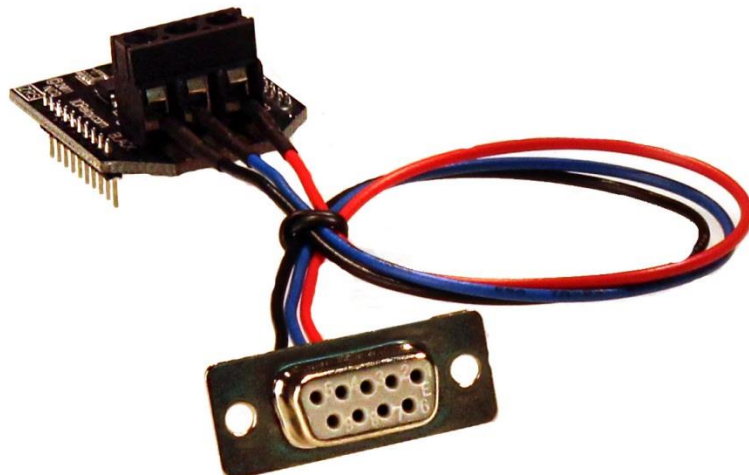
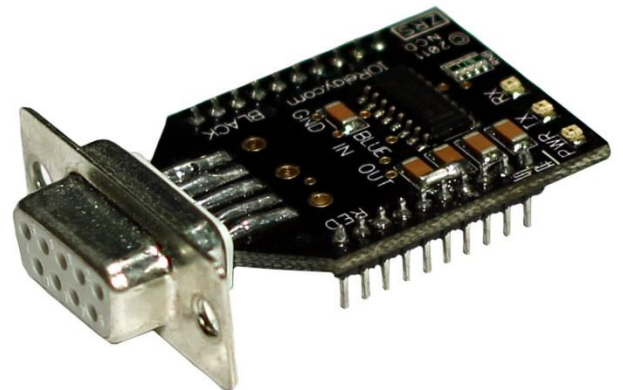
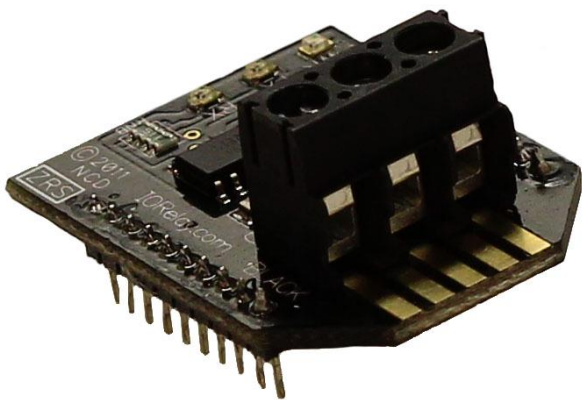


# NATIONAL CONTROL DEVICES

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## RS-232 Serial Quick Start Guide



## Serial Communications Module

NATIONAL CONTROL DEVICES

# **RS-232 Serial**

## **Serial Communications Module**

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Notice: Portions of this manual require internet access.

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## Getting Started

### Things you will need:

- A computer running Windows XP, Windows Vista, Windows 7, or any version of Linux. Note that we develop software for Windows operating systems so we advise having a Windows PC initial testing.
- Serial Cable
- A device with Serial Interface
- Power Supply (Computer Grade 12v DC Regulated Power Supply is strongly recommended)

### Additional things you will need if you DO NOT have a serial port on your computer:

- Available USB Port on your computer
- USB Cable
- BAFO USB to Serial Adapter (other brands may be used, but this brand has been proven to work very well)

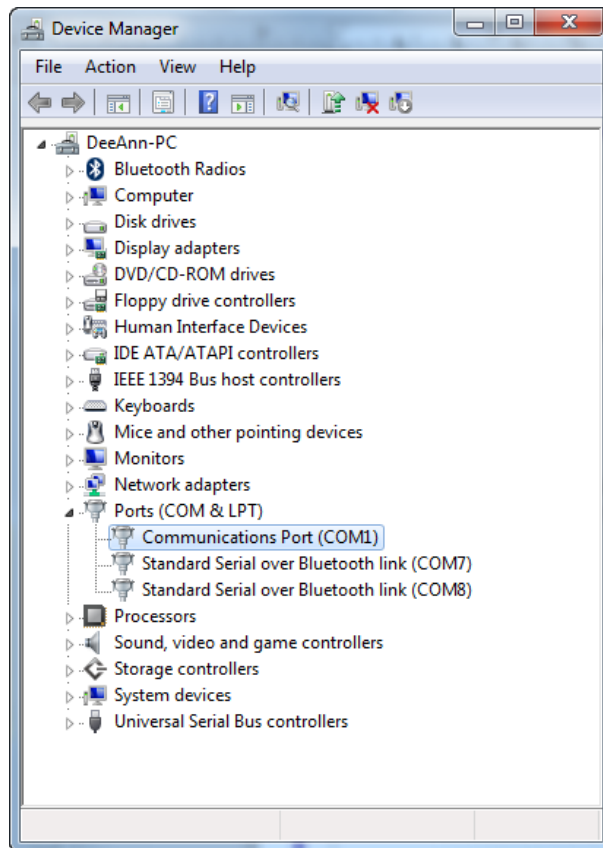
### Things you will need to know:

#### RS-232 Serial

Series	Default Baud Rate	Baud Rate Change Method
ProXR Standard	38.4K	ProXR Software
ProXR Enhanced	57.6K	Base Software
Pro Series	9600	On Board Jumpers
R1x/R2x	9600	Fixed
Reactor	115.2K	Fixed
KeyFob	115.2K	Fixed
Taralist	115.2K	Fixed

## Finding COM Ports

1. Virtual COM port drivers are required if using USB to Serial adapter. Windows 7 typically recognizes the device without drivers. The latest drivers may be downloaded and installed from the following locations:  
<http://www.ftdichip.com/Drivers/VCP.htm>
2. Navigate to your “Device Manager”
  - Go to the Start menu
  - Select “Control Panel”
  - Select “Device Manager”
3. Expand “Ports (COM & LPT)”. You should see a COM port for RS-232 Serial built in to your computer or a Virtual COM port created by USB to Serial adapter. The screen shot below depicts the highlighted COM 1, in this case the available Serial Port.



**Note:** If you are using a serial cable to connect directly to your computer, then your computer will, of course, have a Serial Port built in. This Serial Port will usually appear as COM1 up to COM4. If your computer has a Serial chip, there can be many more available Serial Ports. Just be sure to remember the COM port to which your device is attached, as you will need to access your device with your software.

## Base Station

### Base station Software

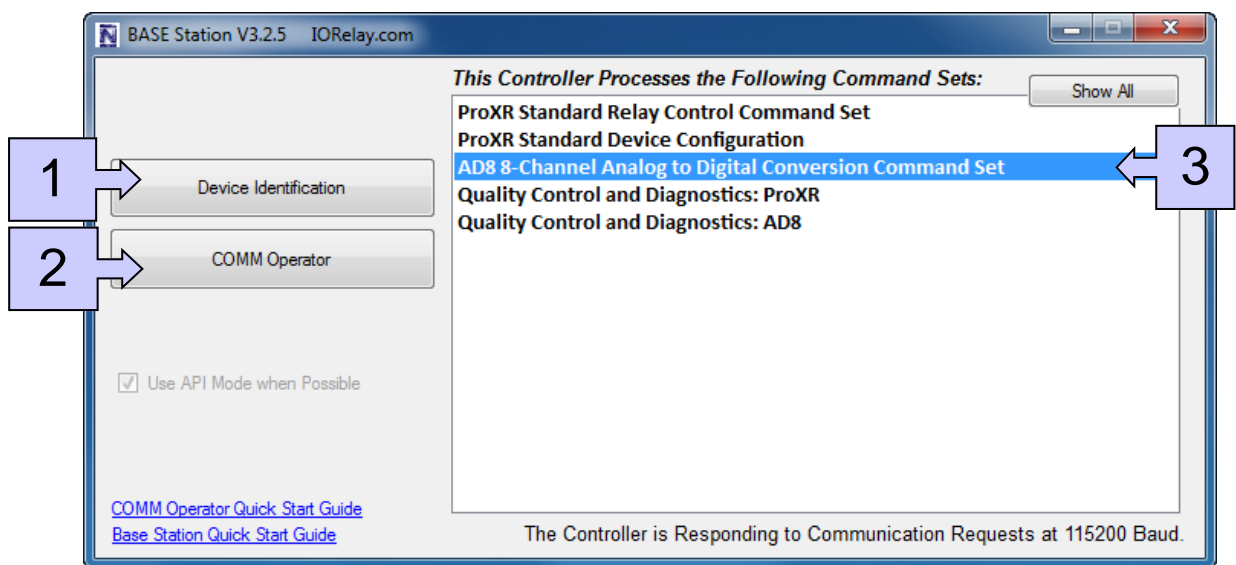
When Base Station Software runs on your Windows computer, the software will identify the type of controller and will build a list of command sets that are compatible with your controller. These are the basic parts to the main Base software application:

1. **Device Identification and Documentation:** This button displays Read-Only information stored in the controller. It can help you identify the type of device that is connected and what its capabilities are. This portion of the software also builds a library of documents that will be helpful in using the controller it has identified. This library of documents will change depending on the type of device which has been identified.
2. **COMM Operator:** COMM Operator is a tool for testing and learning how to communicate with all Network and COM based devices. This manual may include command codes you can send to the device using COMM Operator. COMM Operator should be thought of as a terminal to send and receive bytes of data. COMM Operator was used extensively in the development of this device and should be referenced throughout the learning process. COMM Operator is a commercial product and is NOT Free. The 30-Day Evaluation version is provided and users may purchase a license for this software if they would like to continue use beyond 30 days.

3. **Command Sets:** Each Device contains a set of commands that are identified by the Base Station software. Choose the command set you would like to explore in this box. Click one time on the command set you would like to explore.

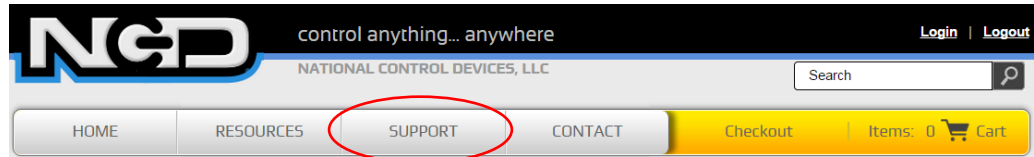
*Note: There may be more basic features depending on your device. Other features you may notice:*

- **Device Configuration:** This button allows you to modify important device settings to help improve communication speed, functionality, and timing parameters of the device. Device Configuration is rarely used by the user.
- **Display Command Set:** When working with Base software, many windows will display the actual command codes used to trigger a particular function. This option allows you to choose Decimal and Hex formats. This manual is shown in both Hex and Decimal format. Decimal is typically used in COMM Operator and is our preferred format, by Hex works great too.
- **Run Mode:** Run mode is used for daily operations and is the default mode of operation. To prevent accidental writes to non-volatile memory, the device must be placed in Configuration Mode to change EEPROM memory. Click this button anytime you need to change modes. Note that a jumper on the controller will force this device into Configuration mode. If a device is powered up in Configuration Mode and you are using a Web-I interface, the Web-I will boot in DHCP mode as a safeguard in case the device becomes inaccessible with a static IP address.



## Technical Support

Technical support is available through our website, [controlanything.com](http://controlanything.com). **Support** is the way we connect NCD engineers to our customers.



*Click on the **Support** tab at the top of any page on our website to be taken to the **Forum** page. Here you can publicly post or review problems that customers have had, and learn about our recommended solutions.*

Our engineers monitor questions and respond continually throughout the day. Before requesting telephone technical support, we ask that customers please try to resolve their problems through **Support** first. However, for persistent problems, NCD technical support engineers will schedule a phone consultation.



## Contact Information

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### Notice:

The only authorized resellers of NCD products are

- [www.controlanything.com](http://www.controlanything.com)
- [www.relaycontrollers.com](http://www.relaycontrollers.com)
- [www.relaypros.com](http://www.relaypros.com)

All other websites are not authorized dealers; we have noticed some retailers offering our products fraudulently.