GARMIN DISPLAY UNIT - REMOVAL/INSTALLATION

1. General

A. This section gives the removal and installation procedures for the Garmin 1040A and Garmin 1050A Display Units (GDU). There are three GDU's installed in the airplane. The pilot on the left and copilot on the right side of the instrument panel each have a GDU installed. They are each configured as a primary flight display, pilot (PFD 1) and copilot (PFD 2). The multifunction display (MFD) is installed in the center of the instrument panel. For an general overview of the GDU refer to Garmin G1000 Integrated Avionics System - Description and Operation.

(1) The GDU's are interchangeable to the PFD 1, PFD 2 and MFD positions.

(2) The removal and installation procedures for the GDU 1040A and GDU 1050A are typical unless otherwise noted.

B. The G1000 Integrated Avionics System uses different GDUs based on Airplane Software/Configuration. Make sure to read each section carefully, some software configuration use different GDU's and are NOT interchangeable between software versions. Become familiar with the installed software version, refer to Chapter 34, G1000 Integrated Avionics System - Description and Operation. The procedures in this section are typical for the G1000 v.767.XX Family and the G1000 NXi software configuration unless otherwise noted in this document.

(1) The G1000 Software Version v.767.XX uses the GDU-1040A.

(2) The G1000 NXi Software uses the GDU-1050A..

2. Tools and Equipment

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

A. Tools and Equipment

- None.

B. Special Consumable's

- None.

C. Reference Material

- Chapter 20, Electrical Bonding - Maintenance Practices
- Chapter 20, Electrostatic Discharge Components - Maintenance Practices
- Garmin G1000 Integrated Avionics System - Description and Operation
- Garmin G1000 Integrated Avionics System - Adjustment/Test.

3. Setup

A. Prepare the Airplane

(1) Make sure that the BATTERY switch is set to the OFF position.

(2) Make sure that the AVIONICS switches are set to the OFF position.

(3) Disconnect external electrical power from the airplane.

(4) Disengage the applicable circuit breaker given in Table 401.

Table 401. Circuit Breakers

Circuit Breaker Name	Circuit Breaker Location
PFD 1	Avionics Circuit Breaker Panel
PFD 2	Avionics Circuit Breaker Panel
MFD	Avionics Circuit Breaker Panel

4. Garmin Display Unit Removal.

CAUTION: If possible, do not touch the lens. The GDU lens has a layer of anti-reflective material which is very sensitive to skin oils, waxes and abrasive cleaners.

CAUTION: Do not use cleaners that contain ammonia. Ammonia will cause damage to the anti-reflective material. It is very important to clean the lens with a clean, lint-free cloth and an eyeglass lens cleaner that is specified as safe for anti-reflective material.

A. Remove the Garmin Display Unit (Refer to Figure 401).

NOTE: The removal procedures for each of the three GDU's is typical.

CAUTION: Be careful when you remove or install electronic components. Electronic components are extremely sensitive to electrostatic discharge damage. Such damage cannot be seen by visual inspection and can make the component unserviceable. Refer to Chapter 20, Electrostatic Discharge Components - Maintenance Practices and the Model 208 Wiring Diagram Manual Chapter 20, Electrical Safety Precautions - Description and Operation for procedures to correctly work with electronic components.

(1) Loosen the fasteners at each corner of the GDU.

(2) Carefully pull the GDU out of the instrument panel sufficiently to get access to the electrical connector (PFD 1 (PI401), PFD 2 (PI402), MFD (PI403), behind it.

(3) Disconnect the electrical connector from the GDU.

(4) Carefully remove the GDU from the airplane.

5. Garmin Display Unit Installation

CAUTION: Be careful when you remove or install electronic components. Electronic components are extremely sensitive to electrostatic discharge damage. Such damage cannot be seen by visual inspection and can make the component unserviceable. Refer to Chapter 20, Electrostatic Discharge Components - Maintenance Practices for procedures to correctly work with electronic components.

A. Install the Garmin Display Unit.

NOTE: The Installation procedures for each of the three GDU's is typical.

(1) If installing the GDU 1050A, secure a cap or cover over the external coaxial aux video input.

NOTE: The GDU 1050A has an external coaxial aux video input connection that is NOT used on G1000 software configurations.

(2) Carefully put the GDU near the opening in the instrument panel.

(3) Connect the electrical connector (PFD 1 (PI401), PFD 2 (PI402), MFD (PI403), to the GDU.

(4) Carefully put the GDU in its correct position in the opening on the instrument panel.

(a) Make sure that the fasteners are oriented with the alignment marks in the vertical position.

(5) Turn each of the fasteners a 1/4 turn clockwise.

(a) When locked, the alignment marks are in the horizontal position.

(6) Do an electrical bond check (Type I) between the GDU and the airplane structure. Refer to Chapter 20, Electrical Bonding - Maintenance Practices.

(7) Engage the circuit breaker(s) given in Table 401.

6. Garmin Display Unit Post-Maintenance Checks

A. Do the Garmin Display Unit Post-Maintenance Checks.

(1) Do the G1000 Baseline Software/Configuration Load. Refer to, Garmin G1000 Integrated Avionics System - Adjustment/Test.

(2) Do the G1000 Architecture Verification Check. Refer to, Garmin G1000 Integrated Avionics System - Adjustment/Test.

(3) Do the Fuel Quantity System Calibration and Check Setup (Airplanes with CAN bus type fuel level sensors).

7. Closeout

A. Put the Airplane Back to its Initial Condition.

(1) None.

Figure 401 : Sheet 1 : Garmin Display Unit Installation