## SUGGESTED INSTALLATION



COPYRIGHT BY M.S.A. AIRCRAFT PRODUCTS, INC. ALL RIGHTS RESERVED DATE\_\_\_\_9/28/98\_\_\_ SUGGESTED SEAL ARRANGEMENT AC STRUCTURE **FACTORY WINDOW** ISOLATOR WASHER **SCREW OR BOLT** AS REQ'D. ACCORDIA® WINDOW NOTE:
THIS DEPICTION REFERS ONLY TO
A SUGGESTED GENERALIZED RELATTIONSHIP BETWEEN THE ACCORDIA ®
WINDOW SHADES AND THE AIRCRAFT.
IT SHOULD NOT BE CONSTRUED BY ANY
MEANS AS AN INSTALLATION DRAWING.
IT IS THE RESPONSIBILITY OF THE INSTALLER (IE. THE MOD CENTER) TO INSTALL
AND CERTIFY COMPLIANCE. SUGGESTED INSTALLATION ACCORDIA

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## **MSA INFORMATION DOCUMENT**

SUBJECT: ACCORDIA® Window shade System Installation Instructions

- 1. The ACCORDIA® shade is a very durable product once properly installed into the aircraft and can operate satisfactorily over the life of the aircraft if cared for properly. It can, however, be easily damaged when out of the aircraft so extreme care must be used while handling and storing the shade assembly.
- 2. Each ACCORDIA® shade should be left in the shipping container until it is ready for installation and the protective tape and film covering should normally be removed at time of final completion of interior. The shipping container will protect the inner and outer lenses from scratches, prevent dust collection inside the shade assembly and frame corner damage. When possible, please use original container and bubble pack if the window must be shipped back to the manufacturer. Refer to storage and handling instructions.

**CAUTION:** Removal of protective film from lenses creates extremely high static electricity charges which can cause dust to adhere to lenses. Always dissipate surface charge using approved static discharge techniques after installing in aircraft. Install the window with the protective film provided in place to avoid damage while aligning apertures.

- 3. Before installing window into a rigid panel be sure that the cut out in the panel has sufficient clearance all around the edge of the protruding reveal and area is free from excess insulation pressure on the back of the reveal. Any interference can distort the window when the fasteners are tightened.
- 4. If a seal must be used between the inner window and the factory window, use a very soft density foam so that the reveal and window are not pushed inboard into the shade rail. Use a seal only thick enough to do the job. MSA recommends soundproofing foam such as Sound Foam M by Soundcoat.
- 5. Do not secure the ACCORDIA® shade in a manner that will distort the frame. A suggested mounting method is to use rubber "O" rings at mounting screw locations between the fiberglass window flange and the interior panel mounting face. Tighten mounting screws only snug and not too tight as to compress the "O" ring.
- 6. Maintain ample clearance between top of the shade handle and bottom of interior valance panel for free travel of the shade handle (or manual override eyelet if powered shades are used) and unrestricted removal of the escape hatch.



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- 7. Proper venting of the area between the ACCORDIA® window shade and the factory window must be provided by the installer to prevent heat build up in extreme heat conditions. A minimum clearance of .25 inch must be maintained between the "inboard most surface" of the factory installed window and the "outboard most surface" of the ACCORDIA® window to ensure proper ventilation. MSA does not recommend using tinted lenses on ACCORDIA® shades for Falcon type aircraft.
- 8. When installing an escape hatch, ensure ample clearance is provided around the periphery of the window so that the hatch can be removed and will not become restricted or jammed by interior materials during an emergency landing or other emergency situations requiring the use of window exits.
- 9. Do not use reveal-to-window frame mounting screws to install other interior parts as this will over stress the threaded inserts and void the warranty. The fiberglass mounting flange can be used for this purpose. Consult MSA Technical Services for other mounting options.
- 10. When working with ACCORDIA® shades on the bench always leave the protective film covering installed by MSA over each lens. If MSA protective film has been discarded; please contact MSA Product Support for additional film. Installation of unapproved film may cause damage to the protected surfaces when removed. Shades should never be laid or stored on its back. If work is required on the front side, support the windows from the fiberglass frame flange with a fixture. The shade requires no adjustment and is assembled in a clean room. It is therefore unnecessary to open the window for any reason.
- 11. Never operate ACCORDIA® shades in a position other than vertical, with the correct side "up". Close tolerance clearances within each shade unit will create interference between components if the units are operated in any position other than up-right or "as installed" in aircraft. Operating the ACCORDIA® shade in an inappropriate manner may damage inner components and create F.O.D. within the unit. Improper operation will void the window warranty.

MSA Products are protected under one or more of the following patents:

 Des 331,215
 4,998,576
 5,082,043
 5,642,022

 5,816,307
 5,954,109
 6,065,523
 6,230,784 B1

 6,460,805 B1
 6,481,486 B1
 6,745,810 B1
 6,758,255 B2

 6,832,641
 6,915,988 B2
 2,069,830 (Canada)
 2,066,706 (Canada)

And other U.S. and foreign patents pending.

