

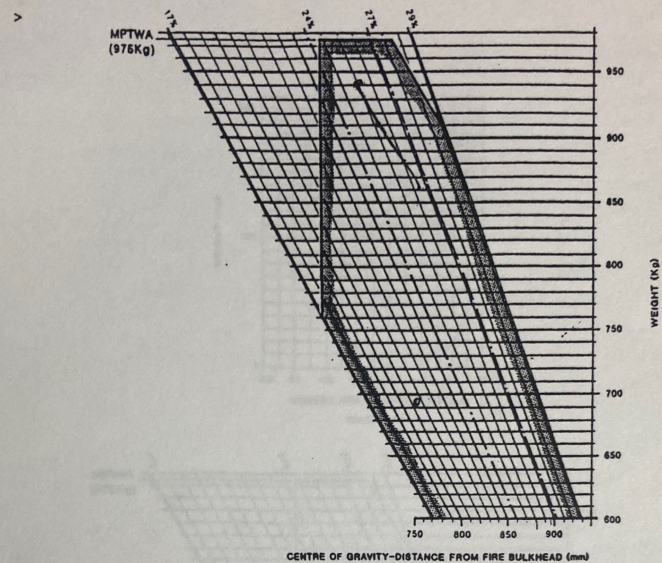
SECTION 8 CENTRE OF GRAVITY COMPUTER AND ILLUSTRATIONS

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8.1 CENTRE OF GRAVITY OVERLAY



INSTRUCTIONS FOR USE

1. Plot on this overlay the weight and CG of the aircraft to be checked.
2. Position the point plotted in (1) over point 'X' on Diagram 1 and draw a trace along the pilots line representing the total weight of pilots to be carried.
3. The top end of this line now becomes your new datum point, which must be aligned with point 'X'. Then draw a trace along the baggage line representing the amount of baggage to be carried.
ENSURE THAT THIS LINE FALLS WITHIN THE AREA OF THE ENVELOPE.
4. Using the end of this line as your new datum point, align it with position 'X' as before and trace along the fuel line the weight of fuel be carried. This will give you the position of CG for takeoff.

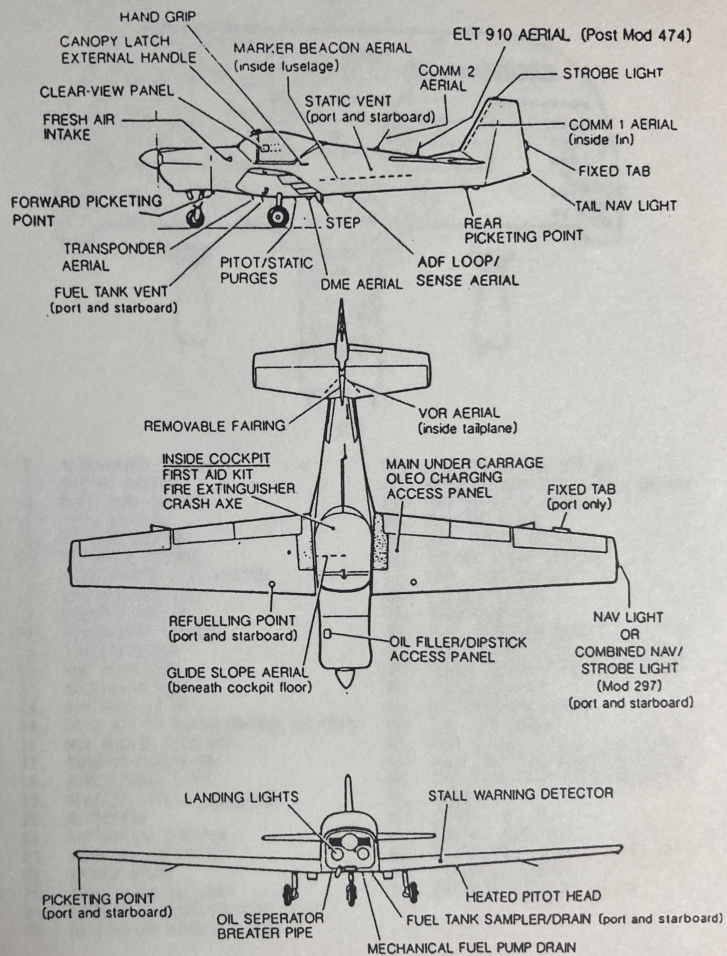
NOTE

When aligning diagrams check that all horizontals are parallel.

MPTWA (Maximum Permissible Takeoff Weight Authorised)

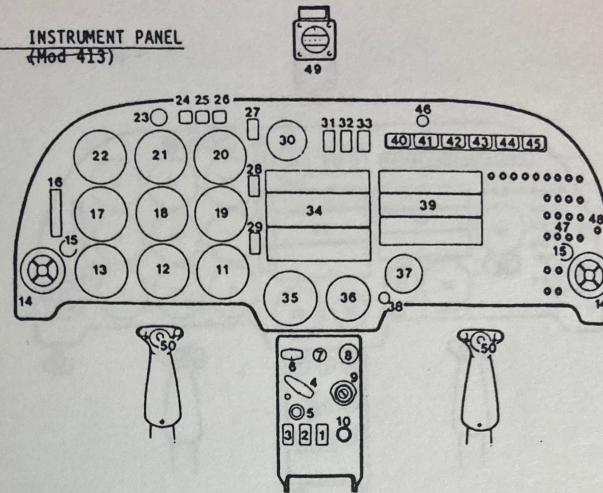
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CAA Approved
July 1998 A6
TP.T67C/3/FM

8.3 PRINCIPAL FEATURES



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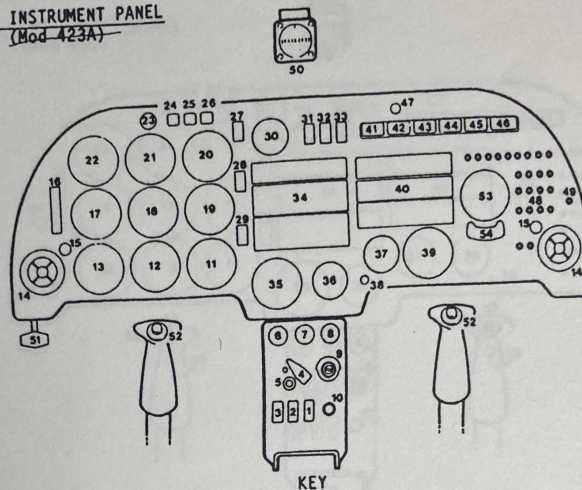
8.4 INSTRUMENT PANEL
(Mod 413)



KEY

- | | |
|--|--|
| <p>> 1. ALTERNATOR SWITCH
2. MASTER SWITCH
3. FUEL PUMP SWITCH
4. FUEL CONTROL
5. STARTER BUTTON
6. THROTTLE CONTROL
7. CARBURETTOR HEAT CONTROL
8. MIXTURE CONTROL
9. MAGNETO SWITCH
10. CABIN HEAT CONTROL
11. ADF INDICATOR
12. VOR INDICATOR
13. ACCELEROMETER
14. AIR VENT (2 OFF)
15. COLD AIR TO CABIN CONTROL (2 OFF)
16. MKR BEACON RECEIVER
17. TURN CO-ORDINATOR
18. DIRECTIONAL GYRO
19. VERTICAL SPEED INDICATOR
20. ALTIMETER
21. ARTIFICIAL HORIZON
22. AIRSPEED INDICATOR
23. VACUUM GAUGE
24. STALL WARNING LIGHT
25. STARTER ENGAGED WARNING LIGHT
26. ALTERNATOR WARNING LIGHT</p> | <p>< 27. LANDING LIGHTS SWITCH
28. NORMAL/EMERGENCY PHONES SWITCH
29. HEATED PITOT SWITCH
30. DIGITAL CLOCK
31. NAV LIGHTS SWITCH
32. STROBE LIGHT SWITCH
33. MAP LIGHT SWITCH
34. AVIONICS PANEL
35. TACHOURMETER
36. FUEL PRESSURE GAUGE
37. OUTSIDE AIR TEMPERATURE GAUGE
38. PRESS TO TEST STRUCTURAL TEMP
39. AVIONICS PANEL
40. OIL PRESSURE GAUGE
41. OIL TEMP GAUGE
42. FUEL CONTENTS GAUGE/LEFT TANK
43. FUEL CONTENTS GAUGE/RIGHT TANK
44. CYL. HEAD TEMPERATURE GAUGE
45. AMMETER
46. DIMMER SWITCH
47. CIRCUIT BREAKERS
48. ALTERNATOR OUTPUT CIRCUIT BREAKER
49. MAGNETIC COMPASS
50. PRESS TO TRANSMIT SWITCH</p> |
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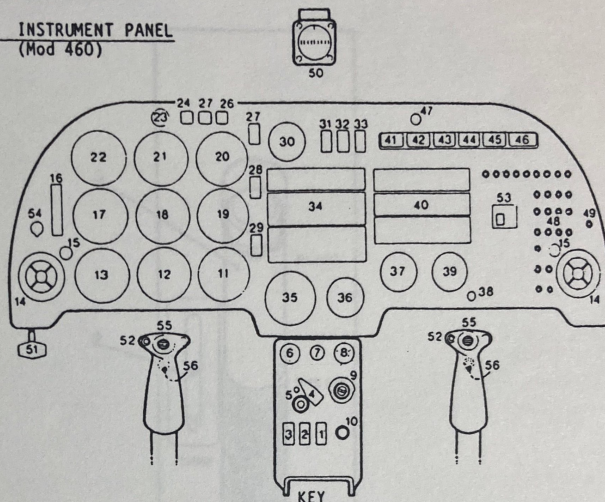
8.4A INSTRUMENT PANEL
(Mod 423A)



- | | |
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| <p>> 1. ALTERNATOR SWITCH
2. MASTER SWITCH
3. FUEL PUMP SWITCH
4. FUEL CONTROL
5. STARTER BUTTON
6. THROTTLE CONTROL R/H
7. CARBURETTOR HEAT CONTROL
8. MIXTURE CONTROL
9. MAGNETO SWITCH
10. CABIN HEAT CONTROL
11. ADF
12. NAV 1
13. NAV 2
14. AIR VENT (2 OFF)
15. COLD AIR TO CABIN CONTROL (2 OFF)
16. MKR BEACON RECEIVER
17. TURN CO-ORDINATOR
18. DIRECTIONAL GYRO
19. VERTICAL SPEED INDICATOR
20. ALTIMETER
21. ARTIFICIAL HORIZON
22. AIRSPEED INDICATOR
23. VACUUM GAUGE
24. STALL WARNING LIGHT
25. STARTER ENGAGED WARNING LIGHT
26. ALTERNATOR WARNING LIGHT
27. LANDING LIGHTS SWITCH</p> | <p>< 28. NORMAL/EMERGENCY PHONES SWITCH
29. HEATED PITOT SWITCH
30. DIGITAL CLOCK
31. NAV LIGHTS SWITCH
32. ROTATING BEACON/W.TIP STROBE SWI
33. MAP LIGHT SWITCH
34. AVIONICS PANEL
35. TACHOURMETER
36. FUEL PRESSURE GAUGE
37. OUTSIDE AIR TEMPERATURE GAUGE
38. PRESS TO TEST STRUCTURAL TEMP
39. ACCELEROMETER
40. AVIONICS PANEL
41. OIL PRESSURE GAUGE
42. OIL TEMP GAUGE
43. FUEL CONTENTS GAUGE/LEFT TANK
44. FUEL CONTENTS GAUGE/RIGHT TANK
45. CYL. HEAD TEMPERATURE GAUGE
46. AMMETER
47. DIMMER SWITCH
48. CIRCUIT BREAKER
49. ALTERNATOR OUTPUT CIRCUIT BREAK
50. MAGNETIC COMPASS
51. THROTTLE CONTROL L/H
52. PRESS TO TRANSMIT SWITCH
53. ELECTRIC ARTIFICIAL HORIZON
54. SLIP INDICATOR</p> |
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Over a/c.

> 8.4B INSTRUMENT PANEL
(Mod 460)

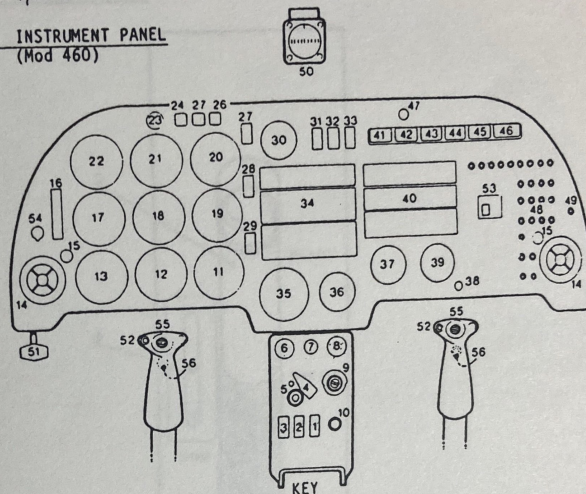


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|---------------------------------------|---|
| 1. ALTERNATOR SWITCH | 29. HEATED PITOT SWITCH |
| 2. MASTER SWITCH | 30. DIGITAL CLOCK |
| 3. FUEL PUMP SWITCH | 31. NAV LIGHTS SWITCH |
| 4. FUEL CONTROL | 32. ROTATING BEACON/W.TIP STROBE SWITCH |
| 5. STARTER BUTTON | 33. MAP LIGHT SWITCH |
| 6. THROTTLE CONTROL R/H | 34. AVIONICS PANEL |
| 7. CARBURETTOR HEAT CONTROL | 35. TACHOURMETER |
| 8. MIXTURE CONTROL | 36. FUEL PRESSURE GAUGE |
| 9. MAGNETO SWITCH | 37. CARBURETTOR TEMPERATURE GAUGE |
| 10. CABIN HEAT CONTROL | 38. PRESS TO TEST STRUCTURAL TEMP |
| 11. ADF | 39. OUTSIDE AIR TEMP GAUGE |
| 12. NAV | 40. AVIONICS PANEL |
| 13. ACCELEROMETER | 41. OIL PRESSURE GAUGE |
| 14. AIR VENT (2 OFF) | 42. OIL TEMP GAUGE |
| 15. COLD AIR TO CABIN CONTROL (2 OFF) | 43. FUEL CONTENTS GAUGE/LEFT TANK |
| 16. MKR BEACON RECEIVER | 44. FUEL CONTENTS GAUGE/RIGHT TANK |
| 17. TURN CO-ORDINATOR | 45. CYL. HEAD TEMPERATURE GAUGE |
| 18. DIRECTIONAL GYRO | 46. AMMETER |
| 19. VERTICAL SPEED INDICATOR | 47. DIMMER SWITCH |
| 20. ALTIMETER | 48. CIRCUIT BREAKERS |
| 21. ARTIFICIAL HORIZON | 49. ALTERNATOR OUTPUT CIRCUIT BREA |
| 22. AIRSPEED INDICATOR | 50. MAGNETIC COMPASS |
| 23. VACUUM GAUGE | 51. THROTTLE CONTROL L/H |
| 24. STALL WARNING LIGHT | 52. PRESS TO TRANSMIT SWITCH |
| 25. STARTER ENGAGED WARNING LIGHT | 53. ELT REMOTE SWITCH |
| 26. ALTERNATOR WARNING LIGHT | 54. EMERGENCY STATIC VENT SWITCH |
| 27. LANDING LIGHTS SWITCH | 55. ELECTRIC TRIM SWITCH |
| 28. NORMAL/EMERGENCY PHONES SWITCH | 56. MUTE SWITCH |

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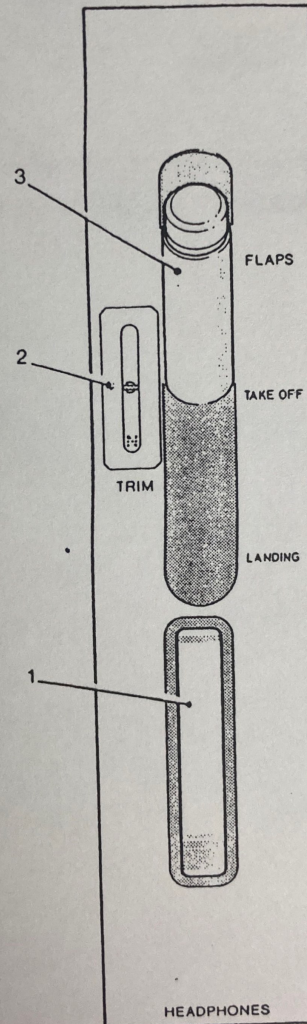
> 8.4B INSTRUMENT PANEL
(Mod 460)



- | | |
|---------------------------------------|--|
| 1. ALTERNATOR SWITCH | 29. HEATED PITOT SWITCH |
| 2. MASTER SWITCH | 30. DIGITAL CLOCK |
| 3. FUEL PUMP SWITCH | 31. NAV LIGHTS SWITCH |
| 4. FUEL CONTROL | 32. ROTATING BEACON/W.TIP
STROBE SWITCH |
| 5. STARTER BUTTON | 33. MAP LIGHT SWITCH |
| 6. THROTTLE CONTROL R/H | 34. AVIONICS PANEL |
| 7. CARBURETTOR HEAT CONTROL | 35. TACHOURMETER |
| 8. MIXTURE CONTROL | 36. FUEL PRESSURE GAUGE |
| 9. MAGNETO SWITCH | 37. CARBURETTOR TEMPERATURE GAUGE |
| 10. CABIN HEAT CONTROL | 38. PRESS TO TEST STRUCTURAL TEMP |
| 11. ADF | 39. OUTSIDE AIR TEMP GAUGE |
| 12. NAV | 40. AVIONICS PANEL |
| 13. ACCELEROMETER | 41. OIL PRESSURE GAUGE |
| 14. AIR VENT (2 OFF) | 42. OIL TEMP GAUGE |
| 15. COLD AIR TO CABIN CONTROL (2 OFF) | 43. FUEL CONTENTS GAUGE/LEFT TANK |
| 16. MKR BEACON RECEIVER | 44. FUEL CONTENTS GAUGE/RIGHT TANK |
| 17. TURN CO-ORDINATOR | 45. CYL. HEAD TEMPERATURE GAUGE |
| 18. DIRECTIONAL GYRO | 46. AMMETER |
| 19. VERTICAL SPEED INDICATOR | 47. DIMMER SWITCH |
| 20. ALTIMETER | 48. CIRCUIT BREAKERS |
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| 25. STARTER ENGAGED WARNING LIGHT | 53. ELT REMOTE SWITCH |
| 26. ALTERNATOR WARNING LIGHT | 54. EMERGENCY STATIC VENT SWITCH |
| 27. LANDING LIGHTS SWITCH | 55. ELECTRIC TRIM SWITCH |
| 28. NORMAL/EMERGENCY PHONES SWITCH | 56. MUTE SWITCH |

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Apr 11 1992 A3
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8.5 CENTRE CONSOLE



KEY

- 1. TRIMMER HANDWHEEL
- 2. TRIMMER POSITION IND.
- 3. FLAP CONTROL LEVER

SECTION 9 SUPPLEMENTS

CONTENTS

- A. Winterisation Kit, oil cooler door Mod 844
- > B. Gel Type Battery RG24-11M - Mod 416A Aircraft <



PILOTS NOTES
FIREFLY T67C3

SUPPLEMENT A WINTERISATION KIT, OIL COOLER DOOR (MOD 844)

CONTENTS

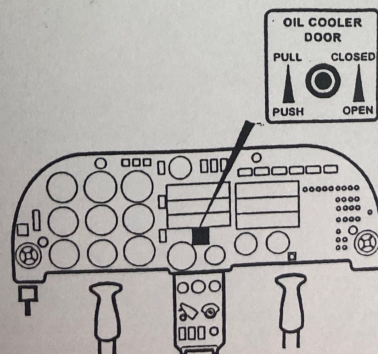
- 9.A.1 Description
- 9.A.2 Location of Control on Instrument Panel
- 9.A.3 Cowling Blanking Plates

9.A.1 DESCRIPTION

Mod 844 introduces a system of controlling the amount of cooling air available to the oil cooler. A pilot operated control in the cockpit is used to keep the engine oil temperature within the recommended range when operating in conditions of extreme cold.

A door fitted to the rear baffle directly in front of the oil cooler is opened and closed via a cable control mounted on the instrument panel. The cable incorporates a push button locking mechanism which enables the door to be set in any position between fully open and closed. When the control is pushed fully in then the door is fully open and as the control is pulled out the door closes. A fail safe is built into the system so that if the cable fails a spring returns the door to the fully open position.

9.A.2 LOCATION OF CONTROL ON INSTRUMENT PANEL



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9.A.3 COWLING BLANKING PLATES

In addition to the oil cooler door system of controlling the engine oil temperature, blanking plates should be fitted to the lower cowling air exit holes. When the ambient temperature falls below ISA -20°C (-5°C at sea level).

The blanking plates must be removed when the ambient temperature rises above ISA -15°C (-0°C at sea level).

NOTE

The pre-flight checks should be amended as follows:

Lower cowling blanking plates Fitted (Temp below ISA -20°C)
Removed (Temp above ISA -15°C)

SUPPLEMENT B GEL-TYPE BATTERY RG24-11M - MOD 416A AIRCRAFT

CONTENTS

9.B.1 Environmental restriction for Gel-Type Battery

9.B.1. ENVIRONMENTAL RESTRICTION FOR GEL-TYPE BATTERY

The installation of RG24-11M Gel-Type Battery is subject to the following environmental restriction:

Low Operating Temperature	-20°C (See note below)
High Operating Temperature	+55°C
Transient Temperature	+70°C

NOTE

If the aircraft battery has been subjected to temperatures lower than -20°C for more than 4 hrs with the aircraft parked on the ground, then the battery must be removed from the aircraft and slowly brought up to operational temperature shown above. Subject to the above procedures, flying of the aircraft at outside air temperatures lower than -20°C is permitted.

See also Operating Temperatures ref: 2.7.3.