



Model: NDS-1111-PW Network Device Server

Installation Guide and Owner's Manual

FUNCTION



The NDS-1111-PW Network Device Server enables you to remotely connect to a PIM-R or any other serial device with a secure virtual COM port over the internet, without a dedicated on-site computer.

The Network Device Server, along with the RAPS configuration software allows for the management, control and access to a customer's PulseWorx system via UPStart while eliminating the need to be on the jobsite.

IMPORTANT SAFETY INSTRUCTIONS

When using electrical products, basic safety precautions should always be followed, including the following:

1. READ AND FOLLOW ALL SAFETY INSTRUCTIONS.
2. Keep away from water. If the product comes in contact with water or other liquid, turn off the circuit breaker and unplug the product immediately.
3. Never use products that have been dropped or damaged.
4. Do not use this product outdoors.
5. Do not use this product for other than its intended purpose.
6. Do not cover this product with any material when in use.
7. SAVE THESE INSTRUCTIONS.

INSTALLATION

The Network Device Server (NDS) is designed for indoor use and requires three steps to operate correctly:

(1) Hardware Installation, (2) Configuration and (3) Operation

- Hardware Installation is documented in the manual
- Refer to the Remote Access Port Software Installation Instructions for configuration.
- Refer to the Remote Access Port Software User Guide for operation.

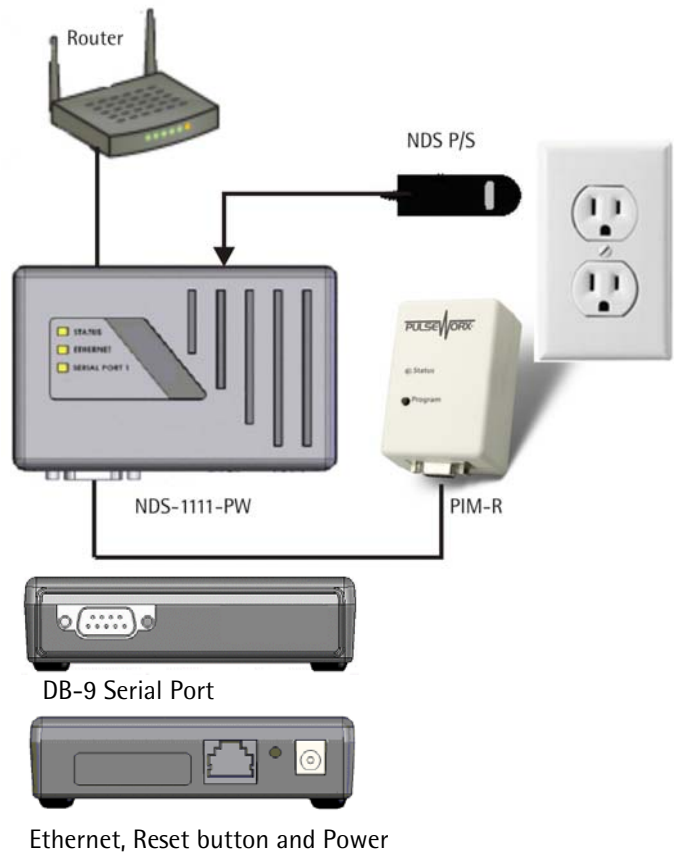
1. Connect the NDS to your network, The most common connection method is through the 10 BaseT RJ-45 connector (which is labeled LAN) to your Ethernet LAN, using a standard straight-through Ethernet cable to a router or network port.

2. Connect a serial cable between the PIM's or other RS-232 device to the NDS unit using the serial DB-9 connector.
3. Plug the PIM-R into any grounded wall outlet. The Status LED should start blinking and then stay solid blue.
4. Plug the AC power supply adapter into the NDS

NDS CONNECTIONS

The following figures show the connectors and LED locations for the NDS-1111-PW. There are:

- Three LED's on top of the unit
- One DB-9serial port
- One RJ-45 Ethernet port
- One Reset button



The Status LED indicates the overall status of the device. The Serial Port LED indicates the status of the serial port. The Ethernet LED indicates the status of the Ethernet connection(s). The reset button can be used to reboot the unit or to restore the factory default configuration on the unit. Depressing and releasing the button will reboot the unit. Depressing and holding the "Reset" button in for about 5 seconds will restore the default (factory) configuration to the unit and then reboot the unit.





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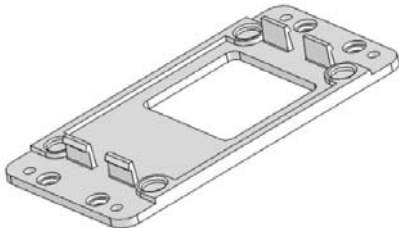
STARTING THE NDS

When the NDS is powered up, the LEDs will flash to indicate normal operation. The following LED colors and patterns will be displayed during normal startup, if no errors are detected.

- Status LED – initially this LED will be yellow, but will quickly turn green. If the status LED is solid green, then the NDS doesn't have a permanent IP address and is trying to obtain one from a DHCP server. If the LED is blinking green, it means the NDS has obtained an IP address and is ready to use. Red indicates a fatal error.
- Ethernet LED – this LED will either be off, green or blinking green/yellow. A green LED means that a good Ethernet link has been established and the unit is on the network. The LED will blink green/yellow to show network activity.
- Serial port LED – this LED will normally be either yellow or green. Yellow indicates a port that is not in use. Green indicates a port that is in use. The green LED will blink when data is transmitted or received. It will blink 2 times per second when data is continuously transmitted or received.

MOUNTING THE NDS

The NDS includes a bracket that can be used to mount the NDS to a wall or shelf.



To mount the NDS to a wall or shelf:

- Use the bracket as a template to mark the holes on the mounting surface
- Drill pilot holes (metal or wood surface) or drill dry wall anchor holes and install anchors
- Mount the bracket in the holes
- Snap the NDS into the bracket

TROUBLESHOOTING

The NDS has several LED indicators: Status, Serial ports, and Ethernet. The LEDs use red, yellow, and green blinking combinations to indicate the status of each of the NDS's major components.

Status LED

LED Condition	Meaning
Solid Green	The unit is running, but it needs an IP address. It is trying to obtain one from DHCP/BOOTP
Blinking Green	The unit has an IP address and is operating normally
Alternating Green/Red	If the "reset" button is being held in, this LED sequence means that the factory default configuration is about to be restored. If you do not want to restore the factory default, release the button before the sequence changes to Green/Yellow. Otherwise this means a serious system error occurred. See the system log for more details
Alternating Green/Yellow	If the "reset" button is being held in, this LED sequence means that the factory default configuration was restored. You may release the button. Otherwise, this means that the current configuration is corrupt and that the factory default configuration is being used
Blinking Yellow	The unit is booting.
Solid Red	Fatal error
Off	No power, or the unit is inoperative

Serial Port LED

Solid Green	Port is open, but idle
Blinking Green	Port is open, and data is being transmitted or received.
Red Blinks	Data errors will cause periodic red blinks. Persistent red blinks may imply a configuration problem
Solid Red	Port hardware has failed
Yellow	Port is closed
Off	No power

Ethernet LED

Solid Green	Ethernet link is good
Green/Yellow Blink	Network traffic was detected
Off	The Ethernet cable is bad or not connected or no power

LIMITED WARRANTY

Seller warrants this product, if used in accordance with all applicable instructions, to be free from original defects in materials and workmanship for a period of five years from the date of purchase. Refer to the warranty information on the PulseWorx website (www.PulseWorx.com) for exact details.

