

**SECTION 9****Supplement AVE4****Garmin GMA 340 Audio System**

When the Garmin GMA 340 Audio Panel is installed in the AQUILA AT01, this Supplement is applicable and must be inserted in the Supplements Section (Section 9) of the Pilot's Operating Handbook. Information in this supplement either adds to, supersedes, or deletes information of the basic AQUILA AT01 Pilot's Operating Handbook.

Approved by:



Date:

13. Mai 03

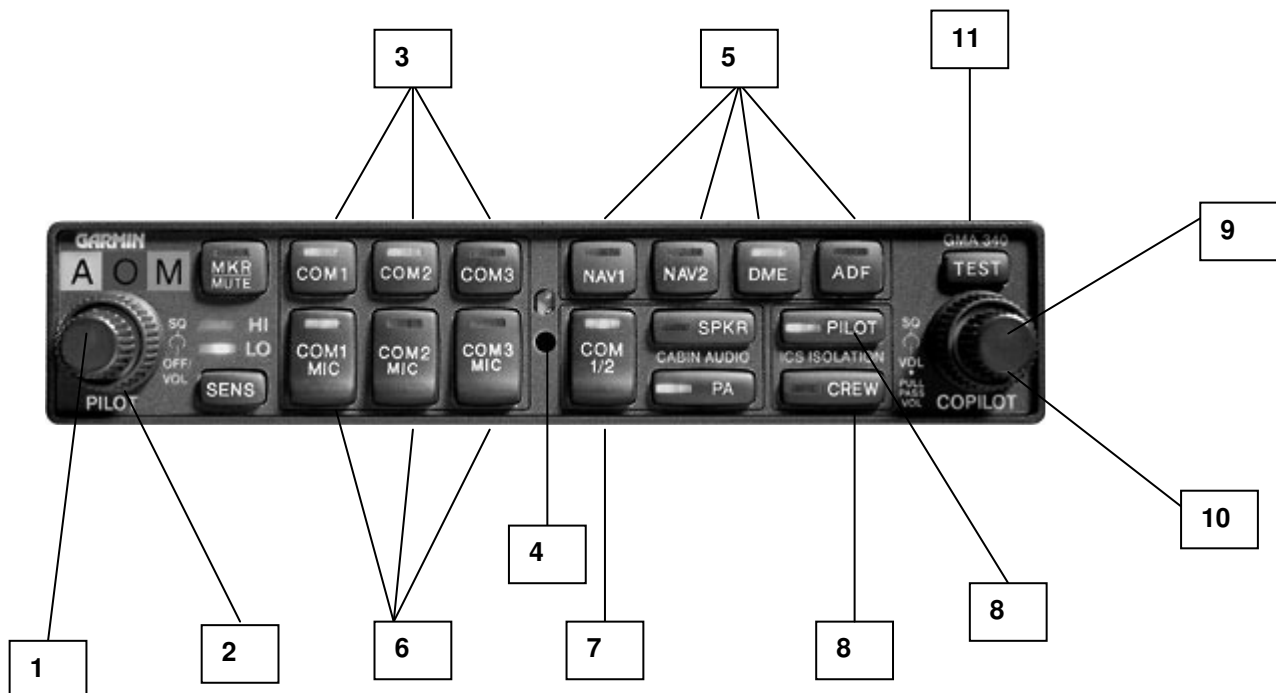
<i>Document No.:</i>	<i>Issue:</i>	<i>Revised Issue:</i>	<i>Date:</i>	<i>Page:</i>
FM-AT01-1010-100E	A.02	A.01	20.11.02	AVE4-1

1.0 General

This supplement provides detailed operating instructions for the Garmin 340 Audio Selector Panel/ Intercom System with integrated Marker Beacon function.

This supplement covers only the basic operating areas of the Audio Control Panel, which are necessary under VFR operation of the aircraft.

- Power ON / Fail Safe Operation
- Audio / Transceiver Selection
- Intercom (ICS)



1. Pilot Intercom Squelch (outer knob)
2. Power / Intercom volume (inner knob)
3. Transceiver Audio Select Buttons/LED`s
4. Photocell
5. Receiver Audio Select Buttons/LED`s
6. Transceiver Audio/ Transmit Selector Buttons/LED`s
7. Split COM Button/LED
8. Intercom Isolation Buttons (Pilot, Crew)
9. Copilot Intercom Squelch (outer knob)
10. Copilot / Intercom Volume (inner knob)
11. Indicator Test Button

Figure 1-Audio Control Panel

Document No.:	Issue:	Revised Issue:	Date:	Page:
FM-AT01-1010-100E	A.02	A.01	20.11.02	AVE4-2



2.0 Limitations

No change from basic handbook.

3.0 Emergency Procedures

In the event of an audio panel failure, the radio system will revert to COM1 for the pilot's mic and headphones and the pilot will have transmit and receive capability.

4.0 Normal Procedures

Refer to Section 7 – System description in this supplement for a complete description and operation of the Audio Control Panel.

5.0 Performance

No change from basic handbook.

6.0 Weight & Balance

No change from basic handbook.

<i>Document No.:</i>	<i>Issue:</i>	<i>Revised Issue:</i>	<i>Date:</i>	<i>Page:</i>
FM-AT01-1010-100E	A.02	A.01	20.11.02	AVE4-3



7.0 System Description

Power On and Fail Safe Operation

ON /OFF The Audio Control Panel is powered „off“ when the left inner knob (Pilot) is at the full CCW (counter-clockwise) position. Rotating the knob CW (clockwise) activates the unit.

ICS CW rotation beyond the „on“ detent increases pilot ICS (intercom system) volume.

Fail Safe Operation A fail-safe circuit connects the pilot`s headset directly with COM1 receiver in the event of a power failure to the audio control panel or the panel is switched „off“.

Test Pressing the TEST button illuminates all Panel LED`s full bright. During normal operation a photocell mounted at the approximate center of the control panel senses ambient light to allow automatic LED and annunciator intensity adjustment.

Audio/Tranceiver Selection

Audio selection is performed through the eight selector push buttons in the center of the Audio Control Panel. All audio selector push buttons are push-on, push-off types.

Selecting an audio source supplies audio to the headphones. Selected audio sources are indicated by illumination of the push-button switch.

Transceiver audio is selected by depressing COM1 or COM2 (if installed). When the audio source is selected using the COM1 and COM2 buttons, the audio source will remain active regardless of which transceiver is selected as the active MIC source.

Both transceiver audio and MIC (microphone) can be selected by depressing COM1 MIC or COM2 MIC (if installed). Both pilot and copilot are connected to the selected transceiver and both have transmit and receive capabilities. Pilot and copilot must use their respective Push-To-Talk (PTT) switch to transmit. The intercom will function normally. During the transmissions the active transmitter`s COM MIC button LED blinks at a 1 Hz rate indicating active transmission.

Split COM Pressing the COM ½ button activates the split com function. When split com is active, COM1 is the pilots mic/audio source and COM2 is the copilot mic/audio source. The pilot has transmit and receive

<i>Document No.:</i>	<i>Issue:</i>	<i>Revised Issue:</i>	<i>Date:</i>	<i>Page:</i>
FM-AT01-1010-100E	A.02	A.01	20.11.02	AVE4-4



capabilities on COM1 and the copilot has transmit and receive capabilities on COM2. The pilot and the copilot can still listen to COM3, NAV1,NAV2, DME, ADF and MKR. Pressing the COM ½ button a second time will deactivate the split com function.

COM Swap Funktion

Com swap mode is not available in this installation

Navigation receiver selection

Navigation receiver audio is selected by depressing NAV1, NAV2 (if installed), MKR, DME (if installed), or ADF (if installed) will select that radio or device as the audio source. Audio level of navigation receivers is controlled through the selected radio volume control.

Speaker Output not available in this installation

PA Funktion not available in this installation

Auxiliary Entertainment Inputs not available in this installation

Intercom-System (ICS)

Intercom controls are located towards the leftside of the Audio Control Panel. The controls consist of a volume control for the pilot and copilot , a squelch control and an intercom mode selector switch.

Knob control is as follows:

Left Inner Knob ON/OFF Power control and pilot ICS volume. Full CCW is OFF position (Click).

Left Outer Knob Pilot ICS Mic VOX level. CW rotation increases the amount if mic audio (VOX level) required to break squelch. Full CCW is the „hot mic“ position.

Right Inner Knob When pushed in, rotation controls copilot ICS volume , when out , rotation controls passenger ICS volume. (not installed).

<i>Document No.:</i>	<i>Issue:</i>	<i>Revised Issue:</i>	<i>Date:</i>	<i>Page:</i>
FM-AT01-1010-100E	A.02	A.01	20.11.02	AVE4-5

Right Outer Knob

Copilot and passenger Mic VOX level. CW rotation increases the amount of MIC audio (VOX level) required to break squelch. Full CCW is the „hot mic“ position.

Intercom Modes

The GMA 340 Audio Panel can be operated in three different Intercom modes, PILOT; CREW and ALL, which can be activated by the buttons PILOT or CREW (CREW=ALL in this installation)

Mono/Stereo Headset

If monoaural headsets are plugged into stereo jacks that do not have a switch installed, the unit will not be damaged.

If the pilot uses a monoaural headset in a stereo jack, no audio will be heard during failsafe operation. When using a monoaural headset, the pilots jack must be equipped with a stereo/mono switch and it must be set to the „mono“ position for proper failsafe operation.

Marker Beacon Receiver

ILS Approaches are not performed under VFR-operation.

Function for VFR-operation not in use.

Audio Panels GMA 340 Circuit Protective Devices.

The electrical circuit of the Audio Panel GMA 340 is protected by a resettable circuit breaker „INTERCOM“ installed in the instrument panel.

<i>Document No.:</i>	<i>Issue:</i>	<i>Revised Issue:</i>	<i>Date:</i>	<i>Page:</i>
FM-AT01-1010-100E	A.02	A.01	20.11.02	AVE4-6