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### *Connect RS-485 Data Acquisition & Control Equipment to a DB-9 (RS-232) Equipped PC or Workstation*

## Overview

The Model 2089 is Patton's first high speed EIA-574 (RS-232 on a DB-9) to RS-485 interface converter. Supporting async data rates to 115.2 kbps over one or two unconditioned twisted pair, the Model 2089 passes one control signal in each direction. The Model 2089 can handle up to 50 terminal drops in a multipoint polling environment; yet it is small enough to plug directly into a DB-9 serial port...and requires no AC power or batteries for operation. The Model 2089 has five configuration parameters, allowing the unit to be "fine tuned" to a variety of point-to-point or multipoint applications. Silicon Avalanche Diode surge protection is standard as well. Amazing!

## Features

- Fully Conforms to the EIA RS-485 Standard
- Data Rates to 115,200 bps
- Range Up to 9 Miles (14.5 Km)
- No AC Power or Batteries Required
- Up to 50 Terminal Drops in a Multipoint Polling Environment
- 600 Watts of Silicon Avalanche Diode Surge Protection - Standard
- **Made in the USA** — This Patton equipment is designed by Patton engineers and built in our Gaithersburg, Maryland facility. Patton's American-made manufacturing process delivers high-quality networking solutions with reliability you can trust.

# Specifications

**Transmission Format:** Asynchronous

**Data Rate:** Up to 115,200 bps

**Range:** Up to 9 miles (14.5km)

**EIA-574 Interface:** DB-9, male or female

**RS-485 Interface Options:** RJ-11 or RJ-45 jack, terminal block with strain relief

**Transmit Line:** 2, 4 wire unconditioned twisted pair

**Transmit Mode:** 4-wire, full or half duplex; 2-wire half duplex

**Control Signals:** DSR turns "ON" immediately after the terminal raises DTR; DCD turns "ON" after recognizing the receive signal from the line; CTS turns "ON" after the terminal raises RTS.

**RTS/CTS Delay:** 0 or 8 msec

**Carrier:** The carrier is switch selected either continuous operation or controlled by RTS

**Surge Protection:** 600W power dissipation at 1 mS

**Power:** Draws operating power from EIA-574 data and control signals; no AC power or batteries required.

**Temperature:** 32° to 122° F (0° to 50° C)

**Size:** 2.50" x 1.20" x 0.75" (6.4 x 3.0 x 1.9 cm)

# Ordering

#	Model #	Description	Availability
1	2089F	RS232/RS485 CONVERTER, DB9F	General Availability
2	2089F RJ11	RS232/RS485 CONVERTER,DB9F/RJ11	General Availability
3	2089F RJ45	RS232/RS485 CONVERTER,DB9F/RJ45	General Availability
4	2089M	RS232/RS485 CONVERTER, DB9M	General Availability
5	2089M RJ11	RS232/485 CONVERTER,DB9M/RJ11	Special Order
6	2089M RJ45	RS232/RS485 CONVERTER,DB9M/RJ45	Special Order

Item Number	Item Description	Price
SVC-SmartCare-BH (/support/support.asp)	Premium Support for Business Hours	Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/)
SVC-SmartCare-24/7 (/support/support.asp)	Premium Support, 24 x 7 Coverage	for availability and pricing. Contact us (/howtobuy/)
SVC-SmartAssist-BH (/support/support-professional.asp)	Business Hour Support Services	for availability and pricing. Contact us (/howtobuy/)
SVC-SmartAssist-AH (/support/support-professional.asp)	After Hours Support Services	for availability and pricing.

SVC-ENHWAR1 (/support/support-warranty.asp)	1 Year Enhanced Warranty	Contact us (/howtobuy/) for availability and pricing.
SVC-ENHWAR2 (/support/support-warranty.asp)	2 Year Enhanced Warranty	Contact us (/howtobuy/) for availability and pricing.
SVC-ENHWAR3 (/support/support-warranty.asp)	3 Year Enhanced Warranty	Contact us (/howtobuy/) for availability and pricing.
SVC-ENHWAR4 (/support/support-warranty.asp)	4 Year Enhanced Warranty	Contact us (/howtobuy/) for availability and pricing.
SVC-ENHWAR5 (/support/support-warranty.asp)	5 Year Enhanced Warranty	Contact us (/howtobuy/) for availability and pricing.
SVC-EXTWAR2 (/support/support-warranty.asp)	2 Year Extended Warranty	Contact us (/howtobuy/) for availability and pricing.
SVC-EXTWAR3 (/support/support-warranty.asp)	3 Year Extended Warranty	Contact us (/howtobuy/) for availability and pricing.
SVC-EXTWAR4 (/support/support-warranty.asp)	4 Year Extended Warranty	Contact us (/howtobuy/) for availability and pricing.
SVC-EXTWAR5 (/support/support-warranty.asp)	5 Year Extended Warranty	Contact us (/howtobuy/) for availability and pricing.
SVC-NETENG-HOUR (/support/support-professional.asp)	Network technician hour rate for pre-config services, after hours support, etc.	Contact us (/howtobuy/) for availability and pricing.

## Related Products

Model 1000CU2, 1000CU4 & 1000CU8 (/products/product\_detail.asp?id=372)  
Model 1000R16 (/products/product\_detail.asp?id=371)

2, 4, & 8-Slot ClusterBoxes™  
16-Slot Mini-Rack

## Backgrounders

FiberPlex Capabilities Guide (/backgrounders/FiberPlex\_Capabilities\_Statement.pdf)

October 6, 2017

## Certifications

Declaration of Conformity - Data Communications Devices (/certifications/00109D1-001P.pdf)

July 16, 2018

Declaration of Conformity - Data Communication Devices Models: As per the attached sheet (/certifications/00109D1-001M.pdf)

November 11, 2015

Declaration of Conformity - Data Communication Devices: Short Range Modems, Interface Converters, Multiplexer Models (/certifications/02301D1-001H.pdf)

February 12, 2015

## Data Sheets

Patton Product Life Cycle Color Codes (/datasheet/Life-Cycle-Availability-Codes.pdf)

April 24, 2015

## Product & Solution Guides

Enterprise Networking Products Guide (/guides/07MENTNET-PG-lo.pdf)

November 10, 2010

## Tech Notes

Distance Table for Converter Models 2085 & 2089 (/technotes/technote\_100019.pdf)

November 11, 1998

Distance Table for Models 2085, 2089, & 2085RC (/technotes/technote\_100017.pdf)

December 16, 1997

## User Manuals & Configuration Guides

Model 2089 Manual (/manuals/2089.pdf)

January 25, 2008

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- > SS7 Media Gateways (/ss7-gateway/#products)

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- > Fiber Telecom (T1/E1/PRI, Analog and ISDN) (/products/network-connectivity/#28)

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## Special Projects Group (SPG) (/products/special)

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