

APPENDIX C - ENCLOSURE SPECIFIC DATA for Rack-Mount RC4500

Revision: 16 July 2014

1.0 INTRODUCTION

1.1 Appendix Organization

This appendix is provided as a supplement to the baseline RC4500 User's Manual which describes the PCB board stack that is common to all systems. Section 2 describes the mechanical aspects of the controller, while section 3 describes the electrical connections.

2.0 MECHANICAL

2.1 RC4500 Antenna Controller Chassis

The ACU is mechanized as a standard rack-mount antenna controller, as seen in Figure 1 below.



Figure 1

The chassis of the RC4500 consists of a 2U Rack Mount front panel attached to an aluminum chassis. Basic dimensions are provided in Figure 2. Measurements are in inches.

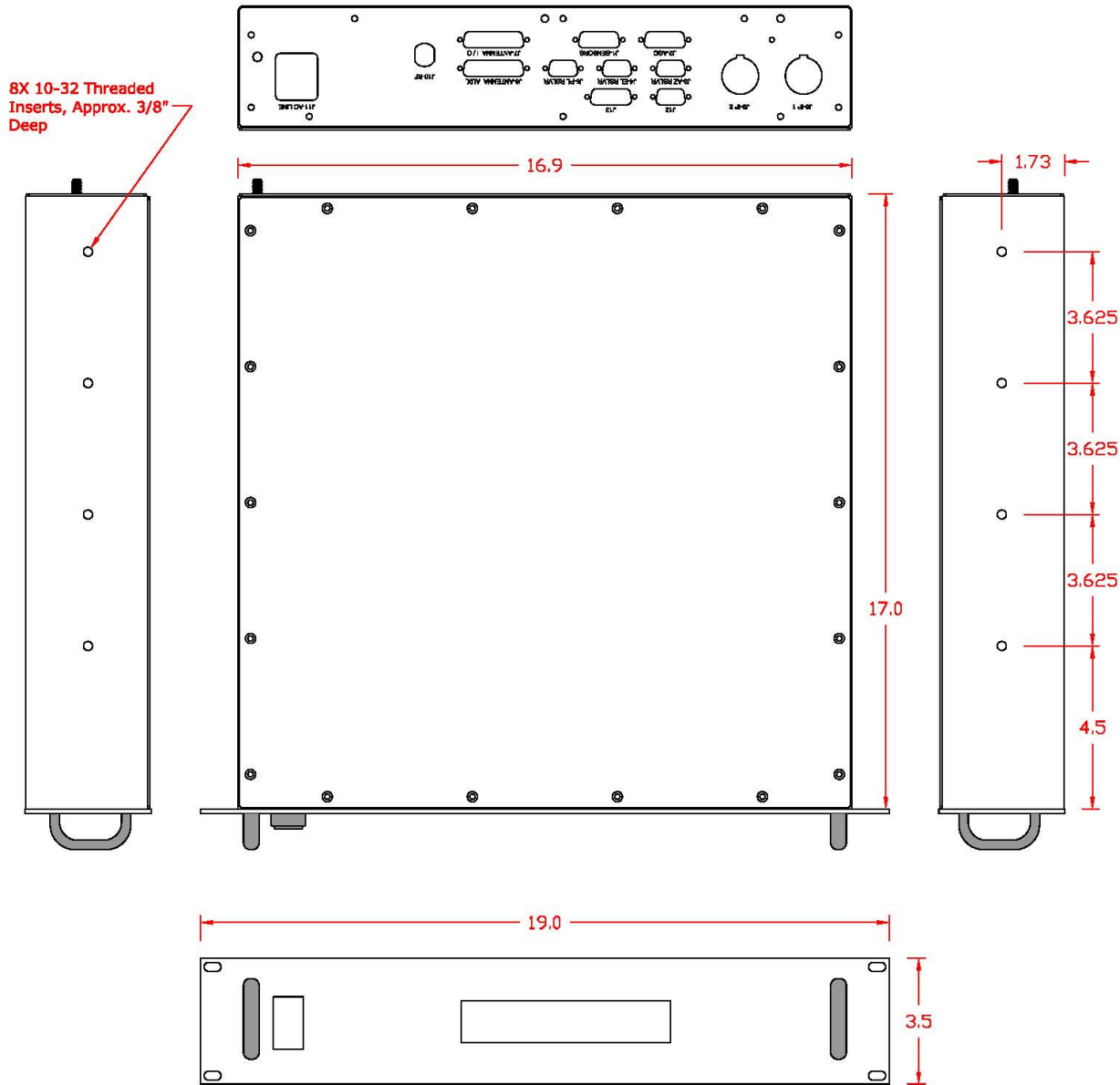


Figure 2

The RC4500 can be supported by a rack slide using the available 10-32 threaded inserts in the side panels of the chassis. In addition to the four front panel mounting holes, the RC4500 must be supported by the side or back panels, or from support under the bottom of the chassis. Damage to the controller chassis when only supported by the four front panel mounting holes is not covered under the warranty.

2.2 RC4500 Front Panel

The RC4500 front panel is designed to provide a convenient user interface when accessed from the equipment rack. The user interface includes a 4x40 character LCD display with LED backlight and a versatile keypad layout. See Figure 3.

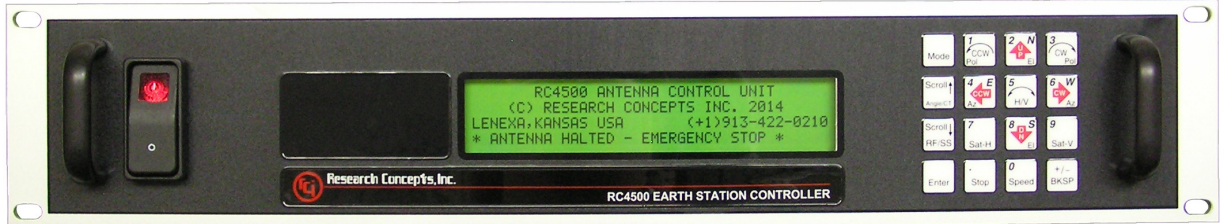


Figure 3

The LCD interface is described in the base manual, section 2.1.2.2.9. The display layout is described in the base manual, section 3.1.4.

The keys located to the right of the LCD the standard 4 row by 4 column keypad that is typically used with Research Concepts, Inc. antenna controllers. The interface to the keypad is described in the base manual, section 2.1.2.2.10. The functions of these keys can be found in the base manual, section 3.1.2.

2.3 RC4500 Back Panel

The RC4500 back panel is designed to accommodate all antenna interface connections as well as an Ethernet interface. A diagram of the back panel is shown in Figure 4.

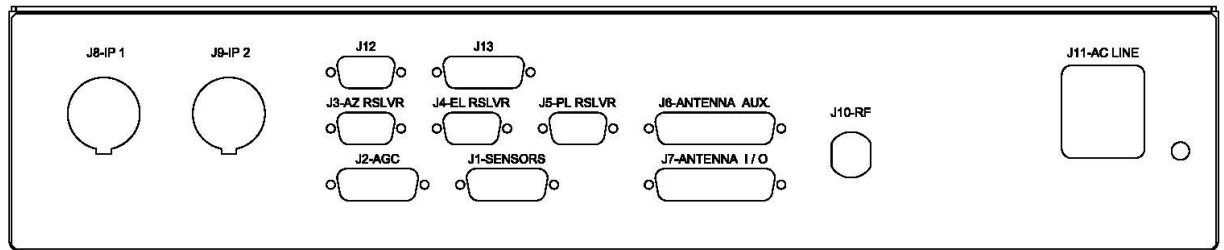


Figure 4

2.3 CONNECTORS

Table 1 provides a list of the external connectors on the enclosure back panel.

Ref Des	Part Number or Connector Type	Description
J1	15 pin D-subminiature receptacle	Sensors
J2	15 pin D-subminiature receptacle	AGC
J3	9 pin D-subminiature receptacle	AZ Resolver
J4	9 pin D-subminiature receptacle	EL Resolver
J5	9 pin D-subminiature receptacle	PL Resolver
J6	25 pin D-subminiature receptacle	Antenna Auxiliary
J7	25 pin D-subminiature plug	Antenna I/O
J8	Molex 84700-0001	Ethernet (IP1)
J9	Molex 84700-0001	Ethernet (IP2)
J10	N jack, Amphenol 172129	RF (50Ω Impedance)
J11	Filtered AC inlet with *fuse holder	AC Line (Power Input)
J12	9 pin D-subminiature placeholder	SPARE
J13	15 pin D-subminiature placeholder	SPARE

Table 1

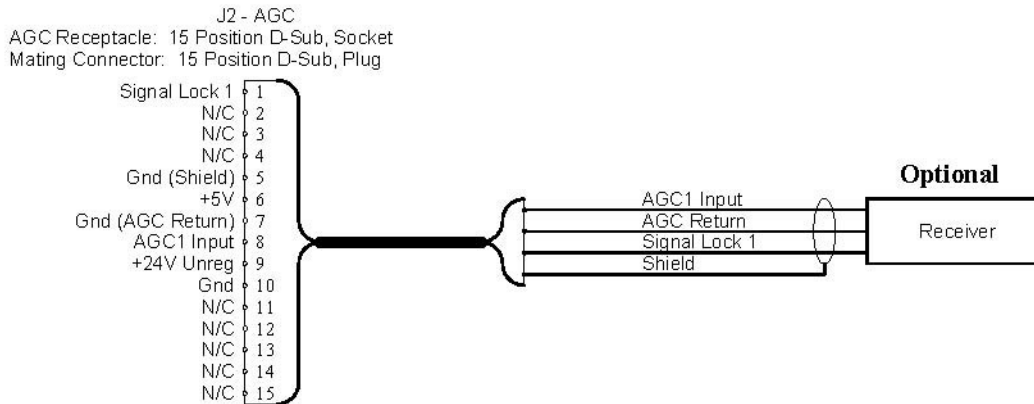
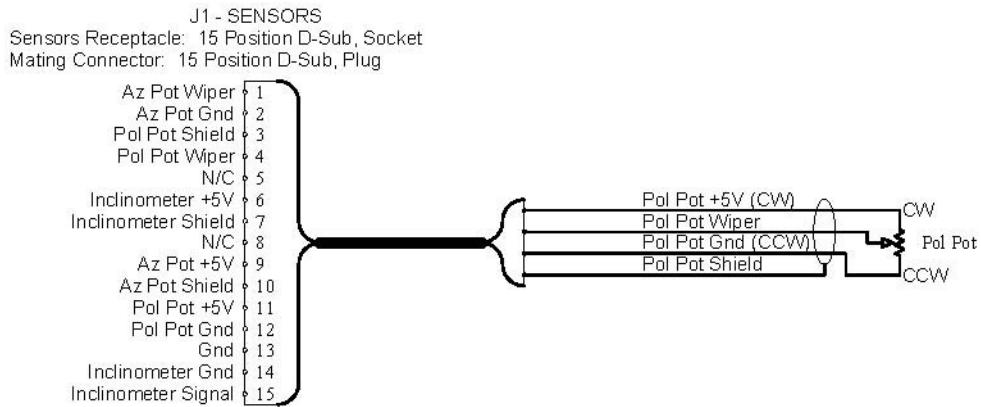
* Fuse holder accepts 5mm X 20mm fuses such as Littelfuse # 215005.XP or Bussmann # BK/S505-5-R

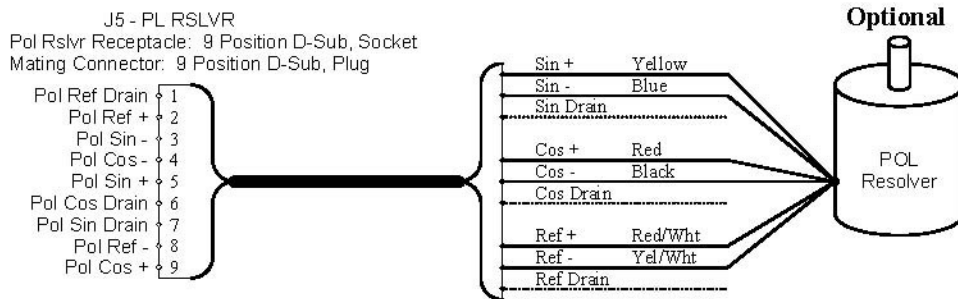
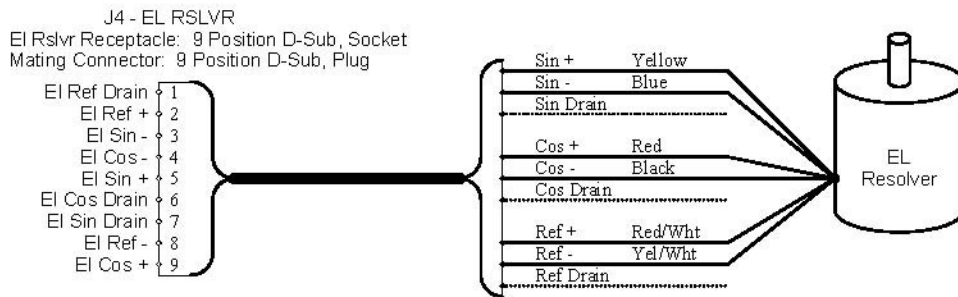
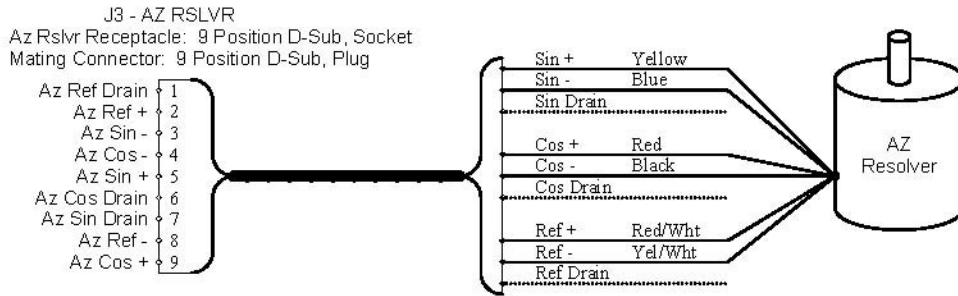
3.0 ELECTRICAL

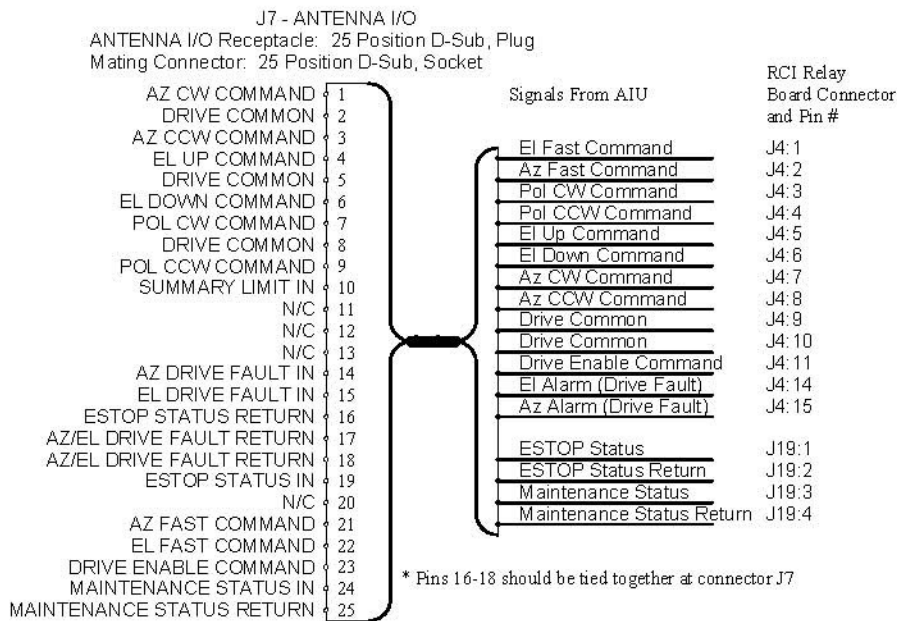
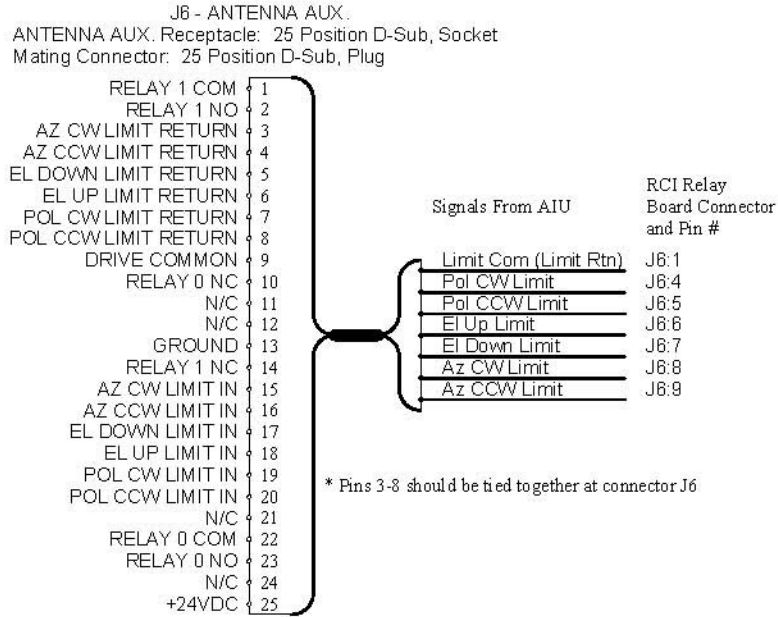
3.1 System Interface

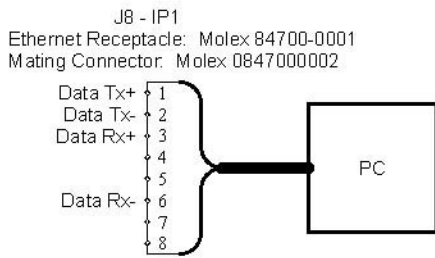
Please refer to the main RC4500 User Manual to become familiar with specific capabilities and functionality of the RC4500 PCB board stack.

The following figures are provided to assist in interfacing to the RC4500. These diagrams list common equipment and how it connects to each connector on the back panel of the enclosure.

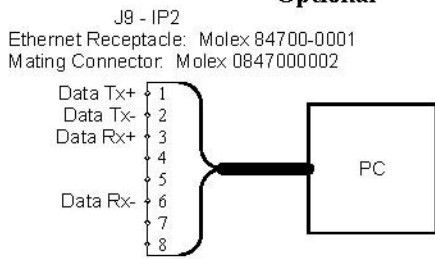








Optional



Optional

