



Cherry Zipper And Handheld

A useful system to measure the stem force of cherries

Installation Manual 1.4



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2014

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Service

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1. Introduction

1.1 Overview

Only fruits harvested at the optimum time will satisfy the high requirements of taste, color, appearance and firmness of the fruit flesh even after months of storage.

To get a better understanding of the ripeness and harvesting conditions test a huge number of data from different samples of a variety of different sites.

1.2 How to use this manual



All text marked with the laughing worm shows you important information.
Please follow these hints to avoid hardware or software damages.

1.3 Part list

- **Cherry Zipper**

Zipper pistol
3.7V Li-Ion Replacement battery
charger for Li-ION battery
Carrying case

- **TDS Recon**

Recon 400 (UP preconfigured),
incl. Wedge software for automatic import of measured data
USB cable
TDS CarryCase



- **Android Tablet or Phone**

e.g.: Samsung S3 plus,
incl. tec-it app "GetBlue" for automatic import of measured data into file
or as wedge program in other apps

- **PC/Notebook/Netbook**

With Trust "Bluetooth 2.0 USB adapter or higher"
incl. GSV software for configuring and logging data of the bluetooth
amplifier BAmobile to store measured data into a file

2. Installation

2.1 Hardware

Step 1 Charge the internal Li-Ion battery

- Plug in the Li-Ion battery charger into the main power and then connect it to the cherry zipper. (Don't forget to switch off the cherry zipper during charging!)
- Charge also the internal battery of the Recon TDS



Step 2.1 Switch on the TDS Recon

- Switch on the TDS Recon.
- Check if you can see the following line (after switch on, it should turn to Bluetooth ON within a few seconds)

WiFi: Off :  : ON

If not: click on Bluetooth Sign and in next screen click on Bluetooth to activate Bluetooth again. Quit this window with x in the top corner.
See Recon Manual for more details.
Go on with Step 3

Step 2.2 Switch on the Android system

- Switch on the Android system.
- Switch on Bluetooth on your Android system
- Check if you can see the following icon highlighted

 highlighted

If not: open the wireless menu and click on the bluetooth sign to activate Bluetooth.

At the first installation:

Download the tec-it app "GetBlue" from the Google play app store and install.


Switch on the cherry zipper with the black On button on the left side. (You will see a green LED slightly glowing on that button.)

Make a connection on the android system with the BAmobile (Bluetooth Amplifier of the cherry zipper) which you will find as a bluetooth device on your android system. (Connecting code: 0000)

Now you can choose the BAmobile in the "GetBlue" app as the data source and you can choose a file as data sink if you want to log the data in a text file or you can choose keyboard to put the data from the cherry zipper in any other program on your android system as a keyboard input.

Go on with part 3.

Step 2.1 Switch on PC/Notebook/Netbook

- Install the Trust "Bluetooth 2.0 USB adapter" or higher .
- Switch on Bluetooth on your notebook
- Check if you can see the following  sign

If not: right click on the bluetooth sign and in next window click on activate Bluetooth.

At the first installation:

Install the GSV250 software on your notebook.

Switch on the cherry zipper with the black On button on the left side. (You will see a green LED slightly glowing on that button.)

Make a connection on the notebook with the BAmobile (Bluetooth Amplifier of the cherry zipper) which you will find as a new bluetooth device on your notebook. (Connecting code: 0000)

Now you should find two (one) new serial ports on your notebook. Start the GSV250 software on your notebook and choose a serial port the first bluetooth serial port on your notebook. You will find the right com port number in the device manager.

Now you can store the data from the cherry zipper under "Recorder" in the GSV250 software as a text file.

Go on with part 3.

Step 3 Switch on the cherry zipper

- Switch on the cherry zipper with the black On button on the left side. (You will see a green LED slightly glowing on that button.)

Step 4 Start Measuring

- Start the TWedgeCE program on the TDS Recon.
(After the starting the TWedge_CE you will see an orange LED glowing on the cherry zipper)

You will find TWedgeCE 2 when you click on Windows Symbol in left top corner.

- Start ExcelMobile.
- Zipp your cherry und send the force value with the red button on the cherry zipper to your pocket excel sheet. And so on



Alternative 1 (Android system):

- Start the GetBlue app on the android system.
(After click on the start button you will see an orange LED glowing on the cherry zipper)
- Start to measure with the red button on the cherry zipper.

Alternative 2 (PC/notebook/netbook):

- Start the GSV250 software on the notebook.
(You will see an orange LED glowing on the cherry zipper)
- Start to measure with the red button on the cherry zipper.

3. First Run of your system

- Bring the zipper pistol carefully to the cherry you want to measure.
- Zip the cherry from the stem
- After that, bring the zipper pistol carefully near the next cherry and then push the red button of the zipper pistol to send the last measured force value to the Handheld Unit. You will see data of that measurement in the Pocket Excel worksheet line with this value. (unit in grams)

And so on



- If you are ready with your statistic probe (20 cherries or more), put the cursor in the next column of your pocket excel sheet. For statistic analysis you can use the pocket excel features.

The unit always stores the last maximum force value detected since last press of the red button. Please note: Strong movements of zipper will cause forces higher than zero as well. Make sure that your measurement is higher than these non-wished measurements.



4. Important Informations



- Never put more force then 2000 g to the zipper, because the zipper will be damaged.
- Take care that no dirt enters the zipper pistol, because it may block the measurement.
- The cherry zipper should not be used in wet weather conditions.
- The data transfer protocol needs the following parameters:
 - 38400 baud
 - 8 data bits
 - No parity
 - 1 Stop bit
- The data transfer works via Bluetooth. So be sure that the Bluetooth is activated on your TDS Recon.
- Read carefully the TDS Recon Manual
- Read carefully the TWedge_CE program manual from the Cherry zipper CD
- To copy data from RPDA to your computer is is recommended to use ActiveSync. You can download this in the internet from any supplier you like to.
- Read carefully the tec-it "GetBlue" help if you use a android system
- How to get a file from the android system to the PC look in your manual of the android system.
- Read carefully the GSV250 software manual from the Cherry zipper CD, if you use a notebook

5. TDS Screenshots in Details

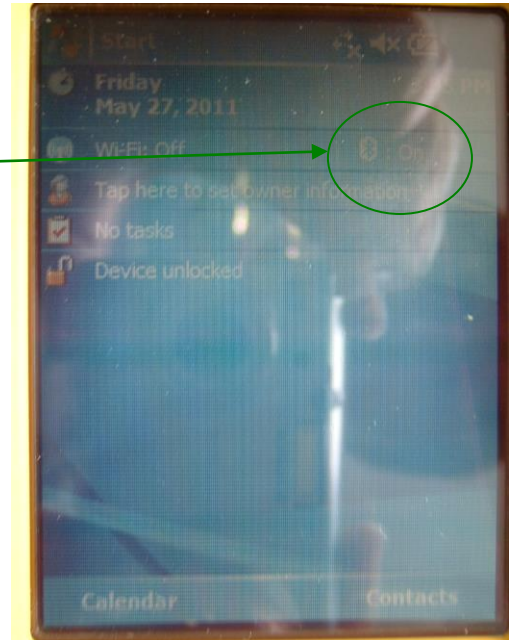
5.1

Start TDS Recon

Check Bluetooth settings.

You should see On in this screen

If not click on Bluetooth sign and switch on Bluetooth.



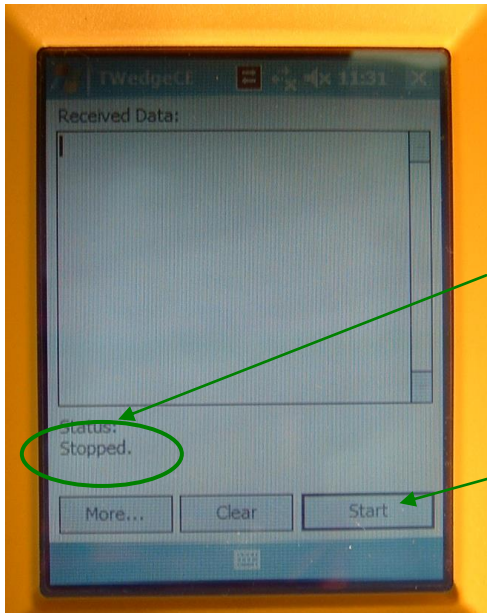
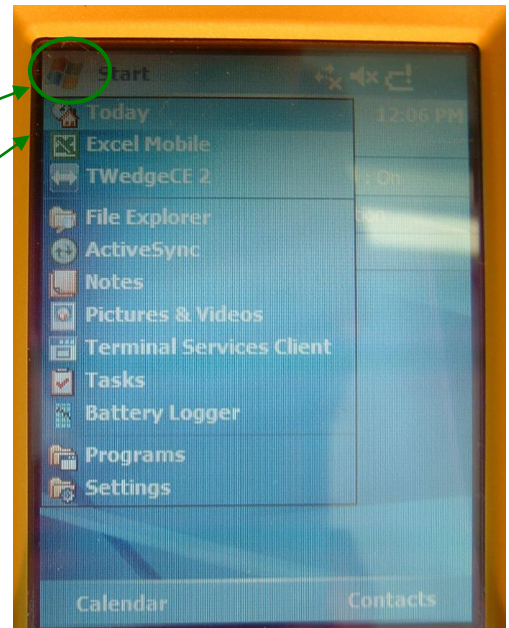
Do not use a real pen to click on the screen. You may do cratches on the screen, Use only some soft plastic pen. You find one suitable plastic pen at the rearside of the TDS – behind the hand strip.

5.2 Start TWedge Software

This software connects Bluetooth Inputs to your programs (like Excel/Mobile)

Click on Windows Symbol (top left corner) to see the list of available Programs.

Choose TWedgeCE 2 from the List.



This is the welcome screen of TWedge.

Check the status:

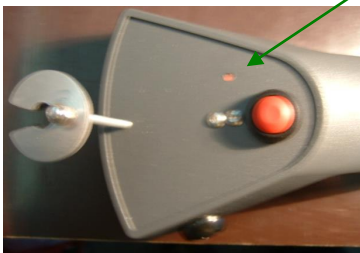
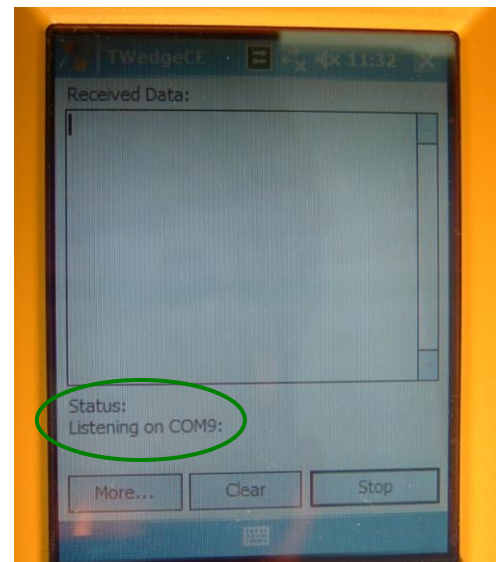
When stopped clicked on Start-Button.

Check Status again, you should see now:

Listening on COM9:

The Start-Button changed to Stop-Button

At this point the orange/red LED of Cherryzipper starts glowing.



DO NOT CLOSE TWedge Software WHILE USING YOUR CHERRYZIPPER. This software needs to run in background to import your data into Pocket Excel.

Before you start PocketExcel you may check the connection:

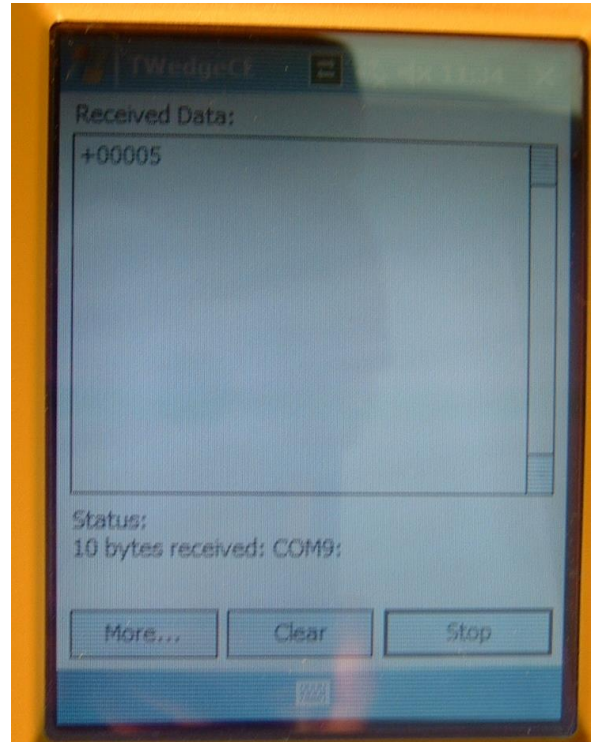
Just press the red Button on the Cherryzipper



and see the last measured value on the screen.
The unit is grams.

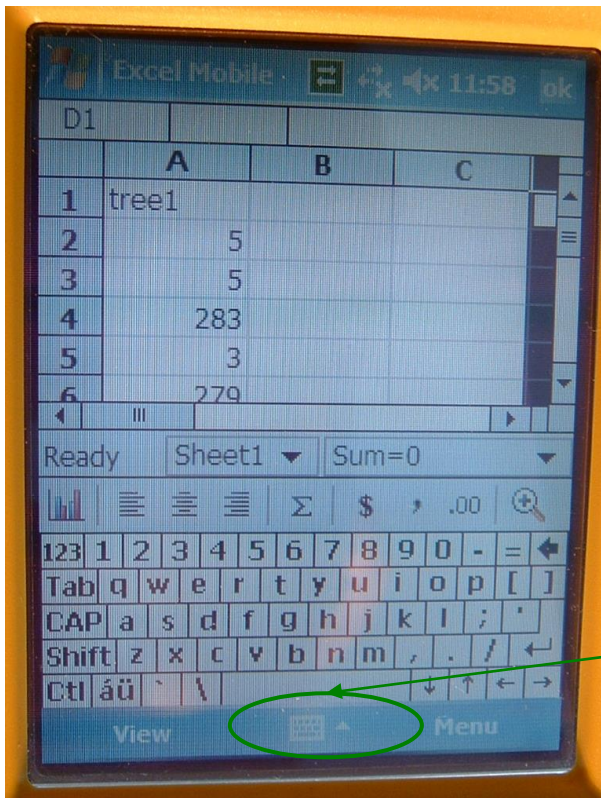
DO NOT CLOSE TWedge Software WHILE
USING YOUR CHERRYZIPPER. This software
need to run in the background to import your
data into Pocket Excel.

Click again on Windows Symbol in top left
corner and choose Excel/Mobile from your list
of programs.



5.3 ExcelMobile

Choose one of the existing files
or click on new to create a new file.

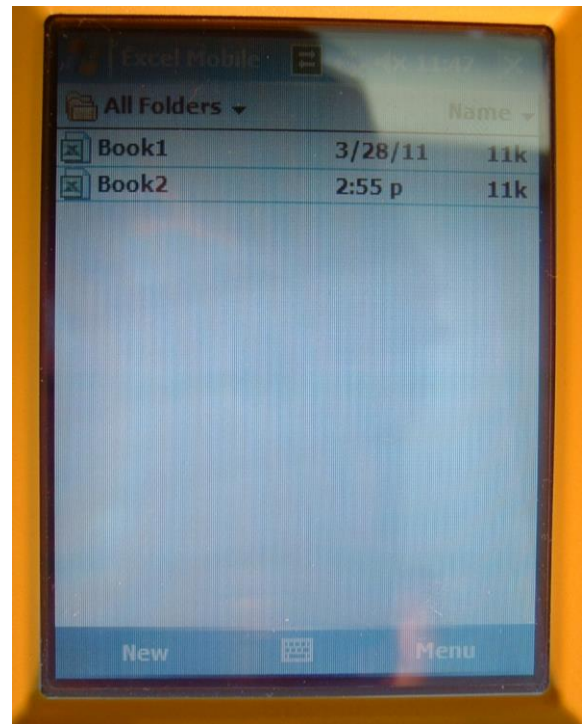


column.

It will be filled automatically in the next line. This is doing then to add all values you like to be in one column.

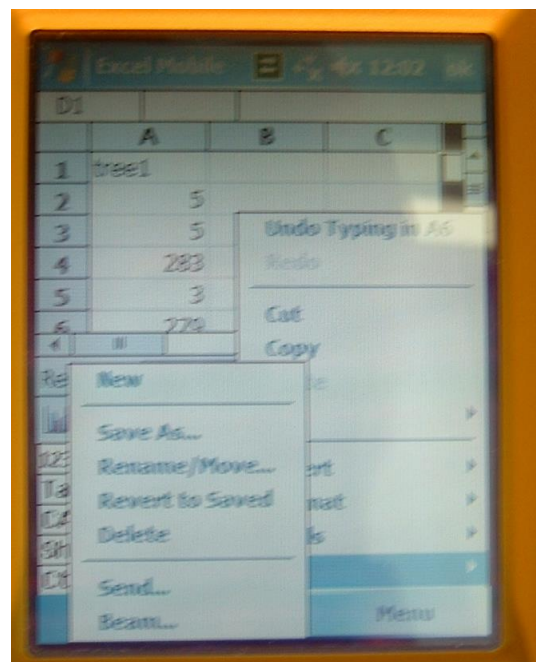
Do not forget to save your data:
Choose Menu and Save As... to store your data on internal Memory.

Finally Google for ActiveSync Software and install ActiveSync on your computer to copy files from your RPDA onto your computer.



If you like to name the column activate the keyboard and type a title (like tree1).

Put the cursor in the next empty field. Each time you press the red button on your cherryzipper a new value is written into your



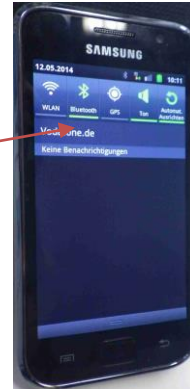
6. Android Screenshots in Details

6.1

Start android system
Check Bluetooth settings.

You should see  : ON in this screen

If not click on Bluetooth sign.

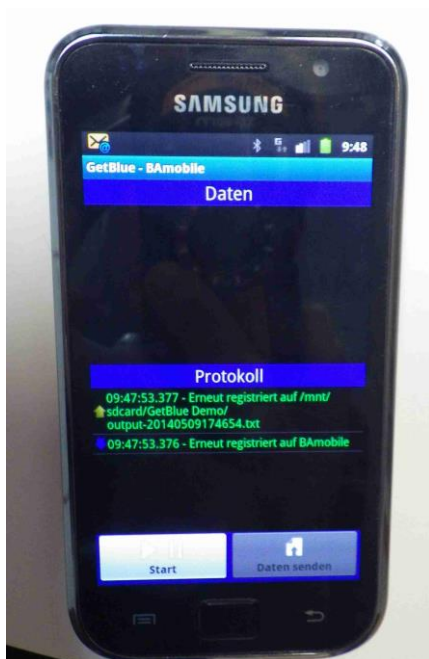


6.2

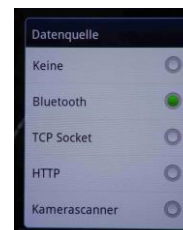
Connect your Bluetooth with BAmobile
(Pin: 0000) under the bluetooth settings
Only necessary at the first time.

6.3

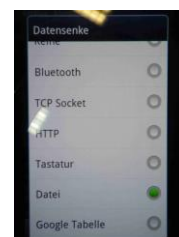
Start the "GetBlue" App on your android system



Choose as data source: Bluetooth



Choose as data sink: File or keypad



6.4

Press the "Start" button in the "GetBlue" app:



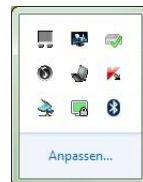
After pressing the red data button on the cherry zipper you will see the data on the display and they will be stored in the selected file.

7. Notebook Screenshots in Details

7.1

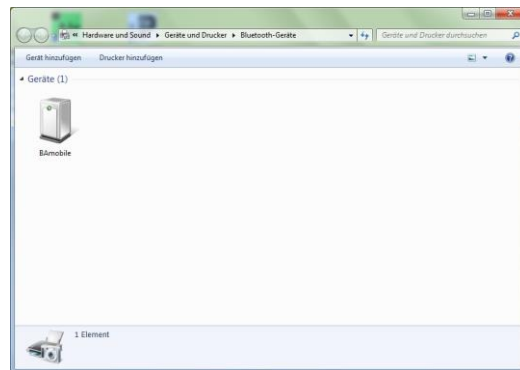
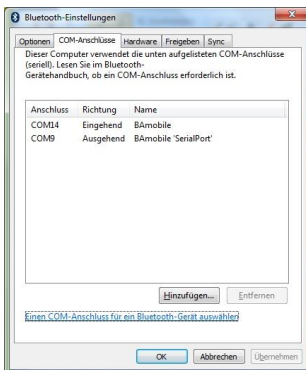
Start the notebook and check the bluetooth settings.

You should see  on the taskbar



If not plug in the the USB Bluetooth dongle and wait until bluetooth is installed.

Look on the Bluetooth settings which comport was connected to the BAmobile device:



7.2

Start the GSV250 software and chose a file in which the data should be stored.

