

*Nomad***SERVICE BULLETIN**

SUBJECT: ADDITIONAL SUPPORT FOR WINDOW SECURITY (MODIFICATION N481)

1. Planning Information

A. Effectivity

(1) Aircraft Affected

All Nomad N22-Series and N24-Series aircraft whose log books do not already record the embodiment of Mod N481 or compliance with Service Bulletin NMD-56-4.

Pre-certification implementation of the intent of this Service Bulletin is recorded in the airframe log book as Mod N481.

(2) Spares Affected

None.

B. Reason

Under certain environmental and operating conditions, it is possible for a window to break free of its adhesive seal and move within its frame.

C. Description

On windows in the fuselage, rear fuselage (Option G65 or G65-24) and the airstair door assembly (Option G211), four reinforcing plates, bonded to the skin and four brackets provide additional support for window security. On windows fitted in the forward and aft passenger doors, four brackets provide the additional support.

- NOTE:
1. Refer to Service Bulletin NMD-56-1 (Mod N479) - Emergency Exit Door - Improved Security of Outer Window.
  2. Refer to Service Bulletin NMD-25-3 (Mod 452) - Forward Cabin Windows - Impact Resistant Transparencies (Nomad N24-Series only).

D. Compliance

It is recommended that the operator carry out this Service Bulletin as soon as possible, particularly if detached or partially detached window assemblies have been detected.

E. Approval

The modification detailed herein has been approved pursuant to Air Navigation Regulation 40 and conforms with the type certification requirements.

F. Manpower

Nomad N22 Series - 8 manhours.  
Nomad N24 Series - 14 manhours.

G. Material - Price and Availability

The parts required to incorporate the modification detailed in this Service Bulletin are available as kit P/N NMD-56-4-1 (N22-Series aircraft), P/N NMD-56-4-2 (N24-Series aircraft with normal passenger doors) and P/N NMD-56-4-3 (N24-Series aircraft with airstair door) from the operator's local distributor. Distributors are to place a purchase order on G.A.F. through the normal procurement procedure. Purchase orders are to quote the aircraft serial number and Service Bulletin NMD-56-4. These kits will be available ex-factory from August 1981 at the prices listed below. The price remains effective for 90 days from the date of this bulletin.

<u>Kit P/N</u>	<u>Cost per aircraft</u>
NMD-56-4-1	\$536
NMD-56-4-2	\$772
NMD-56-4-3	\$801

H. Tooling - Price and Availability

None required.

J. Weight and Balance

Negligible effect.

K. References

MM - Maintenance Manual and relevant Option Supplements  
IPC - Illustrated Parts Catalogue.

L. Publications Affected

Maintenance Manual  
Illustrated Parts Catalogue.

2. Accomplishment Instructions

A. Windows in Main Fuselage and Rear Fuselage

CAUTION: EXCEPT FOR N24-SERIES AIRCRAFT FORWARD CABIN WINDOWS WHICH ARE OF POLYCARBONATE (POST MOD N452) ALL OTHER CABIN WINDOWS OF N22 AND N24-SERIES AIRCRAFT ARE OF ACRYLIC. CARE SHOULD BE TAKEN WITH BOTH TYPES OF MATERIAL TO AVOID SCRATCHING OR CONTAMINATING THE WINDOWS WITH INJURIOUS COMPOUNDS OR SOLVENTS. REFER TO MM 56-00-00 FOR CLEANING AND SERVICING INSTRUCTIONS.

- (1) Remove the window lining panel (Ref MM 25-30-00).
- (2) Remove and discard the strip of adhesive tape sealing the joint between the top edge of the window surround and the inner window.
- (3) Remove and retain the six screws and washers (Ref IPC 25-20-00, Figure 6, items 12 and 13) securing the inner window and roller blind frame assembly to the window surround.
- (4) Withdraw the roller blind frame assembly and inner window by sliding them downwards until free of the hook bracket on top of the window surround, then inwards into the cabin.
- (5) Inspect the outer window for security of attachment. If any signs of detachment are evident, remove the outer window and refit using new gaskets (Ref Service Bulletin NMD-56-3).
- (6) Position a reinforcing plate P/N 1A/N-00-349 at each corner as shown in Figure 1 and attach it to the fuselage skin using commercial araldite or a suitable adhesive.
- (7) In turn, correctly position the four brackets P/N 1B/N-00-349 (Ref Figure 1) and drill a 5.0 mm diameter hole through the reinforcing plate and fuselage skin using the 5.0 mm diameter hole in the bracket as a drill guide.
- (8) Attach a strip of self-adhesive PVC foam tape (Unisil P/N 1004) across the width of each bracket (Ref Figure 1) and secure the brackets using the attaching parts shown in Figure 1. Torque tighten the nuts to between 15 and 20 lb in above torque value required to overcome the friction of the nut insert.

- (9) Refit the roller blind frame assembly and inner window to the window surround.
- (10) Seal the top edge of the joint between the window surround and the inner window with Scotchcal No 3655 one inch wide tape or a suitable alternative. (Ref Para 3).
- (11) Refit the window lining panel (Ref MM 25-20-00).

**B. Window in Air Stair Door Assembly**

- (1) Remove internal door handle (Ref Option Supplement G211, IPC, item 59).
- (2) Remove top extrusion (Ref Option Supplement G211, IPC, item 9).
- (3) Remove window panel lining and insulation pads.
- (4) Inspect the window for security of attachment, if any signs of detachment are evident remove the window and refit using new gaskets (Ref Service Bulletin NMD-56-3).
- (5) Position a reinforcing plate P/N 1A/N-00-349 at each corner of the window as shown in Figure 2 and attach it to the door skin using commercial araldite or a suitable adhesive.
- (6) In turn, correctly position the four brackets P/N 1B/N-00-349 (Ref Figure 2) and drill a 5.0 mm diameter hole through the reinforcing plate and door skin using the 5.0 mm diameter hole in the bracket as a drill guide.
- (7) Attach a strip of self-adhesive PVC foam tape (Unisil P/N 1004) across the width of each bracket (Ref Figure 2) and secure the brackets using the attaching parts shown in Figure 2. Torque tighten the nuts to between 15 and 20 lb in above torque value required to overcome the friction of the nut insert.
- (8) Refit the insulation pads using Scotch Grip or similar adhesive.
- (9) Refit the window panel lining and top extrusion.
- (10) Refit the internal door handle.

**C. Windows in Forward and Aft Passenger Doors**

- (1) Remove the internal door handle (Ref IPC 52-15-01, Figure 1, Sheet 2, item 17, forward door, 52-15-02, Figure 1, Sheet 2, item 17, aft door).

- (2) Remove the bottom extrusion retained in position by three screws P/N MS 35206-228.
- (3) Remove the lower interior panel (Ref MM 52-10-00).
- (4) Remove the centre extrusion retained in position by three screws P/N MS 24693-528.
- (5) Remove the upper interior panel (Ref MM 52-10-00).
- (6) Remove and discard the strip of adhesive tape sealing the top edge of the joint between the window surround and the inner window.
- (7) Remove and retain the six screws and washers (Ref IPC 25-20-00, Figure 6, items 12 and 13) securing the inner window and roller blind frame assembly to the window surround.
- (8) Withdraw the roller blind frame assembly and inner window by sliding them downwards until free of the hook bracket on top of the window surround, then inwards into the cabin.
- (9) Inspect the outer window for security of attachment, if any signs of detachment are evident, remove the outer window and refit using new gaskets (Ref Service Bulletin NMD-56-3).
- (10) In turn, correctly position the four brackets P/N 1A/N-11-1275 at each corner of the window as shown in Figure 3 and drill a 5.0 mm diameter hole through the door skin using the 5.0 mm diameter hole in the bracket as a drill guide.
- (11) Attach a strip of self-adhesive PVC foam tape (Unisil Seal P/N 1004) across the width of each bracket (Ref Figure 3) and secure the brackets using the attaching parts shown in Figure 3. Torque tighten the nuts to between 15 to 20 lb in above the torque value required to overcome the friction of the nut insert.
- (12) Refit the roller blind frame assembly and inner window to the window surround.
- (13) Seal the top edge of the joint between the window surround and the inner window with Scotchcal No 3655 one inch wide tape, or a suitable alternative.
- (14) Refit the upper interior panel (Ref MM 52-10-00) and centre extrusion.
- (15) Refit the lower interior panel (Ref MM 52-10-00) and bottom extrusion.
- (16) Refit the internal door handle.

### 3. Material Information

#### A. Parts Required Per Aircraft

- (1) One kit P/N NMD-56-4-1 is required for each N22-Series aircraft containing the following items:

<u>P/N</u>	<u>Title</u>	<u>Quantity</u>
1A/N-00-349	Plate, reinforcing	28
1B/N-00-349	Bracket	28
1004	Self-adhesive PVC foam tape (Unisil Sealants Division, Wrightcel Ltd.)	A/R
MS35207-262	Screw, panhead 10-32 UNC	36
AN960PD10	Washer, flat	36
MS21083-N3	Nut, self-locking 10-32 UNC	36
1A/N-11-1275	Bracket	8

- (2) One kit P/N NMD-56-4-2 is required for each N24-Series aircraft with normal passenger doors containing the following items:

<u>P/N</u>	<u>Title</u>	<u>Quantity</u>
1A/N-00-349	Plate, reinforcing	44
1B/N-00-349	Bracket	44
1004	Self-adhesive PVC foam tape (Unisil Sealants Division, Wrightcel Ltd.)	A/R
MS35207-262	Screw, panhead 10-32 UNC	52
AN960PD10	Washer, flat	52
MS21083-N3	Nut, self-locking 10-32 UNC	52
1A/N-11-1275	Bracket	8

- (3) One Kit P/N NMD-56-4-3 containing the following items is required for each N24-Series aircraft fitted with an airstair door:

<u>P/N</u>	<u>Title</u>	<u>Quantity</u>
1A/N-00-349	Plate, reinforcing	44
1B/N-00-349	Bracket	44
1004	Self-adhesive PVC foam tape (Unisil Sealants Division, Wrightcel Ltd.)	A/R
MS35207-262	Screw, panhead 10-32 UNC	52
AN960PD10	Washer, flat	52
MS21083-N3	Nut, self-locking 10-32 UNC	52
1A/N-11-1275	Bracket	4

(4) The following items are to be obtained from operator's stock or local sources:

(a) Commercial araldite or suitable adhesive.

(b) Scotchcal No. 3655 tape, 1 inch wide or 'Scotch' Brand No. 471, black (3M's Co.) or FET 144 (3M's Co.) or Permacel 29 (Johnson and Johnson P/L).

(c) Scotch Grip or similar adhesive.

B. Parts Modified and Re-identified by the Operator

None.

C. Parts Required to Modify Spares

None.

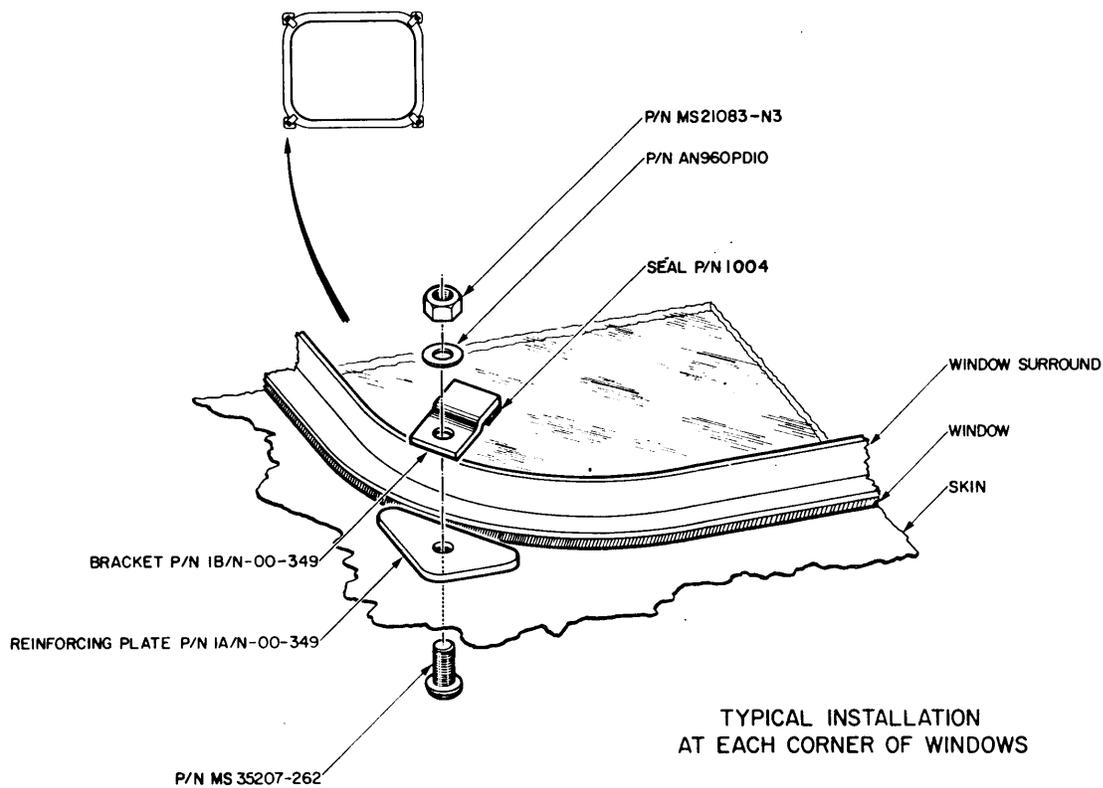
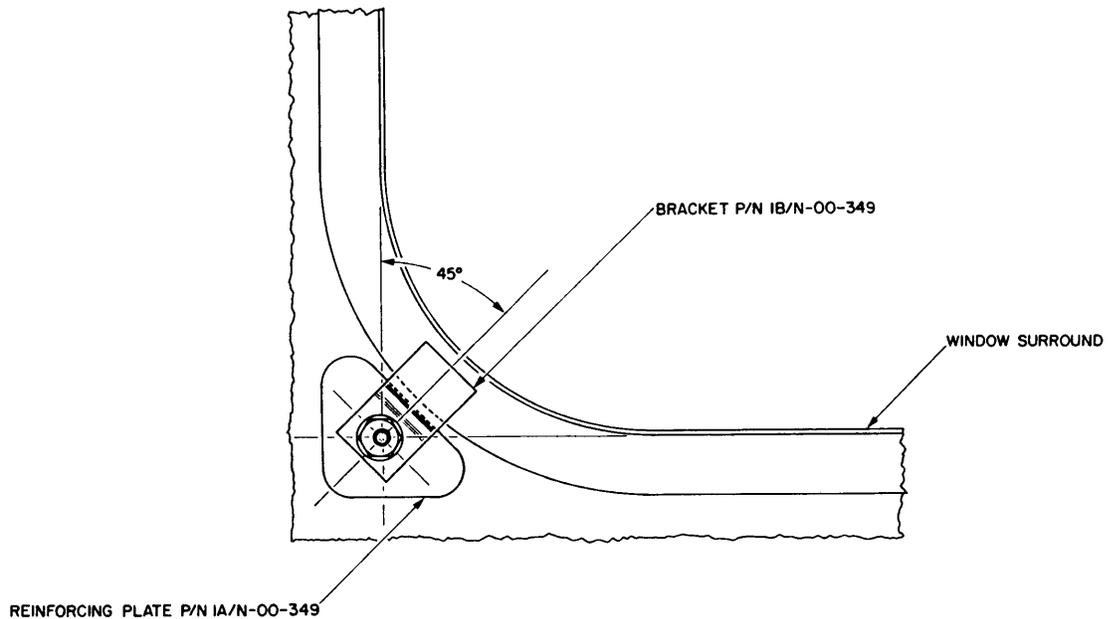
D. Removed Parts

None.

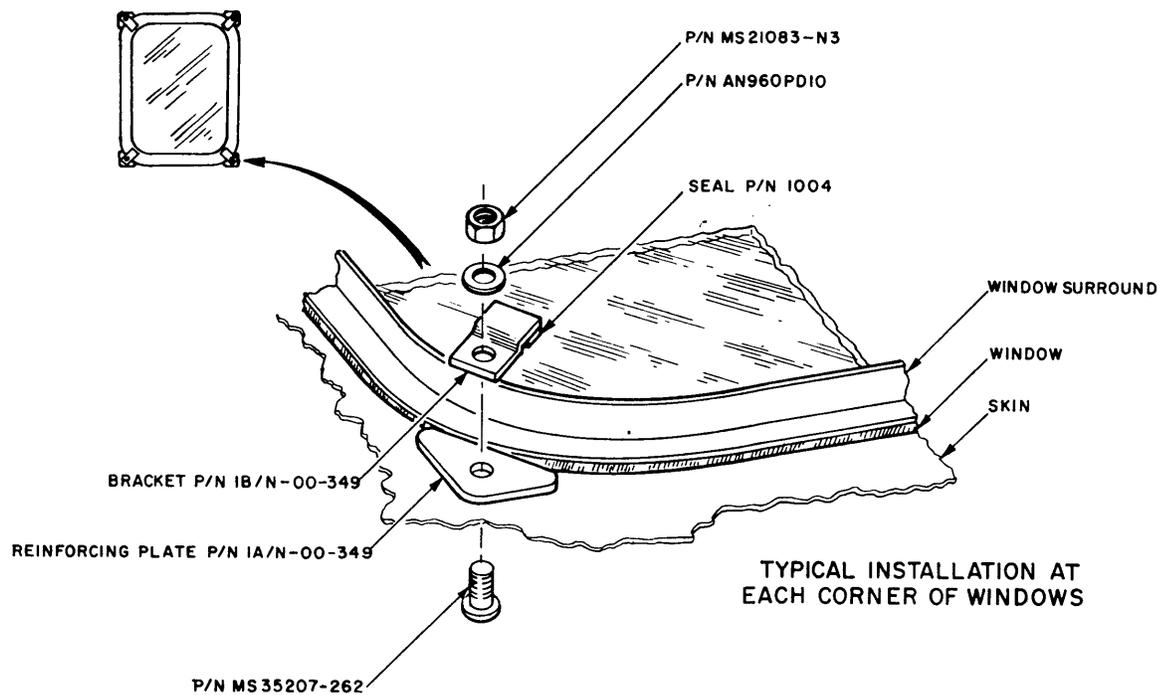
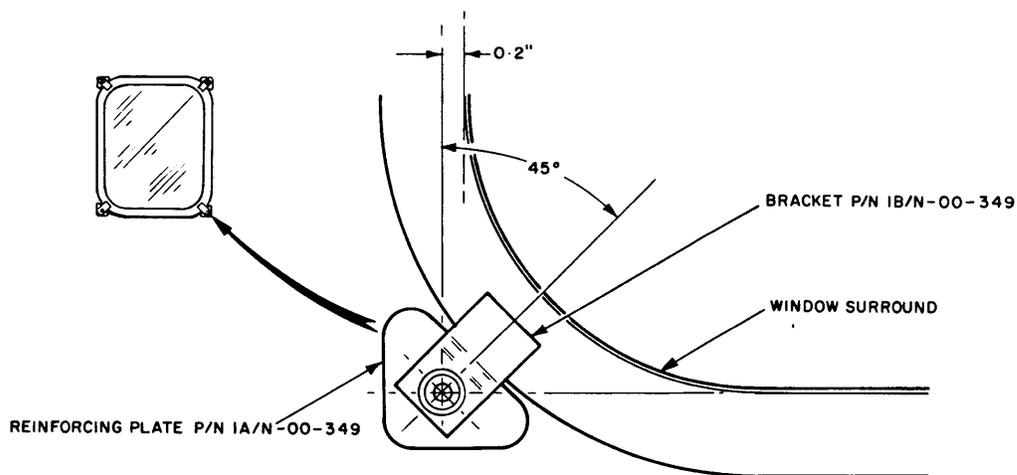
E. Special Tools and Equipment Required

None.

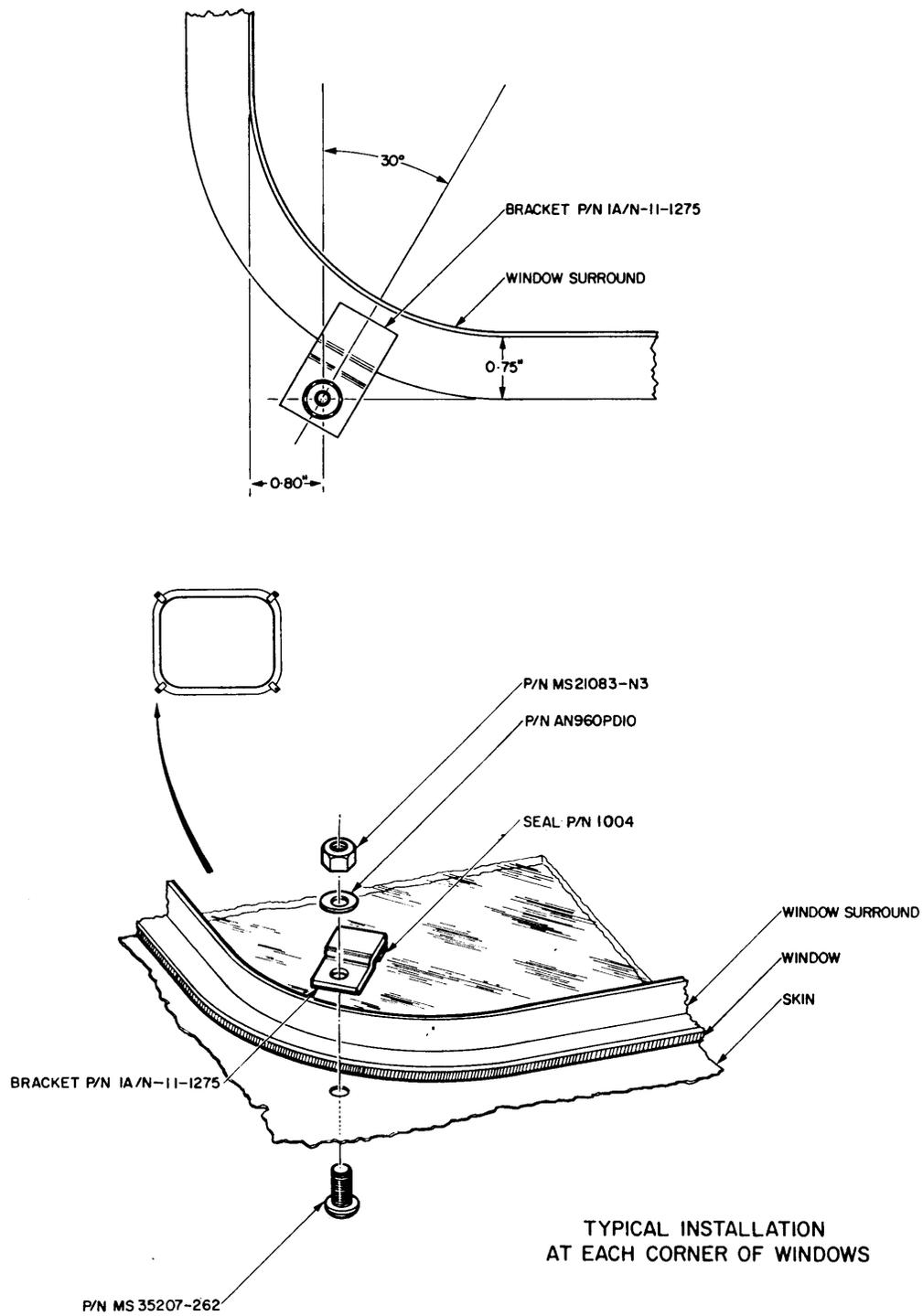
4. Record compliance with S/B NMD-56-4 in the airframe log book.



Fuselage Windows  
Installation of Mod N481  
Figure 1



Air Stair Door Assembly  
Installation of Mod N481  
Figure 2



Passenger Door Windows  
Installation of Mod N481  
Figure 3