arcanebyte

READ ME FIRST

From one enthusiast to another, thank you for purchasing the ArcaneByte **WiFi Modem**. The **WiFi Modem** is a Hayes-compatible modem accessory for terminals and computers of all ages. Using AT commands within a terminal emulator, your computer can connect to remote machines over wireless networks.

Instructions

1. With the computer *powered off*, connect the WiFi Modem to a serial port on your machine.
2. With the computer *powered off*, connect a microUSB power cable to the WiFi Modem and power on (if equipped). ***A 2A 5V microUSB-based Raspberry Pi power supply or cell phone charger is typically sufficient to power the WiFi Modem***.
3. Power on the machine. Start your favorite terminal emulator and check out the *Quick Start* section of this document.

Considerations and Warnings

1. ***TURN OFF*** the computer and the modem before plugging or unplugging the WiFi Modem from the machine. Failure to do so may damage the modem and/or the computer.
2. The WiFi modem is wired as a DCE and should be connected directly to the computer (DTE) without the use of a null modem adapter. Gender changers and DB-25 to DE-9 adapters can be used, if necessary.

Quick Start

The ArcaneByte **WiFi Modem** utilizes an ESP-12E/ESP8266 chipset and runs a modified version of the Zimodem firmware by Bo Zimmerman. The firmware has been made available under the Apache License 2.0 open-source license and has been forked at https://github.com/arcanebyte/Zimodem. Alternate firmware can be loaded onto this device, but this procedure is outside the scope of this document and is not supported.

The **WiFi Modem** is shipped to support connections of 1200/8-N-1 by default. This translates to 1200 baud with 8 data bits, no parity, and 1 stop bit. These have proven to be the most compatible settings for vintage machines.

Changing Baud Rate, Parity, and Stop Bits

To change the baud rate, data bits, parity and/or stop bits, you must use the following AT command(s):

```
ATBn : Sets a new serial Baud Rate. Takes effect immediately.
ATB"n,xYz" : Sets baud rate n, bits x, parity (E,O,M, or N) for Y, and stop bits z.

Example: ATB”4800,7N1” for 4800 baud, 7 data bits, no parity, 1 stop bit
```

Saving Changes

You can save configuration changes at any time using the **AT&W** command.

Resetting the Modem

You can erase settings at any time using the **AT&F** command.

Configuring a WiFi Connection

When the WiFi Modem is first powered on you should see output similar to the following:

```
Non-Inverted RS232
Zimodem Firmware v3.5.1
Modified by ArcaneByte
https://www.arcanebyte.com/
sdk=2.2.2-dev(38a443e) chipid=1458190 cpu@80
totsize=4096k ssize=360k fsize=1907k speed=40m
READY.
```

To configure a connection to a local wireless access point, type **AT+CONFIG** within your terminal window. The following configuration menu will appear:

```
Main Menu
[HOST] name:
[WIFI] connection: DENTON
[FLOW] control: RTS/CTS
[ECHO] keystrokes: ON
[BBS] host: DISABLED
[PETSCII] translation: OFF
[ADD] new phonebook entry

Enter command or entry or ENTER to exit:
```

Type **WIFI** to list wireless networks in the area:

```
Enter command or entry or ENTER to exit: WIFI

WiFi Networks:
[1] DENTON (-58)*
[2] DENTON (-50)*
[3] DIRECT-59-HP M477 LaserJet (-65)*
[4] ATT5C6u7x8 (-77)*

Enter number to connect, or ENTER:
```

Choose an appropriate wireless network from the list and press **Enter**:

```
Enter number to connect, or ENTER: 1

Enter your WiFi Password:
```

Enter your wireless password and press **Enter**:

```
Enter your WiFi Password: mypassword123
```

Once connected, you will be returned to the setup menu:

```
Connected!

Main Menu
[HOST] name:
[WIFI] connection: DENTON
[FLOW] control: RTS/CTS
[ECHO] keystrokes: ON
[BBS] host: DISABLED
[PETSCII] translation: OFF
[ADD] new phonebook entry

Enter command or entry or ENTER to exit:
```

Hit **Enter** to exit and **y** to save your changes:

```
Your setting changed.  Save them (y/N)?y

Settings saved.

Non-Inverted RS232
Zimodem Firmware v3.5.1
ArcaneByte Firmware v1.2-3.5.1
https://www.arcanebyte.com/
sdk=2.2.2-dev(38a443e) chipid=1458190 cpu@80
totsize=4096k ssize=360k fsize=1907k speed=40m
CONNECTED TO DENTON (192.168.1.136)
READY.
```

At the **READY** prompt, you are ready to dial.

Dialing a BBS or Telnet Site

To dial a BBS or other telnet-based site, use the **ATDT** command:

```
ATDT”x.x.x.x” -or- ATDT”<domain>:<port>”
```

For example, to dial the RetroBattleStations BBS, dial the following:

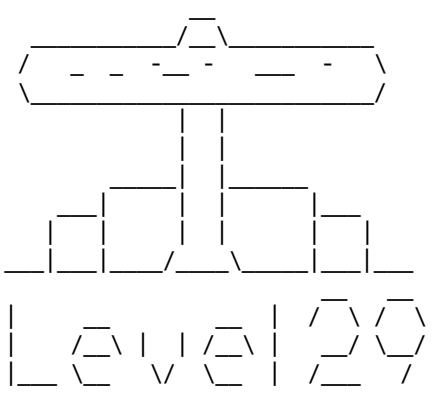
```
ATDT”bbs.fozztexx.com”
```

Once connected, a **BLUE** light on the modem will light up. You may navigate the site using your keyboard and can hang up at any time.

```
ATDT"bbs.fozztexx.com"
CONNECT 5


Welcome to the *NEW* Level 29 BBS!
916 965 1701 - bbs.fozztexx.com

```



```
The official BBS of
RetroBattlestations.com


Enter your username or NEW or VISITOR
User:
```

Additional guidance and command may be found at the official Zimodem homepage at https://github.com/bozimmerman/Zimodem.

Support

Please contact support@arcanebyte.com if you run into issues using the **WiFi Modem**. Certain platforms may require modifications to the firmware and/or may have different cabling requirements. Be sure to provide your hardware platform and operating system, if possible. Support videos can be found on YouTube by searching for ‘arcanebyte’.

For more of this item and others like it, find us on Tindie, Etsy, and eBay, or visit our site at http://www.arcanebyte.com.

If you like this product, please leave a review!