

## **SECTION 9**

# **Pilot's Operating Handbook Supplement AS-18**

## GARMIN GNC 255A / 255B (COM/NAV)



This supplement is applicable and must be inserted into Section 9 of the POH when the Garmin GNC 255A or 255B COM/NAV is installed in the AQUILA AT01-100/200. The information in this supplement adds to or replaces information in the basic POH.

Revision A.02 of AFM Supplement AS-18 ref. FM-AT01-1010-257 is approved under the authority of DOA ref. EASA.21J.025. 02.03.2020 Date, Signature Office of Airworthiness

Document Nr.:	Issue:	supersedes Issue:	Date:	Page:
FM-AT01-1010-257	A.02	A.01 (15.10.2013)	02.03.2020	AS-18-1



## 0.1 RECORD OF REVISIONS

Issue	Reason for Change	Effected Pages	Date of Issue
A.01	Initial Issue	All	15.10.2013
A.02	also valid for AT01-200	All	02.03.2020

## 0.2 LIST OF CURRENT PAGES

Page	Issue	Date
1 - 6	A.02	02.03.2020

Page	Issue	Date

## 0.3 TABLE OF CONTENTS

1.	GENERAL	.3
2.	OPERATING LIMITATIONS	.4
3.	EMERGENCY PROCEDURES	.5
4.	NORMAL PROCEDURES	.5
5.	PERFORMANCE	.5
6.	WEIGHT AND BALANCE	.6
7.	SYSTEM DESCRIPTION	.6
8.	HANDLING, SERVICE AND MAINTENANCE	.6

Document Nr.:	Issue:	supersedes Issue:	Date:	Page:
FM-AT01-1010-257	A.02	A.01 (15.10.2013)	02.03.2020	AS-18-2



## 1. GENERAL

The Garmin GNC 255A/255B combines a VHF communications transceiver with 200 channel VOR, Localizer and Glideslope receivers. Besides traditional Nav/Com features, the GNC 255 also incorporates workload-reducing functions such as automatic decoding of the Morse code station identifier for VOR/LOC, most-used frequency storage in memory and more.

The GNC 255A/255B has the ability to monitor the standby COM frequencies. The GNC 255's Com radio operates in the aviation voice band, from 118.000 to 136.975 MHz, in 25 kHz steps (default). For European operations, a Com radio configuration of 8.33 kHz steps is also available. The GNC 255 VHF Nav receiver operates from 108 MHz to 117.95 MHz decoding both the VHF Omni Range and Localizer navigation signals. The built-in Glideslope receiver will automatically tune the corresponding glideslope paired frequencies (328 MHz to 335 MHz) when the localizer is tuned. The GNC 255A is available with a 10 watt com transmitter. The GNC 255B is available with a 16 watt com transmitter.



#### GNC 255A / 255B Front Panel:

Document Nr.:	Issue:	supersedes Issue:	Date:	Page:
FM-AT01-1010-257	A.01	-	15.10.2013	AS-18-3



### 2. LIMITATIONS

The information contained in this supplement must be used in conjunction with the basic POH.

#### Pilot's Guide

The Garmin GNC 255A / 255B Pilot's Guide, p/n 190-01182-01, Rev. A (or later revisions), *must* be immediately available to the flight crew.

### WARNING

For safety reasons, GNC 255's operational procedures must be learned on the ground.

### NOTE

The Garmin GNC 255A / 255B must be switched off during engine start-up and shutdown. Non-compliance could destroy the equipment. All warranty and guarantee claims will become void!

## NOTE

Do not use outdated database information. Databases used in the system must be updated regularly in order to ensure that the information remains current. Pilots using an outdated database do so entirely at their own risk.

#### NOTE

Transmit Duty Cycle:

10W: 100% 16W: Recommended 25% (5 seconds on/15 seconds off, 15 seconds on/45 seconds off, etc.)

Document Nr.:	Issue:	supersedes Issue:	Date:	Page:
FM-AT01-1010-257	A.01	-	15.10.2013	AS-18-4



### 3. EMERGENCY PROCEDURES

#### LOSS OF COM RADIO TUNING FUNCTIONS

• If alternate COM is available:

Communications

USE ALTERNATE COM

• If no alternate COM is available:

FLIP/FLOP key

PRESS AND HOLD FOR 2 SECONDS

# NOTE

This procedure will tune the COM radio to the emergency frequency 121.5. Certain failures of the tuning system will automatically tune 121.5, regardless of what frequency is displayed on the GNC, without flight crew action.

## NOTE

The GNC 255 helps protect you from a situation where the microphone may get stuck in the ON or Transmit position. If the microphone is keyed for longer than 35 seconds, the GNC 255 will return to the receive mode on the selected frequency. A "Stuck Mic" message will display until the transmit key is released. Alerts will display until the error clears or the user acknowledges it.

#### LOSS OF NAVIGATION FUNCTIONS

Use alternative Navigation

## 4. NORMAL PROCEDURES

Refer to the Pilot's Guide defined in Section 2 of this document for normal operating procedures and a complete list of system messages and associated flight crew actions.

### 5. PERFORMANCE

No change to the basic POH.

Document Nr.:	Issue:	supersedes Issue:	Date:	Page:
FM-AT01-1010-257	A.01	-	15.10.2013	AS-18-5



## 6. WEIGHT AND BALANCE

Changes to Weight and Balance due to Installation/Removal of the GNC 255A/255B must be considered in accordance with chapter 6 of the Basic POH.

### 7. SYSTEM DESCRIPTION

#### **Pilot's Guide**

The Garmin GNC 255A / 255B Pilot's Guide, defined in Section 2 of this document, contains information regarding GNC system description, control and function. This Pilot's Guide *must* be immediately available to the flight crew.

#### Power

Power to the Garmin GNC 255A / 255B is provided through a circuit breaker labeled **COM 1** or **COM 2**. Power to the NAV Unit is provided through a circuit breaker labeled **NAV/GPS 1 or NAV/GPS 2**.

#### Database

Instructions for updating the Frequency Database can be found in the Garmin GNC 255A / 255B Pilot's Guide, defined in Section 2 of this document.

### 8. HANDLING, SERVICE AND MAINTENANCE

CAUTION

The Garmin GNC 255A/255B must be switched off during engine start-up and shutdown. Otherwise it could be seriously damaged or destroyed. All warranty and guarantee claims will become void!

## CAUTION

The GNC 255's display uses a lens coated with a special anti-reflective coating that is very sensitive to skin oils, waxes, and abrasive cleaners. CLEANERS CONTAINING AMMONIA WILL HARM THE ANTI-REFLECTIVE COATING. It is very important to clean the lens using a clean, lint-free cloth and an eyeglass lens cleaner that is specified as safe for anti-reflective coatings.

#### MALFUNCTION OF THE GNC 255A / 255B:

The Garmin GNC 255 does not contain any user-serviceable parts. Repairs should only be made by an authorized Garmin service center. Unauthorized repairs or modifications could void both the warranty and the pilot's authority to operate this device under local authority regulations.

Document Nr.:	lssue:	supersedes Issue:	Date:	Page:
FM-AT01-1010-257	A.01	-	15.10.2013	AS-18-6