

DECLARATION OF BLOOD PRESSURE MEASURING DEVICE EQUIVALENCE 2013

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SECTION A - Please complete all items.

I **Minoru Yoshimura,**
Name of a Company Director

a Director of **OMRON Healthcare Europe B.V.,**
Company name

hereby state that there are no differences that will affect blood pressure measuring accuracy between the

Maker^a **OMRON Healthcare Co., Ltd.** Address **53 Kunotsubo, Terado-cho, Muko, Kyoto 617-0002, Japan**
 Manufacturer^b **OMRON Healthcare Co., Ltd** Address **53 Kunotsubo, Terado-cho, Muko, Kyoto 617-0002, Japan**
 Brand^c **OMRON** Model^d **RS2 (HEM-6121-E)**

Blood pressure measuring device for which validation is claimed. If alternative model names are used, include all.

blood pressure measuring device and the validated blood pressure measuring device

Maker^a **OMRON Healthcare Co., Ltd.** Address **53 Kunotsubo, Terado-cho, Muko, Kyoto 617-0002, Japan**
 Manufacturer^b **OMRON Healthcare Co., Ltd.** Address **53 Kunotsubo, Terado-cho, Muko, Kyoto 617-0002, Japan**
 Brand^c **OMRON** Model^d **RS3 (HEM-6130-E)**

Existing validated blood pressure measuring device.

which has previously passed the **ESH-IP** protocol, the results of which were published as follows:

Takahashi H, Yokoi T, Yoshika M. Validation of the OMRON RS3 (HEM-6130-E) wrist blood pressure monitor, in oscillometry mode, for clinic use and self measurement in a general population, according to the European Society of Hypertension International Protocol revision 2010 [Internet]. Dublin: dablEducational Trust; 2013 Feb 01 [cited 2013 Feb 14]. 4 p. Available from: [http://www.dablededucational.org/Publications/2013/ESH-IP 2010 Validation of Omron RS3 \(HEM-6130-E\).pdf](http://www.dablededucational.org/Publications/2013/ESH-IP%202010%20Validation%20of%20Omron%20RS3%20(HEM-6130-E).pdf)

Full reference

The only differences between the devices involve the following components:

Tick one box for each item 1–18.

Part I	1	Algorithm for Oscillometric Measurements	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A ^e <input type="checkbox"/>
	2	Algorithm for Auscultatory Measurements	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A ^f <input checked="" type="checkbox"/>
	3	Artefact/Error Detection	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
	4	Microphone(s)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A ^f <input checked="" type="checkbox"/>
	5	Pressure Transducer	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
	6	Cuffs or Bladders	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
	7	Inflation Mechanism	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
	8	Deflation Mechanism	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Part II	9	Model Name or Number	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
	10	Casing	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
	11	Display	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
	12	Carrying/Mounting Facilities	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
	13	Software other than Algorithm	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
	14	Memory Capacity/Number of stored measurements	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
	15	Printing Facilities	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A ^g <input checked="" type="checkbox"/>
	16	Communication Facilities	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A ^g <input checked="" type="checkbox"/>
	17	Power Supply	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
	18	Other Facilities	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A ^g <input type="checkbox"/>

An explanation of each item ticked "Yes" must be included in Section B or on a separate sheet.

- Notes:
- a Provide the name and address of the actual maker of the device.
 - b Provide the name and address of the legal manufacturer of the device, even if it is the same as that of the maker.
 - c Provide the name of the brand under which it is sold, even if it is the same as that of the manufacturer or maker.
 - d Provide the model name. If alternative or internal model names are used, include all. Each device must be uniquely identifiable.
 - e Only tick N/A (Not Applicable) if neither device measures blood pressure using the oscillometric method.
 - f Only tick N/A (Not Applicable) if neither device measures blood pressure using the auscultatory method.
 - g Only tick N/A (Not Applicable) if neither device provides printing, communication or other facilities, as appropriate.

SECTION B An explanation for each item, 1 to 18, ticked "Yes" in Section A must be provided here or in an attached document. All differences between the devices must be described.

9. Model name RS2 (HEM-6121-E)

10. No Memory button and Date/Time setting button.

11. No Average value symbol, Date/Time display and movement error symbol. The Hearbeat symbol will blink when measurement is outside the standard range.

13. No function of Average value, Date/Time and movement error detection.

14. 30 memories.

SECTION C Please check that the following are included with the application

- A manual for the validated device
- A manual for the device for which equivalence is being sought
- An image of the validated device
- An image of the device for which equivalence is being sought
- An image of the screen layout of validated device*
- An image of the screen layout of the device for which equivalence is being sought*

* Screen layouts shown complete, and without obscuring labels or lines, in manuals need not be included separately.

SECTION D Complete all items, bar signatures and seal, online and print. Sign and seal it then send the original to our address below. Please email a signed copy of this form, together with the manuals and images for both devices, to info@dableducational.org.

Signature of Director 

Company Stamp/Seal

Name Minoru Yoshimura

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Date 14 Feb 2013

Signature of Witness 

Name Tomohiro Kukita

Address Scorpis 33, 2132 LR Hoofddorp, The Netherlands

Comparison of the Omron RS2 (HEM-6121-E) with the Omron RS3 (HEM-6130-E)

Devices	Omron RS2 (HEM-6121-E)	Omron RS3 (HEM-6130-E)
Pictures		
Display		
Validation		ESH 2010
Device 1 Criteria		
Same Criteria	<p>Measurement</p> <p><i>Accuracy</i></p> <p>BP accuracy ± 3 mmHg 1, 5</p> <p>Pulse accuracy ± 5% 1, 5</p> <p><i>Method</i></p> <p>Oscillometric measurement method 1, 5</p> <p>Pulse 40 bpm to 180 bpm 1, 5, 8</p> <p>Manually initiated measurements 13</p> <p>Measurements are from single inflations 13</p> <p><i>Inflation</i></p> <p>Inflation 0 mmHg to 299 mmHg 1, 5, 7</p> <p>Automatic Inflation 7</p>	<p>Measurement</p> <p><i>Accuracy</i></p> <p>BP accuracy ± 3 mmHg 1, 5</p> <p>Pulse accuracy ± 5% 1, 5</p> <p><i>Method</i></p> <p>Oscillometric measurement method 1, 5</p> <p>Pulse 40 bpm to 180 bpm 1, 5, 8</p> <p>Manually initiated measurements 13</p> <p>Measurements are from single inflations 13</p> <p><i>Inflation</i></p> <p>Inflation 0 mmHg to 299 mmHg 1, 5, 7</p> <p>Automatic Inflation 7</p>

Devices	Omron RS2 (HEM-6121-E)	Omron RS3 (HEM-6130-E)
Same Criteria (continued)	Measurement (continued)	Measurement (continued)
	<i>Deflation</i>	<i>Deflation</i>
	Automatic Deflation 8	Automatic Deflation 8
	<i>Cuffs</i>	<i>Cuffs</i>
	Wrist circ. ~ 13.5 cm to ~ 21.5 cm 6	Wrist circ. ~ 13.5 cm to ~ 21.5 cm 6
	Buttons/Switches	Buttons/Switches
	<i>Power</i>	<i>Power</i>
	On/Off with Start/Stop (Start/Stop Label) 10	On/Off with Start/Stop (Start/Stop Label) 10
	<i>Measurement Records</i>	<i>Measurement Records</i>
	Memory 10	Memory 10
	Display/Symbols/Indicators	Display/Symbols/Indicators
	<i>Preparation</i>	<i>Preparation</i>
	Correct cuff wrapping indicator 11, 13, 18	Correct cuff wrapping indicator 11, 13, 18
	<i>Measurement Procedure</i>	<i>Measurement Procedure</i>
	Deflation symbol 11	Deflation symbol 11
	During Measurement: BP Level & Heartbeat 11	During Measurement: BP Level & Heartbeat 11
	<i>Post Measurement</i>	<i>Post Measurement</i>
	SBP, DBP and Pulse 11	SBP, DBP and Pulse 11
	Measurement error E_1, E_3, E_4, E_5, E_r 11	Measurement error E_1, E_3, E_4, E_5, E_r 11
	BP classification (Thresholds exceeded) 10, 11, 13	BP classification (Thresholds exceeded) 10, 11, 13
	Irregular heartbeat 11, 13, 18	Irregular heartbeat 11, 13, 18
	<i>Measurement Records</i>	<i>Measurement Records</i>
	Memory icon 11	Memory icon 11
	Memory recall number (Replaces pulse rate momentarily) 11	Memory recall number (Replaces pulse rate momentarily) 11
	<i>Power</i>	<i>Power</i>
	Low battery 11, 17	Low battery 11, 17
	Algorithms	Algorithms
	<i>Diagnostic</i>	<i>Diagnostic</i>
	135 / 85 mmHg thresholds 13	135 / 85 mmHg thresholds 13
	Irregular heartbeat detection 13	Irregular heartbeat detection 13
<i>Parameter Settings</i>	<i>Parameter Settings</i>	
Correct cuff wrapping detection 13	Correct cuff wrapping detection 13	
Case	Case	
<i>Display</i>	<i>Display</i>	
Single screen display 10	Single screen display 10	
Segment LCD 10	Segment LCD 10	
<i>Power</i>	<i>Power</i>	
2 "AAA" batteries ~ 300 measurements 17	2 "AAA" batteries ~ 300 measurements 17	
Automatic switch-off when not used for 2 min 17	Automatic switch-off when not used for 2 min 17	

Devices	Omron RS2 (HEM-6121-E)	Omron RS3 (HEM-6130-E)
Comparable Criteria	<p>Measurement <i>Measurement Records</i> Memory: 30 measurements 14</p> <p>Display/Symbols/Indicators <i>Post Measurement</i> Hypertension (Blinking heartbeat) 11, 13</p>	<p>Measurement <i>Measurement Records</i> Memory: 60 measurements 14</p> <p>Display/Symbols/Indicators <i>Post Measurement</i> Hypertension (Indicator strip) 11, 13</p>
Device 2 Criteria		<p>Buttons/Switches <i>Settings</i> Set 10</p> <p>Display/Symbols/Indicators <i>Post Measurement</i> Average 11, 13, 14 Body movement error 3, 11, 13, 18</p> <p><i>Date and Time</i> Date and Time 11 Date and Time (During memory recall) 11</p> <p>Algorithms <i>Averages and Differences</i> Last 3 measurements (within 10 min of each other) mean 13</p> <p><i>Diagnostic</i> Body movement error detection 3, 13</p>

Comments	1	Note These devices are clearly equivalent and from the same family. The RS2 contains fewer extra features than the RS3 and a simpler method of indicating hypertension.
Recommendation	Equivalence is Recommended	
Date	15/02/2013	