EXHIBIT I

Operator's Manual for OTC Telecom Model Air EZY éLAN II

OTC Telecom
FCC ID: MKZAEZY2411BRG

AirEZY2411-é*LAN Bridge*™
(Point to Point)

wireless Ethernet Bridge

by
OTC Telecom, Inc.

user's manual

Copyright

Trademarks

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Limited Warranty, Disclaimer, Limitation of Liability

For a period of one (1) year from the date of purchase by the retail customer, OTC Telecom Inc., warrants the AirEZY2411 e'lan Bridge wireless LAN against defects in materials and workmanship. OTC Telecom will not honor this warranty if there has been any attempt to tamper with or remove the unit's chassis.

This warranty does not cover and OTC Telecom will not be liable for any damage or failure caused by misuse, abuse, acts of God, accidents, or other causes beyond OTC Telecom's control, or claim by other than the original purchaser.

If, after inspection, OTC Telecom determines there is a defect, OTC Telecom will repair or replace the AirEZY2411 e'lan Bridge unit at no cost to you. To return defective merchandise to OTC Telecom please call OTC Telecom Customer Service at (408) 245-6888 to obtain a Return Merchandise Authorization (RMA) Number.

In no event shall OTC Telecom, Incorporated be responsible or liable for any damages arising:

- From the use of the product
- From the loss of use, revenue or profit of the product; or
- As a result of any event, circumstance, action, or abuse beyond the control of OTC Telecom, Incorporated;

whether such damages be direct, indirect, consequential, special or otherwise and whether such damages are incurred by the person to whom this warranty extends or a third party.

Warranty Return Policy

If you have a problem with your AirEZY2411 e'lan Bridge product (P/N: AEZY2468-TRX), please call OTC Telecom Technical Support at (408) 245-6888. OTC Telecom Technical Support will assist with resolving any technical difficulties you may have with your OTC Telecom product.

After calling OTC Telecom Technical Support, if your product is found to be defective, you may return the product to OTC Telecom after obtaining an RMA number from OTC Telecom Customer Service. The product must be returned in its original packaging. The RMA number should be clearly marked

on the outside of the box. OTC Telecom cannot be held responsible for any product returned without an RMA number, and no product will be accepted without an RMA number.

When calling OTC Telecom, please provide the following information to expedite service:

- Customer account number
- Invoice number
- Date of Sale
- Model number of product
- Serial number of product

FCC Identification

MKZAEZY2411BRG

FCC Warning

NOTE: This equipment has been 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 radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does 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.

DECLARATION OF CONFORMITY

We OTC Telecom Inc.,
2036 Bering Drive
San Jose, CA, 95131

Telephone: (408)245-6888

Declare under our sole responsibility that the product

AirEZY2411-BRG

Complies with part 15 of FCC Rules. Operation
is subject to the following two conditions: (1) this device
may not cause harmful interference, and (2) this device must
accept any interference received, including interference that may
cause undesired operation.

CONTENTS

1.0 Introduction

Congratulations on your purchase of OTC Telecom's AirEZY2411 e'lan Bridge! The AirEZY2411 e'lan Bridge is a cost effective "plug and play" wireless Ethernet Bridge that can provide wireless network connectivity when people and information are scattered among several nearby buildings within a few of miles (line of sight is required between the two connectivity points). OTC Telecom's wireless bridge provides wireless point to point connectivity and high performance.

AirEZY2411 e'lan Bridge offers the user easy installation and use. AirEZY2411 e'lan Bridge can be connected directly to your existing Ethernet network by connecting the AirEZY2411 e'lan Bridge's RJ-45 connectors to an Ethernet bridge, switch, router, or to a file server with an Ethernet card. Aim the provided directional antennas, and the AirEZY2411 e'lan Bridge will be up and running.

Another built in feature with your AirEZY2411 e'lan Bridge is platform independence. AirEZY supports all major network operating systems without the need of installing complex and time consuming software drivers.

2.0 System Requirements

To begin using your AirEZY2411 e'lan Bridge wireless LAN, your network system will need to have an Ethernet ready bridge, switch, router, or file server with available Ethernet connectivity ports. The "point to point" locations to be connected via AirEZY2411 e'lan Bridge must have one of the following:

» **Server:** *Hardware*--486 or Pentium PC, Apple Macintosh & PowerPC, UNIX Host (SUN, DEC,...), IBM AS-400, and IBM Mainframe with an Ethernet Interface Adapter. ***Your file servers should have at least two Ethernet ports. when using the configuration described in Appendix A (AirEZY2411 e'lan Bridge will occupy one Ethernet port if you choose to connect it directly to the file server.)* See Appendix A**

   NOS/Protocol--Novell NetWare, AppleTalk, LAN Manager, Windows NT Server, Windows 95 & 98, UNIX with TCP/IP, and SNA. ***AirEZY2411 e'lan Bridge will also operate with most third party bridge and router software packages.***

» **Hub / Bridge / Switch:** *Hardware*--3Com, Hewlett-Packard, Cisco, Bay Networks, etc...

» **Router:** *Hardware*--3Com, Cisco, Bay Networks, etc...

» You will also need to run an AirEZY2411 e'lan Bridge unit at each of the location that you wish to connect.

3.0 Product Package

AirEZY2411 e'lan Bridge	2 units	AirEZY2411 e'lan TRX wireless transceiver units
	2 each	High Gain Directional antennas
	2 each	20 ft segments of low loss RF cable
	2 each	20 ft segment **STD "N" to UNEF**
	2 each	Lightning Arrestor
	1 each	AirEZY2411 e'lan Bridge user's manual
	2 cable	3 ft TX/RX twisted pair cable for bridge, switch, and router connection
	2 cable	7 ft BLUE Cross over cable for connection to file servers and PCs.
	1 diskette	Diagnostic and Configuration Software

Custom configurations: Please see Packing List enclosed with shipping boxes

4.0 Installation Overview

After removing AirEZY2411 e'lan Bridge from the shipping box, be sure to lay out all the contents to ensure that all necessary components are accounted for before you begin the installation process. Refer to **Section 3.0** of this manual for a complete list of provided components.

In order to maximize AirEZY2411 e'lan Bridge's full wireless bridging capabilities, the proper placement of your AirEZY2411 e'lan Bridge unit with the antenna properly installed is crucial to its overall performance. The AirEZY2411 e'lan Bridge is a wireless bridge system designed to be used in point-to-point applications. **We require that the installation of this system be performed by a qualified installer..** Please provide the installer with this installation guide. This installation guide will provide the installer with the required information for proper installation wireless bridge.

Antenna placement and installation should be the **first step** in the process of installing your AirEZY2411 e'lan Bridge. After the antenna is properly installed, 1) connect the RF cable to the antenna and 2) to the AirEZY2411 e'lan Bridge unit. See **Appendix A & B** for proper connection of cable to antenna and AirEZY2411 e'lan Bridge. AirEZY2411 e'lan Bridge will perform the best when the antennas are within line of sight. If possible, place the AirEZY2411 e'lan Bridge antenna in a location so that the radio's propagation path is not obstructed by tall trees, buildings, freeway overpasses, or any other large obstacle that may interfere or disperse the radio frequency signal. Optimal performance range for AirEZY2411 e'lan Bridge is between five to seven miles when used with the provided high gain antennas.***

Note: The AirEZY2411 e'lan Bridge output near the antenna exceeds the FCC adopted RF exposure limits for people. The antenna must be installed so that this exposure does not exceed $1.0mW/cm^2$. Based on the effective radiated power of the AirEZY2411 e'lan Bridge using the antennas supplied, a separation distance of 30 centimeters is required to limit the exposure. The antenna must be installed such that a person would not be exposed to RF energy from the antenna that exceeds these limits.

***OTC Telecom, Inc. does not guarantee distances. Your geographical location or the presence of obstacles between your connectivity points may affect AirEZY2411 e'lan Bridge's overall performance.

4.0.1 AirEZY2411 e'lan Bridge Entry Diagnostic Software

OTC Telecom, Inc. provides the user with a Diagnostic and Configuration diskette that will help facilitate the installation and configuration of the AirEZY2411 e'lan Bridge units. This program can be used in either Windows 3.1 and Windows 95 & 98 environments. Please consult the *HELP menu* found on the diskette **before** attempting to perform diagnostics and/or re-configuration of your wireless system!

The Diagnostic & Configuration software allows the user to configure their own RF Channels and RF Security Codes. **In order for the system to link properly and operate, your corresponding Bridge units must be configured to the same RF Channel and the same RF Security Codes.**

FACTORY DEFAULT: The RF Channel is set to CH. 2 (2.442 GHz)

To change the RF Channel or RF Security Code, load the Diagnostic program diskette to configure the wireless bridge units one-by-one. Connect the AirEZY2411 e'lan Bridge units to the Ethernet port of a PC by using a straight-through UTP cable. Run the Diagnostic program under Windows 3.1 or Windows 95 & 98 environment with NetWare IPX protocol installed and enabled.
We recommend that the user familiarize themselves with the wireless bridge hardware and review the *HELP menu* on the Diagnostic Configuration diskette before attempting any re-configurations.

Configuration Guide:

1) Connect the AirEZY2411 e'lan Bridge units to a PC's Ethernet port via a straight-through UTP cable.
2) Run the diagnostic program.
3) In the Diagnostic program's main menu, select item Control and Config.
4) A configuration will pop up.
5) Press the GETID button to get unit ID, default RF Channel, and default RF Security Code.
6) Highlight the unit ID to select the unit.
7) The current RF Security Code and RF Channel will appear in the box.
8) To modify the current settings, select the desired RF channel and/or RF Security Code.
9) Press the SET button. The new RF Channel and RF Security Code will be set. REMEBER: Set your corresponding wireless bridge unit to the same RF Channel and RF Security Code or the system with not operate properly.
10) Exit configuration menu by pressing the STOP button.
11) Power-Cycle your AirEZY2411 e'lan Bridge units to activate the new configurations.

Please consult the *Help menu* on the diskette if you have any additional questions or concerns.

4.1 Antenna Installation (See Appendix B)

WARNING: The authority to operate this device requires its operation and installation, including antennas, to comply with the FCC-adopted radio frequency(RF) exposure limits. It is the responsibility of the installer (professional or end-user) to install this device and associated antennas so that RF exposures to persons do not exceed $1.0mW/cm^2$. For the AirEZY2411 e'lan Bridge antenna system (24dB, or 12dB antennas) the exposure limit is generally satisfied if the antennas are at least 30.48 centimeters of 12 inches away from nearby persons.

Before installing AirEZY2411 e'lan Bridge onto your network, be sure to properly install the directional antenna onto your building. **We require that the installation of the antennas be performed by a qualified or licensed antenna installer.** The front panel of your AirEZY2411 e'lan Bridge unit will have four LEDs and a RF cable connector. The provided antenna cable will have a proprietary 32UNEF female connector that is matched to the AirEZY2411 e'lan Bridge unit. Be sure to have the **UNEF Connector** matched to the AirEZY2411 e'lan Bridge unit. **Be sure not to over torque the screw as this may damage your AirEZY2411 e'lan Bridge unit's 32UNEF male connector!!!**

When installing the antenna and the RF cable follow the following set-up procedure.

1) Be sure to attach the antenna to the antenna mast first. Please align the antennas on the two points that you intend to connect before proceeding to the next step. **Line of sight needs to be established between the two high gain antennas.**

2) **Do not attach the low loss RF cable onto the AirEZY2411 e'lan Bridge unit before the cable is attached and connected to the antenna.**

3) Once the antennas are properly installed onto the antenna mast and properly secured to your building, you are ready to connect the RF cable to the antenna. Connect the RF cable to the antenna by connecting the **STD "N" female to STD "N" male** connector on the antenna RF feed cable.

4) Run the RF cable along the antenna mast to where the AirEZY2411 e'lan Bridge unit will be located.

5) Secure the cable approximately 12"-18"(inches) away from the AirEZY2411 e'lan Bridge unit to allow for stress relief along the RF cable. (Connecting the RF cable to the unit without stress relief in place will damage the connector assembly on the AirEZY2411 e'lan Bridge units!)

4.1.1 Preparing AirEZY2411 e'lan Bridge for network installation

AirEZY2411 e'lan Bridge is designed to be easy and quick to install. The AirEZY2411 e'lan Bridge has built in *auto-detection features* that will auto-detect which application environment it is operating under, this feature facilitates quick and easy installation. When connecting AirEZY2411 e'lan Bridge using the **RJ-45 / 10Base T** port, proceed to Section 4.1.2.

In order to use your AirEZY2411 e'lan Bridge, you must have a wireless unit at each location that you are connecting. The AirEZY2411 e'lan Bridge units must be located at your file server, Ethernet Bridge, switch, or router. In a typical point to point connectivity setting, place the AirEZY2411 e'lan Bridge antennas in direct line of sight with the location you are attempting to connect.

4.1.2 AirEZY2411 e'lan Bridge: RJ-45 / 10Base T Installation instructions:

1) Attach the provided RJ-45 / 10 base T cable to the AirEZY2411 e'lan Bridge unit. NOTE: This connection port is similar to a standard telephone jack connection.

2) Attach the other end of the cable to the server, bridge, switch, or router. This will connect the AirEZY2411 e'lan Bridge to your Ethernet architecture.

NOTE:
- Use the **7ft Crossed-Over** UTP cable to connect AirEZY2411 e'lan Bridge to one of the following devices:

   a) Stand-alone Ethernet Bridge
   b) Switches
   c) Routers
   d) Hubs

- Use the **3ft** 10 Base T cable to connect AirEZY2411 e'lan Bridge directly to the file server's (NIC) port.

3) At this stage of the installation process, check that the antenna is properly installed. Also, be sure that all RJ-45 / 10Base T connections are in place on the network and on your AirEZY2411 e'lan Bridge unit.

4) At this point, turn ON the AirEZY2411 e'lan Bridge unit. Please find a convenient plug location adjacent to your network hardware and plug in the power adapter then proceed to power on the unit

5) Once the unit is turned on, the AirEZY2411 e'lan Bridge unit will begin a series of self diagnostic tests. This series of tests will last for approximately a few brief seconds. **(Do not power on any other AirEZY2411 e'lan Bridge units at this time!)**

6) Once the power is on, the LEDs on the front panel will flash in the following pattern:

Installation	LED color	Pattern	Duration	Indication
Step 1	yellow	series of short flashes	1 sec	Power on diagnostic
Step 2	yellow *	Long "on-off" cycle followed by Short :on-off cycle	continuous	Poor UTP cable connection -or-No UTP cable detected
Step 3 (security feature)	yellow	constant slow flash	continuous (until other unit is linked)	Security function invoked UTP cable connection detected and condition "OK"

LED display when network is properly configured:

LED color	Pattern	Duration	Indication
yellow	constant rapid flash	continuous	Normal activity
green	constant on	continuous	Receive/RX
red	variable	variable	Transmit/TX
red	constant on	continuous	Power indicator

* NOTE: if the yellow LED indicator does not go into the security mode or rapid flash mode, please verify that your UTP cable is connected and all network connections are properly connected
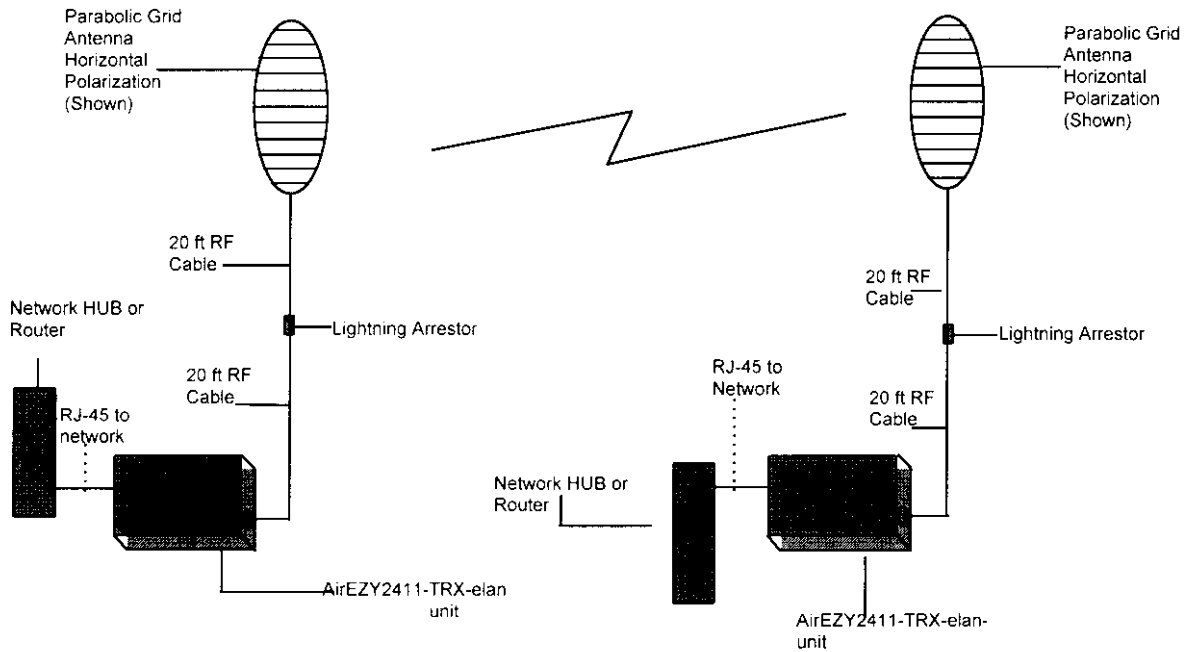
7) If the LEDs are exhibiting the proper characteristics, you have successfully installed the AirEZY2411 e'lan Bridge onto your network.

8) At this point, by following the same procedure as indicated in this section, you will be able to power on the other AirEZY2411 e'lan Bridge units on your wireless segment.

9) NOTE: If the yellow LED on **both units** is exhibiting a constant slow flash pattern after being powered on, this signifies that the radio signal is weak and RF link is weak. Check or adjust antennas. Check for obstructions such as buildings, tall trees, and freeway overpasses that may be obstructing the line of site for the antennas.

Appendix A

AirEZY2411 elan Bridge
Installation Guide

Parabolic Grid
Antenna
Horizontal
Polarization
(Shown)

Parabolic Grid
Antenna
Horizontal
Polarization
(Shown)

20 ft RF
Cable

20 ft RF
Cable

Network HUB or
Router

Lightning Arrestor

Lightning Arrestor

RJ-45 to
Network

20 ft RF
Cable

20 ft RF
Cable

RJ-45 to
network

Network HUB or
Router

AirEZY2411-TRX-elan
unit

AirEZY2411-TRX-elan-
unit

•Please use RJ-45/UTP _Cross-Over_
Cable for connection to Router/Switch
or Hub.

• Please use RJ-45/UTP _Straight-Through_
Cable for direct connection to
(computer/server/laptop) ethernet
port.

Appendix B

Helpful Hints / Trouble Shooting Guide:

Verifying Antenna Connection to RF cables

1) Be sure to check that the directional antennas connected to the RF cables are connected properly. See the second diagram in Appendix B.

Verifying Antenna placement and orientation

1) Antenna must be securely mounted on an antenna mast. (Do not freely place the antenna on the roof without the antenna attached to a mast/tripod system. Do not dangle the antenna off the side of a building.) **Improper antenna installation may result in poor connectivity or no connectivity.**

2) It is recommended that the antenna mast be placed either on the roof using a tripod mount or attached to the side of a building using a side wall mount.

3) Antennas must be within line of sight of each other. (Tall trees, buildings, freeway overpasses, and objects taller than the antenna assembly will obstruct and / or deflect the radio signal path.)

4) When installing the antennas, follow the instructions provided in Appendix B of this manual. Be sure that both antennas are installed so that the grid panels are in the same orientation. (The polarization for both grid antenna panels should be horizontal or vertical.)

5) OTC Telecom recommends that the installation of the antenna mast be performed by a qualified antenna installer.

Verifying RF Cable Connections to *AirEZY* Units

1) Inspect the connection points between the RF cable and the AirEZY units.

2) Be sure to verify proper antenna installation with the diagrams in Appendix B.

AirEZY Connection to File Server / Hub / Router /

1. AirEZY can be connected to a file server. (It must be connected to a second Ethernet card on the file server. Use the 7ft 10Base T cable provided in the kit.)

2) AirEZY can be connected to a 10Base T Hub / Router or Bridge. (Must use 3ft cables provided in your kit.)

Powering up *AirEZY* at the file server

1) The AirEZY unit designated for installation at the *Server* should always be powered on **FIRST**!!! Do not turn on the AirEZY at your client or remote site at this time. Allow several seconds for the unit to load in the built-in firmware and allow the system to perform a series of self-diagnostic tests. The AirEZY unit's indicator lights should blink in the following pattern:

LED	Function	Display
yellow LED	(Network Link)	slow blinking pattern (CPU functional)
green LED	(RX)	always on (receiving mode)
red LED	(TX)	alternating on and off flash (transmitting mode)
red LED	(Power)	always on (indicates power)

a) check to see that all 10Base T cables are connected properly
b) verify that your file server / Ethernet card / hub / router / and or Bridge is configured properly.
c) verify that your network operating system is functional on your server.
d) turn off your AirEZY unit and **be sure that the other AirEZY unit is not on at this time**.

Powering up *AirEZY* at the remote site

1) Be sure that the **AirEZY located at the main file server is on and ready** to receive signal from the AirEZY at the remote site.

2) Plug in and power on the AirEZY at the remote site.

3) Confirmation of connectivity is exhibited by the following blinking patterns of the LED indicators.

AirEZY located at main File server:

LED	Function	Display
yellow LED	(Network Link)	changes from a slow blinking pattern to rapid blinking (CPU functionality)
green LED	(RX)	always on (receiving mode)
red LED	(TX)	alternating on and off flash (transmitting mode) / **Alternating flash pattern dependent upon AirEZY at client site's transmission pattern.**
red LED	(Power)	always on (indicates power)

AirEZY located at remote site:

LED	Function	Display
yellow LED	(Network Link)	changes from a slow blinking pattern to rapid blinking (CPU functionality)
green LED	(RX)	always on (receiving mode)
red LED	(TX)	alternating on and off flash (transmitting mode) / **Alternating flash patterns**
red LED	(Power)	always on (indicates power)

4) If both AirEZY 's YELLOW LEDs remain in the **slow blinking pattern**; after the remote site is powered on; the radio link has not been established. Please check the following to verify proper connection:
a) Check to see that all 10Base T cables are connected properly.
b) Verify that your remote client site's system is configured properly. We recommend checking your

- Personal Computer / Laptop
- Ethernet card
- hub
- router
- bridge

c)   verify that your network operating system is functional on your server.

Cabling and Connection of _AirEZY_

1) The majority of problems in connectivity with remote client sites can be traced to improper or poor antenna installation and undesirable placement of antenna mast. It is not uncommon to test multiple locations before finding the most optimal location for the antenna's signal path

2) Many network connectivity problems can be rectified with a thorough inspection of the cables, and connectors.

Power Spikes, Power Surges, and Brown-Outs

1) RF systems are susceptible to power spikes, power surges, and brown outs. Unstable power may cause your wireless LAN system to momentarily drop a link. The AirEZY wireless system is designed so that it will recover the connection.

2) OTC Telecom recommends that the user plugs the AirEZY2411 e'lan Bridge into an Uninterruptible Power Supply (UPS). This will resolve the majority of dropped links on your wireless bridging system.

Technical Support

OTC Telecom's technical support can be reached:

Monday - Friday
(7:30 AM - 6:00 PM PST)
except major holidays.

at (800) 770 - 6698