COMPONENT MAINTENANCE MANUAL WITH ILLUSTRATED PARTS LIST

PASSENGER WINDOW ASSEMBLY AND PASSENGER WINDOW PLUG ASSEMBLY

PART NUMBER 140N2139–1, –2, –3, –4, 140N2312–10, –17, –29, –32, –33, –34, –9, 65-45790–20, –38, –44, –509, –56, –57, –58, –59, –61, –79, –83, –84, –85, –86, –87, –88, –89,

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COMPONENT MAINTENANCE MANUAL

Revision No. 21
Jul 01/2009

To: All holders of PASSENGER WINDOW ASSEMBLY AND PASSENGER WINDOW PLUG ASSEMBLY 56-21-51.

Attached is the current revision to this COMPONENT MAINTENANCE MANUAL

The COMPONENT MAINTENANCE MANUAL is furnished either as a printed manual, on microfilm, or digital products, or any combination of the three. This revision replaces all previous microfilm cartridges or digital products. All microfilm and digital products are reissued with all obsolete data deleted and all updated pages added.

For printed manuals, changes are indicated on the List of Effective Pages (LEP). The pages which are revised will be identified on the LEP by an R (Revised), A (Added), O (Overflow, i.e. changes to the document structure and/or page layout), or D (Deleted). Each page in the LEP is identified by Chapter-Section-Subject number, page number and page date.

Pages replaced or made obsolete by this revision should be removed and destroyed.

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Location of Change	Description of Change
56-21-51 CLEANING	Changed the data in the Consumable Materials list. Changed consumable from ‘‘cloth, B00106’’ to ‘‘chamois cloth, B00106’’

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COMPONENT MAINTENANCE MANUAL

A = Added, R = Revised, D = Deleted, O = Overflow

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TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRR 34432	NOV 01/00
		PRR 35005-37	JUN 01/94
		PRR 38275-85	NOV 01/06
		PRR 53735-69	NOV 01/00
		PRR 53888	OCT 01/89
		PRR 53894	OCT 01/89
		PRR 54503	JUN 01/94
		MCN 0130-002	NOV 01/00
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COMPONENT MAINTENANCE MANUAL

All revisions to this manual will be accompanied by transmittal sheet bearing the revision number. Enter the revision number in numerical order, together with the revision date, the date filed and the initials of the person filing.

Revision		Filed	
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Revision		Filed	
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Temporary Revision		Inserted		Removed	
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Temporary Revision		Inserted		Removed	
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INTRODUCTION

1. General

A. The instructions in this manual supply the data necessary to do the maintenance functions together with the test, fault isolation, repair, and replacement of the defective parts.

B. This manual is divided into different parts:

(1) Title Page

(2) Transmittal Letter

(3) Highlights

(4) List of Effective Pages

(5) Table of Contents

(6) Temporary Revision & Service Bulletin Record

(7) Record of Revisions

(8) Record of Temporary Revisions

(9) Introduction

(10) Procedures & IPL Sections

C. Components that can be repaired have a different repair number for each specified repair. To find the repair number location of a component, look in the Repair-General procedure at the beginning of the REPAIR section. The Repair-General procedure also has an explanation of the True Position Dimension symbols used.

D. All dimensions, measures, quantities and weights included are in English units. When metric equivalents are given they will be in the parentheses that follow the English units.

E. The introduction to the Illustrated Parts List (IPL) shows how the IPL data is used.

F. Design changes, optional parts, configuration differences and Service Bulletin modifications may cause different part numbers. These part numbers are identified in the IPL with an alphabetical letter which is added to the end of the basic item number. This new item number is referred to as an alpha-variant. Throughout the manual, IPL basic item number references also apply to alpha-variants unless shown differently.

G. The tool reference numbers found in the individual procedures and in the Special Tools, Fixtures, and Equipment section are used to identify if a tool is a standard tool (STD-XXXX), a commercial tool (COM-XXXX), or a Special Tool (SPL-XXXX). This reference number is also used to distinguish between tools with similar names in the same procedure. These reference numbers are for use in the documentation only. They are not to be used for ordering tools.

PASSENGER WINDOW ASSEMBLY AND PASSENGER WINDOW PLUG ASSEMBLY - DESCRIPTION AND OPERATION

1. Description and Operation

A. The passenger window assembly has two acrylic plastic panes and a single-molded seal which holds the panes apart and becomes a pressure seal when the window is installed. The outer pane has beveled edges to fit the window frame. The middle (inner) pane has unbeveled edges, and has a small breather hole near the bottom.

B. The passenger window plug assembly has the same seal and middle pane as the passenger window assembly, but an aluminum plug with beveled edges replaces the outer pane.

2. Leading Particulars (approximate)

A. Height – 16 inches

B. Width – 12 inches

C. Thickness – 0.9 inch

D. Weight – 3.5 pounds

COMPONENT MAINTENANCE MANUAL

TESTING AND FAULT ISOLATION

(NOT APPLICABLE)

(NOT APPLICABLE)

CLEANING

1. General

A. This procedure has the data necessary to clean the passenger window assembly and passenger window plug assembly.

B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

2. Cleaning

A. Tools/Equipment

NOTE: Equivalent substitutes may be used.

Reference	Description
STD-765	Scraper - Plastic

B. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
B00083	Solvent - Aliphatic Naphtha (For Acrylic Plastics)	TT-N-95 Type II, ASTM D-3735 Type III
B00106	Cloth - Chamois Leather, Sheepskin, Oil Tanned	CS99-1970, KK-C-300
G01043	Cloth - Lint-free	
G01989	Soap - Castile	
G50527	water	

C. References

Reference	Title
SOPM 20-30-03	GENERAL CLEANING PROCEDURES

D. Procedure

CAUTION: DO NOT RUB THE DRY WINDOW WITH A DRY CLOTH. THIS CAN CAUSE SCRATCHES AND AN ELECTROSTATIC CHARGE WHICH ATTRACTS DUST PARTICLES.

(1) Clean all parts by standard industry practices, the instructions in SOPM 20-30-03, and these steps.

(2) Remove old adhesive from the edges of windowpanes carefully with a wooden scraper or plastic scraper, STD-765. Clean away adhesive film with solvent, B00083 applied with a clean, oil-free absorbent material.

(3) Clean windowpanes with lukewarm water, G50527 and castile soap, G01989. You can use a soft, clean cloth to put the soap solution on the pane, but use only your bare hand to go over the surface to find and remove dirt that could scratch the surface. Wipe dry with clean, damp chamois cloth, B00106.

(4) Clean seals with solvent, B00083 applied with a clean, oil-free, absorbent material. Wipe off the solvent before it evaporates, with a clean, oil-free and lint-free cloth, G01043. Clean again with solvent as necessary.

CHECK

1. General

A. This procedure has the data necessary to find defects in the material of the specified parts.

B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to IPL Figure 1 for item numbers.

2. Check

A. Procedure

(1) Examine all parts for defects by standard industry practices.

(2) Examine seals (5) for cuts, nicks, cracks and other defects.

(3) Acrylic window defect definitions are as follows:

(a) Crazing: A series of very fine fissures perpendicular to surface of the pane. Due to extremely narrow width of fissures, crazing is very difficult to detect when viewed normal to the surface. It can be seen by reflection from smooth surfaces of fissures when viewed at varying angles to the incident light.

(b) Crack: A fissure which has visible width when viewed parallel to the faces of the fissure. A crack may propagate at any angle to the surface of a plastic pane depending on direction of the driving force. Cracks in stretched acrylic may have a chevron or clamshell growth lines (CHECK, Figure 501). A crack will propagate from a stress riser such as a scratch or craze.

(c) Scratch: The removal or displacement of material from the surface of a pane along a line. The ratio of depth to width is usually quite small.

(d) Chips:

1) Spall (shell type) chips have circular or curved periphery with many fine hairlines or ridges that follow the outline of outer edge and degenerate toward the center or deepest point of chip, similar to a clamshell.

2) Vee-shaped chips have sharp narrow "V" shape and appear to propagate toward the interior of plastic.

(e) In-plane cracking (also called delamination):

1) A smooth surfaced fissure, or series of fissures, parallel to pane surfaces. In-plane cracking can occur in stretched acrylic and starts at edges of pane or at deep penetrations of the surface. It is most readily detected by the reflection of light from the smooth surfaces of the fissure.

(4) Check windowpanes (10, 15, IPL Figure 1) for cracks, crazing, delamination, chips and scratches as follows:

(a) Cracked panes (10, 15) – not acceptable.

(b) Crazed middle pane (15) – not acceptable.

(c) Crazed outer pane (10, IPL Figure 1) – permissible at other than beveled edge if depth does not exceed 0.05 inch in local area not over 2 inches in diameter.

(d) In-plane cracking of middle pane (15) – not acceptable.

(e) In-plane cracking at outer edge of outer pane (10, IPL Figure 1) – permissible at extreme edge within following limits:

1) Maximum extension from edge – 0.55 inch

2) Maximum length at edge – None - In-plane cracking or delamination may run all around the pane.

(f) In-plane cracking of outer pane (10) at any place other than extreme edge - permissible on surface other than extreme edge within the following limits:

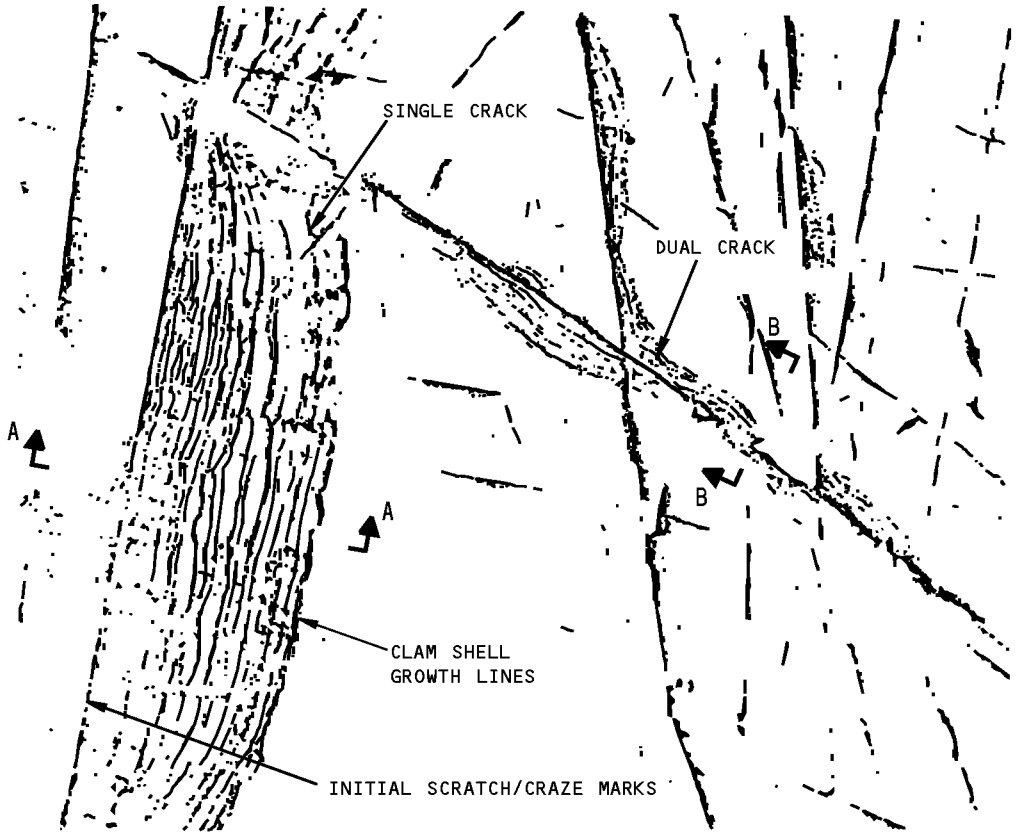
1) Maximum chip depth – 0.05 inch

2) Maximum size of delamination – 0.40-inch diameter

3) Minimum distance between defects – twice maximum damage diameter

NOTE: In-plane cracks will continue to grow - reuse of outer panes that exhibit in-plane cracks is not recommended.

(g) Chipped middle pane (15) – Surface chips and V-shaped edge chips no greater than 0.06 inch in the maximum dimension are permissible.



Window Surface Damage
Figure 501

REPAIR

1. Content

A. Repair, refinish and replacement procedures are included in separate repair sections as follows:

Table 601:

P/N	NAME	REPAIR
140N2139	WINDOW ASSEMBLY	1-1
140N2312	WINDOW ASSEMBLY	1-1
65-45790	WINDOW ASSEMBLY	1-1
140N2314	WINDOW PLUG	2-1
65-67785	WINDOW PLUG	2-1
—	MISCELLANEOUS PARTS REFINISH	3-1

2. Standard Practices

A. Refer to the following standard practices, as applicable, for details of procedures in individual repairs.

(1) SOPM 20-30-02 Stripping of Protective Finishes

(2) SOPM 20-30-03 General Cleaning Procedures

(3) SOPM 20-41-01 Decoding Table for Boeing Finish Codes

(4) SOPM 20-44-02 Temporary Protective Coatings

(5) SOPM 20-60-01 Cleaning Materials

(6) SOPM 20-60-02 Finishing Materials

(7) SOPM 20-60-04 Miscellaneous Materials

3. Materials

NOTE: Equivalent substitutes can be used.

A. Buffing Compound – Learok 119 compound, B00026 Learock S-30 (SOPM 20-60-04)

B. Polish – Learok 884E compound, B00027 Learock 888 (SOPM 20-60-04)

C. Protective Coating – Spraylat SC-1071H-1 agent, G50369 Spraylat SC-1071 (SOPM 20-60-02)

D. Protective Tape – Scotch 670 or Y-9017 (SOPM 20-60-04)

E. Solvent – solvent, B00083 TT-N-95, Aliphatic Naphtha (SOPM 20-60-01)

F. Tape, Masking – tape, G50271 Any source

G. Sandpaper – Sandpaper, G50261 Wet-or-dry, 400-A grit, 600-A grit, any source

H. Polish – Mirror Glaze M10 or M17 (SOPM 20-60-04)

I. Primer – primer, C00259 BMS 10-11, Type 1 SOPM 20-60-02

J. Primer – primer, C00319 BMS 10-79 type 2

K. Coating – coating, C00260 BMS 10-11 Type 2

L. Coating – Gray gloss enamel coating, C00700 BMS 10-60 type 1 BAC 707

M. Sealant – compound, A00214 BMS 5-28 Type 3

4. Dimensioning Symbols

A. Standard True Position Dimensioning Symbols used in the applicable repair procedures are shown in REPAIR-GENERAL, Figure 601.

—	STRAIGHTNESS
▱	FLATNESS
⊥	PERPENDICULARITY (OR SQUARENESS)
//	PARALLELISM
○	ROUNDNESS
⌭	CYLINDRICITY
⌒	PROFILE OF A LINE
⌓	PROFILE OF A SURFACE
◎	CONCENTRICITY
⌯	SYMMETRY
∠	ANGULARITY
↗	RUNOUT
↗↗	TOTAL RUNOUT
⌴	COUNTERBORE OR SPOTFACE
⌵	COUNTERSINK
⌖	THEORETICAL EXACT POSITION OF A FEATURE (TRUE POSITION)
Ø	DIAMETER
S Ø	SPHERICAL DIAMETER
R	RADIUS
SR	SPHERICAL RADIUS
()	REFERENCE
BASIC (BSC) OR [DIM]	A THEORETICALLY EXACT DIMENSION USED TO DESCRIBE SIZE, SHAPE OR LOCATION OF A FEATURE FROM WHICH PERMISSIBLE VARIATIONS ARE ESTABLISHED BY TOLERANCES ON OTHER DIMENSIONS OR NOTES.
[-A-]	DATUM
Ⓜ	MAXIMUM MATERIAL CONDITION (MMC)
Ⓛ	LEAST MATERIAL CONDITION (LMC)
Ⓢ	REGARDLESS OF FEATURE SIZE (RFS)
Ⓟ	PROJECTED TOLERANCE ZONE
FIM	FULL INDICATOR MOVEMENT
TIR	TOTAL INDICATOR READING

EXAMPLES

[— | 0.002]	STRAIGHT WITHIN 0.002
[⊥ | 0.002 | B]	PERPENDICULAR TO B WITHIN 0.002
[// | 0.002 | A]	PARALLEL TO A WITHIN 0.002
[○ | 0.002]	ROUND WITHIN 0.002
[⌭ | 0.010]	CYLINDRICAL SURFACE MUST LIE BETWEEN TWO CONCENTRIC CYLINDERS, ONE OF WHICH HAS A RADIUS 0.010 INCH GREATER THAN THE OTHER
[⌒ | 0.006 | A]	EACH LINE ELEMENT OF THE SURFACE AT ANY CROSS SECTION MUST LIE BETWEEN TWO PROFILE BOUNDARIES 0.006 INCH APART RELATIVE TO DATUM PLANE A
[⌓ | 0.020 | A]	SURFACES MUST LIE WITHIN PARALLEL BOUNDARIES 0.02 INCH APART AND EQUALLY DISPOSED ABOUT TRUE PROFILE
[◎ Ø 0.0005 | C]	CONCENTRIC TO C WITHIN 0.0005 DIAMETER
[⌯ | 0.010 | A]	SYMMETRICAL WITH A WITHIN 0.010
[∠ | 0.005 | A]	ANGULAR TOLERANCE 0.005 WITH A
[⌖ Ø 0.002 Ⓢ | B]	LOCATED AT TRUE POSITION WITHIN 0.002 DIA RELATIVE TO DATUM B, REGARDLESS OF FEATURE SIZE
[⊥ Ø 0.010 Ⓜ | A] [0.510 Ⓟ]	AXIS IS TOTALLY WITHIN A CYLINDER OF 0.010-INCH DIAMETER, PERPENDICULAR TO, AND EXTENDING 0.510-INCH ABOVE, DATUM A, MAXIMUM MATERIAL CONDITION
[2.000] OR 2.000 BSC	THEORETICALLY EXACT DIMENSION IS 2.000

NOTE: DATUM MAY APPEAR AT EITHER SIDE OF TOLERANCE FRAME [0.020 | A] [A | 0.020]

True Position Dimensioning Symbols
Figure 601

WINDOW ASSEMBLY - REPAIR 1-1

140N2139–1, –2, –3, –4, –5, 140N2312–10, –32, –33, –34, 65-45790–20, –38, –44, –56, –57, –58, –59, –61, –79, –83, –84, –85, –86, –87, –88, –90

1. General

A. This procedure tells how to repair and refinish the window assembly.

B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the Material codes identified in this procedure.

D. Refer to REPAIR-GENERAL, Figure 601 for standard true position dimensioning symbols shown in the repair figures.

E. Refer to IPL Figure 1 for item numbers.

2. Repair Chipped or Scratched Passenger Window (1) (IPL Figure 1)

A. Give protection to the undamaged side of the window with protective tape or Spraylat SC-1071H-1 agent, G50369.

B. Remove small surface scratches with polish on a wet, clean cloth. Rub with a circular motion. Start at the pane center, and work outward. Use a clean, flannel cloth for each operation.

CAUTION: DO NOT LET THE WINDOW GET TOO HOT. KEEP THE BUFFING WHEEL IN CONSTANT MOTION TO KEEP THE WINDOW SURFACE TEMPERATURE BELOW 130°F. AT THIS TEMPERATURE, THE WINDOW WILL NOT FEEL HOT WHEN TOUCHED BY THE BACK OF YOUR HAND WITHIN 2 SECONDS AFTER THE BUFFING WHEEL IS REMOVED.

C. Remove small scratches and surface crazing.

(1) Buff if necessary with coarse Learok 119 compound, B00026 and a stitched muslin wheel, at a wheel surface speed of 3200 feet per minute.

(2) Polish to a high gloss with Learok 884E compound, B00027 and a loosely-stitched flannel wheel at a wheel surface speed of 4200 feet per minute.

D. Remove chips or buildup material on larger scratches.

(1) With presoaked Sandpaper, G50261 wrapped around a sanding block, sand across the buildup at approximately 45 degrees within a diameter of approximately 4 inches. Change the sandpaper as necessary.

(2) Remove sanding marks with No. 600-A wet-or-dry sandpaper.

E. Polish the window.

(1) Shake the polish.

(2) Apply the polish directly to the acrylic surface or to the flannel polishing cloth. Apply the polish in a thin layer over the surface.

(3) Remove unwanted wax with flannel cloth.

(4) Before or after the polish dries, polish to a high gloss with a clean flannel cloth.

(5) Remove any streaks or fingerprints from the polished surface with a clean flannel cloth. If appearance is still unsatisfactory, polish the window again.

F. Measure the window thickness after the procedure. Make sure that individual pane thickness is not less than these limits:

(1) Middle pane (15) – 0.157 inch

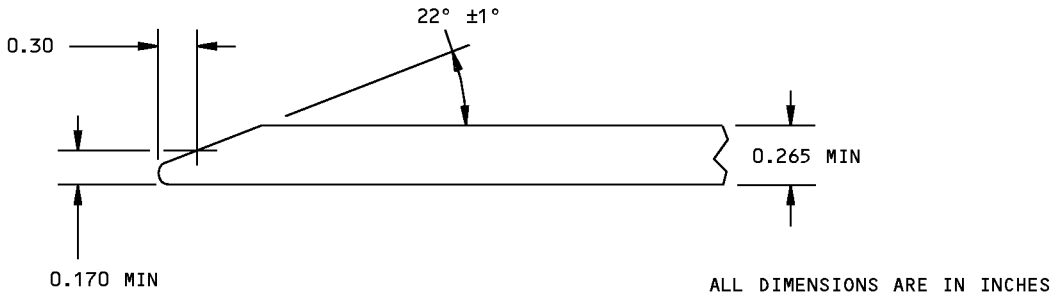
(2) Outer pane (10) – 0.265 inch

G. Repair the crazed outer window pane beveled edge.

CAUTION: BE SURE TO KEEP THE SEAL PLANE.

(1) Machine all of the seal plane of the beveled edge within repair limits (REPAIR 1-1, Figure 601) to remove the crazing.

(2) Examine the machined edge for signs of crazing. Remove the windowpane from service if there is crazing remaining after the beveled edge was machined to the repair limits.



Outer Windowpane Repair
Figure 601

WINDOW PLUGS – REPAIR 2-1

140N2314–1, –2, 65-67785–2

1. General

A. This procedure tells how to repair and refinish the window plugs.

B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the Material codes identified in this procedure.

2. Defect Repairs (REPAIR 2-1, Figure 601)

A. Small Defects in Zones 1, 3, 4

(1) Defects less than 0.01 inch deep and less than 0.25 inch long can be repaired.

(2) Blend defects smooth to a 125 microinch finish.

(3) Refinish as indicated.

B. Defects in Zone 1

(1) Defects less than 0.10 inch deep must be repaired.

(2) Blend the defects smooth with a 1.0-inch minimum radius.

(3) Each blend can be no longer than 2.0 inches. Total of all blended areas can be no longer than 6.0 inches.

C. Defects in Zones 2, 3

(1) Defects can be repaired if they are less than 0.03 inch deep.

(2) Blend the defects smooth (20 to 1 ratio).

(3) Each blend can be no longer than 2.0 inches. Total of all blended areas can be no longer than 6.0 inches.

(4) Refinish as indicated.

(5) Fill the repaired areas of the Zone 3 surfaces smooth with compound, A00214 to make the surfaces a good seal again.

D. Surface Defects in Zones 4, 5

(1) Defects can be repaired if less than 15 percent of the part thickness will be removed.

(2) Blend the defects smooth (20 to 1 ratio).

(3) Refinish as indicated.

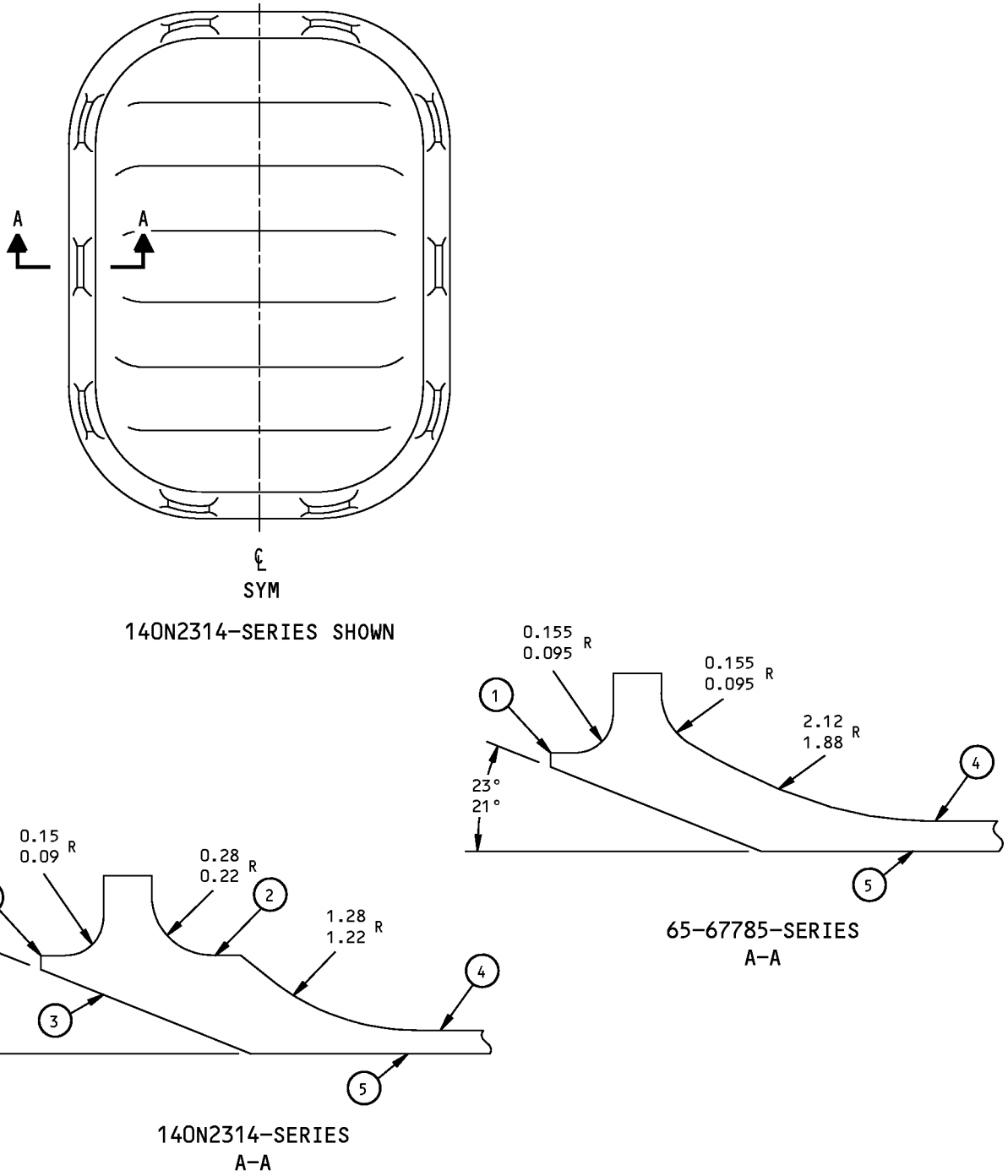
E. The part cannot be repaired if the defects are more than the above limits, or if there are cracks, holes, or punctures.

3. Plug Refinish

A. Plugs 65-67785-2 - Chromic acid anodize (F-2.26) all over. Apply BMS 10-11, Type 1 primer, C00259 (SRF-12.206) but not on the Zone 5 surfaces. Apply BMS 10-11, type 2 enamel coating, C00260 (F-21.27-7025, which replaces SRF-14.967). Material: Al alloy.

B. Plugs 140N2314-1 - Passivate (F-17.25, which replaces F-17.09). On Zone 5 surfaces, apply BMS 10-79, Type 2 primer, C00319 (F-19.46) and BMS 10-60 enamel coating, C00700 (F-14.9813, which replaces SRF-14.9813). Material: 15-5PH CRES, 150-170 ksi.

C. Plugs 140N2314-2 - On Zone 1 thru 4 surfaces, chromic acid anodize and apply BMS 10-11, Type 1 primer, C00259 (F-18.13). On Zone 5 surfaces, chromic acid anodize (F-17.02). Material: Al alloy.



65-67785-2 140N2314-1,-2 Window Plug Repair Details
Figure 601

MISCELLANEOUS PARTS REFINISH - REPAIR 3-1

1. General

A. This procedure tells how to refinish the parts which are not in the other repairs.

B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the Material codes identified in this procedure.

D. Refer to IPL Figure 1 for item numbers.

2. Repair

A. Repair of the parts in REPAIR 3-1, Table 601 is only replacement of the original finish.

Table 601: Refinish Details

IPL FIG. & ITEM	MATERIAL	FINISH
Fig. 1		
Stiffening ring (20)	Plastic	No finish (F-25.01).
Clamping ring (25)	Al alloy	Chemical treat (F-17.07). Apply BMS 10-11, Type 1 primer, C00259 (F-20.02).
Airflow damper (30)	Plastic	No finish (F-25.01).

ASSEMBLY

1. General

A. This procedure tells how to assemble the passenger window assembly and passenger window plug assembly.

B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

2. Assembly

A. References

Reference	Title
SOPM 20-44-02	TEMPORARY PROTECTIVE COATINGS
SOPM 20-70-01	PROTECTION, STORAGE AND HANDLING OF AIRPLANE COMPONENTS

B. Materials

NOTE: NOTE: Equivalent substitutes can be used.

(1) Protective Coating – Spraylat SC-1071 (SOPM 20-44-02)

(2) Protective Tape – Scotch 670 or 3-9017 (SOPM 20-44-02)

(3) Tape, Masking – Any source

C. Procedure

(1) Assemble outer windowpane (10) with the part number at the top of the pane, middle windowpane (15) with the breather hole at the bottom of the pane, and the seal (5) as a unit. Do not remove the protective diaphragm that is molded integrally with the seal. This diaphragm will be removed after the window assembly is installed in the airplane.

(2) Give protection to the surface of middle pane (15) with Scotch 670 or Y-9017 protective tape, a cellulose sheet, or equivalent, and hold the parts together with tape.

(3) Give the assembled units protection and put them away by standard industry practices and the instructions in SOPM 20-44-02 and SOPM 20-70-01.

COMPONENT MAINTENANCE MANUAL

FITS AND CLEARANCES

(NOT APPLICABLE)

COMPONENT MAINTENANCE MANUAL

SPECIAL TOOLS, FIXTURES, AND EQUIPMENT

(NOT APPLICABLE)

ILLUSTRATED PARTS LIST

1. Introduction

A. The Illustrated Parts List (IPL) contains an illustration and a list of component parts you can repair or replace. The Illustrated Parts Catalog (IPC) shows how to use the Boeing part number system.

B. This shows how parts are related: The relation of each item to its next higher assembly (NHA) is shown in the NOMENCLATURE column. Use the indenture system that follows:

1 2 3 4 5 6 7

. Assembly

. Attaching parts for assembly

. . Detail parts for assembly

. . Subassembly

. . Attaching parts for subassembly

. . . Detail parts for subassembly

. . . Sub-subassembly

. . . Attaching parts for subassembly

. . . . . Details parts for sub-subassembly

Detail Installation Parts (Included only if installation parts may be sent to the shop as part of assembly)

C. Each top assembly is given one use code letter (A, B, C, etc.) in the USAGE CODE column. All subsequent component parts in the list can have one or more of the use code letters to show effectivity to top assemblies. A component part without a use code applies to all top assemblies.

D. An alphabetical letter is added after the item number for optional parts, parts changed by a Service Bulletin, configuration differences (except left-handed and right-handed parts), last engineering releases, and parts added between item numbers in a sequence. The alphabetical letter will not be shown on the illustration for equivalent parts of the same part number.

E. Color-coded parts are identified with a single digit alpha following the dash number or with ''SP'' suffix. If the ''SP'' suffix is used, it represents consolidation of all color codes applicable for a given usage which are not separately listed. Orders for color-coded parts should include the registry number of the airplane for which the parts are ordered.

F. If a part number is 15 characters long but will not fit in the part number column, the part number will be displayed with a ''~'' at the end of the line and will be continued on the next line. The ''~'' denotes that the part number continues on the next line.

G. Parts changed by a Service Bulletin are shown by PRE SB XXXX and POST SB XXXX added to the NOMENCLATURE column.

(1) When a new top assembly is added by a Service Bulletin, PRE SB XXXX and POST SB XXXX will be added at the top assembly level only. The configuration differences at the detail part level are shown by use code letters.

(2) When the top assembly part number is not changed by the Service Bulletin, PRE SB XXXX and POST SB XXXX will be added at the detail level.

H. Interchangeable Parts

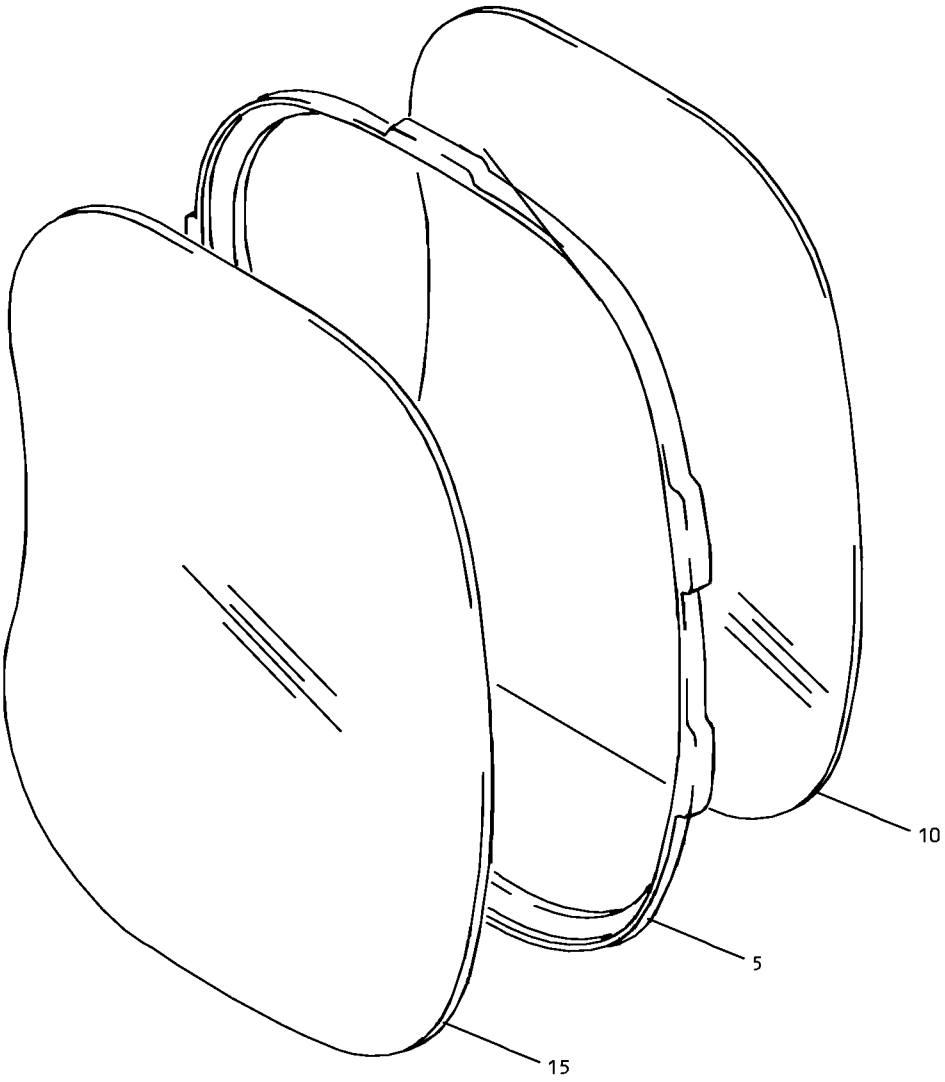
Optional (OPT)	The part is optional to and interchangeable with other parts that have the same item number.
Replaces, Replaced by and not interchangeable with (REPLACES, REPLACED BY AND NOT INTCHG/W)	The part replaces and is not interchangeable with the initial part.
Replaces, Replaced by (REPLACES, REPLACED BY)	The part replaces and is interchangeable with, or is an alternative to, the initial part.

NUMERICAL INDEX

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
140N2138-1		1	10E	1
140N2138-2		1	10F	1
140N2139-1		1	2R	RF
140N2139-2		1	3Q	RF
140N2139-3		1	3R	RF
140N2139-4		1	3S	RF
140N2139-5		1	3T	RF
140N2146-1		1	20	1
140N2147-2		1	30	1
140N2148-1		1	25	1
140N2312-10		1	2C	RF
140N2312-17		1	3L	RF
		2	1K	RF
140N2312-29		1	3M	RF
		2	1L	RF
140N2312-32		1	2S	RF
140N2312-33		1	2T	RF
140N2312-34		1	2U	RF
140N2312-9		1	3K	RF
		2	1J	RF
140N2314-1		2	11	1
140N2314-2		2	11B	1
		2	11D	1
140N2316-1		1	10A	1
140N2316-2		1	10B	1
140N2316-3		1	10C	1
65-45790-20		1	2A	RF
65-45790-38		1	2B	RF
65-45790-44		1	2E	RF
65-45790-509		1	3P	RF
		2	1N	RF
65-45790-56		1	2F	RF
65-45790-57		1	2D	RF
65-45790-58		1	2G	RF

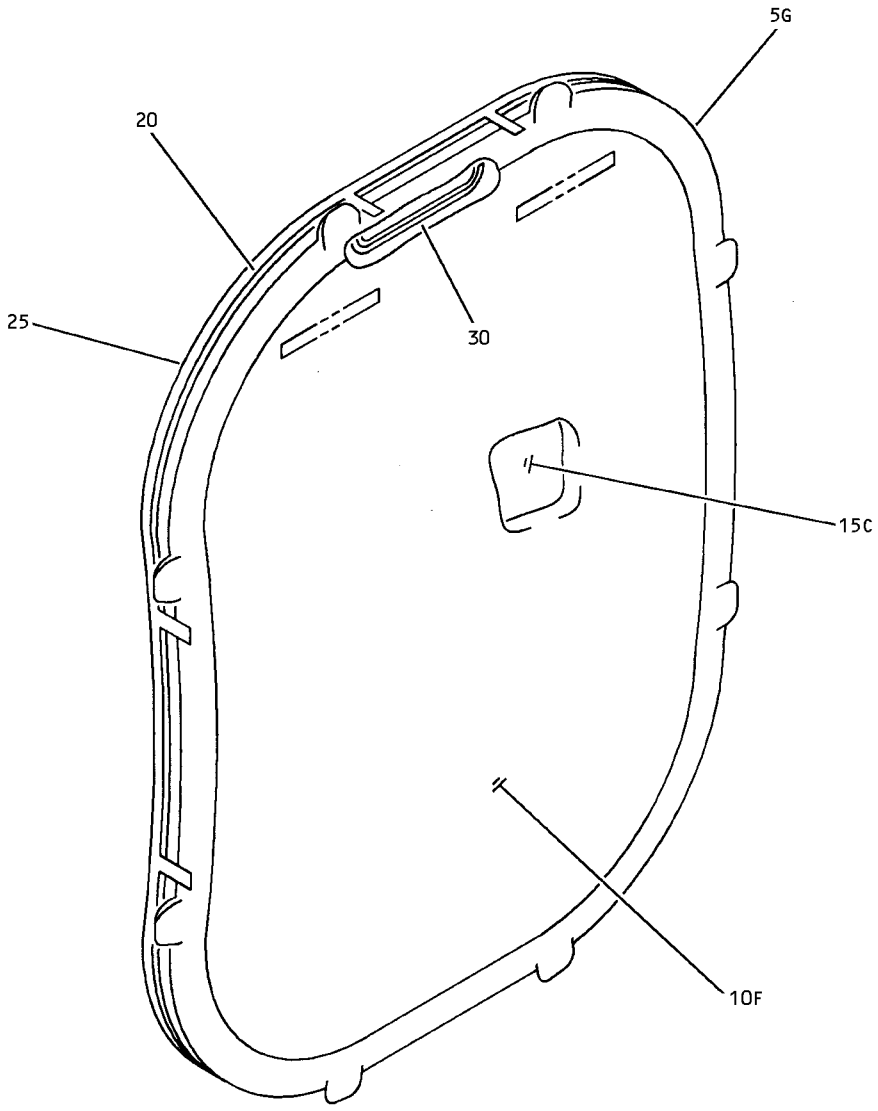
PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
65-45790-59		1	2H	RF
65-45790-61		1	2J	RF
65-45790-79		1	2K	RF
65-45790-83		1	2L	RF
65-45790-84		1	2V	RF
65-45790-85		1	2M	RF
65-45790-86		1	2N	RF
65-45790-87		1	2P	RF
65-45790-88		1	2W	RF
65-45790-89		1	3N	RF
		2	1M	RF
65-45790-90		1	2Q	RF
65-45791-2		1	10	1
65-45791-4		1	10D	1
65-45792-2		1	15	1
65-45792-4		1	15A	1
		1	15B	1
65-45792-5		1	15C	1
		1	15D	1
65-45792-6		1	15E	1
65-45792-7		1	15F	1
65-62296-1		2	6	1
65-62296-2		2	6A	1
65-62296-3		2	6B	1
65-67785-2		2	11A	1
		2	11C	1
65-76765-10		1	5E	1
65-76765-11		1	5F	1
65-76765-12		1	5G	1
65-76765-5		1	5	1
65-76765-6		1	5A	1
65-76765-7		1	5B	1
65-76765-8		1	5C	1
65-76765-9		1	5D	1
OPT		1	15B	1

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
		1	15D	1

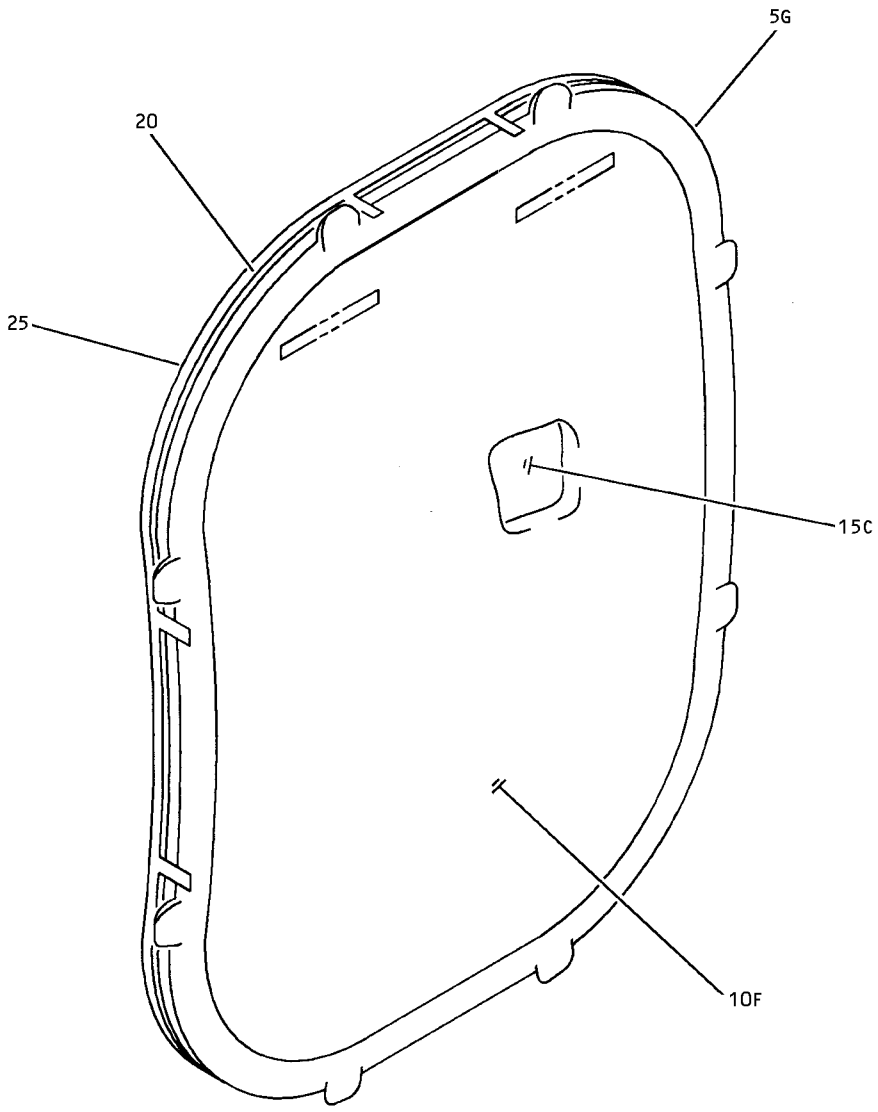


65-45790- SERIES
140N2312- SERIES
140N2139-1,-2,-3

Passenger Window Assembly
IPL Figure 1 (Sheet 1 of 3)



Passenger Window Assembly
IPL Figure 1 (Sheet 2 of 3)



Passenger Window Assembly
IPL Figure 1 (Sheet 3 of 3)

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–1	65-45790-20		DELETED		
–1A	65-45790-38		DELETED		
–1B	140N2312-10		DELETED		
–1C	140N2312-32		DELETED		
–1D	140N2312-33		DELETED		
–1E	140N2312-34		DELETED		
–1F	65-45790-57		DELETED		
–1G	65-45790-44		DELETED		
–1H	65-45790-56		DELETED		
–1J	65-45790-58		DELETED		
–1K	65-45790-59		DELETED		
–1L	65-45790-61		DELETED		
–1M	65-45790-79		DELETED		
–1N	65-45790-83		DELETED		
–1P	65-45790-84		DELETED		
–1Q	65-45790-85		DELETED		
–1R	65-45790-86		DELETED		
–1S	65-45790-87		DELETED		
–1T	65-45790-88		DELETED		
–1U	65-45790-90		DELETED		
–2A	65-45790-20		WINDOW ASSY-PASS.	A	RF
–2B	65-45790-38		WINDOW ASSY-PASS.	B	RF
–2C	140N2312-10		WINDOW ASSY-PASS.	C	RF
–2D	65-45790-57		WINDOW ASSY-PASS.	G	RF
–2E	65-45790-44		WINDOW ASSY-PASS. (VARIABLE)	D	RF
–2F	65-45790-56		WINDOW ASSY-PASS.	E	RF
–2G	65-45790-58		WINDOW ASSY-PASS.	F	RF
–2H	65-45790-59		WINDOW ASSY-PASS. (VARIABLE)	H	RF
–2J	65-45790-61		WINDOW ASSY-PASS. (VARIABLE)	J	RF

–Item not Illustrated

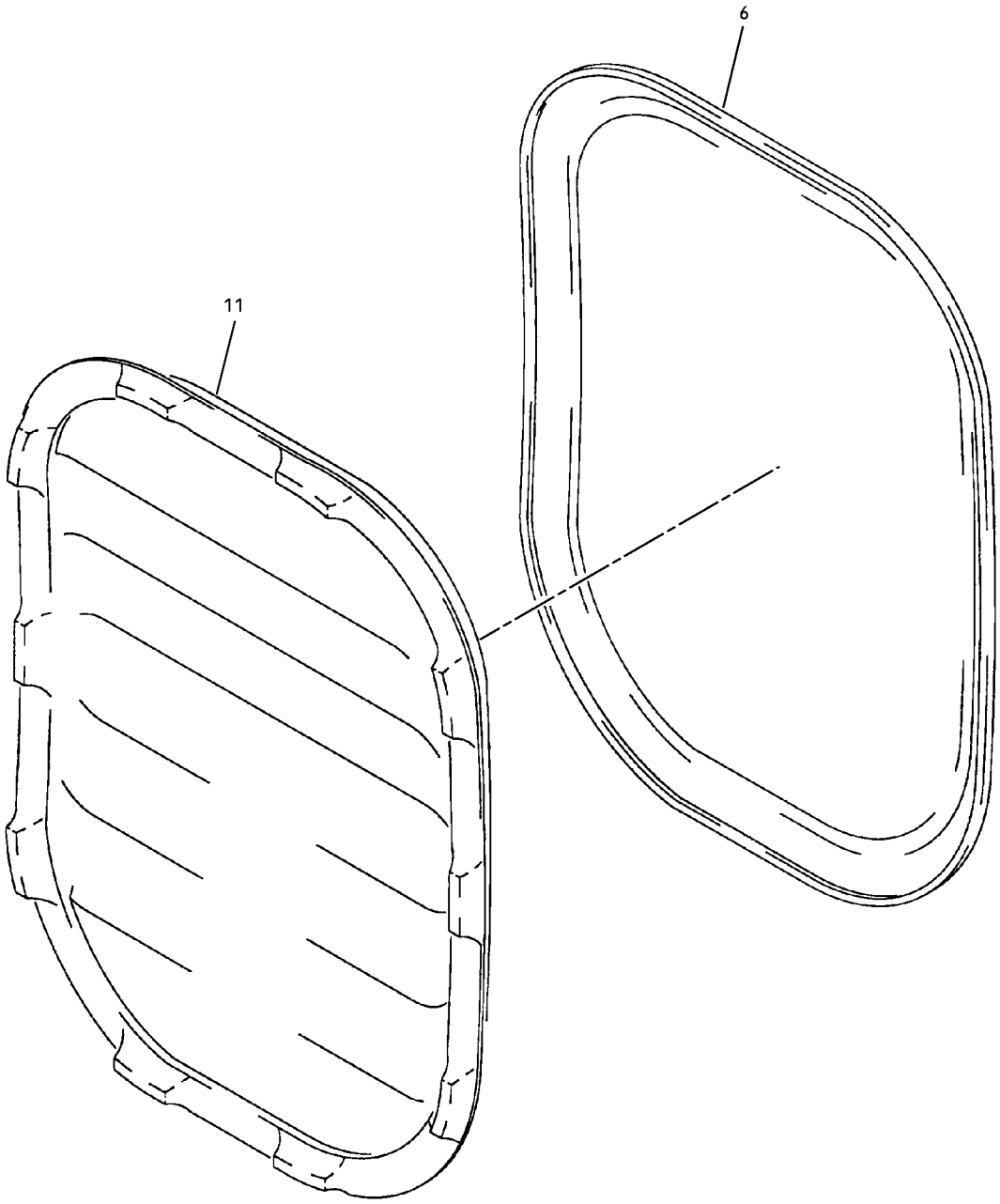
FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–2K	65-45790-79		WINDOW ASSY-PASS.	K	RF
–2L	65-45790-83		WINDOW ASSY-PASS.	L	RF
–2M	65-45790-85		WINDOW ASSY-PASS. (VARIABLE)	N	RF
–2N	65-45790-86		WINDOW ASSY-PASS.	P	RF
–2P	65-45790-87		WINDOW ASSY-PASS. (VARIABLE)	Q	RF
–2Q	65-45790-90		WINDOW ASSY-PASS.	S	RF
–2R	140N2139-1		WINDOW ASSY-PASS.	AJ	RF
–2S	140N2312-32		WINDOW ASSY-PASS. (VARIABLE)	AK	RF
–2T	140N2312-33		WINDOW ASSY-PASS. (VARIABLE)	AL	RF
–2U	140N2312-34		WINDOW ASSY-PASS. (VARIABLE)	AM	RF
–2V	65-45790-84		WINDOW ASSY-PASS.	AN	RF
–2W	65-45790-88		WINDOW ASSY-PASS.	AP	RF
–3	140N2312-4004		DELETED		
–3A	140N2312-4008		DELETED		
–3B	140N2312-4012		DELETED		
–3C	140N2312-4016		DELETED		
–3D	140N2312-4020		DELETED		
–3E	140N2312-4030		DELETED		
–3F	140N2312-4032		DELETED		
–3G	140N2312-4036		DELETED		
–3H	140N2312-4024		DELETED		
–3J	140N2312-4026		DELETED		
–3K	140N2312-9		PLUG ASSY (FOR DETAILS SEE FIG. 2)	AQ	RF
–3L	140N2312-17		PLUG ASSY (FOR DETAILS SEE FIG. 2)	AR	RF
–3M	140N2312-29		PLUG ASSY (FOR DETAILS SEE FIG. 2)	AS	RF

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–3N	65-45790-89		PLUG ASSY (FOR DETAILS SEE FIG. 2)	AT	RF
–3P	65-45790-509		PLUG ASSY (FOR DETAILS SEE FIG. 2)	AU	RF
–3Q	140N2139-2		WINDOW ASSY-PASS.	AV	RF
–3R	140N2139-3		WINDOW ASSY-PASS.	AW	RF
–3S	140N2139-4		WINDOW ASSY-PASS.	AX	RF
3T	140N2139-5		WINDOW ASSY-PASS.	AY	RF
–4	140N2312-4006		DELETED		
–4A	140N2312-4010		DELETED		
–4B	140N2312-4014		DELETED		
–4C	140N2312-4018		DELETED		
–4D	140N2312-4028		DELETED		
–4E	140N2312-4034		DELETED		
–4F	140N2312-4038		DELETED		
5	65-76765-5		. SEAL	A, C, AK-AM	1
–5A	65-76765-6		. SEAL (OPT ITEM 5B)	B, D, E	1
–5B	65-76765-7		. SEAL (OPT ITEM 5A)	B, D, E	1
–5C	65-76765-8		. SEAL	F-L, N	1
–5D	65-76765-9		. SEAL	AN	1
–5E	65-76765-10		. SEAL	P, Q, S, AJ, AW	1
–5F	65-76765-11		. SEAL	AP, AV	1
5G	65-76765-12		. SEAL	AX, AY	1
10	65-45791-2		. PANE-OUTER (CUSTOMER REQUIREMENT)	A-C, G	1
–10A	140N2316-1		. PANE-OUTER	AK	1
–10B	140N2316-2		. PANE-OUTER	AL	1
–10C	140N2316-3		. PANE-OUTER	AM	1

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–10D	65-45791-4		. PANE-OUTER	D-F, H-L, N-Q, S, AN, AP	1
–10E	140N2138-1		. PANE-OUTER	AJ, AV, AW	1
10F	140N2138-2		. PANE-OUTER	AX, AY	1
15	65-45792-2		. PANE-MIDDLE	A-H, AK-AM	1
–15A	65-45792-4		. PANE-MIDDLE	J, K, N, Q, S, AP	1
–15B	65-45792-4		. PANE-MIDDLE (OPT)	AV, AW	1
–15C	65-45792-5		. PANE-MIDDLE	L, P, AN	1
–15D	65-45792-5		. PANE-MIDDLE (OPT)	AJ	1
–15E	65-45792-6		. PANE-MIDDLE	AJ, AV, AW	1
–15F	65-45792-7		. PANE-MIDDLE	AX, AY	1
20	140N2146-1		. RING-STIFFENING	AX, AY	1
25	140N2148-1		. RING-CLAMPING	AX, AY	1
30	140N2147-2		. DAMPER-AIRFLOW	AX	1

–Item not Illustrated



Passenger Window Assembly
IPL Figure 2

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
2–					
–1A	140N2312-4004		DELETED		
–1B	140N2312-4008		DELETED		
–1C	140N2312-4012		DELETED		
–1D	140N2312-4016		DELETED		
–1E	140N2312-4020		DELETED		
–1F	140N2312-4030		DELETED		
–1G	140N2312-4032		DELETED		
–1H	140N2312-4036		DELETED		
–1J	140N2312-9		PLUG ASSY	AQ	RF
–1K	140N2312-17		PLUG ASSY	AR	RF
–1L	140N2312-29		PLUG ASSY	AS	RF
–1M	65-45790-89		PLUG ASSY	AT	RF
–1N	65-45790-509		PLUG ASSY	AU	RF
–2	140N2312-4006		DELETED		
–2A	140N2312-4010		DELETED		
–2B	140N2312-4014		DELETED		
–2C	140N2312-4018		DELETED		
–2D	140N2312-4028		DELETED		
–2E	140N2312-4034		DELETED		
–2F	140N2312-4038		DELETED		
5	NAS1801-3-10		DELETED		
6	65-62296-1		. SEAL (OPT ITEM 6A)	AQ-AS, AU	1
–6A	65-62296-2		. SEAL (OPT ITEM 6)	AQ-AS, AU	1
–6B	65-62296-3		. SEAL	AT	1
10	BACB30LH3-3		DELETED		
11	140N2314-1		. PLUG	AQ	1
–11A	65-67785-2		. PLUG (LIMITED USAGE) (OPT ITEM 11B)	AR	1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
2–					
–11B	140N2314-2		. PLUG (LIMITED USAGE) (OPT ITEM 11A)	AR	1
–11C	65-67785-2		. PLUG (OPT ITEM 11D)	AS-AU	1
–11D	140N2314-2		. PLUG (OPT ITEM 11C)	AS-AU	1
15	NAS1149D0363H		DELETED		
20	MS35338-43		DELETED		
25	BACN10JC3CD		DELETED		
30	BACJ40A20-4		DELETED		
35	BACS12GU3K8		DELETED		
–35A	NAS603-8P		DELETED		
–40	BACR15BB4AD		DELETED		
–40A	BACR15BD4AD		DELETED		
–45	NAS1149D0332J		DELETED		
–50	RM52LHA71-4-02		DELETED		
–50A	140N2313-1		DELETED		
–55	140N2313-1		DELETED		
–55A	T8296S1032B1		DELETED		
–55B	65-45790-26		DELETED		
–60	69-71082-6		DELETED		
–65	65-67785-2		DELETED		
–65A	140N2314-2		DELETED		
–70	65-62296-3		DELETED		