



USER GUIDE

GMA340 Audio Panel

Operating instructions for the RHSimTech replica Garmin GMA340-style audio panel — COM/NAV audio routing, microphone select, intercom, marker beacons, and volume controls.

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Hand-built avionics for X-Plane & MSFS

SIMTECH GMA340

A replica Garmin GMA340-style audio panel for X-Plane / MSFS. This guide covers day-to-day operation once the panel is wired up and connected to SimLink.

SECTION 01

Panel Overview

The GMA340 routes audio from the aircraft's radios and navigation sources to the headset and speaker. Every button on the panel corresponds to an audio source, a microphone input, or an intercom/speaker function. The currently active selections are indicated by the illuminated buttons.

All button states are sent to the simulator, and the simulator determines which sources are actually heard. The panel faithfully reflects what the simulator reports back.

SECTION 02

Power

The panel is powered by a rotary switch built into the **Pilot volume knob** — turn it clockwise from the off position to power the panel on. Turning it back off silences all outputs and extinguishes all indicator lights. The panel also powers down automatically if the simulator's avionics master is switched off, and powers back up when it is restored.

When the panel first powers up, all indicator lights illuminate briefly as a lamp test before returning to their normal states.

SECTION 03

COM Audio Routing

Each COM radio has a dedicated listen button and a separate microphone select button:

BUTTON	FUNCTION
COM1	Enables COM1 audio in the headset
COM2	Enables COM2 audio in the headset
COM3	Enables COM3 audio in the headset

COM1 MIC	Selects COM1 as the active transmit radio
COM2 MIC	Selects COM2 as the active transmit radio
COM3 MIC	Selects COM3 as the active transmit radio
COM1/2	Simultaneous COM1 and COM2 monitoring

Listening to a COM radio and transmitting on it are independent selections. You can listen to COM1 while transmitting on COM2 if your procedure requires it.

Simulator dependent: COM3 and COM3 MIC are not supported in all simulators or aircraft models. If COM3 buttons have no effect, your current aircraft may not have a third COM radio.

SECTION 04

NAV & Other Audio Sources

BUTTON	FUNCTION
NAV1	Enables NAV1 audio (VOR/ILS identifier) in the headset
NAV2	Enables NAV2 audio in the headset
ADF	Enables ADF audio (NDB identifier) in the headset
DME	Enables DME audio in the headset
SPKR	Routes all active audio to the cockpit speaker in addition to the headset
PA	Passenger address — routes intercom audio to the cabin

Simulator dependent: SPKR and PA may have no audible effect depending on your simulator and aircraft model. Button states are sent to the sim but whether they change the audio output is determined by the aircraft's audio system implementation.

SECTION 05

Intercom

BUTTON	FUNCTION
PILOT	Enables pilot intercom position
CREW	Enables crew/copilot intercom position

PILOT and CREW control which intercom positions are active. In a single-pilot aircraft this is typically left at PILOT only.

Simulator dependent: intercom routing via PILOT and CREW may have no audible effect in most simulators. Button states are reported to the sim, but full intercom behaviour depends on the aircraft model.

SECTION 06

Marker Beacon

The marker beacon section is on the left side of the panel. Three indicator lights show which type of beacon the aircraft is currently over:

LIGHT	BEACON TYPE
O	Outer marker — flashes blue in the real aircraft
M	Middle marker — flashes amber
A	Inner (airways) marker — flashes white

The **MKR MUTE** button silences the aural marker beacon tone while leaving the visual indicators active.

The **SENS** button (Sensitivity) toggles the marker beacon receiver between high and low sensitivity — use low sensitivity close to the marker site to avoid premature triggering, and high sensitivity at greater distances. The active level is shown by the **HI** or **LO** indicator.

Simulator dependent: SENS switching may have no effect in most simulators. The HI/LO indicator will change, but whether this alters the marker beacon trigger range depends on whether your simulator models marker receiver sensitivity.

SECTION 07

Volume Controls

Two physical volume knobs are provided:

- **Pilot volume** — sets the headset level for the pilot position. Also incorporates the power switch.
- **Copilot volume** — sets the headset level for the copilot position

SECTION 08

TEST Button

Pressing **TEST** sends a test request to the simulator. The simulator handles the lamp test — illuminating all indicator lights briefly before returning to the current panel state. The exact behaviour depends on the aircraft model's implementation of the audio panel test function.

SECTION 09

Startup Behaviour

When the panel is powered on and SimLink is not yet connected, the panel runs a short animation on the indicator lights. During this animation:

- Pressing **TEST** cancels the animation and holds all indicator lights on, so you can see the panel is powered while waiting for the simulator to connect
- Pressing **TEST** a second time exits this hold state and returns the panel to dark

Once SimLink connects, the animation (or hold state) ends automatically and normal operation begins.

SECTION 10

Troubleshooting Quick Reference

SYMPTOM	LIKELY CAUSE
All lights off, no response	Check panel power switch and display connection
Buttons do nothing	SimLink not connected
Indicator lights stuck on after power-up	Panel is in TEST hold mode — press TEST once to exit
Marker lights don't match the sim	Confirm SENS level matches your distance from the marker site

Covers the current SimTech GMA340 build.
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