# zNID Quick Installation Instructions

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Zhone EtherXtend 4-port and 8-port devices are products in a family of next-generation Ethernet-enabled CPE devices. Each EtherXtend model performs the function of a Ethernet extender, an emerging class of products that lengthens the reach of packets passing from the source or destination to a service provider, a distance known as Ethernet in the First Mile (EFM).

AC power supply connection

DC power connection
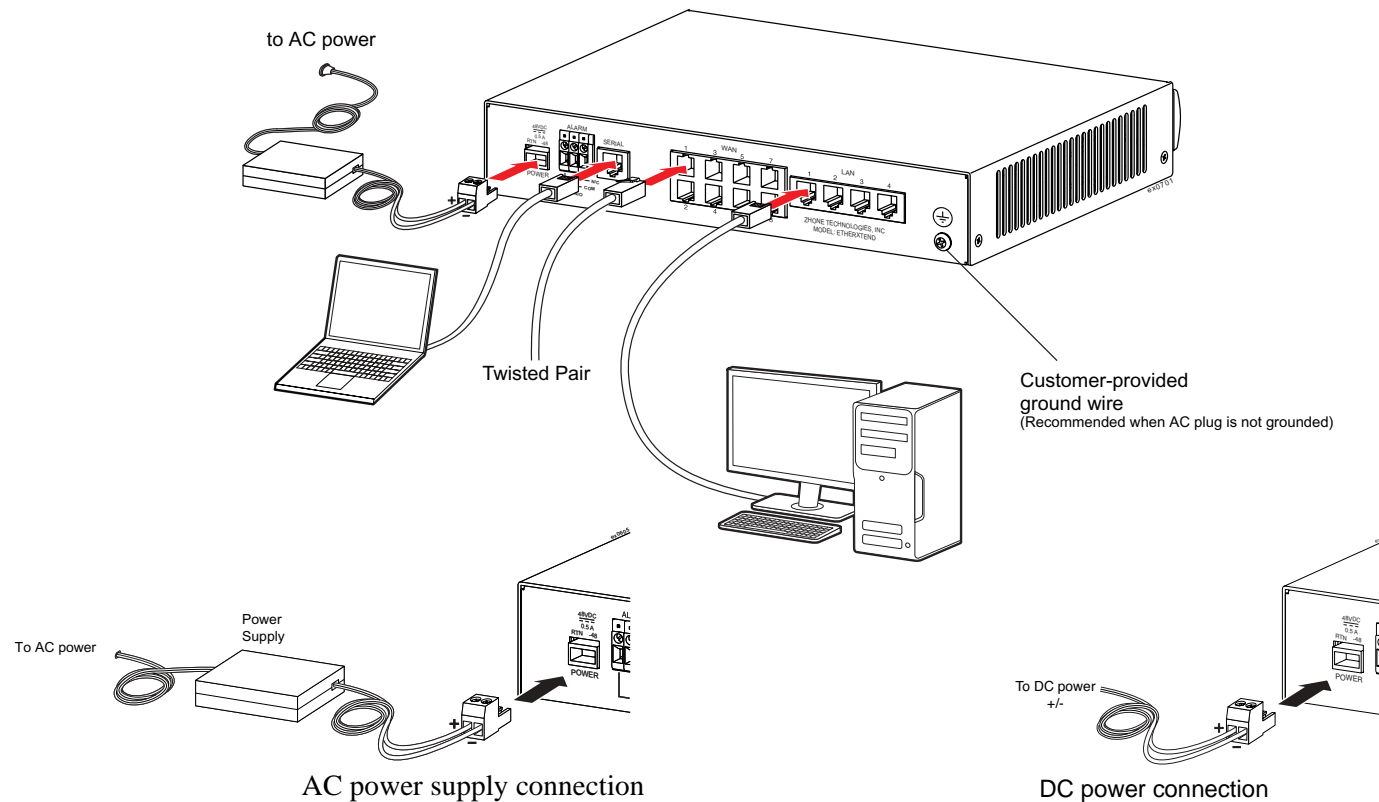
The EtherXtend device provides the loop bonding among all SHDSL ports or a single SHDSL connection. Link-up time can vary depending on the quality, gauge and distance of the copper cables. Model information is displayed on the bottom of the device. When the AC plug is not grounded, ground the device using minimum 16-guage wire tied to a building or earth ground.

Loop bonded WAN SHDSL lines

Using two, three, or up to eight SHDSL lines for one network connection (loop bonding) will net the respective speed and data passing capability as a single SHDSL connection. Multiple SHDSL lines used for one connection also provide backup for each other should one or more of the lines become disabled.

Establishing a loop bonded connection

1 Plug your SHDSL cables into the SHDSL RJ-45 ports (any combination of SHDSL ports) on the rear of the device. The order of the connection is not important.The 4-port models use SHDSL ports 1 to 4.

2 Verify all connections. The SHDSL Link LED for each connected port flashes green to indicate the connection is established and operational.

Establishing a single line connection

1 Plug your SHDSL cable into one of the SHDSL RJ-45 ports on the back of the device. The 4-port models use SHDSL ports 1 to 4.

2 Verify your connection. The SHDSL LED corresponding to the connected port flashes green to indicate the connection is established and operational.

LAN Ethernet lines

Connect the end-user lines into the LAN ports. Before an SHDSL connection is made, the Ethernet LAN links are disabled. The LEDs are off until at least one SHDSL links is established.

Setting auto-negotiate and duplex mode

The 10/100 Ethernet ports auto-negotiate speed and duplex mode in accordance with the remote equipment to which they are connected. Ethernet speed and duplex mode configurations cannot be hard set on the EtherXtend device.

*   Half Duplex - Receive and transmit functions are mutually exclusive; data transmission occurs in only one direction at a time. Packet collisions are unusual.
*   Full Duplex - Receive and transmit functions occur simultaneously, effectively doubling aggregate bandwidth and preventing packet collisions.

For the best connection results, it is recommended to set the remote devices to autonegotiate speed and duplex mode. If the remote device cannot be configured to autonegotiate, speed may be set at either 10 Mbps or 100 Mbps. However, duplex mode on the remote devices must be set to half duplex.

For complete EtherXtend product documentation, see http://www.zhone.com/support/manuals/net_ext_manuals.