Exhibit E............... User's Manual

SOHOware

CableFREE NetBlaster

User's Guide

[Preliminary]
January 1999

FCC INFORMATION

The Federal Communication Commission Radio Frequency Interference Statement includes the following paragraph:

The equipment has bee tested and found to comply with the limits for a Class B Digital Device, pursuant to part 15 of the FCC Rules.   These limits are designed to provide reasonable protection against harmful interference in a residential installation.   This equipment generates, uses and can radiated radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communication.   However, there is no grantee that interference will not occur in a particular installation.   If this equipment dose cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

--Reorient or relocate the receiving antenna.
--Increase the separation between the equipment and receiver.
--Connect the equipment into an outlet on a circuit different from that to which the
   receiver is connected.
--Consult the dealer or an experienced radio/TV technician for help.

Notice:
1. **The Changes or modification not expressly approved by the party
   responsible for compliance could void the user's authority to operate the
   equipment.**
2. **For complying with all requirements of the FCC rules, the connection of
   the RJ-45 port shall use a shielded cable.**

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FCC WARNING

This equipment generates and uses radio frequency energy and, if not installed and used in accordance with the installation guide, may cause interference to radio and television reception, which can be determined by turning the equipment on and off. This equipment has been tested and found to comply with part 15 of the FCC rules.

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Packing List

The package should contain the following items:

- One CableFREE NetBlaster
- One AC Power Adapter
- One Power Cord
- This User's Guide

Introduction

Congratulations on choosing NDC's SOHOware CableFREE NetBlaster. CableFREE NetBlaster was one of the first IEEE 802.11 wireless standard compliant products in the industry and was designed with a *"Maximizing the Convenience of Networking"* philosophy in mind. You will find CableFREE NetBlaster very easy to setup and use.

The User's Guide gives comprehensive instructions on installing and using the CableFREE NetBlaster. The CableFREE NetBlaster provides a transparent bridged connection between a wired network and a wireless network and allows your wireless stations to communicate with devices attached to your wired network. It manages the flow of data packets from the wired LAN to the wireless LAN, and vice versa. It can also be used as a relay point to extend the distance between stations. Planning Your Network, page 2, fully explains the different types of network configuration.

The CableFREE Family

CableFREE NetBlaster is part of a family of easy to use high performance wireless communication products. The family products include:

- CableFREE Starter Kits
  - *Two CableFREE ISA Cards bundled with Internet Sharing Software*
  - *One CableFREE ISA Card and one CableFREE PC Card bundled with Internet Sharing Software*
- CableFREE ISA Card
- CableFREE PC Card
- CableFREE NetBlaster
- CableFREE USB Interface Unit
- CableFREE PCI Card

Cabling

Connecting the CableFREE NetBlaster to an Ethernet network requires Unshielded Twisted-Pair (10Base-T) cable. The CableFREE NetBlaster fits into the network just as any other node would do. An LED will light to indicate a connection. The cable length should follow Ethernet standards in each case.

Infrastructure Network Types

An Infrastructure network is formed by several stations and CableFREE NetBlaster, with the stations within a set distance from the CableFREE NetBlaster. **Figure 1** depicts a typical Infrastructure network topology.

There are two infrastructure network setups that are commonly used. It is a good idea to understand the possible network setups and configuration requirements before planning your wireless network.

Type 1.   The simplest wireless infrastructure network is composed of one CableFREE NetBlaster and a few wireless Stations communicating via radio waves (**Figure 1**). This setup enables mobile stations to communicate with each other. The main benefit of this type of network is to extend the range of the network. If a CableFREE NetBlaster is placed between Station-1 and Station-2, the radio transmission distance is effectively doubled since Station-1 can talk to Station-2 through the CableFREE NetBlaster. The drawback of this configuration is that the effective bandwidth is halved since all communication is relayed by the CableFREE NetBlaster.
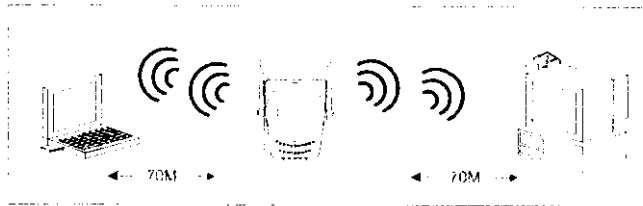

Figure 1.   Simple Wireless Infrastructure Network

Type 2.   The next simplest wireless network is very similar to the Type 1 network. This time the CableFREE NetBlaster is connected to a wired Ethernet network as a node. In this configuration the CableFREE NetBlaster is effectively performing as a bridge between the wired Ethernet and the wireless networks (**Figure 2**). Wireless users have the same access to the network resources as they would have if they were wired. This type of network is usually used to extend an existing network into a difficult to wire
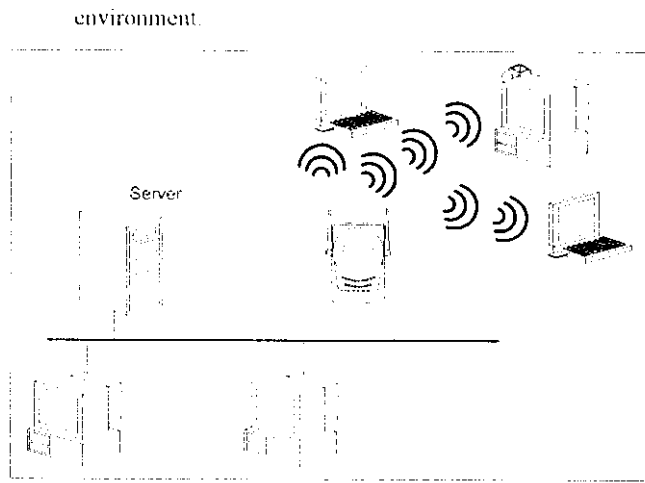
environment.

Figure 2.   CableFREE NetBlaster to Wired Ethernet Bridge

Any other type of configuration is usually a mix of these commonly used types.

CableFREE NetBlaster Placement Guidelines

A characteristic of radio communication is the "interference" problem. Radio is receptive to interference.   Therefore, the more interference you can avoid, the better performance you will get from wireless products. The following section describes how the CableFREE NetBlaster should be placed to reduce possible interference.

A few tips to mention that are particularly significant in a radio wave communications system:

1.   Radio waves reflect or refract from buildings, walls, metal furniture, or other objects.   This could result in performance degradation due to the fluctuation of the received signal

2.   Microwave ovens use the 2.45 GHz frequency band.   CableFREE also functions in the 2.4 ~ 2.5 GHz band, and therefore shares some of the band with microwave ovens.   This means that when a nearby microwave oven is in use it may interfere with CableFREE, resulting in performance degradation on the wireless network

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For the best performance, it is advisable that users follow the guidelines below in placing the product:

- Place the CableFREE NetBlaster as high as possible, in as open an area as possible
- Avoid placing the CableFREE NetBlaster close to metal objects (e.g., file cabinets, metal cubicles, ...etc.)
- Keep CableFREE NetBlasters and Stations as far away as possible from microwave ovens (10 meters min. is advisable)

LED Indicators

The CableFREE NetBlaster LEDs show the status of the connections.
Figure 3 shows the LEDs.

Figure 3.   CableFREE NetBlaster LEDs

General	Color	Function
PWR	Green	The CableFREE NetBlaster is receiving power

LAN	Color	Function
E/N LNK	Green	Indicates an Ethernet UTP link
E/N TX/RX	Orange	Indicates Ethernet data transmission/reception

Radio	Color	Function
RF LNK	Green	Indicates a wireless link
RF TX/RX	Orange	Indicates wireless data transmission/reception

CableFREE NetBlaster Hardwa re Setup

CableFREE NetBlaster Hardware Setup explains how to quickly setup the CableFREE NetBlaster for use via a wired Ethernet connection, and using the factory default settings. To setup a wireless station, refer to the ISA/PC Card User's Guide.

step1.   Place the CableFREE NetBlaster in a suitable location (see CableFREE NetBlaster Placement Guidelines, page 3)

step2.   Connect the Ethernet network cable to the UTP port

step3.   Connect the power adapter to the electricity outlet and then to the CableFREE NetBlaster DC-In port

step4.   Turn on the CableFREE NetBlaster power switch

The CableFREE NetBlaster is now ready to communicate with the wireless stations using its factory default settings. Refer to the CableFREE ISA/PC Card User's Guide for Station setup instructions.

Note: *If a station was powered on earlier than CableFREE NetBlaster, run the utility program-**Site Survey** on that station to **Scan** then **Join** CableFREE NetBlaster. The AP Name in the Site Survey Window is "NetBlaster" and the Domain Name is "CableFREE."*

If you are having a problem using an NDC product and cannot resolve it, please note the following information and contact NDC Technical Support:

- What you were doing when the error occurred
- What error messages you saw
- Whether the problem can be reproduced
- The serial number of your product
- The firmware version number

NDC Technical Support is available via e-mail at:
   support@ndclan.com (US only)
   techsupt@ndc.com.tw (Europe and Asia Pacific)

For other information about NDC, please visit us at:
   www.sohoware.com
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