



BTCONF User's Manual

Part Number xxxx

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ABOUT THIS MANUAL

Welcome to the BTCONF User's Manual!



This manual aims at helping users to know how to install, set up, and use the BTCONF software. For best performance of this software, please read all of the instructions carefully. They were especially designed to help you correctly install and operate this program. This manual assumes that you have some knowledge of working with TPS receivers.

Symbols and typographic conventions

The information in this manual complies with several typographic conventions to make reading the material easier. Table below specifies all the text styles used in this manual.

Text format	Description
<i>Personal Identification Number</i>	This format is used in definitions or when it is necessary to emphasize that the marked term is technical jargon
Select the Parameters tab...	Titles of dialog windows/boxes, names of menu options and other GUI components
Type the PIN code 123456789	This format is used to enter various string information (e.g., a PIN code) as well as operator commands

Also, in this manual you will find two levels of special visual cues to certain types of information. These symbols are given in the following table.

Graphic element	Explanation
	Vital information about the current topic that the user is recommended to take note
	This symbol describes the sequence of steps that the user must take

Screen Captures

This manual includes sample screen captures. Your actual screen can look slightly different from the sample screen due to the settings you have specified. This is normal and not a cause for concern.

What information can be found in this manual?

The contents of the BTCONF User's Manual are organized into the following three chapters:

Chapter One: Getting Started

- tells the user about purposes and features of the program.
- explains how to install and remove BTCONF. Also provides information about system requirements.
- shows how to launch and close BTCONF.

Chapter Two: BTCONF Operation

- provides information describing each tab, field and control you can access via the interface of BTCONF. It describes the purpose of each setting and the procedures for using it.

Chapter Three: Troubleshooting

- helps you in diagnosing, correcting and avoiding problems.

Supplemental Manuals

Once you have a TPS receiver and BTCONF, you will need to supplement this manual with the manual that is written specially for the receiver you have purchased.

Technical Support

Occasionally, BTCONF users encounter problems during installation or use of the program. Should you have any problems with BTCONF,

please contact TPS Customer Support. Please be ready to provide TPS Customer Support with the following information:

- Did you try to fix the problem(s) on your own based on the troubleshooting tips available in the manual?
- System/hardware specifications of the computer on which you are running (installing) your BTCONF.

To get in contact with TPS Customer Support, please use the following e-mail addresses:

hardware@topconps.com or support@topconps.com.

GETTING STARTED

BTCONF is a comprehensive Windows software product designed for configuring the Bluetooth module of the radio navigation receivers developed by the Topcon Positioning Systems company.

Before you begin using BTCONF, you should become familiar with its functions and learn how to install and launch the program.

In This Chapter

This chapter includes the following topics:

BTCONF's functions	2
Setting up BTCONF	2
Starting BTCONF	3
How to close BTCONF	4

BTCONF's functions

The most current version of BTCONF (as of 1.0, December 24, 2002) provides the following functions:

- Connecting a PC to a TPS receiver via the computer's serial port
- Displaying information about the Bluetooth module installed in the receiver. This information includes Bluetooth name, Bluetooth address and firmware version
- Programming the BT module's settings (such as Bluetooth Name, Bluetooth PIN, etc.)

Setting up BTCONF

Before installing and using BTCONF, take a moment to review the system requirements listed in this topic.

- PC-compatible with Intel® Pentium® 100 MHz or faster
- 2 Mbyte free disk space
- 16 Mbyte RAM or more (32 Mbyte recommended)
- 32-bit operating system: MS Windows 98/2000
- Color monitor at 640x480 screen resolution

Installing BTCONF

There is no special installer for the current version of BTCONF. This tool is a ready-to-run executable.



To install BTCONF on your computer, take the following steps:

- Step 1. Download the archive `btconf.zip` to the desired destination (disk drive/folder).
- Step 2. Unpack the archive into a folder with WinZip® or another appropriate software. It is recommended to use `C:\Program Files\TPS\BTCONF`. You will see the following file appears in the folder:

- Executable file `Btconf.exe`

Removing BTCONF

The simplest way to remove BTCONF from a system is to delete the whole directory that was created when installing BTCONF and in which the program and its components reside. Also, do not forget to delete the BTCONF shortcut, if available.

Starting BTCONF

BTCONF can be launched, as any other Windows program, in one of the following ways:

- Way # 1. Double-click on BTCONF's shortcut on the desktop (if it has been created).
- Way # 2. In Windows Explorer go to the directory where `btconf.exe` resides and double-click on the corresponding icon.
- Way # 3. Press the **Start** button in the bottom-left corner of your computer's screen and select **Run** from the pull-up menu. In the **Open** box specifies the full path to `btconf.exe`. Press **OK**.

Once BTCONF is launched, the **program** window will appear (see Figure 1-1).

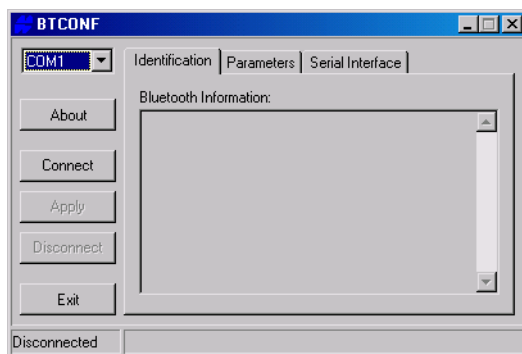


Figure 1-1. Program window



To connect your computer to the receiver's Bluetooth module using serial ports, follow these steps:

- Step 1. Connect one of the available receiver's port (usually **A**) to a communication port on the computer using a Receiver-to-Computer RS-232 serial cable.
- Step 2. Supply power to the receiver and computer, then turn them on.
- Step 3. Run BTCONF and from the **Port** list box, select the computer serial port (COM1, COM2,...) that you want to use for the connection.
- Step 4. Press **Connect**.

How to close BTCONF



To disconnect from the receiver, click the Disconnect button. To quit BTCONF, click Exit.

It is strongly recommended to close the connection with the receiver and close BTCONF prior to switching the receiver off and disconnecting the cable.

After you close the program for the first time, you will see the file `btconf.ini` appear in the directory from which the executable has been

launched. In this .INI file BTCONF will store all its settings. BTCONF will automatically modify the contents of the .INI file as the user makes changes through the program's controls.

If you want to have more than one copy of BTCONF, each one with its own unique settings, you will need to keep these copies in different directories. Running different copies of BTCONF from different directories will allow you to maintain unique settings for each of the copies

BTCONF OPERATION

This chapter describes how to configure and manage the receiver's internal Bluetooth module with the BTCONF software.

In This Chapter

This chapter contains the following topics:

Navigating through BTCONF	8
Using BTCONF	8

Navigating through BTCONF

Moving through BTCONF is like moving through any other Windows program. You can use your mouse to point and click or you can use the **Tab** key to move from field to field.

Using BTCONF

After establishing communication with the receiver, the user will see the program window which consists of the three main areas:

- the first area comprises five buttons and a drop down list box. The following table lists each control within this area and describes their functionality.

Element	What control does
Drop down list box	Specifies a serial port of the computer used to connect to a TPS receiver
About	Shows the BTCONF version and copyright information
Connect	Commands the program to establish connection with the receiver
Apply	Instructs BTCONF to accept the changes made in the tabs
Disconnect	Breaks connection with the receiver
Exit	Quits BTCONF

- to the right of the first area are three tabs composing the second area. For information about the settings in these tabs, refer to the corresponding topics below.
- the third area, status bar, extends across the bottom of the program window. This bar provides auxiliary information while using BTCONF. This information includes the connection status, current communication settings, various types of messages (e.g., error messages)

Figure 2-1 shows the program window after the user has connected the receiver to the computer.

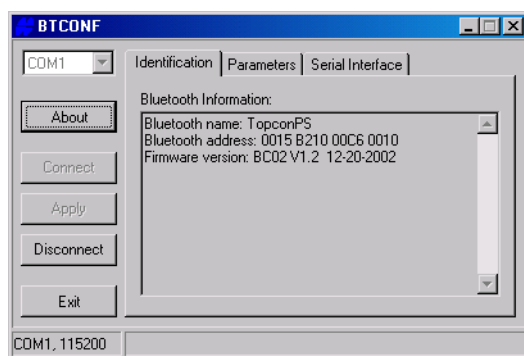


Figure 2-1. Main window after establishing connection

Identification tab

This tab displays the information about the name of the Bluetooth module, Bluetooth address[†] and the current BT firmware version loaded into this module. The above screen capture shows an example of the **Identification** tab with the following information:

- Bluetooth module's name - TopconPS
- Bluetooth address - 0015 B210 00C6 0010
- Bluetooth firmware version - BC02V1.2 12-20-2002.

[†] Bluetooth address is the unique electronic address of a Bluetooth module. It has the following structure: xxxx xxxx yyyy zzzz, where xxxx xxxx is lap (Lower Address Part), yyyy is uap (Upper Address Part) and zzzz is nap (Non-significant).

Parameters tab

With this tab the user can configure the Bluetooth-related parameters.

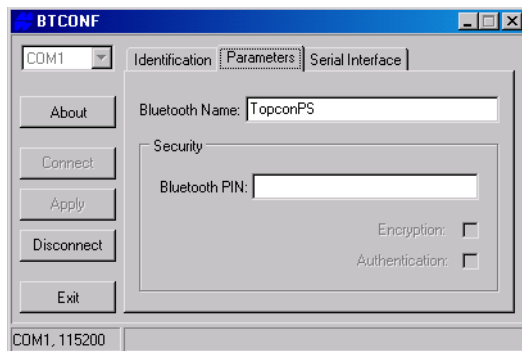


Figure 2-2. Parameters tab

In the **Bluetooth Name** edit box, the user can change the name of the receiver's Bluetooth module. Here the user can enter an arbitrary string comprising up to 14 characters. In Figure 2-2 the name is TopconPS.

In order to protect the Bluetooth module from unauthorized access and to achieve data security, the BTCONF software provides several settings, which are grouped together within the **Security** area (Figure 2-3). If, for some reason, you prefer to work without any level of protection, do not enter/activate, as shown on Figure 2-2, the three settings listed below.

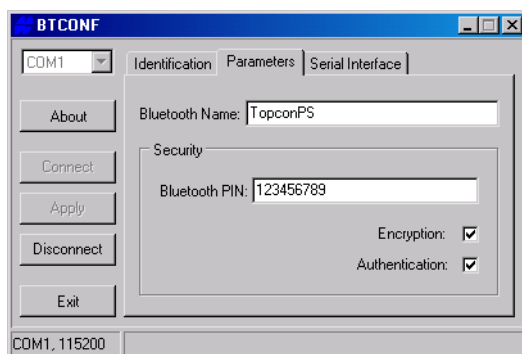


Figure 2-3. Security settings enabled

The **Bluetooth PIN** edit box is used to specify a *Personal Identification Number* (PIN) of the Bluetooth module. In this field the user can enter up to 16 characters.

By selecting the **Encryption** checkbox, the user instructs the Bluetooth module to translate data into a secret code. To read encrypted data it is required to have the same secret key or password that was used to code them.

With the **Authentication** checkbox enabled, the user activates the mode in which it is required that the devices, between which a communication link should be established, exchange a PIN code before connecting.



The **Encryption** and **Authentication** controls are available on condition that a PIN code has been specified in the **Bluetooth PIN** edit box

Serial Interface tab

Currently only one control is available on this tab (Figure 2-4).

The **Echo** checkbox specifies whether or not the replies received from the Bluetooth module will be displayed on the terminal together with the corresponding commands.

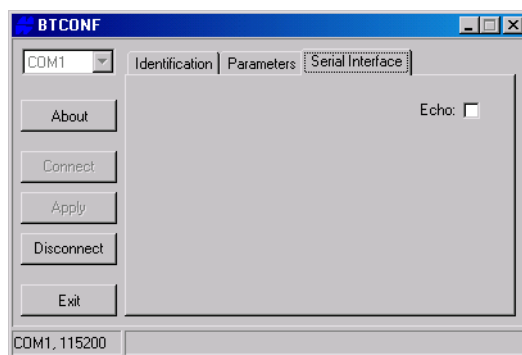


Figure 2-4. Serial Interface tab

CHAPTER III

TROUBLESHOOTING

This chapter can help the user solves some of the problems that may occur while using BTCONF.

In This Chapter:

This chapter contains the following topic:

Troubleshooting chart 14

Troubleshooting chart

The chart below covers most of the difficulties that the user might encounter. The first column contains the error messages that appear in the status bar.

Error messages	Possible cause	Action to take
Can't find receiver.	The receiver is turned off.	Make sure that your receiver is getting power and is turned on.
	The cable's connectors are not properly plugged in.	Check the connections to make sure they are not loose. Check the cables running from the receiver's port to the computer port to ensure they are tight as well.
	The cable is damaged.	Replace the cable. Contact your Dealer to purchase new cable.
	The receiver port used for connection is not in Command mode.	Restore Command mode for this port or use another receiver port (for example, D).
	The computer port you have selected for connection is not the same as you specified in the PC Serial Port control.	Check that your receiver is connected to your PC using the proper RS232 cable for connection to a PC and make sure that the cable is exactly plugged into the same PC serial port as you specified in the PC Serial Port drop down list of the BTCONF software.
	The receiver's options are disabled.	Check the status of your receiver's options using PC-CDU or GRIL commands. Make sure that they did not expire.

Error messages	Possible cause	Action to take
Can't find bluetooth.	The receiver's slot 3 is turned off.	Enable this slot by selecting PC-CDU setting Slot 3 (B) or by sending the <code>set, /par/pwr/switch/3,y</code> command to the receiver using PC-CDU's Manual mode or any other terminal.
	The Bluetooth module is linked with another device.	Close the connection with a device and then connect to your receiver.
	Overloading of the BT module's processor	Put your receiver in <i>Zero Power Mode</i> . For how to switch the receiver in this mode, refer to the corresponding receiver manual. After putting the receiver in this mode, press the Reset key for about one second to return the receiver in normal mode and then connect to the BT module.
	The receiver is not equipped with the Bluetooth module.	Contact your Dealer to purchase the receiver with the Bluetooth module installed.
Open COM# port failed: Access is denied.	The computer port dedicated for connection is in use by another application.	Close the application used this port or connect to the receiver via another free computer port.