AROWGUARD

DRIVER PROTECTION SYSTEMS

AROWGUARD SLIDE STOW
DRIVER PROTECTION SYSTEM (DPS): PRODUCT SPECIFICATION

The ArowGuard Slide System is a fixed door that incorporates a sliding two piece glass system. This design allows the driver to adjust the sliding glass into multiple positions, similar to how they would adjust the driver's window.

Features:

- Easy to slide closed, offering the driver quick protection in the event of an emergency.
- Utilizes the time-tested and robust AROW Global rocker latch.
- Low-friction track controls slide forces and provides long-lasting, reliable operation.
- Designed to attach securely to the vehicle chassis or carlines.
- In compliance with AS-2 regulations and ADA requirements.
- Pyrolytic anti-glare coating compatible, which reduces interior and exterior light reflectance to less than 2%.
- Glass geometry allows for unobstructed view of surroundings, including rearward facing and curbside mirrors.
- Tailored to work around existing bus equipment such as fare boxes, cameras, and stanchions.

SLIDE STOW PRODUCT SPECIFICATION

General

- Manufacturer/model reference: AROW Global AROWGUARD Slide Stow Driver Protection System
- Driver Protection System (DPS) shall be easily operated.
- DPS shall prevent sudden intrusion into the bus operator's area.
- DPS assembly shall not cause objectionable noise or vibration during normal road operation.
- DPS components shall not prevent access to fare box payment interface or vault door.
- DPS shall allow for a reasonable amount of verbal communication between the bus operator and passengers.
- DPS shall not obstruct the rearward view of operator to the standee line.
- All DPS parts shall be powder coated or anodized to complement the interior color of the bus.
- The DPS shall be designed with an upper glazing section and a non-transparent lower section.
- For maintenance purposes, the DPS shall take less than 30 minutes to remove and replace.
- All DPS parts shall be new and unused.

Operation

- Forward most DPS glass shall slide using a low friction track into multiple, operator selectable positions.
- Forward most DPS glass shall include a rocker latch mechanism to prevent the glass from moving during bus acceleration or braking.
- Forward most DPS glass shall operate with a force of less than 26lbf to initiate motion and a force of less than 13lbf to maintain motion.
- The DPS shall not affect vehicle adherence to ADA or other international accessibility standards as pertaining to aisle clearance and conformance to the standardized "Box Test."
- The DPS shall include a stop mechanism to prevent the door from opening more than ninety-five (95) degrees or past the passenger standee line.
- The primary DPS latch mechanism release shall be inconspicuous to untrained personnel, and be operated by means of a push out knob that actuates with a force of less than 5lbf.
- The DPS shall be designed to minimize glare and reflection from outside light sources during hours of darkness.
- No portion of the DPS latching mechanism or strike plate shall present a hazard during ingress or egress from the bus operator's area.
- The DPS door swing shall be accommodated by a rotary post hinge mechanism, free of pinch points.
- The DPS shall close by use of an ergonomically positioned pull handle, and latch with a force of less than 20lbf.

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Materials

Glazing

- Glazing shall permit unobstructed view of the curb-side mirrors and to the bottom of the entrance door for operators included in the 95th percentile of the operator population in accordance with SAE J941.
- Glazing material shall be a minimum of 5/16" (8mm) thickness and be of a tempered / laminated construction with pyrolytic application of anti-glare coating on surfaces #1 and #4.
- Glazing material shall comply with American National Institute, Standard ANSI/SAE Z26.1-1996 S5.2, FMVSS 571.205 49CFR, and SAE J673 #1 edge standards for automotive glazing.
- Glazing material shall be properly marked indicating approved for automotive use in accordance with ANSI/SAE Z26.1-1996 S7 and FMVSS 205 S6.2 standards.
- All DPS glazing shall be easily serviceable and allow replacement in less than 5 minutes by a qualified technician.

Support Infrastructure and Overall Construction

- DPS stanchion framing shall be constructed of a minimum 11 gauge (0.120" wall) 304 stainless steel material.
- DPS stanchion mounts shall be structurally affixed to the vehicle undercarriage, chassis, or body framing.
- DPS shall be constructed with a sturdy metal frame supporting both upper and lower sections. No portion of the framing shall extend around the front edge of the glazing material.
- All DPS glazing shall be retained by 6063-T6 extruded aluminum framing and include mechanisms to provide vibration-dampening properties.
- All DPS glazing shall be retained without the use of holes, notches, or slots within 5" of the edge of the material.
- Non-transparent lower sections shall be constructed of a minimum 5/32" thickness aluminum sheet and include reinforcement members with welded construction.
- The primary DPS latching mechanism shall include a two stage rotary slam close type latch and utilize a 9/16" diameter striker bar with fully captured engagement. The latch must be able to withstand a load of no less than 350lbf applied at the locking point, both inward (towards the driver seat) or outward (away from the driver seat).

Hardware

- DPS latch shall be serviceable and fully replaceable in less than 10 minutes by a qualified technician.
- All fasteners used on the DPS shall be of a safe design to prevent injury to the bus operator or passengers.
- DPS hinge shall be of a maintenance free rotary post design and incorporate UHMW bushings and bronze thrust washers.

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