



2141 ICON Way, Suite 100, Vacaville, CA 95688 - Tel: 707.564.4000 – www.iconaircraft.com

SERVICE LETTER

SL-120524-A

ID NUMBER & REVISION: SL-120524-A
SUBJECT: Lead Acid Battery Maintenance Charging
RELEASE DATE: 05 December 2024
EFFECTIVE DATE: 05 December 2024
SUPERSEDES NOTICE: N/A
AIRCRAFT AFFECTED: **MAKE & MODEL:** ICON A5
SERIAL NUMBERS: All
ACTION: Routinely charge the aircraft battery as indicated.
Only applicable for lead acid battery (RG-12LSA or RG-25XC).
TIME OF COMPLIANCE: N/A
REVISION HISTORY: A Initial Release

LEVEL OF CERTIFICATION	<input checked="" type="checkbox"/> Pilot/Owner	<input checked="" type="checkbox"/> A & P
REQUIRED (any level checked	<input checked="" type="checkbox"/> LSA Repairman – Inspection	<input checked="" type="checkbox"/> Certified Repair Station
can perform task):	<input checked="" type="checkbox"/> LSA Repairman – Maintenance	<input checked="" type="checkbox"/> Manufacturer

PURPOSE:

ICON has identified methods of handling, storing and maintaining aircraft batteries to improve their useful life. The requirements identified herein are intended to align with the manufacturer’s recommendations and should reduce the need for premature battery replacement. This document is specific to the Concorde lead acid batteries, RG-12LSA and RG-25XC. This document is not intended to supersede any tasks outlined in the Aircraft Maintenance Manual but is intended to supplement those instructions.

TOOLING:

- Maintenance/Constant-Potential Charger
 - For long-term, continuous “trickle-charging” and boost charging
 - Must be able to apply a constant potential of 14.125 ± 0.125 volts with a current capability of at least 2.2A for RG-12LSA or 4.8A for RG-25XC.
 - Some Maintenance Chargers are temperature-compensating. For chargers that are not temperature-compensating, refer to Table 1 for Voltage Settings.
 - Recommended: [BatteryMINDer® Model 128CEC2-AA-S5](#) (temperature-compensating and desulfating)
 - Refer to the [Concorde RG Series Component Maintenance Manual, 5-0171](#), Table 101 “List of Test Equipment for 12 Volt Batteries” and Page 107 “Constant Potential Charge Procedure”, for additional information and requirements.



SERVICE LETTER

SL-120524-A

- Condition/Constant-Current Charger
 - For condition check/charging
 - Refer to the [Concorde RG Series Component Maintenance Manual, 5-0171](#), Table 101 “List of Test Equipment for 12 Volt Batteries” and Page 107 “Conditioning Charge Procedure”, for requirements.
 - It is permissible to use a *desulfating* Constant-Potential Charger, such as the [BatteryMINDER® Model 128CEC2-AA-S5](#), to condition the battery.

Table 1. Recommended Voltage Regulator Settings

Battery Temperature	Voltage Setting (V)
Below 0°C (32°F)	14.5 – 14.75
0 to 15°C (32 to 59°F)	14.25 – 14.5
16 to 30°C (60 to 86°F)	14.0 – 14.25
31 to 45°C (87 to 113°F)	13.75 – 14.0
Above 45°C (113°F)	13.5 – 13.75

INSTRUCTIONS:

For batteries held in storage, not installed on aircraft:

1. Where possible, batteries shall be stored in a cool location away from sunlight exposure, below 68°F. Under these conditions, the battery shelf life is 90 days.
2. If the battery cannot be kept in the controlled environment above, it should be kept on a Maintenance “trickle” Charger or charged regularly in accordance with Table 2. Under these conditions, the battery shelf life is 60 days.
3. If the battery cannot be kept in a controlled environment or the charge maintained as indicated above, the battery shelf life is 30 days.
4. Regardless of storage/maintenance conditions, the battery shall undergo a condition check at the end of its shelf life (refer to the [Concorde RG Series Component Maintenance Manual, 5-0171](#), Page 106 “Capacity Test Procedure”, for additional information on performing the condition check).
 - a. If battery Open Circuit Voltage (OCV) is above 12.5V, fully charge the battery, note new OCV and date of inspection; keep record with battery. Shelf life may be extended – new shelf life is equivalent to the original (based on the storage conditions outlined in steps 1-3 above).
 - b. If battery OCV is measured below 12.5V, perform capacity test and perform reconditioning procedures as detailed in the [Concorde RG Series Component Maintenance Manual, 5-0171](#), Page 107 “Conditioning Charge Procedure”. Keep record with battery. If battery can be conditioned back to 85% capacity, shelf life may be extended – new shelf life is equivalent to the original (based on the storage conditions outlined above). If battery cannot be conditioned back to 85% capacity, the battery shall not be used and should be disposed of.



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For batteries installed on aircraft:

1. If the aircraft is stored in a temperature-controlled environment (away from sunlight exposure, below 68°F), minimal battery discharge is expected. However, if the aircraft operates infrequently (e.g., less than once or twice a month), then a Maintenance “trickle” Charger is recommended.
2. If the aircraft is not stored in a temperature-controlled environment, it should be kept on a Maintenance “trickle” Charger or charged regularly in accordance with Table 2.
 - a. If the charge cannot be maintained as indicated above, the aircraft is subject to a battery voltage check prior to each flight.
 - i. If the measured battery OCV is below 12.5V, the battery is subject to a condition check (refer to the [Concorde RG Series Component Maintenance Manual, 5-0171](#), Page 106 “Capacity Test Procedure”, for additional information on performing the condition check). Until the condition check passes, the aircraft shall not be flown. Due to the time required to complete the condition check and fully charge the battery, it is recommended to schedule this 1-2 days prior to a planned flight.

Table 2. Charging Frequency for Non-Temperature-Controlled Environments

Battery Temperature	Charging Frequency	Charging Duration
Below 15°C (59°F)	Once every 4 months	72 – 96 hours
15 - 35°C (59 - 95°F)	Once every 2 months	48 – 72 hours
Above 35°C (95°F)	Once every month	24 – 48 hours

No logbook entry is required.

If you have questions, comments, or concerns about this Service Letter and/or if you are no longer owner/operator of this aircraft, please forward this information to the present owner/operator and notify ICON Aircraft at:

ICON Aircraft
2141 ICON Way, Suite 100
Vacaville, CA 95688
(707) 564-4000

support@iconaircraft.com

Please include the aircraft registration number, serial number, your name, and if known the contact information of the new owner/operator.