

# SERVICE BULLETIN



**Service Bulletin No.:** DAC1-27-01 Rev 0

**Date Issued:** April 26, 2001

**Title:** Optional Stick Mounted Trim Switch Installation

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- 1. ATA Code:** 2700
- 2. Effectivity:** Diamond Aircraft model DA20-C1 Aircraft serial numbers C0001 to C0148.
- 3. General:** This service bulletin explains the procedure for the optional installation of control stick mounted elevator trim switches. The installation consists of the replacement of both the pilot and co-pilot control sticks with new control sticks complete with elevator trim and transmit switches. The installation also involves a relay wiring harness to be installed under the pilot seat. The console mounted elevator trim switch is no longer operational and is removed. The operation of the control stick mounted trim switches is explained in Supplement 8 to the flight manual DA202-C1. This supplement must be incorporated into the flight manual for the aircraft if not already incorporated.
- 4. Compliance:** Installation of this service bulletin is optional at the aircraft owner/operator's discretion.
- 5. Approval:** Engineering data referenced or contained in this service bulletin is approved as part of the type design.
- 6. Labor:** Approximately 3 hours 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 |
|---------------|------------------------|-----|
| AN4-5A        | Bolt                   | 2   |
| AN960-4       | Washer                 | 4   |
| AN365-4       | Self Locking Nut       | 2   |
| 22-2400-35-00 | Relay Harness          | 1   |
| 22-3111-02-04 | Cover Plate            | 1   |
| 22-1130-00-28 | Placard                | 1   |
| 22-2712-05-00 | Control Stick Assembly | 2   |
- The above materials may be ordered as kit DAC1-27-01 AMK0
- 8. Special Tools:** Drill Jig KT-HRF-001 (Recognition light/Relay Harness drill jig).
- 9. References:** DA20-C1 Maintenance Manual (MM), Document # DA201-C1.  
DA20-C1 Airplane Flight Manual (AFM), Document # DA202-C1.

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## **10. Accomplishment Instructions:**

- 10.1** Disconnect the battery. Remove the negative lead first followed by the positive.
- 10.2** Remove the seats from the aircraft.
- 10.3** Disconnect the wiring from the existing console mounted trim switch. Remove and discard the switch.
- 10.4** Remove the control sticks from the aircraft. Reference Maintenance Manual section 27-00-00 for this procedure.
- 10.5** Install the new control stick assemblies. Reference Maintenance Manual section 27-00-00 for this procedure.
- 10.6** If the aircraft is equipped with the optional recognition lights proceed to step 10.9.
- 10.7** On the forward control bulkhead (the bulkhead aft of the control sticks) locate the drill jig onto the heads of the bolts. Mark the location for drilling the relay mounting holes. The drill jig has 6 holes drill the 2 holes closest to the heads of the locating bolts. Reference Figure 1 for this procedure.
- 10.8** Drill two 1/4" holes for mounting of the trim switch relays. Reference figure 1.
- 10.9** Install the relays on the forward side of bulkhead as shown in figure 1. If the aircraft has recognition lights installed these relays are installed using the existing pulselight power supply mounting bolts in the locations shown in figure 1.
- 10.10** Reconfigure the removed trim switch wiring as shown in figure 2.
- 10.11** Connect the PTT and trim switch wiring from both control sticks as shown in figure 2.
- 10.12** Connect the relay harness as shown in figure 2.
- 10.13** A schematic diagram of the complete wiring is shown in figure 3 for reference.
- 10.14** Secure the wiring as necessary. Ensure that wiring does not become too tight when operating the flight controls about their full range.
- 10.15** Apply the placard to the replacement engine controls cover plate.
- 10.16** Remove and replace the existing engine controls cover with the new plate.
- 10.17** Operate the flight controls about their full travel to verify that there is absolutely no interference.

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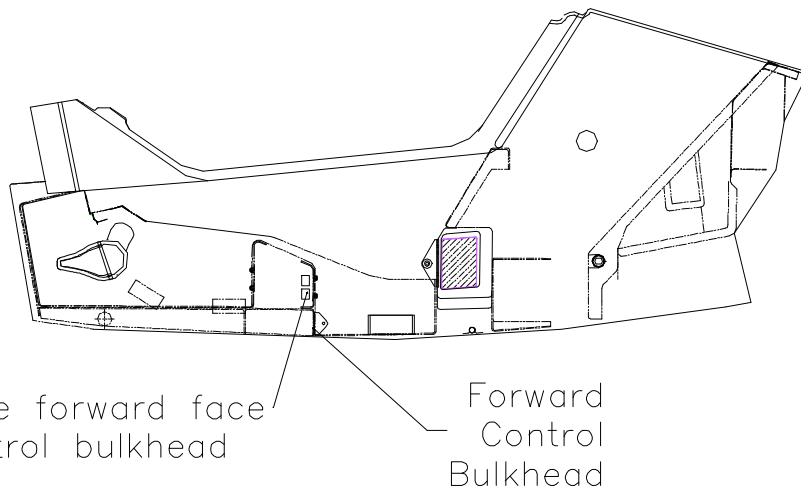
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- 10.18** Reconnect the battery.
- 10.19** Do a functional test of both the trim and PTT operation from both control sticks.
- 10.20** Install the seats.
- 10.21** Make log book entries stating this work has been accomplished.

**11. Weight and Balance:** The effect on the weight and balance is negligible.

**12. Availability:** Contact Diamond Aircraft Parts Department



Mount relays on the forward face  
of the forward control bulkhead

Forward  
Control  
Bulkhead

Left Side View  
(outer skin removed for clarity)

## General Overview

*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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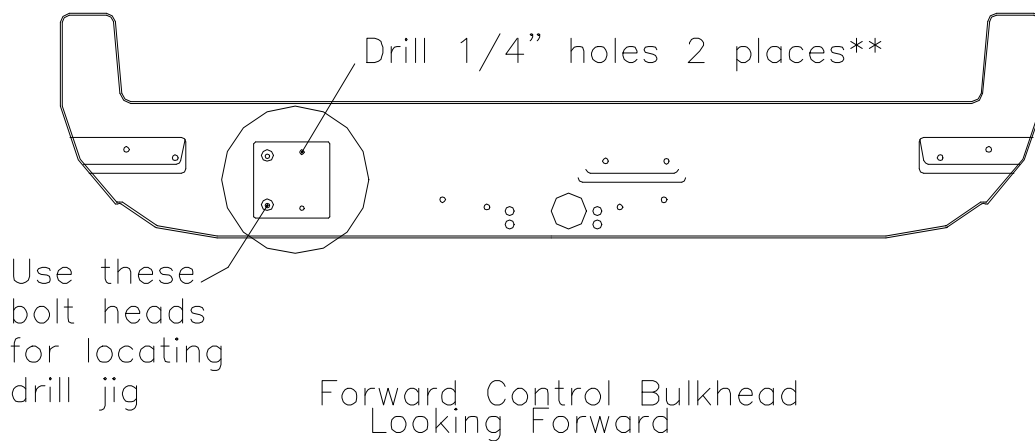


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\*\* If the recognition lights are installed these holes will have already been drilled.

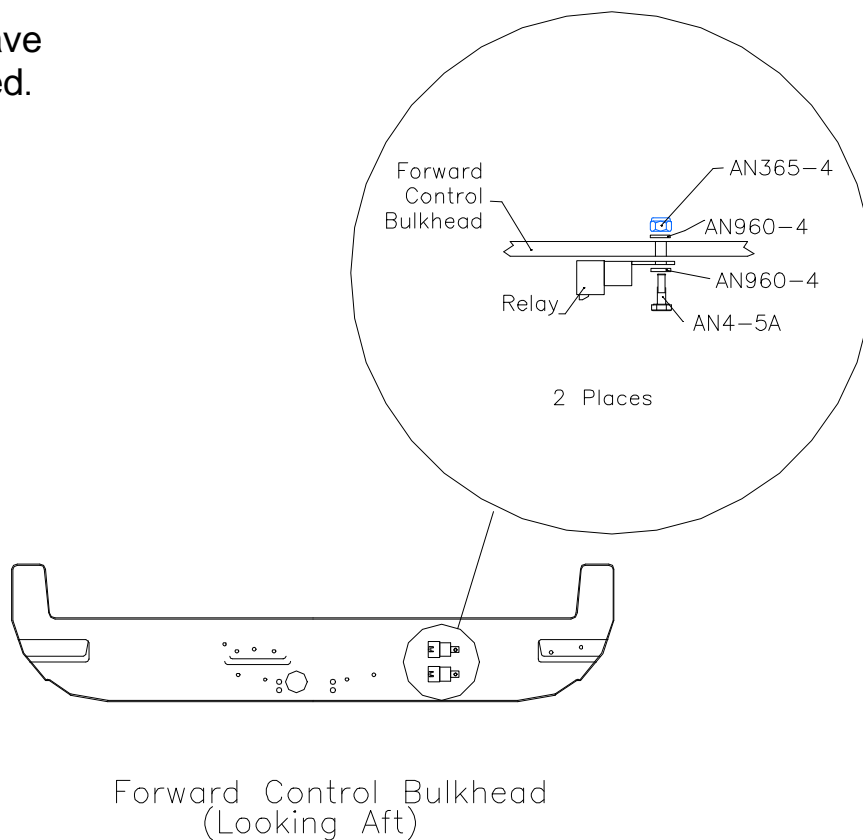


Figure 1

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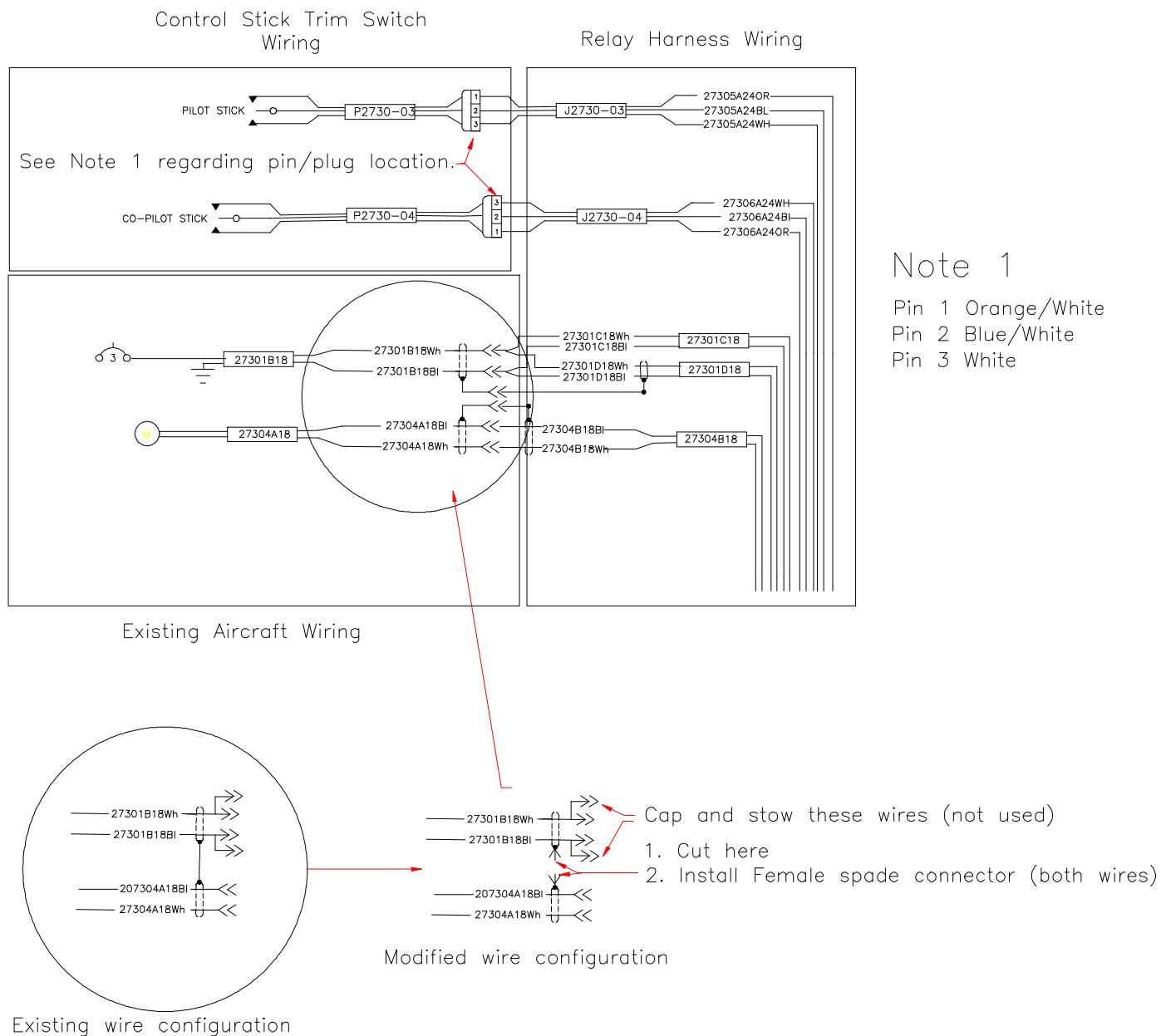


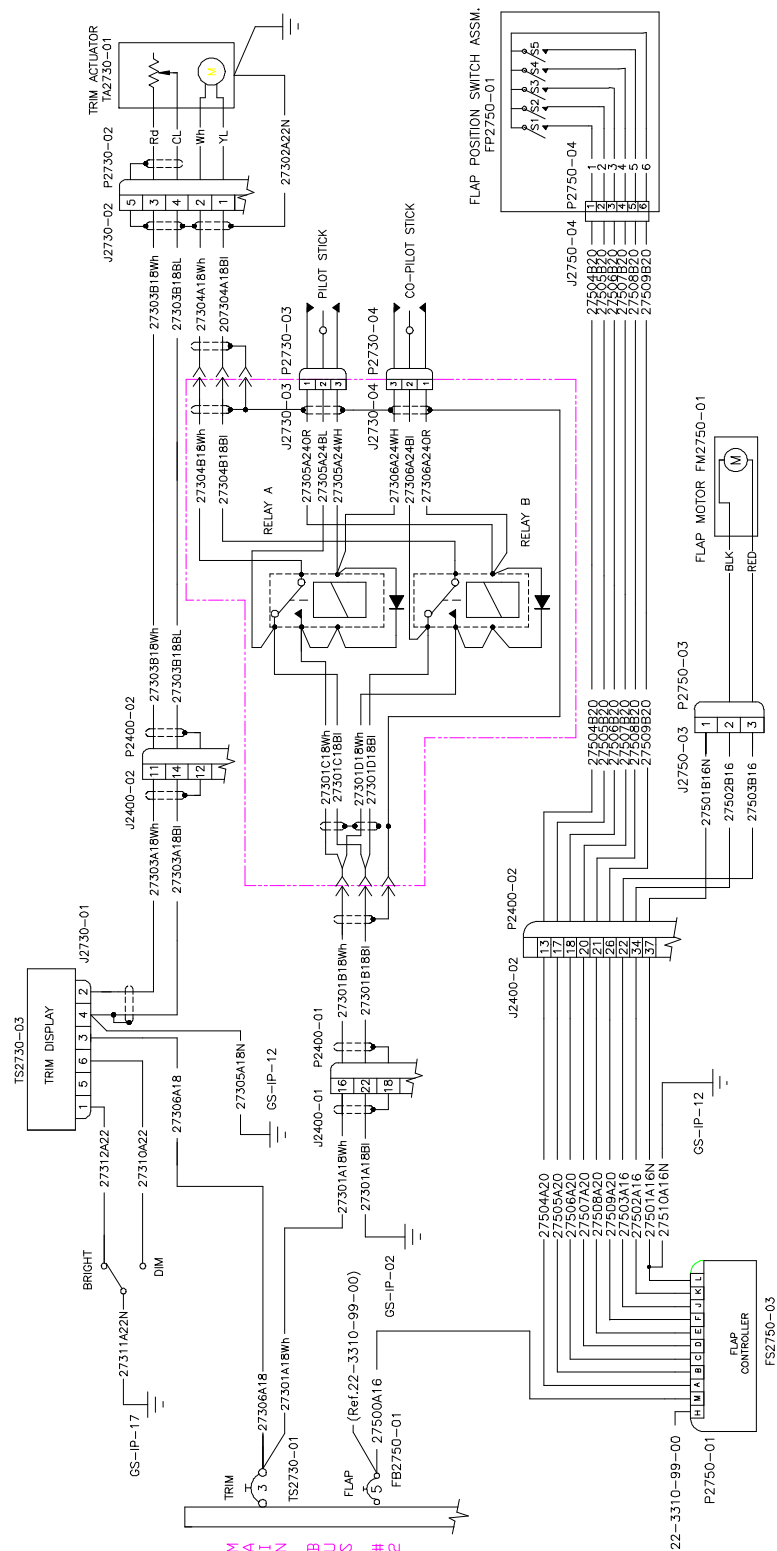
Figure 2

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### Figure 3