

SUBJECT: Passenger Door Lock Pin O-Ring Replacement  
Aircraft: Eclipse 500 and 550  
Effectivity: All Aircraft  
Applicability: All Aircraft

## 1. SUMMARY

This SIL provides guidance concerning an issue with an “O” ring in the passenger door latch locking mechanism causing friction.

## 2. BACKGROUND

The MS28775-110 "O" Ring originally used in the passenger door latch release mechanism is susceptible to swelling as a result of exposure to the diester based synthetic lubricants used in the assembly of the door latch mechanism. This results in the exterior release button and interior lock knob sticking and not readily returning to the neutral (locked) position.

## 3. ECLIPSE ACTION

EAI released Service Engineering Memo SEM-500-00172 in 2014 to address this issue. The SEM remedied the sticking by replacing the MS28775-110 “O” ring with a MS29561-110 “O” ring. The MS29561-110 “O” ring is made from Nitrile Synthetic Rubber that is compatible with diester based synthetic oils.

A recent survey of the fleet found that the old “O” ring is still installed on many aircraft. As a result Eclipse has taken the following actions.

1. Released mandatory service bulletins SB 500-52-010 and SB 550-52-001 to replace the “O” ring at the next 300 hour / 24 month inspection.
2. Released AMM TRs for the 500 and 550 that add an inspection/check of the passenger door handle to the 300 hour / 24 month inspection.
3. Revised the AMM passenger door inspection / check procedure to confirm the proper operation of the passenger door latch locking mechanism.

## 4. SUGGESTED OPERATOR ACTION

Operators should review their aircraft maintenance records to determine if the subject “O” ring has been replaced. If it has not been replaced the appropriate service bulletin should be scheduled at the next 300 hour / 24 month inspection.

Operators should inspect the lock knob when closing and latching the door. The lock knob should be pushed in if not fully seated, as indicated by the visible hash marks.

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## 5. EXPORT CONTROL

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