

SECTION 9

Pilot's Operating Handbook Supplement AS-20

Garmin GNS 430W



This supplement is applicable and must be inserted into Section 9 of the Pilot's Operating Handbook when a Garmin GNS 430W GPS/NAV/COM Panel is installed in the AQUILA AT01-100. The information in this supplement adds to or replaces information in the basic Pilot's Operating Handbook.

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0.1 RECORD OF REVISIONS

Issue	Reason for Change	Effectuated Pages	Date of Issue
A.01	Initial Issue	All	15.10.2013

0.2 LIST OF CURRENT PAGES

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1. GENERAL

The aircraft is equipped with a GNS 430W.

For a detailed description and full operating instructions please refer to the current issue of the GARMIN GNS 430W Pilot's Guide, P/N 190-00356-00 (Rev. H or later approved revision).

NOTE

The current issue of the GARMIN GNS 430W Pilot's P/N 190-00356-00 must be kept on board the aircraft and be available to the crew at all times.

2. OPERATING LIMITATIONS

The operating limitations of the basic POH apply without any changes or restrictions.

3. EMERGENCY PROCEDURES

If GNS430W GPS and/or Nav information is not available or is invalid, utilize remaining operational navigation equipment or alternative navigation methods as required.

If GNS 430W COM Transceiver is not available use alternative COM or required procedures.

4. NORMAL PROCEDURES

Normal operating procedures are outlined in the „Garmin GNS 430W Pilot's Guide and Reference“ and must be kept on board the aircraft and be available to the crew at all times.

5. Performance

There is no change regarding the information in the basic Pilot's Operating Handbook.

6. WEIGHT AND BALANCE

There is no change regarding the information in the basic Pilot's Operating Handbook.

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7. SYSTEMS DESCRIPTION

NOTE

This supplement provides a general description of the Garmin GNS 430W and its integration in the instrument panel of the airplane. For a detailed description of the GNS 430W and full operation instructions, refer to the „Garmin GNS 430W Pilot’s Guide and Reference“ (Revision H or later approved revisions).

GPS 430W Integrated GPS/NAV/COM System

The airplane is equipped with a GNS 430W integrated GPS Navigator, NAV receiver and COM transceiver. The GPS Navigator consists of a GPS receiver, a navigation computer and a Jeppesen NavData database, all contained in the GNS 430W control unit mounted in the center console of the instrument panel.

A VHF NAV receiver and tuner for receiving VHF omnirange (VOR), localizer (LOC) and glideslope (G/S) signals is also integrated into the control unit along with a VHF communications receiver.

The following paragraphs describe the GPS, NAV and COM functions of this unit.

For a complete description and full operating instructions, refer to the Garmin GNS 430W Pilot’s Guide and Reference.

GPS Navigator

The GNS 430W is capable of providing IFR enroute, terminal and approach navigation with position accuracies below 15 meters. In this installation only functions necessary for VFR operation are discussed. The system utilizes the Global Positioning System (GPS) satellite network to derive the airplane’s position (latitude, longitude and altitude).

The GPS-antenna is located behind the rear window in the center of the upper fuselage.

All GPS and navigator controls are accessible through the GNS 430W front control panel located in the center console. The panel includes function keys, power switches, status annunciators, a LCD-color display, two concentric selector knobs on each panel and a card slot for the Jeppesen NavData card.

The GPS Navigator is powered by 14 VDC through the NAV/GPS circuit breaker located on the right side of the instrument panel.

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The Jeppesen Navigation Database provides access to data on airports, approaches, and VOR and NDB frequencies.

North American and international databases are available. Database information is provided on a card that can be inserted into the card slot on the GPS unit. Subscription information is provided in a subscription package provided with each system. The Pilot in Command has to check the database for actuality prior to use (check with applicable national regulations).

Navigation Receiver (NAV)

The Garmin GNS 430W system includes an integrated navigation (NAV) receiver with VHF omnirange/localizer (VOR/LOC) and glideslope capability.

The VOR/LOC receiver receives on a frequency range from 108.000 MHz to 117.950 MHz with 50 KHz spacing.

The NAV receiver controls are integrated into the Garmin GNS 430W control mounted in the center console. The receiver control provides active and standby frequency indication, frequency memory storage and knob-operated frequency selection. IDENT audio output for VOR and LOC is provided to the audio system.

The NAV antenna is located within the horizontal stabilizer.

The navigation receiver is powered by 14 VDC through the Avionic Master switch and a NAV/GPS circuit breaker located on the right side of the instrument panel.

COM Transceiver (COM)

The Garmin GNS 430W system includes a digitally tuned integrated VHF communications transceiver. The transceiver and integrated controls are mounted in the Garmin GNS 430W unit. The transceiver receives all narrow- and wide-band VHF communication transmissions transmitted within a frequency range of 118.000 MHz to 136.975 MHz in 25.0 kHz steps (720 channels).

For European operations, the COM can be operator-configured for 8.33 kHz channel spacing (2280 channels).

The tuning controls are collocated with the NAV at the left side of the GNS 430W front panel. Frequency tuning is accomplished by rotating the large and small concentric knobs to select a standby frequency and then transferring the frequency to the active window. The COM frequency display window is at the upper left corner of the GNS 430W display.

The COM Antenna is placed at the fuselage.

The navigation receiver is powered by 14 VDC through the Avionic Master switch and a COM circuit breaker located on the right side of the instrument panel.

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8. HANDLING, SERVICE AND MAINTENANCE

There is no change regarding the information in the basic Pilot's Operating Handbook.

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