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PATTON Electronics Co.

INTERFACE CONVERTER, V.24 TO V.35

2020P

(CTS IC-V.24/V.35-M-34)

INSTALLATION AND OPERATIONS MANUAL

May 11, 2000

ISO 9001 CERTIFIED

An ISO-9001 Certified Company

Table of Contents

CHAPTER 1 - Operation

CHAPTER 2 - SETUP AND INSTALLATION

APPENDIX

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WARRANTY NOTICE

WARRANTIES: Patton Electronics Co. (hereafter referred to as Patton) warrants that its equipment is free from any defects in materials and workmanship. The warranty period shall be two years from the date of shipment of equipment. Patton's sole obligation under its warranty is limited to the repair or replacement of the defective equipment, provided it is returned to Patton, transportation prepaid, within a reasonable period. This warranty will not extend to equipment subjected to accident, misuse, alterations or repair not made by Patton or authorized by Patton in writing.

PUBLICATION NOTICE

This manual has been compiled and checked for accuracy. The information in this manual does not constitute a warranty of performance. Patton reserves the right to revise this publication and make changes from time to time in the content thereof. Patton assumes no liability for losses incurred as a result of out-of-date or incorrect information contained in this manual.

RADIO AND TV INTERFERENCE

The Patton MSDs generate and use radio frequency energy, and if not installed and used properly—that is, in strict accordance with the manufacturer's instructions—may cause interference to radio and television reception. The Patton MSDs have been tested and found to comply with the limits for Class A computing devices in accordance with the specifications in Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection from such interference in a commercial installation. However, there is no guarantee that interference will not occur in a particular installation. If the Patton MSDs do cause interference to radio or television reception, which can be determined by disconnecting the cables, the user is encouraged to try to correct the interference by one or more of the following measures: moving the computing equipment away from the receiver, re-orienting the receiving antenna, and/or plugging the receiving equipment into a different AC outlet (such that the computing equipment and receiver are on different branches).

CE NOTICE

The CE symbol on your Patton Electronics equipment indicates that it is in compliance with the electromagnetic Compatibility (EMC) directive and the Low Voltage Directive (LVD) of the European Union (EU). A Certificate of Compliance is available by contacting Technical Support.

SERVICE

All warranty and non-warranty repairs must be returned freight prepaid and insured to Patton Electronics. All returns must have a Return Materials Authorization number on the outside of the shipping container. This number may be obtained from Patton Electronics Technical Support at:

tel: (301) 975-1007;

email: support@patton.com;

or, www: http://www.patton.com.

NOTE: Packages received without an RMA number will not be accepted.

Patton Electronics' technical staff is also available to answer any questions that might arise concerning the installation or use of your Patton MSDs. Technical Support hours: 8AM to 5PM EST, Monday through Friday.

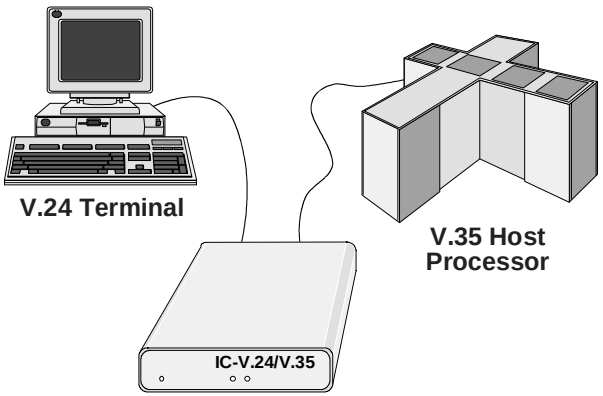
CHAPTER 1 - Operation

The Patton 2020P (IC-V.24/V.35) is a RS-232 to V.35 interface converter. The interface converter operates bi-directionally. DCE / DTE selection of the ports permits interfacing RS-232 terminals to V.35 Modems or RS-232 Modems to V.35 terminals. This adapter is ideal for High Speed Group Band Modems since it can operate at 56Kbps or faster (Up to 128Kbps).

Because the operator can configure the interface converter to be RS-232 on the terminal port and V.35 on the Modem Port, or V.35 on the terminal port and RS-232 on the Modem Port, the 2020P (IC-V.24/V.35) can satisfy either interface conversion requirement. Devices can be separated up to 600 feet away from the 2020P (IC-V.24/V.35) on the V.35 side and RS-232 devices can be extended up to 50 feet away. The unit is supplied with a female DB-25 connector on the RS-232 port and a female 34 pin connector on the CCITT V.35 port.

The Patton 2020P (IC-V.24/V.35) is housed in a sturdy aluminum enclosure and has an internal 110/220VAC switch selectable power supply. The Interface Converter will also fit into the 1010R16/P/UI (MCS-16C) card rack assembly, providing a convienent means to us the cards in a data center.

The unit has MET, c-MET and CE approvals and can operate on standard power found in most countries.



Typical Application

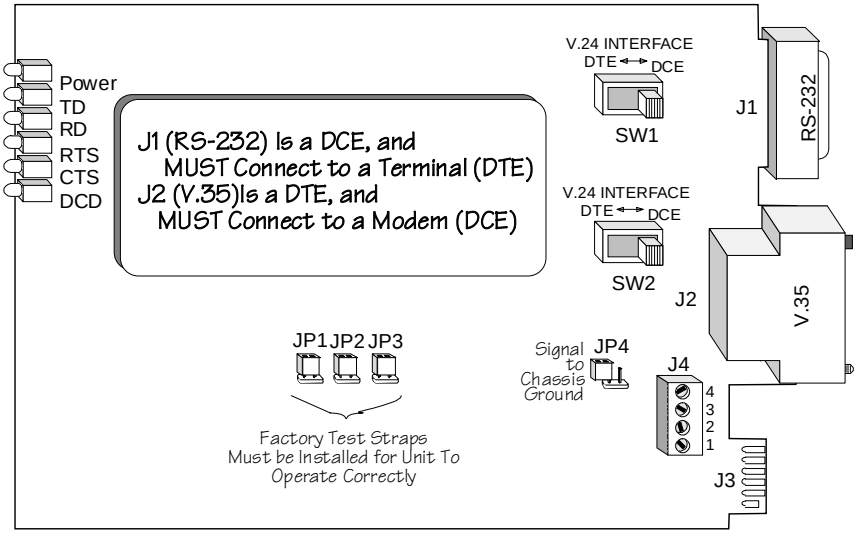
CHAPTER 2 - SETUP AND INSTALLATION

Installation

Set switches to match the required configurations based on the diagrams below. The cabling between each device and the 2020P (IC-V.24/V.35) must be terminated with male connectors. J1 is the RS-232 / V.24 interface and J2 is the V.35 interface. The IEC connector is provided to interface to the power plug required in the country of use. Insure the 110/220VAC switch is set correctly for the line voltage in use prior to appling power to the 2020P (IC-V.24/V.35).

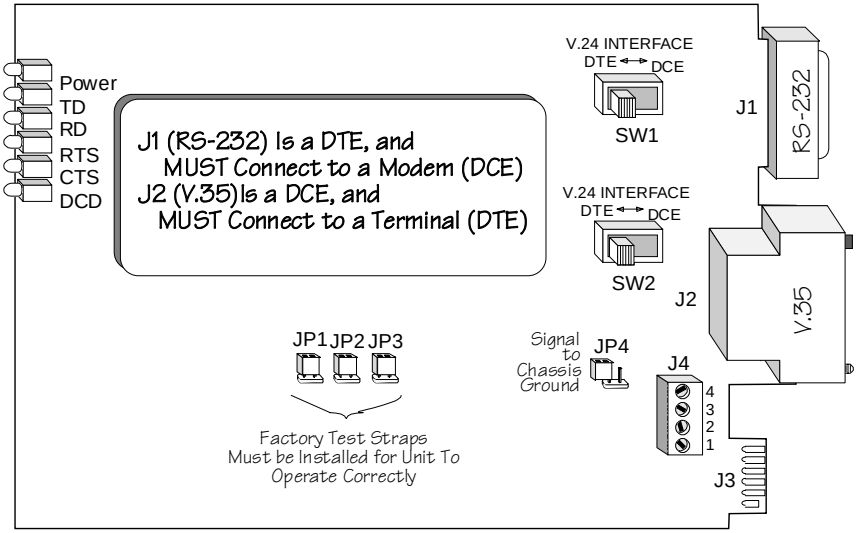
Selection of DTE/DCE

To connect an RS-232 terminal type device (DTE) to a V.35 Modem type device (DCE), connect the terminal to J1 and the Modem to J2. Move SW1 and SW2, to the **DCE** position, **TOWARD THE REAR OF THE UNIT**.



(Factory Default Setting)

To connect a V.35 terminal type device (DTE) to an RS-232 Modem type device (DCE), connect the terminal to J2 and the Modem to J1. Move SW1 and SW2 to the **DTE** position, **TOWARD THE FRONT OF THE UNIT**.



Equipment Grounding

JP4 provides grounding interconnection in those systems requiring a connection between Pin # 1 (Frame Ground) and Pin # 7 (Signal Ground). If signal ground and chassis ground interconnection is desired install the jumper on JP4.

LED Indicators

The Following LED indicators are provided for diagnostics: Power, Transmit Data (TD), Receive Data (RD), Request to Send (RTS), Clear To Send (CTS) and Carrier Detect (DCD).

Factory Test Straps

The Factory Test Straps JP1, JP2 and JP3 must be installed for proper operation of the 2020P (IC-V.24/V.35).

APPENDIX

TECHNICAL SPECIFICATIONS

Applications
RS-232 to CCITT V.35 interface conversion

Capacity
One RS-232 Channel
One CCITT V.35 Channel

Data Format
Transparent to Data

Data Rates
Up to 128Kbps

Electrical Interface
RS-232 and CCITT V.35

RS-232 Physical Interface
Female DB-25 Connector

V.35 Physical Interface
Female V.35 (M34) Connector

DCE / DTE Configuration
Switch Selectable

Enclosure
Aluminum Shell or 1010R16/P/UI (MCS-16C) Card Rack Assembly

Front Panel
Indicators: ... Power, Send Data, Receive Data, Request to Send, Clear to Send, Data Carrier Detect

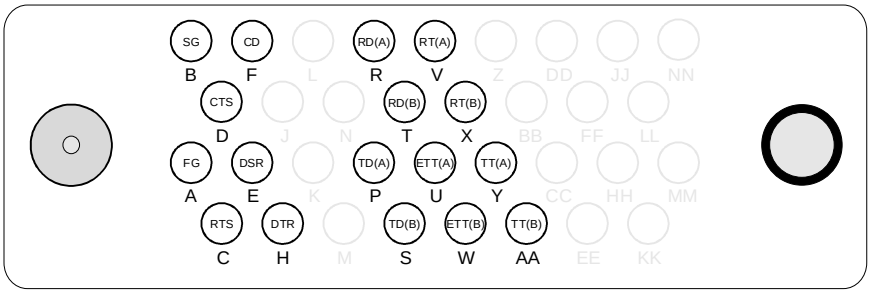
Approvals
MET, c-MET and CE

Power Requirements
110/220VAC, 50/ 60Hz, 0.16/ .08A, switch selectable Power Supply

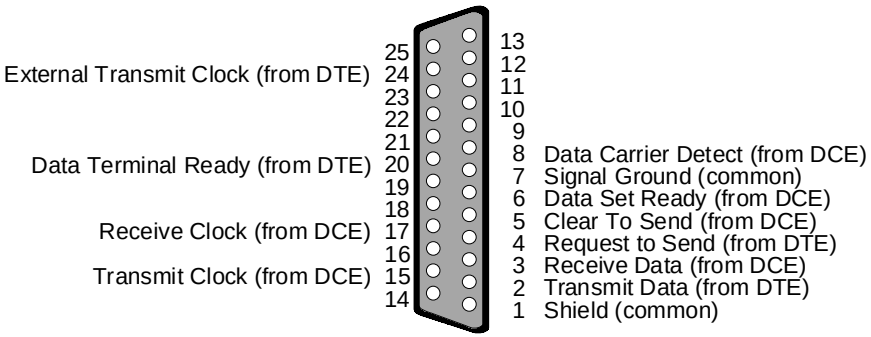
Environmental
Oper Temp: ..... 32° to 122°F (0° to 50°C)
Rel Humidity: ... Up to 90% non-condensing
Altitude: ..... 0 to 10,000 feet

Dimensions
Height: .... 2.00 inches (5.08cm)
Width: ..... 8.80 inches (21.08cm)
Length: ... 9.80 inches (15.49cm)

Weight
2.25 lbs (1.02 Kg)



V.35 Interface Pins Supported



V.24 Interface Pins Supported

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