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COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

Decorative Electrical Window Shade Assembly
CL601-113M021-1/-3/-3B

Issue: A - MAY 10/11

25-22-15

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RECORD OF REVISIONS

Rev. No.	Issue Date	Date Inserted	By	Rev. No.	Issue Date	Date Inserted	By
IR	14MAY07	14MAY07	C.M.				
A	10MAY11	10MAY11	C.M.				

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RECORD OF TEMPORY REVISIONS

Temporary Rev No.	Page Number	Issued Date	By	Date Removed	By

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SERVICE BULLETIN LIST

SB Number And Revision	Included in Revision	Date Of Incorporation

INTRODUCTION

TASK 25-22-15-990-801

1. General

A. This document writing follows the directives of the "A.T.A Specification No. 100" updating N° 36. The instructions in this manual give the information necessary to do maintenance functions ranging from simple checks and replacement to complete shop type repair for the equipment, manufactured and supported by:

Lou Martin & Assoc., Inc.
2107 Danbury Drive
San Antonio, TX. 78217 USA
Tel.: (210) 930-8181 – Fax: (210) 930-8184

B. This document is applicable to the following equipment:

Decorative Cabin Electrical Window Shade Assy.	CL601-113M021-1
Decorative E-Hatch Electrical Window Shade Assy.	CL601-113M021-3
Decorative E-Hatch Electrical Window Shade Assy. w/ manual override assy.	CL601-113M021-3B

TASK 25-22-15-990-802

2. Revision of the document

A. Two types of revisions of the manual are used to follow the evolution of this equipment/

(1) Normal revision

(a) Normal revisions are periodically issued.

(b) They are printed on white paper

(c) A List of Revisions gives a better follow-up of these revisions.

(2) Temporary revision

(a) Temporary revisions can be issued in advance of the normal revision.

(b) They are printed on yellow paper.

(c) A List of Temporary Revisions gives their follow-up.

(d) A letter comes with these temporary revisions to give all the necessary information about the insertion of these revisions.

(3) General rules for the insertion of temporary revisions

(a) A yellow page (with a higher sequential number) can replace a yellow page.

(b) A yellow page cannot replace a white page.

TASK 25-22-15-990-803

3. Certification of operation

A. The maintenance operations described in the present COMPONENT MAINTENANCE MANUAL have been checked in the manufacturer's workshop by observing the disassembly, assembly, testing, and trouble-shooting instructions detailed in this document.

TASK 25-22-15-990-804

4. WARNINGS-CAUTIONS-NOTES

A. Special adjuncts to the text are expressed by the following headings:

WARNING : CALL ATTENTION FOR THE USE OF MATERIALS, PROCESSES, METHODS, PROCEDURES OR TOLERANCES WHICH MUST BE ADHERED TO CAREFULLY IN ORDER TO AVOID ANY INJURY.

CAUTION: CALL ATTENTION TO METHODS AND PROCEDURES, WHICH MUST BE ADHERED TO IN ORDER TO AVOID DAMAGE TO EQUIPMENT.

NOTE: Call attention to methods, which make the procedures easier.

TASK 25-22-15-990-805

5. List of Abbreviations

ASSY	: ASSEMBLY
ATA	: AIR TRANSPORT ASSOCIATION OF AMERICA
FAA	: FEDERAL AVIATION ADMINISTRATION
FAR	: FEDERAL AVIATION REGULATION
IPL	: ILLUSTRATED PARTS LIST
LB.	: POUND
MS	: MILITARY STANDARD
NAS	: NATIONAL AEROSPACE STANDARD
REV	: REVISION
SB	: SERVICE BULLETINS
TR	: TEMPORARY REVISION

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DESCRIPTION AND OPERATION

TASK 25-22-15-870-801

1. Description

A. General

Basically, the decorative window shade assy. is made of a metal frame assy, blind assy., inner & outer lenses.

Optional upgrades include: Electronic controller assy.
E-hatch manual override assy.

For attachment, refer to completion center for information.

B. Composition

For basic window unit see FIGURE 1 / GRAPHIC 25-22-15-991-001, next page

For window unit with optional controller assy. see
FIGURE 2 / GRAPHIC 25-22-15-991-002, page 8

For e-hatch window unit with optional controller assy. and manual override see
FIGURE 3 / GRAPHIC 25-22-15-991-003, page 9

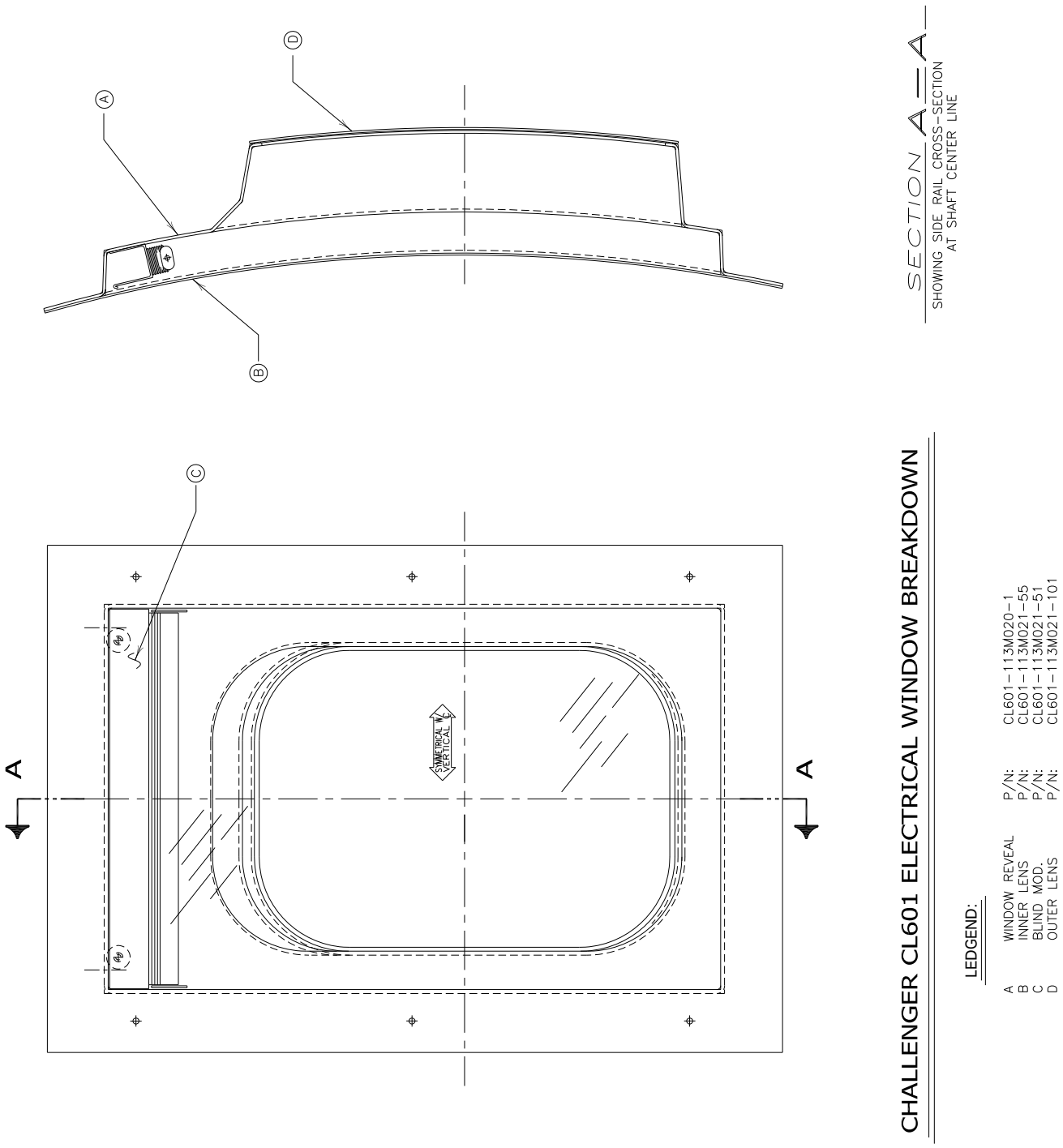

FIGURE 1 / GRAPHIC 25-22-15-991-001

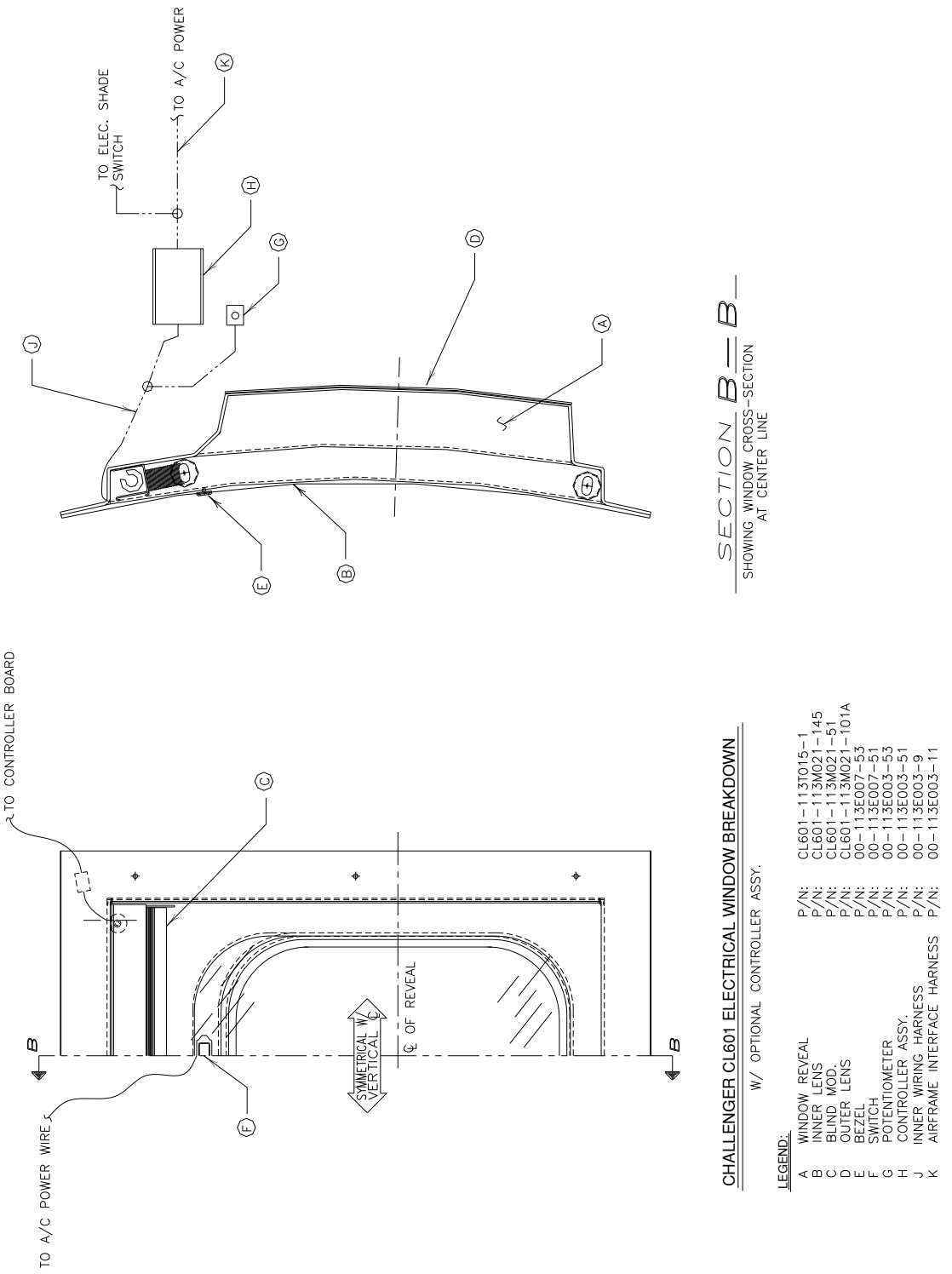

FIGURE 2 / GRAPHIC 25-22-15-991-002

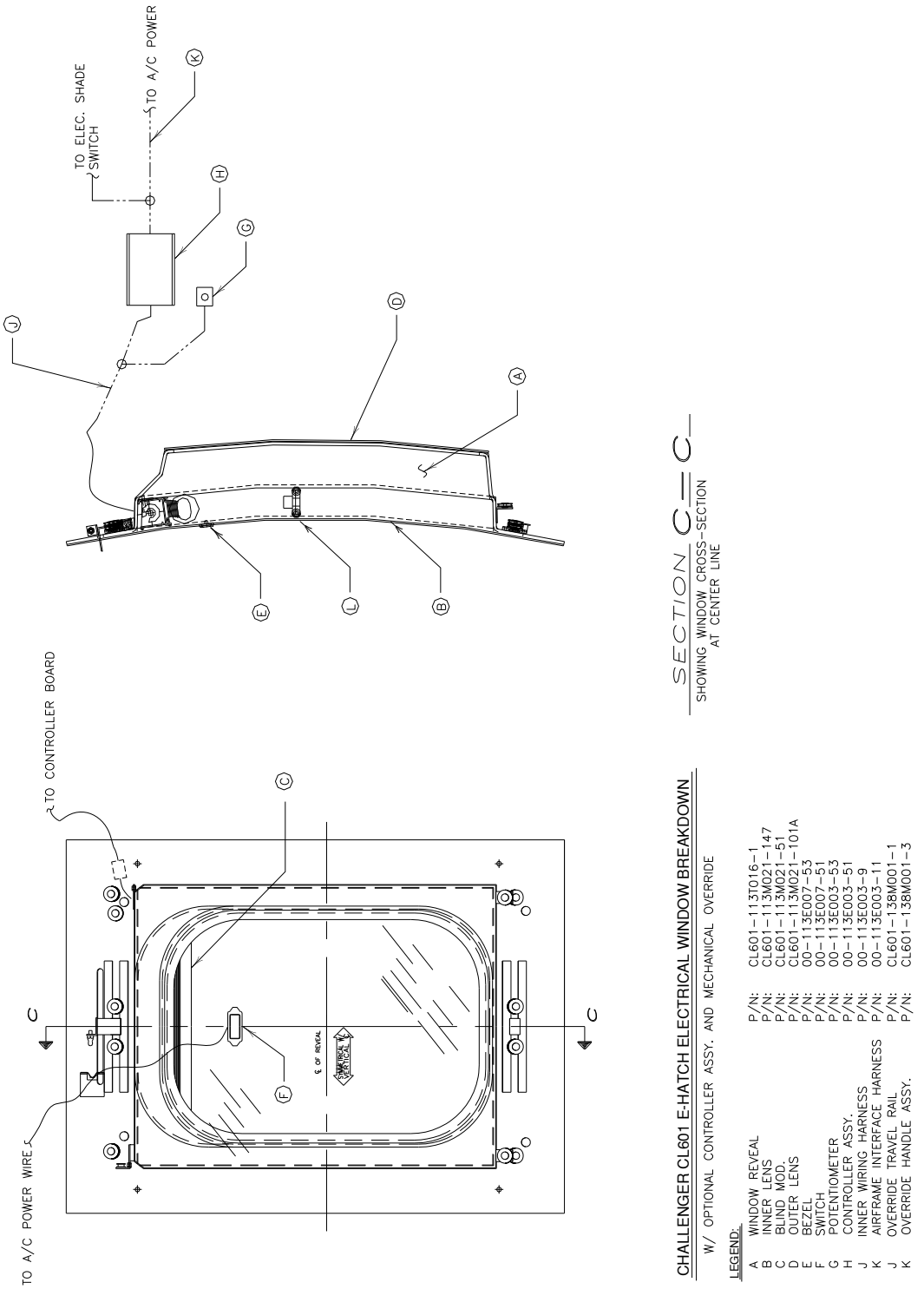

FIGURE 3 / GRAPHIC 25-22-15-991-003

TESTING AND FAULT ISOLATION

TASK 25-22-15-700-801

1. Testing

A. General

(1) The tests check the different adjustments, components and mechanisms of the window shade unit.

(2) The defective parts must be repaired in workshops or can be replaced by serviceable parts.

B. Job set-up information

(1) Tools, fixtures, equipment and materials

NOTE: Refer to “SPECIAL TOOLS, FIXTURE AND EQUIPMENTS” for full details on the items used.

C. Procedure

(1) Make sure the shade unit operates with the desired tension

TASK 25-22-15-700-802

2. Fault isolation

A. Faults you can find during the operations are given here under together with their probable causes and their corrective actions.

B. After the necessary corrective action is done, do an inspection of the window unit to make sure that the fault is corrected.

C. Mechanical fault isolation

TROUBLE	POSSIBLE CAUSE	CORRECTION
SHADE MOTOR.		
The motor continues to run after the travel rail meets the bottom rail.	Limit set to low. Also refer to "Adjustments after installation"	Readjust the down limit switch tab on the top of the head rail. Slide it to the left. This will decrease the travel rail length.
The motor shuts off before the travel rail meets the bottom rail.	Limit set to high. Also refer to "Adjustments after installation"	Readjust the down limit switch tab on the top of the head rail. Slide it to the right. This will increase the travel rail length.
The shade motor does not respond when the window control switch is activated.	Broken / frayed wiring	Check electrical system continuity. Replace damaged wiring.
	Controller board failure	Check for electrical output. Replace damaged controller board.
	Motor failure	Replace damaged motor
POTENTIOMETER (If Equipped)		
Shade travels faster/slower than desired.	Potentiometer is out of adjustment	Readjust potentiometer (motor speed) on window till shade travels at desired speed.
Potentiometer does not change shade travel speed	Potentiometer failure	Replace damaged Potentiometer
	Controller board failure (If Equipped)	Check for electrical output. Replace damaged controller board.
WINDOW UNIT		
Unit is loose	Installation screws are loose.	Check and tighten any loose screws.
When the plate is pushed "up" the shade goes down.	Backward plate.	Remove the plate and rotate the switch 180 degrees.

TABLE 1 / GRAPHIC 25-22-15-992-001

D. Adjustments after installation (See FIGURE 4/GRAPHIC 25-22-15-991-004)

(1) The length of the shade can be adjusted up to three inches. Turn the screw counterclockwise to loosen the up/down adjustment tab.

(2) Move the adjustment tab to the right to lengthen the shade, and to the left to shorten the shade.

(3) When the proper adjustment is done, hold the adjustment tab in place while turning the screw clockwise to tighten.

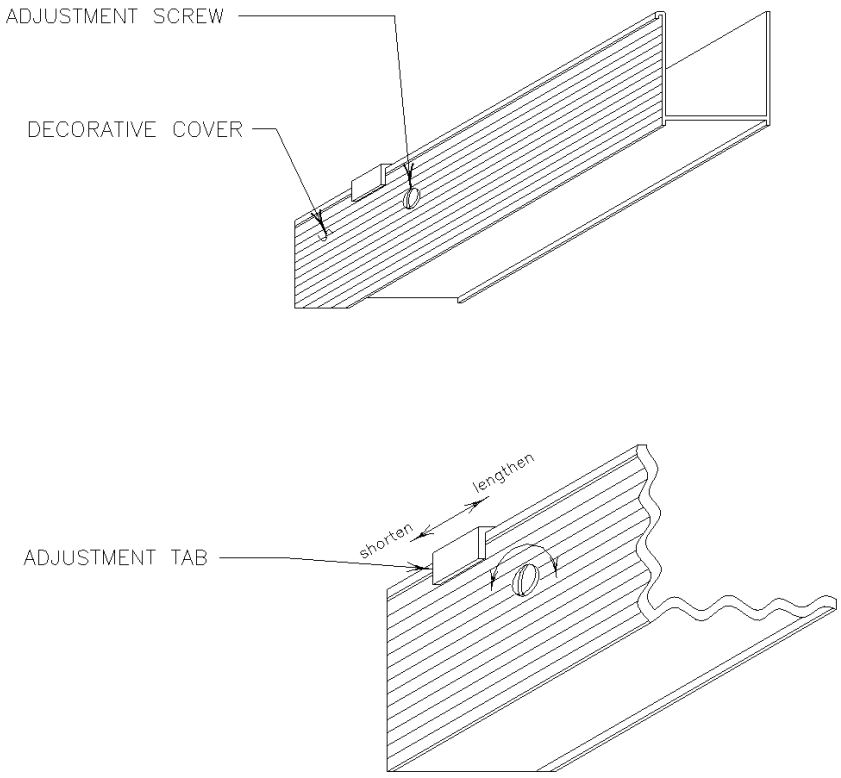

FIGURE 4 / GRAPHIC 25-22-15-991-004

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SCHEMATIC AND WIRING DIAGRAMS

TASK 25-22-02-420-801

1. General

The diagrams contained in this section are to be used to show the wiring for the electrical window units in the aircraft.

TASK 25-22-15-940-801

2. Job set-up information

A. Tools, Fixtures, equipment and materials
None.

TASK 25-22-15-420-802

3. Preliminary Steps

A. Before the uninstalling, make note of the window assy. location for efficient re-installation and to prevent errors.

TASK 25-22-15-420-803

4. Window wiring diagrams

A. Refer to FIGURE 5/ GRAPHIC 25-22-15-991-005 thru FIGURE 7/ GRAPHIC 25-22-15-991-007

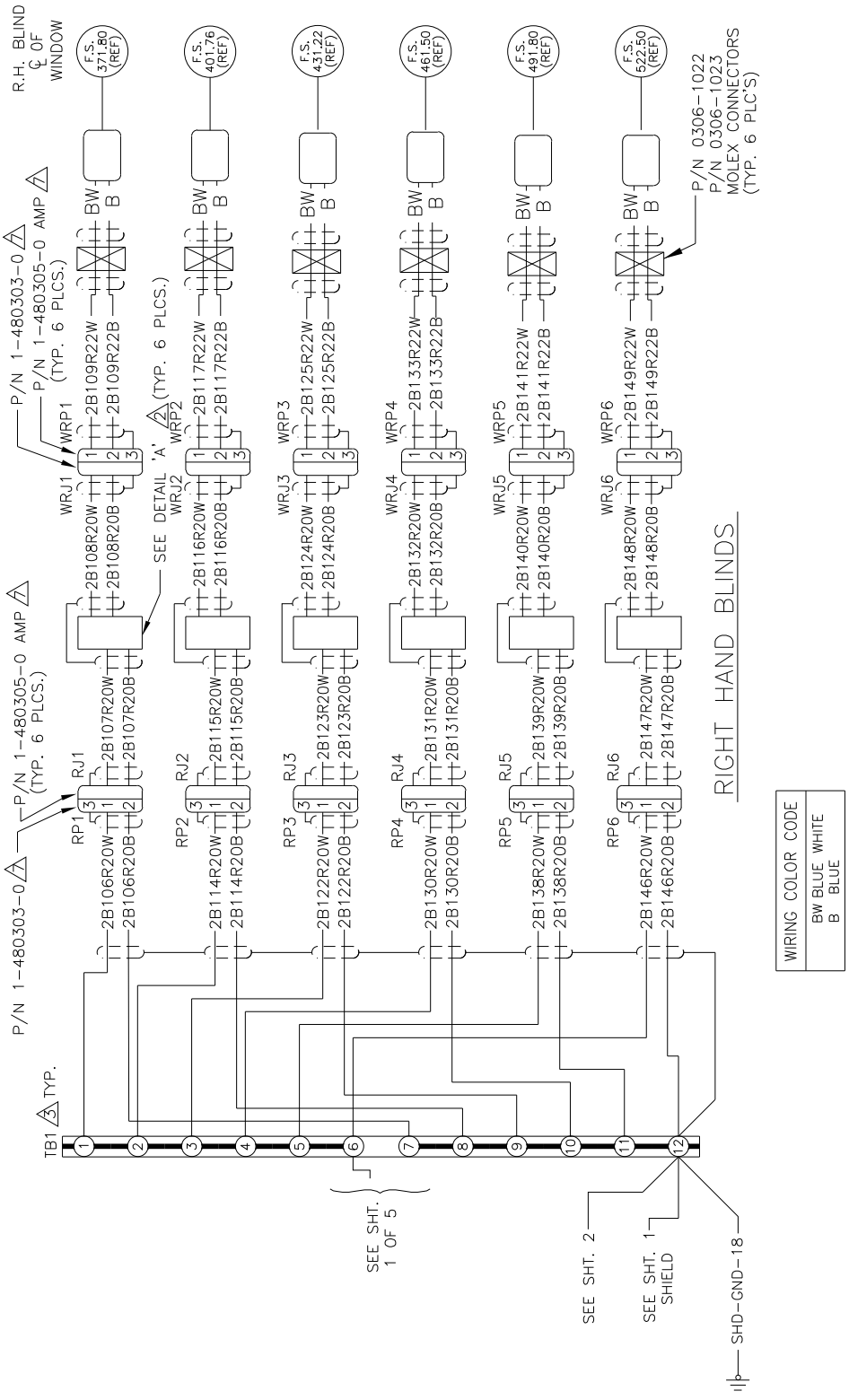

FIGURE 5 / GRAPHIC 25-22-15-991-005

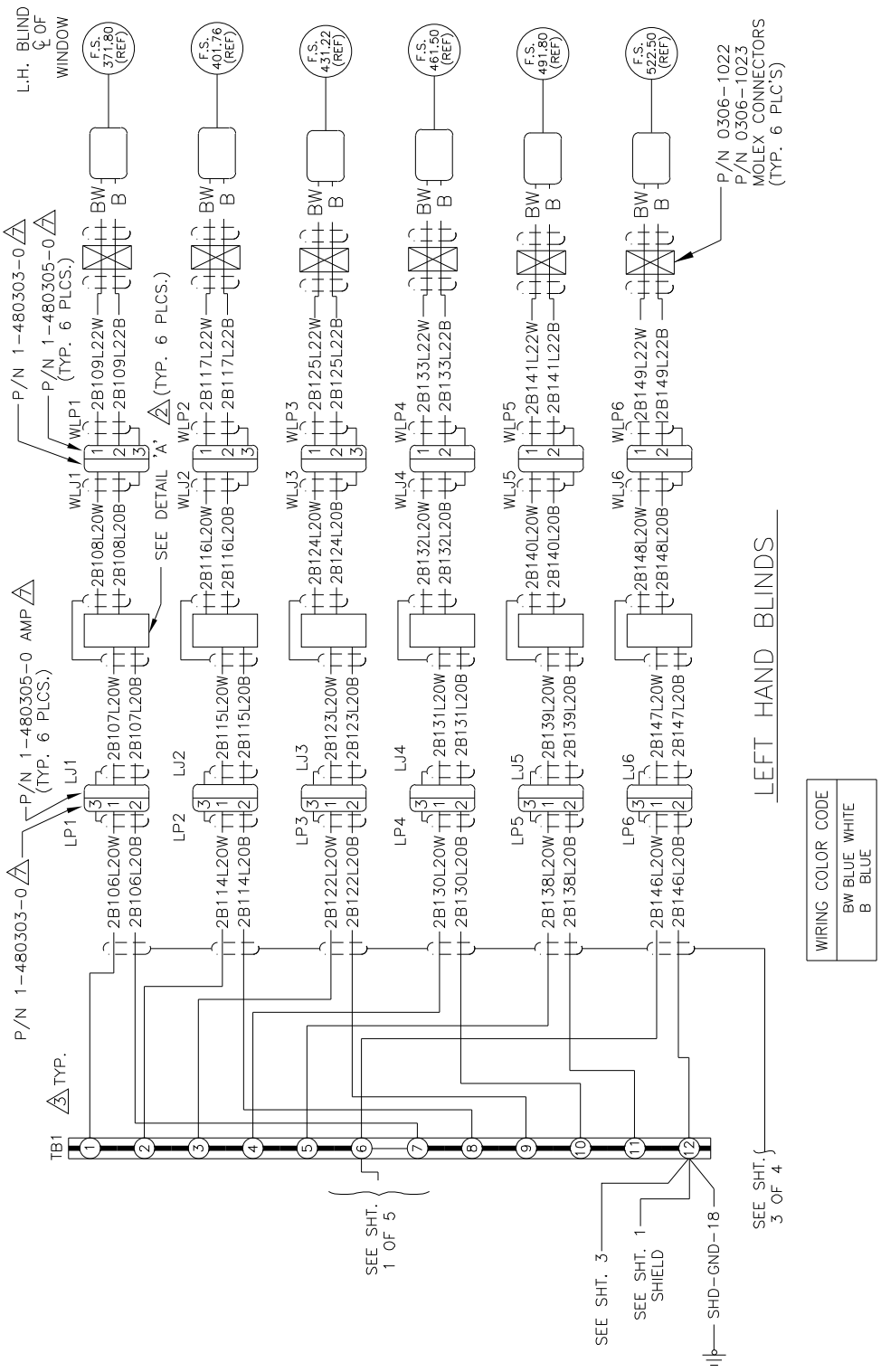

FIGURE 6 / GRAPHIC 25-22-15-991-006

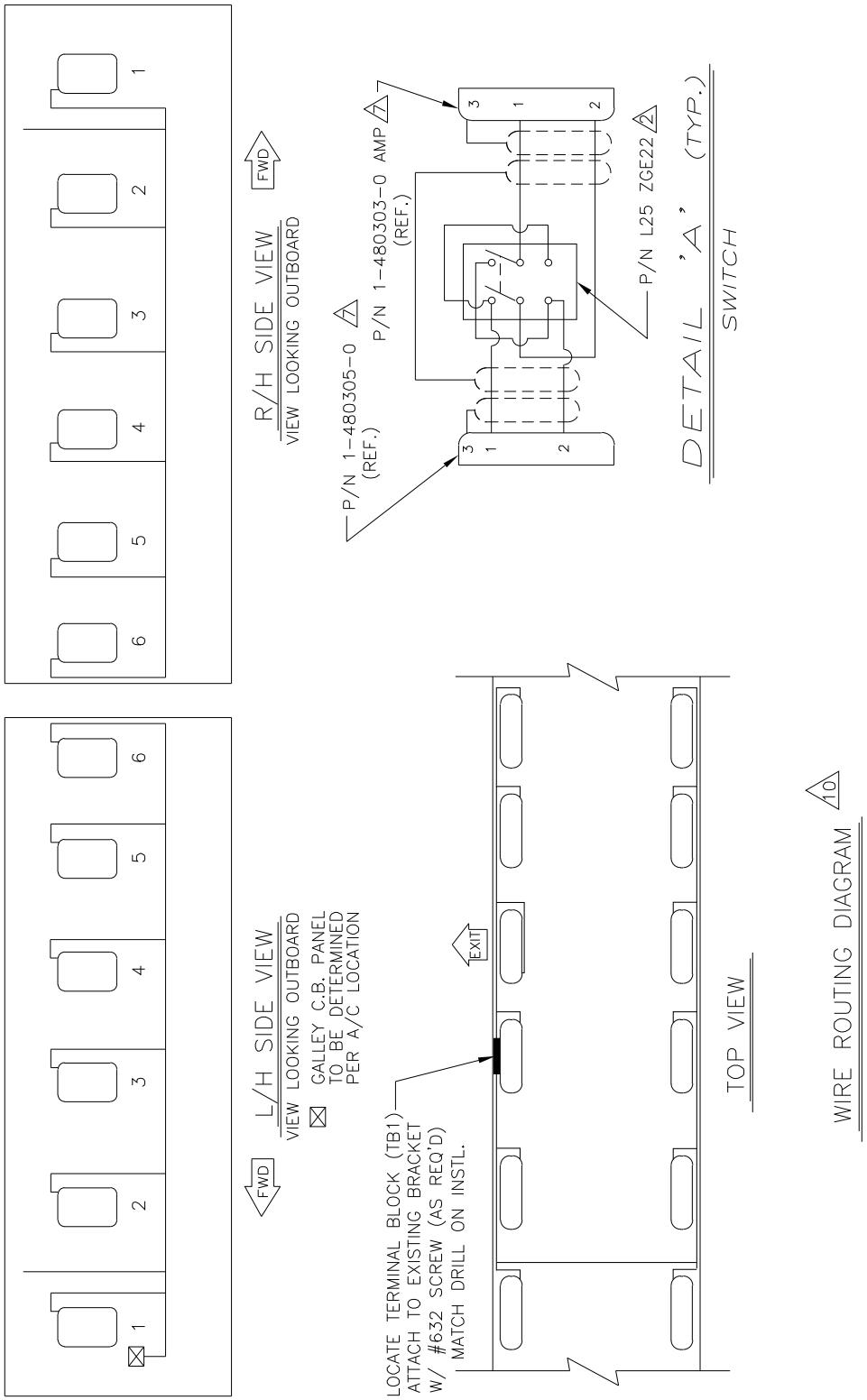

FIGURE 7 / GRAPHIC 25-22-15-991-007

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UNINSTALLING WINDOW SHADE ASSY.

TASK 25-22-15-000-801

1. General

   A. The overhaul instructions contained in this manual are usually implemented in mechanical overhaul workshops.

   B. Avoid removing identification plates, unless manufacturer authorization.

   C. Assure window unit inner and outer lens, and any decorative plated parts are protected at all times when removed from the aircraft.

   D. When removing and transporting the window unit assure the shade is in the up position.

TASK 25-22-15-940-802

2. Job set-up information

   A. Tools, Fixtures, equipment and materials
   None.

TASK 25-22-15-000-802

3. Preliminary Steps

   A. Before the uninstalling, make note of the window assy. location for efficient re-installation and to prevent errors.

TASK 25-22-15-040-806

4. Decorative window removal:

A. Prior to removing window unit assure shade assy. is in up position

B. Refer to drawing # CL601-113M022 "DECORATIVE WINDOW ASSY. INSTALLATION" or completion center specifications, for window shade removal.

NOTE: Assure inner and outer lenses are protected at all times

DISASSEMBLY

TASK 25-22-15-000-803

1. General

   A. The overhaul instructions contained in this manual are usually implemented in mechanical overhaul workshops.

   B. Avoid removing identification plates, unless manufacturer authorization.

   C. Only disassemble what is necessary to do the repairs or to replace defective part(s).

   D. When applying the following instructions, never disassemble those components, which have been proved to be in good condition after inspection unless their disassembly is necessary to get access to the defective part.

   E. All the parts must be identified before the disassembly in order to prevent the error and to make the reassembly easier.

   F. For the identification of damage or functional failure refer to:

      “INSPECTION / CHECK”

TASK 25-22-15-940-802

2. Job set-up information

   A. Tools, fixtures, equipment and materials
   None.

TASK 25-22-15-000-804

3. Preliminary Steps

   A. Before the disassembly, put marks on all the parts to help the reassembly and to prevent errors.

TASK 25-22-15-040-802

4. Inner lens removal

A. Remove screws holding the inner lens in place.

NOTE: If unit is equipped with optional switch imbedded into the lens it may be necessary to cut the wire where is connects to the airframe harness if replacement of the inner lens or membrane switch is required. If Inner lens or optional switch replacement in not required gently move inner lens aside to access blind mod. assy.

B. Remove inner lens, protect both sides from damage.

TASK 25-22-15-040-803

5. Blind mod. assy. removal

A. Assure the shade is in the full up position.

B. Disconnect blind mod. connection cable from controller board housing and make note of approx. location of ferrite bead on connection cable for location during re-assembly of unit.

C. Prior to removal of the blind mod. it will be necessary to cut off the connection plug going to the controller board housing and remove the ferrite bead from the connection cable. Use a cutting tool to carefully remove shrink wrap enclosing ferrite bead and run connection cable thru to free bead (temporary removal of connection plug on non-motor end may be required to pass cable thru bead).

D. The blind mod. is attached with two or three screws (depending on width) on the backside of the reveal. Remove the screws and the blind assy. will be free from the reveal. (See FIGURE 8/ GRAPHIC 25-22-38-991-008)

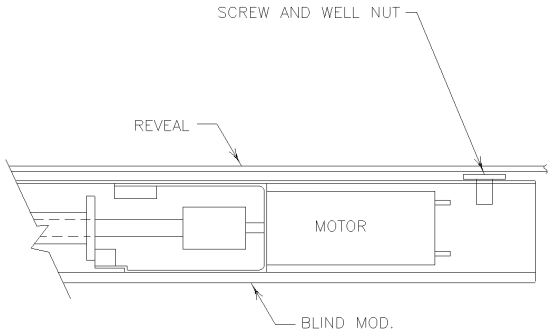

FIGURE 8/ GRAPHIC 25-22-15-991-008

TASK 25-22-15-040-804

6. Outer lens removal

Refer to Replacement & Repair, section 6, page 8005.

TASK 25-22-15-040-805

7. Potentiometer & Controller Board removal (If Equipped)

As an optional upgrade each window can be designed with a potentiometer and controller board. Both items are shipped loose from Lou Martin & Assoc., Inc. and are installed at the completion center's discretion. Refer to aircraft documentation or completion center specifications for location and removal.

TASK 25-22-40-040-806

8. Shade motor removal

The shade motor is attached to the blind mod. housing with one attachment screw. For removal see "REPLACEMENT & REPAIR" section, 3 page 8002.

CLEANING

TASK 25-22-15-100-801

1. General

   A. A full cleaning is necessary before each accurate inspection to find the correct location and the extent of the damage.

   B. Cleaning removes all the remaining particles, which can have an unwanted effect on the performance of the equipment. It also helps the possible repair.

TASK 25-22-15-940-804

2. Job set-up information

   A. Tools, Fixtures, equipment and materials

   NOTE: Refer to “SPECIAL TOOLS, FIXTURES, EQUIPMENT AND MATERIALS” for full details on the items used.

REFERENCE	QTY	NAME
#PC-10	AR	NOVUS PLASTIC POLISH
BRILLIANIZE	AR	CLEANER & POLISH
SPRAYWAY	AR	VINAL LEATHER CLEANER
39139 (Prepsol)	AR	CLEANER FOR NON-FABRIC PARTS

TABLE 2 / GRAPHIC 25-22-15-992-002

TASK 25-22-15-100-802

3. Procedure

A. How to use Novus Plastic Polish No. 1

Remove surface dust with soft cloth. Shake bottle contents and apply a light mist. Spread evenly and buff with a clean, soft, lint-free cloth.

B. How to use BRILLIANIZE Cleaner & Polish

Shake contents firmly and apply evenly to any hard, shiny, non-absorbent surface at room temperature. Rub gently. Before surface dries, polish with a dry lint-free cloth or non-damaging material, until the surface feels “as smooth as ice”.

FIGURE 9/ GRAPHIC 25-22-15-991-009

C. Shade fabric

Lou Martin easy-glide shade systems utilize a metallized fabric, which is inherently anti-static. They actually repel dust and seldom require cleaning. An occasional light sweep of a vacuum is all that should be needed.

In the event of a mishap, Lou Martin easy-glide shades may be cleaned with a mild detergent and water. However, water spotting can occur. If a detergent is required, we suggest a mild detergent such as woolite.

Do not use ammonia cleaners near the Lou Martin easy-glide shade. Ammonia cleaners will damage the shade.

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AIRWORTHINESS LIMITATIONS

TASK 25-22-15-200-801

1. General

A. The Airworthiness Limitations section is FAA-approved and specifies maintenance required under §§43.16 and 91.403 of the Federal aviation regulations, unless an alternative program has been FAA approved.

B. There are no additional airworthiness limitations as a result of this modification.

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INSPECTION/CHECK

TASK 25-22-15-200-802

1. General

A. Lou Martin & Assoc., Inc. recommends that window shade units be inspected during every aircraft C check, or equivalent time period predicated on the aircraft's maintenance and inspection program specifications.

B. Visually check all hardware, detail parts and assemblies for the following criteria:

(1) Wear, tears, fraying of the shade & decorative mask fabric.

(2) Correct attachment and condition of the Velcro tapes

(3) Security and tightness of the screws and nuts

(4) Condition of the Inner and Outer Lenses for scratches, cracks or spots.

(5) Condition of the reveal for scratches, chipping or fading of the paint.

(6) Condition of the plated handle assy. for scratches

C. Do a careful check of all the parts for corrosion, distortion, incipient cracks, cracks, dents, nicks, scores, stripped threads, excessive wear, etc. which can damage the performance of the equipment and give it an unsatisfactory condition.

NOTE: If any of the above items are discovered and the deterioration of affected part(s) is equal to or greater than 5 percent contact Lou Martin & Assoc., Inc. for replacement part(s) or for shipment of window unit to Lou Martin & Assoc., Inc. for service.

TASK 25-22-15-200-803

2. Replacement of Parts

After an inspection has been completed write all the damage detected in the appropriate aircraft log book or equivalent as determined by appropriate personnel. Be sure to note the current condition of damaged part(s) and the probable cause and/or the source. Immediately repair and/or replace any non-critical components as required.

NOTE: In accordance with FAR Part 121 or 135 the replacement times for parts are only required for only critical parts or for the parts of a large aircraft of 10 passenger seats or more.

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REPLACEMENT & REPAIR

TASK 25-22-15-300-801

1. General

A. The procedures given in this chapter are general repair procedures and are not applicable to the riveted or welded parts. The manufacturer must repair the riveted or welded junctions, which are damaged.

TASK 25-22-15-940-805

2. Job set-up information

A. Tools, fixtures, equipment and materials

B. It is recommended that the completion center contact Lou Martin & Assoc., Inc. for replacement parts to insure quality and operation

NOTE: Assure window unit lenses, plated parts, decorative mask parts are protected at all times when work is being done.

(1) Repair materials

REFERENCE	QTY	NAME
4945	AR	3M Acrylic foam tape
FMR-604 (.06 Thk.)	AR	Replacement outer lens
FMR-604 (.06 Thk.)	AR	Replacement inner lens
8-MIL CORD (WHITE)	AR	Replacement shade string
MS21044-N08	AR	Replacement stop nut
MS21044-N06	AR	Replacement stop nut
MS24693S-632	AR	Replacement screw
MS24693S-832	AR	Replacement screw

TABLE 3 / GRAPHIC 25-22-15-992-3

TASK 25-22-15-350-801

3. Replacement procedure for damaged shade motor

A. For removal of blind mod. See “DISASSAMBLY” section 8, page 4003

B. To remove the motor, unscrew and remove adjustment screw and well nut (if necessary) located at right hand side of blind. (See FIGURE 10/ GRAPHIC 25-22-15-991-010)

C. Pull out motor and replace with new motor.

D. Ensure motor clutch is locked with adjustment screw. Reposition well nut and adjustment screw. . (See FIGURE 11/ GRAPHIC 25-22-15-991-011)

E. Reinstall blind mod. See “ASSEMBLY” section 3.

F. Adjust blind length if required. Refer to “TESTING AND FAULT ISOLATION” section 2C for proper adjustments.

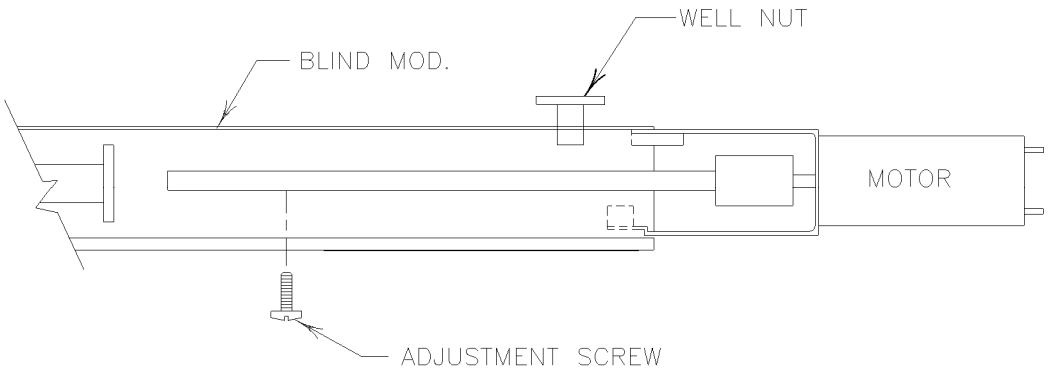

FIGURE 0810/ GRAPHIC 25-22-15-991-010

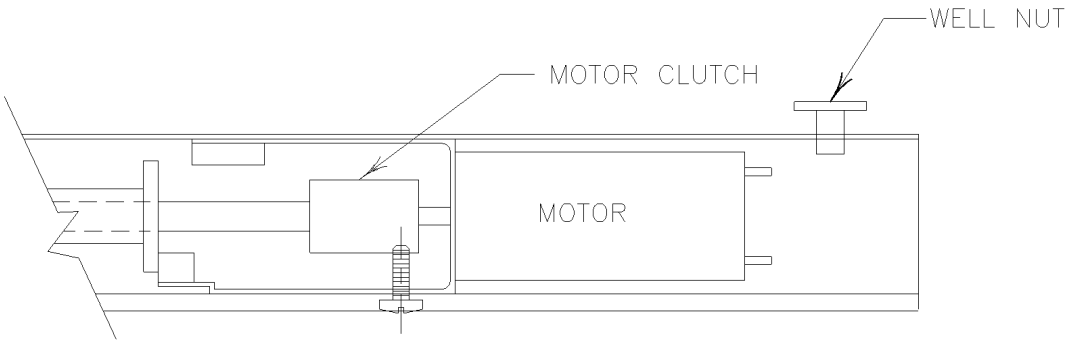

FIGURE 11/ GRAPHIC 25-22-15-991-011

TASK 25-22-15-350-802

4. Replacement procedure for a damaged inner lens (Standard .063 thk)

   A. Mark both sides of inner lens on reveal to assure replacement inner lens is properly located during reassembly.

   B. Remove inner lens from window assy. (See “DISASSEMBLY”, section 4 page 4002)

   C. Trim replacement inner lens to size, ref chart below for proper sizing, or match size w/ damaged inner lens.

   D. Before attaching new lens decide which side of lens will be facing inboard. Peel back this side’s protective film. Bond .30 x .06 thk. Self-adh. Loop side velcro to the edge of the inner lens. Note: Sand lexan surface before applying velcro.

   E. Before attaching new lens peel off protective film from the outboard side of lens. Note: Before clamping, use a static blow-off gun to eliminate dust attraction on both sides of lens

   F. Clamp replacement inner lens to window assy. (Velcro facing inboard), assure lens follows window reveal’s contour. Note: it will help if the lower surface of lens is clamped first then force the lens to follow reveals contour then clamp upper lens surface. Test shade up & down to check for tension. Loose lens will ease the tension on the shade, if not refer to “Testing & Fault Isolation”.

   G. Attach new inner lens to window assy. Match drill lens with existing hole locations. Then remove clamps. (See “ASSEMBLY”, section 4 page 9003)

-55 Inner Lens 17.50 x 23.30

TASK 25-22-15-350-803

5. Replacement procedure for a damaged inner lens (Optional .125 thk)

As this lens contains an imbedded membrane switch and decorative bezel it will be necessary to contact Lou Martin & Assoc., Inc. for a replacement inner lens.

A. Remove damaged inner lens from window assy. (See “DISASSEMBLY”, section 5 page 4002)

B. Begin by removing the lexan cover from the backside of the lens and the decorative bezel from the front side to free the membrane switch from the lens. Gently pull membrane switch and wire thru inner lens to complete disassembly. Store all parts in a clean dry area until ready to reattach inner lens.

C. Once the replacement lens has arrived from Lou Martin & Assoc., Inc. begin the assembly process by feeding the membrane switch wire thru the lens (routered side facing out) and attach the decorative bezel from the original lens to the lens with two 2-256 screws (taping for the screws may be required).

D. Place switch wire in routered grove and secure in place with the lexan cover from original lens using six MS24693C-16 screws (taping for a 4-40 size screw may be required).

E. Before attaching new lens peel off protective film from the inboard side of lens. Note: Before clamping, use a static blow-off gun to eliminate dust attraction on both sides of lens

F. Clamp replacement inner lens to window assy. Assure lens follows window reveal’s contour.

NOTE: It will help if the lower surface of lens is clamped first then force the lens to follow reveals contour then clamp upper lens surface. Test shade up & down to check for tension. Loose lens will ease the tension on the shade, if not refer to “Testing & Fault Isolation”.

G. Re-solder inner lens switch wire to the airframe interface harness and test unit for desired operation.

H. To complete attachment of inner lens see “ASSEMBLY”, section 4 page 9003.

TASK 25-22-10-350-804

6. Replacement procedure for outer lens (See FIGURE 12/ GRAPHIC 25-22-10-991-012)

A. Remove existing outer lens to be replaced. Note: Lens is attached w/ strong adhesive double-sided tape; some hard jerks may be required.

B. Remove used tape from reveal and clean surface with clean cloth damped with alcohol or prepsol.

C. Apply one layer of #4945 3M Acrylic foam tape to reveal, joining both ends of tape with a seam. (Do not overlay seam)

D. Locate new lens and decide which side of lens to be bonded to reveal. Remove this side's protective film before bonding. Note, use a static blow-off gun to eliminate dust attraction.

E. Center the lens at one end and work towards the top evenly on both sides pressing firmly for bonding. Go back and press additional strokes to assure full contact all around lens.

F. Check lens and assure it follows reveal contour. Assure center of lens is not sunk, if so re-attaching lens may be required.

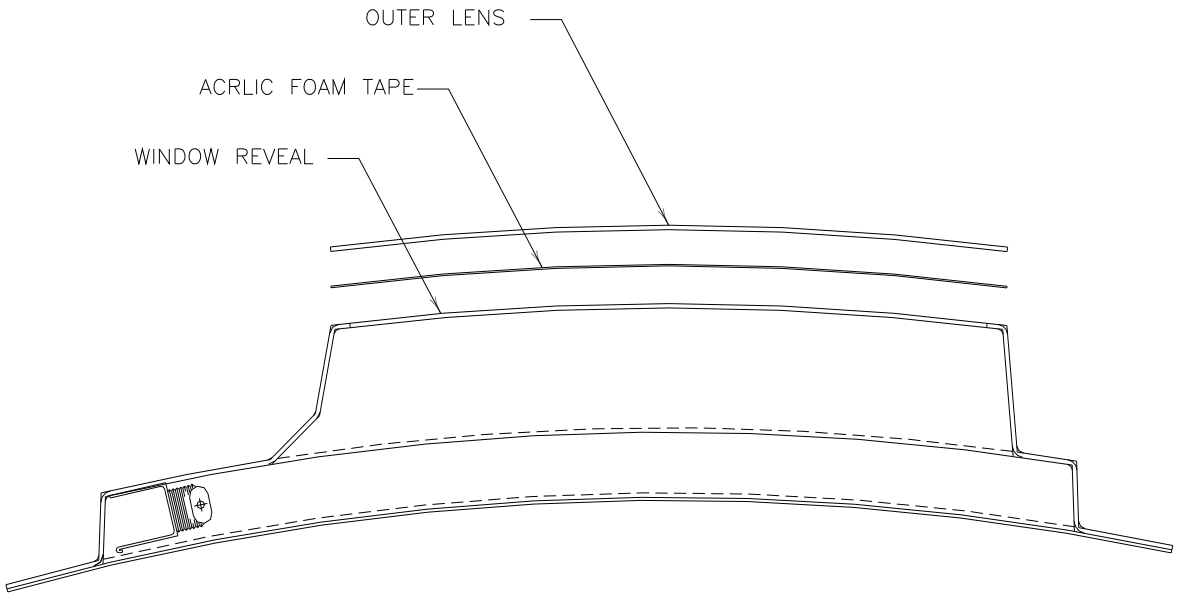

FIGURE 12/ GRAPHIC 25-22-10-991-012

TASK 25-22-15-350-805

7. Replacement procedure for a damaged potentiometer or controller board (If Equipped)

   A. As noted in “DISASSEMBLY” section X, these two optional components are shipped loose from Lou Martin & Assoc., Inc., reference completion center specifications for replacement procedures.

TASK 25-22-15-350-806

8. Replacement procedure for a damaged manual override assy. (If Equipped)

   Due to the complexity of the manual override assy. it is recommended to send the window unit back to Lou Martin & Assoc., Inc. for repair to restore the unit to optimal performance.

ASSEMBLY

TASK 25-22-15-400-801

1. General

   A. Before the assembly, make sure that the “CLEANING”, “INSPECTION/CHECK”, and “REPLACEMENT & REPAIR” procedures of all parts are done.

   B. Where it is possible, it is recommended to use new parts and genuine approved parts.

TASK 25-22-15-940-805

2. Job set-up information

   A. Tools, Fixtures, equipment and materials

      NOTE: Refer to SPECIAL TOOLS, FIXTURES, EQUIPMENT AND MATERIALS for full details on the items used.

REFERENCE	QTY	NAME
4945	AR	3M Acrylic foam tape
FMR-604 (.06 Thk.)	AR	Replacement inner lens
FMR-604 (.06 Thk.)	AR	Replacement outer lens
MS21054-N06	AR	Replacement stop nut (Regular)
MS21055-N06	AR	Replacement stop nut (Thin)
MS63050-06	AR	Replacement washer
MS24693S-632	AR	Replacement screw
MS27039S-632	AR	Replacement screw
AN526-630-R10	AR	Replacement screw
MS35207-832	AR	Replacement screw
CMS 5701	AR	Replacement end cap

TABLE 4 / GRAPHIC 25-22-15-992-004

TASK 25-22-15-440-801

3. Blind mod. Reattachment

A. Feed the wire pigtail thru the grommet at the top of the reveal and pull the wire taught.

B. Reattach the blind mod. assy. by aligning the well nuts with the existing holes on the backside of the reveal, and secure in place with two or three AN525-832 screws depending on width of shade. (See FIGURE 13/ GRAPHIC 25-22-38-991-013)

C. Once blind mod. is secure attach ferrite bead on new connection cable that came with replacement motor, reference notes made during removal for correct location. Feed cable thru bead and loop thru a second time, prior to re-attachment of connection plug feed piece of shrink tubing (length as required) to cover ferrite bead heat as needed to apply shrink tubing.

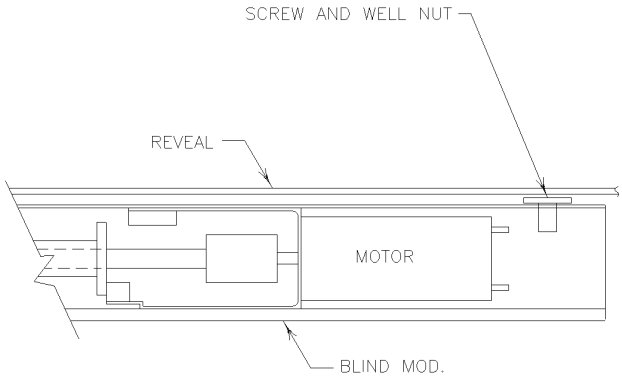

FIGURE 13/ GRAPHIC 25-22-15-991-013

TASK 25-22-15-440-802

4. Inner lens reattachment (Standard .063 thk.)

   A. Reattach inner lens with MS24693S-632 screw and MS21044-N06 stop nut (4 places)

   B. Remove protective film from inboard side of lens after attachment.

TASK 25-22-15-440-803

5. Inner lens reattachment (Optional .125 thk.)

   A. Reattach inner lens with MS24693S-S28 screw and MS21044-N06 stop nut (6 places)

   B. Remove protective film from inboard side of lens after attachment.

TASK 25-22-15-440-804

6. Lower rail and end cap reattachment (Refer FIGURE 14/ GRAPHIC 25-22-15-991-014)

   A. Run shade half way down approx. 7" – 8"

   B. Pull shade away from window reveal and lightly tap-in end cap and roller (NOTE: Use a rubber mallet)

   C. Run shade up & down to assure sooth operation.

   D. Adjust blind length if required. Refer to "TESTING AND FAULT ISOLATION" section 2C for proper adjustments.

   E. Reinstall inner lens see "ASSEMBLY" section 4 or 5 on this page.

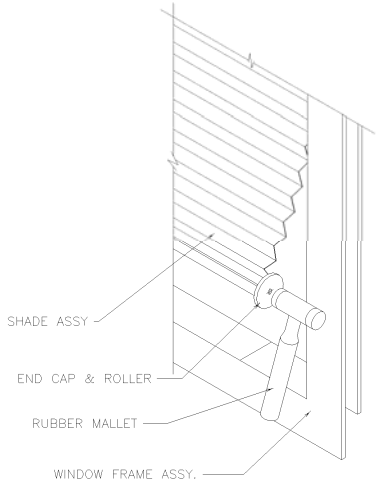

FIGURE 14/ GRAPHIC 25-22-15-991-014

TASK 25-22-15-440-805

7. Potentiometer & Controller Board re-attachment (If Equipped)

As an optional upgrade each window can be designed with a potentiometer and controller board. Both items are shipped loose from Lou Martin & Assoc., Inc. and are installed at the completion center's discretion. Refer to aircraft documentation or completion center specifications for location and attachment.

FITS AND CLEARANCES

TASK 25-22-15-820-801

1. General

    A. The listed clearances are to insure the window is properly installed into the aircraft

TASK 25-22-15-820-802

2. Clearances

    A. Assure a min. clearance of .063 in. (1.59 cm) between the window shade assy. and existing structure.

    B. Assure a min. clearance of .13 in. (3.18 cm) between the window assy's outer lens and the inboard side of the aircraft's existing pressure lens.

    C. Assure a min. clearance of .04 in. (1.02 cm) between each decorative mask fwd & aft in the aircraft.

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SPECIAL TOOLS, FIXTURES, EQUIPMENT

TASK 25-22-15-940-806

1. Special tools, fixtures and equipments

   No special tools, fixtures and equipment are necessary for the maintenance or the overhaul to be performed on the standard equipment.

   Standard tools are used for these operations.

STORAGE

TASK 25-22-15-940-807

1. General

   A. When any of the window assay's need to be removed from the aircraft, Lou Martin & Assoc., Inc. recommends to stow the shade is in the up position.

   B. Store in a sheltered, ventilated place with normal hygrometric degree (70%)

   C. Cover the window unit with large clean plastic bags or equivalent to protect it from dust and other airborne particles.

   D. On the outside of the bag or cover add a tag with its location in the aircraft for tracking purposes and quicker reinstallation in the aircraft.

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ILLUSTRATED PARTS LIST

TASK 25-22-15-950-801

1. Introduction

A. General

(1) The Illustrated Parts List (IPL) intends to show the details of the equipment and permits easy provisioning of the spares necessary for the maintenance of this equipment.

B. Use of the illustrated parts list

(1) "Introduction" section

The introduction contains all explanatory information for the individual sections necessary for the use of this IPL.

(2) "Illustrated Parts List" section

The detailed parts list gives the list and the illustrations of parts making up the considered assembly. The different columns of the parts list pages are organized as follows:

1st column: Figure and item number
2nd column: Manufacturer's part number
3rd column: Airline part number (not used)
4th column: Indenture
5th column: Designation
6th column: Usage from to
7th column: Quantity per Assembly

(a) Figure and item number

1 Each illustration receives a figure number starting at 06 and carrying on in sequence.

2 Each illustration can be divided up into several folios

3 When it is necessary to add figures, alphabetic indexes are added to the original figure, from A to Z, except I and O

4 An item number is attributed to each part mentioned in the detailed parts list. Numbers start at 006A up to 999A per sequence of 10 by 10 or else in order to insert additional items.

5 Alternative parts have the same item as the initial part and are indexed.

6 To follow the evolution of the standard of parts or assemblies modification, items are indexed from B to Z, except I and O.

7 Non-illustrated items are identified by a dash placed in front of the item.

(b) Manufacturer's part number

This column indicates the original manufacturer's part number or the part manufacturer.

(c) Airline part number

This column is left blank; it is reserved for the airline.

(d) Indenture

The designation is presented according to indentations indicating as follows the relation between the different components:

1 Assembly

2 Sub-assemblies

2 Attaching parts of the sub-assembly

3 Constitutive parts of the sub sub-assembly

3 Attaching parts of the sub sub-assembly

4 Constitutive parts of the sub subassembly
Etc.

(e) Designation

The designation of the item can be followed by:

- The CAGE manufacturer's code,

- Cross-references indicating numbers, figures, items where this very item is illustrated.

(f) Usage from to

The interchangeability relation of constitutive parts according to the higher assembly is identified by the item number.

This code is only valid for the assembly dealt with in the corresponding figure.

Example:

FIG-ITEM	PART NUMBER	AIRLINE PART NUMBER	IND	NOMENCLATURE	USAGE FROM TO	UNITS PER ASSY.
- 1A	PN1		1	ASSEMBLY 1		RF
- 1B	PN2		1	ASSEMBLY 2		RF
- 1C	PN3		1	ASSEMBLY 3		RF
10A	SPN1		2	SUB-ASSEMBLY 1	1AC	1
10B	SNP2		2	SUB-ASSEMBLY 2	1B	1
20A	SSNP1		3	SUB SUB-ASSEMBLY 1	10A	1
20B	SSPN2		3	SUB SUB-ASSEMBLY 2	10B	1
30A	SPN3		2	SUB-ASSEMBLY 3		1

TABLE 5 / GRAPHIC 25-22-38-992-005

(g) Quantity per assy.

This column gives the number of parts required for an immediately higher assembly.

If a same assembly or a same part appears in several figures, the quantity is only given in the first parts list; the RF abbreviation appears in the following parts list.

If the quantity of a component is to be established as required (EX. seal, etc.) the quantity is replaces by the term AR (as required)

(2) How to use the Illustrated Parts List

(a) When the part number is known:

1 Turn to the numerical index and locate the part number.

2 The figure and item number on the illustration where the part appears are listed in the column to the right of the part number.

3 The corresponding item number in the accompanying parts list will give part number, description, assembly relationship and quantity required for that particular application.

(b) When the part number is not known:

1 Look through the illustrations and find the assembly of which the component is part, or look through the illustrations and identify the part by appearance. Note the item number in the exploded view and find part, description and quantity required for that part.

(3) List of abbreviations

The following abbreviations have been used in this CMM:

AR	As Required. Indicates that an indefinite quantity is required
ASSY	Assembly
CMM	Component Maintenance Manual
CAGE CODE	Commercial and Government Entity Code
DET	Detail
FIG	Figure
H	Horizontal
IND	Indenture
IPL	Illustrated Parts List
LH	Left Hand
NHA	Next Higher Assembly
NP	After any description means that this part number constitutes an assembly of breakdown parts not supplied as a whole. Although not procurable, a view of each assembly, sub-assembly, sub-sub-assembly, or small unit, exploded as necessary to show detail parts, is provided to illustrate each part in the detail parts list. Illustrations of all parts will be technically correct in assembly installation relation ships.
QTY	Quantity
RF	Reference indicates those parts which have their quantity listed elsewhere in the Illustrated Parts List.
R	Recline
RH	Right Hand
SYM	Symmetrical
V	Vertical

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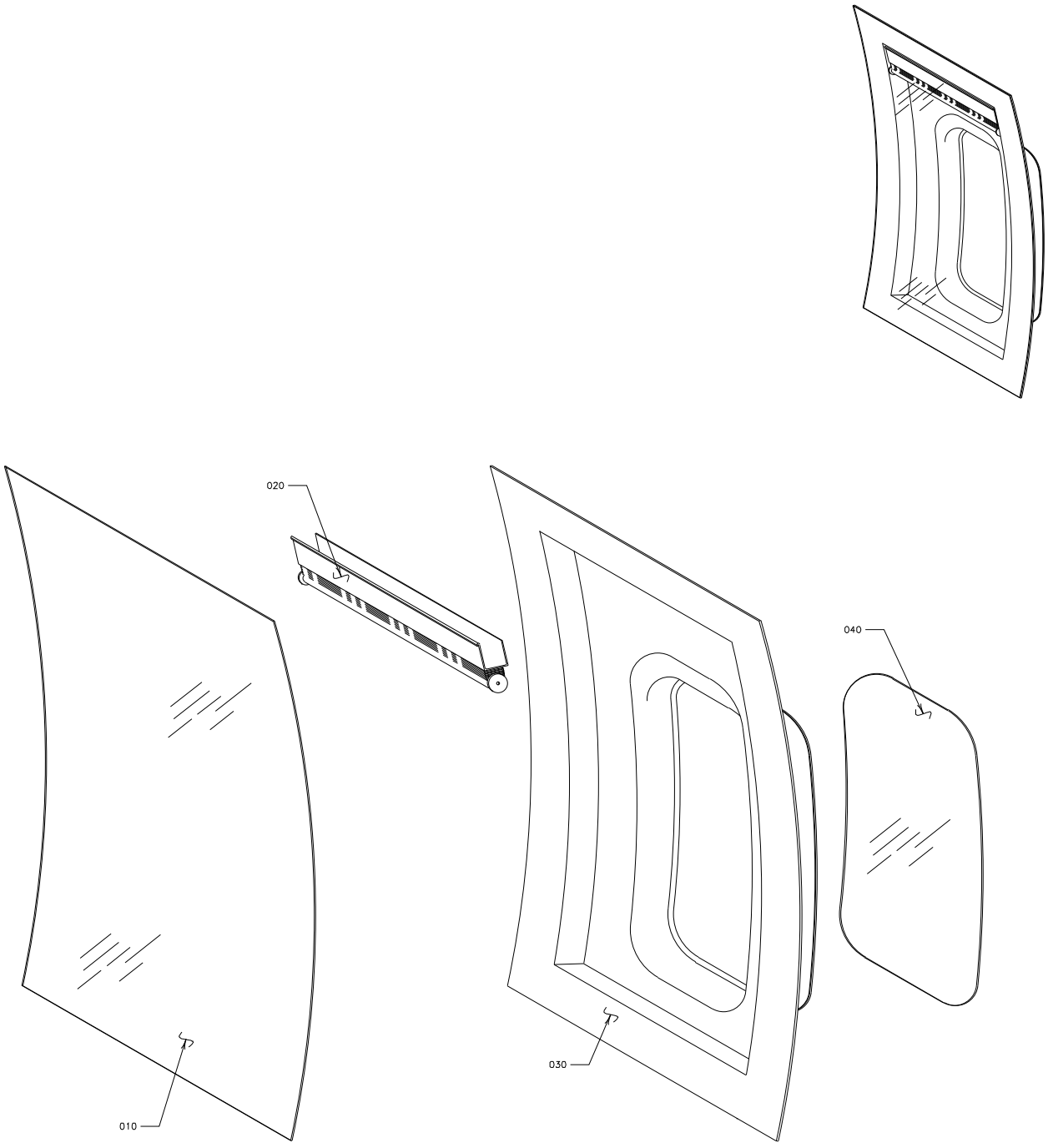
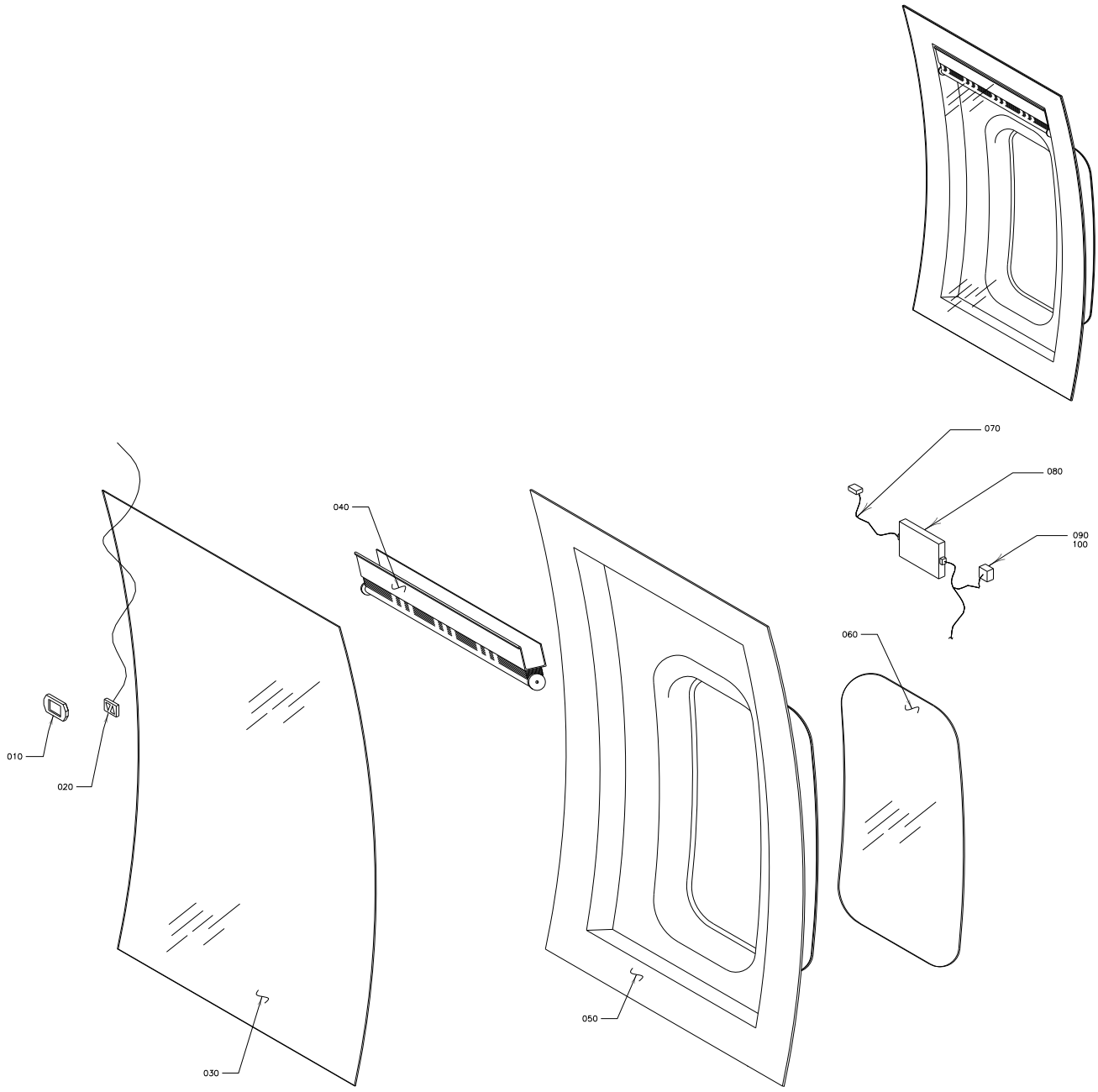
3. Alphanumerical index

PART NUMBER	AIRLINE STOCK NUMBER	FIGURE	ITEM	TTL REQUIRED
00-113M006-7		14	50	2
00-113E003-11		16	070	1
00-113E003-51		16	080	1
00-113E003-9		16	090	1
00-113E003-53		16	100	1
00-113E007-53		16	010	1
00-113E007-51		16	020	
22N 28 208E 286		14	10	1
834-XXXX		14	40	AR
AN525-832		14	80	2
B-832		14	70	2
CL601-113M021-55		13	010	1
CL601-113M021-51		13	030	1
CL601-113M020-1		13	020	1
CL601-113M021-101		13	020	1
MOTOR HOUSING		14	20	1
LOWER RAIL		14	30	1



Decorative Window Shade Assy.
FIGURE 15/ GRAPHIC 25-22-15-991-015

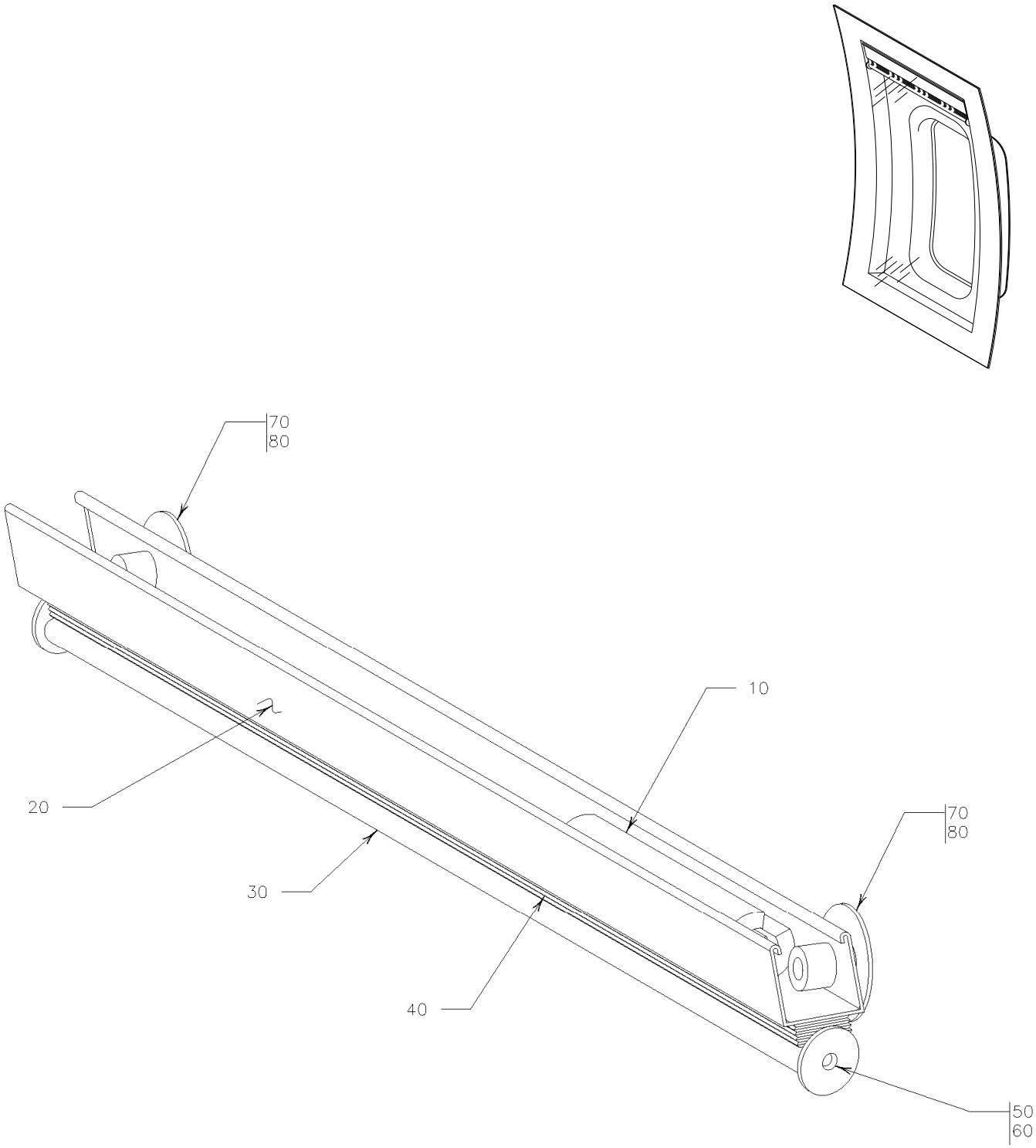
15 FIG-ITEM	PART NUMBER	AIRLINE PART NUMBER	IND	NOMENCLATURE	USAGE FROM TO	UNITS PER ASSY.
010	CL601-113M021-55		1	INNER LENS		1
020	CL601-113M021-51		1	BLIND MOD.		1
030	CL601-113M020-1		1	WINDOW REVEAL		1
040	CL601-113M021-101		1	OUTER LENS		1



Decorative Window Shade Assy.
w/ optional controller assy. & inner lens switch
FIGURE 16/ GRAPHIC 25-22-15-991-016

13011
MAY 10/11

16 FIG-ITEM	PART NUMBER	AIRLINE PART NUMBER	IND	NOMENCLATURE	USAGE FROM TO	UNITS PER ASSY.
010	00-113E007-53		1	DECORATIVE BEZEL		1
020	00-113E007-51			MEMBRANE SWITCH		1
030	CL601-113M021-55		1	INNER LENS		1
040	CL601-113M021-51		1	BLIND MOD.		1
050	CL601-113M020-1		1	WINDOW REVEAL		1
060	CL601-113M021-101		1	OUTER LENS		1
070	00-113E003-11		1	AIRFRAME INTERFACE HARNESS		1
080	00-113E003-51		1	SHAD CONTROLLER ASSY.		1
090	00-113E003-9		1	INNER FRAME HARNESS		1
100	00-113E003-53		1	POTIENTIOMETER		1



Blind Mod. Assy.
FIGURE 17/ GRAPHIC 25-22-15-991-017

17 FIG-ITEM	PART NUMBER	AIRLINE PART NUMBER	IND	NOMENCLATURE	USAGE FROM TO	UNITS PER ASSY.
10	22N 28 208E 286		1	SHADE MOTOR		1
20	SUPPLIED W/ BLIND		1	MOTOR HOUSING		1
30	SUPPLIED W/ BLIND		1	LOWER RAIL		1
40	834-XXX		1	SHADE FABRIC		1
50	00-113M006-7		1	ROLLER		2
60	NAS548-P6		1	WOOD SCREW		2
70	B-832		1	WELL NUT		2
80	AN525-832		1	SCREW		2