

CHAPTER 12. AIRCRAFT AVIONICS SYSTEMS

SECTION 1. AVIONICS EQUIPMENT MAINTENANCE

12-1. GENERAL. There are several methods of ground checking avionics systems.

a. Visual Check. Check for physical condition and safety of equipment and components.

b. Operation Check. This check is performed primarily by the pilot, but may also be performed by the mechanics after annual and 100-hour inspections. The aircraft flight manual, the Airman's Information Manual (AIM), and the manufacturer's information are used as a reference when performing the check.

c. Functional Test. This is performed by qualified mechanics and repair stations to check the calibration and accuracy of the avionics with the use of test equipment while they are still on the aircraft, such as the transponder and the static checks. The equipment manufacturer's manuals and procedures are used as a reference.

d. Bench Test. When using this method the unit or instrument is removed from the aircraft and inspected, repaired, and calibrated as required.

e. Electromagnetic Interference (EMI). For EMI tests, refer to chapter 11 paragraph 11-107 of this AC.

12-2. HANDLING OF COMPONENTS. Any unit containing electronic components such as transistors, diodes, integrated circuits, proms, roms, and memory devices should be protected from excessive shocks. Excessive shock can cause internal failures in any of these components. Most electronic devices are subject to damage by electrostatic discharges (ESD).

CAUTION: To prevent damage due to excessive electrostatic discharge, proper gloves, finger cots, or grounding bracelets should be used. Observe the standard procedures for handling equipment containing electrostatic sensitive devices or assemblies in accordance with the recommendations and procedures set forth in the maintenance instructions set forth by the equipment manufacturers.

12-3.—12-7. [RESERVED.]