SANDIA aerospace

Installation Manual

AIS 200B-35

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Record of Revisions

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SECTION 1
General Description

1.1 Introduction

This Manual describes the installation of the AIS 200B-35 Switching Module. It is intended for use by FAA certified repair stations and original equipment manufacturers (OEM's) to install the units and includes both mechanical and electrical installation information. The installer should insure that the Switching Modules are operating according to their intended function.

1.2 Product Description

The AIS 200B-35 is a 20 pole signal level switching units for use with Nav systems that share the aircraft HSI/CDI's OBS functions. The contact switching rating is limited by the circuit board track current capacity to 1.0 Amps. The AIS 200B has a revisionary relay that selects the LOC signal for display on the HSI/CDI whenever a LOC channel is selected in the NAV unit.

1.2.1 Product Variations

The Model AIS 200B-35, Sandia Part Number 306433-00 is a direct fit and function replacement for the AIS 200-35 and AIS 200A-35. It uses 10 relays in a series/parallel arrangement to provide the same 20 poles of switching. While the installation of the AIS 200B-35 is identical to the AIS 200-35 and AIS 200A-35, there is a slight weight variation.

1.3 Technical Characteristics

1.3.1 Physical Characteristics

Depth	3.35"
Width	5.06"
Height	.99"
Weight	0.60 lb.

1.3.2 Electrical Characteristics

Operating Voltage	28 Vdc
Current	175 mA (All Relays Engaged)
Max Operating Temp.	-20^{O}C to +55^{O}C
Max Operating Altitude	50,000 ft.
Contact Rating	1.0 A @30 Vdc

1.4 Certification

FAA-PMA Pending

SECTION 2
INSTALLATION CONSIDERATIONS

2.1 Introduction

The AIS 200B-35 has been designed to provide 20 poles of signal level switching. It also provides revisionary LOC switching for use with NAV systems that share a common HSI/CDI.

2.2 Mounting

The AIS 200B-35 can be mounted in any axis either inside or outside the pressure vessel. The units are mounted with 4 each number six or eight mounting screws (not provided).

2.3 Cooling

The AIS 200B-35 does not require external cooling.

2.4 Electrical

The AIS 200B-35 will operate on 18 to 32.0 Vdc. The AIS 200B-35 units is supplied with a 78 pin Sub-D connector, Sandia Part Number 204508-1 and 80 crimp contacts, Sandia Part Number 305070. Extra pins can be discarded upon completion of the installation. Power and ground wires should be #22 AWG or larger.

SECTION 3
INSTALLATION PROCEDURES

3.1 General

The AIS 200B-35 is supplied with a 78 pin Sub D mounting connector and 80 crimp style contacts. The AIS 200B-35 is hard mounted in any axis using four (4) number 6 or 8 screws.

3.2 Equipment Required

3.2.1 Supplied

Model AIS 200B-35, Sandia Part Number 306433-00

Electrical Installation Kit Sandia Part Number 305552-00. The installer may also use the manufactures part in lieu of the Sandia Part. The Manufacturer and their part number is listed below along with the Sandia Part Numbers.

1 each	204508-1 Connector Housing (AMP/TYCO P/N 204508-1)
1 each	305055 Connector Clamp (AMP/TYCO 1-5207908-3)
80 each	305070 Crimp Contacts (AMP/TYCO P/N 204351-1)

3.2.2 Required But Not Supplied

Four (4) Number 6 or Number 8 or equivalent mounting screws.

3.3 Mounting

The AIS 200B-35 mounts with four (4) Number 6, 8 or equivalent machine screws in the four holes in the units mounting flanges.

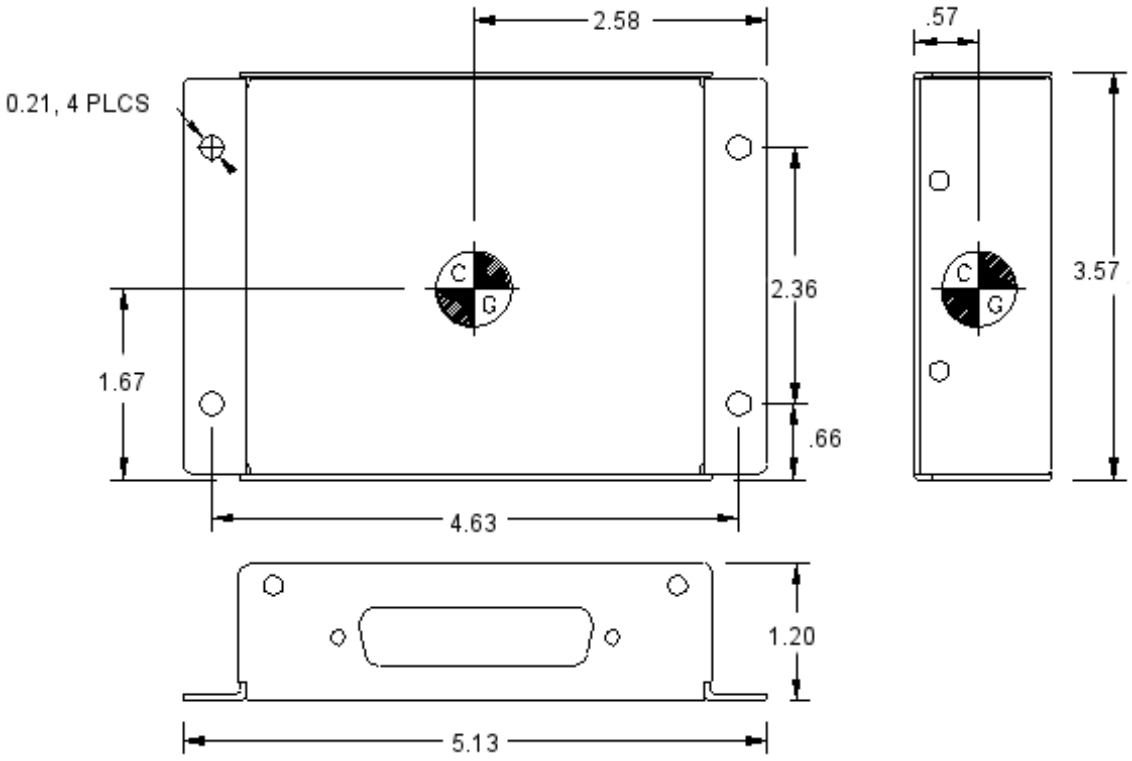

Figure 3-1
Mounting Dimensions

3.4 Electrical

The AIS 200B-35 uses 28 Vdc relays for the control HI input and a Control low for activation of the relays. There is no difference in the interconnect wiring between the AIS 200B-35 or the previous versions,, ie AIS 200-35 and AIS 200A-35.

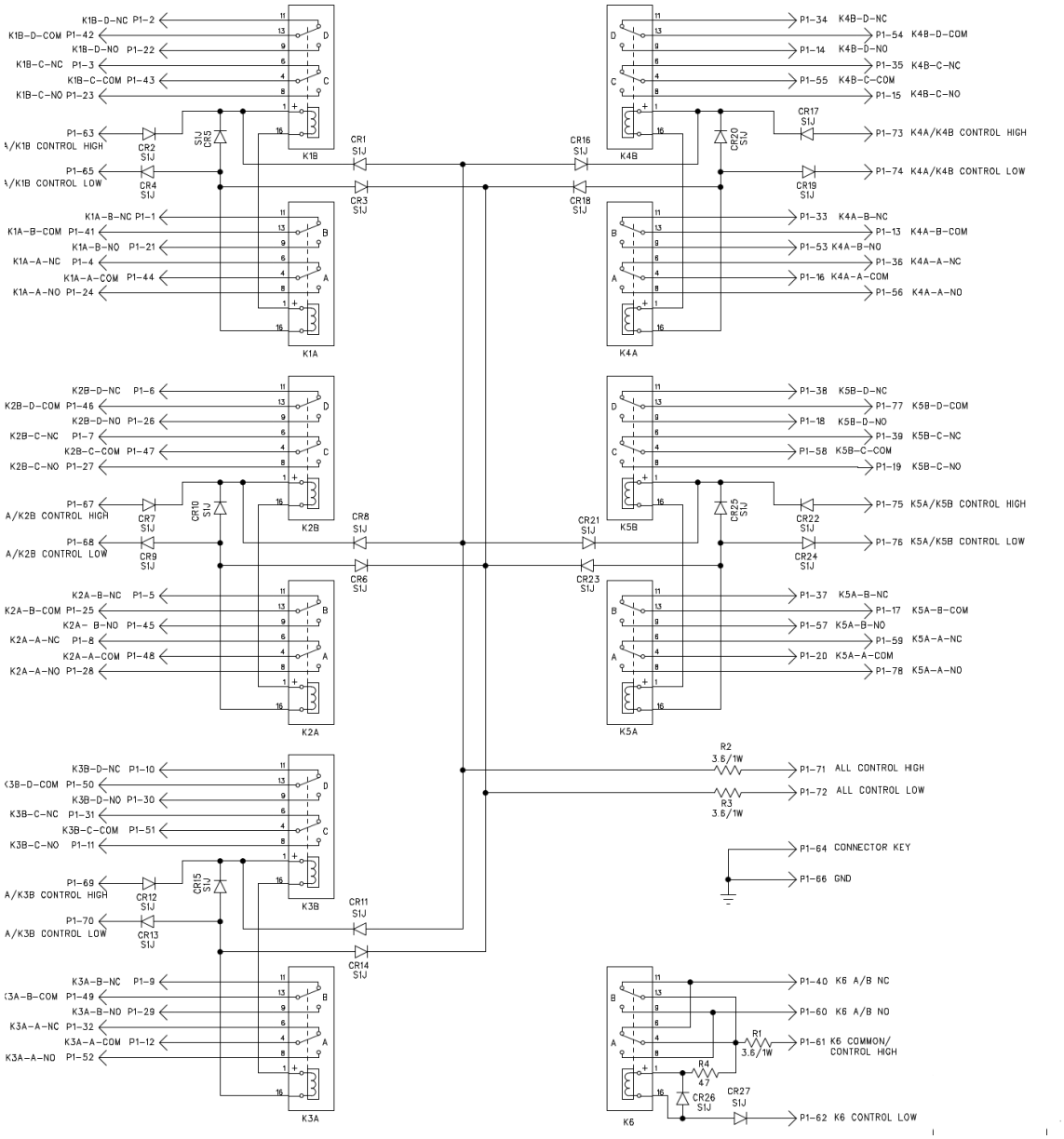

Figure 3-2
AIS 200B-35 Schematic and Pin Out

3.5 Operating Instructions and Limitations

Refer to the equipment being switched for operation and Limitations.

3.6 Calibration

No calibration is required

3.7 Continued Airworthiness

Maintenance of the AIS 200B-35 is on condition only. No scheduled maintenance is required.