NPort DE-311
Quick Installation Guide

Second Edition, October 2004

1. Overview

Welcome to Moxa NPort Express DE-311, a compact palm-sized data communication device that allows you to control RS-232/422/485 serial devices over a TCP/IP based Ethernet.

2. Package Checklist

Before installing DE-311, verify that the package contains the following items:

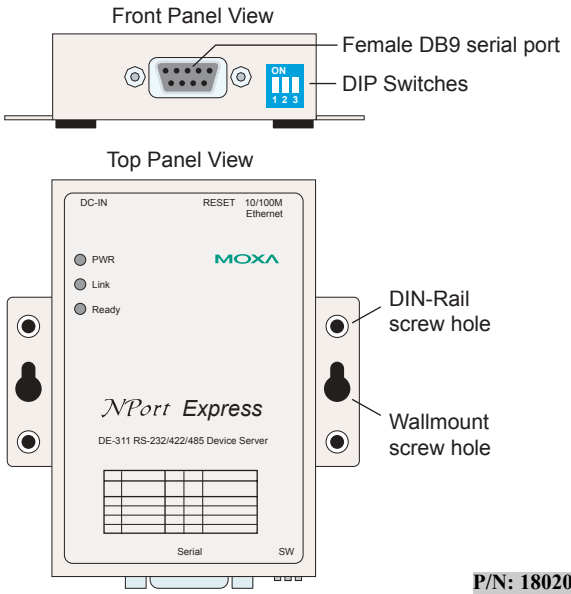
- 1 NPort DE-311 Universal Serial Device Server
- NPort Express Quick Installation Guide for DE-311
- Power Adaptor
- NPort Documentation & Software CD
- Mini Adaptor

Optional Accessories

- DK-35A (for 35 mm DIN-Rail; includes 4 screws)

Notify your sales representative if any of the above items is missing or damaged.

3. Hardware Introduction



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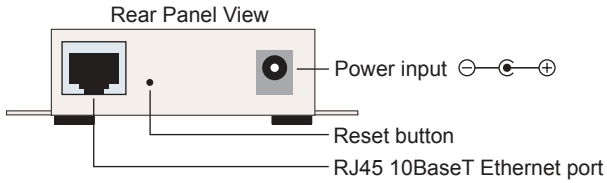


Reset Button—Press the *Reset button* continuously for

a. *3 sec to erase the password*
After 3 sec, the ready LED will flash on/off every half second. Release the reset button at this time to erase the password.

b. *10 sec to load factory defaults*
After 10 sec, the ready LED will flash on/off every fifth of a second. Release the reset button at this time to load factory defaults.

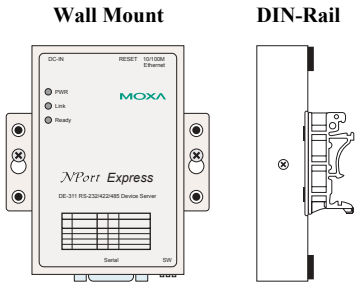
LED Indicators—DE-311's top panel contains three LED indicators, as described in the following table.

LED Name	LED Color	LED Function
PWR	red	Power is on.
	off	Power is off, or power error condition exists.
Link	orange	10 Mbps Ethernet connection.
	green	100 Mbps Ethernet connection.
	off	Ethernet cable is disconnected, or has a short.
Ready	green	System is ready.
	off	System error.

4. Hardware Installation Procedure

Placement Options

In addition to placing the DE-311 unit on a desktop or other horizontal surface, you may also make use of the DIN-Rail or Wall Mount options, as illustrated here.



DIP Switch Settings and Explanation

The top panel of DE-311 contains the following table, which describes how to set up the serial port using the three DIP switches located on DE-311's rear panel.

SW1	Serial Connection	SW2	SW3	Interface Mode
ON	RS-232 Console	—	—	— — —
OFF	Data Comm	OFF	OFF	RS-232
		OFF	ON	RS-422
		ON	OFF	2-wire RS-485 by RTS
		ON	ON	2-wire RS-485 by ADDC

Switch SW1 controls the function of the serial port. Note that after changing the setting of SW1, DE-311 will reboot to initialize the new setting. You must wait a few seconds for the green Ready light to blink off and then on again, indicating that the function of the serial port has been changed. Switches SW2 and SW3 control the serial port's data communication Interface Mode. (Note that RTS stands for Ready To Send and ADDC stands for Automatic Data Direction Control.)

Keep the following points in mind when setting the DIP switches:

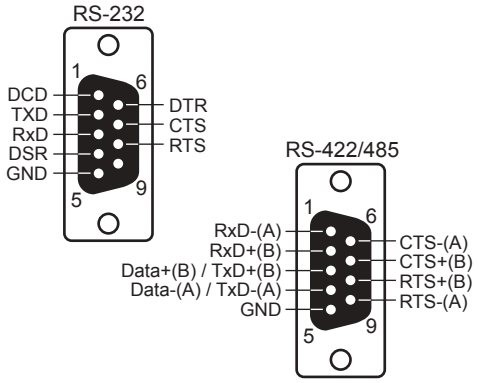
- To use the serial port as an RS-232 console connection, such as when using MOXA PComm Terminal Emulator or HyperTerminal, set SW1 to the ON position.
- Some setup procedures can be carried out through a Telnet connection, during which data is transmitted through DE-311's Ethernet port. You must set SW1 to the OFF position to establish a Telnet connection.

5. Software Installation Information

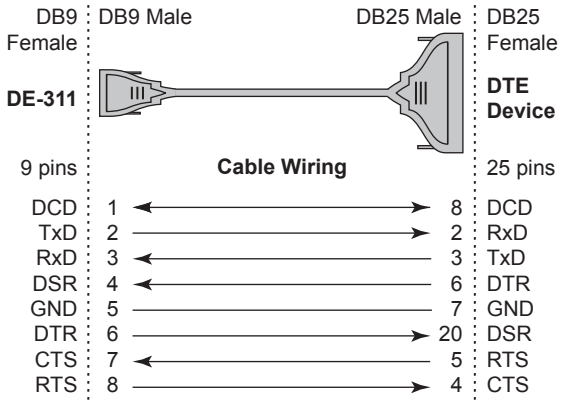
Detailed information about installing the software that comes with DE-311can be found on the NPort Documentation & Software CD in the "NPort Family Software Installation Guide."

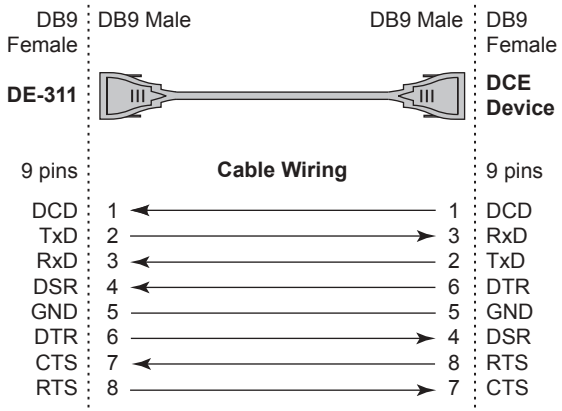
6. Pin Assignments and Cable Wiring

DB9 Female Connector Pin Assignments

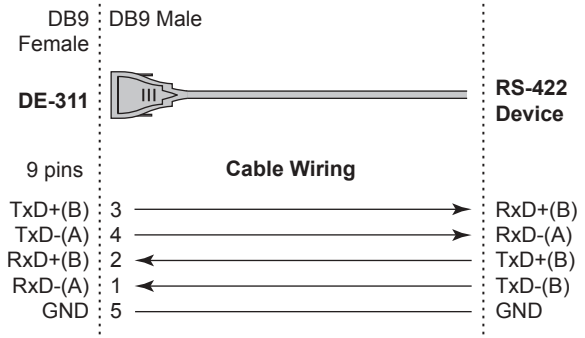


RS-232 Wiring

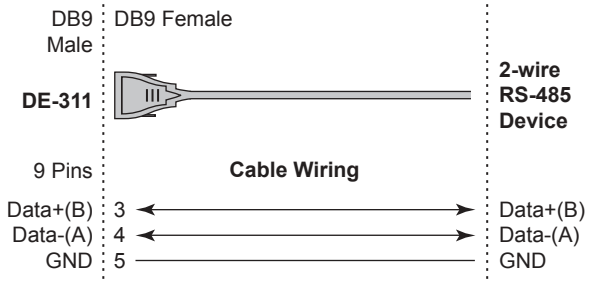




RS-422 Wiring



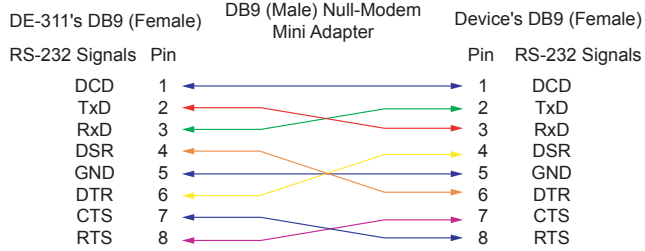
RS-485 Wiring



Mini Adapter

NPort Express DE-311 was designed with a built-in D-shell female serial connector, which some serial devices also have. In order to make it easier for our customers to attach DE-311 to any serial device, a DB9 (Male) to DB9 (Male) mini null-modem adapter is included as a standard accessory with DE-311.

If you want to make your own DB9 (male) to DB9 (male) null-modem (also called cross-over) cable, the correct pinouts are as follows:



7. Environmental Specifications

Power requirements	DC 9V to 30V, 300 mA at 9V	
Operating temp.	0 to 55°C	
Operating humidity	5 to 95% RH	
Dimensions (W×D×H)	90 × 100.4 × 22 mm 3.54 × 3.95 × 0.87 in	(including ears)
	67 × 100.4 × 22 mm 2.64 × 3.95 × 0.87 in	(without ears)
Surge protection	15 KV ESD for serial port	
Magnetic isolation	1.5 KV for Ethernet	
Regulatory approvals	FCC B, CE B, UL, CUL, TUV	

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