



QUALITY AIRCRAFT SINCE 1948
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SECTION 9 SUPPLEMENTS



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1. Introduction

This section concerns the supplemental manuals of additional (or optional) instrumentation equipping the P2010tdi and/or information and limitations related to installed equipment configuration or needed to fit local national rules.



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P2010tdi – Aircraft Flight Manual

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2nd Edition - Rev. 0

Section 9 – SUPPLEMENTS
INTRODUCTION



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TECNAM**P2010tdi – Aircraft Flight Manual**

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2. Supplement List

Supplement

Aircraft S/N		Registration marks	Date		
246		D-EHSP	20/03/2023		
Sup. N	Title	Rev. N	Date	APPLICABLE	
				YES	NO
S01	GTS 800 TAS UNIT	0	31/05/2021	☒	☐
S02	G1000Nxi Synthetic Vision Technology (SVT)	0	31/05/2021	☒	☐
S03	Stormscope WX-500	0	25/08/2021	☐	☒
S04	Short-field operations	1	07/03/2023	☐	☒
S05	Jet Fuel No.3 for Chinese Aircraft	0	06/09/2021	☐	☒
S06	AFMS for Brazilian airplanes	0	26/10/2021	☐	☒
S07	AFMS for Argentine aircraft	0	14/12/2021	☐	☒
S08	New Cockpit Layout for Granlusso Configuration	2	07/03/2023	☒	☐
S10	GSR56 IRIDIUM DATA LINK	0	07/03/2023	☐	☒

2nd Edition - Rev. 6**Section 9 – SUPPLEMENTS
SUPPLEMENTS LIST**



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S01
GTS 800 TAS UNIT



QUALITY AIRCRAFT SINCE 1942

1. RECORD OF REVISION

Ed / Rev	Revised pages	Description of Revision	Approval
Ed. 2 Rev. 0	-	First issue	See note(*)

*) Previous version was issued and approved according to MOD2010/205.201203.



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**2. LIST OF EFFECTIVE PAGES**

Edition 2, Rev 0 May 31, 2021

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Section 0	All	2 nd Edition - Rev. 0
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1. GENERAL

1.1. INTRODUCTION

This section contains supplemental information to operate, in a safe and efficient manner, the aircraft when equipped with GTS 800 TAS Unit (MOD 2010/205).

NOTE

Refer to 190-00587-02 GTS Traffic System Pilot's Guide, last issue, for additional information about this equipment.

This supplement must be attached to the Airplane Flight Manual; the information contained herein supplements the basic Airplane Flight Manual. For limitations, procedures and performance information not contained in this supplement consult the basic approved Airplane Flight Manual.

The information contained in this Supplement must be considered to override the EASA approved Aircraft Flight Manual where there is any conflict between the supplement and the manual.

The following information apply to the P2010 airplane when conducting TAS operations:

1. The Pilot should not manoeuvre the aircraft based solely on the traffic displayed by TAS. Information shown on the display is provided to the Pilot as an aid to visually acquiring traffic. Manoeuvring the aircraft should be based only on ATC guidance or positive visual acquisition of the conflicting traffic.
2. TAS system provides no indication of aircraft without operative transponder.
3. Besides the TAS components, all the IFR required instruments must be installed and operating to operate TAS system



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2. LIMITATIONS

Refer to the basic AFM, Section 2 – Limitations.



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3. EMERGENCY PROCEDURES

If a TAS computer failure occurs or the "TAS System Test Failed" aural annunciation occurs, the system must be turned OFF through the dedicated CB.



4. NORMAL PROCEDURES

INITIALIZATION

1. After engine starting verify that the TAS circuit breaker is engaged.
2. The TAS system automatically cycles through a power-on.

On ground:

- ✓ The system goes automatically in Stand-by mode (no traffic surveillance functions are performed.).
- ✓ To switch to Operate mode, select it manually via system controls.

In flight:

- ✓ The system goes automatically in Operate mode.

SYSTEM SELF-TEST

1. Prior to initiate the TAS self-test, ensure that all avionics are turned ON and operational.
2. With the TAS in standby mode perform the TAS I self-test (manually select). It takes approximately ten seconds to complete.
3. After the completion of the test the aural "TAS System Test Failed / Passed " is annunciated.



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5. PERFORMANCE

Refer to the basic AFM, Section 5 – Performance.



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6. WEIGHT AND BALANCE

Refer to the basic AFM, Section 6 – Weight and Balance.

7. AIRFRAME AND SYSTEMS DESCRIPTION

7.1. GTS 800 TAS UNIT

The Garmin GTS 800 is a microprocessor based Line Replaceable Unit (LRU) that uses active interrogations of Mode S and Mode C transponders to provide Traffic Advisories to the pilot. When installed with a 1090 MHz ADS-B transmit class of equipment the GTS 800 also utilizes passive surveillance.

Traffic is displayed on an external MFD via Ethernet High Speed Data Bus (HSDB), (linked to PFD#1 but displayed to MFD). An aural alert is also provided to inform the crew a traffic advisory (TA) will be displayed.

The remote LRU is installed on a dedicated mount located in the nose baggage compartment. Two directional antennas (GA58) are installed on the top and bottom of the fuselage, on the front LH side. A 5 Amps circuit breaker, tied to the "LH BUS" and labelled "TAS", is installed on the circuit breaker panel to protect the system from over current.

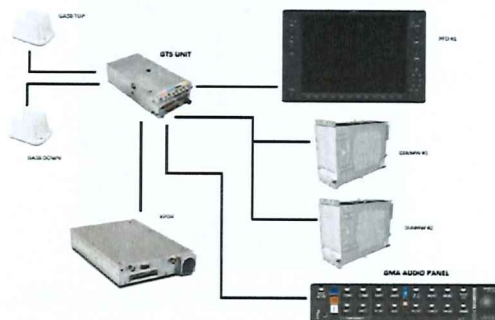


Figure S01-1 – GTS 800 Connection Scheme

7.1.1. OPERATING MODES

The system typically powers up in Standby mode. In Standby mode, the system is powered on, but no traffic surveillance functions are performed. Operate mode is the normal mode for operations. All active and ADS-B Intraffix surveillance functions are performed in Operate mode.

The system can automatically switch between Operate and Standby modes based on whether the own ship is in the air or on the ground. The system will automatically select Operate mode 8 seconds after becoming airborne. Standby mode will automatically be selected 24 seconds after landing.

Self-test mode is a manually selected mode that briefly performs a test of the system. If the system detects a fault that will prevent normal operation, the system will enter and remain in Fail mode.

7.1.1.1. CONTROL OF MODES

Standby, Operate, and Self-test modes may be manually selected via system controls. When the ADS-B In function is installed and the unit is in Operate mode, the ADS-B In feature can be turned on and off. The controls are either integrated with the traffic display(s) or installed as external control switches.

For display(s) that integrate control of ADS-B In and GTS Modes, configuration can be set to allow ADS-B In feature to be turned on or off while GTS is in Standby. This feature requires display(s) support.

7.1.2. TRAFFIC INFORMATION

The function of the GTS Traffic System is to provide information regarding nearby traffic to the crew. For each traffic target that is tracked by the GTS, the system computes the bearing, range, relative altitude, and vertical trend for the target. Relative altitude and vertical trend are available for targets with altitude reporting capability. When ADS-B data is received for a traffic target, additional information is available such as directionality, ground track, and other identifying information (ICAO address, flight ID, tail number). Traffic information may be available from several sources such as active surveillance, ADS-B, ADS-R, and TIS-B. The GTS correlates data from multiple sources to create a single, fused traffic picture for the flight crew. This traffic information is displayed to the crew on an interfaced display. Figure S01-1 shows an example traffic display showing range, bearing, relative altitude, and vertical trend.

Figure S01-2 shows an example traffic display capable of showing additional data received via ADS-B.



Figure S01-2 - Example of Traffic displayed on MFD

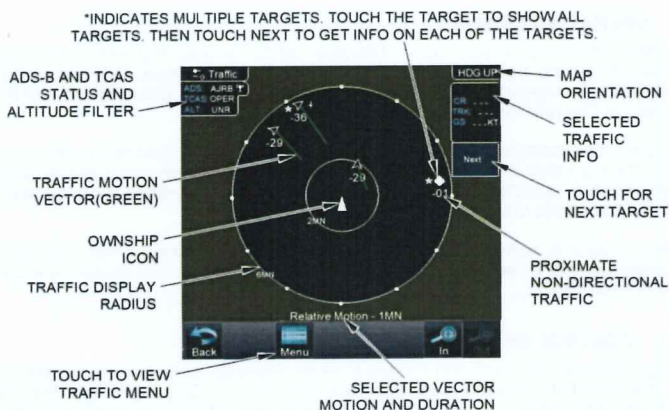


Figure S01-3 - Example of Traffic displayed on MFD (via ADS-B)



7.1.2.1. TRAFFIC ADVISORY INFORMATION

Targets may become a TA (Traffic Advisory) based on closure rate (time until collision) or if they encroach within a minimum distance. The criteria used depends on the current sensitivity level and whether the target has altitude reporting capability. Once a TA is generated, it will remain a TA for at least 8 seconds, even if the target no longer satisfies the criteria for a TA. Table S01-1 summarizes the criteria used for TAs.

To prevent nuisance TAs in the airport environment, there are two sensitivity levels available: Sensitivity Level A (SL A) and Sensitivity Level B (SL B). The Sensitivity Level determines what criteria will be used for TAs. SL A is less sensitive and traffic must be closer before it will generate an alert. SL B is more sensitive and traffic may be farther away to generate an alert. The logic for choosing the sensitivity level is based on available system inputs.

Table S01-1 - TA Alerting Criteria

Sensitivity Level	Intruder Altitude Available	TA Alerting Conditions
A	Yes	Intruder closing rate provides less than 20 second of vertical and horizontal separation. Or: Intruder closing rate provides less than 20 second of horizontal separation and vertical separation is within 600 feet. Or: Intruder range is within 0.2 NM and vertical separation is within 600 feet.
A	No	Intruder closing rate provides less than 15 second of separation or intruder range is within 0.2 NM.
B	Yes	Intruder closing rate provides less than 30 second of vertical and horizontal separation. Or: Intruder closing rate provides less than 30 second of horizontal separation and vertical separation is within 800 feet. Or: Intruder range is within 0.55 NM and vertical separation is within 800 feet.
B	No	Intruder closing rate provides less than 20 second of separation or intruder range is within 0.55 NM.

7.1.2.2. NO BEARING TAS

If the bearing of a TA target cannot be determined, a No-Bearing TA will be issued (Figure S01-1). No-Bearing TAs are typically displayed as a yellow text banner on the traffic display. The text typically includes "TA" followed by the distance, relative altitude, and vertical trend arrow. Relative altitude and vertical trend arrow are not available for targets that do not report altitude.



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8. AIRCRAFT CARE AND MAINTENANCE

Refer to the basic AFM, Section 8 – Aircraft Care and Maintenance.



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S02
G1000Nxi
Synthetic Vision Technology (SVT)

**1. RECORD OF REVISION**

Ed / Rev	Revised pages	Description of Revision	Approval
Ed. 2 Rev. 0	-	First issue	See note (*)

*) Previous version was issued and approved according to MOD2010/198.210121.



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2. LIST OF EFFECTIVE PAGES

Edition 2, Rev 0 May 31, 2021

Section	Pages	Edition / Revision
Section 0	All	2 nd Edition - Rev. 0
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1. GENERAL

1.1. INTRODUCTION

This section contains supplemental information to operate, in a safe and efficient manner, the aircraft when equipped with Garmin G1000NXi Avionics Suite and describes the Synthetic Vision Technology (SVT) (MOD2010/198) which is an optional part of the Garmin G1000NXi Avionics System.

This supplement must be attached to the Airplane Flight Manual; the information contained herein supplements the basic Airplane Flight Manual. For limitations, procedures and performance information not contained in this supplement consult the basic approved Airplane Flight Manual.

The information contained in this Supplement must be considered to override the EASA approved Aircraft Flight Manual where there is any conflict between the supplement and the manual.

The purpose of the SVT system is to assist the pilot in maintaining situational awareness with regard to the terrain and traffic surrounding the airplane and the navigational situation relative to the programmed flight plan.



The Synthetic Terrain display is intended to aid the pilot awareness of the terrain and obstacles in front of the airplane. It may not provide either the accuracy or fidelity, or both, on which to solely base decisions and plan maneuvers to avoid terrain or obstacles. The synthetic vision elements are not intended to be used for primary airplane control in place of the primary flight instruments.



The pathway presentation is intended only to aid the pilot's awareness of the programmed flight path location relative to the airplane's current position. No vertical pathway information is presented for climbs.



The synthetic terrain depiction displays an area approximating the view from the pilot's eye position when looking directly ahead out of the windshield in front of the pilot. Terrain features outside this field of view are not shown on the display.



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2. LIMITATIONS

Refer to the basic AFM, Section 2 – Limitations.



3. EMERGENCY PROCEDURES

SVT Displays information inconsistent with G1000Nxi primary flight instrumentation

On the PFD:

1. PFD Opt key *press*
2. SYN VIS key *press*
3. TERRAIN key *press to disable*
4. SVT is removed from the PFD *verify*

Use G1000Nxi primary displays for navigation and airplane control.

4. NORMAL PROCEDURES

Turn Synthetic Vision on/off

The SVT system may be turned on or off as desired.

To turn the synthetic vision system on or off:

On the PFD:

1. PFD Opt key *press*
2. SYN VIS key *press*
3. TERRAIN key *press*

The synthetic vision system will cycle on or off with each press of the SYN TERR key.

Turn Pathways on/off

To turn the pathway on or off:

On the PFD:

1. PFD Opt key *press*
2. SYN VIS key *press*
3. TERRAIN key *press*
4. PATHWAYS key *press*

The pathway will cycle on or off with each press of the PATHWAYS key.



Turn Horizon Heading on/off

The Horizon Heading may be turned on or off as desired.

To turn the horizon heading on or off:

On the PFD:

1. PFD Opt key *press*
2. SYN VIS key *press*
3. TERRAIN key *press*
4. HDG LBL key..... *press*

The horizon heading will cycle on or off with each press of the HDG LBL key.

Turn Airport Signs on/off

To turn the airport signs on or off:

On the PFD:

1. PFD Opt key *press*
2. SYN VIS key *press*
3. TERRAIN key *press*
4. APT Sign..... *press*

Airport signs will cycle on or off with each press of the APT Sign key.



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5. PERFORMANCE

Refer to the basic AFM, Section 5 – Performance.



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6. WEIGHT AND BALANCE

Refer to the basic AFM, Section 6 – Weight and Balance.



7. AIRFRAME AND SYSTEMS DESCRIPTION

7.1. Synthetic Vision Technology (SVT)

The optional Synthetic Vision Technology (SVT) is a visual enhancement to the system. SVT depicts a forward looking attitude display of the topography immediately in front of the aircraft. SVT information is shown on the Primary Flight Display (PFD), or on the Multifunction Display (MFD) in Reversionary Mode. The depicted imagery is derived from the aircraft attitude, heading, GPS three-dimensional position, and a database of terrain, obstacles, and other relevant features. Loss of any of the required data, including temporary loss of the GPS signal, will cause SVT to be disabled until the required data is restored.

The SVT terrain display shows land contours (colors are consistent with those of the topographical map display), large water features, towers, and other obstacles over 200' AGL that are included in the obstacle database. Cultural features on the ground such as roads, highways, railroad tracks, cities, and state boundaries are not displayed even if those features are found on navigation maps.

The terrain display is intended for situational awareness only. It may not provide the accuracy or fidelity on which to base decisions and plan maneuvers to avoid terrain or obstacles. Navigation must not be predicated solely upon the use of the terrain or obstacle data displayed on the system.

SVT provides additional features on the G1000Nxi primary flight display (PFD) which displays the following information:

- **Synthetic Terrain:** an artificial, database derived, three dimensional view of the terrain ahead of the airplane within a field of view of approximately 30 degree left and 35 degrees right of the airplane heading.
- **Obstacles:** obstacles such as towers, including buildings higher than 200 ft above ground level that are within the depicted synthetic terrain field of view.
- **Flight Path Marker (FPM):** an indication of the current lateral and vertical path of the airplane. The FPM is always displayed when synthetic terrain is selected for display.
- **Pathway:** a pilot selectable three dimensional representation of the programmed flight plan path that can be selected for display alone or with the flight director anytime synthetic terrain is selected for display.
- **Traffic:** a display on the PFD indicating the position of other airplane detected by the Traffic Information System (TIS) component of the G1000Nxi system.
- **Horizon Line:** a white line indicating the true horizon is always displayed on the SVT display.
- **Horizon Heading:** a pilot selectable display of heading marks displayed just above the horizon line on the PFD.
- **Airport Signs:** pilot selectable "signposts" displayed on the synthetic terrain display indicating the position of nearby airports which are in the G1000Nxi database.
- **Runway Highlight:** a highlighted presentation of the location and orientation of the runway(s) at the destination airport.



Figure S02-1 – Synthetic Vision Imagery

SVT OPERATION

SVT is activated from the PFD using the soft-keys located along the bottom edge of the display. Pressing the soft-keys turns the related function on or off.

SVT functions are displayed on three levels of soft-keys. The PFD Opt Softkey leads into the PFD function Soft-keys, including synthetic vision. Pressing the SVT Softkey displays the SVT feature soft-keys. The soft-keys are labeled Pathways, Terrain, HDG LBL, and APT Sign. The Back Softkey returns to the previous level of soft-keys.

Pathways, HDG LBL, and APT Sign Soft-keys are only available when the Terrain Softkey is activated (gray with black characters). After activating the Terrain Softkey, the Pathways, HDG LBL, and APT Sign soft-keys may be activated in any combination to display desired features. On the next avionics power cycle, the system restores the previous state of the Pathways, Terrain, HDG LBL, and APT Sign soft-keys.

- Pathways Softkey enables display of rectangular boxes that represent course guidance.
- Terrain Softkey enables synthetic terrain depiction.
- HDG LBL Softkey enables horizon heading marks and digits.
- APT Sign Softkey enables airport signposts.

SVT FEATURES



Figure S02-2 – SVT Features

Pathways

Pathways provide a three-dimensional perspective view of the selected route of flight shown as colored rectangular boxes representing the horizontal and vertical flight path of the active flight plan. The box size represents 700 feet wide by 200 feet tall during en-route, oceanic, and terminal flight phases. During an approach, the box width is 700 feet or one half full scale deviation on the HSI, whichever is less. The height is 200 feet or one half full scale deviation on the VDI, whichever is less. The altitude at which the pathway boxes are displayed is determined by the higher of either the selected altitude or the VNV altitude programmed for the active leg in the flight plan.

The color of the rectangular boxes may be magenta, green, or white depending on the route of flight and navigation source selected. The active FMS or FMS overlay flight plan leg is represented by magenta boxes that correspond to the magenta CDI. A localizer course is represented by green boxes that correspond to a green CDI. An inactive leg of an active flight plan is represented by gray boxes corresponding to a white line drawn on the navigation map indicating an inactive leg.

Horizon Heading

The Horizon Heading is synchronized with the HSI and shows approximately 60 degrees of compass heading in 30-degree increments on the Zero Pitch Line. Horizon Heading tick marks and digits appearing on the zero pitch line are not visible behind either the airspeed or altitude display. Horizon Heading is used for general heading awareness, and is activated and deactivated by pressing the HDG LBL Softkey.



Airport Signs

Airport Signs provide a visual representation of airport location and identification on the synthetic terrain display. When activated, the signs appear on the display when the aircraft is approximately 15 nm from an airport and disappear at approximately 4.5 nm. Airport signs are shown without the identifier until the aircraft is approximately eight nautical miles from the airport. Airport signs are not shown behind the airspeed or altitude display. Airport signs are activated and deactivated by pressing the APT Sign Softkey.

Zero Pitch Line

The Zero Pitch Line is drawn completely across the display and represents the horizon when the terrain horizon is difficult to distinguish from other terrain being displayed. It may not align with the terrain horizon, particularly when the terrain is mountainous or when the aircraft is flown at high altitudes.

Flight Path Marker

The Flight Path Marker (FPM), also known as a Velocity Vector, is displayed on the PFD at groundspeeds above 30 knots. The FPM depicts the approximate projected path of the aircraft accounting for wind speed and direction relative to the three-dimensional terrain display. The FPM is always available when the Synthetic Terrain feature is in operation. The FPM represents the direction of the flight path as it relates to the terrain and obstacles on the display, while the airplane symbol represents the aircraft heading. The FPM works in conjunction with the Pathways feature to assist the pilot in maintaining desired altitudes and direction when navigating a flight plan. When on course and altitude the FPM is aligned inside the pathway boxes as shown.



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8. AIRCRAFT CARE AND MAINTENANCE

Refer to the basic AFM, Section 8 – Aircraft Care and Maintenance.



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S08

New Cockpit Layout for Granlusso Configuration

**1. RECORD OF REVISION**

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Section 5	All	1 st Edition - Rev. 0
Section 6	All	1 st Edition - Rev. 0
Section 7	10 thru 15, 18	1 st Edition - Rev. 0
	9, 16	1 st Edition - Rev. 1
	17	1 st Edition - Rev. 2
Section 8	All	1 st Edition - Rev. 0



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Section 9 - SUPPLEMENTS

**S08 – New Cockpit Layout
for Granlusso Configuration**

1st Edition - Rev. 0



1. GENERAL

1.1. Introduction

This section contains supplemental information to operate, in a safe and efficient manner, the aircraft when equipped with Granlusso (MOD 2010/251, MOD 2010/252).

This supplement must be attached to the Airplane Flight Manual; the information contained herein supplements the basic Airplane Flight Manual. For limitations, procedures and performance information not contained in this supplement consult the basic approved Airplane Flight Manual.

The information contained in this Supplement must be considered to override the EASA approved Aircraft Flight Manual where there is any conflict between the supplement and the manual.



2. LIMITATIONS

Refer to the basic AFM, Section 2 – Limitations except for the location of the following placards.

2.1. Limitation Placard

On the central side of the instrument panel, is placed the following placard reporting the speed limitations:

Operating Manoeuvring speed
 $V_o = 121$ KIAS

2.2. Operating and autopilot limitations

On the instrument panel, respectively on the right and left side, the following placards are placed reminding the observance of aircraft operating limitations according to installed equipment configuration, see KOEL and autopilot limitations:

THIS A/C CAN BE OPERATED ONLY IN NORMAL CATEGORY
DAY-NIGHT-VFR-IFR (WITH REQUIRED EQUIPMENT) IN NON-ICING CONDITIONS.
NO AEROBATICS MANOEUVRES, INCLUDING SPINNING, APPROVED.
FOR OPERATIONAL LIMITATIONS REFER TO FLIGHT MANUAL

OPERATING LIMITATIONS FOR P2010 GARMIN GFC700 AUTOPILOT

- Pilot with seat belt fastened must be seated at the left pilot position during A/P Ops
- Do not use A/P during take-off and landing
- For RNAV/RNP departures, navigation and approaches pilot must confirm GPS, RAIM and SBAS system availability, in order to comply with appropriate minimum requirements.
- Min. alt. AGL for A/P Operations are:
 - Cruise and descent: 800 ft AGL
 - Climb after T/O and during non-precision approaches: 400 ft AGL
 - Cat.1 ILS Approaches only (200ft AGL)

2.3. No smoking placard

On the central side of the instrument panel, near the ELT switch, the following placard is placed reminding the observance for “no smoking”:

NO SMOKING



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3. EMERGENCY PROCEDURES

Refer to the basic AFM, Section 3 – Emergency procedures.



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4. NORMAL PROCEDURES

Refer to the basic AFM, Section 4 – Normal Procedures.



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5. PERFORMANCE

Refer to the basic AFM, Section 5 – Performance.



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6. WEIGHT AND BALANCE

Refer to the basic AFM, Section 6 – Weight and Balance.



7. AIRFRAME AND SYSTEMS DESCRIPTION

7.1. Cockpit Layout

The bottom instrument panel cover in the new configuration is all made of carbon fibers. There may be also alternative layout.



Figure S08 – 1: Cockpit Typical Layout

The lower-central portion of the instrument panel holds:

- Autopilot Master;
- Trim disconnect;
- Pitot Heat;
- Strobe Light;
- Navigation Light;
- Taxi Light;
- Landing Light;
- Defrost and Cabin Heat Control;
- Instrument and Panel Dimmer;
- Day/Night switch;
- Emergency Light;
- Flap Control
- Fuel selector valve;
- Thrust Lever;
- Parking Brake
- Pitch trim wheel



The lower-RH portion of the instrument panel holds:

- Avionic bus breakers;

The pitch control wheel is located near the throttle.

It is also installed a central armrest between pilot and co-pilot seats:

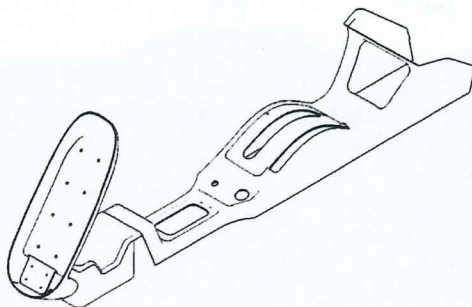


Figure S08 – 2: Central armrest

7.2. Breaker Panel

The breaker panel (Essential bus and Main bus items) is located in right side of instrument panel. Circuit breakers affecting Avionic Bus are in the lower RH portion of the instrument panel.



Figure S08 – 3: Breaker Panel



7.3. Defrost and Cabin Heat

One knob, located on the lower side of the central pedestal, allows Defrost and Cabin Heat function. Rotating it is possible to modify the intensity of hot air.

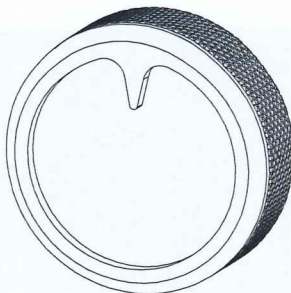


Figure S08 – 4: Defrost and Cabin Heat Control

7.4. Doors Layout

The main interiors are made of leather with visible stitching. Each material is flame resistant. They are self-extinguishing material.



Figure S08 – 5: Door layout

The door provides an extended pocket placed in lower part of the interior panel with a handle made of leather in the central area of the door.



The following figure illustrates the placard installed on the doors:



Figure S08 – 6: Doors Placards



7.5. Parking Brake

The parking brake control is located on the central console near the power lever.

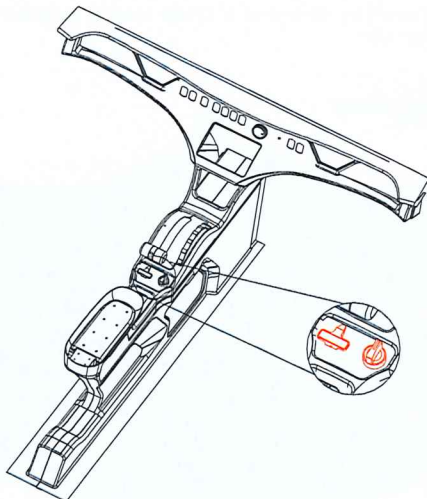


Figure S08 – 7: Parking brake Position

Brakes can be operated from either pilot's and co-pilot's pedals. A master cylinder is attached to each pilot's rudder pedal. Hydraulic pressure, applied via the master cylinders, enters the brake through lines connected to an inlet fitting on the caliper. The braking is differential type, so that the actuation of the left side pump brakes acts only on the left wheel, and vice versa.

When the lever is moved on the **"LOCK"** position and the master cylinders are activated, the fluid pressure is trapped beyond the valve, allowing the brake calipers to stay locked on the brake discs.

When the lever is moved on the **"RELEASE"** position, the fluid is free to flow between the source and the brake.



7.6. Autopilot System

The autopilot is controlled by means of a GMC707 controller installed on the instrument panel.

The autopilot is protected by means of a circuit breaker installed in the avionic bus breaker panel labelled "A/P".



Figure S08 – 8: Cockpit layout with GMC707 unit installed



7.6.1. Autopilot Control Panel (MOD2010/252)

The following dedicated AFCS keys are located on the bezel of the GMC 707:

- 1) **AP Key:** Engages/ disengages the autopilot
- 2) **FD Key:** Activates/deactivates the flight director only
- 3) **NAV Key:** Selects/deselects Navigation Mode
- 4) **ALT Key:** Selects/deselects Altitude Hold Mode
- 5) **VS Key:** Selects/deselects Vertical Speed Mode
- 6) **FLC Key:** Selects/deselects Flight Level Change Mode
- 7) **HDG Key:** Selects/deselects Heading Select Mode
- 8) **APR Key:** Selects/deselects Approach Mode
- 9) **VNV Key:** Selects/deselects Vertical Path Tracking Mode for Vertical Navigation flight control
- 10) **NOSE UP/ NOSE DN Control:** Control the mode reference in Pitch Hold, Vertical Speed and Flight Level Change modes

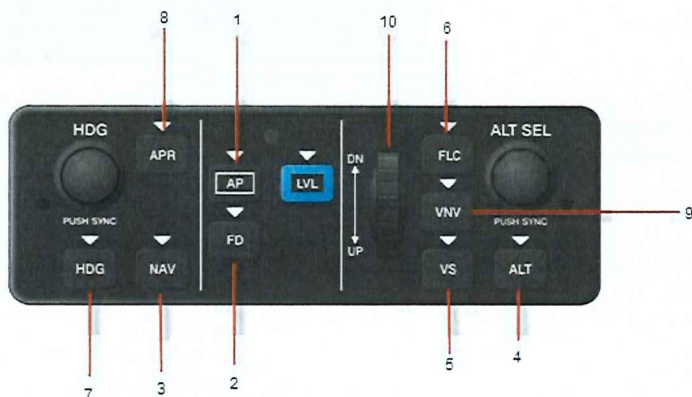


Figure S08 – 9: Autopilot Control Panel



7.7. FMS System

The GCU 477 FMS (*Flight Management System*) provides alphanumeric, softkey and flight planning function keys used to interface with Garmin G1000 Nxi integrated flight deck. In addition, the system provides COM/NAV tuning capabilities.

In order to improve the visibility of FMS in the cabin of aircraft, the system provide a back light of keys. In addition, these lights automatically adjust for ambient lighting conditions based on photocell input.



Figure S08 – 10: GCU 477 Keyboard

The FMS GCU 477 is protected by means of a circuit breaker labelled “FMS”, installed on the main bus breaker panel.



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8. AIRCRAFT CARE AND MAINTENANCE

Refer to the basic AFM, Section 8 – Aircraft Care and Maintenance.



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