



# Window Works

To avoid accidents from happening, do ensure that the installation or replacement of your flat's windows is done safely and comply with HDB's safety requirements.

## Installation or replacement of new aluminium windows

You must engage a Building and Construction Authority (BCA) approved window contractor listed in HDB's directory for all window installation/ replacement work. These are the requirements that you need to comply with for window installations.



## Aluminium casement windows

Download the [illustration](#) (PDF, 51KB) for reference.

Parts	Requirements
Friction stay	<ul style="list-style-type: none"><li>Stainless steel grade 304 or equivalent</li><li>Minimum thickness not less than 2.50mm</li><li>Length not less than 1/2 width of window leaf</li></ul>
Window leaf	<ul style="list-style-type: none"><li>Maximum width not exceeding 700mm</li></ul>
Aluminium section for screw connection	<ul style="list-style-type: none"><li>Minimum thickness 2.75mm</li></ul>
Connection of friction stay to window frame	<ul style="list-style-type: none"><li>Stainless steel grade 304 self-tapping screw of minimum size number 8 (4mm)</li><li>If aluminium section is not less than 3mm thick, epoxy coated screws can be used</li><li>Minimum 4 screws on each side of friction stay</li></ul>

## Parts

## Requirements

Corner brackets  
(if used) for corners of window  
leaf

- Zinc casting corner brackets

# Aluminium sliding windows

Download the [illustration](#) (PDF, 92KB) for reference.

## Parts

## Requirements

Safety devices

- To install the following:
  1. Polyethylene sliding window self-locking safety device (2 per panel)
  2. Synthetic resin stoppers at top of window outer frame
    - Minimum 2 stoppers per panel width and repeat the same along the track
    - The stopper shall be fastened with stainless steel grade 304 or equivalent rivet/ screw of minimum 4mm diameter
  3. Aluminium bottom outer frame with fixed angle facing outside
- Dimension 'b' shall be minimum 1.50 times dimension 'a' (refer to illustration)

Sliding panel

- Maximum width not exceeding 1.20m

# Aluminium adjustable/ fixed louvre vent

Download the [illustration](#) (PDF, 25KB) for reference.

## Parts

## Requirements

Glass louvres

- Minimum glass thickness not less than 6mm
- Wire-glass type

Glass louvres safety device

- Aluminium U-channel cleat at every glass louvre

## Repair of existing aluminium windows

As a flat owner or occupant, you are responsible for the upkeep of the windows in your flat.



Otherwise, a window could fall and cause serious injury or worse to those below.

Check out the safety requirements before you proceed with repairs for your existing aluminium windows.

## **Windows and grilles**

Guidelines on other windows and grilles works.



Types of Building Work	Permit Required?	Subject to the Following Guidelines / Conditions
Placement of film over the glass panel of existing windows/ balcony doors	No	<ul style="list-style-type: none"><li>• Film should be non-reflective or not exceeding 20% reflectance</li></ul>
Installation of bamboo chicks/ venetian blinds/ curtain rail internally	No	<ul style="list-style-type: none"><li>• Not applicable</li></ul>
Installation of blinds at open balcony where permanent enclosure is not allowed e.g. for balcony of DBSS flats and flats handed over after 1 Jul 2007	No	<ul style="list-style-type: none"><li>• Installation must allow for natural ventilation within the balcony at all times, even when the screens/ blinds are fully drawn and closed</li><li>• The blinds have to be able to be drawn open or retracted fully</li><li>• The material of the blinds must be porous and permeable to allow natural lighting and ventilation to flow through</li><li>• Glass, PVC or any material which will completely block off sun, light, rain and wind is not allowed</li><li>• The entire system must be within the unit's boundary and the existing safety barrier/ railing is not allowed to be tampered with</li></ul>

Types of Building Work	Permit Required?	Subject to the Following Guidelines / Conditions
<p>Installation/ replacement of window on parapet</p> <p><b>Note</b> This is not applicable for balconies of DBSS flats and for flats handed over from 1 July 2007, where open balcony and/ or pure planter box are provided. For such flats, windows, full height sliding doors/ glass panels are not allowed to be installed at the balcony and/ or pure planter box.</p>	Yes	<p>Width of window panel:</p> <ul style="list-style-type: none"> <li>• Casement window: 500mm to 700mm</li> <li>• Sliding window: 500mm to 1200mm</li> <li>• To comply with the safety requirements for installation/ replacement of windows</li> </ul> <p>For flats handed over from 1 July 2007 onwards:</p> <ul style="list-style-type: none"> <li>• Windows installed/ replaced must be of a similar colour scheme, proportion and type (i.e. sliding to sliding, casement to casement) as that of the original windows provided by HDB</li> <li>• For service yard, the windows installed/ replaced only need to be of a similar colour scheme as that of the original windows provided by HDB</li> </ul>
<p>Installation/ replacement of grilles at service yard/ balcony parapet (if any)</p>	Yes	<p>For flats handed over from 1 July 2007 onwards:</p> <ul style="list-style-type: none"> <li>• Grilles installed must be of HDB approved designs</li> <li>• Refer to the renovation factsheet given during the booking of flat/ collection of keys for the approved designs (<a href="#">sample renovation fact sheet</a>) (PDF, 201KB)</li> <li>• You can view the specific renovation guidelines including approved grille designs for your flat (e.g. for service yard/ open balcony) by logging in to <a href="#">My HDBPage</a></li> </ul>

Types of Building Work	Permit Required?	Subject to the Following Guidelines / Conditions
Installation/ replacement of internal metal grilles of any design at window and balcony parapet	No	Applicable to developments handed over before 1 July 2007: <ul style="list-style-type: none"> <li>• Metal grilles must be fixed internally and cannot protrude from the building facade</li> </ul>
Installation of internal metal grilles of any design at double-storey balcony of executive maisonette	No	
Installation of metal grilles at double-storey corridor end balcony of executive maisonette	No	
Installation of metal grilles of any design at interaction balcony	No	<ul style="list-style-type: none"> <li>• Height of metal grilles must not exceed height of unit</li> <li>• Do not store any combustible material at the balcony area</li> </ul>
Enclosure of interaction balcony (e.g. installation of windows/ awnings)	Yes	<ul style="list-style-type: none"> <li>• Do note flat owner(s) are required to engage a Qualified Person or Professional Engineer (PE) for Civil or Structural works to submit building plans for the proposed work to <u>SCDF</u> for approval before HDB process the renovation application</li> <li>• See example of an <u>interaction balcony</u> (PDF, 463KB)</li> </ul>
Replacement/ removal of mild steel/ stainless steel railing on top of balcony parapet wall	No	<ul style="list-style-type: none"> <li>• This is applicable only to mild steel/ stainless steel railing on top of reinforced concrete parapet</li> <li>• The height of the balcony parapet wall from finished floor level must be at least 1000mm</li> <li>• Apply 2 coats of rust inhibitor to the surface of exposed steel bars (where the steel bars are anchored into) before any finishing work is done to prevent rusting</li> </ul>

## Replacement of full height windows (including 3/4 height and bay windows)

The replacement of full height windows is strictly not allowed. Permission may be granted in an instance where a damaged frame requires a complete replacement.



See examples of [full height windows \(including 3/4 height and bay windows\)](#) (PDF, 324KB).

A renovation permit from HDB is required for all windows replacement work. A BCA Approved Window Contractor (AWC) who is listed in HDB's Directory of Renovation Contractors needs to apply a renovation permit from HDB before carrying out the window replacement works.

In Mar 2023, BCA introduced a set of standardised designs that flat owners may adopt for replacement of safety barriers integrated with  $\frac{3}{4}$  height and full height windows in existing residential buildings. There are 7 different types of standardised designs each for  $\frac{3}{4}$  height and full height windows (i.e. total of 14) that are downloadable from [BCA's website](#).

For replacement of safety barrier integrated with  $\frac{3}{4}$  height and full height windows, flat owners may adopt BCA's approved standardised window designs subject to the following conditions:

- a. the replacement works must be carried out by Licensed Builders (LB) or Approved Window Contractors (AWCs) with trained window installers (TWIs) who have completed the course "*Module on replacement and reinstatement of safety barriers integrated with windows*" conducted by BCA;
- b. the replacement works must satisfy the objectives and performance requirements set out in the Fifth Schedule of the Building Control (BC) Regulations relating to the safety of windows, safety from falling, use of glass at height and any other requirement in the BC Regulations; and
- c. the LB or TWI is to submit a certification of completion of the replacement works declaring that the replacement works have been carried out in accordance with the standardised designs, and to be submitted to the BCA's Commissioner of Building Control within 14 days of work completion.

The Licensed Builder or AWC that homeowner engaged will assess the existing condition of the residential unit before advising if the BCA's standardised design option can be adopted. Flat owners are required to engage a PE(Civil) to design and submit plans to BCA in the event that the standardised designs could not be adopted.

Flat owners who are engaging a PE (Civil) to design the window replacement and reinstatement works are required to comply with the following:

- a. A Qualified Person (QP) who is a Professional Engineer (PE) in civil or structural engineering must be engaged to:
  - Design and/ or certify the lateral loading of the replacement works
  - Submit structural calculations and drawings to BCA for regulatory plans approval through the Construction and Real Estate Network (CORENET)
- b. Upon approval of the plans, the flat owner(s), the QP supervising the works, and the Licensed Builder (LB) carrying out the replacement of the safety barrier works must jointly apply for a permit

from BCA to commence structural works

- c. Your appointed AWC has to submit BCA's 'Permit to commence structural work along with the approved drawings to HDB to obtain a renovation permit before commencement of the replacement works.

Regardless whether flat owner(s) are adopting the BCA's standardised designs or engaging a PE(Civil) to design for the window replacement, the window to be replaced will have to match and comply with HDB's original windows in terms of :

- Colour scheme
- Dimension
- Window type (i.e. casement to casement, sliding to sliding)

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## RECOMMENDED

### **Change in Flat Ownership (Not Through a Sale)**

If you wish to change ownership of your flat without a sale (i.e. without monetary consideration), find out more about the types of ownership changes and the eligibility conditions.

### **Building Works**

Guidelines for building works are in place to ensure that the structural integrity of your flat is not compromised.

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### **Looking for Renovation Contractors**

Use our e-Service for the DRC Contractors and BCA Approved Window Contractors.

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### **Acquiring Private Property**

Get an overview of the eligibility conditions and procedures for purchasing private residential property as an existing HDB flat owner.

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