

CEPS 1029

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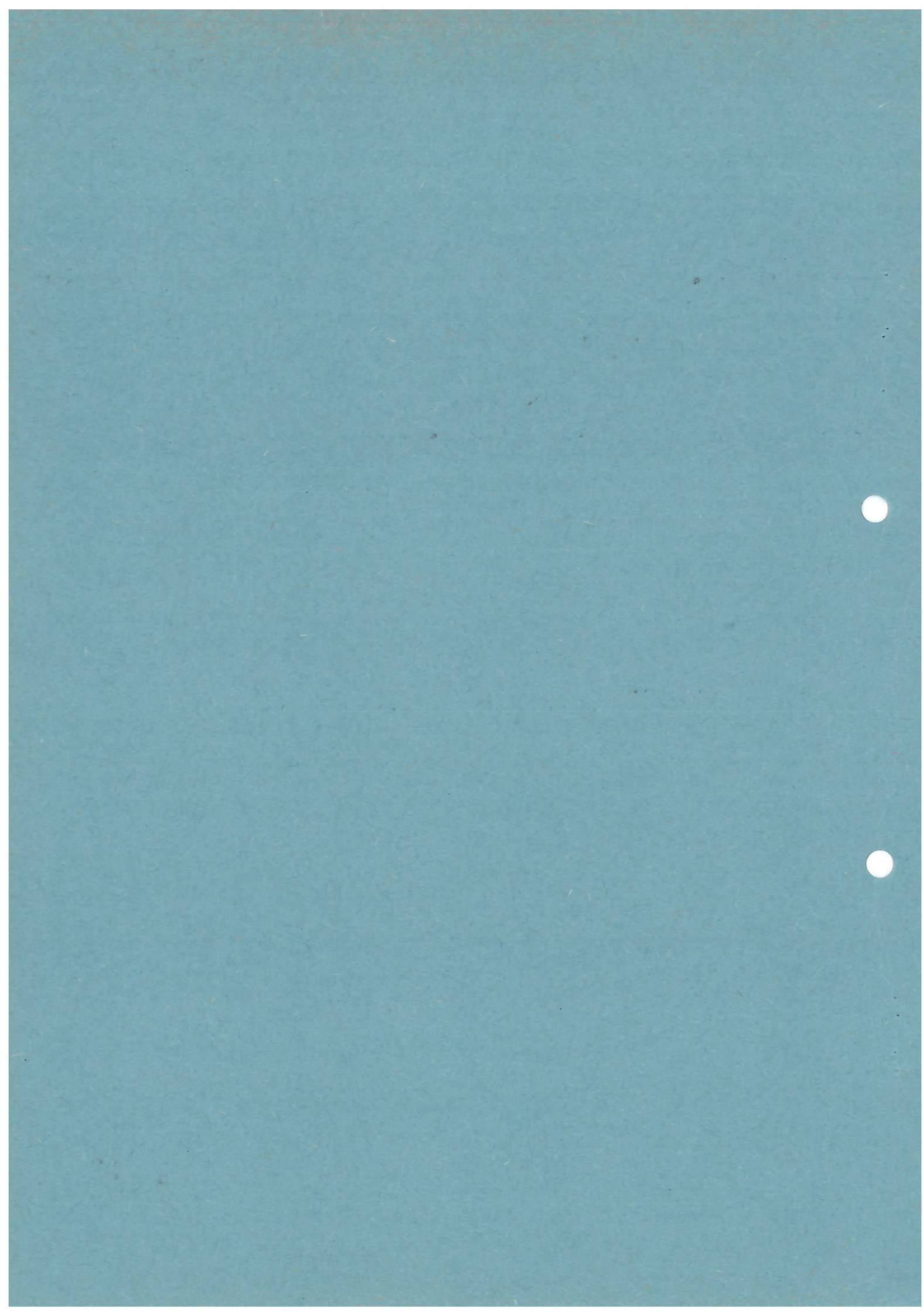
# British Railways Board

Mechanical & Electrical Engineer's Department

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## BODYSIDE WINDOW INSTALLATION









## GENERAL

This specification details the procedure to follow for the assembly of new bodyside windows and also their replacement after repairs.

## REFERENCE

Framed window units should be supported when in transit and should be stored vertically, the edges protected by approved timber pallets.

## MATERIAL AND EQUIPMENT

1. Windows : Frames drilled by manufacturer to drilling template in accordance with applicable drawing dimensions.
2. Butyl rubber mastic, brushing grade, BR Catalogue 28/5313.
3. Fasteners to secure window frame to bodyside panels, as specified.
4. Suitable drilling machine and drill size to suit fastener.
5. Placing gun to suit type of fastener.

## PROCEDURE

1. New Build.
  2. Repair of damaged vehicles using new bodyside panels and existing window frame.
  3. Replacement of damaged windows using existing bodyside panels and new window frames.
  4. Replacement of existing window in existing bodyside panels.
1. New Build
    - 1.1 Select appropriate size window framed unit and remove any protective wrapping.
    - 1.2 Prepare the panel aperture by fitting to suit window frame or master template, ensuring this is lined up correctly in the body.
    - 1.3 The holes for securing the frame to the body are then drilled in the panel and body framing using the window frame, or drilling template if available, as drilling jig.
    - 1.4 Remove window frame or drilling template and ensure that bodyside panels are free from burrs or loose drilling swarf.
    - 1.5 Ensure that window frame is also free from burrs or any protrusions which could interfere with the bedding of frame to bodyside.

- 1.6 Apply coat of brushing grade mastic, BR Catalogue 28/5313, to bedding area around bodyside light aperture.
- 1.7 Place and clench the fasteners, ensuring that they are clean of compound. Any compound must be wiped off before attempting to clench the fastener.
- 1.8 Remove any surplus mastic from around the window frame and allow the mastic joint to become skin hard.
- 1.9 The complete assembly shall be painted in accordance with New Build Painting Schedule BR1.
2. Repair of Damaged Vehicles using new bodyside panels and existing framing with existing window frame.
  - 2.1 Before placing window frame in position and using the existing window securing holes in the bodyside framing, back drill these holes through the body panels.
  - 2.2 Ensure that bodyside and window frame are free from burrs or any protrusion which could interfere with the bedding of frame to bodyside.
  - 2.3 Apply a coat of brushing grade mastic, BR Catalogue No. 28/5313, to the bedding area around the light aperture.
  - 2.4 Place and clench the fasteners ensuring that they are clean of mastic compound. Any compound must be wiped off before attempting to clench the fastener.
  - 2.5 Remove any surplus mastic from around the window frame and allow the mastic joint to become skin hard.
  - 2.6 The complete assembly shall then be painted in accordance with Maintenance Painting Schedule BR2.
3. Repair of damage vehicles using existing bodyside panels and new window frames.
  - 3.1 Temporarily secure the window frame in bodyside aperture through the existing fixing holes using 6 suitable bolts of appropriate length, and ensuring that the frame is set parallel in the body.
  - 3.2a Where any misalignment of window frame holes to bodyside fixing holes exist which are less than 1 mm the holes may be lined up by using a nominal diameter reamer.
  - 3.2b Where the misalignment is greater than 1 mm the hole in the window frame should be welded up, using approved BR processes, and the weld dressed flush. In these instances the holes plugged

in the window frame should be back drilled through the holes in body frame and panel and countersunk to accept a nominal size fastener.

- 3.3 Remove the window frame and ensure that the bodyside panels are free from burrs or loose drilling swarf.
- 3.4 Ensure that the window frame is free from burrs or any protrusion which could interfere with the bedding of frame to bodyside.
- 3.5 Apply a coat of brushing grade mastic, BR Catalogue No. 28/5313, around the light aperture.
- 3.6 Place and clench the fasteners ensuring that they are clean of mastic compound. Any compound must be wiped off before attempting to clench the fastener.
- 3.7 Remove any surplus mastic from around the window frame and allow the mastic joint to become skin hard.
- 3.8 The complete assembly shall be repainted in accordance with Maintenance Painting Schedule BR2.

#### 4. Replacement of Undamaged window in undamaged bodyside

- 4.1 Ensure that window frame and bodyside panel are free from burrs or any protrusion which could interfere with the bedding of frame to bodyside.
- 4.2 Apply a coat of brushing grade mastic, BR Catalogue 28/5313, around the light aperture.
- 4.3 Place and clench the fasteners ensuring that they are clean of mastic compound. Any compound must be wiped off before attempting to clench the fastener.
- 4.4 Remove any surplus mastic from around the window frame and allow the mastic joint to become skin hard.
- 4.5 The complete assembly shall be repainted in accordance with Maintenance Painting Schedule BR2.





