



ZBA, Inc.

Getting Started with



Assembly No. BT44-191C - Adapter_PCB

PC Evaluation and Programming Adapter Kit

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1 Document Status

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June 10, 2009	First draft

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2 Scope

The intention of this document is to provide the necessary description of the use of the programming and evaluation adapter for the **BT44-191C** Bluetooth module. This Evaluation kit contains the necessary items to allow the BT44-191C to be connected to a PC's COM port. The adapter board provides the necessary linear power regulation to 3.3 Volts in order to drive the BT44-191C module sand the RS232 Driver chip. This evaluation board contains a high speed RS232 Driver chip allowing the device to operate at its maximum baud rate of 921000bps.

3 BT44-191C Evaluation Board Description:

The **BT44-191 Evaluation Board** contains the following items

- One BT444-191C Evaluation board

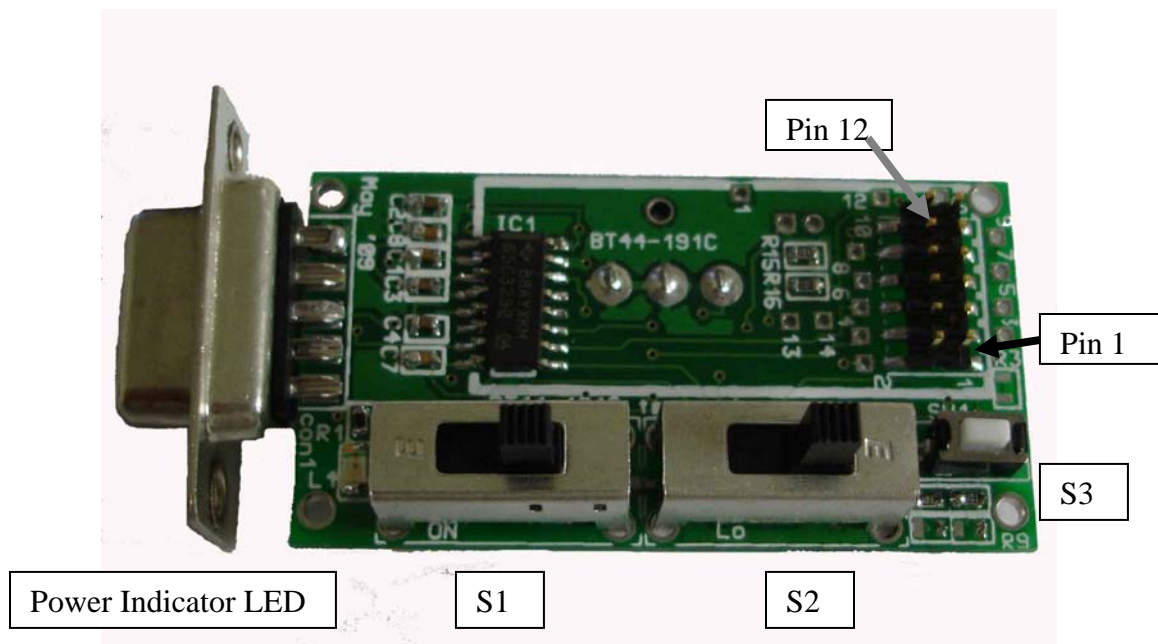


Figure 3.1 Top side view of the Adapter board

- One each a) AC/DC wall adapter,

Additional items needed (but not included in this package)

- A PC running Windows 98 SE or later with at least one DB9M com port
Alternatively a USB-Serial Adapter may be used to generate a virtual COM port

4 Specifications:

4.1 Pin-out of the DB9 port on the Evaluation PCB

DB9 Female Pin #	Description	
1	NC	No Connection
2	TxD	Output to PC
3	RxD	Input From PC
4	NC	No Connection
5	Ground	Input
6	RTS	Input from PC
7	CTS	Output to PC
8	NC	No Connection
9	+V	Optional power source +5V to 9V DC

Note: Do not plug in the power supply if you intend to draw power from Pin 9



4.2 Description of switches and LED

4.2.1 Switches

S1 = ON/OFF power control slide switch. The switch position with the slide closest to the indicator LED is the ON position

S2 = MASTER /SLAVE configuration switch (see Note1)

S3 is a Momentary contact switch used for resetting the device back to the default baud-rate (see note 1)

Note1: These functions are only available with the Piconet firmware

4.2.2 Indicator LED

LED 1 = Power On indicator. When this LED illuminates RED the PCB is now powered.

LED 2 = NCONN connections indicator for SPP. When this LED illuminates GREEN it is an indication that the Device is operating in the SPP mode and there is a successful Bluetooth connection to a remote device. .

LED 3 = NAUDCONN connections indicator for Audio. When this LED illuminates AMBER it is an indication that the Device is operating in the Audio mode and there is a successful Bluetooth connection to a remote device. The function is only available with the Piconet firmware. .

4.3 Power Supply

Power Supply: 110V AC to 9V DC adapter unregulated North America Plug
Connector: 1.3mm barrel jack center positive.

Note: European and UK plugs also available upon request.

5 Description of Set-up and Operation

The adapter board has the can be used to evaluate the performance to the BT44-191C loaded with the SPP firmware or the Point to multipoint (Piconet) firmware

STEP1: Connect the PC adapter board as shown in Figure 5.1. Note the orientation of the PCB. Please check that the connectors are aligned properly. **!!!!CONNECTING THE BT44-191C IN THE REVERSE MANNER MAY DAMAGETHE MODULE.**
!!!!!!!.

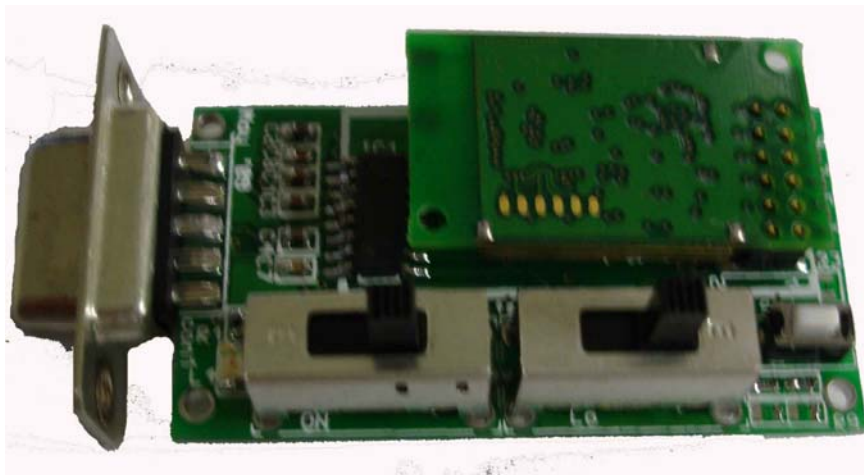


Figure 5.1 BT44-191C connection orientations

STEP3: Connect the DB9 to a PC's serial port (Physical or Virtual)

STEP4: Plug in the Power supply DC jack and then plug the adapter into an 110V wall outlet.

STEP5: Turn on the Evaluation board by sliding power switch S1 to the left when viewing the assembly shown in Figure 5.1 above. Note a RED LED next to the switch should illuminate.

STEP6: Please refer to the Data sheet of the BT44-191C and or the Piconet options for details on how to operate the BT module.

STEP7: Open a communication program to the appropriate COM port to send and receive data from the BT44-191C

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