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NORMAL PROCEDURES

4.1 GENERAL

This Section describes recommended procedures for conducting normal operations in the V1.0 aircraft. All the necessary operational procedures, as determined by the aircraft operating and design features, are presented.

This Section consists of an abbreviated check list which supplies an action sequence for normal procedures.

Pilots should familiarize themselves with the procedures given in this Section, in order to become proficient in the normal operations of the aircraft.

4.2 AIRSPEED FOR SAFE OPERATION

The following airspeeds are significant for normal and safe operation of the aircraft. These are for standard aircraft flown at maximum gross weight under normal conditions at sea level. For additional airspeed information see Section 2.

(a) Maximum Structural Cruising Speed (V_{NO})	128 KIAS
(b) Design Manoeuvring Speed (V_A)	125 KIAS
(c) Maximum Flap Extended Speed (V_{FE})	78 KIAS
(d) Best Rate of Climb Speed (V_Y)	80 KIAS
(e) Best Angle of Climb Speed (V_X)	70 KIAS
(f) Rotation Speed (V_R)	65 KIAS
(g) Maximum Demonstrated Crosswind Velocity	20 KTS

4.3 SAFETY TIPS

The aircraft should be given a thorough internal and external pre-flight check. The pre-flight should include determination of aircraft operational status, a check that necessary papers and documents are on board and in order, and a calculation of weight and C.G. limits, take-off distance and in-flight performances.

Baggage should be weighed, stowed and secured. A weather briefing for the intended flight path should be obtained, and other factors relating to a safe flight should be checked before take-off.

Before flying, a pilot should complete a personal check list that includes the following items:

(a) A current proper license.

(b) Sufficient recovery time from debilitating drugs or medication.

(c) No alcohol in the past eight hours.

(d) Proper physical condition (no colds, etc.).

(e) Emotional condition (ability to devote full concentration to flight).

(f) Sufficient rest for fatigue recovery.

(g) No debilitating temporary physical injuries and/or disabilities.

(h) Head-Sets check for presence and operational.

(i) Spare pair of glasses if required.

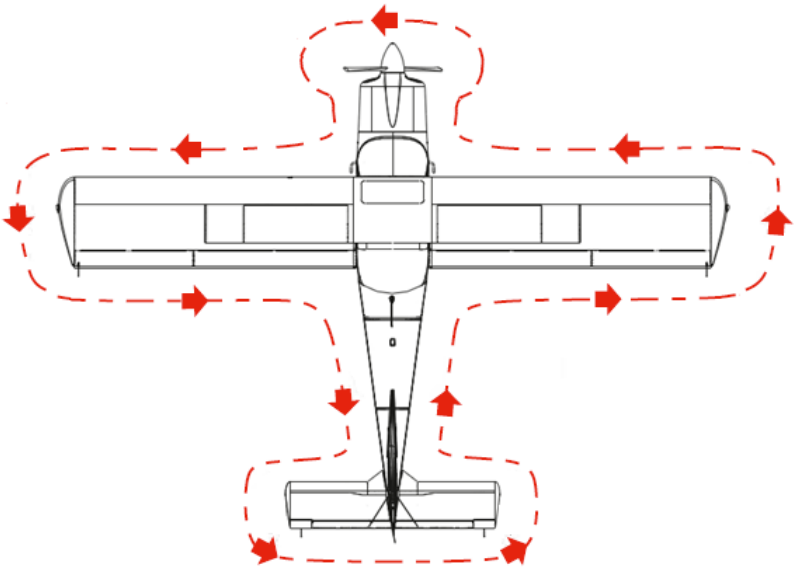

Figure 4-1 WALK AROUND

4.4 PRE-FLIGHT CHECK LIST

Remove external control surface locks if inserted.

NOTE

Plugging and turning ON, the external power results in a battery charge process. Be aware of battery state of charge since it is not monitored. Refer to the battery service manual for guidance and maintenance procedure.

COCKPIT

(a)	Parking brake	SET
(b)	Aircraft documents	CHECK
(c)	Headsets	CHECK
(d)	Flight controls	FREE and CORRECT MOVEMENT (Verify the complete excursion of all movable surfaces)
(e)	Trim controls	NEUTRAL
(f)	Electrical switches	OFF
(g)	Circuit breakers	IN
(h)	MASTER BATTERY switch	ON (Set to "OFF" when the pre-flight check list has been completed)
(i)	Cut-off system (with only battery supply)	CHECK (Put ON Stall Heat switch and verify that its green light is OFF)
(j)	Garmin avionics equipment	CHECK ON
(k)	EIS EDM-930	CHECK ON
(l)	PFD	CHECK NO RED FLAG
(m)	Annunciator panel	PUSH "PPT" TO TEST
(n)	Map light	CHECK FOR OPERATION
(o)	Fuel quantity gauge	CHECK READINGS
(p)	Flaps	CHECK UP
(q)	NAV LIGHTS switch	ON
(r)	STROBE LIGHTS switch	ON
Only for aircraft s/n 1001 and 1002		
(s)	TAXI/LDG LIGHT switch	ON

	For aircraft from s/n 1003 onwards	
(t)	LDG LIGHT switch	ON
(u)	TAXI LIGHT switch	ON
	For all aircraft	
(v)	Alternate static source	PRESS TO DRAIN then RELEASE
(w)	Starter key	CHECK OFF
(x)	Fuel selector	CHECK OFF
(y)	Throttle	CHECK IDLE
(z)	Propeller	CHECK FORWARD
(aa)	Mixture control	CHECK IDLE CUT-OFF
(ab)	ELT remote switch	CHECK IF SET TO ARM Should an operational check for the ELT be desired, carry out the "Functional Testing" in accordance with the procedure in the relevant applicable manufacturer's documentation
(ac)	Fire extinguisher	CHECK FOR PROPER INSTALLATION AND EXPIRE DATE

LEFT WING

(a)	Wing condition	CHECK
(b)	Leading Edge condition	CHECK
(c)	Strut condition	CHECK
(d)	Stall warning detector	CHECK
(e)	Pitot tube	CHECK
	For aircraft from s/n 1003 onwards	
(f)	Landing and taxi lights	CHECK
	For all aircraft	
(g)	Tie down rope (if installed)	UNTIE
(h)	Wing tip	CHECK
(i)	Navigation light	CHECK

(j) Anti-collision light	CHECK
(k) Static wicks	CHECK
(l) Fuel tank level (Open fuel tank filler cap)	CHECK BY USING FUEL DIPSTICK (Insert it vertically into the fuel tank until it touches the tank bottom, then read the max wet value on the dipstick scale)
(m) Fuel tank filler cap	CHECK SECURE
(n) Fuel tank drainage	DRAIN (Open flush drain valve and check fuel sump)
(o) Aileron	CHECK
(p) Flap	CHECK
(q) Control lock (if installed)	REMOVE

FUSELAGE (LEFT SIDE)

(a) General condition	CHECK
(b) Pilot door	CHECK
(c) Windows	CHECK
(d) VHF / ADF antenna	CHECK
(e) Landing gear leaf spring	CHECK
(f) Brakes lines condition	CHECK
(g) Chock	REMOVE
(h) Tie down rope (if installed)	UNTIE

EMPENNAGES

(a) Stabilator condition	CHECK
(b) Rudder condition	CHECK
(c) Fin condition	CHECK
(d) Stabilator trim tab condition	CHECK
(e) Navigation light	CHECK
(f) Anti-collision light	CHECK
(g) VOR antenna	CHECK
(h) Control locks (if installed)	REMOVE

FUSELAGE (RIGHT SIDE)

(a) General condition	CHECK

(b)	Windows	CHECK
(c)	Copilot door	CHECK
(d)	Passenger door	CHECK
(e)	Baggage door	CHECK
(f)	Landing gear leaf spring	CHECK
(g)	Brake lines condition	CHECK
(h)	ELT unit and its antenna	CHECK
(i)	Antennas	CHECK
(j)	Chock	REMOVE

RIGHT WING

(a)-(q) SAME CHECKS PERFOMED ON LEFT WING [except (d), (e), (f)]

NOSE SECTION

(a)	General condition	CHECK
(b)	RH & LH static ports	CLEAR
(c)	Windshield	CHECK
(d)	Nose gear	CHECK
(e)	Taxi/Landing light (if installed)	CHECK
(f)	Oil cooler	CLEAR
(g)	Engine air intake	CLEAN and SECURE
(h)	Engine air intake filter	CHECK FOR DAMAGE LESS THAN 50% CONTAMINATION
(i)	Induction system	DRAIN (especially before flight with Mogas)
(j)	Nacelle locking screws	CHECK and SECURE
(k)	Propeller and spinner	CHECK
(l)	Exhaust pipes	CHECK
(m)	Fuel filter	DRAIN (Open drain valve and check fuel sump)
(n)	Chock	REMOVE

CAUTION

If fluid de-frosting preparations are used to clear ice and snow from wing and tail surfaces, ensure that the solutions do not contaminate the control surfaces ball bearings as this can lead to seizure

4.5 BEFORE STARTING ENGINE

(a) Pre-Flight inspection	COMPLETE
(b) Doors	CLOSE
(c) Passengers briefing	COMPLETE
(d) Seats	ADJUST
(e) Belts and harnesses	SECURE
(f) Parking brake	ON
(g) FUEL PUMP switch	OFF
(h) Altimeter and clock	SET
(i) Throttle	OPEN ¼ STROKE
(j) Propeller	FULL FORWARD
(k) Mixture control	IDLE CUT-OFF
(l) Fuel selector	LEFT or RIGHT
(m) Circuit breakers	CHECK IN
(n) MASTER BATTERY switch	ON
(o) AVIONICS switch	ON
(p) Fuel quantity indicator	CHECK
(q) Battery voltage	CHECK
(r) NAV LIGHTS switch	ON
(s) STROBE LIGHTS switch	ON
(t) Cockpit light	AS REQUIRED
(u) Trim tabs	CHECK and SET FOR T/O
(v) Alternate air control	OFF

4.6 STARTING ENGINE

Starting engine may be made using either the aircraft battery or an external power unit. When starting on the external power unit, the alternator must be switched OFF.

WARNING

After power supply, before starting engine, the PFD and MFD appear.
If any failure message appears on PFD or on MFD, the take-off is strictly prohibited until the problem has been identified and solved.

4.6.1 STARTING ENGINE WITH A/C BATTERY

NOTE

It is normal that the voltage readout becomes red ("Low Warning" condition) on EIS.

(a)	MASTER BATTERY switch	CHECK ON
(b)	AVIONICS switch	CHECK ON
(c)	ALT switch	CHECK OFF
(d)	Starter key	ROTATE on BOTH (to power on the starter)
(e)	FUEL PUMP switch	ON
(f)	Mixture control	RICH until a stabilized fuel flow is indicated, then IDLE CUT-OFF
(g)	Propeller area	CHECK CLEAR
(h)	Starter key	ROTATE temporarily on START (to engage the starter)

CAUTION

Do not crank for more than 10 seconds. Wait for at least 30 seconds to cool-down between attempts. Repeat up to 6 times, then let starter cool for 30 minutes. After 6 times attempts, the aircraft battery must be recharged.

NOTE

In the event of backfire during engine start-up, shut down the engine and check the entire intake system for security and damage before flight. In this case the downstream face of the foam element will show charring. Replace any damaged element.

(i) Mixture control — ADVANCE as engine starts

(j) Oil pressure — CHECK RISING on EIS

WARNING

Oil pressure should rise within 30 seconds, except in very cold weather, when it may take somewhat longer. Take-off should not be started if oil pressure is above maximum. If the oil pressure gauge does not show any indication, shut down the engine and investigate.

(k) FUEL PUMP switch — OFF

(l) ALT switch — ON

(m) Throttle — 1000 RPM

NOTE

With the throttle at 1000 RPM, reduce the electrical loads as much as possible.

(n) Alternator — CHECK

(o) One VHF COMM — ON and SET

4.6.2 STARTING ENGINE WITH EXTERNAL POWER

(a) ALT switch	CHECK OFF
(b) External power source	CONNECT and ON
(c) MASTER BATTERY switch	CHECK ON
(d) AVIONICS switch	CHECK ON
(e) Starter key	ROTATE on BOTH (to power on the starter)
(f) FUEL PUMP switch	ON
(g) Mixture control	RICH until a stabilized fuel flow is indicated then IDLE CUT-OFF
(h) Propeller area	CHECK CLEAR
(i) Starter key	ROTATE temporarily on START (to engage the starter)

CAUTION

Do not crank for more than 10 seconds. Wait at least 30 seconds to cool-down between attempts. Repeat up to 6 times, then let starter cool for 30 minutes.

NOTE

In the event of backfire during engine start-up, shut down the engine and check the entire intake system for security and damage before flight. In this case the downstream face of the foam element will show charring. Replace any damaged element.

(j) Mixture control	ADVANCE as engine starts
(k) Oil pressure	CHECK RISING on EIS

WARNING

Oil pressure should rise within 30 seconds, except in very cold weather, when it may take somewhat longer. Take-off should not be started if oil pressure is above maximum. If the oil pressure gauge does not show any indication, shut down the engine and investigate.

(l) FUEL PUMP switch	OFF
(m) Throttle	1000 RPM
(n) External power source	OFF and REMOVE
(o) ALT switch	ON and CHECK
(p) One VHF COMM	ON and SET

4.7 BEFORE TAXIING

(a) MASTER BATTERY switch	CHECK ON
(b) ALT switch	CHECK ON
(c) AVIONICS switch	CHECK ON
(d) Navigation lights	AS REQUIRED
(e) Taxi/Landing light on nose (if installed)	AS REQUIRED
<u>For aircraft from s/n 1003 onwards</u>	
(f) TAXI LIGHT switch	ON
<u>For all aircraft</u>	
(g) Altimeter	SET
(h) Radios	ON, SET & CHECK
(i) Flaps	CHECK FULL RANGE then UP
(j) Brakes	RELEASE

4.8 TAXIING

(a) Brakes — CHECK

(b) Throttle — AS REQUIRED

(c) Flight instruments — CHECK

4.9 BEFORE TAKE-OFF (Run-up)

(a) Parking brake — SET

(b) Fuel selector — LEFT then RIGHT
(to verify the correct operation)

(c) Auxiliary fuel pump — OFF

(d) Mixture control — FULL RICH

(e) Propeller — FULL FORWARD

(f) Alternate air — OFF

(g) Throttle — 1200 RPM

(h) Engine:

(1) Throttle — ADVANCE to 1900 RPM

(2) Alternator output — CHECK

(3) Propeller — RETARD FULL AFT
CHECK RPM drop up to 1400 rpm, then

(4) Propeller — ADVANCE FULL FWD
CHECK RPM regains to 1900 rpm

NOTE

- *Check oil pressure decreases and manifold pressure increases during deceleration to 1400 RPM.*
- *Check oil pressure increases and manifold pressure decreases during acceleration to 1900 RPM.*

(5) Mixture — CHECK

(6) Alternate air — ON, then CHECK RPM drop, then OFF
(normal drop 90 ÷ 150 RPM at 1500 RPM)
(only for s/n 1002 - normal drop 20 ÷ 50 RPM at 1500 RPM)

(7)	Throttle	ADVANCE to reach 2100 RPM
(8)	Magnetos	CHECK 175 RPM max drop 50 RPM max differential (normal drop 100 RPM)
(9)	Oil pressure	CHECK GREEN BAR
(10)	Throttle	1200 RPM

4.10 BEFORE TAKE-OFF (Final Items)

(a)	FUEL PUMP switch	ON
(b)	Flight instruments	SET and CHECK
(c)	Engine instruments	CHECK GREEN ARC
(d)	Alternate air	CHECK OFF

WARNING

When flying in a high humidity environment at any air temperature, open the engine alternate air door.

(e)	Longitudinal trim	SET for TAKE-OFF (0° or lightly nose-up)
(f)	Flaps	14°
(g)	Doors locked, seat belts fastened	CHECK
(h)	Quadrant friction	ADJUST
(i)	Flight controls	CHECK FOR FREE AND FULL TRAVEL
(j)	Starter key	CHECK on BOTH
(k)	Mixture control	FULL RICH
(l)	Propeller	FULL FWD
(m)	ALT switch	CHECK ON
(n)	Parking brake	RELEASE

4.11 TAKE-OFF AND CLIMB

(a)	Brake pedals	APPLY
(b)	Throttle	FULLY OPEN to maintain 2700 RPM
(c)	Brake pedals	RELEASE
(d)	Initial rate of climb speed	65 KIAS
(e)	Airspeed	ACCELERATE up to 70÷75 KIAS
(f)	Flaps	UP at safe altitude
(g)	Auxiliary fuel pump	OFF at safe altitude
(h)	Mixture control	FULL RICH
(i)	FUEL PUMP switch	OFF
(j)	Throttle	2600 RPM (at 26 in.Hg)
(k)	Best rate of climb speed	78÷81 KIAS
(l)	Longitudinal trim	AS REQUIRED

NOTE

During take-off from airfields at high altitude or during climb, a loss of power could happen due to mixture too much rich. In this case decrease the mixture to obtain a regular engine functioning, taking particular care to the increase of CHT values.

4.12 CRUISE

(a) Power — AS REQUIRED

(b) Fuel selector — ROTATE ALTERNATELY
LH-RH to maintain symmetric balance

CAUTION

Monitor and manually compensate asymmetrical fuel consumption by switching fuel selector. Switch on the electric fuel pump prior to swap the fuel feeding from one tank to another.

(c) Cruise power rating — SET

NOTE

For power rating upper than 75% max power set the Mixture Control in FULL RICH position.

(d) Mixture — LEAN AS APPROPRIATE
(in accordance with Lycoming SI 1094 latest revision)

(e) Engine instruments — CHECK

NOTE

During cruise at altitudes higher than 5000 ft, a loss of power could happen due to mixture too much rich. In this case decrease the mixture to obtain a regular engine functioning, taking particular care to the increase of CHT values.

4.12.1 DECREASE THE MIXTURE USING EGT INDICATOR

(1) Decrease slowly the mixture pulling the mixture control knob.
The EGT will increase reaching the max value, then it will start to decrease.

(2) Push in the mixture control knob, reach the EGT max value again and then stop when the EGT reaches a temperature of 25 °F less than its max value.
Never reach a temperature of 160 °F less than EGT max value.

(3) Check always the CHT during the previous operation.

4.13 FLIGHT IN INADVERTENTLY ENCOUNTERED ICING CONDITIONS

WARNING

The aircraft has not been approved for flight in known icing conditions.
Flying in known icing conditions is prohibited.

THE FOLLOWING WEATHER CONDITIONS MAY BE CONDUCIVE TO SEVERE IN-FLIGHT ICING:

Visible rain at temperature below + 5°C ambient air temperature.

Droplets that splash or splatter on impact at temperatures below + 5°C ambient air temperature.

PROCEDURES FOR EXITING THE SEVERE ICING ENVIRONMENT:

These procedures are applicable to all flight phases from take-off to landing. Monitor the ambient air temperature. While severe icing may form at temperatures as cold as -18°C, increased vigilance is warranted at temperatures around freezing with visible moisture present. If the visual cues specified in the Limitations Section of the AFM for identifying severe icing conditions are observed, accomplish the following:

- Immediately request priority handling from Air Traffic Control to facilitate a route or an altitude change to exit the severe icing conditions in order to avoid extended exposure to flight conditions more severe than those for which the aircraft has been certificated.
- Avoid abrupt and excessive maneuvering that may exacerbate control difficulties.

- If an unusual roll response or uncommanded roll control movement is observed, reduce the angle-of-attack.
- Do not extend flaps when holding in icing conditions. Operation with flaps extended can result in a reduced wing angle-of-attack, with the possibility of ice forming on the upper surface further aft on the wing than normal, possibly aft of the protected area.
- Execute slightly movements of flight controls, trim and propellers' pitch before ice accretions.
- If the flaps are extended, do not retract them until the airframe is clear of ice.
- Report these weather conditions to Air Traffic Control.

NOTE

When flying in a high humidity environment at any air temperature, open the engine alternate air door.

(In visible moisture and at temperatures below + 5°C)

(a) Pitot heat	ON
(b) Stall detector heat	ON
(c) IMC	EXIT

4.14 DESCENT AND LANDING

(a) Mixture control	FULL RICH
(b) FUEL PUMP switch	ON
(c) Fuel selector	AS REQUIRED
(d) Propeller	FULL FORWARD
(e) Flaps	DOWN 28° or DOWN 42° (short landing)

Only for aircraft s/n 1001 and 1002

(f) TAXI/LDG LIGHT switch	ON

For aircraft from s/n 1003 onwards

(g) LDG LIGHT switch	ON

For all aircraft

(h) Approach speed	70 KIAS
(i) Ground touch speed	51 KIAS

WARNING
In case of strong crosswind, increase the approach and ground speeds.

(j)	Brakes	AS NECESSARY (after nose wheel touch-down)

After clearing runway:

(k)	Flaps	UP
(l)	FUEL PUMP switch	OFF
(m)	PITOT HEAT switch	OFF
(n)	STALL HEAT switch	OFF
(o)	Propeller de-icing (if installed)	OFF
(p)	Radio and NAV aids	AS REQUIRED

4.15 SHUT-DOWN AND SECURING AIRCRAFT

(a)	Parking brake	APPLY
(b)	ELT switch (if installed)	VERIFY if OFF/ARM

Only for aircraft s/n 1001 and 1002

(c)	TAXI/LDG LIGHT switch	OFF

For aircraft from s/n 1003 onwards

(d)	LDG LIGHT switch	OFF
(e)	TAXI LIGHT switch	OFF

For all aircraft

(f)	Throttle	800÷900 RPM (for 1 minute)
(g)	Mixture control	PULL KNOB COMPLETELY
(h)	Starter key	ROTATE on OFF
(i)	Fuel selector	OFF
(j)	ALT switch	OFF
(k)	Control locks (if required)	INSTALL
(l)	Tie down ropes (if required)	TIE

In the following a summary of the main normal procedures relevant to digital cockpit is shown.
For a detailed description of the normal procedures refer to documents:

- **"Garmin G500 Pilot's Guide"** p/n 190-01102-02 (for aircraft installing GDU620 up to SW version 6.21)
- **"Garmin G500 Pilot's Guide"** p/n 190-00601-02 (for aircraft installing GDU620 from SW version 7.30 onwards)
- **"Garmin G500 Cockpit Reference Guide"** p/n 190-01102-03
- **"Garmin GTN 650 Pilot's Guide"** p/n 190-01004-03
- **"Garmin GNC 255 Pilot's Guide"** p/n 190-01182-01
- **"Garmin GMA 350 Pilot's Guide"** p/n 190-01134-12

WARNING

The detailed description, operation and functionalities of Garmin suite are provided on the documents listed above, which are to be considered as attached to this AFM and kept onboard the aircraft.

4.16 PFD OPERATION

(Refer to Section 7 of this Supplement for PFD MAP softkey)

4.16.1 NAVIGATION SOURCE SELECTION

CDI softkey - GPS - NAV1 (VOR/LOC) - NAV2 (VOR/LOC)	PRESS to cycle through navigation sources

4.16.2 ALERTS WINDOW

ALERTS softkey	PRESS to display/remove the Alerts window

4.17 MFD OPERATION

(Refer to Section 7 of this Supplement for MFD MAP softkey)

The MFD softkeys change in accordance with the selected page. Their default page is the NAVIGATION MAP PAGE.

The selection of the page is done by means of the following steps:

(a) Large knob — ROTATE to select the pages group to view

(b) Small knob — ROTATE to select a specific page inside a group

4.17.1 NAVIGATION MAP PAGE

(a) MAP softkey — PRESS to enable second level Navigation MAP page softkeys

(b) NAV MAP1/MAP2 softkey — PRESS

(c) MAP key — PRESS

(d) TRAFFIC softkey — PRESS to display/remove traffic info from the MAP page

(e) TOPO softkey — PRESS to display/remove topographical data (coastlines, terrain, rivers, lakes) on Navigation MAP page

(f) TERRAIN softkey — PRESS to display/remove terrain info on Navigation MAP page

4.17.2 DECLUTTER MAP PAGE

(a) DCLTR softkey — PRESS to cycle through different map detail levels

- DCLTR (No Declutter): All map features visible
- DCLTR-1: Removes land data
- DCLTR-2: Removes land and SUA data
- DCLTR-3: Removes everything except active flight plan

4.18 GTN 650 OPERATION

4.18.1 COM 1 MANUAL TUNING

(a) Large COM knob	ROTATE to tune frequency (MHz step)
(b) Small COM knob	ROTATE to tune frequency (KHz step)
(c) Frequency Transfer Key (XFR)	TOUCH to transfer the frequency to the active field
(d) VOL/SQ knob	ROTATE to regulate volume

4.18.2 AUTOMATIC SQUELCH

(a) VOL/SQ knob	PRESS MOMENTARILY to disable/enable automatic squelch

4.18.3 NAV 1 RADIO TUNING

(a) Small knob	PRESS
(b) NAV window	CHECK
(c) Large NAV knob	ROTATE to tune frequency (MHz step)
(d) Small NAV knob	ROTATE to tune frequency (KHz step)
(e) Frequency Transfer Key (XFR)	TOUCH to transfer the frequency to the active field
(f) VOL/SQ knob	ROTATE to regulate volume

4.18.4 NAV 1 IDENT ACTIVATION

(a) VOL knob	PRESS MOMENTARILY to enable/disable ident tone

4.18.5 GPS RECEIVER INFORMATION

(a) HOME key	PRESS
(b) DOWN key	TOUCH
(c) SYSTEM key	TOUCH
(d) GPS status key	TOUCH

4.18.6 MSG WINDOW

(a) MSG key	TOUCH to display/remove the Alerts window

4.18.7 MAP WINDOW

(a) HOME key	PRESS to display GTN 650 MENÙ
(b) MAP key	TOUCH to display MAP on GTN 650
(c) MAP DETAIL key	TOUCH to SET Level 0 to Level 3 of declutter

4.18.8 ENTERING A TRANSPONDER CODE

(a) XPDR window	TOUCH to display the active transponder
(b) XPDR key	TOUCH
(c) Transponder Code Window	TOUCH to enter the code in the code field

4.19 GNC 255 OPERATION

4.19.1 COM 2 MANUAL TUNING

(a) C/N knob	PRESS to select COM function
(b) COM annunciation	CHECK ON
(c) Large COM knob	ROTATE to tune frequency (MHz step)
(d) Small COM knob	ROTATE to tune frequency (KHz step)
(e) FLIP/FLOP key	PRESS to transfer the frequency to the active field
(e) VOL/SQ knob	ROTATE to regulate volume

4.19.2 AUTOMATIC SQUELCH

(a) VOL/SQ knob	PRESS MOMENTARILY to disable/enable automatic squelch

4.19.3 NAV 2 RADIO TUNING

(a) C/N knob	PRESS to select NAV function
(b) NAV annunciation	CHECK ON
(c) Large NAV knob	ROTATE to tune frequency (MHz step)
(d) Small NAV knob	ROTATE to tune frequency (KHz step)
(e) FLIP/FLOP key	PRESS to transfer the frequency to the active field
(e) VOL/SQ knob	ROTATE to regulate volume

4.19.4 NAV 2 IDENT ACTIVATION

(a) VOL knob	PRESS MOMENTARILY to enable/disable ident tone

4.19.5 ALERT MSG

(a) MSG on top line display	CHECK ON
ENTER key	PRESS to CONFIRM

4.20 GMA 350 AUDIO PANEL OPERATION

4.20.1 COM SELECTION FOR AUDIO

(a) COM 1 key	PRESS to select audio from #1 COM receiver
(b) COM 2 key	PRESS to select audio from #2 COM receiver

4.20.2 COM SELECTION TO TRANSMIT

(a) MIC 1 key	PRESS to select #1 transmitter
(b) MIC 2 key	PRESS to select #2 transmitter

4.20.3 SPEAKER ENABLING

(a) SPKR key	PRESS to select/deselect cabin speaker

4.20.4 AUTOMATIC SQUELCH SETTING

(a) MAN SQ key	PRESS to set automatic or manual squelch control

4.20.5 INTERCOM VOLUME AND MANUAL SQUELCH

(a) VOL control knob	ROTATE to set volume or squelch

4.20.6 INTERCOM SYSTEM SETTING

(a) PILOT, CPLT & PASS keys	PRESS to control ICS

4.21 DME OPERATION

(a) ON/OFF switch	ACTIVATE
(b) RMT/FREQ/GST switch	SET to FREQ
(c) Small knob	PUSH to change the 0.1 MHz digit
(d) Small knob	PULL to add 0.05 MHz to the frequency
(e) Large knob	ROTATE to change the 1 MHz digit

4.22 ADF OPERATION

(a) ON/OFF/VOL knob	ROTATE to power ON
(b) Small inner knob	PULL to tune 1 KHz step
(c) Small inner knob	PUSH to tune 10 KHz step
(d) Large outer knob	ROTATE to tune 100 KHz step up to 1799 KHz

(e) FRQ button	PRESS
(f) PFD softkey	PRESS
(g) BRG1/BRG2	PRESS to select ADF source on PFD

4.23 TERRAIN-SVT OPERATION (if installed)

WARNING

Use appropriate primary systems for navigation, and for terrain, obstacle and traffic avoidance. Terrain-SVT is intended only to enhance situational awareness and may not provide either the accuracy or reliability upon which to solely base decisions and/or plan manoeuvres to avoid terrain, obstacles or traffic.

WARNING

Terrain database contains terrain mapping data. It is updated by Garmin periodically and has no expiration date.
Obstacle database contains data for obstacles, such as towers, that pose a potential hazard to aircraft. It is updated by Garmin on a 56-day cycle.
Terrain/obstacles databases updating are available (by payment) on Garmin website.
If terrain or obstacle (or both) database is out-of-date, the pilot must inhibit the Terrain-SVT feature.

CAUTION

All obstructions might not be available in the terrain and obstacle database. No terrain and obstacle information are shown without a valid 3D GPS position.

NOTE

For Terrain-SVT operation, it is necessary an SVT Enablement Card (p/n 010-00769-54) and an Unlock Card Garmin (p/n 010-00769-60).

NOTE

Terrain-SVT requires a terrain and obstacle database having a resolution of minimum nine arc-seconds.

NOTE

Terrain data is not displayed when the aircraft is outside of the terrain database coverage area.
Terrain data is not displayed when the aircraft latitude is greater than 75° North or 60° South.

NOTE

During operations at certain locations, where it is known that caution/warning thresholds may be exceeded due to specific terrain or operating procedures, the pilot, under his responsibility, can manually inhibit the Terrain-SVT feature.

For a detailed description of the normal procedures relevant to the Terrain-SVT operation refer to the document "**Garmin G500 Pilot's Guide**".

4.24 ADJUSTING INSTRUMENTS BACKLIGHTING

4.24.1 PFD & MFD DISPLAY BRIGHTNESS

(a) Large MFD knob	ROTATE to select AUX page on MFD
(b) Small MFD knob	PRESS
(c) Small MFD knob	ROTATE to select MANUAL MODE
(d) Small MFD knob	ROTATE to select brightness

4.24.2 EDM 930 DISPLAY BRIGHTNESS

(a) DIM button	PRESS and RELEASE to decrease brightness
(b) DIM button	HOLD to increase brightness

4.24.3 GTN 650 DISPLAY BRIGHTNESS

(a) HOME key	PRESS
(b) DOWN key	TOUCH
(c) SYSTEM key	TOUCH
(d) BACKLIGHT key	TOUCH
(e) ARROW key	ARROW key to set level

4.24.4 MD302 STBY MODULE DISPLAY BRIGHTNESS

(a) Knob	PUSH
(b) Knob	TURN to regulate

4.25 NOISE LEVEL

Increased emphasis on improving the quality of our environment requires effort by the pilots to minimize the effect of aircraft noise on the public.

The noise level, determined according to ICAO Annex 16,Volume I, Chapter 10, for V1.0 aircraft at Maximum Take-Off Power and at Maximum Take-Off Weight of 1155 kg (2546 lb), is 80.2 dB(A). In conformity with the above regulations, the maximum noise level permitted for V1.0 at above Maximum Take-Off Weight is 80.9 dB(A).

NOTE

The pilot shall minimize in any possible way the noise impact of the airplane during operations at, or in the vicinity of airports.