# Measurement Device Connection

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## 1 Introductions

This document contains all the necessary information you need to know to connect a compatible mesurement device to the **PRO.MYWELLNESS.COM** professional mywellness cloud platform running on a **Windows PC** or to **UNITY SELF**.

## 2 INDEX

1	Introductions	1
3	Supported devices	4
4	Tanita weight scale	5
4	4.1 Models: WB100A, WB100MA, WB110A, WB110MA, (WB100P, american model)	5
5	Tanita body Analyzer	7
į	5.1 Model: MC780M	7
	5.1.1 RS232 connection & USB	8
	5.1.2 WINDOWS PC CONNECTION	9
	5.1.2.1 USB standard-B cable	9
	5.1.2.2 RS-232C cable Plug	9
	5.1.3 UNITY SELF CONNECTION	. 10
	5.1.3.1 RS-232C cable Plug	. 10
	5.1.3.2 USB standard-B cable	. 11
	5.1.4 Tanita MC780 Bluetooth kit	. 12
	5.1.4.1 Install BT Slave Module	. 13
	5.1.5 Configure Tanita MC780 in "PC MODE"	. 15
Į	5.2 Model: MC980MA	. 18
į	5.3 Model: BC-418	. 23
Į	5.4 Model: Tanita BC420 & Tanita SC-330	. 27

6	Inb	ody-Biospace body Analyzer	30
	6.1	Model: Inbody270	30
	6.1.	1 Ethernet / WiFi connection	32
	6.1.	2 RS232 connection	34
	6.1.	3 USB standard-B cable	36
	6.1.	4 OPEN PROTOCOL SETTING	38
	6.2	Model: Inbody370	41
	6.2.	1 Inbody 370 connection	43
	6.2.	2 WINDOWS PC CONNECTION	43
	6	.2.2.1 RS-232C cable Plug	43
	6.2.	3 UNITY SELF CONNECTION	44
	6	.2.3.1 RS-232C cable Plug	44
	6.2.	4 OPEN PROTOCOL SETTING	46
	6.3	Model: Inbody570	48
	6.3.	1 Ethernet / WiFi connection	50
	6.3.	2 RS232 connection	51
	6.3.	3 USB standard-B cable	54
	6.3.	4 OPEN PROTOCOL SETTING:	55
	6.4	Model: Inbody770	58
	6.5	Ethernet / WiFi connection	60
	6.6	RS232 connection	62
	6.7	OPEN PROTOCOL SETTING:	64
7	Bios	space blood pressure	66
	7.1	Model BPBIO320	66
8	Om	nron blood pressure	69
	8.1	Model 705IT, 705CP-II	69
9	ELK	Corporation	71
	9.1	Model UDEX-I	71
1(	) В	IODYCOACH Device	75
1	l V	VINDOWS PC - Device Reader configuration	82
	11.1	Manual configuration	83
12	2 U	NITY SELF – APP INSTALLATION	86
13	3 L	IST OF CHANGES FOR MANUAL VERSION	87
	13.1	revision 14.0	87
	13.2	revision 15.0	87

# 3 SUPPORTED DEVICES

The table below shows the compatible measurement devices:

VENDOR	DEVICE TYPE	MODEL	PRO	UNITY SELF [1]
Tanita	Weight scale	WB-100 P/S	Yes	No
Tanita	Weight scale	WB-100 P/S MA	Yes	No
Tanita	Weight scale	WB-100 P	Yes	No
Tanita	Weight scale	WB-110 P/S	Yes	No
Tanita	Weight scale	WB-110 P/S MA	Yes	No
Tanita	Body composition	MC-780	Yes	Yes
Tanita	Body composition	MC-980	Yes	No
Tanita	Body composition	BC-418	Yes	No
Tanita	Body composition	BC-420	Yes	No
Tanita	Body composition	SC-330	Yes	No
Biospace	Body composition	InBody 770	Yes	Yes
Biospace	Body composition	InBody 570	Yes	Yes
Biospace	Body composition	InBody 370	Yes	Yes
Biospace	Body composition	InBody 270	Yes	Yes
Biospace	Blood pressure	BPBIO320	Yes	Yes
Omron	Blood pressure	705-IT (HEM-579P-E)	Yes	No
Omron	Blood pressure	705CP-2 (HEM-759-E2)	Yes	No
Elk Corporation	Blood pressure	Undex-i	Yes	Yes

<sup>[1]</sup> Compatible with **UNITY software version 3.0 or higher** 

## 4 TANITA WEIGHT SCALE

# 4.1 MODELS: WB100A, WB100MA, WB110A, WB110MA, (WB100P, AMERICAN MODEL)

Measure parameters:

CATEGORY	SUB CATEGORY	Name
ANTHROPOMETRIC	BASIC	Height
BODY COMPOSITION	BASIC	Weight
BODY COMPOSITION	BASIC	BMI



In order to connect the Tanita weight scales to a Windows PC you have to use a serial cable RS-232C.

Plug the serial calble connector to the weight scale serial port from one side and from the other side plug the serial cable connector to the Windows PC serial port.



Windows PC serial port

In case the Windwos PC does not have a serial port you can use a USB to serial adapter cable.



Usb serial adapter

Example of suggested USB-serial cable: <a href="http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/800425S1H8">http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/800425S1H8</a>

The USB-Serial cable adapter is a cable that you have to connect to the Windows PC via USB plug, while the other side of the cable can be connect to the Tanita Weight scale using the RS232C connector.

**VERY IMPORTANT FOR THE USB serial adapter**: usually, when you connect a USB serial adapter cable to the PC, windows needs to install a specific driver for the adapter. The driver can be installed using the CD provided with the adapter or it can be automatically downloaded from Internet. In case windows tries to install the driver via intenet you have to be sure that automatically windows update are enabled othewise you connect the cable but it does not work

## **VERY IMPORTANT FOR THE Serial cable:**

In order to connect the model **WB100A WB100MA**, **WB110A**, **WB110MA** (Metric unit Kg and Cm) to the PC you needs a RS-232C **straight cable (Male-Female)** 



- An RS-232C connector (D sub 9 pin female) is attached to the side of the display box.
- When connecting the display box with a personal computer, etc., please use an RS-232C straight cable.
- . Use the RS232C cable ahorter than 3m long.



In order to connect the model **WB100P** (American unit Lb and Feet/Inch) to the PC you needs a RS-232C **cross cable (Female-Female, null-modem)** 



An RS-232C connector (D sub 9 pin male) is attached to the side of the display box.

When connecting the display box with a personal computer, etc., please use an RS-232C cross cable.



# 5 TANITA BODY ANALYZER

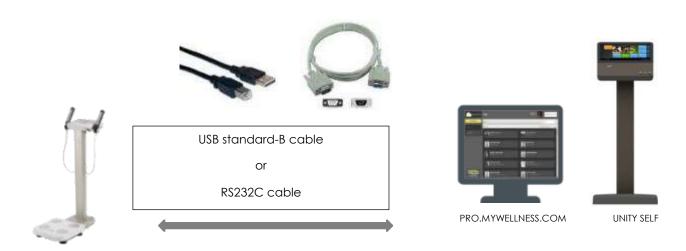
# 5.1 MODEL: MC780M

Measure parameters:

			Supported User Age	
CATEGORY	SUB CATEGORY	Name	Years < 18	Years >= 18
ANTHROPOMETRIC		Height		Х
BODY COMPOSITION	BASIC	Weight	Χ	Χ
BODY COMPOSITION	BASIC	Basal Metabolic Rate	Χ	Χ
BODY COMPOSITION	BASIC	вмі	Χ	Χ
BODY COMPOSITION	BASIC	BoneMass	Χ	Χ
BODY COMPOSITION	BASIC	FatFreeMass		Х
BODY COMPOSITION	BASIC	FatMass	X	Х
BODY COMPOSITION	BASIC	FatMassPerc	Х	Х
BODY COMPOSITION	BASIC	MuscleMass	Х	Х
BODY COMPOSITION	BASIC	TotalBodyWater	X	Х
BODY COMPOSITION	BASIC	TotalBodyWaterPerc	Х	Х
BODY COMPOSITION	ADVANCED	BasalMetabolicRateScore		Х
BODY COMPOSITION	ADVANCED	DegreeOfObesityPerc		Х
BODY COMPOSITION	ADVANCED	ExtraCellularWater		Х
BODY COMPOSITION	ADVANCED	ExtraCellularWaterPerc		Х
BODY COMPOSITION	ADVANCED	IntraCellularWater		Х
BODY COMPOSITION	ADVANCED	MetabolicAge		Х
BODY COMPOSITION	ADVANCED	StandardBodyWeight		Х
BODY COMPOSITION	ADVANCED	StandardFatPerc	Х	Х
BODY COMPOSITION	ADVANCED	StandardMuscleMassPerc		Х
BODY COMPOSITION	ADVANCED	VisceralFatRating		Х
BODY COMPOSITION	SEGMENTAL	LeftArmFatFreeMass	Х	Х
BODY COMPOSITION	SEGMENTAL	LeftArmFatMass	Х	Х
BODY COMPOSITION	SEGMENTAL	LeftArmFatPerc	Х	Х
BODY COMPOSITION	SEGMENTAL	LeftArmMuscleMass	X	Х
BODY COMPOSITION	SEGMENTAL	LeftLegFatFreeMass	X	Х
BODY COMPOSITION	SEGMENTAL	LeftLegFatMass	X	X
BODY COMPOSITION	SEGMENTAL	LeftLegFatPerc	X	X
BODY COMPOSITION	SEGMENTAL	LeftLegMuscleMass	X	X
BODY COMPOSITION	SEGMENTAL	RightArmFatFreeMass	X	Х
BODY COMPOSITION	SEGMENTAL	RightArmFatMass	X	X
BODY COMPOSITION	SEGMENTAL	RightArmFatPerc	Х	Х
BODY COMPOSITION	SEGMENTAL	RightArmMuscleMass	Х	X
BODY COMPOSITION	SEGMENTAL	TrunkFatFreeMass	X	X
BODY COMPOSITION	SEGMENTAL	TrunkFatMass	X	X

			Supported User Age	
CATEGORY	SUB CATEGORY	Name	Years < 18	Years >= 18
BODY COMPOSITION	SEGMENTAL	TrunkFatPerc	Χ	Χ
BODY COMPOSITION	SEGMENTAL	TrunkMuscleMass	Χ	Χ
BODY COMPOSITION	SEGMENTAL	RightLegFatFreeMass	Χ	Χ
<b>BODY COMPOSITION</b>	SEGMENTAL	RightLegFatMass	Χ	X
BODY COMPOSITION	SEGMENTAL	RightLegFatPerc	Χ	Χ
BODY COMPOSITION	SEGMENTAL	RightLegMuscleMass	Χ	Χ
BODY COMPOSITION	SEGMENTAL ADVANCED	LeftArmFatPercScore	Χ	Χ
BODY COMPOSITION	SEGMENTAL ADVANCED	LeftArmMuscleMassScore	Х	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	LeftLegFatPercScore	Х	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	LeftLegMuscleMassScore	Х	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	LegMuscleScore	Х	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	MuscleMassBalanceArm		Х
BODY COMPOSITION	SEGMENTAL ADVANCED	MuscleMassBalanceLeg		Х
BODY COMPOSITION	SEGMENTAL ADVANCED	RightArmFatPercScore	Х	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	RightArmMuscleMassScore	Χ	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	RightLegFatPercScore	Х	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	RightLegMuscleMassScore	Χ	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	TrunkFatPercScore	Χ	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	TrunkMuscleMassScore	Х	Χ

## 5.1.1 RS232 connection & USB



If RS232t is not included in the Tanita product box or sent together with the scales Please contact, Tanita logistic dep.

Order processing / logistics:

Name: Annelies Dhiedt

Telephone: +31 20 560 2977

Fax: +31 20 560 2988

E-mail: annelies.dhiedt@tanita.eu

## 5.1.2 WINDOWS PC CONNECTION

In order to connect the Tanita **MC780MA** Body Analyzer to a **Windows PC** you have to use a RS-232C serial cable or USB standard-B cable.

## 5.1.2.1 USB standard-B cable

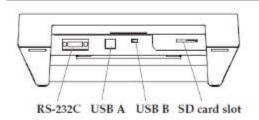
In case you have a USB standard-B cable, plug the USB square connector to the scale USB A of the MC780MA Control unit and from the other side to the Windows PC.



Windows PC USB port

Connect the USB standard-B cable to the USB A Control unit plug:

## **Control unit Connection of Plugs**





## 5.1.2.2 RS-232C cable Plug

In case you have the **RS-232C** cable plug the serial calble connector to the weight scale serial port **RS-232C** from one side and from the other side plug the serial cable connector to the Windows PC serial port.



## Windows PC serial port

## 5.1.3 UNITY SELF CONNECTION

In order to connect the Tanita **MC780MA** Body Analyzer to **UNITY SELF** you have to use a RS-232C serial cable or USB standard-B cable.

## 5.1.3.1 RS-232C cable Plug

In case you have the RS-232C cable Plug the serial cable connector to the Tanita **MC780MA** serial port from one side and from the other side plug the serial cable connector to the UNITY SELF USB to serial adapter cable.



**UNITY SELF USB-adapter** 

On UNITY SELF and Windwos PC (in case it does not have a serial port), you can use a USB to serial adapter cable.



Usb serial adapter

Example of suggested USB-serial adapter cable:

http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/B00425\$1H8

The USB-Serial cable adapter is a cable that you have to connect to the Windows PC via USB plug, while the other side of the cable can be connect to the Tanita Weight scale using the RS232C connector.

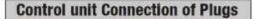
**VERY IMPORTANT FOR THE USB serial adapter**: usually, when you connect a USB serial adapter cable to the PC, windows needs to install a specific driver for the adapter. The driver can be installed using the CD provided with the adapter or it can be automatically downloaded from Internet. In case windows tries to install the driver via intenet you have to be sure that automatically windows update are enabled othewise you connect the cable but it does not work.

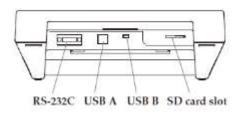
UNITY-Self supports the following USB-to Serial adapter:

Company	Hardware ID
Prolific	PL-2303 HX Chipset
FTDI chip	VendorID = 0x0403 1027
·	ProductID = 0x6001 24577

## **VERY IMPORTANT FOR THE Serial cable**:

In order to connect the MC780MA to the PC you needs a RS-232C straight cable (Male-Female) and connect the serial cable to the RS-232C Control unit plug.







**OPERATIONAL NOTE:** Before starting the measurement by the PRO site the **Tanita MC-780MA** has to be in **Ready mode**. The MC-780MA is in Ready mode when the green led on button "ENTER" is flashing.

## 5.1.3.2 USB standard-B cable

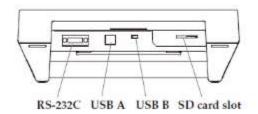
In case you have a USB standard-B cable, plug the USB square connector to the scale USB A of the MC780MA Control unit and from the other side to the UnitySelf USB.



**UNITY SELF USB** 

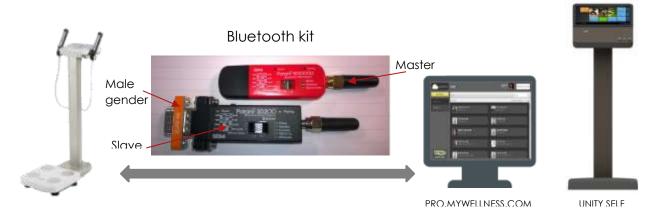
Connect the USB standard-B cable to the Tanita USB A control unit plug:

## **Control unit Connection of Plugs**





## 5.1.4 Tanita MC780 Bluetooth kit



## Bluetooth adapter has 2 parts:

- slave module composed by:
  - SENA Parani SD200
     (http://www.senaindustrial.com/products/industrial\_bluetooth/sd.php)



- o DB9 Female to DB9 Male Gender
- o The slave modulo has to connect to the Tanita MC780MA
- master module
  - SENA Parani SD1000U
     (http://www.senaindustrial.com/products/industrial\_bluetooth/sd1000u.ph
     p)
  - o The master module has to connect to the PC or Unity Self.

If Bluetooth kit is not included in the Tanita product box or sent together with the scales Please contact, Tanita logistic dep.

## Order processing / logistics:

Name: Annelies Dhiedt Telephone: +31 20 560 2977

Fax: +31 20 560 2988

E-mail: annelies.dhiedt@tanita.eu

## 5.1.4.1 Install BT Slave Module

In order to connect the BT kit to Tanita MC780 follow the steps below

## Step 1:

Connect the slave module to the 9-pin RS232C like in the picture





## Step 2:

We need to feed BT "Slave Module" with electricity through the device, in order to do this you have to set the device following



A. turn on the MC 780MA



the settings stages:



E. Press "1" so the RS-232 will provide power to the Bluetooth transmitter, Confirm your selection with "Enter" button. The MC-780MA provides the following two options for the RS232C:

"O" --- No power to BT (I.e. Power will not be provided to the Bluetooth transmitter via the RS-232 connection)

"1" --- Power to BT (I.e. Power will be provided to the Bluetooth transmitter via RS-232 connection)



D. Following the sequence, push "Enter" release and then (quickly) push the "Male" button (as a sequence)

F. "13" will now be shown on the MC-

F. "13" will now be shown on the MC-780MA display again



G. Push on the "Settings" button to go to the first screen of the device

B. Press the "Setting" button on the MC-780MA display

## NOTE:

The MC-780MA has now been set up correctly for use with the Bluetooth device

- **Note 1:** It take approximately 10 to 50 seconds for the Bluetooth receiver and transmitter to connect.
- **Note 2:** The distance between your MC-780MA and PC/UNITY-self should not be less than 2 meters.

## **Procedure in short form:**

- • Put power on the machine
- Settings
- • 30 Enter
- • 0 Enter
- Settings
- • 13
- • Enter
- • Male
- • 1
- • Enter
- 1
- • Enter
- Settings
- Add Bluetooth adapter to the scale restart the MC
   780MA

C. Push "1" and "3" buttons in turn. After seeing "13" on the screen



## 5.1.5 Configure Tanita MC780 in "PC MODE"



1 turn on the MC 780MA and keep pressed CE up to the PC menu will be shown



2 At PC menu, select "1" to change the machine in PC mode and press Enter to confirm. If you want to exit from PC mode select "0" and "Enter".



3 The machine is in PC mode and could be managed by PC and Unity-self only

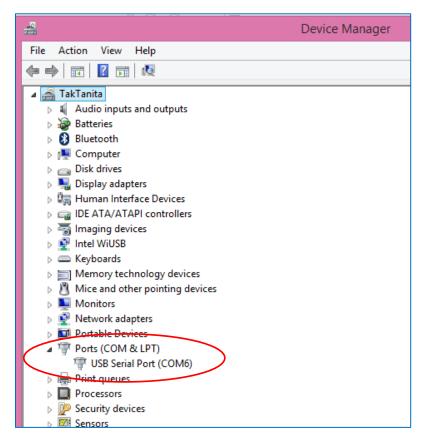
## **Install BT USB Master Module on Computer**



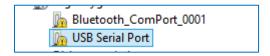
Stick the USB module at the USB port of a PC.

Check whether the automatic driver installation begins. The driver is known by Microsoft and the setup should be completed automatically if you have internet connection.

If the driver is installed correctly, we would see it like "USB Serial Port (Com...)", we can see it in the picture below and this comport which will use in the connection as a COM.



If the driver could not be installed automatically via internet the "USB Serial Port" is shown as in the picture below:



# IF THE DRIVER COULD NOT BE INSTALLED AUTOMATICALLY VIA INTERNET

## **Manual Driver Installation**

- 1. Unplug the Bluetooth receiver from your PC
- 2. Click the following link to install the drivers:

  <a href="https://drive.google.com/file/d/08xtVShpPieetWHhLUEpVeXVidzA/view?usp=shar">https://drive.google.com/file/d/08xtVShpPieetWHhLUEpVeXVidzA/view?usp=shar</a>
  ina
- 3. Click "Download"
- 4. Double-click the downloaded file and click "Run"
- 5. Click "Extract" to unpack the drivers and launch the installer
- 6. Click "Next" to start installing the drivers
- 7. If you agree to the Terms & Conditions click "Next"
- 8. Click "Finish" to finalise the installation
- 9. Insert the Bluetooth receiver into the USB port of your PC

## <u>Install BT USB Master Module on Unity Self</u>



In order to connect the BT kit to Unity Self, stick the USB master module at the Unity Self USB port at the right of power supplier, like showed in the picture.

No configuration driver is needed to install on UNITY-self.

# 5.2 MODEL: MC980MA

Measure parameters:

			Supported User Age	
CATEGORY	SUB CATEGORY	Name	Years < 18	Years >= 18
ANTHROPOMETRIC		Height		Χ
BODY COMPOSITION	BASIC	Weight	Χ	Χ
BODY COMPOSITION	BASIC	Basal Metabolic Rate	Χ	Χ
BODY COMPOSITION	BASIC	BMI	Χ	Χ
BODY COMPOSITION	BASIC	BoneMass	Χ	Χ
BODY COMPOSITION	BASIC	FatFreeMass		Χ
BODY COMPOSITION	BASIC	FatMass	Χ	Χ
BODY COMPOSITION	BASIC	FatMassPerc	Χ	Χ
BODY COMPOSITION	BASIC	MuscleMass	Χ	Χ
BODY COMPOSITION	BASIC	TotalBodyWater	Χ	Χ
BODY COMPOSITION	BASIC	TotalBodyWaterPerc	Χ	Χ
BODY COMPOSITION	ADVANCED	Basal Metabolic Rate Score		X
BODY COMPOSITION	ADVANCED	DegreeOfObesityPerc		X
BODY COMPOSITION	ADVANCED	ExtraCellularWater		X
BODY COMPOSITION	ADVANCED	ExtraCellularWaterPerc		Х
BODY COMPOSITION	ADVANCED	IntraCellularWater		X
BODY COMPOSITION	ADVANCED	MetabolicAge		X
BODY COMPOSITION	ADVANCED	StandardBodyWeight		X
BODY COMPOSITION	ADVANCED	StandardFatPerc	X	X
BODY COMPOSITION	ADVANCED	StandardMuscleMassPerc		Х
BODY COMPOSITION	ADVANCED	VisceralFatRating		Х
BODY COMPOSITION	SEGMENTAL	LeftArmFatFreeMass	X	X
BODY COMPOSITION	SEGMENTAL	Left Arm Fat Mass	X	X
BODY COMPOSITION	SEGMENTAL	LeftArmFatPerc	Х	Х
BODY COMPOSITION	SEGMENTAL	Left Arm Muscle Mass	X	X
BODY COMPOSITION	SEGMENTAL	LeftLegFatFreeMass	Х	Х
BODY COMPOSITION	SEGMENTAL	LeftLegFatMass	Х	Х
BODY COMPOSITION	SEGMENTAL	 LeftLegFatPerc	X	Х
BODY COMPOSITION	SEGMENTAL	LeftLegMuscleMass	Х	Х
BODY COMPOSITION	SEGMENTAL	RightArmFatFreeMass	X	Х
BODY COMPOSITION	SEGMENTAL	RightArmFatMass	Х	Х
BODY COMPOSITION	SEGMENTAL	RightArmFatPerc	Х	Х
BODY COMPOSITION	SEGMENTAL	RightArmMuscleMass	Х	Х
BODY COMPOSITION	SEGMENTAL	TrunkFatFreeMass	Х	Х
BODY COMPOSITION	SEGMENTAL	TrunkFatMass	Х	Х

			Supported User Age	
CATEGORY	SUB CATEGORY	Name	Years < 18	Years >= 18
BODY COMPOSITION	SEGMENTAL	TrunkFatPerc	Χ	Χ
BODY COMPOSITION	SEGMENTAL	TrunkMuscleMass	Χ	Χ
BODY COMPOSITION	SEGMENTAL	RightLegFatFreeMass	Χ	Χ
<b>BODY COMPOSITION</b>	SEGMENTAL	RightLegFatMass	Χ	X
BODY COMPOSITION	SEGMENTAL	RightLegFatPerc	Χ	Χ
BODY COMPOSITION	SEGMENTAL	RightLegMuscleMass	Χ	Χ
BODY COMPOSITION	SEGMENTAL ADVANCED	LeftArmFatPercScore	Χ	Χ
BODY COMPOSITION	SEGMENTAL ADVANCED	LeftArmMuscleMassScore	Х	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	LeftLegFatPercScore	Х	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	LeftLegMuscleMassScore	Х	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	LegMuscleScore	Х	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	MuscleMassBalanceArm		Х
BODY COMPOSITION	SEGMENTAL ADVANCED	MuscleMassBalanceLeg		Х
BODY COMPOSITION	SEGMENTAL ADVANCED	RightArmFatPercScore	Х	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	RightArmMuscleMassScore	Χ	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	RightLegFatPercScore	Х	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	RightLegMuscleMassScore	Χ	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	TrunkFatPercScore	Χ	Х
BODY COMPOSITION	SEGMENTAL ADVANCED	TrunkMuscleMassScore	Х	Χ



In order to connect the **Tanita Body Analyzer MC980MA** to a Windows PC you have to use a USB standard-Bcable.

You have to plug the USB square connector to the scale USB of the MC980MA Control unit and from the other side to the Windows PC.



Windows PC USB port

Connect the USB standard-B cable to the USB Control unit plug.



**Control Unit USB port** 

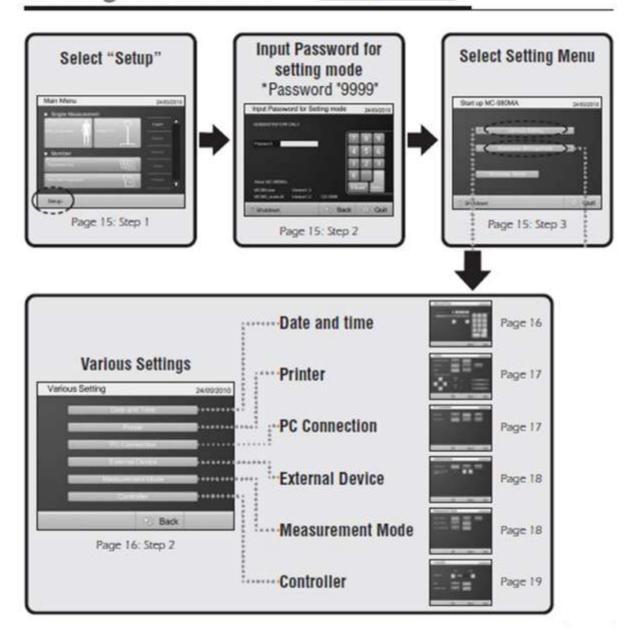
## **PC CONNECTION SETTING:**

In order to configure the communication protocol between the Windows PC and the Scale you have to set property the PC CONNECTION session.

Following the user manual's instructions to enter the setup menu, select Various Settings from the Setting Menu and set the PC Connection as shown below: **baud rate 9600** and **Flow Control Off**.

# Settings Flowchart

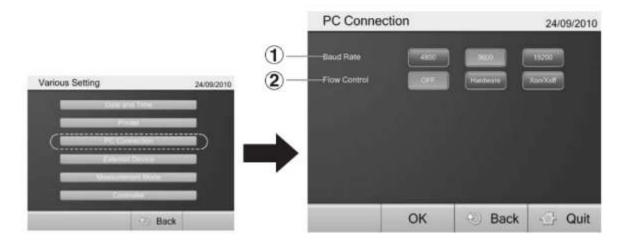
# Setting methods



# Select "PC Connection"

- 1 Baud Rate: Select baud rate.
- 2 Flow Control: Select flow control.

After inputting all items, press OK.



# 5.3 MODEL: BC-418

CATEGORY	SUB CATEGORY	Name
ANTHROPOMETRIC	BASIC	Height
BODY COMPOSITION	BASIC	Weight
BODY COMPOSITION	BASIC	BMI
BODY COMPOSITION	BASIC	FatMassPerc
BODY COMPOSITION	BASIC	FatMass
BODY COMPOSITION	BASIC	FatFreeMass
BODY COMPOSITION	BASIC	TotalBodyWater
		•
BODY COMPOSITION	BASIC	BasalMetabolicRate
BODY COMPOSITION	ADVANCED	VisceralFatRating
BODY COMPOSITION	SEGMENTAL	RightLegFatPerc
BODY COMPOSITION	SEGMENTAL	RightLegFatMass
BODY COMPOSITION	SEGMENTAL	RightLegFatFreeMass
BODY COMPOSITION	SEGMENTAL	RightLegMuscleMass
BODY COMPOSITION	SEGMENTAL	LeftLegFatPerc
BODY COMPOSITION	SEGMENTAL	LeftLegFatMass
BODY COMPOSITION	SEGMENTAL	LeftLegFatFreeMass
BODY COMPOSITION	SEGMENTAL	LeftLegMuscleMass
BODY COMPOSITION	SEGMENTAL	RightArmFatPerc
BODY COMPOSITION	SEGMENTAL	RightArmFatMass
BODY COMPOSITION	SEGMENTAL	RightArmFatFreeMass
BODY COMPOSITION	SEGMENTAL	RightArmMuscleMass
BODY COMPOSITION	SEGMENTAL	LeftArmFatPerc
BODY COMPOSITION	SEGMENTAL	LeftArmFatMass
BODY COMPOSITION	SEGMENTAL	LeftArmFatFreeMass
SODY COMPOSITION	SEGMENTAL	LeftArmMuscleMass
BODY COMPOSITION	SEGMENTAL	TrunkFatPerc
BODY COMPOSITION	SEGMENTAL	TrunkFatMass
BODY COMPOSITION	SEGMENTAL	TrunkFatFreeMass
BODY COMPOSITION	SEGMENTAL	TrunkMuscleMass

Measure parameters:



RS232C male-female cross cable





In order to connect the **Tanita BC-418** Body Analyzer to a **Windows PC** you have to use a **RS-232C male-female cross cable**.

Plug the **RS-232C male-female cross cable** to the **Tanita BC-418**'s serial port from one side and from the other side plug the serial cable connector to the Windows PC serial port.

# Any RS 233C connector (D sub 9 pin female) is located in the lower center on the back of the control box. Use an RS-232C cross cable when coenecting to a personal computer or other device. RS-232C connector (D sub 9-pin male) RS-232C cross cable D sub 9-pin female

## Windows PC serial port

In case the Windwos PC does not have a serial port you can use a USB to serial adapter cable.



Usb serial adapter

Example of suggested USB-serial cable: <a href="http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/800425S1H8">http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/800425S1H8</a>

The USB-Serial cable adapter is a cable that you have to connect to the Windows PC via USB plug, while the other side of the cable can be connect to the Tanita BC-418 Body Analyzer using the RS232C connector.

**VERY IMPORTANT FOR THE USB serial adapter**: usually, when you connect a USB serial adapter cable to the PC, windows needs to install a specific driver for the adapter. The driver can be installed using the CD provided with the adapter or it can be automatically downloaded from Internet. In case windows tries to install the driver via intenet you have to be sure that automatically windows update are enabled othewise you connect the cable but it does not work.

## **VERY IMPORTANT FOR THE Serial cable:**

In order to connect the **BC-418** to the PC you needs a **RS-232C male-female cable** and connect the serial cable to the **RS-232C Control unit plug**.



## **BC-418 SETTING**

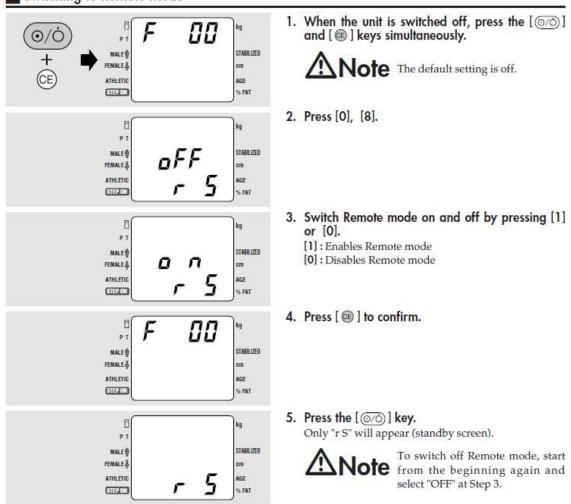
Before starting the measurement through the PRO site, the Tanita BC-418 has to be set to **Remote Mode**. Follow the Tanita BC-418 **user manual instructions** as shown below:

## Output (Fat Monitor Mode) Format

## Remote Mode

All types of data may be entered by connecting the BC-418MA to a PC and switching to Remote mode.

## Switching to Remote Mode



**Important note:** Please make sure that the device shows "**r 5**" on the display before starting the measurement on PRO.MYWELLNESS.COM

## 5.4 MODEL: TANITA BC420 & TANITA SC-330

Measure parameters:

NAME	CATEGORY	SUBCATEGORY
Height	ANTHROPOMETRIC	BASIC
Weight	BODY COMPOSITION	BASIC
BMI	BODY COMPOSITION	BASIC
FatMassPerc	BODY COMPOSITION	BASIC
FatMass	BODY COMPOSITION	BASIC
FatFreeMass	BODY COMPOSITION	BASIC
MuscleMass	BODY COMPOSITION	BASIC
BoneMass	BODY COMPOSITION	BASIC
TotalBodyWater	BODY COMPOSITION	BASIC
TotalBodyWaterPerc	BODY COMPOSITION	BASIC
BasalMetabolicRate	BODY COMPOSITION	BASIC
MuscleScore	BODY COMPOSITION	ADVANCED
StandardBodyWeight	BODY COMPOSITION	ADVANCED
DegreeOfObesityPerc	BODY COMPOSITION	ADVANCED
VisceralFatRating	BODY COMPOSITION	ADVANCED
BasalMetabolicRateScore	BODY COMPOSITION	ADVANCED
MetabolicAge	BODY COMPOSITION	ADVANCED

# **RS232 connection**





PRO MYWFI I NESS COM

If RS232C is not included in the Tanita product box or sent together with the scales Please contact, Tanita logistic dep.

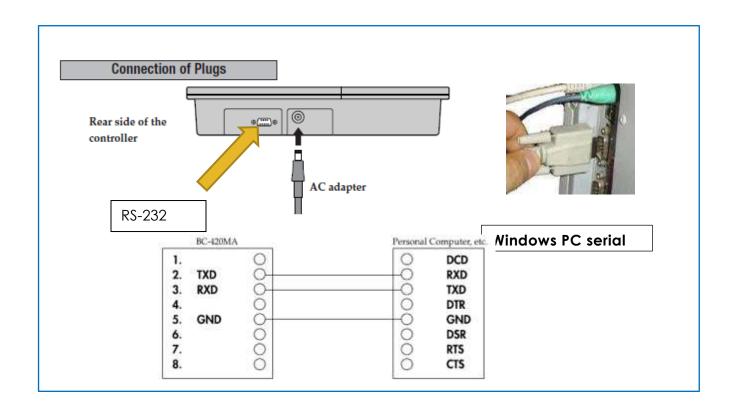
Order processing / logistics:

Name: Annelies Dhiedt
Telephone: +31 20 560 2977
Fax: +31 20 560 2988

E-mail: annelies.dhiedt@tanita.eu

In order to connect the **Tanita BC-420 or Tanita SC-330** Body Analyzer to a **Windows PC** you have to use a **RS-232C male-female** <u>straight cable</u>.

Plug the **RS-232C male-female** <u>straight cable</u> to the **Tanita BC-420** or **Tanita SC-330**'s serial port from one side and from the other side plug the serial cable connector to the Windows PC serial port.



In case the Windwos PC does not have a serial port you can use a USB to serial adapter cable.



Usb serial adapter

Example of suggested USB-serial cable: <a href="http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/800425\$1H8">http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/800425\$1H8</a>

The USB-Serial cable adapter is a cable that you have to connect to the Windows PC via USB plug, while the other side of the cable can be connect to the Tanita BC-418 Body Analyzer using the RS232C connector.

<u>VERY IMPORTANT FOR THE USB serial adapter</u>: usually, when you connect a USB serial adapter cable to the PC, windows needs to install a specific driver for the adapter. The driver can be installed using the CD provided with the adapter or it can be automatically downloaded from Internet. In case windows tries to install the driver via intenet you have to be sure that automatically windows update are enabled othewise you connect the cable but it does not work.

## **VERY IMPORTANT FOR THE Serial cable:**

In order to connect the **Tanita BC-420 or Tanita SC-330** to the PC you needs a **RS-232C male-female cable** and connect the serial cable to the **RS-232C Control unit plug**.

# 6 INBODY-BIOSPACE BODY ANALYZER

## 6.1 MODEL: INBODY270

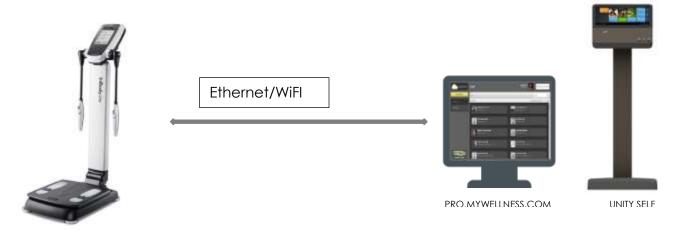
Measure parameters:

CATEGORY	SUB CATEGORY	Name
BODY COMPOSITION	BASIC	Basal Metabolic Rate
BODY COMPOSITION	ADVANCED	BFM Control
BODY COMPOSITION	BASIC	BMI
CARDIOVASCULAR		diastolic
BODY COMPOSITION	BASIC	FatFreeMass
BODY COMPOSITION	BASIC	FatMass
BODY COMPOSITION	BASIC	FatMassPerc
BODY COMPOSITION	ADVANCED	FFM Control
BODY COMPOSITION	ADVANCED	Growth Score
ANTHROPOMETRIC		Height
BODY COMPOSITION	ADVANCED	InBody Score
BODY COMPOSITION	SEGMENTAL	LeftArmFatFreeMass
BODY COMPOSITION	SEGMENTAL	Left Arm Fat Free Mass Perc Of Idel
BODY COMPOSITION	SEGMENTAL	LeftArmFatMass
BODY COMPOSITION	SEGMENTAL	LeftLegFatFreeMass
BODY COMPOSITION	SEGMENTAL	LeftLegFatFreeMassPercOfldeal
BODY COMPOSITION	SEGMENTAL	LeftLegFatMass
NORMAL RANGE		Lower Limit (BMI Normal Range)
NORMAL RANGE		Lower Limit (Minerals Normal Range)
NORMAL RANGE		Lower Limit (OD Normal Range)
NORMAL RANGE		Lower Limit (PBF Normal Range)
NORMAL RANGE		Lower Limit (Protein Normal Range)
NORMAL RANGE		Lower Limit (SMM Normal Range)
NORMAL RANGE		Lower Limit (TBW Normal Range)
NORMAL RANGE		Lower Limit (Weight Normal Range)

CATEGORY	SUB CATEGORY	Name
NORMAL RANGE		Lower Limit (WHR Normal Range)
NORMAL RANGE		Lower Limit(FFM Normal Range)
BODY COMPOSITION	ADVANCED	Minerals
BODY COMPOSITION	ADVANCED	Obesity Degree
BODY COMPOSITION	ADVANCED	Obesity Degree of a Child
BODY COMPOSITION	ADVANCED	Protein
CARDIOVASCULAR		Pulse Pressure
CARDIOVASCULAR		Rate Pressure Product
BODY COMPOSITION	SEGMENTAL	RightArmFatFreeMass
BODY COMPOSITION	SEGMENTAL	RightArmFatFreeMassPercOfIdel
BODY COMPOSITION	SEGMENTAL	RightArmFatMass
BODY COMPOSITION	SEGMENTAL	RightLegFatFreeMass
BODY COMPOSITION	SEGMENTAL	RightLegFatFreeMassPercOfIdeal
BODY COMPOSITION	SEGMENTAL	RightLegFatMass
CARDIOVASCULAR		sistolic
BODY COMPOSITION	BASIC	Skeletal muscle mass
BODY COMPOSITION	ADVANCED	Target Weight
BODY COMPOSITION	BASIC	TotalBodyWater
BODY COMPOSITION	SEGMENTAL	TrunkFatFreeMass
BODY COMPOSITION	SEGMENTAL	TrunkFatFreeMassPerc
BODY COMPOSITION	SEGMENTAL	TrunkFatMass
NORMAL RANGE		Upper Limit (BMI Normal Range Next Value)
NORMAL RANGE		Upper Limit (BMI Normal Range)
NORMAL RANGE		Upper Limit (FFM Normal Range)
NORMAL RANGE		Upper Limit (Minerals Normal Range)
NORMAL RANGE		Upper Limit (OD Normal Range)
NORMAL RANGE		Upper Limit (PBF Normal Range)
NORMAL RANGE		Upper Limit (Protein Normal Range)

CATEGORY	SUB CATEGORY	Name
NORMAL RANGE		Upper Limit (SMM Normal Range)
NORMAL RANGE		Upper Limit (TBW Normal Range)
NORMAL RANGE		Upper Limit (Weight Normal Range)
NORMAL RANGE		Upper Limit (WHR Normal Range)
BODY COMPOSITION	ADVANCED	VFL (Visceral Fat Level)
ANTHROPOMETRIC		waist-hip ratio
BODY COMPOSITION	BASIC	Weight
BODY COMPOSITION	ADVANCED	Weight Control

## 6.1.1 Ethernet / WiFi connection



In order to connect the Biospace Body Analyzer Inbody270 scales to a PC or Unity-self you can use a TCP/IP connection via RJ45 Ethernet plug or via WiFi .

The below image shows where you have to plug the **RJ45 Ethernet** cable:



In order to configure a TCP/IP connection follow the below steps:

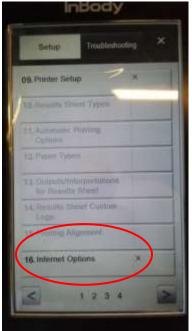


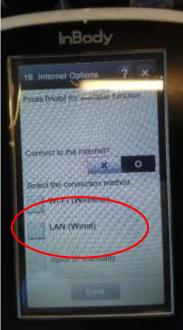


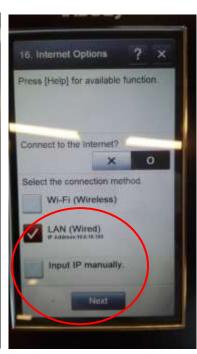




STEP 4 STEP 5 STEP6





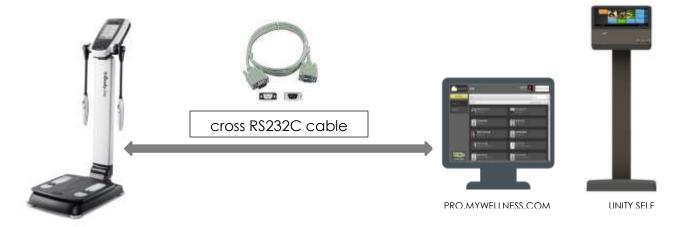


- **Step 1** = press Adrministrator Menu
- **Step 2** = insert the Administrator password (the default password is 0000)
- **Step 3** = click right arrow and ther on the "16 Internet Options Menu" button
- **Step 4 5 6** = select the internet you whant (in the example we have select the LAN Wired connection). Press Next button to connect the equipment to the local area network. Keep note of the IP Addres (in this case 10.0.18.193).

**Unity-self:** At the first execution of the Inbody270 Body Composiiton App, Unity-self will ask you these IP address, if the IP is correct the measurement will start using a WiFi or LAN connection.

**PC configuration**: open the Device Reader, select InBody270 and go to the manual configuration to enter the IP address.

## 6.1.2 RS232 connection



In order to connect the Biospace InBody270 to a Windows PC or UNITY SELF you can use a cross serial cable RS-232C.

Plug the serial cable connector to the weight scale serial port from one side and from the other side plug the serial cable connector to the Windows PC serial port or UNITY SELF USB to serial adapter cable.



Windows PC serial port



**UNITY SELF USB-adapter** 

For UNITY SELF or Windows PC without a serial port you can use a USB to serial adapter cable.



## Usb serial adapter

Example of suggested USB-serial cable: <a href="http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/800425S1H8">http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/800425S1H8</a>

The USB-Serial cable adapter is a cable that you have to connect to the Windows PC or UNITY SELF via USB plug, while the other side of the cable can be connect to the Biospace blood pressure using the RS232C connector.

<u>VERY IMPORTANT FOR THE USB serial adapter</u>: usually, when you connect a USB serial adapter cable to the PC, windows needs to install a specific driver for the adapter. The driver can be installed using the CD provided with the adapter or it can be automatically downloaded from Internet. In case windows tries to install the driver via intenet you have to be sure that automatically windows update are enabled othewise you connect the cable but it does not work.

UNITY-Self supports the following USB-to Serial adapter:

Company	Hardware ID
Prolific	PL-2303 HX Chipset
FTDI chip	VendorID = 0x0403 1027
·	ProductID = 0x6001 24577

## **VERY IMPORTANT FOR THE Serial cable:**

In order to connect the InBody270 to the PC or UNITY SELF, you needs a RS-232C cross cable (Female-Male, null-modem) and connect the serial cable to the RS-232C control unit plug RS-232C.



An RS-232C connector (D sub 9 pin male) is attached to the side of the display box.

When connecting the display box with a personal computer, etc., please use an RS-232C cross cable.



## 6.1.3 USB standard-B cable





In case you have a USB standard-B cable, plug the USB square connector to the scale USB A of the Inbody 270 Control unit and from the other side to the Windwos PC USB or USB Unity Self.



**USB PC port** 



**UNITY SELF USB port** 

# Connect the USB standard-B cable to the ${f USB}$ SLAVE PC control unit plug:





#### 6.1.4 OPEN PROTOCOL SETTING

In order to configure the communication protocol between the Unity-Self or the PC and the device, a Biospace technician has to update the firmware of the Inbody270 to **Open Protocol version provided by Biospace**. Contact your local Biospace dealer to perform the upgrade.

This is not needed for Inbody270 ordered from Technogym, as already updated.

Firmware version table

Firmware version	Compatibility
DNO2-270DM-0313.digital or higher	World Wide version

The firmware upgrade can be done plugging a USB memory stick with the open protocol firmware in the Unit Host USB port. Turn off and turn on the scale, the firmware will install automatically.

After the update of the firmware you can connect the Inbody270 to the Unity-Self using the LAN/WiFi or Serial Port, see above how to configure it.

One important setting that you must set ON is the **Open Protocol** and set it to "Two Ways". In order to enable the Open Protocol follow this procedure:

### **Enable the Open Protocol**

- 1. Enter the setup menu.
- 2. click right arrow on the "26 Open protocol" button
- 3. You will see the 'open protocol' enable / disable option
- 4. Set open protocol to enabled
- 5. Save the open protocol setting
- 6. Press the top left corner of the '26. Serial connect' screen 5 times to switch it to the Two-way communication.
- 7. Press save.





For the European Subsidiaries if the customer has purchased the INBODY analyzer by Technogym in case of After Sales or installation issues you can contact directly the Inbody After Sales reference, please see the following table:

Country	Company name	Telephone	email	Contact person to contacts for After Sales
UK	InBody UK	Cel: +44 07789357629	rob.thurston@inbody.com	Steven Jung steven@inbody.co m
Netherland	InBody Europe B.V.	Tel: +31 20 2386080	gabikim@inbody.com eric@inbody.com	Steven Jung steven@inbody.co m
Belgium (French speaking Region)	InBody Europe B.V.	Tel: +31 20 2386080	gabikim@inbody.com eric@inbody.com	Steven Jung steven@inbody.co m
Belgium & Luxemburg	InBody Europe B.V.	Tel: +31 20 2386080	gabikim@inbody.com eric@inbody.com	Steven Jung steven@inbody.co m
Germany	JP Global Markets	Tel: +49 (0)6196 76916 61 Fax: +49 (0)6196 76916 11 Mobile: +49 (0)163 8755038	changhun.jo@jpglobalmarkets.co m alvaro.keuck@inbody.de Volker.huscher@inbody.de	Mr. Changhun Jo Mr. Volker Huscher Mr. Alvaro Keuck
France	Tec4H	Tél: +33 (0) 4 67 200 203 Mob: +33 (0) 6 79 963 456	jld@tec4h.com	Jean Luc DUMAS
Italy	CARESME D SRL	Tel. +39 02 49920147	paolo.serpi@caresmed.it antonio.cardetta@caresmed.it	Mr. Paolo Serpi  Antonio Cardetta
Spain	Microcay a	Tel: +34 (944) 431 900 Mobile: +34 606 274 609 Fax: +34 (944) 432 342	alex@microcaya.com eduardo@microcaya.com	Mr. Alexander Aguaviva Mr. Eduardo Aguaviva
Central contact in charge for escalation in case of after sales issues	InBody Co., Ltd + all partners above	Tel: +82 2182 8934 Mobile: +82 10 6244 7107	All distributors + steven@inbody.com sawyer@inbody.com billynam@inbody.com	all email addresses above + all InBody contact emails

# 6.2 MODEL: INBODY370

CATEGORY	SUB CATEGORY	Name
ANTHROPOMETRIC	BASIC	Height
ANTHROPOMETRIC	BASIC	waist-hip ratio
BODY COMPOSITION	BASIC	Weight
BODY COMPOSITION	BASIC	ВМІ
BODY COMPOSITION	BASIC	FatMass
BODY COMPOSITION	BASIC	FatFreeMass
BODY COMPOSITION	BASIC	BoneMass
BODY COMPOSITION	BASIC	TotalBodyWaterPerc
BODY COMPOSITION	BASIC	Basal Metabolic Rate
BODY COMPOSITION	BASIC	Skeletal muscle mass
BODY COMPOSITION	BASIC	Soft lean mass
DODY COMPOSITION	CECNAENTAL	Dishth as Fat Davis
BODY COMPOSITION	SEGMENTAL	RightLegFatPerc
BODY COMPOSITION	SEGMENTAL	RightLegFatMass
BODY COMPOSITION	SEGMENTAL	RightLegFatFreeMass
BODY COMPOSITION	SEGMENTAL	LeftLegFatMass
BODY COMPOSITION	SEGMENTAL	LeftLegFatFreeMass
BODY COMPOSITION	SEGMENTAL	RightArmFatPerc
BODY COMPOSITION	SEGMENTAL	RightArmFatMass
BODY COMPOSITION	SEGMENTAL	RightArmFatFreeMass
BODY COMPOSITION	SEGMENTAL	LeftArmFatPerc
BODY COMPOSITION	SEGMENTAL	LeftArmFatMass
BODY COMPOSITION	SEGMENTAL	LeftArmFatFreeMass
BODY COMPOSITION	SEGMENTAL	TrunkFatPerc
BODY COMPOSITION	SEGMENTAL	TrunkFatMass
BODY COMPOSITION	SEGMENTAL	TrunkFatFreeMass
BODY COMPOSITION	ADVANCED	DryLeanMass

Measure paramet ers:

CATEGORY	SUB CATEGORY	Name
ANTHROPOMETRIC	ADVANCED	Measured Circumference of Neck
ANTHROPOMETRIC	ADVANCED	Measured Circumference of Chest
ANTHROPOMETRIC	ADVANCED	Measured Circumference of Abdomen
ANTHROPOMETRIC	ADVANCED	Measured Circumference of Hip
ANTHROPOMETRIC	ADVANCED	Measured Circumference of Right Arm
ANTHROPOMETRIC	ADVANCED	Measured Circumference of Left Arm
ANTHROPOMETRIC	ADVANCED	Measured Circumference of Right Thigh
ANTHROPOMETRIC	ADVANCED	Measured Circumference of Left Thigh
ANTHROPOMETRIC	ADVANCED	Measured Muscle Circumference of Right Arm
ANTHROPOMETRIC	ADVANCED	Measured Muscle Circumference of Left Arm
ANTHROPOMETRIC	ADVANCED	Measured Muscle Circumference of Chest
ANTHROPOMETRIC	ADVANCED	Measured Muscle Circumference of Hip
ANTHROPOMETRIC	ADVANCED	Measured Muscle Circumference of Right Thigh
ANTHROPOMETRIC	ADVANCED	Measured Muscle Circumference of Left Thigh
ANTHROPOMETRIC	ADVANCED	Measured Fat Thickness of Right Arm
ANTHROPOMETRIC	ADVANCED	Measured Fat Thickness of Left Thigh
ANTHROPOMETRIC	ADVANCED	Measured Fat Thickness of Left Arm
ANTHROPOMETRIC	ADVANCED	Measured Fat Thickness of Chest
ANTHROPOMETRIC	ADVANCED	Measured Fat Thickness of Abdomen
ANTHROPOMETRIC	ADVANCED	Measured Fat Thickness of Right Thigh
ANTHROPOMETRIC	ADVANCED	Growth Score
BODY COMPOSITION	ADVANCED	VisceralFatRating
BODY COMPOSITION	ADVANCED	Protein
BODY COMPOSITION	ADVANCED	Minerals
BODY COMPOSITION	ADVANCED	Target Weight
BODY COMPOSITION	ADVANCED	Weight Control
BODY COMPOSITION	ADVANCED	BFM Control
BODY COMPOSITION	ADVANCED	FFM Control
BODY COMPOSITION	ADVANCED	InBody Score
	ADVANCED	Obesity Degree of a Child

## 6.2.1 Inbody 370 connection



In order to connect the **Biospace InBody370** to a Windows PC or UNITY SELF you have to use a cross serial cable RS-232C.

### 6.2.2 WINDOWS PC CONNECTION

In order to connect the **Inbody 370** Body Analyzer to a **Windows PC** you have to use a RS-232C serial cable.

### 6.2.2.1 RS-232C cable Plug

In case you have the **RS-232C** cable plug the serial cable connector to the weight scale serial port **RS-232C** from one side and from the other side plug the serial cable connector to the Windows PC serial port.



Windows PC serial port

Connect the RS232 cable to the RS232 control unit plug, see number 1:





#### 6.2.3 UNITY SELF CONNECTION

In order to connect the Tanita **Inbody 370** Body Analyzer to **UNITY SELF** you have to use a RS-232C serial cable.

## 6.2.3.1 RS-232C cable Plug

In case you have the RS-232C cable Plug the serial cable connector to the **Inbody 370** serial port from one side and from the other side plug the serial cable connector to the UNITY SELF USB to serial adapter cable.



**UNITY SELF USB-adapter** 

On UNITY SELF and Windows PC (in case it does not have a serial port), you can use a USB to serial adapter cable.



Usb serial adapter

Example of suggested USB-serial adapter cable:

http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/B00425\$1H8

The USB-Serial cable adapter is a cable that you have to connect to the Windows PC via USB plug, while the other side of the cable can be connect to the Inbody Weight scale using the RS232C connector.

**VERY IMPORTANT FOR THE USB serial adapter**: usually, when you connect a USB serial adapter cable to the PC, windows needs to install a specific driver for the adapter. The driver can be installed using the CD provided with the adapter or it can be automatically downloaded from Internet. In case windows tries to install the driver via intenet you have to be sure that automatically windows update are enabled othewise you connect the cable but it does not work.

**UNITY-Self** supports the following USB-to Serial adapter:

Company	Hardware ID
Prolific	PL-2303 HX Chipset

FTDI chip	VendorID = 0x0403 1027
·	ProductID = 0x6001 24577

## **VERY IMPORTANT FOR THE Serial cable:**

In order to connect the InBody370 to the PC or UNITY SELF, you needs a RS-232C cross cable (Female-Male, null-modem) and connect the serial cable to the RS-232C control unit plug RS-232C.



An RS-232C connector (D sub 9 pin male) is attached to the side of the display box.

When connecting the display box with a personal computer, etc., please use an RS-232C cross cable.

### 6.2.4 OPEN PROTOCOL SETTING

In order to configure the communication protocol between the Unity-Self or the PC and the device, a Biospace technician has to update the firmware of the Inbody370 to **Open Protocol version provided by Biospace**. Contact your local Biospace dealer to perform the upgrade.

Firmware version table

Firmware version	Compatibility
DNO370_DM-0530.digital	World Wide version Not US
DNO370_JP-0530.digital	Japanese version
Not jet available	US version

The firmware upgrade can be done plugging a USB memory stick with the open protocol firmware in the Control Unit USB port 2. Turn off and turn on the scale, the firmware will install automatically.

After the update of the firmware you have to configure the OPEN PROTOCOL interface:

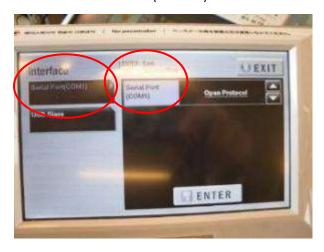
Click on "Setup"



Click on "Interface"



Click on "Serial Port(COM1)"



Using the arrow Up and Down select "Open Protocol" interface and then click on ENTER button to save and EXIT.

For the European Subsidiaries if the customer has purchased the INBODY analyzer by Technogym in case of After Sales or installation issues you can contact directly the Inbody After Sales reference, please see the following table:

Country	Company name	Telephone	email	Contact person to contacts for After Sales
UK	InBody UK	Cel: +44 07789357629	rob.thurston@inbody.com	Steven Jung steven@inbody.co m
Netherland	InBody Europe B.V.	Tel: +31 20 2386080	gabikim@inbody.com eric@inbody.com	Steven Jung steven@inbody.co m
Belgium (French speaking Region)	InBody Europe B.V.	Tel: +31 20 2386080	gabikim@inbody.com eric@inbody.com	Steven Jung steven@inbody.co m
Belgium & Luxemburg	InBody Europe B.V.	Tel: +31 20 2386080	gabikim@inbody.com eric@inbody.com	Steven Jung steven@inbody.co m
Germany	JP Global Markets	Tel: +49 (0)6196 76916 61 Fax: +49 (0)6196 76916 11 Mobile: +49 (0)163 8755038	changhun.jo@jpglobalmarkets.co m alvaro.keuck@inbody.de Volker.huscher@inbody.de	Mr. Changhun Jo Mr. Volker Huscher Mr. Alvaro Keuck
France	Tec4H	Tél: +33 (0) 4 67 200 203 Mob: +33 (0) 6 79 963 456	jld@tec4h.com	Jean Luc DUMAS
Italy	CARESME D SRL	Tel. +39 02 49920147	paolo.serpi@caresmed.it antonio.cardetta@caresmed.it	Mr. Paolo Serpi Antonio Cardetta
Spain	Microcay a	Tel: +34 (944) 431 900 Mobile: +34 606 274 609 Fax: +34 (944) 432 342	alex@microcaya.com eduardo@microcaya.com	Mr. Alexander Aguaviva Mr. Eduardo Aguaviva
Central contact in charge for escalation in case of after sales issues	InBody Co., Ltd + all partners above	Tel: +82 2182 8934 Mobile: +82 10 6244 7107	All distributors + steven@inbody.com sawyer@inbody.com billynam@inbody.com	all email addresses above + all InBody contact emails

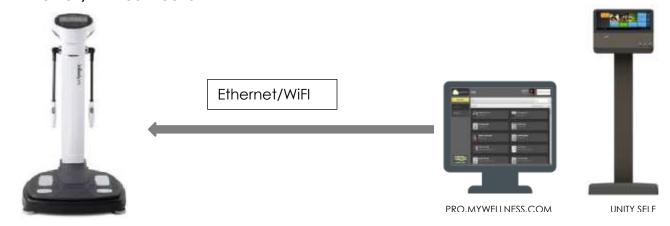
# 6.3 MODEL: INBODY570

Measure parameters:

CATEGORY	SUB CATEGORY	Name
ANTHROPOMETRIC	BASIC	Height
ANTHROPOMETRIC	BASIC	waist-hip ratio
BODY COMPOSITION	BASIC	Weight
BODY COMPOSITION	BASIC	BMI
BODY COMPOSITION	BASIC	FatMass
BODY COMPOSITION	BASIC	FatFreeMass
BODY COMPOSITION	BASIC	BoneMass
BODY COMPOSITION	BASIC	TotalBodyWaterPerc
BODY COMPOSITION	BASIC	BasalMetabolicRate
BODY COMPOSITION	BASIC	Skeletal muscle mass
BODY COMPOSITION	BASIC	Soft lean mass
BODY COMPOSITION	SEGMENTAL	LeftLegFatMass
BODY COMPOSITION	SEGMENTAL	LeftLegFatFreeMass
BODY COMPOSITION	SEGMENTAL	RightArmFatPerc
BODY COMPOSITION	SEGMENTAL	RightArmFatMass
BODY COMPOSITION	SEGMENTAL	RightArmFatFreeMass
BODY COMPOSITION	SEGMENTAL	LeftArmFatPerc
BODY COMPOSITION	SEGMENTAL	LeftArmFatMass
BODY COMPOSITION	SEGMENTAL	LeftArmFatFreeMass
BODY COMPOSITION	SEGMENTAL	TrunkFatPerc
BODY COMPOSITION	SEGMENTAL	TrunkFatMass
BODY COMPOSITION	SEGMENTAL	TrunkFatFreeMass
BODY COMPOSITION	SEGMENTAL	RightLegFatPerc
BODY COMPOSITION	SEGMENTAL	RightLegFatMass
BODY COMPOSITION	SEGMENTAL	RightLegFatFreeMass

CATEGORY	SUB CATEGORY	Name
ANTHROPOMETRIC	ADVANCED	Measured Circumference of Neck
ANTHROPOMETRIC	ADVANCED	Measured Circumference of Chest
ANTHROPOMETRIC	ADVANCED	Measured Circumference of Abdomen
ANTHROPOMETRIC	ADVANCED	Measured Circumference of Hip
ANTHROPOMETRIC	ADVANCED	Measured Circumference of Right Arm
ANTHROPOMETRIC	ADVANCED	Measured Circumference of Left Arm
ANTHROPOMETRIC	ADVANCED	Measured Circumference of Right Thigh
ANTHROPOMETRIC	ADVANCED	Measured Circumference of Left Thigh
ANTHROPOMETRIC	ADVANCED	Measured Muscle Circumference of Right Arm
ANTHROPOMETRIC	ADVANCED	Measured Muscle Circumference of Left Arm
ANTHROPOMETRIC	ADVANCED	Measured Muscle Circumference of Chest
ANTHROPOMETRIC	ADVANCED	Measured Muscle Circumference of Hip
ANTHROPOMETRIC	ADVANCED	Measured Muscle Circumference of Right Thigh
ANTHROPOMETRIC	ADVANCED	Measured Muscle Circumference of Left Thigh
ANTHROPOMETRIC	ADVANCED	Measured Fat Thickness of Right Arm
ANTHROPOMETRIC	ADVANCED	Measured Fat Thickness of Left Thigh
ANTHROPOMETRIC	ADVANCED	Measured Fat Thickness of Left Arm
ANTHROPOMETRIC	ADVANCED	Measured Fat Thickness of Chest
ANTHROPOMETRIC	ADVANCED	Measured Fat Thickness of Abdomen
ANTHROPOMETRIC	ADVANCED	Measured Fat Thickness of Right Thigh
ANTHROPOMETRIC	ADVANCED	Growth Score
BODY COMPOSITION	ADVANCED	IntraCellularWater
BODY COMPOSITION	ADVANCED	ExtraCellularWater
BODY COMPOSITION	ADVANCED	VisceralFatRating
BODY COMPOSITION	ADVANCED	Protein
BODY COMPOSITION	ADVANCED	Minerals
BODY COMPOSITION	ADVANCED	Body cell mass
BODY COMPOSITION	ADVANCED	ECW/TBW
BODY COMPOSITION	ADVANCED	Target Weight
BODY COMPOSITION	ADVANCED	Weight Control
BODY COMPOSITION	ADVANCED	BFM Control
BODY COMPOSITION	ADVANCED	FFM Control
BODY COMPOSITION	ADVANCED	InBody Score
BODY COMPOSITION	ADVANCED	Obesity Degree of a Child
BODY COMPOSITION	ADVANCED	Obesity Degree
BODY COMPOSITION	ADVANCED	Dry Lean Mass

## 6.3.1 Ethernet / WiFi connection



In order to connect the Biospace Body Analyzer Inbody570 scales to a PC or Unity-self you can use a TCP/IP connection via RJ45 Ethernet plug or via WiFi .

The below image shows where you have to plug the RJ45 Ethernet cable:

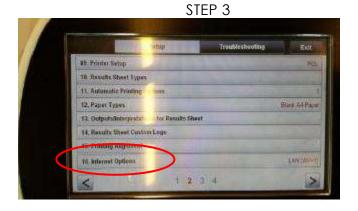


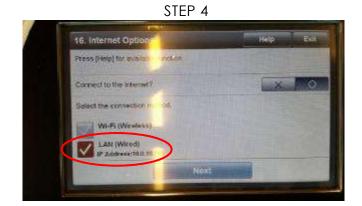
In order to configure a TCP/IP connection follow the below steps:











**Step 1** = press Adrministrator Menu

**Step 2** = insert the Administrator password (the default password is 0000)

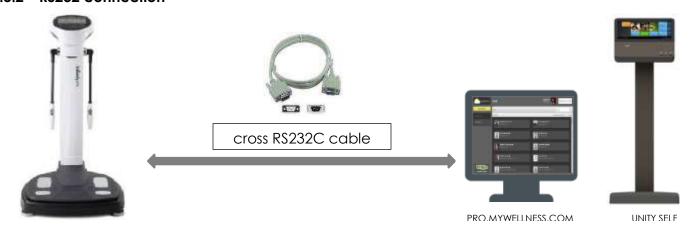
**Step 3** = click right arrow and ther on the "16 – Internet Options Menu" button

**Step 4** = select the internet you whant (in the example we have select the LAN Wired connection). Press Next button to connect the equipment to the local area network. Keep note of the IP Addres (in this case 10.0.18.105).

**Unity-self:** At the first execution of the Inbody570 Body Composiiton App, Unity-self will ask you these IP address, if the IP is correct the measurement will start using a WiFi or LAN connection.

**PC configuration**: open the Device Reader, select InBody570 and go to the manual configuration to enter the IP address.

### 6.3.2 RS232 connection



In order to connect the Biospace InBody570 to a Windows PC or UNITY SELF you can use a cross serial cable RS-232C.

Plug the serial cable connector to the weight scale serial port from one side and from the other side plug the serial cable connector to the Windows PC serial port or UNITY SELF USB to serial adapter cable.







**UNITY SELF USB-adapter** 

For UNITY SELF or Windows PC without a serial port you can use a USB to serial adapter cable.



Usb serial adapter

Example of suggested USB-serial cable: <a href="http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/800425S1H8">http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/800425S1H8</a>

The USB-Serial cable adapter is a cable that you have to connect to the Windows PC or UNITY SELF via USB plug, while the other side of the cable can be connect to the Biospace blood pressure using the RS232C connector.

**VERY IMPORTANT FOR THE USB serial adapter**: usually, when you connect a USB serial adapter cable to the PC, windows needs to install a specific driver for the adapter. The driver can be installed using the CD provided with the adapter or it can be automatically downloaded from Internet. In case windows tries to install the driver via intenet you have to be sure that automatically windows update are enabled othewise you connect the cable but it does not work.

UNITY-Self supports the following USB-to Serial adapter:

Company	Hardware ID
Prolific	PL-2303 HX Chipset
FTDI chip	VendorID = 0x0403 1027
·	ProductID = 0x6001 24577

## **VERY IMPORTANT FOR THE Serial cable:**

In order to connect the InBody570 to the PC or UNITY SELF, you needs a RS-232C cross cable (Female-Male, null-modem) and connect the serial cable to the RS-232C control unit plug RS-232C.

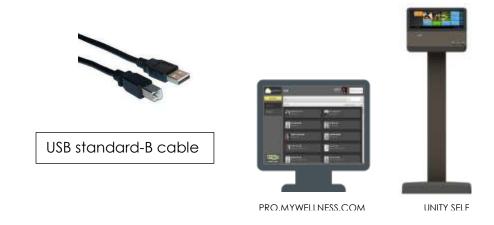


An RS-232C connector (D sub 9 pin male) is attached to the side of the display box.

When connecting the display box with a personal computer, etc., please use an RS-232C cross cable.



### 6.3.3 USB standard-B cable





In case you have a USB standard-B cable, plug the USB square connector to the scale USB A of the Inbody 570 Control unit and from the other side to the Windwos PC USB or USB Unity Self.



**USB PC port** 



**UNITY SELF USB port** 

Connect the USB standard-B cable to the USB SLAVE PC control unit plug:





### 6.3.4 OPEN PROTOCOL SETTING:

In order to configure the communication protocol between the Unity-Self or the PC and the device, a Biospace technician has to update the firmware of the Inbody570 to **Open Protocol version provided by Biospace**. Contact your local Biospace dealer to perform the upgrade.

Firmware version table

Firmware version	Compatibility
DNO2-570DM-0250.digital	World Wide version

The firmware upgrade can be done plugging a USB memory stick with the open protocol firmware in the Unit Host USB port. Turn off and turn on the scale, the firmware will install automatically.

After the update of the firmware you can connect the Inbody570 to the Unity-Self using the LAN/WiFi or Serial Port, see above how to configure it.

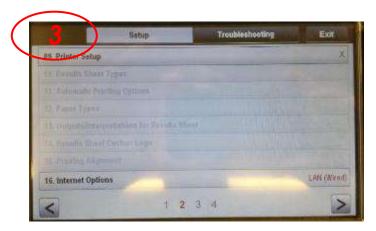
One important setting that you mast to set ON is the **Open Protocol**. In order to enable he Open

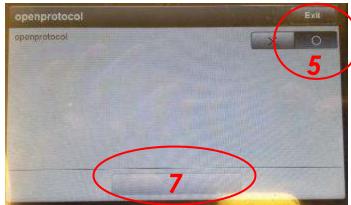
Protocol follow this procedure:

## **Enable the Open Protocol**

- 8. Enter the setup menu.
- 9. Place the cursor on to 2nd setting menu.
- 10. Touch 5 times in a row, left top side of display panel
- 11. You will see the 'open protocol' enable / disable option

- 12. Set open protocol to enabled
- 13. Press the '0' button 4 times in a row for changing the setting from 'one way' to 'dual way'. When "dual way" is enabled, the 'port' image is erased.
- 14. Save the open protocol setting





For the European Subsidiaries if the customer has purchased the INBODY analyzer by Technogym in case of After Sales or installation issues you can contact directly the Inbody After Sales reference, please see the following table:

Country	Company name	Telephone	email	Contact person to contacts for After Sales
UK	InBody UK	Cel: +44 07789357629	rob.thurston@inbody.com	Steven Jung steven@inbody.co m
Netherland	InBody Europe B.V.	Tel: +31 20 2386080	gabikim@inbody.com eric@inbody.com	Steven Jung steven@inbody.co m
Belgium (French speaking Region)	InBody Europe B.V.	Tel: +31 20 2386080	gabikim@inbody.com eric@inbody.com	Steven Jung steven@inbody.co m
Belgium & Luxemburg	InBody Europe B.V.	Tel: +31 20 2386080	gabikim@inbody.com eric@inbody.com	Steven Jung steven@inbody.co m
Germany	JP Global Markets	Tel: +49 (0)6196 76916 61 Fax: +49 (0)6196 76916 11 Mobile: +49 (0)163 8755038	changhun.jo@jpglobalmarkets.co m alvaro.keuck@inbody.de Volker.huscher@inbody.de	Mr. Changhun Jo Mr. Volker Huscher Mr. Alvaro Keuck
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Spain	Microcay a	Tel: +34 (944) 431 900 Mobile: +34 606 274 609 Fax: +34 (944) 432 342	alex@microcaya.com eduardo@microcaya.com	Mr. Alexander Aguaviva Mr. Eduardo Aguaviva
Central contact in charge for escalation in case of after sales issues	InBody Co., Ltd + all partners above	Tel: +82 2182 8934 Mobile: +82 10 6244 7107	All distributors + steven@inbody.com sawyer@inbody.com billynam@inbody.com	all email addresses above + all InBody contact emails

# 6.4 MODEL: INBODY770

Measure parameters:

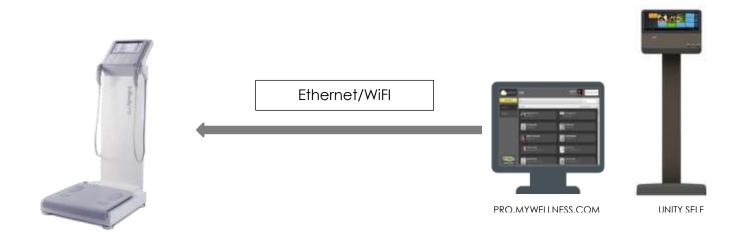
Name	CATEGORY	SUB CATEGORY
Height	ANTHROPOMETRIC	
Weight	BODY COMPOSITION	BASIC
BMI	BODY COMPOSITION	BASIC
FatMassPerc	BODY COMPOSITION	BASIC
FatMass	BODY COMPOSITION	BASIC
FatFreeMass	BODY COMPOSITION	BASIC
TotalBodyWater	BODY COMPOSITION	BASIC
BasalMetabolicRate	BODY COMPOSITION	BASIC
IntraCellularWater	BODY COMPOSITION	ADVANCED
ExtraCellularWater	BODY COMPOSITION	ADVANCED
RightLegFatMass	BODY COMPOSITION	SEGMENTAL
RightLegFatFreeMass	BODY COMPOSITION	SEGMENTAL
RightLegFatPercOfIdel	BODY COMPOSITION	SEGMENTAL
RightLegFatFreeMassPercOfIdeal	BODY COMPOSITION	SEGMENTAL
LeftLegFatMass	BODY COMPOSITION	SEGMENTAL
LeftLegFatFreeMass	BODY COMPOSITION	SEGMENTAL
LeftLegFatFreeMassPercOfIdeal	BODY COMPOSITION	SEGMENTAL
LeftLegFatPercOfIdeal	BODY COMPOSITION	SEGMENTAL
RightArmFatMass	BODY COMPOSITION	SEGMENTAL
RightArmFatFreeMass	BODY COMPOSITION	SEGMENTAL
RightArmFatFreeMassPercOfIdel	BODY COMPOSITION	SEGMENTAL
RightArmFatPercOfldeal	BODY COMPOSITION	SEGMENTAL
LeftArmFatMass	BODY COMPOSITION	SEGMENTAL
LeftArmFatFreeMass	BODY COMPOSITION	SEGMENTAL
LeftArmFatPercOfIdeal	BODY COMPOSITION	SEGMENTAL
LeftArmFatFreeMassPercOfIdel	BODY COMPOSITION	SEGMENTAL
TrunkFatMass	BODY COMPOSITION	SEGMENTAL
TrunkFatFreeMass	BODY COMPOSITION	SEGMENTAL
TrunkFatPercOfldeal	BODY COMPOSITION	SEGMENTAL
TrunkFatFreeMassPerc	BODY COMPOSITION	SEGMENTAL
Waist-hip ratio	ANTHROPOMETRIC	
Bone Mineral Content	BODY COMPOSITION	ADVANCED
Waist circumference	ANTHROPOMETRIC	
(Measured Circumference of Abdomen)  Protein	BODY COMPOSITION	ADVANCED
Minerals	BODY COMPOSITION	ADVANCED

Name	CATEGORY	SUB CATEGORY
Skeletal muscle mass	BODY COMPOSITION	BASIC
Soft lean mass	BODY COMPOSITION	BASIC
Segmental body water RA	BODY COMPOSITION	SEGMENTAL ADVANCED
Segmental body water LA	BODY COMPOSITION	SEGMENTAL ADVANCED
Segmental body water TR	BODY COMPOSITION	SEGMENTAL ADVANCED
Segmental body water RL	BODY COMPOSITION	SEGMENTAL ADVANCED
Segmental body water LL	BODY COMPOSITION	SEGMENTAL ADVANCED
Body cell mass	BODY COMPOSITION	ADVANCED
VFL (Visceral Fat Level)	BODY COMPOSITION	ADVANCED
VFA (Visceral Fat Area)	BODY COMPOSITION	ADVANCED
ECW/TBW	BODY COMPOSITION	ADVANCED
ECW/TBW-RA	BODY COMPOSITION	SEGMENTAL ADVANCED
ECW/TBW-LA	BODY COMPOSITION	SEGMENTAL ADVANCED
ECW/TBW-TR	BODY COMPOSITION	SEGMENTAL ADVANCED
ECW/TBW-RL	BODY COMPOSITION	SEGMENTAL ADVANCED
ECW/TBW-LLL	BODY COMPOSITION	SEGMENTAL ADVANCED
Segmental ICW RA	BODY COMPOSITION	SEGMENTAL ADVANCED
Segmental ICW LA	BODY COMPOSITION	SEGMENTAL ADVANCED
Segmental ICW TR	BODY COMPOSITION	SEGMENTAL ADVANCED
Segmental ICW RL	BODY COMPOSITION	SEGMENTAL ADVANCED
Segmental ICW LL	BODY COMPOSITION	SEGMENTAL ADVANCED
Segmental ECW RA	BODY COMPOSITION	SEGMENTAL ADVANCED
Segmental ECW LA	BODY COMPOSITION	SEGMENTAL ADVANCED
Segmental ECW TR	BODY COMPOSITION	SEGMENTAL ADVANCED
Segmental ECW RL	BODY COMPOSITION	SEGMENTAL ADVANCED
Segmental ECW LL	BODY COMPOSITION	SEGMENTAL ADVANCED
Target Weight	BODY COMPOSITION	ADVANCED
Weight Control	BODY COMPOSITION	ADVANCED
BFM Control	BODY COMPOSITION	ADVANCED
FFM Control	BODY COMPOSITION	ADVANCED
TBW/FFM	BODY COMPOSITION	ADVANCED
InBody Score	BODY COMPOSITION	ADVANCED
Measured Circumference of Neck	ANTHROPOMETRIC	ADVANCED
Measured Circumference of Chest	ANTHROPOMETRIC	ADVANCED
Measured Circumference of Hip	ANTHROPOMETRIC	ADVANCED
Measured Circumference of Right Arm	ANTHROPOMETRIC	ADVANCED
Measured Circumference of Left Arm	ANTHROPOMETRIC	ADVANCED
Measured Circumference of Right Thigh	ANTHROPOMETRIC	ADVANCED
Measured Circumference of Left Thigh	ANTHROPOMETRIC	ADVANCED
Measured Muscle Circumference of Right Arm	ANTHROPOMETRIC	ADVANCED

Name	CATEGORY	SUB CATEGORY
Measured Muscle Circumference of Left Arm	ANTHROPOMETRIC	ADVANCED
Measured Muscle Circumference of Chest	ANTHROPOMETRIC	ADVANCED
Measured Muscle Circumference of Hip	ANTHROPOMETRIC	ADVANCED
Measured Muscle Circumference of Right Thigh	ANTHROPOMETRIC	ADVANCED
Measured Muscle Circumference of Left Thigh	ANTHROPOMETRIC	ADVANCED
Measured Fat Thickness of Right Arm	ANTHROPOMETRIC	ADVANCED
Measured Fat Thickness of Left Thigh	ANTHROPOMETRIC	ADVANCED
Measured Fat Thickness of Left Arm	ANTHROPOMETRIC	ADVANCED
Measured Fat Thickness of Chest	ANTHROPOMETRIC	ADVANCED
Measured Fat Thickness of Abdomen	ANTHROPOMETRIC	ADVANCED
Measured Fat Thickness of Right Thigh	ANTHROPOMETRIC	ADVANCED
Growth Score	BODY COMPOSITION	ADVANCED
Obesity Degree of a Child	BODY COMPOSITION	ADVANCED
Obesity Degree	BODY COMPOSITION	ADVANCED
Mean Artery Pressure	CARDIOVASCULAR	
Pulse Pressure	CARDIOVASCULAR	
Rate Pressure Product	CARDIOVASCULAR	
DryLeanMass	BODY COMPOSITION	ADVANCED

Is also supported all of the normal range Upper/Lower limit and segmental upper/lower limit of this parameters: PBF, FFM, ICW, ECW, Protein, Minerals, SMM, WHR, OD, BCM, BMC, BMI, BFM, TBW, FFM, SLM, ICW, ECW, TBW.

# 6.5 ETHERNET / WIFI CONNECTION



In order to connect the Biospace Body Analyzer Inbody770 scales to a PC or Unity-self you can use a TCP/IP connection via RJ45 Ethernet plug or via WiFi .

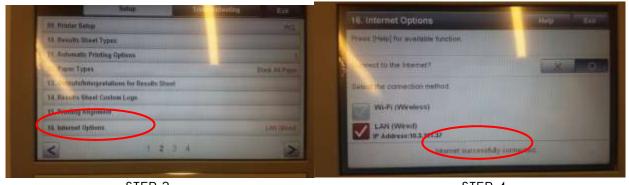
The below image shows where you have to plug the RJ45 Ethernet cable:



In order to configure a TCP/IP connection follow the below steps:



STEP 1 STEP 2



STEP 3 STEP 4

**Step 1** = press Adrministrator Menu

**Step 2** = insert the Administrator password (the default password is 0000)

**Step 3** = click right arrow and ther on the "16 – Internet Options Menu" button

**Step 4** = select the internet you whant (in the example we have select the LAN Wired connection). Press Next button to connect the equipment to the local area network. Keep note of the IP Addres (in this case 10.0.18.105).

**Unity-self:** At the first execution of the Inbody770 Body Composiiton App, Unity-self will ask you these IP address, if the IP is correct the measurement will start using a WiFi or LAN connection.

**PC configuration**: open the Device Reader, select InBody770 and go to the manual configuration to enter the IP address.

### 6.6 RS232 CONNECTION



In order to connect the Biospace InBody770 to a Windows PC or UNITY SELF you can use a cross serial cable RS-232C.

Plug the serial cable connector to the weight scale serial port from one side and from the other side plug the serial cable connector to the Windows PC serial port or UNITY SELF USB to serial adapter cable.



Windows PC serial port



**UNITY SELF USB-adapter** 

For UNITY SELF or Windows PC without a serial port you can use a USB to serial adapter cable.



Usb serial adapter

Example of suggested USB-serial cable: <a href="http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/800425\$1H8">http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/800425\$1H8</a>

The USB-Serial cable adapter is a cable that you have to connect to the Windows PC or UNITY SELF via USB plug, while the other side of the cable can be connect to the Biospace blood pressure using the RS232C connector.

**VERY IMPORTANT FOR THE USB serial adapter**: usually, when you connect a USB serial adapter cable to the PC, windows needs to install a specific driver for the adapter. The driver can be installed using the CD provided with the adapter or it can be automatically downloaded from Internet. In case windows tries to install the driver via intenet you have to be sure that automatically windows update are enabled othewise you connect the cable but it does not work.

UNITY-Self supports the following USB-to Serial adapter:

Company	Hardware ID	
Prolific	PL-2303 HX Chipset	
FTDI chip	VendorID = 0x0403 1027	
·	ProductID = $0x6001 24577$	

### 6.7 OPEN PROTOCOL SETTING:

In order to configure the communication protocol between the Unity-Self or the PC and the device, a Biospace technician has to update the firmware of the Inbody770 to **Open Protocol version provided by Biospace**. Contact your local Biospace dealer to perform the upgrade.

Firmware version table

Firmware version	Compatibility
DNO2-770DM-0270.digital	World Wide version

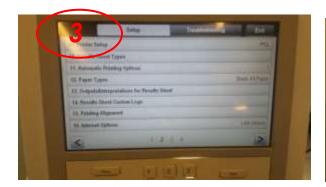
The firmware upgrade can be done plugging a USB memory stick with the open protocol firmware in the Unit Host USB port. Turn off and turn on the scale, the firmware will install automatically.

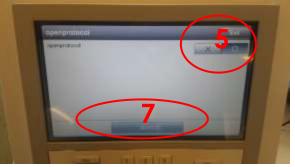
After the update of the firmware you can connect the Inbody770 to the Unity-Self using the LAN/WiFi or Serial Port, see above how to configure it.

One important setting that you mast to set ON is the **Open Protocol**. In order to enable the Open Protocol follow this procedure:

### **Enable the Open Protocol**

- 1. Enter the setup menu.
- 2. Place the cursor on to 2nd setting menu.
- 3. Touch 5 times in a row, left top side of display panel
- 4. You will see the 'open protocol' enable / disable option
- 5. Set open protocol to enabled
- 6. Press the '0' button 4 times in a row for changing the setting from 'one way' to 'dual way'. When "dual way" is enabled, the 'port' image is erased.
- 7. Save the open protocol setting





For the European Subsidiaries if a customer has purchased the INBODY analyzer by Technogym in case of After Sales or installation issues you can contact directly the Inbody After Sales reference, please see the following tab:

Country	Company	Telephone	email	Contact person to contacts for After Sales
UK	InBody UK	Cel: +44 07789357629	rob.thurston@inbody.com	Steven Jung steven@inbody.co m
Netherland	InBody Europe B.V.	Tel: +31 20 2386080	gabikim@inbody.com eric@inbody.com	Steven Jung steven@inbody.co m
Belgium (French speaking Region)	InBody Europe B.V.	Tel: +31 20 2386080	gabikim@inbody.com eric@inbody.com	Steven Jung steven@inbody.co m
Belgium & Luxemburg	InBody Europe B.V.	Tel: +31 20 2386080	gabikim@inbody.com eric@inbody.com	Steven Jung steven@inbody.co m
Germany	JP Global Markets	Tel: +49 (0)6196 76916 61 Fax: +49 (0)6196 76916 11 Mobile: +49 (0)163 8755038	changhun.jo@jpglobalmarkets.co m alvaro.keuck@inbody.de Volker.huscher@inbody.de	Mr. Changhun Jo Mr. Volker Huscher Mr. Alvaro Keuck
France	Тес4Н	Tél: +33 (0) 4 67 200 203 Mob: +33 (0) 6 79 963 456	jld@tec4h.com	Jean Luc DUMAS
Italy	CARESME D SRL	Tel. +39 02 49920147	paolo.serpi@caresmed.it antonio.cardetta@caresmed.it	Mr. Paolo Serpi  Antonio Cardetta
Spain	Microcay a	Tel: +34 (944) 431 900 Mobile: +34 606 274 609 Fax: +34 (944) 432 342	alex@microcaya.com eduardo@microcaya.com	Mr. Alexander Aguaviva Mr. Eduardo Aguaviva
Central contact in charge for escalation in case of after sales issues	InBody Co., Ltd + all partners above	Tel: +82 2182 8934 Mobile: +82 10 6244 7107	All distributors + steven@inbody.com sawyer@inbody.com billynam@inbody.com	all email addresses above + all InBody contact emails

# 7 BIOSPACE BLOOD PRESSURE

## 7.1 MODEL BPBIO320

Measure parameters:

CATEGORY	SUB CATEGORY	Name
CARDIOVASCULAR	BASIC	Systolic
CARDIOVASCULAR	BASIC	Diastolic
CARDIOVASCULAR	BASIC	Resting HR



In order to connect the Biospace BPBIO320 Blood Pressure to a Windows PC or UNITY SELF you have to use a cross serial cable RS-232C.

Plug the serial calble connector to the blood pressure serial port from one side and from the other side plug the serial cable connector to the Windows PC serial port or UNITY SELF USB to serial adapter cable.







**UNITY SELF USB-adapter** 

For UNITY SELF or Windows PC without a serial port you can use a USB to serial adapter cable.



### Usb serial adapter

Example of suggested USB-serial cable: <a href="http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/800425S1H8">http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/800425S1H8</a>

The USB-Serial cable adapter is a cable that you have to connect to the Windows PC or UNITY SELF via USB plug, while the other side of the cable can be connect to the Biospace blood pressure using the RS232C connector.

**VERY IMPORTANT FOR THE USB serial adapter**: usually, when you connect a USB serial adapter cable to the PC, windows needs to install a specific driver for the adapter. The driver can be installed using the CD provided with the adapter or it can be automatically downloaded from Internet. In case windows tries to install the driver via intenet you have to be sure that automatically windows update are enabled othewise you connect the cable but it does not work.

UNITY-Self supports the following USB-to Serial adapter:

Company	Hardware ID	
Prolific	PL-2303 HX Chipset	
FTDI chip	VendorID = 0x0403 1027	
·	ProductID = 0x6001 24577	

#### **VERY IMPORTANT FOR THE Serial cable:**

In order to connect the BPBIO320 to the PC or UNITY SELF, you needs a RS-232C **cross cable (Female-Male, null-modem)** and connect the serial cable to the RS-232C control unit plug RS-232C.



An RS-232C connector (D sub 9 pin male) is attached to the side of the display box.

When connecting the display box with a personal computer, etc., please use an RS-232C cross cable.



# Control Unit serial port RS-232C

For the European Subsidiaries if a customer has purchased the INBODY analyzer by Technogym in case of After Sales or installation issues you can contact directly the Inbody After Sales reference, please see the following table:

Country	Company name	Telephone	email	Contact person to contacts for After Sales
UK	InBody UK	Cel: +44 07789357629	rob.thurston@inbody.com	Steven Jung steven@inbody.co m
Netherland	InBody Europe B.V.	Tel: +31 20 2386080	gabikim@inbody.com eric@inbody.com	Steven Jung steven@inbody.co m
Belgium (French speaking Region)	InBody Europe B.V.	Tel: +31 20 2386080	gabikim@inbody.com eric@inbody.com	Steven Jung steven@inbody.co m
Belgium & Luxemburg	InBody Europe B.V.	Tel: +31 20 2386080	gabikim@inbody.com eric@inbody.com	Steven Jung steven@inbody.co m
Germany	JP Global Markets	Tel: +49 (0)6196 76916 61 Fax: +49 (0)6196 76916 11 Mobile: +49 (0)163 8755038	changhun.jo@jpglobalmarkets.co m alvaro.keuck@inbody.de Volker.huscher@inbody.de	Mr. Changhun Jo Mr. Volker Huscher Mr. Alvaro Keuck
France	Tec4H	Tél: +33 (0) 4 67 200 203 Mob: +33 (0) 6 79 963 456	jld@tec4h.com	Jean Luc DUMAS
Italy	CARESME D SRL	Tel. +39 02 49920147	paolo.serpi@caresmed.it antonio.cardetta@caresmed.it	Mr. Paolo Serpi  Antonio Cardetta
Spain	Microcay a	Tel: +34 (944) 431 900 Mobile: +34 606 274 609 Fax: +34 (944) 432 342	alex@microcaya.com eduardo@microcaya.com	Mr. Alexander Aguaviva Mr. Eduardo Aguaviva
Central contact in charge for escalation in case of after sales issues	InBody Co., Ltd + all partners above	Tel: +82 2182 8934 Mobile: +82 10 6244 7107	All distributors + steven@inbody.com sawyer@inbody.com billynam@inbody.com	all email addresses above + all InBody contact emails

# **8** OMRON BLOOD PRESSURE

# 8.1 MODEL 705IT, 705CP-II

Measure parameters:

CATEGORY	SUB CATEGORY	Name
CARDIOVASCULAR	BASIC	Systolic
CARDIOVASCULAR	BASIC	Diastolic
CARDIOVASCULAR	BASIC	Resting HR



In order to connect the Omron Blood pressure device to the Windows PC you have to use the **USB Omron cable HHX-CABLE-USB**.

Code	Product Description /Name	Picture
OM4997608-3	Omron USB Cable for the Omron 705IT, 705CP-II, IQ-142 and R7	Garrier A

Example of suggested Omron USB cable:

http://www.mortonmedical.co.uk/Omron USB Cable for the Omron 705IT 705CP-II\_IQ-142\_and\_R7~p~10196.htm

Plug the USB Omron cable connector to the Blood pressure from one side and from the other side plug the serial cable connector to the Windows PC.



Omron



Windows PC USB port

## **OPERATIONAL NOTE:**

To start the blood pressure measurement you have to press the "Start" button.

Press the start button when the circles on the display disappear.

# 9 ELK CORPORATION

## 9.1 MODEL UDEX-I

Measure parameters:

CATEGORY	SUB CATEGORY	Name
CARDIOVASCULAR	BASIC	Systolic
CARDIOVASCULAR	BASIC	Diastolic
CARDIOVASCULAR	BASIC	Resting HR



In order to connect the ELK CORPORATION Undex-i Blood Pressure to a Windows PC or UNITY SELF you have to use a cross serial cable RS-232C.

Plug the serial calble connector to the blood pressure serial port from one side and from the other side plug the serial cable connector to the Windows PC serial port or UNITY SELF USB to serial adapter cable.







**UNITY SELF USB-adapter** 

For UNITY SELF or Windows PC without a serial port you can use a USB to serial adapter cable.



Usb serial adapter

Example of suggested USB-serial cable: <a href="http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/800425\$1H8">http://www.amazon.com/Plugable-Adapter-Prolific-PL2303HX-Chipset/dp/800425\$1H8</a>

The USB-Serial cable adapter is a cable that you have to connect to the Windows PC or UNITY SELF via USB plug, while the other side of the cable can be connect to the UDEX-I blood pressure using the RS232C connector.

<u>VERY IMPORTANT FOR THE USB serial adapter</u>: usually, when you connect a USB serial adapter cable to the PC, windows needs to install a specific driver for the adapter. The driver can be installed using the CD provided with the adapter or it can be automatically downloaded from Internet. In case windows tries to install the driver via intenet you have to be sure that automatically windows update are enabled othewise you connect the cable but it does not work

### **VERY IMPORTANT FOR THE Serial cable:**

In order to connect the UDEX-I to the PC or UNITY SELF you needs a RS-232C **cross cable (Female-Female, null-modem)** and connect the serial cable to the RS-232C control unit plug RS-232C.



Control Unit serial port RS-232C

#### SET THE COMMUNICATION MODE

In order to change the communication mode following the procedure:

## 1. Establishing "communication setup mode"

- A) Turn off the [Power Supply] SW.
- B) While holding down the [Emergency Stop] SW, turn on the [Power Supply] SW and keep the status for five seconds. In five seconds, the software version is displayed. Within three seconds from display of the version, simultaneously press both of the [Start/Stop] SW and [Emergency Stop] SW and keep the status for five seconds. The buzzer sounds and "1" is displayed on the DIA display, indicating the various-setting mode is established. In the various-setting mode, the dot LED located at the right end of the SYS display lights.
  - \* Display of "0" on the display indicates no establishment of the various-setting mode; in this case, repeat the procedure from the step A).
- C) Press the [Start/Stop] SW to change the number on the DIA display. With "7" being displayed, press the [Emergency Stop] SW to display the software version. With the software version being displayed, simultaneously press and hold down both of the [Start/Stop] SW and [Emergency Stop] SW for five seconds. The buzzer sounds and "10" is displayed on the DIA display, indicating the setting mode is established. In the setting mode, the dot LED located at the left end of the SYS display lights.
- D) Press the [Start/Stop] SW to change the number on the DIA display from "10" to "16" sequentially. With "12" being displayed, press the [Emergency Stop] SW to establish "communication setup mode."

## 2. Changing a setting

The following items can be set:

SYS display: Communication mode  $(1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5)$ 

PLS display: Baud rate  $(6 \rightarrow \underline{12} \rightarrow 24 \rightarrow 48 \rightarrow \underline{96})$ 

Press the [Emergency Stop] SW to change setting item blinking positions sequentially. Press the [Start/Stop] SW to change the setting contents of the setting item blinking positions sequentially.

#### Communication mode

Setting values	Contents	Bit configuration		
		Data	Parity	Stop
1	No procedure (Response 1 is sent three times upon the completion of each measurement.)	8 bits	EVEN	2 bits
2	Handshake	8 bits	EVEN	2 bits
3	UDEX-2 compatible communication specification (Sent three times upon the completion of each measurement)	8 bits	EVEN	2 bits
4	Identical to Mode 1 (Bit configuration without parity)	8 bits	NON	2 bits
5	UDEX-Twin compatible communication specification (Sent three times upon the completion of each measurement)	8 bits	EVEN	2 bits

#### Baud rate

Setting value	Baud rate
6	600 bps
12	1200 bps
24	2400 bps
48	4800 bps
96	9600 bps

## 3. Saving a setting

Hold down the [Emergency Stop] SW for three seconds to execute saving of setting contents. Then, the DIA display displays "13."

# 10BIODYCOACH DEVICE

(For the following instruction it was used a PC with Windows 10).

NOTE: If you have a PC with Bluetooth enabled, it's not necessary to install the USB dongle, that it's included in the BIODYCOACH Device Kit. Otherwise, insert the USB dongle in the USB Port of the PC, to enable Bluetooth.

Installation procedure of the BIODYCOACH Device:

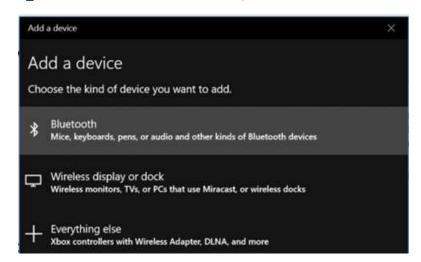
1\_At the bottom right, click on the Bluetooth icon, then click on **ADD A BLUETOOTH DEVICE**.



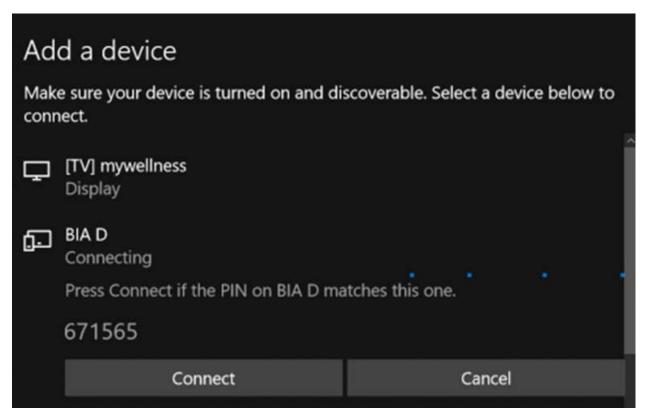
2\_Click on [+] ADD BLUETOOTH OR OTHER DEVICES.



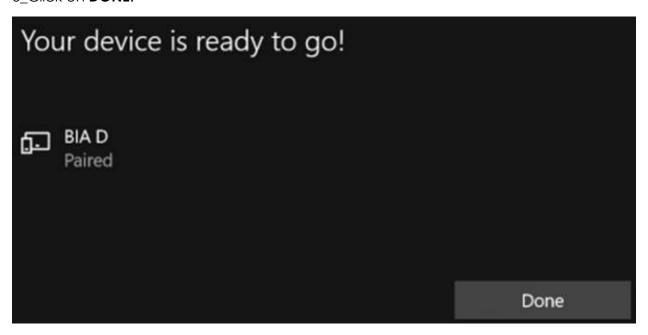
3 In the section 'Add a device', click on **BLUETOOTH**.



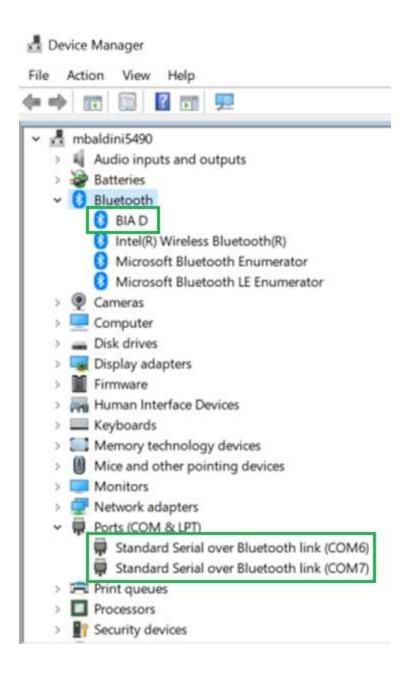
- 4\_Click on the button of the BIODYCOACH Device and keep the button pressed, to activate the Bluetooth. (Flashing and green light and beep: Bluetooth connection enabled).
- 5\_On the PC, after a few minutes, it should appear the BIA D device in the list of the devices. Click on **CONNECT**.



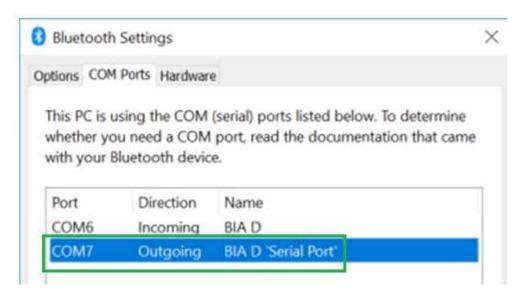
#### 6\_Click on DONE.



7\_In the section Bluetooth & Other Devices, click on the menu item '**DEVICE MANAGER**'. Make sure that in the Bluetooth Item, it's shown the BIA D device. Moreover, in the Ports Item, make sure that two COM Ports are shown.



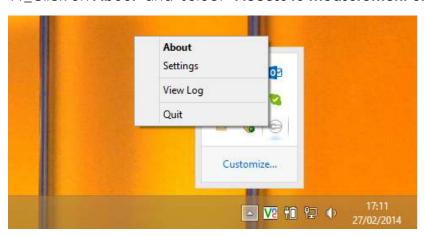
8\_ In the section Bluetooth & Other Devices, click on the menu item 'MORE BLUETOOTH OPTIONS'. In the COM Ports section, check the number of port of the 'Outgoing' Direction.



- 9\_Install the Device Reader from pro.mywellness.com, if not yet installed on your PC.
- 10\_ At the bottom right on your PC, click on the 'Device Reader' icon.

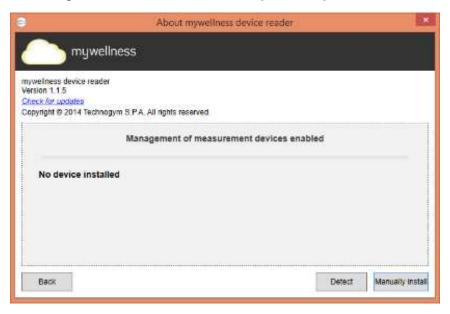


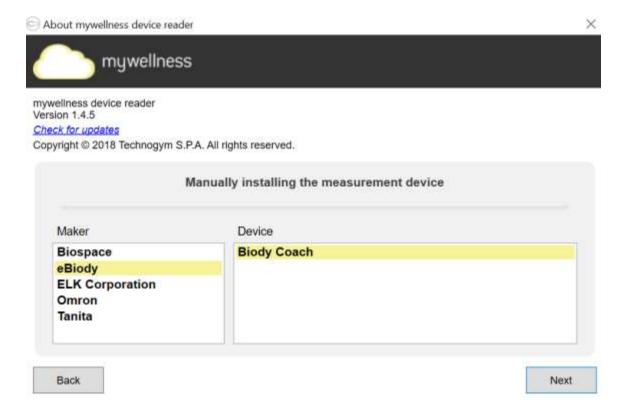
11\_Click on About and select "Access to measurement of measurement device" area.



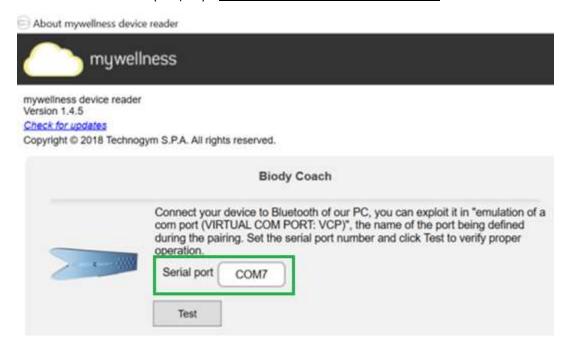


12\_Install manually the BIODYCOACH Device, clicking on 'MANUALLY INSTALL' and selecting the correct device: eBiody  $\rightarrow$  Biody Coach.

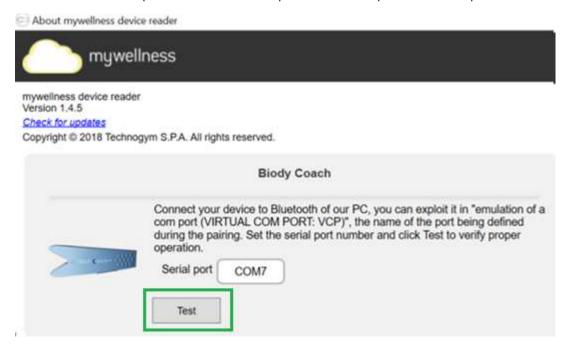




13\_In the 'Serial Port' section write the correct OutGoing port you previously saw in the COM Ports section (Step 8). **SERIAL PORT = OUTGOING PORT**.



14\_Click on **TEST** and execute a measurement, through the BIODYCOACH Device. Position the device on the ankle, just above the malleolus. Hold the device in your hand as detailed in the picture below and press and keep the button pressed.



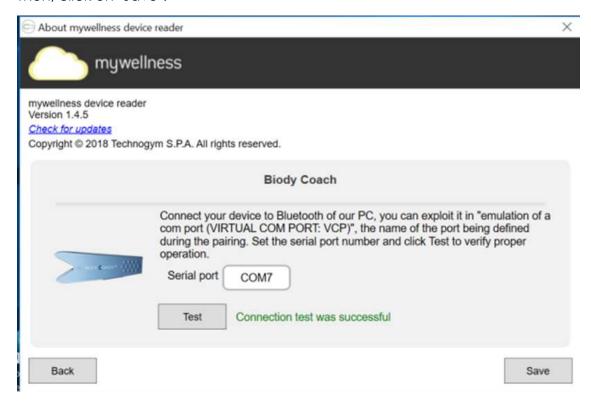




Expected message shown on the display: Connection Test was successful.

If the configuration is incorrect, a red message is shown in order to help you to solve the problem.

Then, click on 'Save'.

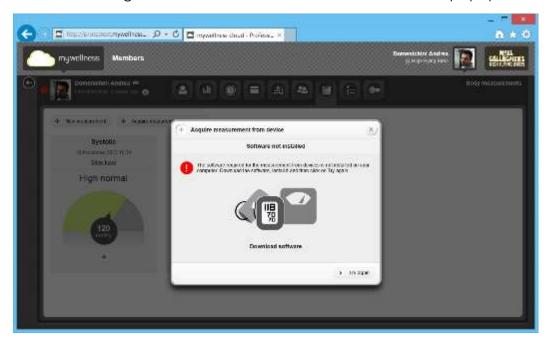


# 11 WINDOWS PC - DEVICE READER CONFIGURATION

Once you have connected your Measurement device to the make sure it is turn on. Log in to pro.mywellness.com and click on "Acquire measurement" button on Measure Member tab of a member. The application will proceed to complete the configuration of the device.

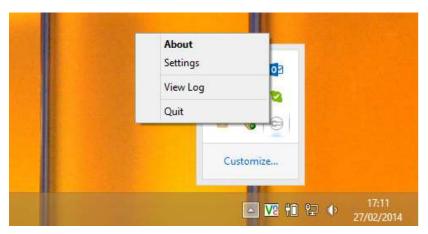


The configuration of the Devices is made by the Device Reader. The Device Reader is a driver/software developed by Technogym that allow pro.mywellness.com professional mywellness site to read/write TGS key via Trainer Point and to connect third parties measurement devices. In case the Device Reader is not installed on your computer you have to install it clicking on the download software link of the below popup.

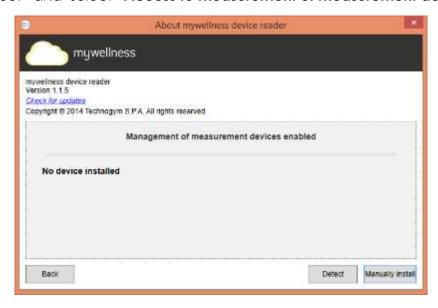


## 11.1 MANUAL CONFIGURATION

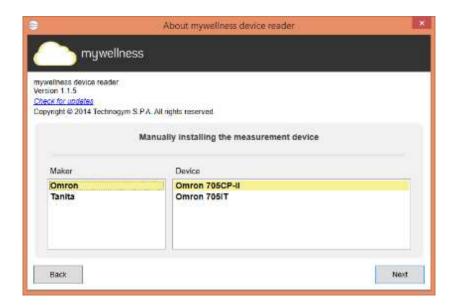
You can manually configure the devices and test the correct configuration running the DeviceReader configuration page from the System tray. The Device Reader icon is the TGS Key with a circle.



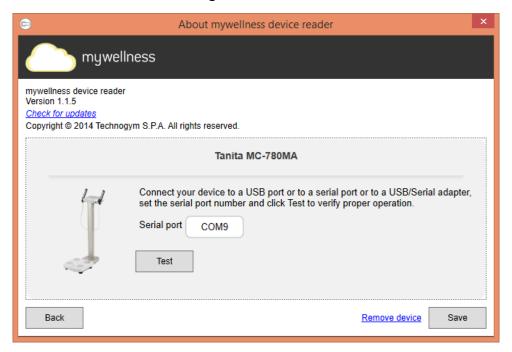
Click on "About" and select "Access to measurement of measurement device" area.



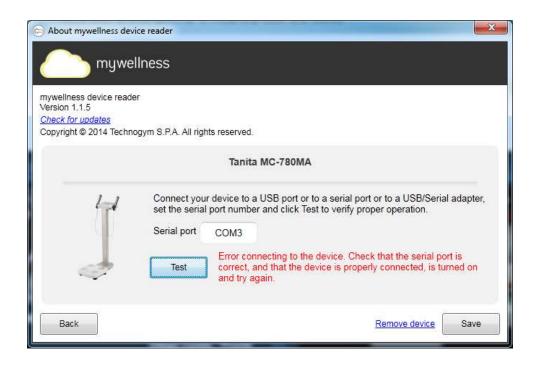
Select "Manually install" button. The list of the supported device is shown, select the device you want to connect and press "Next" button.



The configuration form is shown, configure the selected device, in this case the serial port number (i.e. COM9), be sure that the device is connected and On, then press the "Test" button to test the correct configuration.

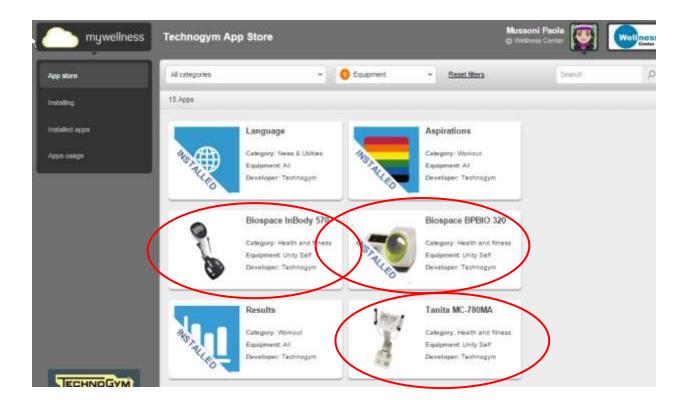


If the configuration is incorrect, a red message is shown in order to help you to solve the problem.



# 12 UNITY SELF – APP INSTALLATION

In order to install the measurement device applications, you have to download the application from the Technogym app store. In case of serial port connection the apps will be ready-to-use after download. In case of TCP/IP connection, at the first execution of the UNITY SELF app, the operator will be asked to insert the IP address of the device.



# **13LIST OF CHANGES FOR MANUAL VERSION**

## 13.1 REVISION 14.0

- Modified the Inbody After Sales references;
- Modified par. 5.1.4 Open Protocol Setting.

## 13.2 REVISION 15.0

- New BIODYCOACH Device: installation instruction.
- Inbody 370 connection: deleted the reference to USB standard-B cable. In order to connect the **Biospace InBody370** to a Windows PC or UNITY SELF you have to use a cross serial cable RS-232C.