

BATTERY OVERHEAT WARNING - DESCRIPTION AND OPERATION (Airplanes with NiCad Battery)

1. General

- A. The battery overheat warning system consists of two thermostatic switches. The system warns pilot when battery temperature reaches predetermined temperatures. When BATTERY HOT warning light or BATTERY HOT CAS message comes on, the battery switch, located on left sidewall switch panel, should be switched to OFF position to prevent battery from a thermal runaway and from being destroyed. When BATTERY OVERHEAT warning light or the BATTERY OVHT CAS message comes on, battery switch should be switched to "OFF" and airplane landed as soon as possible.

2. Description

- A. The battery temperature sensor is installed between cells of battery to measure temperature of cells from top to bottom. For battery overheat sensor system wiring, refer to the Model 208 Wiring Diagram Manual.

3. Operation

- A. For Airplanes 20800500 and On, and 208B2000 and On, the battery overheat warning system causes either the BATTERY HOT (amber) or BATTERY OVHT (red) CAS message to show on the PFD's, depending on the battery temperature. Refer to Chapter 31, Garmin G1000 Engine Indicating and Crew Alerting System (EICAS) - Description and Operation Figure 3.
- B. For Airplanes 2080001 thru 20800499 and 208B001 thru 208B1999, the battery annunciation changes from an amber annunciator to a red annunciation dependent on battery temperature, Refer to Figure 1 for an illustration of annunciator and switch panel locations. For Airplanes 2080001 thru 20800499 and 208B0001 thru 208B1999, a BATTERY HOT or BATTERY OVERHEAT warning light on annunciator panel comes on when the battery is overheated.

WARNING: If either the BATTERY OVHT, BATTERY HOT or the amber caution light or red warning light comes on, the battery switch should be moved to the off position to prevent battery from a thermal runaway and from being destroyed. If the BATTERY OVHT or the BATTERY OVERHEAT comes on, the flight should be terminated as soon as possible.

- (1) For Airplanes 20800500 and On, and 208B2000 and On:

- (a) When battery temperature is 140°F to 160°F, the BATTERY HOT (amber) CAS message comes on.
(b) When battery temperature is over 160°F, the BATTERY OVHT (red) CAS message comes on.

- (2) For Airplanes 2080001 thru 20800499 and 208B001 thru 208B1999:

- (a) When battery temperature is 140°F to 160°F, the amber BATTERY HOT light on the annunciator panel comes on.
(b) When battery temperature is over 160°F, red BATTERY OVERHEAT light on the annunciator panel comes on.

- C. For Airplanes 2080001 thru 20800499 and 208B0001 thru 208B1999, the annunciator test switch on the instrument panel can be used to check system for proper operation (Refer to Figure 1) .

Figure 1 : Sheet 1 : Battery Overheat Components (Airplanes 2080001 thru 20800499 and 208B0001 thru 208B1999)

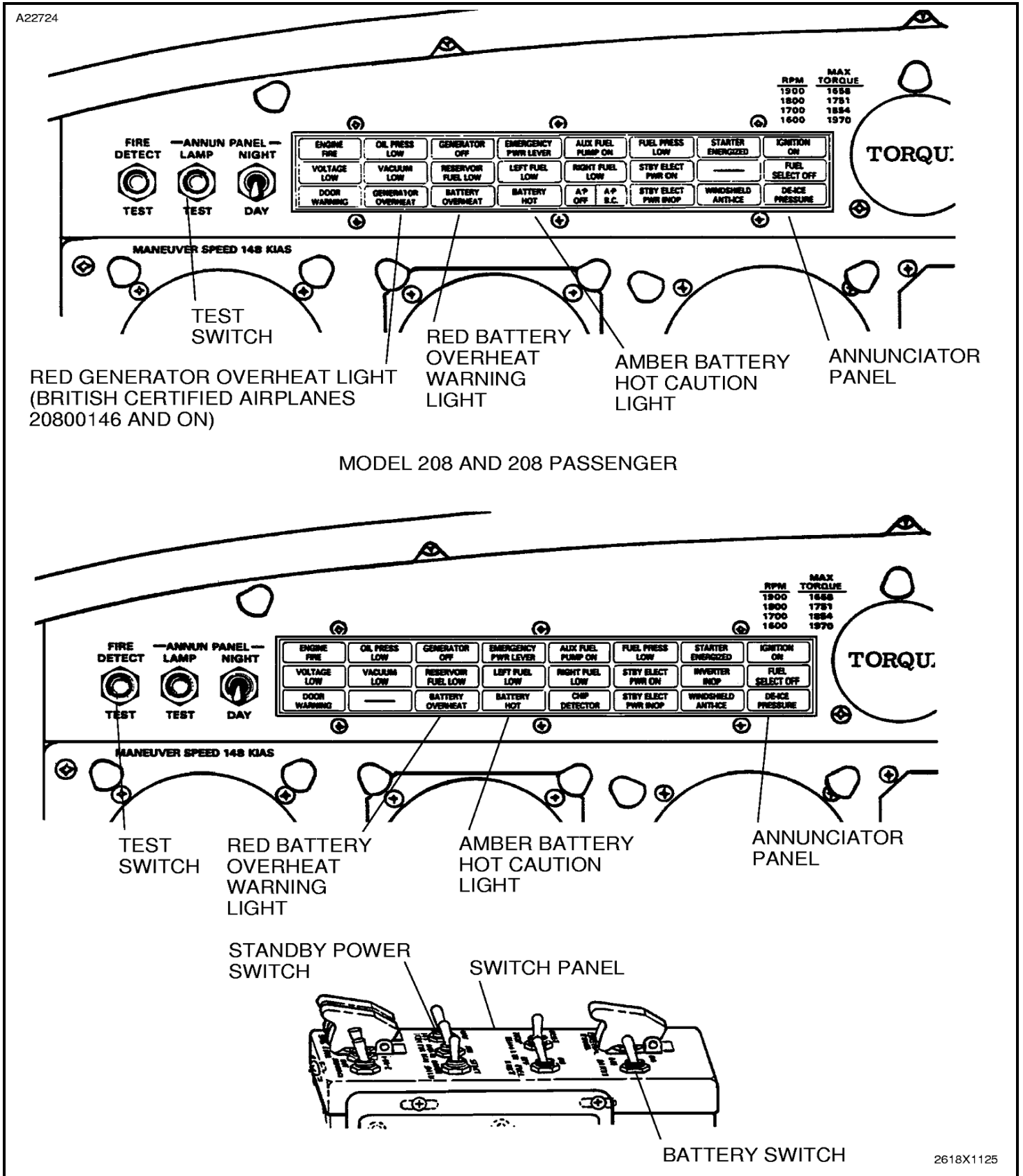


Figure 3 : Sheet 1 : CAS and Alerts Display

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<u>Annunciation</u>	<u>Color</u>	<u>Annunciation</u>	<u>Color</u>	<u>Annunciation</u>	<u>Color</u>
OIL PRESS LOW	Red	FUEL BOOST ON	Amber	DOOR UNLATCHED	Amber
VOLTAGE LOW	Red	STBY PWR INOP	Amber	GENERATOR OFF	Amber
VOLTAGE HIGH	Red	ALTNR OVHT	Amber	GENERATOR AMPS	Amber
ENGINE FIRE	Red	FUEL PRESS LOW	Amber	ALTNR AMPS	Amber
BETA	Red	STARTER ON	Amber	ETM EXCEED	Amber
RSVR FUEL LOW	Red	CHIP DETECT	Amber	FUEL TEMP LOW	Amber
BATTERY OVHT	Red	BATTERY HOT	Amber	IGNITION ON	White
EMERG PWR LVR	Red	A-ICE PRESS HI	Amber	A-ICE NORM	White
A-ICE PRESS LOW	Red	A-ICE FLUID LO	Amber	A-ICE HIGH	White
FUEL SELECT OFF	Red	EMERG PWR LVR	Amber	ETM EXCEED	White
GENERATOR OVHT	Red	L P/S HEAT	Amber	PREV EXCEED	White
L FUEL LOW	Amber	R P/S HEAT	Amber	ETM CAPTURE	White
R FUEL LOW	Amber	L-R P/S HEAT	Amber	STBY PWR ON	White
L-R FUEL LOW	Amber	STALL HEAT	Amber	SPD NOT AVAIL	White
				TORQUE GAGE	White

Figure 3 : Sheet 2 : CAS and Alerts Display

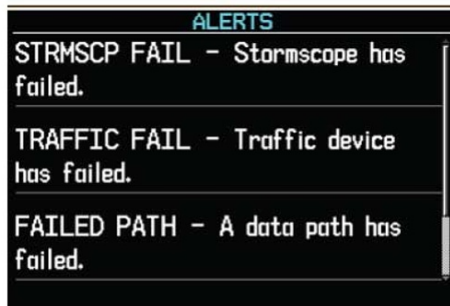
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Alert Message	Color
ETM FAULT	White
PFD1 FAN FAIL	White
PFD2 FAN FAIL	White
MFD FAN FAIL	White

CAS Alert Messages Example



Annunciation Messages Example



Alert Messages (text style) Example

CES-FT-AVN-6725-01