

WARNING AND TEST

ANNUNCIATOR PANEL

The annunciator panel is designed to provide the pilot with an easily interpreted display of both normal and abnormal system conditions, as well as a few annunciators which indicate normal system operation but, it is felt, require notification or a "reminder" to the pilot of operation of these systems. The three "reminder" white lights will remain on until the input causing illumination has been cleared. Two red flashing MASTER WARNING RESET and two amber MASTER CAUTION RESET lights are used in conjunction with the panel to ensure rapid recognition of any red or amber annunciator lights. In addition, the MASTER WARNING light will flash if both amber GEN OFF lights and/or the AC FAIL light should illuminate.

The annunciator system is powered from the main direct current (DC) buses through the WARN LTS 1 and 2 circuit breakers on the left cockpit panel. If power from either the WARN LTS 1 or WARN LTS 2 circuit breaker is lost while the opposite circuit is powered, the master warning light will illuminate in a steady mode and will not be resettable. In this mode, if a new master warning annunciation occurs the master warning light will flash.

All system light bulbs can be tested by placing the rotary TEST selector on the left instrument panel to the ANNU position. This will illuminate all lights and cause the master warning lights to flash. The warning lights are not resettable during test mode. Refer to Test Selector Switch (Figure 2-30 below) for further system test procedures.

Burned out bulbs can be replaced by pushing in the light assemblies to the left and right of the failed bulb; then use a tool to remove the assembly with the burned out lamp.

MASTER WARNING LIGHT

Illumination of a red annunciator panel annunciator will initially be in a flashing mode, and the MASTER WARNING RESET light will also flash. The red master warning light will remain flashing until reset, independent of the warning fault light operation, until acknowledged by being reset, at which time it will extinguish and the annunciator panel light will assume a steady illumination. If the fault clears, the fault light will extinguish. The master warning will flash when any master warning annunciator is interrupted and re-illuminated or a new (additional) master warning fault is detected.

The master warning light can be reset by pressing either master warning light. Resetting the master warning rearms the respective system so that it will function should another failure occur.

MASTER CAUTION LIGHT

The amber MASTER CAUTION RESET light will illuminate when an amber annunciator panel light illuminates. The amber annunciator panel lights illuminate in a flashing mode for a specified time and then cause the master caution light to illuminate steadily. If the situation causing the annunciation panel illumination clears, the master caution and the annunciator panel indication will extinguish. When the MASTER CAUTION is acknowledged by pressing the light, the MASTER CAUTION will extinguish, but the annunciator panel light will remain illuminated until the situation causing the illumination is cleared. The master caution light will illuminate again when any master caution annunciation is interrupted and re-illuminated, or a new master caution fault occurs when an annunciator was already illuminated. Resetting the master caution light is accomplished by pressing either light.

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| 7. | LO BRK
PRESS | The amber power brake low pressure light advises that the power brake hydraulic pressure is low. |
| 8. | ANTISKID
INOP | The amber antiskid inoperative light advises that the antiskid system is inoperative. |
| 9. | FIRE
DET SYS | The amber fire detection system light advises that the engine fire detection system has failed. |
| 10. | EMER
PRESS | The amber emergency pressurization light advises that emergency pressurization has been manually selected or automatically activated by an air cycle machine overheat. |
| 11. | OIL
FLTR BP
L R | The amber oil filter bypass light advises that bypass of the left and/or right oil filter is impending. |
| 12. | LO HYD
FLOW
L R | The amber hydraulic flow low light advises that the left and/or right hydraulic system flow is below approximately 0.35 to 0.55 gallons per minute. |
| 13. | FUEL
GAUGE
L R | The amber fuel gauge light advises that the fuel gauging system has detected an error. |
| 14. | LO HYD
LEVEL | The amber hydraulic low level light advises that the fluid level in the hydraulic reservoir is low. |
| 15. | FUEL
BOOST
L R | The amber fuel boost ON light advises that electrical power has been applied to the left and/or right boost pump. |
| 16. | ENG
VIB
L R | The white engine vibration light advises that engine vibration has exceeded prescribed limits. Refer to the FAA Approved Airplane Flight Manual for proper procedures. |
| 17. | LO FUEL
LEVEL | The amber fuel low light advises that the fuel quantity in the left and/or right tank is below approximately 185 pounds or less. |
| 18. | DOOR
SEAL | The amber door seal light advises that the door seal is not inflated. |
| 19. | LO FUEL
PRESS | The amber low fuel pressure light advises that the fuel pressure is low in the left and/or right systems. |
| 20. | BAGGAGE
DOOR
L R | The amber baggage door light advises that either one or both of the nose baggage doors is/are not locked. |
| 21. | FUEL
FLTR BP | The amber fuel filter bypass light advises that bypass of the left and/or right fuel filter is impending. |
| 22. | CABIN
DOOR | The amber cabin door light advises that the cabin door is not locked. |

Figure 2-29. Annunciator Panel (Sheet 2)

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| 23. | AFT BAG
DOOR | The amber aft baggage door annunciator advises that the aft baggage door is unlocked. |
| 24. | AIR DUCT
O'HEAT | The amber air duct overheat light advises that the ventilation duct temperature exceeds safe limits. |
| 25. | ACM
O'PRESS | The amber air cycle machine overpressure light advises that the air cycle machine pressure is over 42 PSI. |
| 26. | WS AIR
O'HEAT | The amber windshield air overheat light advises that the bleed air to the windshield exceeds safe temperature limits. |
| 27. | SURFACE
DEICE | The white surface deice light advises that the surface deice boots are inflated to a pressure of over 21 PSI. |
| 28. | BLD AIR
GND | The amber bleed air ground light advises that the high flow rate of bleed air has been selected from the right engine for ground operation of the air conditioner. |
| 29. | ENG
ANTI-ICE
L R | The amber engine anti-ice light advises that the left and/or right engine inner fan exit stator, or wing anti-ice has failed. |
| 30. | P/S
HTR | The amber pitot-static heater OFF light advises that that the left and/or right pitot heat is off. |
| 31. | STBY
P/S HTR | The amber standby pitot-static heater OFF light advises that that the standby pitot heat is off. |
| 32. | HYD
PRESS | The amber Hydraulic pressure ON light advises that the hydraulic system is pressurized. |
| 33. | AOA HTR
FAIL | The amber angle-of-attack heater fail light advises that the heating element in the vane is inoperative. |
| 34. | FW
SHUTOFF
L R | The amber firewall shutoff light advises that the left and/or right fuel and hydraulic shutoff valves are closed. |
| 35. | SPD BRK
EXTEND | The white speed brake extend light advises that the left and right speedbrakes are fully extended. |
| 36. | GROUND
IDLE | When the airplane is on the ground, the amber ground idle light advises that the ground idle switch is in normal (NORM) position. |
| 37. | (BLANK) | This amber light is blank on airplanes with standard equipment. |
| 38. | NOSE
AVN FAN | The amber nose avionics fan fail light advises that the nose avionics compartment cooling fan has failed |
| 39. | CHECK
PFD 1 | The amber check PFD 1 light advises that the pilot's primary flight display (PFD) has a malfunction. Check the pilot's PFD against the standby instruments or the copilot's PFD. |

Figure 2-29. Annunciator Panel (Sheet 3)

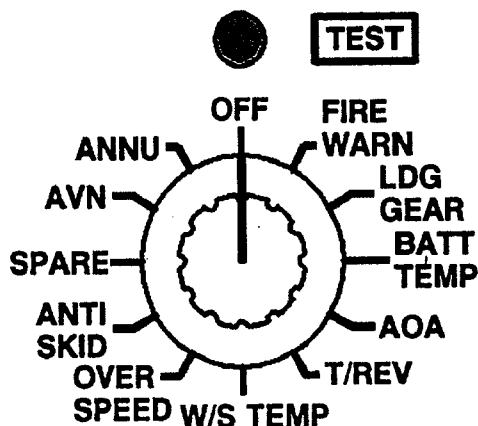
- 40. CHECK PFD 2
The amber check PFD 2 light advises that the copilot's primary flight display (PFD) has a malfunction. Check the copilot's PFD against the standby instruments or the pilot's PFD.
- 41. AP PITCH MISTRIM
The amber autopilot pitch mistrim light advises that the autopilot is in an out-of-trim condition, and that a sustained trim input is being applied to the elevator servo.
- 42. AP ROLL MISTRIM
The amber autopilot roll mistrim light advises that the autopilot is in an out-of-trim condition, and that a sustained trim input is being applied to the aileron servo.

Figure 2-29. Annunciator Panel (Sheet 4)

TEST SYSTEM

The test selector is located in the left side of the pilot's switch panel and offers several positions of test. It will function only when the BATT switch is ON. A red light above the test selector switch illuminates whenever the test selector switch is in any position but OFF.

TEST SELECTOR SWITCH



OFF

The red light will be off and the test system inoperative.

FIRE WARN

The engine fire lights on the upper center instrument panel will illuminate.

LDG GEAR

The three green safe lights and the red unlocked light on the landing gear control panel will illuminate and the warning horn will sound. Horn may be silenced by pressing horn silence button on landing gear panel.

BATT TEMP

The BATT O' TEMP light will flash and the battery temperature monitor gage will indicate 160°F, showing circuit integrity.

AOA

The stick shaker will operate. The angle-of-attack meter needle shall go past the red area and the EADI fast/slow needles shall go past slow. The indexer (optional) lights will flash on and off.

T/REV

The thrust reverser (six lights) and master warning lights will illuminate.

W/S TEMP

The W/S AIR O'HEAT light will illuminate if LOW or HIGH is selected on the windshield bleed air switch.

OVERSPEED

The avionics power switch must be on for the check of overspeed warning horn and related EFIS display information. The following indications will occur:

The audible overspeed warning signal will sound and the PFD IAS will indicate approximate VMO for the existing pressure altitude (red)

PFD Mach will read 400 (red)

Altitude will read 5000 feet

PFD 1 and 2 vertical speed will momentarily read 2000 feet-per-minute.

Figure 2-30 (Sheet 1 of 2)

ANTISKID	Initiates a self-test in the antiskid system. ANTISKID INOP will flash and the MASTER CAUTION will illuminate steady for approximately six seconds. If the system checks operational, both the ANTISKID INOP and MASTER CAUTION will extinguish. If the system does not check operational, the light will remain illuminated.
SPARE AVN	Spare space for optional equipment. The avionics power switch must be ON for the avionics system test to be performed. The following annunciators will flash in the annunciator panel: AP PITCH MISTRIM, AP ROLL MISTRIM, CHECK PFD 1, CHECK PFD 2, and NOSE AVN FAN. Autopilot/flight director mode selector panel lights, EFIS, and FMS associated lights will also illuminate. The MASTER CAUTION will illuminate and is resettable. Optional avionics equipment annunciators shall also illuminate. The altitude alert horn will sound.
ANNU	All the annunciator panel lights and the master caution will illuminate. The master warning light will flash. The turbine speed indicator will self-test. For example, the red lights will illuminate and the digital display will flash "8"s. When the avionic power switch is ON, the altitude alert horn will sound and the autopilot/flight director mode selector panel lights will illuminate. EFIS and FMS associated lights will also illuminate. The MASTER WARNING or MASTER CAUTION lights cannot be reset when the TEST selector is in the ANNU position. Optional equipment annunciator lights should also illuminate.

Figure 2-30 (Sheet 2)