

## :- HEINE GAMMA® G5, G7, GP, XXL LF



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### HEINE GAMMA® G5, G7, GP, XXL LF

**ENGLISH** 



Please read and follow these instructions for use of and keep them for future reference.

#### **Intended Use**

The HEINE GAMMA® sphygmomanometers are intended for use for non-invasive, non-automated blood pressure measurements by medical professionals or trained personnel. The devices are non-sterile, intended for multiple use and may only come into contact with intact skin. The HEINE GAMMA® blood pressure cuffs are available in various sizes ranging from small infants to large adults.



### For U.S. only:

Federal law restricts this device to sale by or on the order of a Physician or Practitioner!

#### Warnings and Safety Information



**CAUTION!** Indicates potential hazardous situations. Ignoring the corresponding instructions may lead to dangerous situations of mild to moderate extent. (Background color yellow; foreground color black).

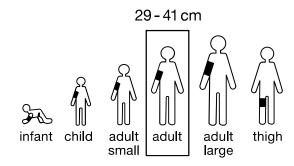


**NOTE!** This symbol indicates valuable advice in terms of set up, operation or maintenance, as applicable. Notes are important, but not related to hazardous situations.

#### Setting up

#### Appropriate cuff size

To prevent measurement errors, the correct cuff size must be selected. To do this, measure the circumference of the patient's arm and select the appropriate HEINE cuff. The relevant arm circumference is indicated on the cuff as follows: (Example) (See also under "Accessories")



#### Changing the cuff

To attach the cuff, attach the cuff tube to the nozzle on the measuring device. To change the cuff, detach the tube from the nozzle by turning slightly.

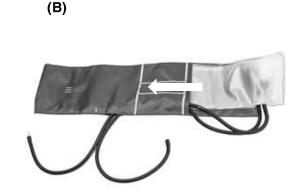
#### Disassembly of the cuff

The cuff consists of a sleeve and an inflatable bladder. For hygienic reprocessing, the inflatable bladder can be taken out of the sleeve. To do this, first remove the bellows from the air tube and for the XXL size, also from the measuring unit. After this, withdraw the inflatable bladder sideways out of the sleeve:



When reassembling, take note that you first need to thread in the tube / tubes (A) and then insert the inflatable bladder first into the sleeve (B).





#### Changing the position of the spoon (GAMMA G5, G7, GP)

The spoon is normally set for right-handed use. If you wish to inflate the cuff with the left hand, the spoon can be re-positioned for left-handed use:

- Remove the ball from the instrument with a twisting and pulling motion.
- Loosen the two screws near the air intake but do not screw them out completely.



Note: A special tool is supplied with GAMMA G7 for this purpose.

- If necessary, moisten the air intake to ease fitting.
- Rotate the base of the spoon through 180° and re-tighten the screws.
- Grip the neck of the ball and push it back onto the air intake with a twisting motion.

#### Operation

#### Fitting the cuff

Fit the cuff so that the lower edge is about 2-3 cm above the elbow (or about 5 cm above the knee). Locate the special mark over the artery. The white index mark should be located in the marked index area.

#### Measurements



Do not take your blood pressure for more than 2 minutes!

Wait for at least 2 minutes before taking a repeat measurement!

Let the patient relax for approx. 5 min. before you start the measurement. During the measurement, the patient should not talk if possible and should sit relaxed without crossing their legs. The back and arm should be supported.

The indicator on the scale should be at zero. To prevent measurement errors, the measured value should be read vertically to the measuring scale.

Pump the cuff approximately 30 mmHg above the expected systolic pressure. The artery is now compressed and no flow sounds should be heard.

The pulse-synchronous sounds which can be heard when the pressure is slowly released in the cuff are called Korotkoff sounds.

Use the K5 sound for measurements in adults and the K4 sound for children aged 3-12 years.

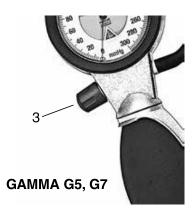
If Korotkoff sounds can be heard in adults or pregnant patients with a vented cuff, use the K4 sound as well for the measurement.

Open the valve to release the pressure. The pressure should go down at a speed of 2-3 mmHg per second. When sounds can be heard again, blood is flowing through the vessel again in the systole of the heart (Systolic / top pressure). Let the pressure slowly go down until the sound disappears (Diastolic / bottom pressure). Now there is no compression of the vessel and blood flows through again free from turbulence and sounds. At the end of the measurement, open the valve fully to quickly release the air from the cuff.

#### **GAMMA G5, G7, XXL LF**

Close the air release valve by turning to the right. Pump the cuff by pressing the bulb and release the air from it by opening the valve (3).







#### **GAMMA GP**

Press the button to close the valve completely (1). Pump the cuff by pressing the bulb and release the air from it by opening the valve. (1+2)

Please note: It is not possible to pump up the cuff with the button in position (2).

## **Hygienic Reprocessing**

- The instruction is available: at www.heine.com
- in a paper version which you can request from the address listed



The device is maintenance free.

#### Service

Note technical inspection: A technical inspection should be carried out at the latest every two years by the manufacturer or an authorized service technician.

The referenced measuring device must be traceable to a national/international standard.



A rectangular label is attached to the back of the instrument which displays a year-mark. This indicates the year in which the instrument should be reinspected.

**GAMMA GP** 

#### **General Notes**



The warranty for the entire product is invalidated if non-genuine HEINE products or non-original parts are used and if repairs or modifications are made to the device by persons not authorized by HEINE. For more information, please visit www.heine.com.

The expected life cycle, when the device is normal used and the warning and safety information as well as the maintenance instructions are observed, is up to 7 years for G5 and GP and up to 12 years for G7 and XXL LF.

Beyond this period, the product may continue to be used if it is in a safe and good condition.

All components of this sphygmomanometer are latex-free, the inflation bulb is also phthalate-free.

Please refer to the enclosed assembly instructions.

#### **General Warnings**



 $oldsymbol{\Lambda}\!\!\!\Lambda$  Check the correct operation of the device before use! Do not use the device if there are visible signs of damage.

Do not modify the device.

Use only original HEINE parts, spare parts, accessories and power sources.

Repairs shall only be carried out by qualified persons.

Protect the instrument from impact or shocks (do not drop) and protect from moisture and dirt.

Avoid damaging the cuff, tube and bulb with pointed objects such as needles or scissors.

Do not expose the sphygmomanometer to direct sunlight for long periods of time.

This product is not allowed to enter or be used in areas with strong magnetic fields e.g. MRI scanners.

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Disinfect the product before disposal. Please observe the relevant state-specific disposal regulations.

The appendix contains following tables

- Accessories
- Technical specification
- Explanation of the used symbols

