

DESIGN SPECIFICATION # 550-2000-R1
Model AHRS-500 P/N 550-2000
ARINC 407 TO ARINC 429 ADAPTOR
CTRL # 96060006 10/17/96

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i. OPERATING INSTRUCTIONS

The Model AHRS-500, being a data format converter has no independent operating instructions. Being an integral part of the ADF system, the operating instructions for that system will need to be followed.

ii. EQUIPMENT LIMITATIONS

The AHRS-500 Adapter is limited to only being a adapter of an ARINC 407 synchro output to ARINC 429. The ADF MODE Discrete, disables the transmitter with an input of 28VDC.

The design of the AHRS-500 is such as to cause minimal degradation of the input signal and to convert the data in the fastest and most accurate means possible.

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iii. INSTALLATION PROCEDURES

1. INTRODUCTION

This section contains information relative to the installation of the, AHRS-500 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 AHRS-500 operates from a standard 27.5 Volt DC aircraft power source, Provide circuit protection with an in line 1 AMP breaker on the 27.5 VDC. Aircraft AC is used for reference only.

5. POST INSTALLATION CHECK

There is no in-aircraft adjustment required for the AHRS-500. All alignment and adjustment procedures are accomplished during bench maintenance.

6. PREFLIGHT CHECK

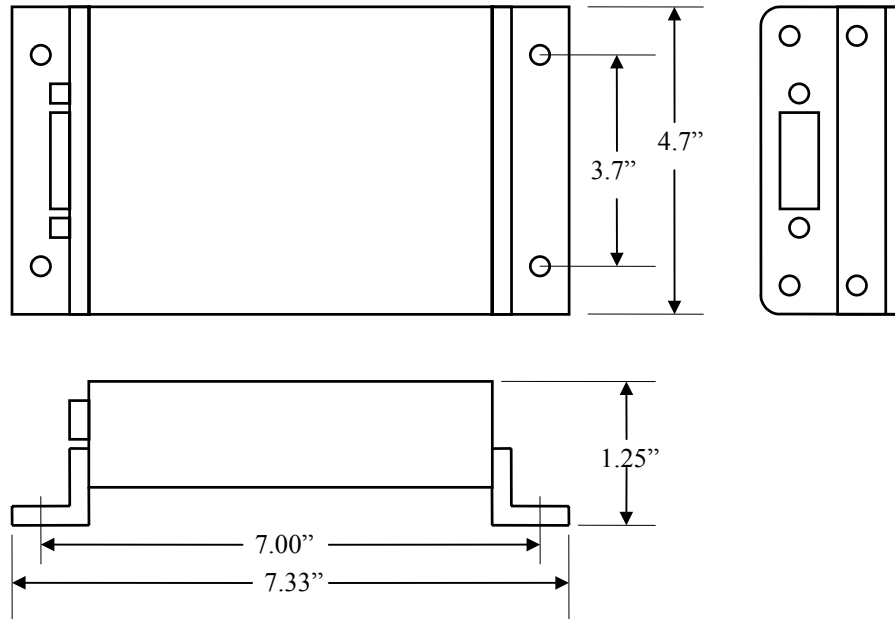
Follow the manufactures check out procedures of the on board systems, to determine indications being driven by the AHRS-500 are accurate.

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iv. INSTALLATION MECHANICAL DIAGRAMS

The AHRS-500 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 the AHRS-500.

MECHANICAL DRAWING

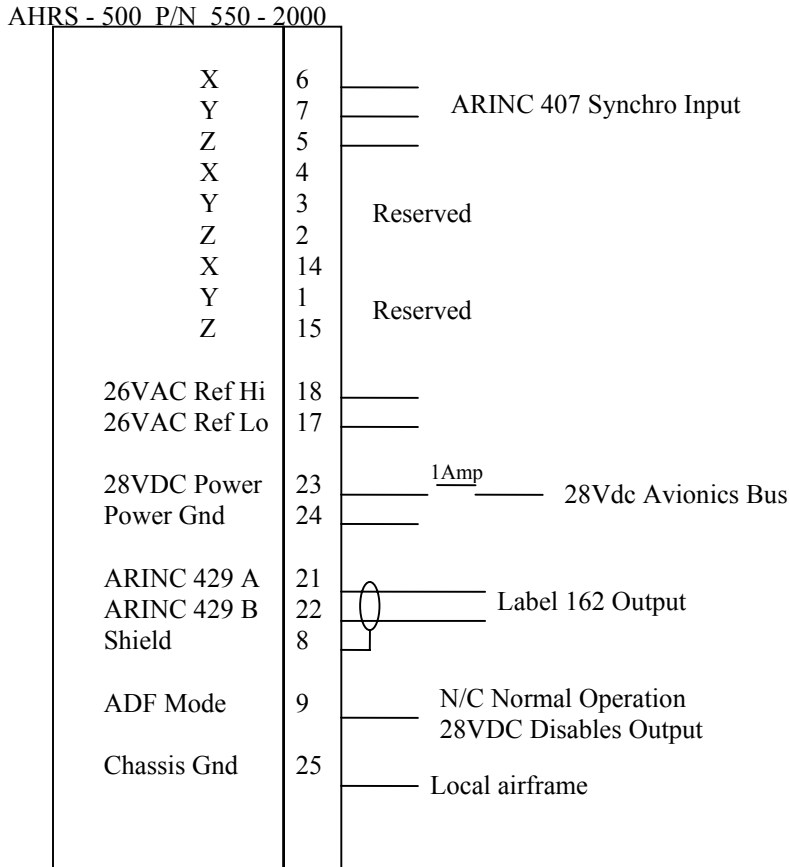


Unit Connector - DA25P, Mate - DA25S

Mechanical Drawing of AHRS-500 (Illustration iv-1)

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v. INSTALLATION ELECTRICAL



AHRS-500 P/N 550-2000 Pin out (Illustration v-1)

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vi. MAJOR COMPONENT

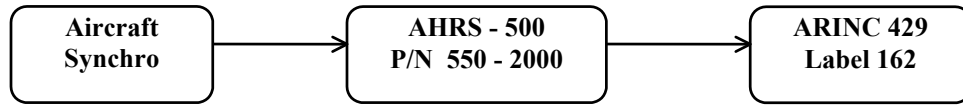
Equipment Supplied

1. Model AHRS-500 Part Number 550-2000

Equipment Required But Not Supplied

- | | |
|-----------------------------|---|
| 4 Standard Mounting Screws | Determined By Install |
| 1 Connector Standard DA 25S | (Standard 25 pin male screw retainer.) |

Interconnect Block Diagram



(Illustration vi-1)

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vii. SPECIFICATIONS

SPECIFICATION	CHARACTERISTICS
Physical Dimensions:	
Height	1.25"
Length	7.35"
Width	4.75"
Weight	1.00 lbs
Temperature Range	
Start Up	-20 C to +70 C
Operation	-40 C to +70 C
Storage	-55 C to +85 C
Altitude	57,000 ft.
Power Requirements	28 VDC @ .5AMP Peak .3 AMP AC (REFERENCE ONLY)
Inputs	ARINC-407 Synchro (XYZ & 26 VAC Ref.) ADF MODE Discrete (28VDC = OFF)
Outputs	ARINC 429 (Label 162) Range +/-180° Resolution 16 bits .0055° Accuracy +/-12min
Limitations	Limited to the Manufactures specifications of the inputs