

OPTIONAL SERVICE BULLETIN NO. DAC1-24-09 REV. 1

SUPERSEDES DAC1-24-09 REV. 0

I TECHNICAL DETAILS

I.1 Category

Optional.

I.2 Airplanes Affected

Type: DA 20-C1

Serial Numbers: C0149, C0151 and subsequent

I.3 Date of Effectivity

18 September 2023.

I.4 Time of Compliance

At owner's discretion.

I.5 Subject

ATA code: 2400.

I.6 Reason

This service bulletin addresses replacement of the firewall battery (either Yuasa Y50-N18L-A-CX or Yuasa YTX24HL-BS or B&C BC100-1MJ) with the Odyssey ODS-AGM28LMJ battery.

I.7 Concurrent Documents

None.

I.8 Approval

The technical information and instructions contained in this document relate to Design Change Advisories No. MÄM 22-0007, MOD0084, MOD0350, which have been approved as part of the type design.

I.9 Accomplishments/Instructions

I.9.1 To replace Yuasa battery Y50N18L-A-CX with Odyssey battery ODS-AGM28LMJ:

1. Remove the Yuasa battery. Refer to AMM Chapter 24-31.

NOTE: Retain the existing P-Clamp and its attaching hardware to reuse in step 9.

2. Remove and discard the ventilation and drain hose, with T-fitting. Refer to Figure 1.

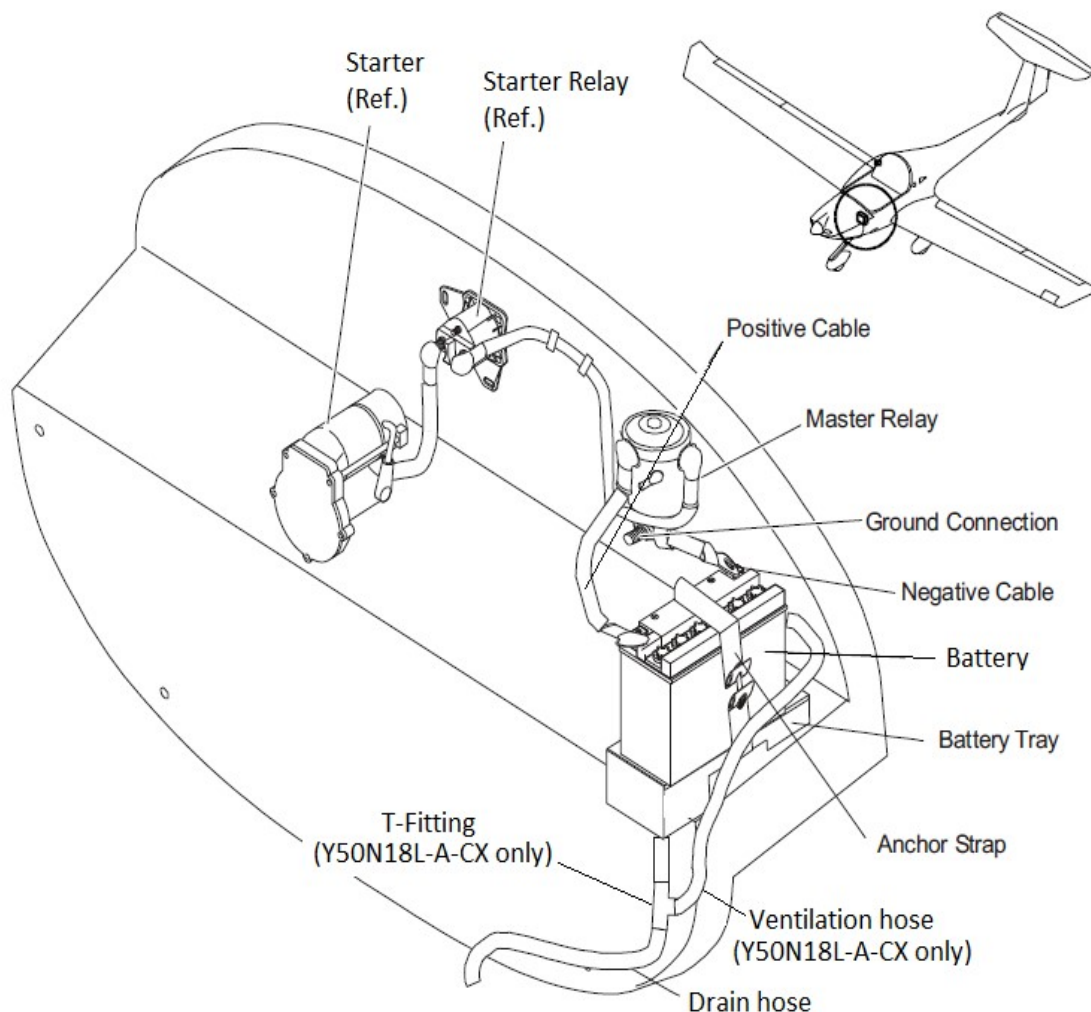


Figure 1 - Overview

3. Remove the existing firewall battery tray.
4. Install new battery tray (item 2) as follows:
 - A. Position the battery tray by placing the recessed dimples located underneath the aft of the tray over the existing rivets on the firewall. Refer to Figure 3.
 - B. Before drilling the holes, push the tray as far aft as possible over the rivets and rotate the forward end of the tray inboard until it is 2 mm away from the oil cooler.
 - C. Secure tray and drill using existing holes in firewall and forward mounting bracket.
 - D. Attach the tray using the new hardware (items 7 through 11). Refer to Figure 3.

5. Place the Odyssey battery (item 1) on the firewall battery tray. The terminals point outwards of aircraft. Refer to Figure 3.
6. Install the bracket strap (item 4) and battery strap (item 3), secure them using the new hardware (items 12 through 16). Refer to Figure 3.
7. Replace the existing battery relay cable (24302A4) and battery ground cable (24301A4N) with the new ones (items 5 and 6). Refer to Figure 2.

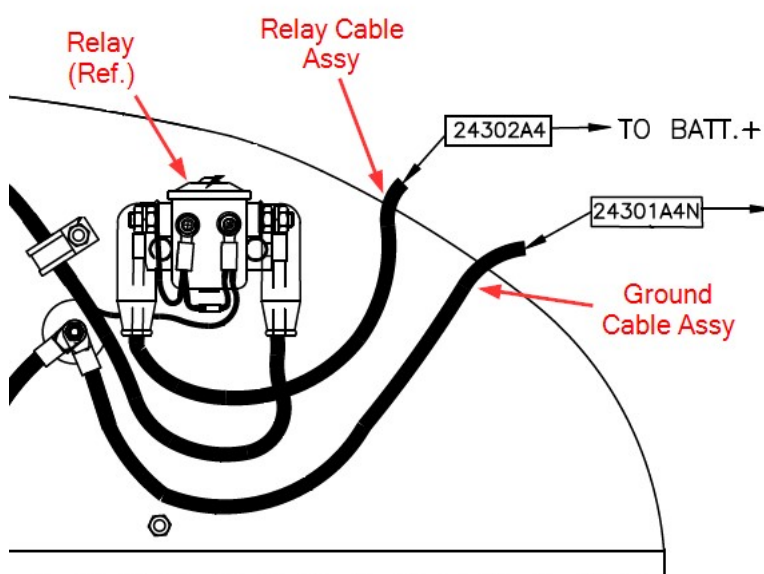


Figure 2. Firewall, Looking Aft

8. Connect the relay cable and ground cable to the battery in accordance with AMM Chapter 24-31. Use hardware that comes with the battery.
9. Secure the newly installed relay cable to the battery with the retained P-Clamp and its attaching hardware from step 1. Refer to Figure 3.
10. Clean the working areas, and check for foreign objects.
11. Check all altered, replaced, repaired parts for proper function.
12. Install the upper cowling. Refer to AMM Chapter 71-10.
13. Make all necessary entries in the logbooks.
14. Submit the execution report to Techpubs@diamondaircraft.com.

I.9.2 To replace Yuasa battery YTX24HL-BS with Odyssey battery ODS-AGM28LMJ:

1. Remove the Yuasa battery. Refer to AMM Chapter 24-31.

NOTE: Retain the existing P-Clamp and its attaching hardware to reuse in step 9.

2. Remove and discard the drain hose.
3. Remove the existing firewall battery tray.
4. Install new battery tray (item 2) as follows:
 - A. Position the battery tray by placing the recessed dimples located underneath the aft of the tray over the existing rivets on the firewall. Refer to Figure 3.
 - B. Before drilling the holes, push the tray as far aft as possible over the rivets and rotate the forward end of the tray inboard until it is 2 mm away from the oil cooler.
 - C. Secure tray and drill using existing holes in firewall and forward mounting bracket.
 - D. Attach the tray using the new hardware (items 7 through 11). Refer to Figure 3.
5. Place the Odyssey battery (item 1) on the firewall battery tray. The terminals point outwards of aircraft. Refer to Figure 3.
6. Install the bracket strap (item 4) and battery strap (item 3), secure them using the new hardware (items 12 through 16). Refer to Figure 3.
7. Replace the existing battery relay cable (24302A4) and battery ground cable (24301A4N) with the new ones (items 5 and 6). Refer to Figure 2.
8. Connect the relay cable and ground cable to the battery in accordance with AMM Chapter 24-31. Use hardware that comes with the battery.
9. Secure the newly installed relay cable to the battery with the retained P-Clamp and its attaching hardware from step 1. Refer to Figure 3.
10. Clean the working areas, and check for foreign objects.
11. Check all altered, replaced, repaired parts for proper function.
12. Install the upper cowling. Refer to AMM Chapter 71-10.
13. Make all necessary entries in the logbooks.
14. Submit the execution report to Techpubs@diamondaircraft.com.

I.9.3 To replace B&C battery BC100-1MJ with Odyssey battery ODS-AGM28LMJ:

NOTE: The BC100-1MJ is the same as the Odyssey ODS-AGM28LMJ battery with the only change being the label. Therefore, the only replacement items required for this change are the battery and the strap hardware.

Diamond Aircraft Industries
OPTIONAL SERVICE BULLETIN
Model DA 20-C1



1. Remove the BC100-1MJ battery. Refer to AMM Chapter 24-31.
2. Install the Odyssey battery (item 1) using the new hardware (items 12 through 16) on the battery strap. Refer to AMM Chapter 24-31 and Figure 3.

NOTE: Do not install the upper cowling yet.

3. Clean the working areas, and check for foreign objects.
4. Check all altered, replaced, repaired parts for proper function.
5. Install the upper cowling. Refer to AMM Chapter 71-10.
6. Make all necessary entries in the logbooks.
7. Submit the execution report to Techpubs@diamondaircraft.com.

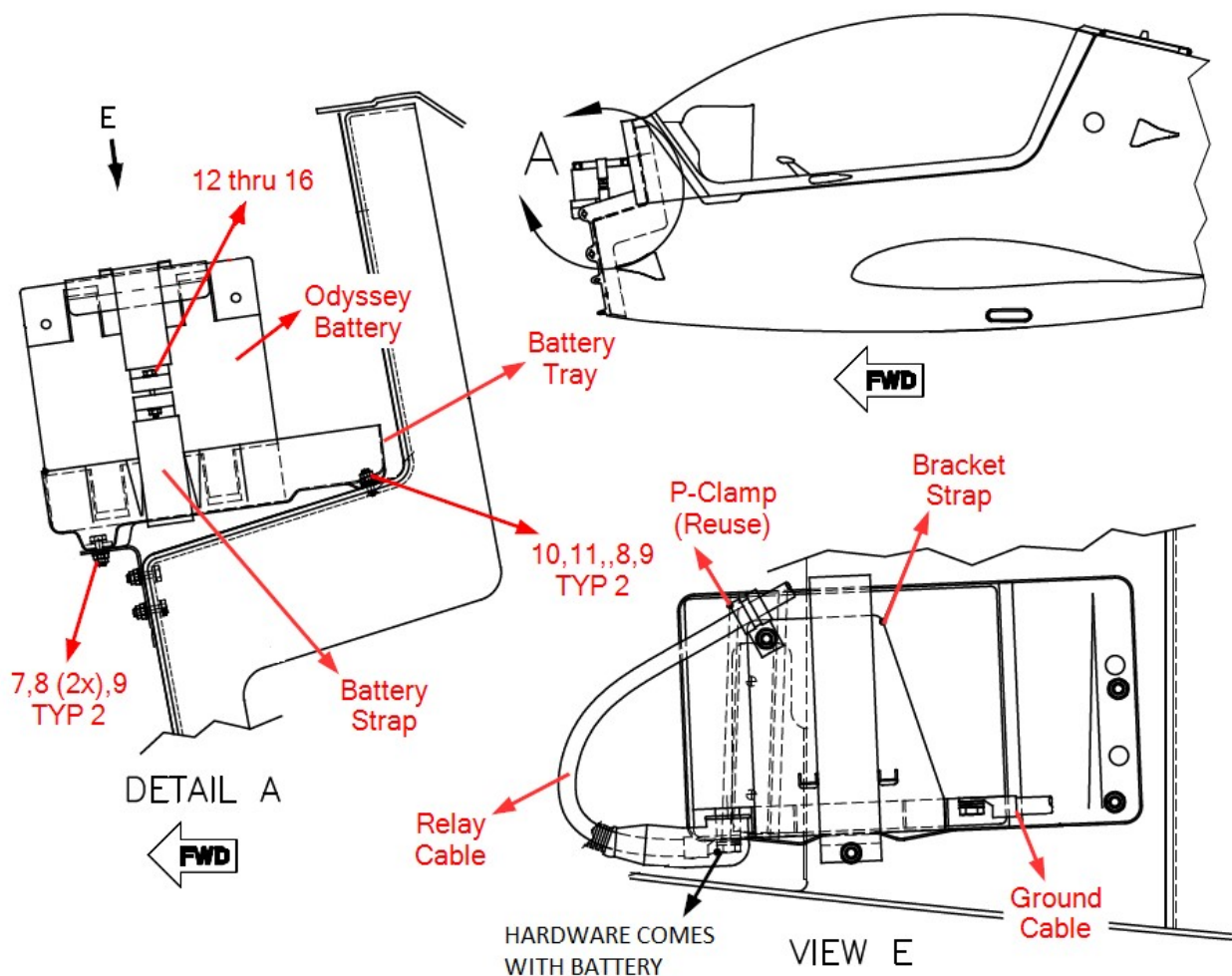


Figure 3 - Odyssey battery installation

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OPTIONAL SERVICE BULLETIN
Model DA 20-C1



I.10 Mass (Weight) and CG

Make the following adjustments to weight and balance:

For replacement of Yuasa Y50N18L-A-CX with Odyssey ODS-AGM28LMJ:

Action	Item	Weight lbs (kg)	Arm (in)
Remove	Y50N18L-A-CX	-16.3 (7.4)	-34.3
Add	ODS-AGM28LMJ	25.3 (11.47)	-34.3

For replacement of Yuasa YTX24HL-BS with Odyssey ODS-AGM28LMJ:

Action	Item	Weight lbs (kg)	Arm (in)
Remove	YTX24HL-BS	-17.5 (7.93)	-34.3
Add	ODS-AGM28LMJ	25.3 (11.47)	-34.3

I.11 Electrical Load Data

No change.

II PLANNING INFORMATION

II.1 Material and Availability

For replacement of Yuasa Y50N18L-A-CX or YTX24HL-BS with Odyssey ODS-AGM28LMJ:

Item	Quantity	Part Number	Description
1	1	ODS-AGM28LMJ	Odyssey battery
2	1	22-2441-22-00	Firewall battery tray
3	1	22-2441-63-00	Battery strap
4	1	22-2441-60-04	Bracket strap
5	1	22-3901-00-02X01	Battery relay cable assy
6	1	22-3901-00-04X01	Battery ground cable assy
7	2	AN3-6A**	Bolt, hex
8	6	NAS1149F0363P	Washer, plain
9	4	MS21044N3	Nut, self locking
10	2	MS24693-S273	screw, countersunk
11	2	04-00398	Washer, #10 csk

Diamond Aircraft Industries
OPTIONAL SERVICE BULLETIN
Model DA 20-C1



For replacement of B&C BC100-1MJ with Odyssey ODS-AGM28LMJ:

Item	Quantity	Part Number	Description
1	1	ODS-AGM28LMJ	Odyssey battery

Replacement hardware for the battery strap.

Item	Quantity	Part Number	Description
12	1	AN4-20A	Bolt, hex
13	2	22-2400-07-06	Bushing, shoulder
14	2	22-2810-10-02	Roll bushing
15	1	NAS1149F0463P	Washer, plain
16	1	MS21044N4	Nut, self locking

II.2 Special Tools

None.

II.3 Labour Effort

Approximately 1.5 hours will be required for the replacement of the Yuasa Y50N18L-A-CX or YTX24HL-BS.

Approximately 0.5 hour will be required for the replacement of the B&C BC100-1MJ.

This estimates are for direct labor performed by a technician, and they do not include setup, planning, familiarization, cure time, part fabrication, or tool acquisition.

II.4 Credit

None.

II.5 Reference Documents

DA 20-C1 Aircraft Maintenance Manual Doc. No. DA201-C1, latest effective issue.

DA 20-C1 Airplane Flight Manual Doc. No. DA202-C1, latest effective issue.

III REMARKS

1. All work must be done by a certified aircraft service station or a certified aircraft maintenance mechanic.
2. All work, in particular which is not especially described in this service bulletin, must be done in accordance with the referenced maintenance manual.
3. Completion of all work must be recorded in the logbook.
4. In case of doubt, contact Diamond Aircraft Industries Inc.

Diamond Aircraft Industries
OPTIONAL SERVICE BULLETIN
Model DA 20-C1



To obtain satisfactory results, procedures specified in this service bulletin must be accomplished in accordance with accepted methods and current government regulations. Diamond Aircraft 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 at the address below.

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EXECUTION REPORT TO SERVICE BULLETIN DAC1-24-09 REV. 1

AIRPLANE DATA

Airplane serial number _____

Airplane registration _____

Airplane operator _____

Hours of operation of airplane (TSN) _____

Typical operation of airplane private, club, training, other: _____

MAINTENANCE DATA

Date of maintenance _____

Maintenance carried out by _____

During scheduled inspection? Yes ☐ No ☐

Name Signature Date

Please e-mail the completed form to Techpubs@diamondaircraft.com.