

AP Disc Button RELEASE
WARNING: In flight, do not overpower the autopilot. The trim will operate in the direction opposing the overpower force, which will result in large out-of-trim forces. Do not attempt to re-engage the autopilot or use manual electric pitch trim until the cause of the malfunction has been corrected.

OVERSPEED PROTECTION

“MAXSPD” & “AIRSPEED-AIRSPEED” alrt

Throttle REDUCE
 Aircraft Attitude and Altitude... MONITOR

After overspeed condition is corrected:
 Autopilot RESELECT

Throttle AS NECESSARY

NOTE: Overspeed Protection Mode provides a pitch up command to decelerate the airplane at or below the maximum autopilot operating speed.

UNDERSPEED PROTECTION

“MINSPD” & “AIRSPEED-AIRSPEED” alrt

Throttle INCREASE AS REQUIRED
 Aircraft Attitude and Altitude... MONITOR

After underspeed condition is corrected:
 Autopilot RESELECT

Throttle AS NECESSARY

NOTE: Underspeed Protection Mode provides a pitch down command to maintain 65 KIAS.

PITCH TRIM FAILURE

“PTRIM” Indicates pitch trim servo failure

Control Wheel GRIP FIRMLY

AP DISC Button PRESS and RELEASE

Be prepared for high elev. control forces

Elevator Trim manually RE-TRIM

NOTE: The autopilot may be re-engaged. Refer to the normal procedures section of the AFMS, MANUAL PITCH TRIM WITH AUTOPILOT ENGAGED.

EIS FAILURE

Loss of displayed information on the EIS, incl. a blank, frozen, red ‘X’ over the display, or unresponsive display

Engine controls ADJUST
Ensure operation within engine limitations

ESP ACTIVATION

Throttle AS REQUIRED
Aircraft Attitude.MAINTAIN/REGAIN CNTR

NOTE: If ESP is active for approximately 10 seconds, the autopilot will automatically engage in LVL mode, an aural ‘ENGAGING AUTOPILOT’ will be heard, and the autopilot will roll the wings level and fly at zero-vertical speed. ESP may be disabled by pressing and holding the AP DISC button. Releasing the button will allow ESP to function.

ATTITUDE ALIGNING

“ALIGNING KEEP WINGS LEVEL” means that G3X detected invalid attitude input

Standby Instruments REFERENCE
Maintain 1° nose up pitch and wings level flight

NOTE: The system will display attitude when internal accuracy tolerances have been met.

Aircraft Attitude..LIMIT TO 10° bank, 5° pitch

If attitude does not return, continue to use the standby flight instruments for aircraft attitude control

Legend: **BOLD TEXT IN RED BOX** = MEMORY ITEM

ALERTS & ANNUNCIATIONS

WARNING ANNUNCIATIONS - RED

ALERT	ACTION	NOTE
TERRAIN → "Terrain Ahead! Pull Up!" Terrain, Terrain Pull Up! Pull Up!" "Obstacle Ahead! Pull Up!" Obstacle, Obstacle Pull Up! Pull Up!" "Sink Rate, Pull Up!" "Pull Up!"	Disconnect AP and initiate maximum performance climb (max T/O power and Vx climb IAS)	- Only climb maneuver is recommended unless in VMC or it is determined that turning and climbing is the safest course of action. - The arrow indicates the terrain is outside the Synthetic Vision field of view.
Red X	Reference the data source or alternate equip	A red X through any display field indicates that it is not receiving data, or it is corrupted.
Red Engine Parameter	Take appropriate action to correct condition causing engine parameter exceedance	The engine parameter has exceeded the warning threshold.
AP	Manually fly the airplane. Silence the AP disc tone and remove the annun. by pressing the AP annun in the FD mode bar	Autopilot has failed or is inoperative.
AFCS	Manually fly the airplane	Flight Director and Autopilot have failed.
	Manually fly the airplane	Autopilot Failure.
PTRIM	Manually trim the airplane using the pitch trim wheel	Electric pitch trim is inoperative.
	Select full screen mode on display to view WARNING annunciations	Display is in split screen mode and WARNING annun aren't displayed.

CAUTION ANNUNCIATIONS – AMBER

ALERT	ACTION	NOTE
← OBSTACLE "CAUTION, Terrain" "CAUTION, Obstacle" CAUTION, Obstacle Ahead" "CAUTION, Sink Rate"	Take corrective action until the alert ceases. Using all available information to determine the appropriate action, alter the flight path away from the threat by stopping descent, climbing, and/or turning	The arrow indicates the terrain is outside the Synthetic Vision field of view.
AP	Manually fly the airplane	Pilot has disconnected the AP.
ECS FAIL	None	The Electrical Control System has failed (GAD 27 FAILED)
↑TRIM UP↑	Move the elevator trim in the nose up direction until the annun. extingu.	The autopilot is holding excessive force due to the aircraft being of trim due to changes in airspeed or power.
↓TRIM DOWN↓	Move the elevator trim in the nose down direction until the annun. extingu.	The autopilot is holding excessive force due to the aircraft being of trim due to changes in airspeed or power.

MIN SPEED	Add maximum available power. Autopilot will lower aircraft nose to increase airspeed	Airspeed is too slow, approaching stall speed.
MAX SPEED	Reduce power. Autopilot will raise aircraft nose to reduce airspeed	Airspeed is approaching maximum airspeed limit.
(amber bcgr)	Use standby compass	Displayed heading is outside of the internal accuracy limits.
	Select full screen mode on display to view CAUTION annunciations	Display is in split screen mode and CAUTION annunciations are not displayed.
AHRS ALIGN – Keep Wings Level	Fly aircraft manually and crosscheck attitude indication with standby attitude indicator and other sources of attitude information. Limit aircraft attitude to ±10° bank and ±5° pitch as AHRS Aligns – OK to taxi	Attitude and Heading Reference System is aligning. AHRS may not align with excessive pitch/bank angles.
AHRS ALIGN	Fly aircraft manually and crosscheck attitude indication with standby attitude indicator and other sources of attitude information (airspeed, heading, altitude, etc.)	The AHRS monitors have detected a possible AHRS malfunction or an error with the attitude presentation. The AHRS is attempting to realign itself. The autopilot may automatically disconnect.
ATT MISCOMP	Cross-check the flagged information against other sources to identify erroneous information	Difference detected between the G3X Touch and attitude display and the G5 attitude display.
AHRS FAIL ATTITUDE FAIL	Use standby attitude source, or, if AHRS REVERT message is also displayed, continue to use G3X Touch. Attitude will be from the G5	The GSU 25 AHRS has failed.
AHRS REVERT	Continue to use the G3X Touch	The GSU 25 AHRS has failed and attitude from the G5 is being displayed on the G3X Touch.
AIR MISCOMP IAS MISCOMP	Cross-check the flagged information against other sources to identify erroneous information	Difference detected between the G3X Touch airspeed or altitude and the G5 airspeed or altitude.
ADC FAIL	Use standby airspeed and altitude indicato, or, if ADC REVERT message is also displayed, continue to use G3X Touch	The GSU 25 air data computer has failed.
ADC REVERT	Continue to use G3X Touch	The GSU 25 air data computer has failed and air data from the G5 is being displayed on the G3X Touch.
(Flashing) MESSAGE	Press the flashing message annunciation to view a new system message	A new system message has been annunciated.
Amber EIS Parameter	Take appropriate action to correct condition causing engine parameter exceedance	The engine parameter has exceeded the caution threshold
GPSS	De-select GPSS on the G3X Touch and select desired alternate autopilot lateral mode	The GPS Steering command to the autopilot has been lost
TRAFFIC	Visually acquire the traffic to see and avoid	The interfaced traffic system has determined that nearby traffic may be a threat to the aircraft
TAWS N/A, TAWS FAIL	Use vigilance, terrain depiction, and TAWS alerting is no longer provided	Database errors or lack of GPS position.

ADVISORY ANNUNCIATIONS – WHITE

ALERT	ACTION	NOTE
NO COMP	Cross check the information between the G5 and the PFD to determine which unit is in error	The unit will not be able to perform the miscompare monitor function.