GARMIN GMA 1347/1360D AUDIO SYSTEM - ADJUSTMENT/TEST

1. General

A. This section gives the adjustment and test procedures for the GMA 1347/1360D Audio system. For a general overview of the GMA Audio system refer to Garmin GMA 1347/1360D Audio System - Description and Operation.

2. Garmin GMA Audio System Operational Check

A. Tools and Equipment

NOTE: For the supplier publication part number and manufacturer data, refer to the Introduction - Supplier Publication List.

(1) Tools and Equipment

- Aviation Headsets (2-4).

(2) Special Consumables

- None.

(3) Reference Material

- Garmin GMA 1347/1360D Audio System - Description and Operation
- Chapter 34, Garmin G1000 Integrated Avionics System - Adjustment/Test.

B. Prepare the Airplane

(1) Make sure that the switches that follow are in the OFF position:

(a) BATTERY switch.

(b) EXTERNAL POWER switch.

(c) AVIONICS 1 and 2 switches.

(2) Connect external electrical power to the airplane.

(a) Adjust the ground power unit (GPU) to 28Vdc, +0.5 or -0.5 Vdc.

(3) Make sure that all the circuit breakers on the Avionics circuit breaker panel are engaged.

(4) Put the switches that follow in the positions given:

(a) External POWER switch to the BUS position.

(b) BATTERY switch to the ON position.

(c) Avionics 1 and 2 switches to the ON position.

(5) After the Garmin G1000 system is fully initiated refer to Chapter 34, Garmin G1000 Integrated Avionics System - Adjustment/Test and do the steps that follow:

(a) Do the Architecture Verification check and make sure all systems are serviceable.

(b) Make sure that the correct software and configuration have been installed.

(6) Plug the headsets in the pilots, copilots and two passengers headset jacks.

C. Headset Microphone and Isolation Operational Test.

NOTE: If the intercom option is not installed then ignore references to passengers headsets in this test.

NOTE: If the intercom option is installed with the four passenger configuration. It may be easier to test only two of the passenger headset jacks at a time while doing the Isolation operational check.

(1) Speak into the pilots headset microphone and make sure that the pilots voice is reproduced in the copilots and both passenger's headsets.

(2) Speak into the copilots headset microphone and make sure that the pilots voice is reproduced in the copilots and both passenger's headsets.

(3) Speak into one of the passengers headset microphone and make sure that the pilots voice is reproduced in the copilots and both passenger's headsets.

(4) Speak into the other passengers headset microphone and make sure that the pilots voice is reproduced in the copilots and both passenger's headsets.

(5) On the audio panel, push the PILOT ICS isolation button and make sure that the pilot cannot hear the copilots or either passenger's voice in his headset.

(6) On the Audio Panel, push the PILOT and COPILOT ICS isolation buttons, to deselect the pilot isolation and isolate the copilot only.
  (a) Make sure that the copilot cannot hear the pilots or either passenger's voice in his headset.
(7) On the Audio Panel, push the PILOT ICS isolation button again to isolate the flight crew and make sure that:
  (a) The pilot and the copilot each cannot hear the passenger's voice in their headsets.
  (b) The pilot and copilot can hear each other.
  (c) The passenger's can hear each other.
(8) On the audio panel, push both the PILOT and COPILOT ICS isolation buttons to return the system to its original setting.
(9) Use the passenger headset jacks not used before and do the above steps again.

D. Isolation Operational Test GMA 1347/1360D

(1) Make sure the CREW ICS and the PASS ICS are selected on both GMA 1 and GMA 2.
(2) Speak into the pilots headset microphone.
  (a) Make sure the pilot's voice is heard by both copilot and passengers headsets.
(3) Speak into the copilot's headset microphone.
  (a) Make sure the copilot's voice is heard by both pilot and passengers headsets.
(4) Speak into one of the passenger headset microphone.
  (a) Make sure the passenger's voice is heard by the pilot, copilot and other passenger headsets.
(5) Push the PASS ICS button on both audio panels and make sure that:.
  (a) The PASS ICS lights turn off.
  (b) The pilot and copilot can hear each other.
  (c) The pilot and the copilot each cannot hear the passenger's voice in their headsets.
(6) On the Audio Panel, push the Crew ICS and make sure that:
  (a) That the Crew ICS is not illuminated.
  (b) The pilot and copilot cannot hear each other.
  (c) The pilot and copilot cannot hear the passenger's voice in their headsets
(7) Push the CREW ICS button then the PASS ICS button to return the system to normal operations.

NOTE: For GMA 1347, if the four person intercom system is installed in the passenger cabin. It is required to do the above isolation tests with the other two passenger headphone jacks being tested unless the mechanic was able to do them all at the same time.

E. Audio Panel Fail-Safe Mode Operational Test.

(1) Tune COM 1 to a known good local receive frequency.
  (a) Make sure that the COM 1 frequency is heard in all headsets.
(2) Disengage the AUDIO 1 circuit breaker on the Avionics circuit breaker panel and make sure that the audio panel shuts down.
  (a) Make sure that the selected COM 1 frequency is still heard on the pilot's headset.
(3) Engage the AUDIO 1circuit breaker on the Avionics circuit breaker panel and make sure that the audio panel returns to normal operation.

NOTE: If a second Audio Panel is installed, it is required to do the steps below.

(4) Tune COM 2 to a known good local receive frequency.
  (a) Make sure that the COM 2 frequency is heard in all headsets.
(5) Disengage the AUDIO 2 circuit breaker on the Avionics circuit breaker panel and make sure that the audio panel shuts down.
  (a) Make sure that the selected COM 2 frequency is still heard on the copilot's headset.
(6) Engage the AUDIO 2 circuit breaker on the Avionics circuit breaker panel and make sure that the audio panel returns to normal operation.

F. Passenger Address System Operation Test.

(1) Push the PA button on the Audio panel.

(2) Push the PTT switch on either Control Wheel and speak through the Pilot's headset Microphone.

(a) Make sure that the Pilot's voice is heard through the PA speakers in the cabin.

(3) Push the PTT switch on the copilot's Control Wheel and speak through the copilot's headset Microphone.

(a) Make sure that the copilot's voice is heard through the PA speakers in the cabin as well as the pilot's and passengers headsets.

(4) Push the PA button on the Audio panel to deselect the PA system.

G. Put the Airplane Back to its Initial Condition.

(1) Put the switches that follow to the OFF position:

(a) BATTERY switch.

(b) EXTERNAL POWER switch.

(c) AVIONICS 1 and 2 switches.

(2) Disconnect external electrical power from the airplane.