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|  <p>SOUTH AFRICAN CIVIL AVIATION AUTHORITY</p> | <p align="center">REPUBLIC OF SOUTH AFRICA</p> <p align="center">CIVIL AVIATION AUTHORITY</p> <p align="center">AERONAUTICAL INFORMATION CIRCULAR</p> | <p>CAA Private Bag x08 Waterkloof 0145</p> |
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AIRWORTHINESS

AVIONICS

BATTERY MAINTENANCE AND PRECAUTIONS

☞ Indicates changes

☞ This AIC replaces AIC 62x7 dated 99-05-15.

1. The battery cover of Piper PA28-R aircraft is made from .063" thermoplastic sheet ABS per PMS-G008-3 (colour optional). The material is required to be flame resistant in accordance with Piper Specification PS 10019, Fire Protection for Aircraft Material. This requires that the burn rate of the average of three tests specimens does not exceed 4.0 inches per minute when tested horizontally in draft free conditions and subjected to flame application for 15 seconds.
2. Piper recommends inspecting the battery and terminals at least every 30 days or 100 hours which ever occurs first. This is shown in the Inspection Procedures of the Maintenance Manual.
3. Because of intermittent high current drawn in the normal mode of operation, starter circuits are not fused nor circuit breaker protected. A locked motor or stalled condition of the starter motor could overheat the master contactor or starter relay contactor if held engaged in this condition, or quickly deplete the battery even prior to that.
4. All starter manufacturers recommend that cranking periods be limited ten to twenty seconds on and five minutes off between cranking periods. Longer cranking periods will shorten the life of the starter or cause a burn-out.
5. Since the same current draw is experienced by both battery studs, a bad or loose connection will cause voltage drop or even arcing.
6. Operators of aircraft and all technical personnel are reminded to observe the condition prescribed by individual aircraft and battery manufacturers regarding maintenance as well as starter cranking limitations.

COMMISSIONER FOR CIVIL AVIATION