SECTION 4
NORMAL PROCEDURES

TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Paragraph</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 GENERAL</td>
<td>4-1</td>
</tr>
<tr>
<td>4.2 AIRSPEED FOR SAFE OPERATION</td>
<td>4-2</td>
</tr>
<tr>
<td>4.3 SAFETY TIPS</td>
<td>4-3</td>
</tr>
<tr>
<td>4.4 PRE-FLIGHT CHECK LIST</td>
<td>4-5</td>
</tr>
<tr>
<td>4.5 BEFORE STARTING ENGINE</td>
<td>4-9</td>
</tr>
<tr>
<td>4.6 STARTING ENGINE</td>
<td>4-10</td>
</tr>
<tr>
<td>4.6.1 STARTING ENGINE WITH A/C BATTERY</td>
<td>4-10</td>
</tr>
<tr>
<td>4.6.2 STARTING ENGINE WITH EXTERNAL POWER</td>
<td>4-12</td>
</tr>
<tr>
<td>4.7 BEFORE TAXIING</td>
<td>4-13</td>
</tr>
<tr>
<td>4.8 TAXIING</td>
<td>4-14</td>
</tr>
<tr>
<td>4.9 BEFORE TAKE-OFF (Run-up)</td>
<td>4-14</td>
</tr>
<tr>
<td>4.10 BEFORE TAKE-OFF (Final Items)</td>
<td>4-15</td>
</tr>
<tr>
<td>4.11 TAKE-OFF AND CLIMB</td>
<td>4-16</td>
</tr>
<tr>
<td>4.12 CRUISE</td>
<td>4-17</td>
</tr>
<tr>
<td>4.12.1 DECREASE THE MIXTURE USING EGT INDICATOR</td>
<td>4-18</td>
</tr>
<tr>
<td>4.13 FLIGHT IN INADVERTENTLY ENCOUNTERED ICING CONDITIONS</td>
<td>4-18</td>
</tr>
</tbody>
</table>

DATE: 03 December 2015
# SECTION 4

## NORMAL PROCEDURES

### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Paragraph</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.14</td>
<td>DESCENT AND LANDING</td>
<td>4-19</td>
</tr>
<tr>
<td>4.15</td>
<td>SHUT-DOWN AND SECURING AIRCRAFT</td>
<td>4-20</td>
</tr>
<tr>
<td>4.16</td>
<td>PFD OPERATION</td>
<td>4-21</td>
</tr>
<tr>
<td>4.16.1</td>
<td>NAVIGATION SOURCE SELECTION</td>
<td>4-21</td>
</tr>
<tr>
<td>4.16.2</td>
<td>ALERTS WINDOW</td>
<td>4-21</td>
</tr>
<tr>
<td>4.17</td>
<td>MFD OPERATION</td>
<td>4-22</td>
</tr>
<tr>
<td>4.17.1</td>
<td>NAVIGATION MAP PAGE</td>
<td>4-22</td>
</tr>
<tr>
<td>4.17.2</td>
<td>DECLUTTER MAP PAGE</td>
<td>4-22</td>
</tr>
<tr>
<td>4.18</td>
<td>GTN 650 OPERATION</td>
<td>4-23</td>
</tr>
<tr>
<td>4.18.1</td>
<td>COM 1 MANUAL TUNING</td>
<td>4-23</td>
</tr>
<tr>
<td>4.18.2</td>
<td>AUTOMATIC SQUELCH</td>
<td>4-23</td>
</tr>
<tr>
<td>4.18.3</td>
<td>NAV 1 RADIO TUNING</td>
<td>4-23</td>
</tr>
<tr>
<td>4.18.4</td>
<td>NAV 1 IDENT ACTIVATION</td>
<td>4-23</td>
</tr>
<tr>
<td>4.18.5</td>
<td>GPS RECEIVER INFORMATION</td>
<td>4-24</td>
</tr>
<tr>
<td>4.18.6</td>
<td>MSG WINDOW</td>
<td>4-24</td>
</tr>
<tr>
<td>4.18.7</td>
<td>MAP WINDOW</td>
<td>4-24</td>
</tr>
<tr>
<td>4.18.8</td>
<td>ENTERING A TRANSPONDER CODE</td>
<td>4-24</td>
</tr>
</tbody>
</table>
SECTION 4
NORMAL PROCEDURES

TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>PARAGRAPH</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.19 GNC 255 OPERATION</td>
<td>4-25</td>
</tr>
<tr>
<td>4.19.1 COM 2 MANUAL TUNING</td>
<td>4-25</td>
</tr>
<tr>
<td>4.19.2 AUTOMATIC SQUELCH</td>
<td>4-25</td>
</tr>
<tr>
<td>4.19.3 NAV 2 RADIO TUNING</td>
<td>4-25</td>
</tr>
<tr>
<td>4.19.4 NAV 2 IDENT ACTIVATION</td>
<td>4-26</td>
</tr>
<tr>
<td>4.19.5 ALERT MSG</td>
<td>4-26</td>
</tr>
<tr>
<td>4.20 GMA 350 AUDIO PANEL OPERATION</td>
<td>4-26</td>
</tr>
<tr>
<td>4.20.1 COM SELECTION FOR AUDIO</td>
<td>4-26</td>
</tr>
<tr>
<td>4.20.2 COM SELECTION TO TRANSMIT</td>
<td>4-26</td>
</tr>
<tr>
<td>4.20.3 SPEAKER ENABLING</td>
<td>4-26</td>
</tr>
<tr>
<td>4.20.4 AUTOMATIC SQUELCH SETTING</td>
<td>4-26</td>
</tr>
<tr>
<td>4.20.5 INTERCOM VOLUME AND MANUAL SQUELCH</td>
<td>4-27</td>
</tr>
<tr>
<td>4.20.6 INTERCOM SYSTEM SETTING</td>
<td>4-27</td>
</tr>
<tr>
<td>4.21 DME OPERATION</td>
<td>4-27</td>
</tr>
<tr>
<td>4.22 ADF OPERATION</td>
<td>4-27</td>
</tr>
<tr>
<td>4.23 TERRAIN-SVT OPERATION</td>
<td>4-28</td>
</tr>
</tbody>
</table>

Rev. 5
DATE: 04 August 2017
## SECTION 4
NORMAL PROCEDURES

### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Paragraph</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.24</td>
<td>ADJUSTING INSTRUMENTS BACKLIGHTING</td>
<td>4-29</td>
</tr>
<tr>
<td>4.24.1</td>
<td>PFD &amp; MFD DISPLAY BRIGHTNESS</td>
<td>4-29</td>
</tr>
<tr>
<td>4.24.2</td>
<td>EDM 930 DISPLAY BRIGHTNESS</td>
<td>4-30</td>
</tr>
<tr>
<td>4.24.3</td>
<td>GTN 650 DISPLAY BRIGHTNESS</td>
<td>4-30</td>
</tr>
<tr>
<td>4.24.4</td>
<td>MD302 STBY MODULE DISPLAY BRIGHTNESS</td>
<td>4-30</td>
</tr>
<tr>
<td>4.25</td>
<td>NOISE LEVEL</td>
<td>4-30</td>
</tr>
</tbody>
</table>
SECTION 4

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
(b) Aircraft documents
(c) Headsets
(d) Flight controls
(e) Trim controls
(f) Electrical switches
(g) Circuit breakers
(h) MASTER BATTERY switch
(i) Cut-off system
(j) Garmin avionics equipment
(k) EIS EDM-930
(l) PFD
(m) Annunciator panel
(n) Map light
(o) Fuel quantity gauge
(p) Flaps
(q) NAV LIGHTS switch
(r) STROBE LIGHTS switch
(s) TAXI/LDG LIGHT switch

Only for aircraft s/n 1001 and 1002

Rev. 14

DATE: 03 October 2018
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

Rev. 9

DATE: 14 March 2018
(j) Anti-collision light CHECK
(k) Static wicks CHECK
(l) Fuel tank level 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 PERFORMED 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  

Rev. 9
DATE: 14 March 2018
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  
(b) External power source  
(c) MASTER BATTERY switch  
(d) AVIONICS switch  
(e) Starter key  
(f) FUEL PUMP switch  
(g) Mixture control  
(h) Propeller area  
(i) Starter key  

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  
(k) Oil pressure  

ADVANCE as engine starts  
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

For aircraft from s/n 1003 onwards
(f) TAXI LIGHT switch ON

For all aircraft
(g) Altimeter SET
(h) Radios ON, SET & CHECK
(i) Flaps CHECK FULL RANGE then UP
(j) Brakes RELEASE
4.8 TAXIING

(a) Brakes
(b) Throttle
(c) Flight instruments

4.9 BEFORE TAKE-OFF (Run-up)

(a) Parking brake
(b) Fuel selector
(c) Auxiliary fuel pump
(d) Mixture control
(e) Propeller
(f) Alternate air
(g) Throttle
(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

DATE: 03 December 2015 4-15
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

Rev. 9

DATE: 14 March 2018
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  
PRESS to cycle through navigation sources
- GPS
- NAV1 (VOR/LOC)
- NAV2 (VOR/LOC)

#### 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.

**Rev. 15**  
**DATE: 21 December 2018**
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

DATE: 03 December 2015
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 MENÜ

(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

DATE: 03 December 2015
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

DATE: 03 December 2015
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

DATE: 03 December 2015
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

DATE: 03 December 2015
(e) FRQ button
(f) PFD softkey
(g) BRG1/BRG2

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.