

SERVICE LETTER

UNIVAIR AIRCRAFT CORPORATION
STINSON DIVISION

SERVICE INFORMATION LETTER NO. 81, Revision A

March 13, 2009

Subject: Batteries eligible for installation in Stinson 108, 108-1, 108-2 and 108-3

Technical aspects of this Service Letter are DER approved.

The Stinson 108, 108-1, 108-2 and early 108-3 aircraft were originally certified with the following batteries:

Willard AW-12-25 and box	23 lb. (+13.5)
or	
Exide 6-TS-9F and box	29 lb. (+13.5)

Later models of the Stinson 108-3 were certified with the following firewall mounted battery:

Willard AW-12-25 (Safety Fill Manifold Vent)	23 lb. (-25)
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None of the batteries listed above are currently manufactured. Until now, the only way to install a currently manufactured aircraft battery in a Stinson 108 series aircraft has been through the field approval process. This Service Information Letter lists additional approved batteries for installation on these aircraft.

The Willard AW-12-25 or Exide 6-TS-9F may be replaced with any one of the following batteries without modification to the battery box or electrical connections: Concorde CB-35, CB-35A, CB-35AXC, RG-35, RG-35A, or RG-35AXC.

The Concorde CB-35A replaces the CB-35. Similarly, the Concorde RG-35A replaces the RG-35. The CB-35, CB-35A, and CB-35AXC may be used interchangeably and the RG-35, RG-35A, and RG-35AXC may be used interchangeably. From this point on in this document, only CB-35A and RG-35A will be used, but CB-35, CB-35AXC and RG-35, RG-35AXC are also implied.

Note that the Concorde batteries use hex head screws and conical washers in place of the battery posts with wing nuts as used on the Willard AW-12-25 or Exide 6-TS-9F batteries.

The firewall mounted Willard AW-12-25 Safety Fill Manifold Vent battery was equipped with a vent fitting for the overflow tube (P/N 108-3062000-16). The Concorde batteries do not have provisions for connection to overflow tubes. However, a recombinant gas, valve regulated, sealed lead acid battery does not need an overflow tube. Therefore,

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the Willard AW-12-25 Safety Fill Manifold Vent battery may be replaced by a Concorde RG-35A. When installing a Concorde RG-35A battery in place of the Willard AW-12-25 Safety Fill Manifold Vent battery, the vent tube may be removed or tied off to the side of the battery. If the vent tube is removed, block the hole in the firewall where the vent tube passes through with a patch made from fireproof material.

The Concorde CB-35A is a dry charged lead acid battery of similar construction and maintenance requirements as the Willard AW-12-25 and Exide 6-TS-9F batteries. The Concorde RG-35A is a recombinant gas, valve regulated, sealed lead acid battery. It is permanently sealed at the factory. No additional electrolyte or water is required for maintenance of the RG-35A.

Installation of replacement batteries:

Removal and installation of the Willard AW-12-25, Exide 6-TS-9F, and Willard AW-12-25 Safety Fill Manifold Vent batteries are the same as that detailed in the Stinson Model 108 Series General Service Manual.

Replacement of the existing Willard or Exide battery with a Concorde CB-35A or RG-35A can be accomplished as follows:

1. Review maintenance procedures regarding removal and installation of battery in Stinson Model 108 Series General Service Manual. Review Instructions for Continued Airworthiness for Concorde battery (Concorde drawing 5-0144 for CB-35A battery or Concorde drawing 5-0142 for RG-35A battery).
2. Gain access to and remove existing battery in accordance with instructions in Stinson Model 108 Series General Service Manual.
3. Clean battery box or cradle in accordance with instructions in Stinson Model 108 Series General Service Manual.
4. Activate Concorde CB-35A battery as outlined in Concorde Instructions for Continued Airworthiness, drawing 5-0144. Concorde RG-35A batteries are serviced and charged at the factory prior to shipment and ready for installation. If the RG-35A battery has been stored for a long period of time before installation, it may need to be conditioned and tested in accordance with instructions in Concorde drawing 5-0142 before installation.
5. Install Concorde battery in battery box or cradle with battery terminals in same orientation as original battery.
6. The Concorde batteries do not employ battery posts as the original batteries. The Concorde batteries use hex head screws and conical washers. Connect battery cables using the hex head screws and conical washers. Torque terminal bolts as noted on battery label. Always disconnect the ground terminal first and install the ground terminal last.
7. Install battery box top or hold down hardware as required.

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8. Voltage regulator adjustments remain unchanged with installation of a Concorde battery.
9. Revise weight and balance. The Concorde CB-35 or CB-35A weighs 28.5 pounds. The CB-35AXC weighs 31 pounds. The Concorde RG-35 or RG-35A weighs 29.5 pounds. The RG-35AXC weighs 32 pounds.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

Instructions for continued airworthiness of the electrical system are detailed in the Stinson Model 108 Series General Service Manual. Instructions for continued airworthiness of the Concorde CB-35A battery are contained in Concorde drawing 5-0144. Instructions for continued airworthiness of the Concorde RG-35A battery are contained in Concorde drawing 5-0142. Concorde also has available a Concorde Aircraft Battery Owner/Operator Manual. It is recommended that this Service Letter and appropriate Concorde drawing be placed with the Stinson Model 108 Series General Service Manual for future reference when a Concorde battery is installed in the aircraft.

INFORMATION AND PARTS AVAILABILITY:

Copies of Stinson Model 108 Series General Service Manual are available from Univair Aircraft Corporation.

Copies of Stinson Service Bulletins and Letters for Stinson 108 Series are available from Univair Aircraft Corporation.

Contact Univair Aircraft Corporation for availability and pricing of parts for complying with Service Bulletins and Letters.

Concorde CB-35A and RG-35A batteries are available from Univair Aircraft Corporation or other authorized distributors for Concorde batteries.

Concorde drawing 5-0142, drawing 5-0144, and Concorde Aircraft Battery Owner/Operator Manual are available from Concorde Battery Corporation at www.concordebattery.com (Adobe Acrobat Reader is required to view the documents).

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