

# SERVICE BULLETIN



Service Bulletin No.: DAC1-25-01 Rev 3

Date Issued: March 18, 2011

Title: ME406 ELT installation

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1. **ATA Code:** 2560
2. **Effectivity:** All DA20-C1 aircraft, excluding MOD 0189 (Baggage & ELT Provisions for Reverse Instrument Panel)
3. **General:** This Service Bulletin addresses replacement of the EBC502 ELT with the Artex ME406 ELT. Revision 3 of this Service Bulletin changes the ratio of resin to hardener.
4. **Compliance:** Compliance with this Service Bulletin is recommended.
5. **Approval:** Engineering data referenced or contained in this Service Bulletin is approved as part of the type design.
6. **Labour:** 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
	22-2562-10-00	ELT Bracket Assembly	1
	22-2562-20-00	ELT Bracket, Side	1
	22-2562-30-00	Plate Assembly	1
	22-2562-40-00	ELT Antenna Cable Assembly	1
	453-6603	ME406 ELT	1
	452-3034	ME406 ELT Mounting Tray	1
	452-6505	Buzzer, ELT	1
	110-773	Antenna, Whip	1
	453-1101	Interface Module	1
	22-1130-01-01	Placard, ELT	1
	AN960D6L	Washer	6
	MS35206-230	Screw	6
	D-436-36	Splice, Red	2
	AN525-10R12	Screw, Washer Head	4
	AN960-10	Washer	3
	BSPQ-43	Rivet	12
	CCR244SS3-03	Rivet	2

The above material may be ordered as kit **DAC1-25-01-AMK0**.

Materials required but not supplied: procure locally.

L20 / H91	Red Resin	A/R
MS3367-4-9	Cable Tie	A/R

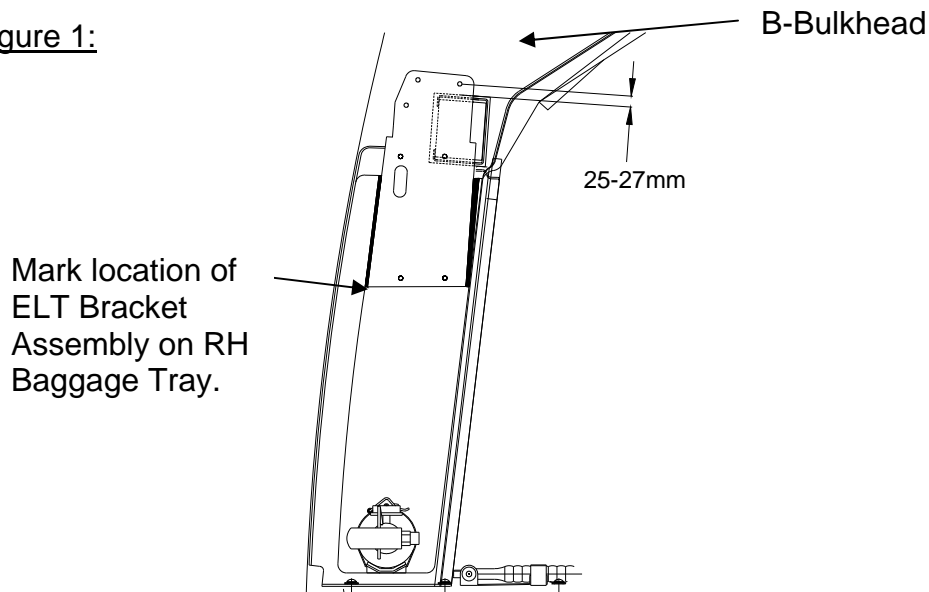
8. Special Tools: N/A

9. References: Diamond Aircraft Industries Inc. drawing: 22-2562-00-00

### 10. Accomplishment Instructions:

- 10.1 Remove baggage center floor as per AMM Chapter 25-10.
- 10.2 Remove existing EBC502 ELT and ELT tray. **Before removing ensure ELT switch is in the OFF position.**
- 10.3 Place ELT bracket assembly (22-2562-10-00) into RH baggage tray and position so that bracket assembly mounting holes are 25-27mm aft of existing ELT pocket. Mark bracket location on baggage tray. See Figure 1.

Figure 1:



- 10.4 Remove ELT bracket assembly and RH baggage tray.
- 10.5 ELT bracket assembly where baggage tray is marked. Clamp and drill out twelve rivet holes through the baggage tray.
- 10.6 Remove bracket assembly from baggage tray.
- 10.7 Prepare baggage tray surface for bonding by sanding surface with 120 grit sandpaper and wipe with acetone (do not let acetone dry on surfaces, wipe dry)
- 10.8 Mix resin L20 to hardener H91 to a ratio of 100:27 by weight.

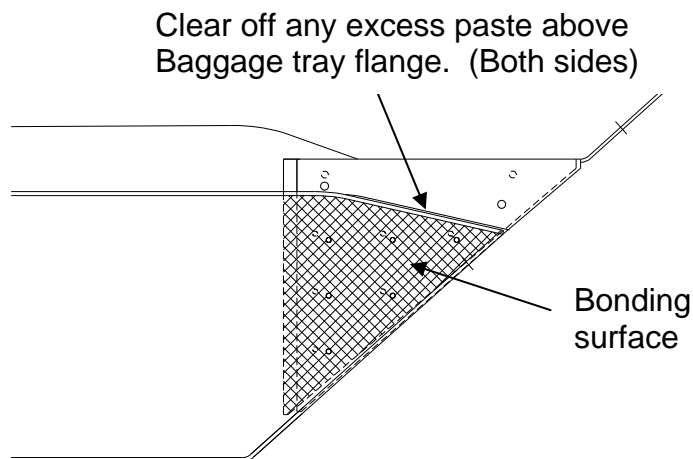
**10.9** After mixing, add Cotton Flocks and Aerosil per Table 1.

MATERIAL	WEIGHT IN GRAMS								
	50	100	150	200	250	300	350	400	450
Mixed Resin	50	100	150	200	250	300	350	400	450
Cotton Flocks	5	10	15	20	25	30	35	40	45
Aerosil	1.5	3	4.5	6	7.5	9	10.5	12	13.5

Table 1:

**10.10** Apply mixed resin to all bonding surfaces. See Figure 2.

Figure 2:



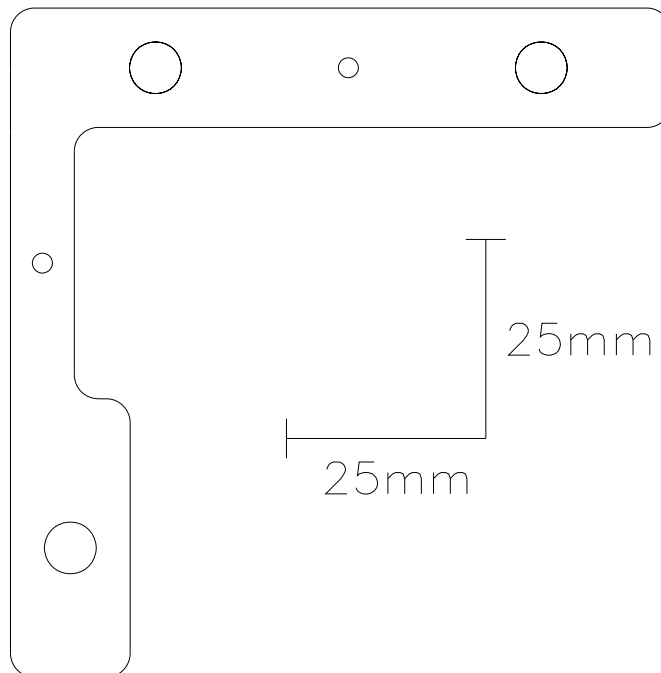
**10.11** Apply mixed paste adhesive to outer sides of bracket assembly and install bracket into baggage tray. Align rivet holes and use Cleco temporary fasteners to hold bracket in place until paste is cured (Approximately 2 hours). Paste needs to be cured before proceeding. **NOTE: Cleco fasteners should be waxed or dipped in mould release compound prior to use.**

**10.12** Clean excess paste.

**10.13** Remove Cleco fasteners and secure bracket to baggage tray using twelve BSPQ-43 rivets. **NOTE: Install rivets such that the head protrudes inside the baggage tray.**

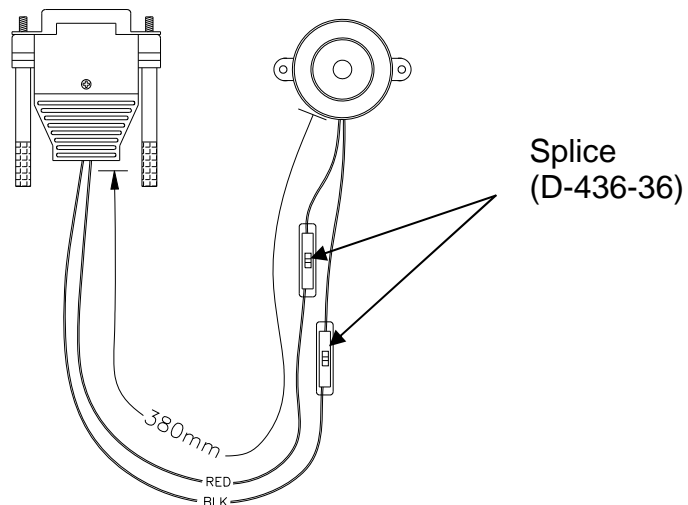
- 10.14** Install baggage/bracket tray into aircraft and mark and drill mounting holes into B-Bulkhead.
- 10.15** Remove baggage/bracket tray from aircraft and using the below template drill out rivet holes on B-Bulkhead. *Verify template printout is to scale.*

Template:



- 10.16** Install plate assembly (22-2562-30-00) in behind B-Bulkhead and rivet into place using two CCR244SS3-03 rivets.
- 10.17** Splice Artex ELT Interface module to Artex ELT buzzer using splices provided. See Figure 3.

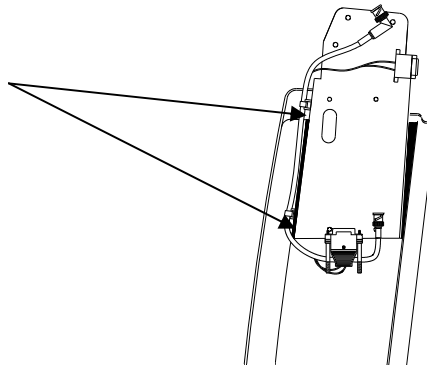
Figure 3:



- 10.18** Route and secure ELT coax assembly and Interface module/buzzer onto baggage/bracket tray's cable tie bases. See Figure 4.

Figure 4:

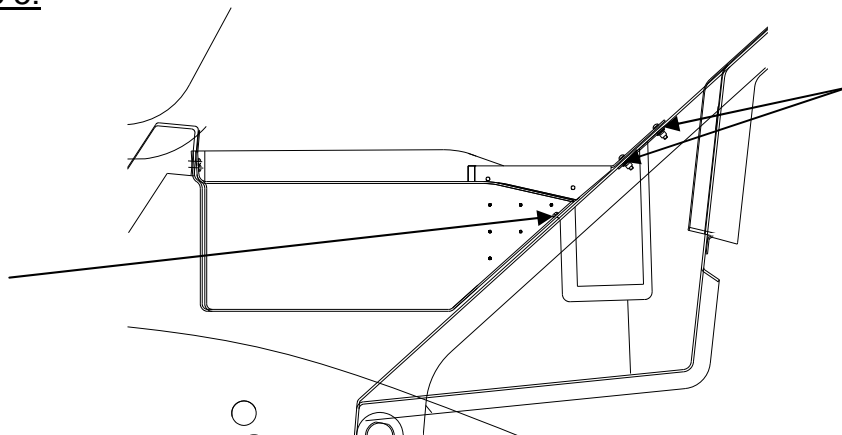
ELT Coax  
and Interface  
Module/Buzzer  
secured to  
Bracket  
Assemblies  
Cable Tie  
bases.



- 10.19** Re-install baggage/bracket tray. (Coax and Interface Module/Buzzer not shown for clarity). See Figure 5.

Figure 5:

Replace existing  
mounting screw  
with the screw  
provided. (1x  
AN525-10R12)



Use mounting  
hardware  
provided.  
(3x AN525-10R12  
screw and 3x  
AN960-10  
washer)

- 10.20** Install Artex ELT tray using 4x MS35206-230 screws and 4x AN960D6L washers and velcro in ELT unit.

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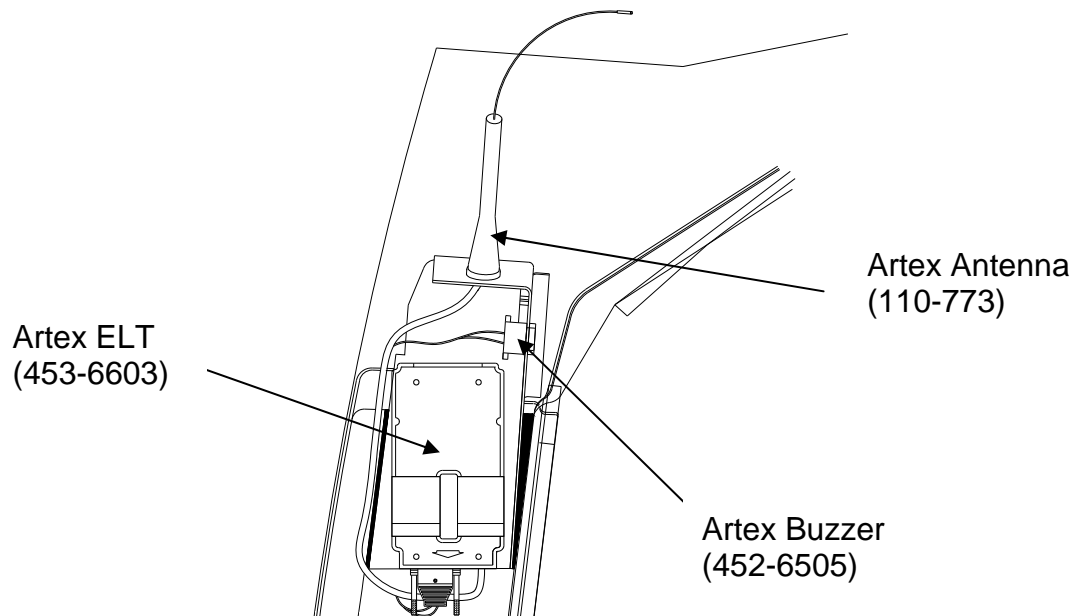
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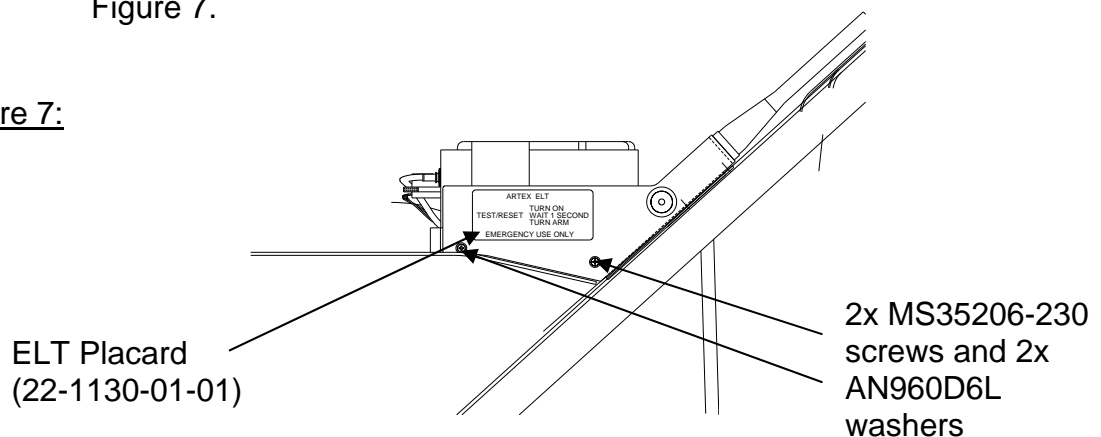
- 10.21 Install ELT side bracket (22-2562-20-00) onto ELT bracket assembly using 2x MS35206-230 screws and 2x AN960D6L washers. See Figure 7.
- 10.22 Install Buzzer into Side Bracket hole using the provided plastic bezel nut in accordance with the Artex ME406 Manual. See Figure 6.
- 10.23 Install Antenna into Side Bracket hole in accordance with the Artex ME406 Manual. Attach ELT Coax to ELT Antenna. See Figure 6.

Figure 6:



- 10.24 Install ELT Placard (22-1130-01-01) onto ELT Side Bracket. See Figure 7.

Figure 7:



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**10.25** Re-install Baggage Center panel as per AMM Chapter 25-10.

**10.26** On the hour, and up to 5 minutes past, conduct the ELT Transmitter Test as follows:

- Turn the aircraft receiver to 121.5MHz.
- Turn the ELT unit to the "ON" position, for about 1 second, then back to the "ARM" position. Ensure the receiver voices 3 audio sweeps and the ELT unit, after turning it to the "ARM" position, displays 1 flash.

**NOTE: If more than 1 flash is observed refer to the Artex Installation manual: 570-1600.**

**10.27** Make a log book entry that this Service Bulletin has been incorporated.

## 11. Weight and Balance:

Make the following adjustments to weight and balance:

<i>Item</i>	<i>Weight (kg)</i>	<i>Arm (m)</i>
EBC 502 ELT	-1.270	+1.140
Artex ME406 ELT	+1.684	+1.023

## 12. Register:

Register the ELT with the appropriate flight authority in accordance with the Artex ME406 Manual.

## 13. 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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