

SERVICE BULLETIN



Service Bulletin No.: DAC1-24-05 Rev 1

Date Issued: April 19, 2001

Title: DA20 C1 – B & C Battery Retrofit

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1. **ATA Code:** 2400
2. **Effectivity:** Diamond Aircraft Model DA20-C1 Serial Numbers C0001-C0148, C0150
3. **General:** This service bulletin addresses replacement of the standard Yuasa Y50-N18L-A-CX battery with the B & C Specialty Products BC100-1 battery. The BC100-1 possesses a higher capacity and discharge rate as compared to the Yuasa, resulting in improved starting performance.
4. **Compliance:** Compliance with this service bulletin is optional.
5. **Approval:** Engineering data referenced or contained in this service bulletin is approved as part of the type design.
6. **Labor:** Approximately 1 hour will be required to accomplish this service bulletin.
This estimate is for direct labor performed by a technician and it does not include setup, planning, familiarization, cure time, part fabrication or tool acquisition.

7. Material:	Part Number	Description	Qty
	MS21077-3	Nut Plate, Floating	2
	CCR244SS-3-03	Rivet, Nut Plate	4
	AN4-42A	Bolt, Hex Head	1
	0706-015	Connector, Straight	1
	245-005	Plug	1

The material listed above is available as a kit by ordering P/N DA20C1-24-05AMK0. The BC100-1 battery can be procured from:

B&C Specialty Products,
Newton, KS,
Telephone (316) 283-8000
Fax (316) 283-7400

8. **Special Tools:** N/A
9. **References:** DA20-C1 Maintenance Manual (MM), Document # DA201-C1.
DA20-C1 Airplane Flight Manual (AFM), Document # DA202-C1.
10. **Accomplishment Instructions:**
 - 10.1 Remove the Yuasa battery in accordance with section 24-31-00 of the DA20-C1 Maintenance Manual.
 - 10.2 Remove the baggage floor. Remove the battery manifold overboard drain tube and replace the "T" tube connector (ty-wrapped to half-ring bulkhead) with the straight connector (0706-015). Plug hole in battery compartment with plug 245-005 (Reference Figure 1).

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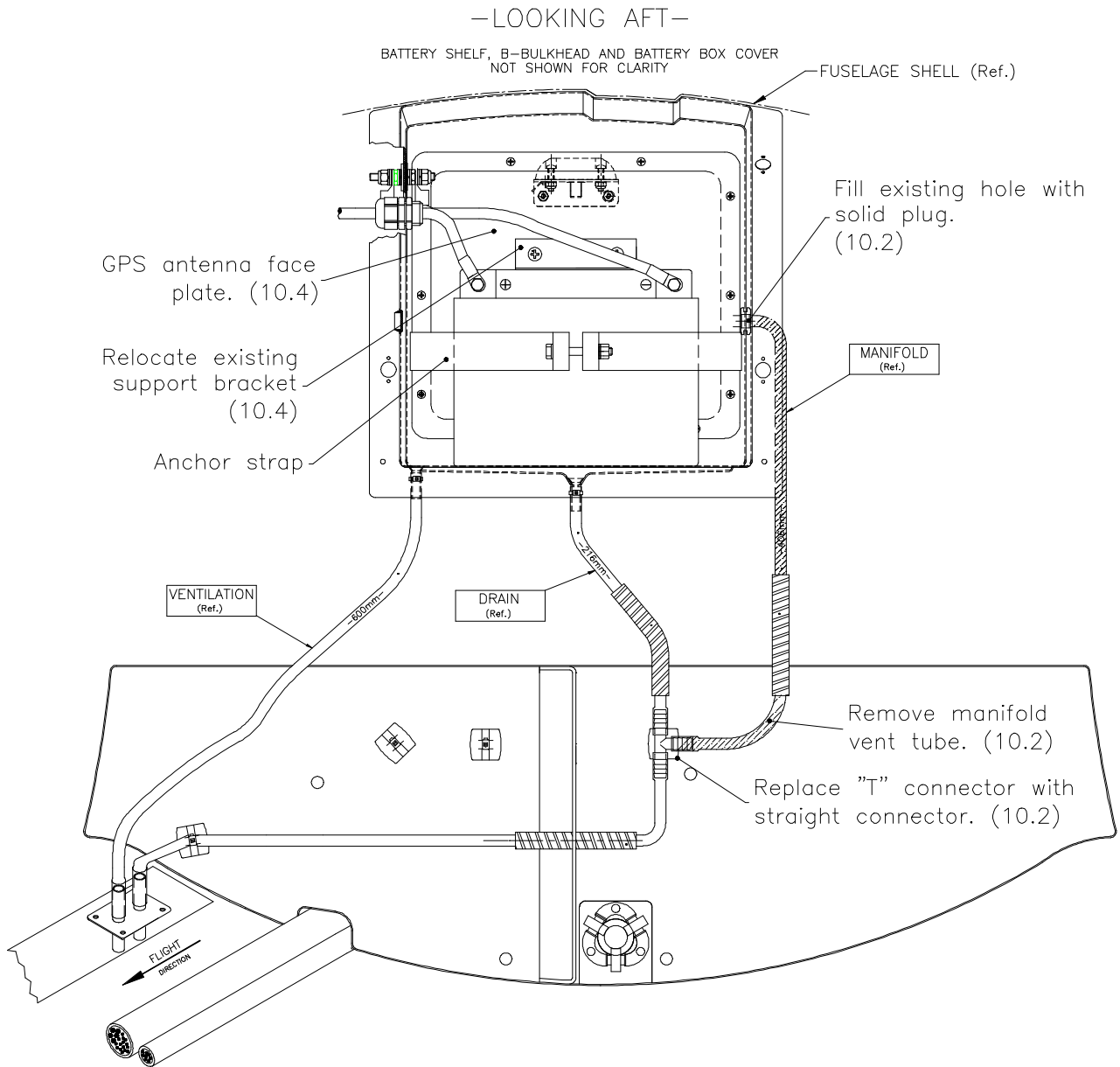


Figure 1

- 10.3** Place B & C battery on the battery shelf and push it all the way aft. The terminals point toward the front of aircraft.

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- 10.4 Using the existing support bracket removed in 10.1, locate two new mounting holes on the GPS antenna face plate.
- 10.5 Remove GPS antenna face plate (carefully disconnect coaxial cable and grounding strap behind face plate) and install new nutplates (MS21077-3) in their new location.
- 10.6 Re-connect coaxial cable and grounding strap and re-install face plate.
- 10.7 Straighten the kink in each battery anchor strap and secure battery using the longer bolt* (AN4-42A).

*NOTE: It may be required to vary bolt length and / or add additional washers in accordance with Standard Aircraft Practices to achieve thread safety. DO NOT OVERTIGHTEN STRAPS, DAMAGE TO BATTERY MAY OCCUR.
- 10.8 Install support bracket.
- 10.9 Re-connect battery leads in accordance with DA20-C1 Maintenance Manual and torque terminal screws to 50 in*lbs max.
- 10.10 Make the appropriate entry into the aircraft records.

11. Weight and Balance:

The weight increase, resulting from this service bulletin, is 8.7 lbs (4.0 kg) with a lever arm of 56" (1422 mm) referenced to the leading edge of the wing at the root (Ref. AFM).

12. Availability:

Contact Diamond Aircraft.

To obtain satisfactory results, procedures specified in this service bulletin must be accomplished in accordance with accepted methods and current government regulations. Diamond Aircraft Industries Inc. cannot be responsible for the quality of work performed in accomplishing the requirements of this service bulletin. Diamond Aircraft reserves the right to void continued warranty coverage in the area affected by this Service Bulletin if it is not incorporated. If you no longer own the aircraft to which this service bulletin applies, please forward it to the current owner and send the name of the current owner to Diamond Aircraft Industries, Inc., at the address below

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