



ACTIGRAPH WGT3X-BT

QUICK GUIDE



¡Congratulations!

You have just acquired an innovative, high quality product. We are sure that you will find this equipment most reliable and accurate - exceeding your expectations.

Before using this device, we strongly recommend that you carefully read this Quick Guide. Here you will find all related information for correct handling and usage of this product.

We hope that you enjoy using this equipment.

De la Rosa Research Team.



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DETAILS

The wGT3X-BT activity monitors provide objective measurements of human activity and are used in many research and clinical applications. They include a microelectromechanical system (MEMS) based accelerometer, ambient light, and a touch sensor as data collection end points. No formal training is required to use the wGT3X-BT device and patients may be the intended operator. This document will serve as the only necessary training guide needed to get full functionality from the device.

SPECIFICATIONS

ACCELERATION SENSOR

The devices include an acceleration sensor that consists of a microelectromechanical systems (MEMS) accelerometer yielding the following product specifications:

Parameter	Value	Units
Axis	3	
Sensitivity	4	mg/LBS
Dynamic Range	+/-8	G

The acceleration data is stored at rates ranging from 30 Hz to 100 Hz (user selectable) and stored in a raw, non-filtered/accumulated format in the units of gravity (g's). This data is stored directly into a non-volatile flash memory. The accelerometer is very sensitive and is accurate within +/- 0.5% of the data collected.

SPECIFICATIONS

AMBIEN LIGHT SENSOR

Ambient light data is sampled and stored to memory at a 1 Hz rate. When a downloaded data file is converted into an accumulated *.agd format with epoch lengths greater than one second, the lux values for that epoch are averaged. An estimate of lux values is shown in Table 1.

Lux Level	Interpretation Comparison
1	Twilight
50	Family living room
100	Very dark overcast day
320-500	office lighting
400	Sunrise / Sunset
1.000	Overcast day
10.000-25.000	Full daylight
32.000-130.000	Direct sunlight



SPECIFICATIONS

INCLINOMETER

As noted, the inclinometer feature is only valid when the device is worn vertically on the point of the hip.

These are inclinometer dat values:

Inclinometer Code (Stored with each Epoch)	Interpretation
0	Device Off (not being worn.)
1	Subject Standing
2	Subject lying horizontal
3	Subject sitting

The inclinometer feature can help users identify the orientation of the device and, more importantly, when the device itself was taken off. Each epoch is flagged with a number (1 through 4) to indicate the orientation of the device during that epoch.

BEFORE START

// ¿WHAT IS INCLUDED IN THE BOX?



1 ACTIGRAPH WGT3X-BT

This small device is the one that collect the data and save them in its memory.

2 NAIL

This nail opens the cap that protects the USB port.

3 SMALL STRAP

This accessory allows to adjust the device to the ankle or the wrist. Velcro closure allows adjust to any diameter.

4 LONG STRAP

This accessory allows you to place the device around the waist or thigh. Fits any diameter thanks to its high strength elastic material.

5 POWER ADAPTER

This adapter allows you to charge the Actigraph WGT3X-BT using an electrical outlet on the wall. It has USB connection.

APPLICATION PROTOCOL

// CHARGING THE DEVICE



a.



To open the cover that protects the USB device port **(1)**, use red nail **(3)** and turn in the indicated direction.

b.



Plug the USB cable into the device **(1)**. The battery charges automatically when connected to any USB port of a computer, or connecting the USB cable to the power adapter **(6)**.

c.



The lower LED will flash once when the device **(1)** is connected to an electrical outlet or computer.

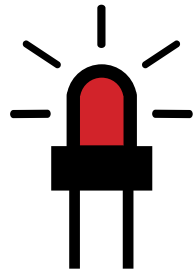
Make sure the battery is fully charged before using the device.

APPLICATION PROTOCOL

// THE LED'S CODES

Device Connected to PC.

Device Not Connected to PC

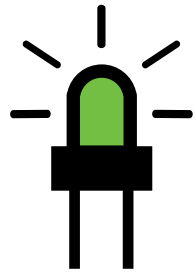


2
FLASHES

Battery is faulty

3
FLASHES

A hardware failure occurred while recording data. Contact customer support at support@delarosaresearch.com



1
FLASH

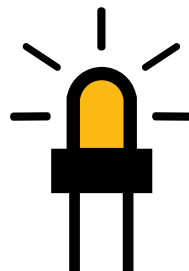
Battery Charging

MULTIPLE
FLASHES

El dispositivo se está comunicando con el PC via USB

∞
CONSTANT
LIGHTING

Battery Fully Charged

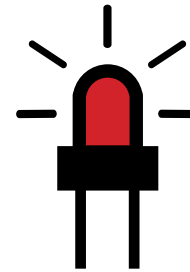


1
FLASH
EACH 5 SEC.

Device is linked correctly and receiving information of heart rate.

1
FLASH
EACH SECOND.

Device is linked correctly and communicating with Actilife o Actilife Mobile.



-
FLASH

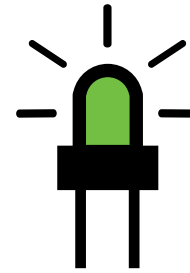
Normal operating condition or battery dead

2
FLASHES

Low Battery (use ActiLife Lifestyle software to check for remaining battery life). The unit needs to be recharged.

3
FLASHES

Unexpected Battery Failure (Temporary battery power loss) or Battery Level has fallen below 3.1V and the unit has entered Halt Mode



-
FLASH

Actively collecting data

1
FLASH

Delay before start mode (the LED always flashes prior to starting data collection) or Actively taking data

3
FLASHES

End of memory reached or Battery died while unit was in delay before start mode

APPLICATION PROTOCOL

// INITIALIZE DEVICE

- a.** Download the device control software: ActiLife 6.



<http://www.actigraphcorp.com/support/software/actilife/>

- b.** To activate the software, type the user's name and password supplied for De la Rosa research.



- c.** Connect the device to a PC on which the software has been downloaded and installed.



- d.** Follow the Software instructions to being able to initialize the device.

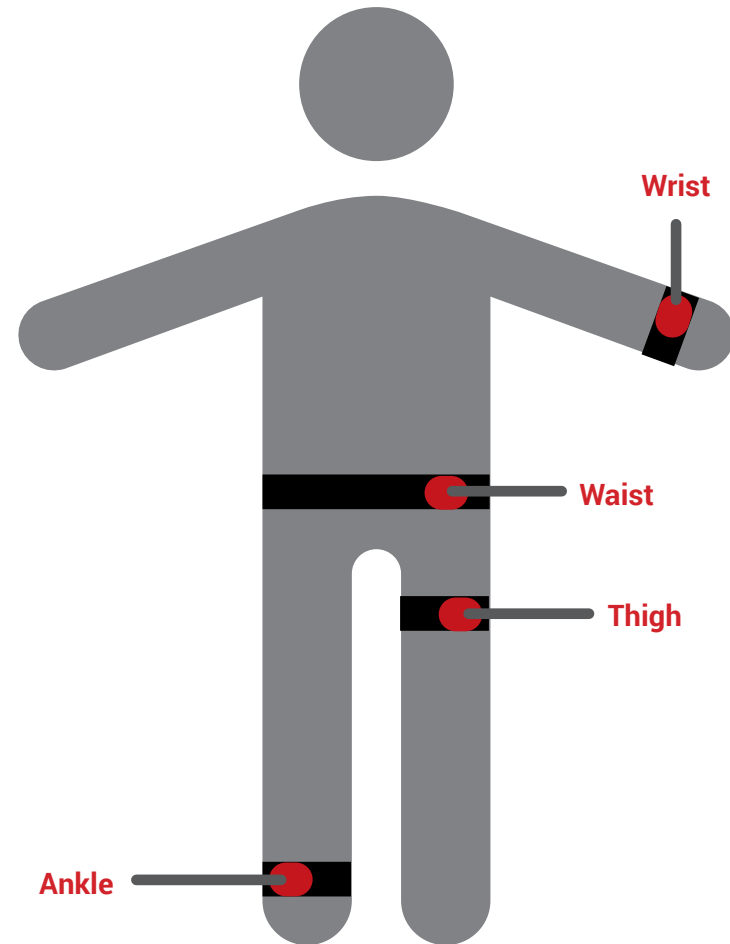


ActiLife 6
Data Analysis Software

APPLICATION PROTOCOL

// WEAR THE DEVICE

El dispositivo puede ser colocado en cualquiera de los siguientes puntos:



Make sure the battery is fully charged and USB port cap is closed before using the device.



APPLICATION PROTOCOL

// DOWNLOADING DATA

- a.** Once you remove the device from the patient's body , connect to a PC to download the stored data.



- b.** To download data, run Actilife 6 software and follow the instructions.



THIS IS THE END OF THIS QUICK GUIDE.

This is all the basic information you will need for using the ACTIGRAPH GT3X- BT; but this is just the beginning of the fun.

If there is something that is not clear to you, or if you have any questions, please feel free to contact us at any time.

We will be very happy to hear from you.

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