# Myopac Wireless – Model T50-6
# 40 Channel Telemetry System
# Software Operations Manual

## Table of Contents


**Driver Installation** 1

T50/TR10 Driver Installation 1

**T50 Software Description** 1

T50 Graphical User Interface 1

T50 Opening Communication 1

USB Activity indicator 2

Controller Indicator 2

Functions 2

**TR10 Software Description** 5

TR10 Graphical User Interface 5

TR10 Opening Communication 5

USB Activity indicator 5

Controller Indicator 5

Signal Quality Indicator 5

Functions 6





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## Driver Installation

1. T50 / TR10 Driver Installation

    a. When a new Myopac Wireless device is connected to the computer, windows will automatically detect the device and attempt to load drivers.

    b. If the drivers do not physically exist on the target computer, you can use the CD provided by Konigsberg Instruments, Inc. (If not preinstalled)

    c. Any new T50 / TR10 connected to the target computer will need to have driver installed.

## T50 Software Description

1. T50 Graphical User Interface (GUI)

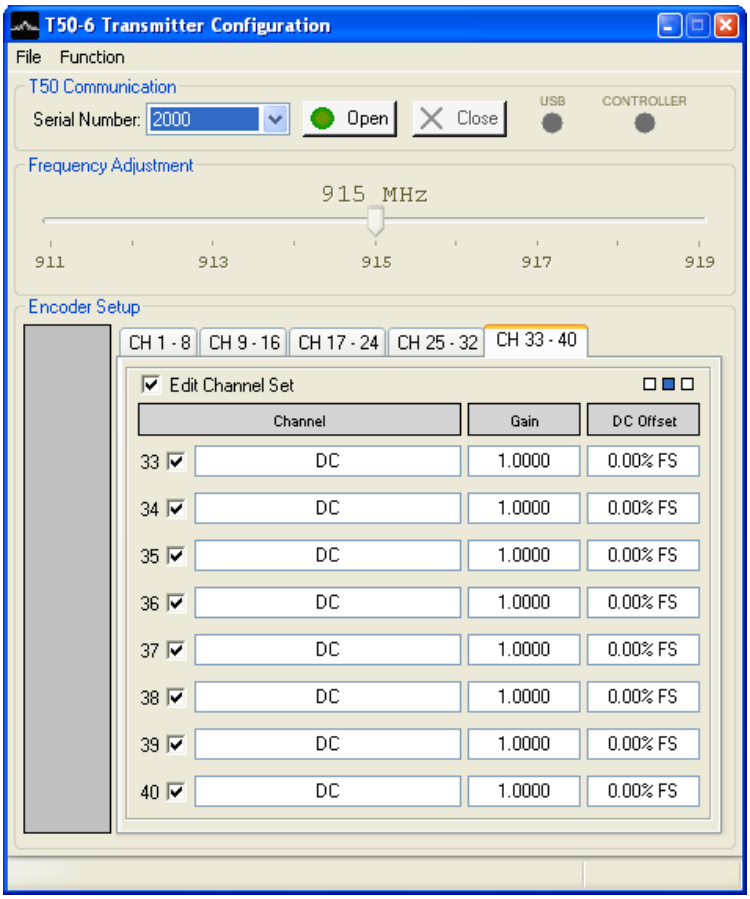


**Figure 1: T50 Interface (T50-6, 40 Channel System, DC Channels Shown)**

2. T50, Opening Communication

    a. After successful installation of drivers, the T50 hardware will be interrogated and listed in the 'T50 Communication' section automatically upon launch.

    b. To begin communication you will need to select the serial number that matches your target device, followed by clicking the "Open" button.

3. USB Activity Indicator[1]

    a. This will periodically flash bright green when data is being sent to the Myopac wireless unit.

    b. If an error occurs with the USB communication, the indicator will turn RED. In the event that this occurs, communication should be closed (click the CLOSE Button), and then reopened. If this does not solve the issue, many times unplugging the USB cable then reconnecting it will resolve communication difficulties. If that does not fix the error, reset power on the Myopac Wireless unit. In any case, it would always be wise to also restart the application.

4. Controller Indicator[1]

    a. This indicator will remain solid green when communication is steady with the Myopac Wireless hardware.

    b. Red indicates that communication with the TR10 has been disrupted. If this state occurs, communication should be closed. The Myopac Wireless unit power should be cycled off then on and the application should be restarted.

5. Functions

    a. Frequency Tuning

        i. The frequency can be adjusted using the right/left keyboard arrow or the mouse pointer. In either case, you will need to click and release the button/mouse for a change to be registered with the hardware.

    b. Test wave operation

        i. Channels 1 and 2 can output digitally generated test waveforms. This feature can be found under the Function Menu. When selected, this feature disables analog input and gain for channels 1 and 2. Instead, channel 1 will transmit a 10Hz sine wave at full-scale (15Vp-p) output, and channel 2 will transmit a 10Hz saw tooth wave at full-scale (15Vp-p) output.

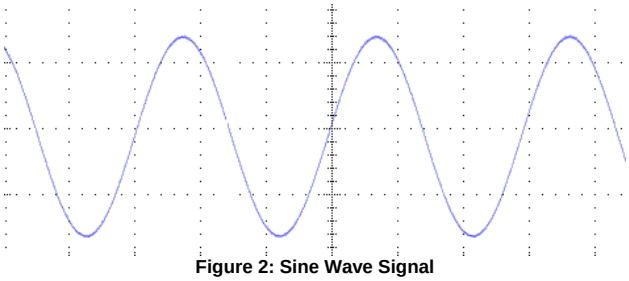

**Figure 2: Sine Wave Signal**

**Figure 3: Saw Tooth Signal**

    c. Enabling Channel Modification

[1] Currently not active



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i. Channel Set (1 set = 8 channels) and individual channels may be locked to prevent unintentional modification. Locking is accomplished by unchecking the box to the right of the channel descriptor.

d. Channel Description[2]

i. You can change the name/description for the channel by right clicking the name and selecting edit.

e. Incrementing

i. Increment selection can be adjusted by using the keyboard left/right arrow keys when focus is set. An indicator is located on the upper right hand corner of tab pages containing DC channels.

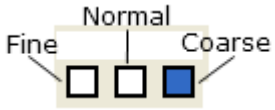


**Figure 4: Increment indicator**

f. EMG (AC) Gain

i. AC gain can be adjusted by using the keyboard up/down arrow keys.

ii. AC channels have 8 gain / input voltage level selections They are as follows:

i. 400 / 25 mVpp (Default)
ii. 1000 / 10 mVpp
iii. 2000 / 5 mVpp
iv. 4000 / 2.5 mVpp
v. 10000 / 1 mVpp
vi. 20000 / 500 uVpp
vii. 40000 / 250 uVpp

g. DC Channel Gain[3]

i. DC Channel gain can be adjusted by using the keyboard up/down arrow keys after clicking/selecting the gain box.

ii. DC channel gain is adjustable from zero gain (no signal) to a 2 x gain. Default is 1 x gain.

iii. DC channel gain is adjustable in the following increments:

i. Fine ±0.0025 steps
ii. Normal ±0.0100 steps
iii. Coarse ±0.0225 steps

h. DC Channel Offset[3]

i. DC Channel Offset can be adjusted by using the keyboard up/down arrow keys after clicking/selecting the gain box.

ii. DC channel offset is adjustable from ±100% FS[4]. Default offset is 0.00% FS.

iii. DC channel offset are adjustable in the following increments:

i. Fine ±0.25% steps
ii. Normal ±1.00% steps
iii. Coarse ±2.25% steps

[2] Saving in profile not currently active.
[3] Only found on even models i.e., T50-2
[4] FS – Full Scale


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i. Saving Changes

i. It is important to note that changes made to the unit will change the operating parameters in the hardware/software (i.e., Frequency), but will not be saved automatically in the hardware.

In order to save any changes you must click the 'Save Changes' menu item located in the File Menu after one or several changes.

Please note: Operation will continue as normal if changes are not saved, but one should be aware that if power is reset, turned off, or the battery drains completely, no changes will be saved. The unit will restart in it last known saved state.

## Myopac TR10 Software Description

2. TR10, Graphical User Interface (GUI)

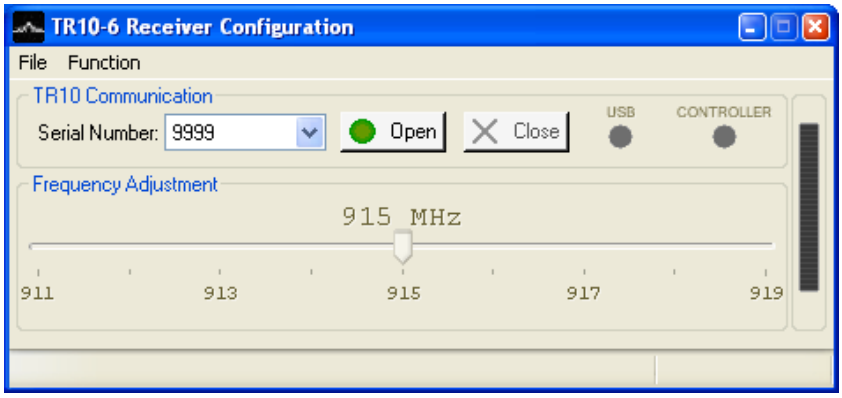


**Figure 5: TR10 Interface (TR10-6 Shown)**

3. TR10, Opening Communication

    a. After successful installation of drivers, TR10 hardware will be interrogated and listed in the 'TR10 Communication' section automatically upon launch.

    b. To begin communication you will need to select the serial number that matches your target device, followed by clicking the "Open" button.

4. USB Activity Indicator[5]

    a. This will periodically flash bright green when data is being sent to the Myopac wireless unit.

    b. If an error occurs with the USB communication, the indicator will turn RED. In the event that this occurs, communication should be closed (click the CLOSE Button), and then reopened. If this does not solve the issue, many times unplugging the USB cable then reconnecting it will resolve communication difficulties. If that does not fix the error, reset power on the Myopac Wireless unit. In all cases, it would always be wise to restart the application.

5. Controller Indicator[5]

    a. This indicator will remain solid green when communication is steady with the Myopac Wireless hardware.

    b. Red indicates that communication with the TR10 has been disrupted. If this state occurs, communication should be closed. The Myopac Wireless unit power should be cycled off then on and the application should be restarted.

6. Signal Quality Indicator[5]

    a. The indicator will vary depending on the quality of the digital signal. Signal quality is dependent on the number of packets received/lost over RF transmission.

[5] Currently not active

**Figure 6: Received Signal Quality Indicator**

7. Functions

    a. Frequency Tuning

        i. The frequency can be adjusted using the right/left keyboard arrow or the mouse pointer. In either case, you will need to click and release the button/mouse for a change to be registered with the hardware.

    b. Saving Changes

        i. It is important to note that changes made to the unit will change the operating parameters in the hardware/software (i.e., Frequency), but will not be saved automatically in the hardware.

        In order to save any changes you must click the 'Save Changes' menu item located in the File Menu after one or several changes.

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