to make space for a lintel.

Step 2. Install a steel lintel above the wall opening. Use engineering bricks for the bearing points. New lintel must project at least 6 inches over the required opening. Position the lintel on a bed of mortar. Make space to insert a cavity tray if required. Remove the supporting props and fill the holes with mortar.

Step 3. Mark the vertical cutting lines using a spirit level.

Step 4. Cut a vertical lines in the brick wall using an angle grinder.

Step 5. Loosen the existing mortar and knock out required bricks with the hammer. Start removing from the top but be careful not to disturb the lintel.

How to measure the opening?

Never measure the existing door or frame but the brick opening. Measurements are taken from the outside, for instance from the surrounding brickwork or blockwork not from any interior plaster face. The height is taken from the wall, foundation or slab on which the track will sit. First measure the width of the opening between the inside faces of the framing on each side. The height is measured from the level on which the baserail of the frame will sit up to the bottom of the header. Take measurements in three different places (top, middle, bottom) and deduct 10mm from both the final height and width measurements for fitting allowance.

(Photos source: OknoPlus)

