

DESIGN INSTALLATION SPECIFICATION
P/N 97080017-9
DIGITAL ADAPTOR

Skylight Avionics
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DOC # 01010009, REV:NEW, Date: 01/17/01

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i. OPERATING INSTRUCTIONS

The Unit, by it's design has no independent operating instructions. Being an integral part of the on board VHF NAV System, the operating instructions for that system will need to be followed.

ii. EQUIPMENT LIMITATIONS

The unit design is limited to converting CSDB ILS Address 21, and 22 to ARINC 429 Labels 034, 173 and 174. The adapter being a Digital to Digital Adapter is limited to the outputs of the VHF NAV for the update rates of the output bus.

The design of the unit is such as to cause minimal degradation of the input signal and to convert the data in the fastest and most accurate means possible.

iii. INSTALLATION PROCEDURES

1. INTRODUCTION

This section contains information relative to the installation of the adapter to assure satisfactory performance of the unit. (See Sections "6" and "7" for detailed mechanical and wiring diagrams.)

2. UNPACKING AND INSPECTING EQUIPMENT

After unpacking the unit, make a visual inspection of the unit for evidence of damage incurred during shipment. If claim for damage is to be made, save the shipping container to substantiate the claim.

3. PREINSTALLATION CHECK

Perform a continuity and power check on the wiring harness before connecting equipment.

4. POWER REQUIREMENTS

The adapter operates from a standard 27.5 VDC provide circuit protection with an in line 1 AMP breaker on the 27.5 VDC

5. POST INSTALLATION CHECK

There is no in-aircraft adjustment required for the unit. All alignment and adjustment procedures are accomplished during bench maintenance. Follow the manufactures check out procedures of the on board systems, to determine indications being driven by the unit are accurate.

6. PREFLIGHT CHECK

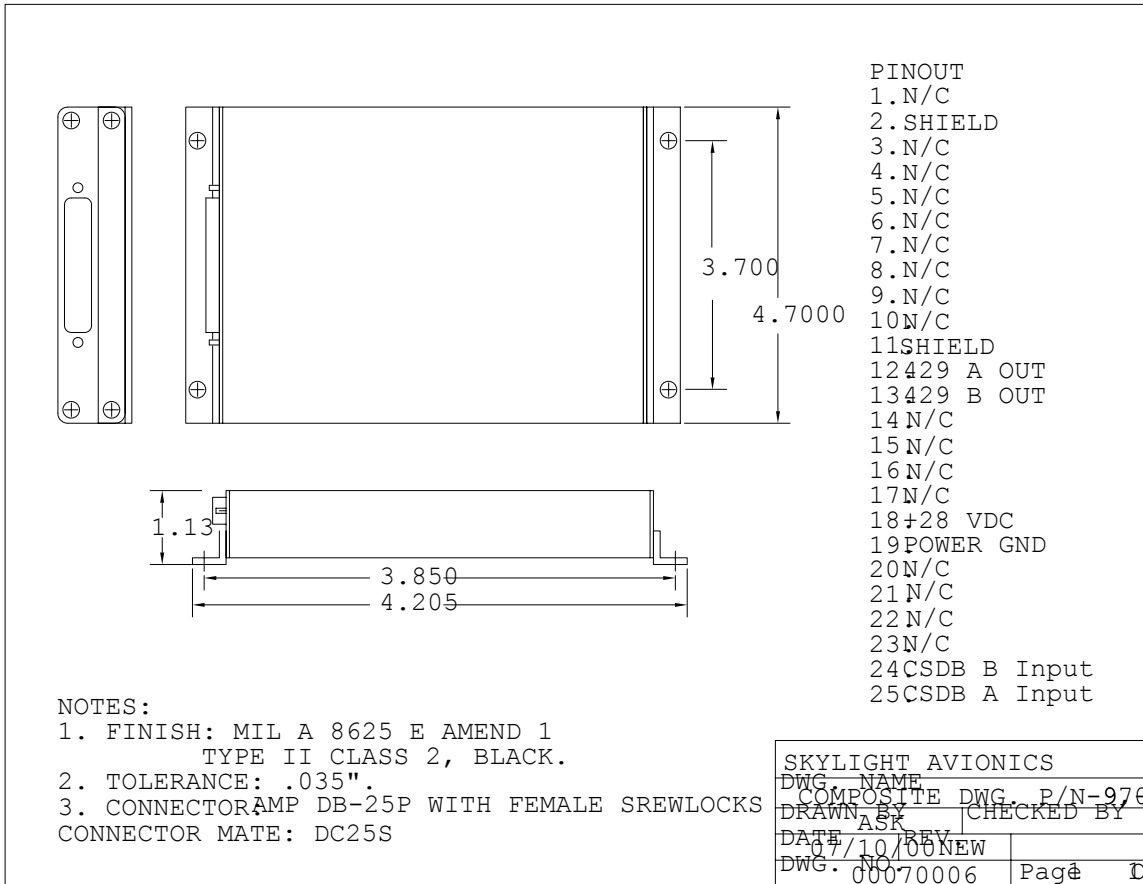
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iv. INSTALLATION DIAGRAM

The adapter is designed for flat mounting anywhere on board the aircraft, pressurized or unpressurized compartments. The unit has four (4) mounting holes for number (6) size screws.
 (NOTE: Screws and other miscellaneous mounting hardware are NOT included with unit.

MECHANICAL DRAWING



Unit Connector - DB-25P, Mate - DB-25S
 Mechanical Drawing of P/N 97080017-9
 (Illustration iv-1)

vi. SPECIFICATIONS

SPECIFICATION

CHARACTERISTICS

Physical Dimensions:

Height	1.130"
Length	4.205"
Width	4.7"
Weight	1 lb.

Temperature Range

Start Up	-20 C to +70 C
Operation	-40 C to +70 C
Storage	-55 C to +85 C

Altitude 50,000 ft.

Power Requirements 28 VDC @ .3A Nominal

Digital Inputs CSDB Address 21 and 22

Accuracy +/- LSB of Input

ARINC 429 Outputs Labels: 034, 173 and 174.

Bits	
1-8	Label 034
9-10	SDI 0
11-13	PAD
14	ILS MODE, 1 = ILS, 0 = VOR derived from address 21
15-17	Pad Low
18-29	CANNED 108.1 FREQ.
30-31	Pad Low
32	Parity = Odd

Limitations: Limited to the Manufactures specifications of the units making up the interface

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vii. MAJOR COMPONENT

Equipment Supplied

1. Part Number 97080017-9

Equipment Required But Not Supplied

- | | |
|-----------------------------|--------------------------------|
| 4 Standard Mounting Screws | Determined By Install |
| 1 Connector Standard DA 25S | AMP P/N 205208-1 or equivalent |
| 1 Back Shell with retainer. | AMP P/N 745121-2 or equivalent |

Interconnect Block Diagram



(Illustration vii-1)