

Measuring Guide

INTRODUCTION

Don't worry too much; it's not as complicated as it seems! If you have any concerns or have any questions give our advice line a call.

Due to the variety of installation conditions and building details found in the UK, it is not possible to cover all applications. The recommendations are intended as a guide to good building practices to ensure satisfactory installations of your windows and doors. If you don't feel confident to measure the windows yourself, get an expert to do it. All our product range has been designed to meet the product specification required by Building Regulations.

PRELIMINARY CHECKS

You should make sure that your property is structurally sound for the any installation to be successfully undertaken.

Establish the suitability of the structural opening

- Presence of structural supports
- Condition of DPC
- Cracks
- Damp

Note any obstructions that might affect the measurement or installation of your new windows

- Satellite Dishes
- Telephone Wires
- Aerials

MEASUREMENT

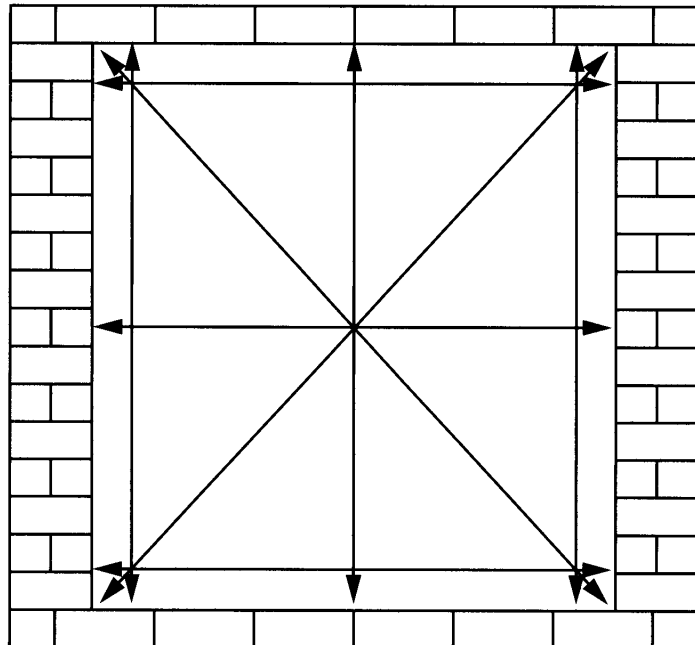
The width of your window opening should be measured at three points - the top, middle, and bottom of the opening. The smallest of these is used to determine the width.

The height of your window opening should be measured at three points - the left, middle and right of the opening. The smallest of these is used to determine the aperture height.

If the diagonals differ by more than 10mm in length then the smallest height and smallest width **MUST** be used.

When the resulting gaps exceed the requirements of good joint design, then the gaps may be filled with frame extensions and/or covered with internal/external trims.

The front to back dimension of the existing frame should be checked to ensure that the installation of the new frame would not cause problems with the DPC.



The frame set back dimensions should be calculated to ensure seals and building finishes are not compromised.

The wall surround the aperture should be checked to ensure that it is vertical, level and perpendicular.

The reveal sizes should be checked to ensure that the proposed replacement window or door-set will function.

To ensure accurate dimensions are obtained it may be necessary to chop back building finishes such as architraves and render.

Recommended manufacturing sizes

Once you have measured your window opening you should deduct 10mm from the overall width and 5mm from the overall height. These deductions are from the total width or height, and are not 'per side'. All height deductions will be at the head of the PVC-U frame. When calculating height deductions, allowance should be made for height of any silicone or mortar bed at the sub-sill level.

PRODUCT SPECIFICATION

Load bearing windows and door-sets

Most flat windows and door-sets are not load bearing, but all flat windows and door-sets must be checked to ensure that there is a lintel or other suitable load-transferring structure above the replacement frames. It should be assumed that all bay window assemblies are load bearing. In some cases, it will be necessary to remove render, plaster and / or trim sections to determine the construction methods used in the building.

If you are in any doubt as to the extent of the loads carried by the bay window, or the methods of construction used, then the advice of a qualified surveyor should be sought

BAY WINDOWS

Surveying of bay windows

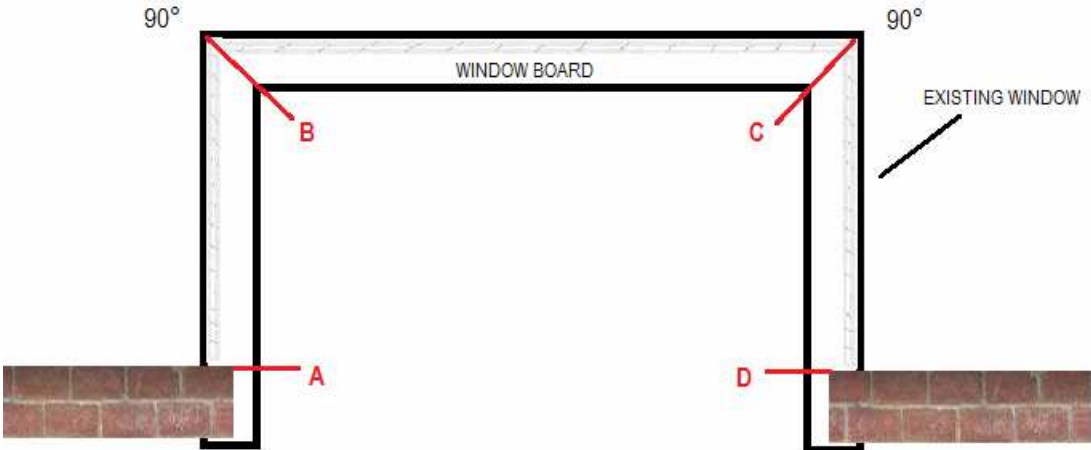
Bay windows are generally much more difficult to measure than flat windows – unless you are 100% confident in measuring your bay – get an expert to do it.

There is no requirement for expansion gaps for individual bay segments less than 2500 mm wide. The same number of bay poles should be used again in any replacement bay assemblies. In some cases it will not prove possible to establish full construction details for a bay window, and whether there are any defects present in the window structure until the old bay window is removed. The inspection of the head plate is essential during the survey to determine the condition, position, and type used. Where possible the existing head plate should be retained. Bay window assemblies traditionally used, have considerable amounts of decorative trims and fascias, which conceal a variety of edge conditions. The edge conditions will affect the manufacturing sizes of the bay segments. Some trims will have to be removed when surveying a bay window assembly.

In general, bay window section sizes and sill layouts are measured from the inside of the property. We would require back spans, projections and or sill angles for calculating the sill layout.

Please see the following information for guidance on measuring bays

HOW TO MEASURE A SQUARE BAY - ALWAYS MEASURE INSIDE (WIDTH ONLY)



DISTANCE

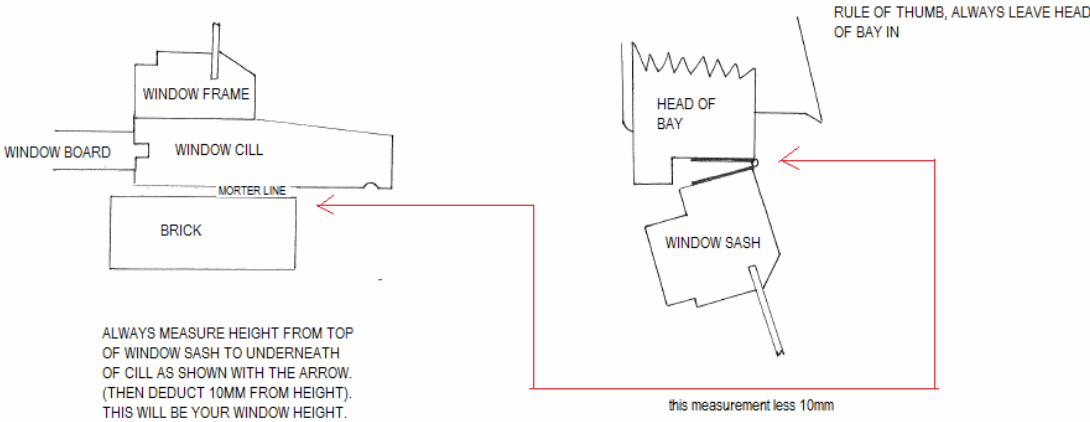
A to B
(CENTRE OF ANGLES)

B to C

C to D

A SQUARE BAY HAS TWO ANGLES - (THEY WILL ALWAYS BE 90°)

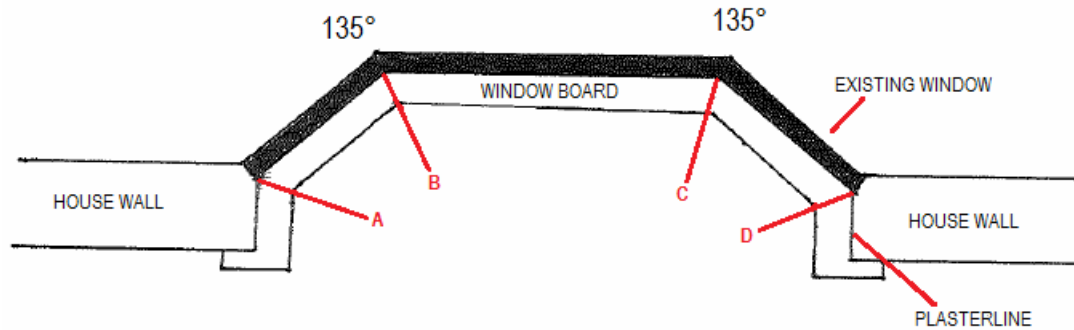
HOW TO MEASURE HEIGHT OF BAY. (ALWAYS MEASURE FROM OUTSIDE)



ALWAYS MEASURE HEIGHT FROM TOP OF WINDOW SASH TO UNDERNEATH OF CILL AS SHOWN WITH THE ARROW. (THEN DEDUCT 10MM FROM HEIGHT). THIS WILL BE YOUR WINDOW HEIGHT.

HOW TO MEASURE A SEGMENT BAY. (ALWAYS MEASURE INSIDE) WIDTH ONLY

If bay has more than 3 segments then same formula



DISTANCE

A to B
+ 10 mm
(allowing frame behind
plasterline)

B to C
(CENTRE OF ANGLES)

C to D
same as
A to B

This bay has two angles, B and C. they will vary from 120° to 140°, with 135° being the norm. The more segments the greater the angles (eg. 150°-175°).

BUILDING REGULATIONS

It is good practice to ensure that replacement windows and door-sets are manufactured and installed in compliance with the current Building Regulations. The most relevant to windows and door-sets are listed as a guide.

Approved document B: Fire safety

If a window is intended as part of an escape route in case of fire, it needs to provide a minimum unobstructed opening of:

- Minimum of 450mm high
- Minimum of 450 mm wide
- Openable area of 0.33sq metres
- Bottom of the openable area not higher than 1100mm above the floor

The opening shall be unobstructed, therefore the use of top hung sashes or sashes with lockable handles or restrictors are outside the scope of the Building Regulations. Therefore it may be necessary to seek expert advice.

Approved document E: Resistance to the passage of sound

Good sealing between the window and door-set and the building fabric is critical to the achievement of the desired acoustic insulation.

The presence of the smallest gap can impair the effectiveness of the best acoustic window or door-set.

Approved document F: Ventilation

Building Regulations require the provision of background ventilation. A trickle ventilator built into or added to the window or doorset usually provides this. The required area of ventilation depends on the size of the room and its intended use, see table for general guidelines.

Note: The presence of an open flue gas-burning appliance may require special provision of ventilation. Commercially available 'Gas Board ventilators' fitted to frames will contradict other requirements of the Building Regulations i.e. Conservation of Fuel & Power and Resistance to the passage of Sound. It therefore may be necessary to seek expert advice.

Approved document L: Conservation of Fuel & Power

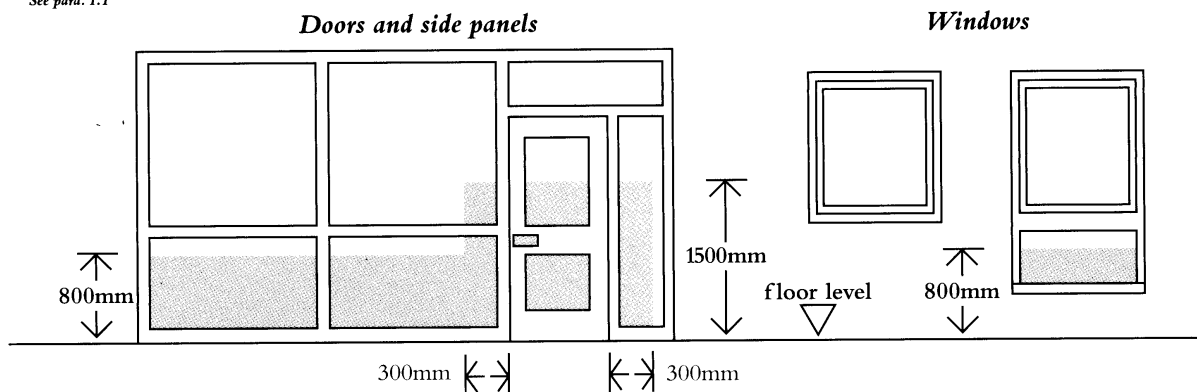
Approved Document L outlines measures to limit the heat loss through the fabric of the building. A Standard Assessment Procedure (SAP) is described, by which a Building's Energy Rating may be calculated. Double-glazed windows and door-sets are virtually mandatory in all installations. Therefore air leakage and cold bridging are relevant, as is the perimeter aperture sealing of the window or door-set.

Approved document N: Glazing – materials and protection

Glazing used in the vicinity of the floor and in or near door-sets will usually require safety glazing, toughened or laminated, complying with the requirements of BS 6206. Compliance requires the presence of a permanent certifying mark on each item of glazing.

Critical locations in internal and external walls

See para. 1.1



- Between finished floor level and 1500mm above that level in a door or in a side panel close to the edge of the door
- Critical locations are further extended in BS6262 glazing for building to cover bathing areas:
- Any glazing located adjacent to a bath or shower area shall constitute a potential danger due to the possibility of a person slipping on a wet surface

FINAL CHECKS

You should check the following to ensure that your new windows will operate correctly:

- Is the proposed style of replacement window and door-set suitable for the geographical location?
- Will the proposed style of replacement window and door-set permit the opening lights to function?
- Will the proposed replacement window or door-set compromise the security of the property?
- Will the proposed replacement window or door-set compromise the safety in case of fire?
- Has the correct use of safety glass been identified in accordance with the Building Regulations?
- Has the required hinge clearance on tilt & turn windows and residential door-sets been maintained?
- Has the required door leaf clearance of 10mm for low threshold door been maintained?
- Have the additional requirements of night vents, restrictors, special hardware been identified?