



18781 County Road 22
Glenwood, MN 56334
800-443-2136; 952-224-4425
www.Tanisaircraft.com

INSTRUCTION: TN02837
Rev. SEP-21-2011 DNE
Approval: _____

INSTALLATION INSTRUCTION TANIS SINGLE PLUG POWER DOOR, TD02837

General overview:

The Tanis Power Plug Door is for use with a Tanis flush mount power plug, TP02070-M or other Tanis approved plugs. Assembly is designed for installation in sheet metal and composite panels.

Material descriptions:

The aluminum door assembly consists of .050" backing plate with the door and latch hardware uninstalled. It is designed for installation in aluminum skins of .050" or less, and non-structural composite panels when following airframe manufacturer's instructions and Federal Aviation Administration (FAA) Title 14 of The Code of Federal Regulations (14 CFR) Advisory Circulars (AC). Power plug is supplied separately. The backing plate, hinged door, and latch components are supplied unattached to allow for a wider range of installation options. The installing authority is to supply appropriate rivets, sealers, and finish.

Pre-Installation:

The installation is to be completed by appropriately rated and certified mechanics. Instructions are provided as guidance only. Final judgment regarding the proper installation and inspection details is the responsibility of the mechanic and inspection authority releasing the aircraft for service.

The installing authority should determine that the added mass and use of a ground/shore power cord will not cause flexing and cracking of the skin, ref. AC 43:13-2B Chapter 1.

FAA approval is required before installing this part in any structural location, through the completion of a Form 337 or other approved method.

Before penetrating composites reference airframe manufacturer procedure for proper penetration and potting procedures, and AC 43.13-1B Chapter 3. Do not buck rivets in composite panels or structures. Use only the inner or outer ring of rivet holes in backing plate. Use appropriate rivets and bonding compound. This may include Monel rivets, and a two part polysulfide fuselage sealant such as ProSeal or equivalent B-2 material, MIL-S-8802E, Type II, Class B-2.

For installation in aluminum sheet metal, this part conforms to AC 43.13-1B Chapter 4, Section 4. Use appropriate rivets per installation. For structural installations, the rivet layout is patterned after a small patch, similar to Figure 4.16 of AC 43.13-1B. For non-structural installations, it is acceptable to use only the inner rivet pattern on the backing plate. The door assembly can be installed using flush rivets.

Installation of this part in a cowl is a major alteration, reference 14 CFR 43 Appendix A sec. A43.1 (a) (viii).

If there are questions regarding the installation location, contact Tanis Aircraft Products, the airframe manufacturer, FAA, or approved representative.

Installation:

1. The door assembly can be installed in two different configurations, mounted to the backing plate or on the surface of the aircraft skin sandwiching the aircraft skin between the backing plate. It is suggested that fasteners for the power plug and receptacle remain accessible for future maintenance.
2. Once an installation location is chosen and verified, cut the opening for the door or plug mounting holes (Figure 1).
3. Verify the fit of the assembly on aircraft, (Figure 2), and make corrections as required.
4. Drill two holes from the backside, Cleco the unit in place, and complete drilling of rivet holes.
5. Remove the assembly, de-bur all holes.
6. Prep and prime assembly and installation site.
7. Rivet the assembly in place, install fastener stud and receptacle.
8. Finish/paint required.

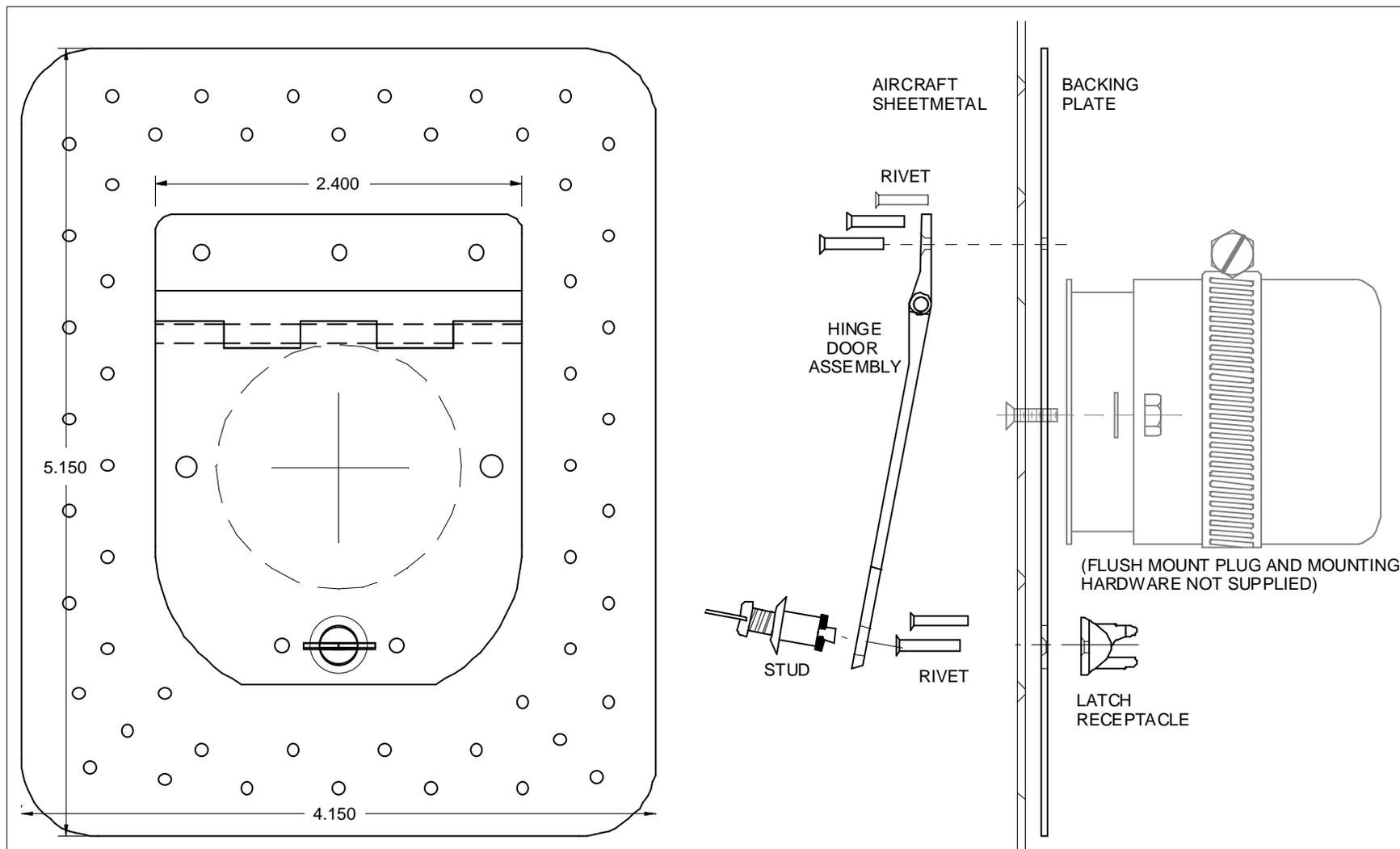


Figure 1

Figure 2

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