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

# 5113RF XEYBOARD

User's Guide

Version 1.0

# Contents

INTRODUCTION	1
FEATURES	1
INSTALLATION	2
TECHNICAL SPECIFICATIONS	4
ELECTRICAL DATA	4
Physical & Mechanical Data	4
Environmental Data	4
ELECTROMAGNETIC DATA	

### INTRODUCTION

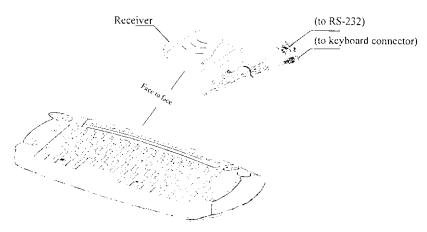
The BTC 5113RF is not only a wireless radio frequency (RF) keyboard but also a multimedia keyboard. This wireless radio frequency keyboard is designed to make your life easier. It is just the right size and weight thus makes it easy to hold in hand or put on your laps, anywhere in the room. It's easy to touch and is quiet to the ears. Wide-angle and long-distance detection frees you from your desktop. And with sleep mode power-saving and "book-on-keyboard protection", it's even easier on the battery and the environment.

With additional 15 multimedia buttons, this multimedia keyboard embeds many useful multimedia functions. By simply pressing a button the user can arrive at the function they desire. In addition, the accompanying software supplies functions to customize these multimedia buttons. Using Multimedia Keyboard makes work more efficient.

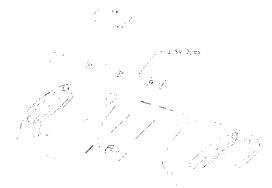
#### **Features**

- Wide scope of operating range and angles
- Button mouse, Microsoft® mouse, and PS/2 mouse compatible
- ◆ Can be used with IBM compatible PC/TV and Web TV
- · Book on keyboard protection
- · Power saving
- Windows 95 compatible
- Full size key (pitch 19.05 cm)
- Long "Travel" range (key depression distance) for RF keyboard
- ♦ Built-in button mouse
- Wide angle and long-distance detection
- With additional 15 multimedia keys which can make your work easier and more efficiently.

## **INSTALLATION**



- Connect the Receiver with your computer system. There are two connectors on the receiver. Plug the two connectors to the RS-232 connector and the keyboard connector on your computer system.
- 2. On the rear of the keyboard, remove the battery cover and insert three batteries of AA (UM-3) type only. Make sure the polarities are correct.



- Place the keyboard transmission sensor and the receiver face to each other. There should be no obstacles between the transmitter and the receiver.
- 4. Make sure the transmission operation range, distance and angle, is within effective area and is not obstructed by any obstacles.

- 5. The input method, whether keystrokes or the button mouse, must be applied separately to avoid data reception loss and mistakes.
- 6. Power on your system and see if it works fine.
  - If your keyboard isn't working or it's working incorrectly, it could be that the keyboard isn't connected properly or a key is pressed during starting up. Repeat the steps above.
- 7. Make sure the keyboard is operated with its sensor heading to the receiver so the signal is correctly sent.
- 8. When the keyboard works fine, it is the time to install multimedia software.

## **TECHNICAL SPECIFICATIONS**

#### **Electrical Data**

Input Power : 4.5 VDC (three AA batteries)

Switch activation mechanism : Membrane Transmission : Radio Frequency

#### Physical & Mechanical Data

Key numbers : 87 keys for U.S. version

88 keys for European version

Total Travel  $1.3.5 \pm 0.5 \text{ mm}$ Peak Load before Make  $\pm 60 \pm 15$  grams

(normal key)

Keyboard dimension  $\pm 380 \, \mathrm{(L)} \times 185 \, \mathrm{(W)} \times 28 \, \mathrm{(H)} \, \mathrm{mm}$ Keyboard weight : 800 g (Transmitter) including batteries

Effective operating distance : 5 meters (16 ft.)

Effective operating angle : ±80° (horizontal), ±50° (vertical) : 6 months (normal operating)

Battery life

Modulation frequency : 37.9 kHz Transfer rate : 1.67 kbps Pretravel :  $1.0 \pm 0.5 \text{ mm}$ 

Operating Life (normal key) : 20 million cycles min. per key

#### **Environmental Data**

± 0°C to 50°C Operating temperature Storage temperature : -20°C to 60°C

Relative humidity : 20% to 90% non-condensing

Altitude : -1000 ft. to 10000 ft.

#### Electromagnetic Data

EMI : FCC part 15, subpart B, class B

SAFETY : TÜV, UL CSA

СE : EN50081-1 & EN50082-1

(89/336/EEC)

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#### FCC GUIDELINES

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.

#### Information to User:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Shielded interface cable, if any, must be used in order to comply with emission limits.

3100504500 Version 1.0 July 1998 Printed in China