

USER MANUAL

for

INTERFACE CONVERTER UNIT

Model 2174

July 20, 2005



**MODEL 2174**

SERIAL NUMBER \_\_\_\_\_

**CONFIGURATION TABLE**

<i>SLOT #</i>	<i>PART #</i>	<i>MODULE NAME</i>	<i>COMMENTS</i>	<i>SERIAL NUMBER</i>
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				



## **TO THE CUSTOMER**

Thank you for purchasing this equipment from APOGEE LABS, Inc. We appreciate the fact that you can purchase similar equipment from other vendors, so we are delighted that you've chosen us. We hope that the equipment meets your requirements and exceeds your expectations, and you find our documentation adequately describes its operation and use. We continue to strive for higher levels of quality in our products, services and customer support. If you have any comments or questions regarding these areas, please do not hesitate to contact us. You will find we sincerely believe that the customer comes first.

## **WARRANTY**

APOGEE LABS, Inc. warrants its products to be free from defects in materials and workmanship for a period of one (1) year from the date of shipment to the original purchaser. APOGEE LABS obligation for any defect shall be limited to repair or replacement at our discretion of defective equipment. APOGEE LABS, Inc. assumes no liability if defects result from improper use, repairs not made by APOGEE LABS, Inc., negligence, accident, mishandling or misapplication of the equipment. No other warranty is expressed or implied and APOGEE LABS, Inc. is not liable for consequential damages. Should a warranty repair be required, please contact APOGEE LABS, Inc. for a Return Authorization Number.

## **EXTENDED WARRANTY**

APOGEE LABS, Inc. offers an extended warranty plan to cover equipment, which is no longer covered under the normal one (1) year warranty plan. Under the extended warranty, APOGEE LABS will repair or replace equipment and/or components which have failed under normal use. This extended warranty does not cover repairs or replacement of equipment or components that is required because of improper use, repairs not made by APOGEE LABS, Inc., negligence, accident, misapplication of the equipment, or mishandling. Extended Warranty may be purchased from APOGEE LABS, Inc. on an annual basis for 10% of the current sell price of the equipment.



**MODEL 2174 INTERFACER PRODUCT LINE****MODEL 2174  
CHASSIS**

FRONT VIEW

**FEATURES**

- 19" x 3.5" x 16" high (2 U Rack Units High)
- Rack Mountable
- Houses up to 7 Pluggable Interface Modules 1.8" x 3" x 5" Each
- Front Panel Access Module Adjustments
- Front Panel Power Indicator
- Pluggable Power Supply (Model 2173-880)

**OVERVIEW**

The Apogee Labs Model 2174 INTERFACER is a user-configurable unit that provides a convenient method of conditioning signals between equipment having dissimilar signal needs. The Model 2174 is a simple card chassis designed to house an array of conditioning modules that allow the user to conveniently match signal sources to destination devices.

The 2174 Chassis is designed to house up to seven 2174 series interface modules. Front panel access to test points, toggle switches and trimmers, which are located on the 2174 interface modules, provide quick and convenient measurement and adjustment capability. Each module contained in the 2174 chassis is a self-contained function (generally analog) and therefore, operates independently from all other modules in the chassis. A 75 watt pluggable power supply is included with the chassis. The power supply and 2174 interface modules are easily installed or replaced while the chassis is installed in a rack. A front panel LED illuminates when AC power is applied. The AC power control switch is located on the rear of the chassis on the power supply module.

Apogee Labs supplies a wide range of interfaces to the communications, instrumentation and telemetry industries. New modules are developed as customer needs change. For a particular interface requirement, consult the factory. Apogee Labs custom builds interfaces to meet specific needs. A list of currently available modules can be found on our Web site at <http://www.apogeelabs.com>.



**Figure 1 Model 2174 Chassis Front View**



**Figure 2 Model 2174 Chassis Rear View**

## **SPECIFICATIONS**

### **Physical:**

Size: 19" W, 3.5" H, 9" D

Weight: Less Than 15 Pounds

14 Independent Card Slots

### **Power Supply**

109-240 Vac (47-63 Hz) Input

75 Watts maximum  $\pm 12V$  supplied to Backplane

### **Environmental**

Operating Temperature:

0° to 50° C (32° to 122° F)

Relative Humidity:

15-95% Non-Condensing

### **ALTITUDE**

Sea Level to 10,000 ft.

## **APPLICATION INFORMATION**

The 2174 is used to house the 2174 series interface modules. Generally, these are analog signal handling devices. The design of the 2174 and its complement of functional modules stresses the concepts of signal integrity, channel isolation and low noise contribution. So as to minimize the possibility of signal contamination, there is no interconnection provided between modules on the backplane of the chassis



## **CONFIGURATION SETTINGS**

The 2174 INTERFACER is a user-configured unit that provides the flexibility needed to condition signals between equipment having dissimilar interfaces. The user selects the types and quantities of Pluggable Interface Modules (PIMs) required for an application. An electrical interface is provided in the chassis for up to seven PIMs. A pluggable power supply module provides  $\pm 12$  Volts to the backplane. Each PIM produces needed voltages by regulating from this raw power.

There are no jumpers, switch settings or adjustments needed to enable the 2174 chassis for any mission or to accept any Pluggable Interface Module.

## **MODULE PLACEMENT CONSIDERATIONS**

There are no constraints imposed on the placement of modules in the seven chassis slots.

## **SETUP AND INSTALLATION**

Refer to individual module User Manuals for information regarding module-specific instructions.