

# Office blood pressure measurement device with built-in Blood Pressure targets.

**Instruction Manual**



WatchBP Office Target is designed with built-in blood pressure targets to provide convenient, accurate and reliable office blood pressure measurements. It follows the recommended guidelines of the European Society of Hypertension (ESH)<sup>1</sup>, American Heart Association (AHA)<sup>2</sup>, American Diabetes Association (ADA)<sup>3</sup>.

<sup>1</sup> O'Brien E, Asmar R, Beilin L, Imai Y, *et al.* European Society of Hypertension recommendations for conventional, ambulatory and home blood pressure measurement. European Society of Hypertension Working Group on Blood Pressure Monitoring. *J Hypertens* 2005;23:697-701.

<sup>2</sup> Pickering TG, Hall JE, Appel LJ, *et al.* Recommendations for Blood Pressure Measurement in Humans and Experimental Animals: Part 1: Blood Pressure Measurement in Humans: A Statement for Professionals From the Subcommittee of Professional and Public Education of the American Heart Association Council on High Blood Pressure Research. *Hypertension* 2005;45:142-161.

<sup>3</sup> American Diabetes Association. Standards of Medical Care in Diabetes–2006. *Diabetes Care*, 2006;29; Supplement 1.

# Table of Contents

## Product description

Name of parts and display .....	3-4
Components and accessories.....	5

## Before using WatchBP Office Target

Activating the device .....	6
Selecting and fitting the correct cuff.....	6-8

## Selection of operation modes

«Single» or «Triple» Mode .....	10
Press «140/90» or «130/80».....	10

## Traffic light indications

Green light .....	11
Red light .....	11

## Viewing and deleting of measurements

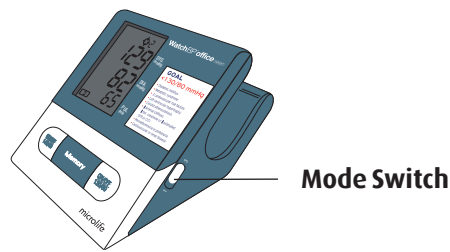
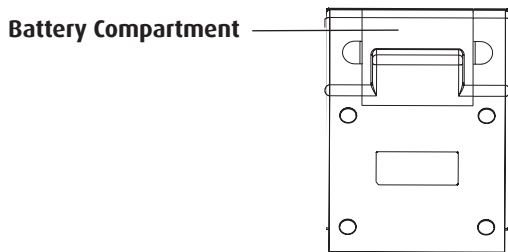
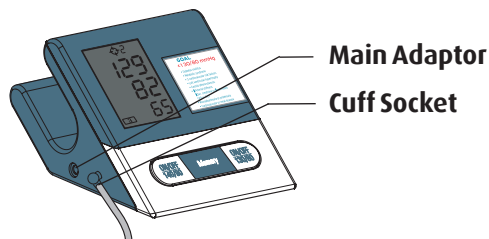
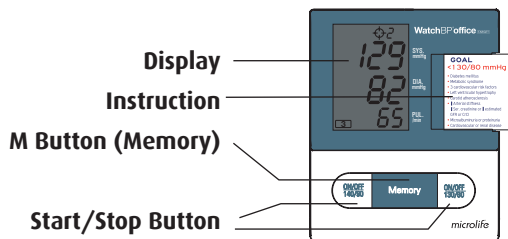
Viewing the stored values .....	12
Pulse pressure (PP) .....	12
Deleting the stored values .....	13
Replacing slot-in instruction card.....	13

## Appendix

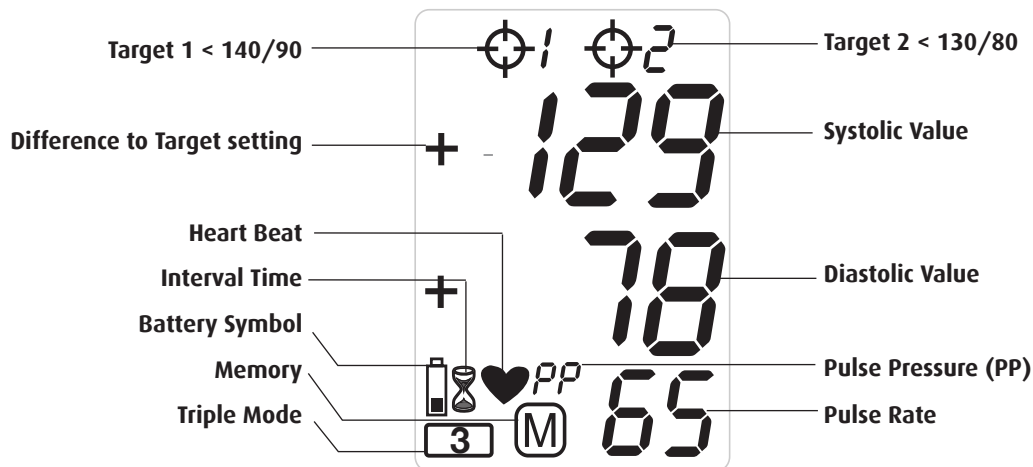
Battery and power adaptor .....	14-15
Error messages.....	16-18
Safety, care, accuracy test and disposal.....	19-20
Technical specifications .....	21

# Product description

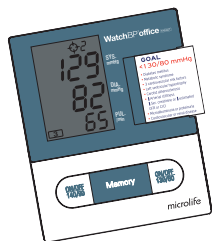
## Name of parts



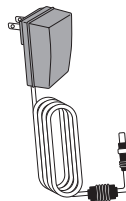
## Display



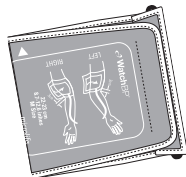
# WatchBP Office Target and components



WatchBP Office Target  
Blood Pressure Device X 1



AC Adaptor X 1 (Optional)  
Input: 100-240V~50/60Hz 0.7A  
Output: +6V 0.6~1A



**M** size (22cm~32cm) X 1  
**L** size (32cm~42cm) X 1

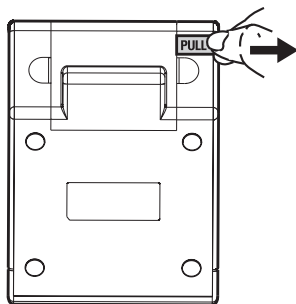


Instruction Manual X 1  
Quick Start Guide X 1

# Before using WatchBP Office Target

## Two ways of activating the Device

- 1) Pull out the protective strip projecting from the battery compartment.
- 2) Plug the adapter cable into the main adapter socket in the blood pressure monitor; then Plug the adapter plug into the wall socket.



## Selecting the correct cuff

Two different cuff sizes are provided with the WatchBP Office Target: Medium and Large. Use the cuff marker to select the cuff size that best matches the circumference of the patient's upper arm.



### **M (Medium size)**

22 - 32 cm (8.7 - 12.6 inches)



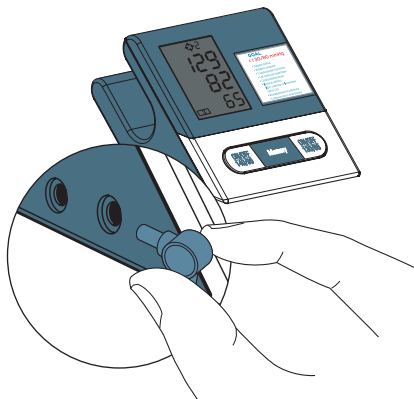
### **L (Large size)**

32-42 cm (12.6 - 16.5 inches)

## Before using WatchBP Office Target (cont.)

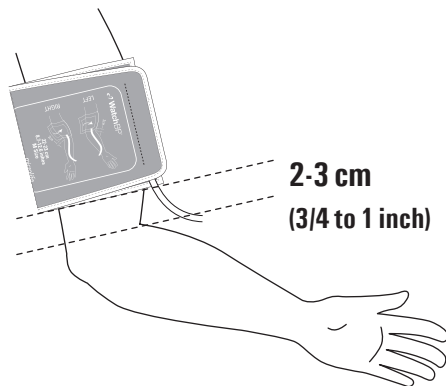
### Connect the cuff to the device

Connect the cuff to the device by inserting the cuff connector into the cuff connector socket.



### Fitting the cuff properly

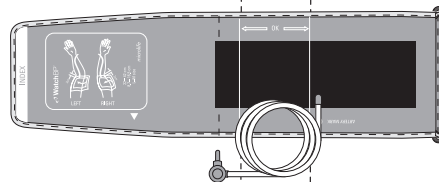
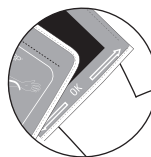
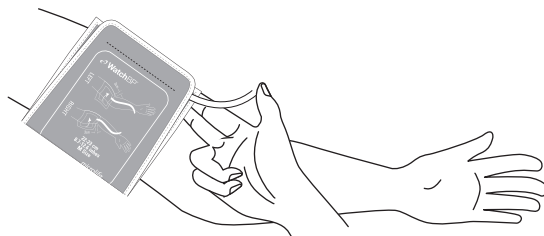
- 1) Place the cuff over the left (right) upper arm so that the air tube and artery mark arrow point towards the lower arm.
- 2) Lay the cuff on the arm. Make sure that the lower edge of the cuff lies approximately 2 to 3 cm ( $\frac{3}{4}$  to 1 inch) above the elbow.





- 3) Wrap and tighten the cuff around the arm.
- 4) Leave a little free space between the arm of the patient and the cuff. It must be possible to fit 2 fingers between the arm and the cuff. Clothing must not restrict the arm. Remove all clothing covering or constricting the measurement arm.
- 5) It may result in incorrect blood pressure readings if the cuff does not fit properly. Use a different size cuff if the range index at the end of the cuff does not fall into the range specified by the range stripes.
- 6) Apply the same steps to the other arm if a measurement of the other arm is required.

✧ When the cuff is wrapped to the arm, the edge of the cuff should be in the range which is marked "OK".



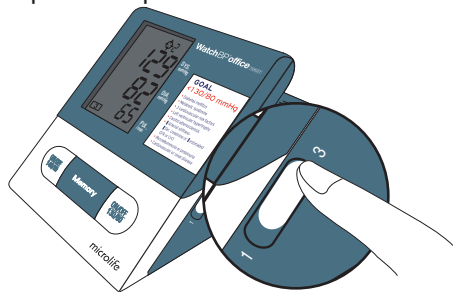
# Selecting the operation mode: Single or Triple mode

## Select an operation mode

There are two measuring modes to be selected, **Single mode** (standard single measurement) or **Triple mode** (automatic triple measurements; Double mode, automatic double measurements as option).

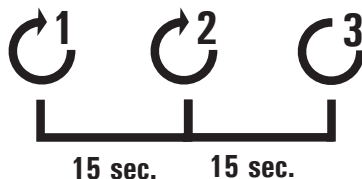
To select Single mode, slide the switch on the right side of the device downwards to position «1».

To select Triple mode (Double mode as option), slide this switch upwards to position «3»



## Automated triple measurements

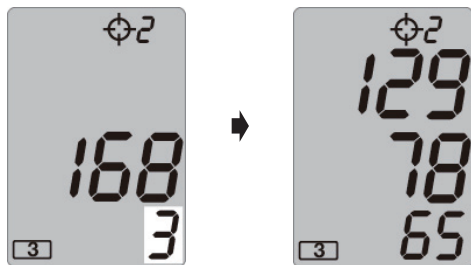
In «3» Mode, the WatchBP Office Target device automatically takes three consecutive measurements at default 15 seconds interval. Because blood pressure constantly fluctuates, a result determined in this way is more reliable than one produced by a single measurement.



※ 15 seconds of interval is adequate according to «Blood Pressure Monitoring, 2001, 6:145-147» for oscillometric instruments).

### 3 measurements are averaged

On the bottom of the right hand section of the display shows a number to indicate which of the consecutive measurement is currently being taken. The readings of these consecutive measurements are averaged to produce the routine visit blood pressure measurement.

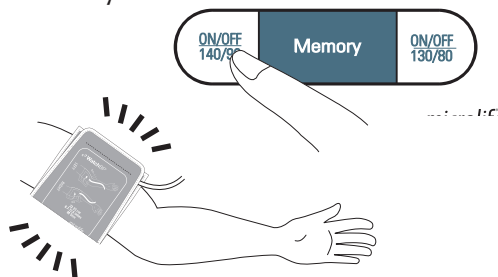


### Press «140/90» or «130/80» button

Press the button ON/OFF «140/90» or ON/OFF «130/80», to select the preferred target value. The device will then start to inflate.

Do not remove the cuff between the measurements.

If one of the individual measurements is questionable, an extra measurement will be taken automatically.



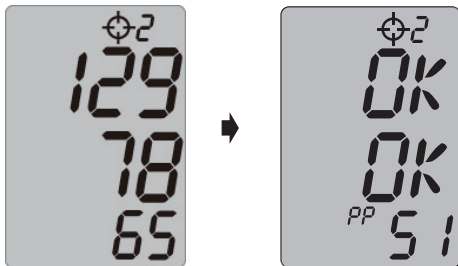
\* Press either the ON/OFF «140/90» or ON/OFF «130/80» any time if you want to quit the measurement.

# Traffic Light Indication in the display

## Green light

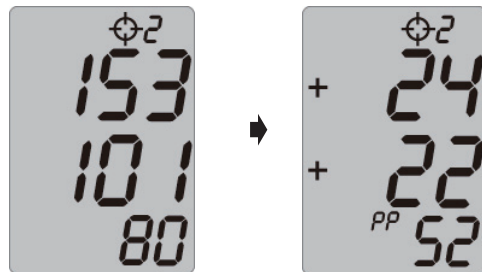
If both the measured systolic and diastolic blood pressure values are below the set target values (140/90 or 130/80), the screen will light in green with two «OK» signs.

Additionally, the lowest column in the screen shows the pulse pressure «PP»



## Red light

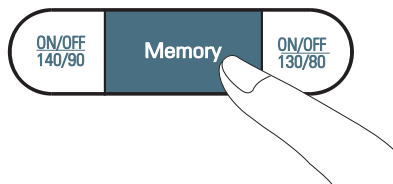
If either the measured systolic or diastolic result is above the set target value (140/90 or 130/80), the screen will light in red with the difference to the goal value shown in display as number, e.g. «+24, +22».



## Viewing the stored values

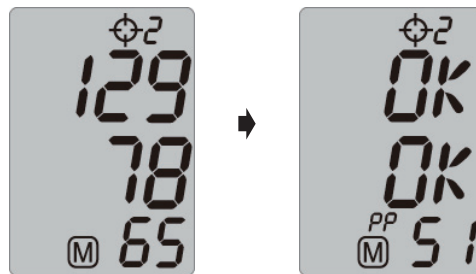
The device stores only the blood pressure values of the last measurement procedure. To view the stored values, press the M-button when the instrument is switched off. The display first shows «A» and then the values.

5 seconds later, the display will change and show the systolic/diastolic difference with the set target values (140/90 or 130/80), together with the pulse pressure .



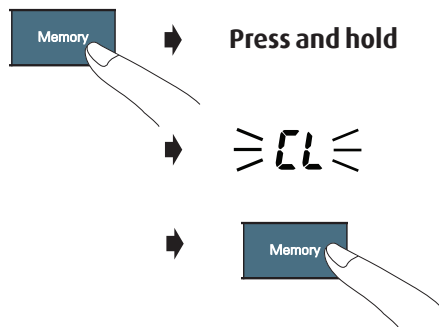
## PP (Pulse Pressure)

The WatchBP Office Target device provides the pulse pressure (PP) of the patient: pulse pressure = systolic - diastolic pressure. Each measurement includes the calculation of a single PP value. The average measurement will display the average PP value. When viewing in Memory mode, the PP value will be displayed with the systolic/diastolic pressure once every 5 seconds.



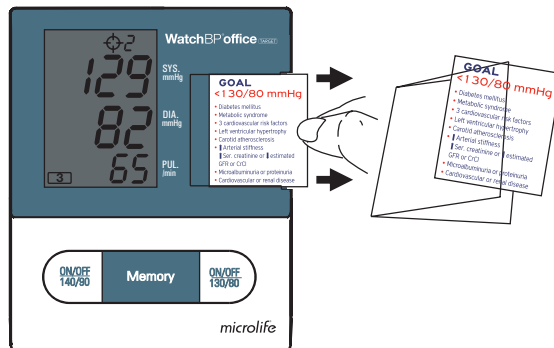
## Clearing all values

If you are sure that you want to permanently remove all stored values, hold down the M-button (the instrument must have been switched off beforehand) until «CL» appears and then release the button. To permanently clear the memory, press the M-button while «CL» is flashing. Single values cannot be cleared.



## Replacing the inserted Instruction Card

You can replace the inserted instruction card by pulling it out to the side and replacing the paper. Extra cards are supplied with the instrument for the purpose.



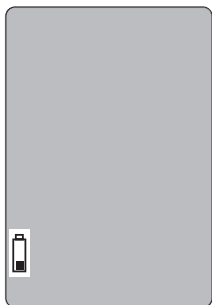
# Battery and power adaptor

## Battery Indicator and Battery change

### Low battery

When the batteries are approximately  $\frac{3}{4}$  empty the battery symbol will flash as soon as the instrument is switched on (partly filled battery displayed).

Although the instrument will continue to measure reliably, the batteries need to be replaced soon.



### Flat battery – replacement

When the batteries are flat, the battery symbol will flash as soon as the instrument is switched on (flat battery displayed). You cannot take any further measurements and must replace the batteries.

- 1) Open the battery compartment at the back of the instrument by pushing inwards at the two arrows and pulling out the battery compartment cover.
- 2) Replace the batteries – ensure correct polarity as shown by the symbols in the compartment.

✧ Use 4 new, long-life 1.5V, size AA batteries.

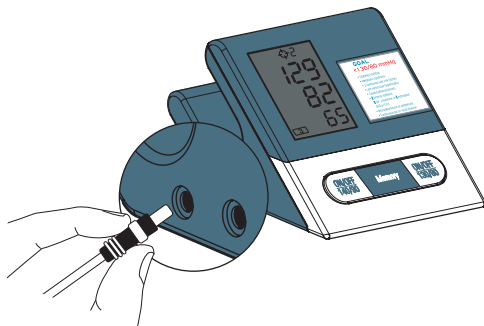
✧ Do not use batteries beyond their date of expiry.

✧ Remove batteries if the instrument is not going to be used for a prolonged period.

## Using a main adaptor

Please use only the Microlife adaptor (DC 6V, 0.6-1A) supplied with the WatchBP Office Target to operate the device.

- 1) Plug the adapter cable into the Power Plug of the WatchBP Office Target device.
- 2) Plug the adaptor plug into the wall socket. When the power adaptor is connected, no battery power is consumed.



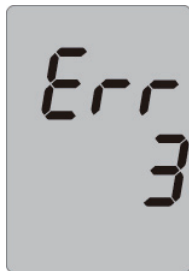


# Error messages

If an error occurs during measurement, the measurement is interrupted and an error message «Err» is displayed.

≧Err≦

- Please contact your local Microlife service center if the error persists.
- If you think the results are unusual, please read through the information in this instruction manual carefully.



Error	Description	Potential cause and remedy
«Err 1»	<b>Signal too weak</b>	The pulse signals on the cuff are too weak. Re-position the cuff and repeat the measurement.
«Err 2»	<b>Error signal</b>	During the measurement, error signals were detected by the cuff, caused for instance by movement or muscle tension. Repeat the measurement, keeping your arm still.

Error	Description	Potential cause and remedy
«Err 3»	<b>No pressure in the cuff</b>	An adequate pressure cannot be generated in the cuff. A leak may have occurred. Replace the batteries if necessary. Repeat the measurement.
«Err 5»	<b>Abnormal result</b>	The measuring signals are inaccurate and no result can therefore be displayed. Read through the checklist for performing reliable measurements and then repeat the measurement.

Error	Description	Potential cause and remedy
«Err 6»	<b>Triple Mode (MAM)</b>	There were too many errors during the measurement in Triple mode, making it impossible to obtain a final reliable result. Read through the checklist for performing reliable measurements and then repeat the measurement.

Error	Description	Potential cause and remedy
«HI»	<b>Pulse or cuff pressure too high</b>	The pressure in the cuff is too high (over 300 mmHg) OR the pulse is too high (over 200 beats per minute). Relax for 5 minutes and repeat the measurement.
«LO»	<b>Pulse too low</b>	The pulse is too low (less than 40 beats per minute). Repeat the measurement.

# Safety, care, accuracy test and disposal

## Safety and protection

This device may be used only for the purpose described in this booklet. The device comprises of sensitive components and must be treated with caution. The manufacturer cannot be held responsible for damage caused by incorrect application.



- Ensure that children do not use the device unsupervised; some parts are small enough to be swallowed.
- Only activate the pump when the cuff tube is installed.
- Do not use the device if you think it is damaged or if anything appears unusual.
- Read the further safety instructions in the individual sections of the instruction manual.
- Do not connect the device to a computer until prompted to do so by the computer software.

Observe the storage and operating conditions described in the “Technical specifications” section of this manual.



**Protect the device from water and moisture**



**Protect the device from direct sunlight**



**Protect the device from extreme heat and cold**



**Avoid proximity to electromagnetic fields, such as those produced by mobile phones**



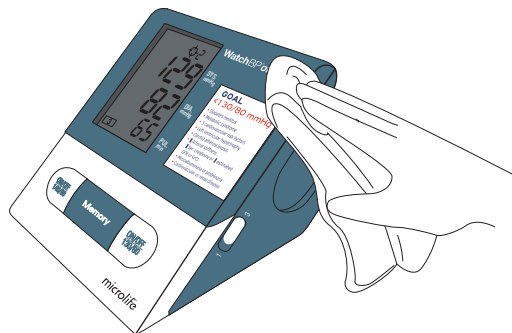
**Never open device**



**Protect device from impact and drops**

## Device care

Clean the device with a soft, dry cloth.



## Accuracy test

An accuracy test is recommended every 2 years or after mechanical impact (e.g. being dropped). Please contact Microlife to arrange for an accuracy test.

## Cleaning the cuff

DO NOT wash the cuff. DO NOT iron the cuff cover.



**Do not wash the cuff!**



**Do not iron the cuff!**

## Disposal

Batteries and electronic instruments must be disposed of in accordance with the locally applicable regulations.

# Technical specifications

**Operation temperature/  
humidity:**

- 10 to 40 °C (50 to 104 °F)

**Storage temperature/  
humidity:**

- -20 to 55 °C (-4 to 131 °F)
- 15 - 90 % relative maximum humidity

**Weight:**

- 690 g (including batteries)

**Dimensions:**

- 160 x 125 x 98 mm

**Measuring method:**

- Oscillometric, corresponding to Korotkoff method: phase I systolic, phase V diastolic.

**Measurement range:**

- 30 - 280 mmHg – blood pressure
- 40 - 200 beats per minute – pulse

**Cuff pressure display:**

- Range: 0 - 299 mmHg
- Resolution: 1 mmHg
- Static accuracy: pressure within  $\pm 3$  mmHg or 2% of reading > 200mmHg
- Pulse accuracy:  $\pm 5$  % of the readout value

**Voltage source:**

- 4 X 1.5V Batteries; size AA
- Mains adapter DC 6V, 0.6-1 A

**Reference to Standards:**

- Device standard:  
Device corresponds to the requirements of the standard for noninvasive blood pressure monitor.  
EN 1060-1  
EN 1060-3  
EN 1060-4  
IEC 60601-1  
IEC 60601-1-2

**Electromagnetic  
compatibility:**

**CE 0044**

- Device fulfills the stipulations of the standard IEC 60601-1-2.  
The stipulations of the EU Directive 93/42/EEC for Medical Devices Class IIa have been fulfilled.



Type BF applied  
part

Microlife reserves the right to alter technical specifications without prior written notice.

# Guarantee card

This device is covered by a two-year guarantee and accessories are covered by a one-year guarantee from the date of purchase. This guarantee is valid only on presentation of the guarantee card completed by the owner confirming date of purchase or purchase receipt.

**Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Telephone:** \_\_\_\_\_

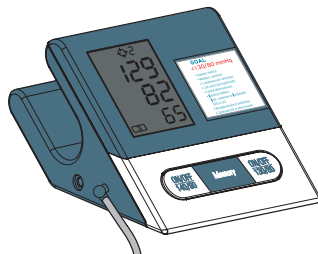
**Email:** \_\_\_\_\_



**Product:** WatchBP Office Target

**Product Number:** BP 3MD1-4

**Date:**



## **Europe / Middle-East / Africa**



Microlife AG

Espenstrasse 139

9443 Widnau, Switzerland

Tel +41 71 727 7000

Fax +41 71 727 7011

Email: [watchbp@microlife.ch](mailto:watchbp@microlife.ch)

[www.watchbp.com](http://www.watchbp.com)

## **Asia**

Microlife Corporation

9F, 431, RuiGang Road, NeiHu

Taipei, 114, Taiwan, R.O.C.

Tel +886 2 8797 1288

Fax+886 2 8797 1283

Email: [watchbp@microlife.com.tw](mailto:watchbp@microlife.com.tw)

[www.watchbp.com](http://www.watchbp.com)

## **North / Central / South America**

Microlife U.S.A.,Inc.

1617 Gulf To Bay Blvd Floor 2

Clearwater , Florida , 33755 ,

United States

Phone: 1- 727-4425353

Fax: 1-727-4425331

Email: [msa@microlifeusa.com](mailto:msa@microlifeusa.com)

[www.watchbp.com](http://www.watchbp.com)



Read the instruction manual carefully before using this device, especially the safety instructions, and keep the instruction manual for future use.

IB WatchBP Office Target BP3MD1-4 US 3816



