Preliminary

ETHER ANT

User's Manual

Version 0.1

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FCC Notice

The Young Design, Inc. wireless Ethernet equipment described herein complies with FCC radiation exposure limits set forth for an uncontrolled environment when installed as directed. The equipment should be installed and operated as fix-mounted antennas such that the main lobe(s) of these antennas are located a minimum of 2 meters between the antenna and all persons during normal operation.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

1) This device may not cause harmful interference.

2) This device must accept any interference received, including interference that may cause undesired operation.
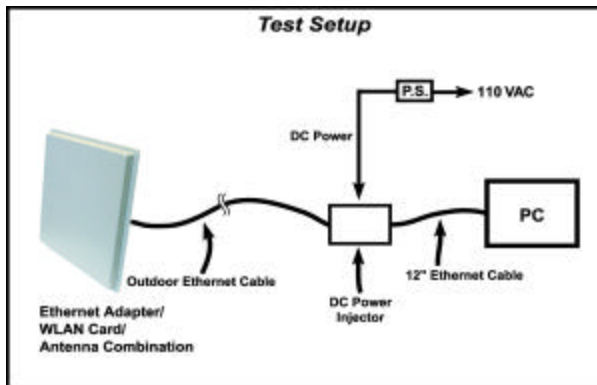
FCC ID NO: NM5-ETH-ANT

FCC Notice

This antenna/transmitter device must be fixed-mounted on outdoor permanent structures with a separation distance of at least 2 meters from all persons. Users and installers must adhere to the antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance set forth under Part 15 of the FCC regulations.

Flat Panel Antenna with Wireless Ethernet Adapter

1.1 Description

The YDI *Ether-Ant* described in this manual is an 18dBi gain flat panel directional antenna with a built-in wireless Ethernet adapter. The equipment is 802.11b WiFi^{TM} compliant. The antenna provides outdoor high-speed wireless connectivity for desktop PCs, laptop computers and routers equipped with a 10BaseT Ethernet port.

The antenna offers the simplest, most efficient 2.4 GHz wireless Internet access solution for Ethernet-enabled desktop PCs. It will communicate with any other wireless clients that are 100% WiFi^{TM} compatible. It is ideal for use as a client station device for wireless Internet applications. Built-in voltage regulators allow the antenna to operate from 7– 15VDC sources. A suitable AC adapter designed for 110VAC is included with the antenna kit.

1.2 Configuration Utility Software

The Configuration Utility Software (Utility) used with the *Ether-Ant* can be installed on a PC or workstation running Windows. The utility is a Graphical User Interface (GUI) program that allows the user to locally or remotely display units running on the local network and view/modify configurations for those units. The software communicates with the antenna using a non-routable protocol, so the unit must be accessible on the same subnet as the computer that has the installed Utility.

Using Windows, the Utility installs from a CD-Rom included in the unit. When the user executes the Utility setup file, the software begins the installation program taking the user through a step-by-step process.

1.3 Configuring the Ether-Ant

Use the Configuration Utility to configure the *Ether-Ant*. The Main Configuration screen for any selected device contains settings that can be configured for Radio and Network interfaces.

The Radio settings initialize the antenna's built-in radio and configure the new device to join a designated wireless network. The Network settings connect the new device to the existing Ethernet LAN. The subnet and IP addresses of the network the user intends to connect to are required for this configuration.

1.4 Installation

> ⚠️ *FCC NOTICE:* *This antenna/transmitter device must be fixed-mounted on outdoor permanent structures with a separation distance of at least 2 meters from all persons. Users and installers must adhere to the antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance set forth under Part 15 of the FCC regulations.*

The YDI **Ether-Ant** has a built-in radio so that professional antenna installation is not required. Because the antenna uses the PC's existing Ethernet interface, there are no drivers to install for this device. There are no radio frequency (RF) cables because the radio device is built right into the antenna. The antenna is intended to be a pole or wall-mounted outdoor installation.

The **Ether-Ant** installation procedures are described below.

- Connect the Ethernet cable included in the antenna kit to the flat panel antenna using the 6-pin N-male connector. Up to 200 feet can be used.
- Use brackets and screws to mount the flat panel to the antenna mast.
- Connect the Ethernet cable attached to the antenna to the Cat 5 DC Power Injector at the RJ-45 port labeled "To ANT."
- Connect the Ethernet cable labeled "To PC or ROUTER" extending from the Cat 5 DC Power Injector to your computer, router or optional lightning protector.
- Plug the AC Adapter into an AC outlet and connect to the jack on the Cat 5 DC Power Injector labeled "DC Power."
- Ensure that the Power and Ethernet LEDs are lit on the back of the **Ether-Ant**.

A steady green Power LED indicates that power is being supplied to the antenna. The interface LEDs show a steady green light when there is a valid link. A flickering amber light indicates activity on the Ethernet interface.

1.5 Aiming the Antenna and Checking Signal Strength

The most important issue regarding installing the YDI **Ether-Ant** is to determine the optimal positioning for the device and to ensure clear line of sight to the base station. The Configuration Utility has built-in signal strength indicators, which can be used to aim the antenna properly.