SERIAL NUMBERS

MIL-188C INTERFACE POD
18139A
AND
RS-232C/V.24 INTERFACE POD
18135A

OPERATING AND SERVICE MANUAL

Hewlett-Packard Company/Colorado Telecommunications Division

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INSTRUMENTS COVERED BY MANUAL

For additional important information about serial numbers see

18139A MIL-188c

Prepared 2331A (HP 18135A RS-232C/V.24) and 2401A (HP

This manual applies directly to instruments with serial numbers

Printed: Aug 1985
1-3. SAFETY CONSIDERATIONS

These specifications are the performance standards or limits against which the accessory can be tested. HP 18139A MIL-188C. HP 18135A RS-232C/V.24 Interface Pod specifications are listed in Table 1-1. Table 1-2 lists specifications for operation, block diagrams, component locators, and schematics.

SECTION II, SERVICE, provides service and troubleshooting information. This includes theory of assembly.

SECTION IV. REPLACEMENT PARTS, provides information required to order all replaceable parts and MIL-188C Interface Pods.

SECTION V. ADJUSTMENTS, There are no adjustments for HP 18135A RS-232C/V.24 or HP 18139A Interface Pod, the protocol analyzer connected to the HP Protocol Analyzer is connected to the protocol analyzer and the network under test, and a brief description of RS-232C/V.24 and MIL-188C Interface Pod requirements, operating environment, and storage and shipment.

SECTION II, INSTALLATION, Provides information for Initial Inspection, Preparing the Interface Pod to identification, and a brief description of the accessory.

SECTION I, GENERAL INFORMATION. Provides specifications, safety considerations, accessory identification, and a brief description of the accessory.

This manual is divided into eight major sections which provide the following information:

1-1. INTRODUCTION

GENERAL INFORMATION

SECTION I
### Table 1-1. Model 18135A MIL-188C Specifications

<table>
<thead>
<tr>
<th>ELECTRICAL:</th>
<th>PHYSICAL:</th>
<th>OPERATING:</th>
<th>STORAGE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Input Voltage:</td>
<td>Max. Input Voltage:</td>
<td>Input Impedance:</td>
<td>Active Output Voltage:</td>
</tr>
<tr>
<td>+3 to +25 = Binary 0</td>
<td>-3 to -25 = Binary 1</td>
<td>±10 kohms</td>
<td>+12 to +25 = Binary 1</td>
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<td>Max. Input Voltage:</td>
<td>Input Impedance:</td>
<td>Active Output Voltage:</td>
<td>Dimensions:</td>
</tr>
<tr>
<td>+12 to +25 = Binary 1</td>
<td>±10 kohms</td>
<td>+12 to +25 = Binary 1</td>
<td>Interface Pod:</td>
</tr>
<tr>
<td>Interfaces:</td>
<td>Weight:</td>
<td>Length:</td>
<td>Interface Pod Y-Cable:</td>
</tr>
<tr>
<td>Dimensions:</td>
<td></td>
<td></td>
<td>Dimensions:</td>
</tr>
<tr>
<td>(8 in x 49 in x 1.4 in)</td>
<td>794 gr (28 oz)</td>
<td>46 cm (18 in.)</td>
<td>(8 in x 49 in x 1.4 in)</td>
</tr>
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<tr>
<td>Temperature:</td>
<td>Altitude:</td>
<td>Temperature:</td>
<td>Altitude:</td>
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<tr>
<td>-40°C to +75°C (−40°F to 167°F)</td>
<td>Up to 4600 metres (15,000 ft)</td>
<td>0°C to +55°C (32°F to 131°F)</td>
<td>Up to 15,300 metres (50,000 ft)</td>
</tr>
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<td>+0.5 to +6 = Binary 1</td>
<td>-0.5 to -6 = Binary 0</td>
<td>±10 kohms</td>
<td>+4 to +6 = Binary 1</td>
</tr>
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<td>Max. Input Voltage:</td>
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</tr>
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1.8. WARRANTY

1.7. USER REPAIR

Manual: Service information, including interface pod performance tests is located in the appropriate service Operating information for the Protocol Analyzer is located in the appropriate Protocol Analyzer Operating User Manual.

1.6. RELATED MANUALS

Figure 1.2: Interface Pod in Typical Monitor Mode Setup

1.5. DESCRIPTION

This page provides a method to connect to a network of specific components, allowing operators in two modes, as a passive monitor of all data and control signals on a digital link or as a simulator, driving data and control signals to exercise the network of specific components.

The HP 18139A and HP 18139B follow CTT Telcordia ES22 and ES232C-2 protocols, mechanical, functional, and procedural specifications. The HP 18139A and HP 18139B follow CTT Telcordia ES22 and ES232C-2 protocols and provide the connection between the two.

1.4. INSTRUMENTS COVERED BY MANUAL

General Information

Models 18139A/18139B
STORAGE

Altitude: up to 4600 meters (15,000 ft)
Temperature: -40°C to +55°C (-40°F to 131°F)

OPERATING

The Interface Pod should be operated and stored in environments within the following limits:

2.6. OPERATING ENVIRONMENT

The Interface Pod comes with one input/output interface, the Interface Pod cable. It connects the Interface Pod accessory if may be operated and stored in environments within the following limits:

2.5. CABLES

Prevent damaging the cables and to assure a good electric connection.

When attaching cables to the Interface Pod always loosen the slide locks to

[CAUTION]

The Interface Pod requires no external power source. 5V ± 12V are supplied by the HP Protocol Analyzer.

2.4 POWER REQUIREMENTS

PREPARATION FOR USE

Interface Pod without waiting for claim settlement.

If the unit is physically damaged or fails the performance tests, notify the nearest Hewlett-Packard or refer to the appropriate Protocol Analyzer Service Manual for repair at Hewlett-Packard.

2.3 PREPARATION FOR USE

Inspect the shipping container for damage. If the container or cushioning materials damaged, keep all.

2.2 INITIAL INSPECTION

INSTALLATION

SECTION II

Installation

Models 18135A/18139A
4. Seal the carton securely and mark it FRAGILE to ensure careful handling.

3. Use a layer of shock-absorbing material, 70-100 mm (3-4 in.) thick. This provides a firm cushion and prevents movement inside the container.

2. Use a strong shipping container, such as a double-wall carton with 275 lbs burst test.

1. Wrap the accessory in heavy paper or plastic. If shipping to a Hewlett-Packard Sales or Service Office, include a completed blue repair tag.

2.9. Original Packaging. Containers and packaging material identical to those used in factory packaging are available through Hewlett-Packard sales offices. When returning an accessory to Hewlett-Packard for service, available through Hewlett-Packard sales offices. When returning an accessory to Hewlett-Packard for service, available through Hewlett-Packard sales offices.

2.8. Tagging for Service. If the accessory is returned to Hewlett-Packard for service, complete one of the blue repair tags located at the end of this manual and attach it to the accessory.

2.7. Storage and Shipment. Installation Models 18135A/18139A
3.4 OPERATOR CHECKS

1. The instrument pod cable which is supplied with the Protocol Analyzer connects the Protocol Analyzer to the network under test.

2. Interface Pod Y-cable W2 connects the Interface Pod to the network under test.

Figure 3-1. Cables

Each Interface Pod is connected to two input/output cables. The Interface Pod cable connects the Interface Pod to the Protocol Analyzer. The 50 pin connector on this cable is compatible with both the 18135A and 18139A. The other cable is the Interface Pod Y-cable W2 and connects the Interface Pod to the network under test.

3.3 CABLES

A self check routine is automatically performed at power up by the Protocol Analyzer. Interface Pod tests can be performed by selecting the desired test from the Protocol Analyzer menu. Refer to the Protocol Analyzer Operating Manual for complete instructions.

3-2 SELF CHECK

Appropriate Operating Manual for specific Protocol Analyzer operating instructions and test routines.

This section describes connection of the HP 18135A RS-232C/V.24 and HP 18139A MIL-188C Interface Pads.
Figure 3-3. Monitor Mode Operation

2. Once cables are connected to the Interface Pod, it effectively becomes a part of the Protocol Analyzer.

Prevent damaging the cables and to assure a good electrical connection.

When attaching cables to the Interface Pod always fasten the slide locks to

**CAUTION**

Illustrate typical simulator and monitor mode communications.

3-6. Setup

Connect the cable from the Protocol Analyzer to the Interface Pod and V2 from the Interface Pod to the

**CAUTION**

Turn off the Protocol Analyzer before disconnecting any Interface

3-5. Operating Instructions
are different and the polarity of signals TXD, RXD, STXD, and STRX are inverted.

MIL-188C follows the EIA RS-232C functional, mechanical, and procedural standards. The electrical thresholds

3.10. MIL-188C

functional interchange circuits and procedures governing their interchangeability.

manuals V.24, V.28 (TS2710) describes the mechanical properties. V.28 describes the characteristics and V.24 the

the HP 18135A follows V.24, V.28, and ISO 2110 standards. These standards are collectively referred to in this

3.9. V.24

interface between the DTE and DCE.

mechanical, electrical, functional, and procedural characteristics to establish, maintain, and disconnect the

RS-232C is an Electronic Industry Association (EIA) Recommended Standard. The standard describes the

3.8. RS-232C

standard in the United States for data communication interfaces. V.24 is a CCITT international standard defining functional interchange circuits. RS-232C is in acceptable

Protocol Description

Models 18135A/18139A

Operation