



Mini-Circuits' GUI

ZT – Universal

A Mini-Circuits Self-Contained Integrated Assembly

Software Manual

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1 INTRODUCTION

Thank you for choosing Mini-Circuits custom test equipment to meet your needs! The purpose of this Software Manual is to instruct you on installation and use of the Mini-Circuits' software that comes with your equipment.

We're here to support you every step of the way. For technical support and assistance, please find the following points of contact for your convenience:

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2 Installation

2.1 Download Links

Download links can be found on the datasheet of your specific model. There are generally two links, one for just the Mini-Circuits' GUI software installation and one for the full software package.

The GUI Software download includes only the Setup.exe and supporting files for installation of the GUI.

The Full Software Package includes the GUI Software, .NET and ActiveX DLLs, ReadMe Files, and SCPI Lists for controlling the product.

2.2 Installation Steps

1. Unzip the downloaded .zip folder
2. Double click on the Setup.exe file or Install.exe file depending on your download selection
3. Simply follow the prompts to install the software
 - a. You will need to indicate where you wish to install the program
4. After installation, a shortcut will be made in your start menu under the Mini-Circuits folder

3 Mini-Circuits' GUI

3.1 Main Screen

Figure 1 shows the various sections of the GUI.

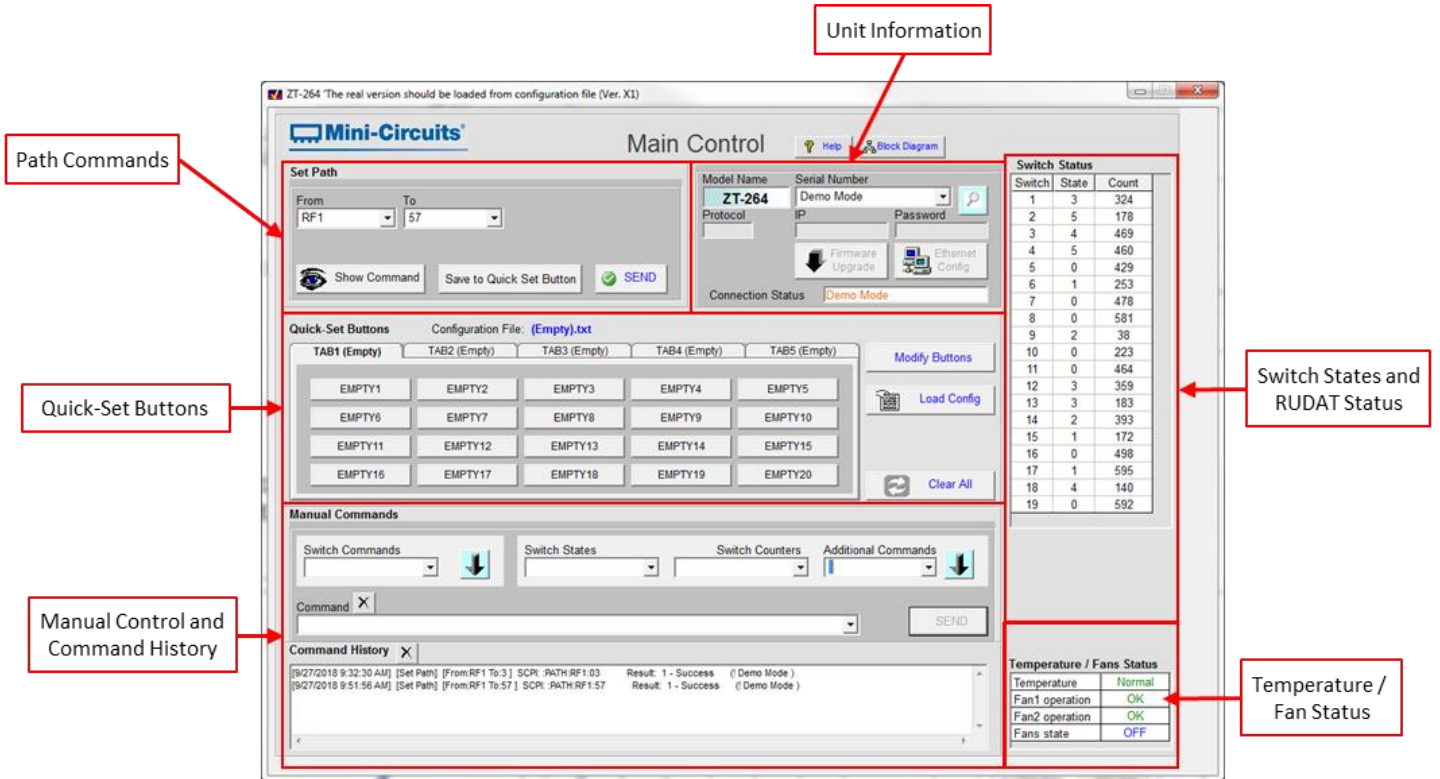


Figure 1: Main Screen

3.2 Switch States and RUDAT Status

This area shows the states and count of all the switches used inside the box. Depending on the switch involved it can be anywhere from 0 - 8 where 0 is when the switch is disconnected. Please see the below table for possible switch states based on the switch type. If your unit has programmable attenuators, the RUDAT Status indicates the attenuation of the programmable attenuators.

Switch Type	MTS	SPDT	SP4T	SP6T	SP8T
Switch States	1 - 2	1 - 2	0 - 4	0 - 6	0 - 8

3.3 Temperature / Fan Status

This simply indicates the temperature status, whether or not the fans are operational, and if the fans are on or off. The fans will turn on automatically when the temperature reaches a certain threshold.

3.4 Unit Information

This is where you'll connect to your unit. Simply press on the magnifying glass and the Serial Number dropdown will open up and display various options. It'll always display **Demo Mode** and **Prompt Ethernet Connection**. If you have a unit connected via USB, it'll display the serial number of your unit and also - **USB** (12345678912 - USB). If you have the unit connected via Ethernet, it'll display the serial number with a - **IP**.

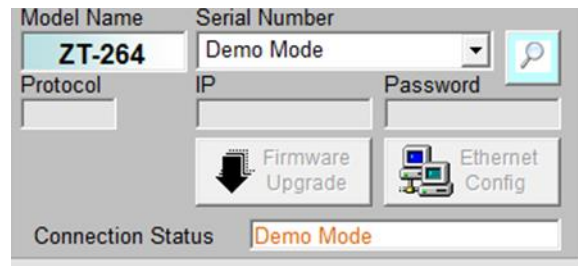


Figure 2: Unit Information

This area also displays the model name, the protocol which is the connection method (ie. USB), the IP address when connected via Ethernet, and also the password if you've set one.

You can also upgrade the firmware (only available when connected via USB) of your box by clicking on the **Firmware Upgrade** button. A new window will come up displaying the unit's information again and also the firmware version. To upgrade, simply press **Upgrade** and then find the firmware file, press **OK**, and the process would begin.

Important: While the firmware is updating, DO NOT disconnect the USB. Doing so will corrupt the unit.

3.5 Ethernet Configuration

All ZT models are configured with DHCP enabled by default so in most cases a dynamic IP address will be issued by the network's DHCP server on connection. If you wish to change the system's Ethernet configuration (for example to assign a static IP address) then you need to connect the system via the USB connection and click on the GUI's **Ethernet Settings** button (only enabled while connected via USB) to bring up the Ethernet Device - Configuration window.

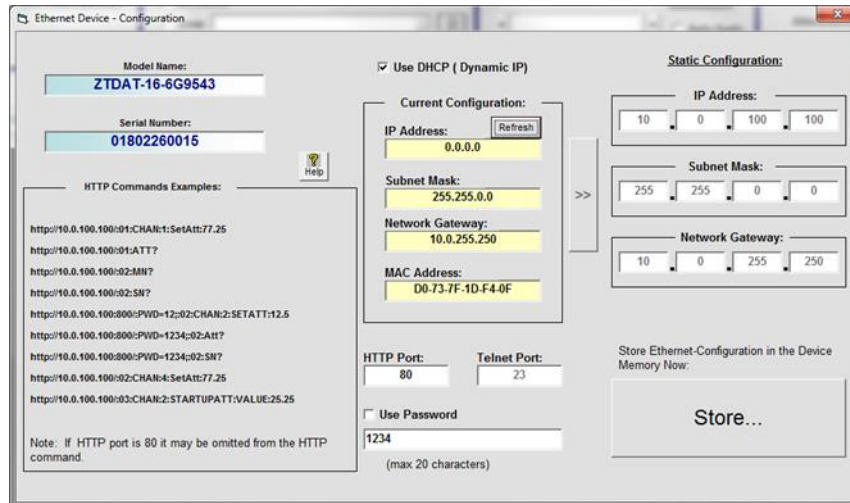


Figure 3: Ethernet Device – Configuration Window

In this window you can either select DHCP or set a static configuration. If DHCP is enabled but the IP Address in the Current Configuration section states “0.0.0.0” it indicates that the system has not yet been assigned an IP address by the network; wait a moment and then click the *Refresh* button to try again. If an IP address still cannot be retrieved, please check the Ethernet connection and consult your network administrator. The Ethernet configuration screen also allows you to change the HTTP and Telnet Ports of the connection and set a password.

Once everything is properly is set, please press the *Store...* button so that your settings are saved.

3.6 Path Commands

In this section you can set specific paths. Simply press on the **From** dropdown and select from a list of available inputs. Next press on the **To** dropdown and select from a list of outputs. Once done, you can either **Send** the command, **Show Command** on the command line in the *Manual Commands* section, or you can **Save to Quick Set Button**.

You can find the block diagram of your specific unit by pressing on **Block Diagram** located at the top of the GUI. There is also a **Help** button for more information.

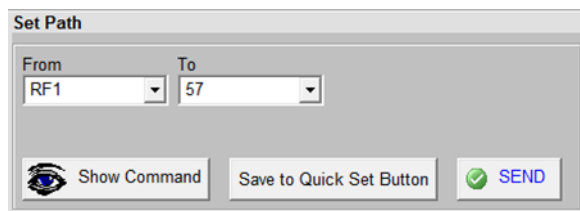


Figure 4: Path Command Set



Figure 5: Help and Block Diagram Buttons

3.7 Manual Commands

In addition to path commands, there are also commands for specific switches. You can find these either in the ReadMe file that is available inside the full software package for your model or simply press on the **Switch Commands** dropdown. Once you've selected a command, you can press on the arrow to bring that command down to the command line. You can do these multiple times to add to the command line. To send the command line, press on **Send**.

There are also commands to request the state of each switch, the count of each switch, and also some query commands asking the box what it's model name, serial number, or what temperature the sensors are reading.

Note that there are commands for up to 4 temperature sensors (TS0 - TS3). Depending on your unit, there could be anywhere from 1 - 4 temperature sensors. If your box only has 2, the TS2? and TS3? Commands will always show +25°C as it's return.

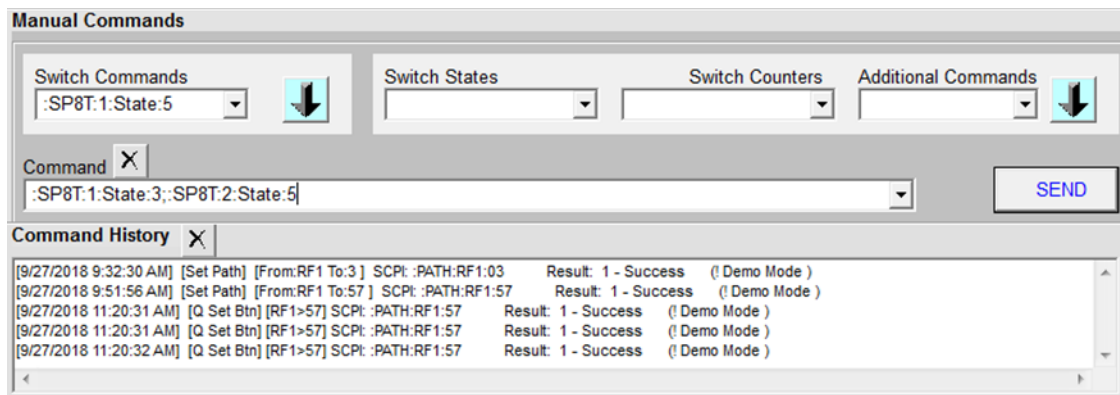


Figure 6: Manual Commands and Command History

The command history indicates all previous commands you've sent and also the date and time that the command was sent. The history is deleted every time the GUI is closed. It also shows you the returns of all the commands you've sent. This can be simply a 1 - Success return, or it could be something more specific such as the model name or serial number. This all depends on the command you've sent.

3.8 Quick Set Buttons

You can set up buttons to send commands for you. Having these set up can make sending commands quickly and more simply. To create quick-set up buttons you can use the **Set Command** section to setup the path and then press on **Save to Quick Set Button**. You can also set them up manually and use specific switch commands to do so. To do this, press on **Modify Buttons**.

The window displayed in Figure 7 would come up. At the top you'll choose the button you wish to modify by clicking on it. Then in the *Set Button Action* section you can change the name of the tab where the button is located, the button name, and then type in the command you want the button to do. You can have the button send multiple commands with a single click. You can also have the button set a single switch, each click of the button would cycle the states.

Once you're done with creating your buttons press **Save** to save this configuration file. You can press **Save As** to save it to a specific location.

If you had a previously made configuration, you can press on **Load Config** and select the file that you made previously.

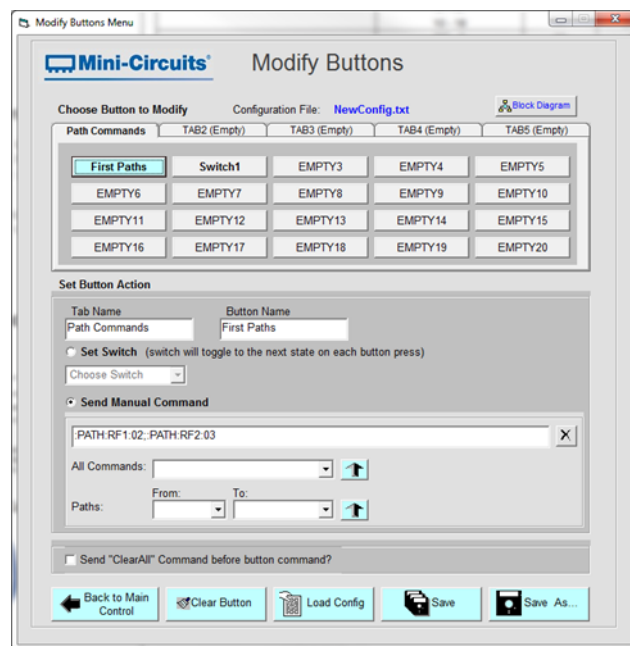


Figure 7: Quick-Set Buttons Modification