Part No: 1490001.

V1000
Foetal Heart Simulator

Operating Instructions

Manufactured by:

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Contents

Introduction

The V1000 Foetal Heart Simulator allows the operation of ultra-sound monitors to be verified and the accuracy of displayed foetal heart rate / strength assessed.

It is a hand held / portable unit for use in any environment where ultrasound monitors need to be tested, before use, when suspected faulty or after routine servicing.

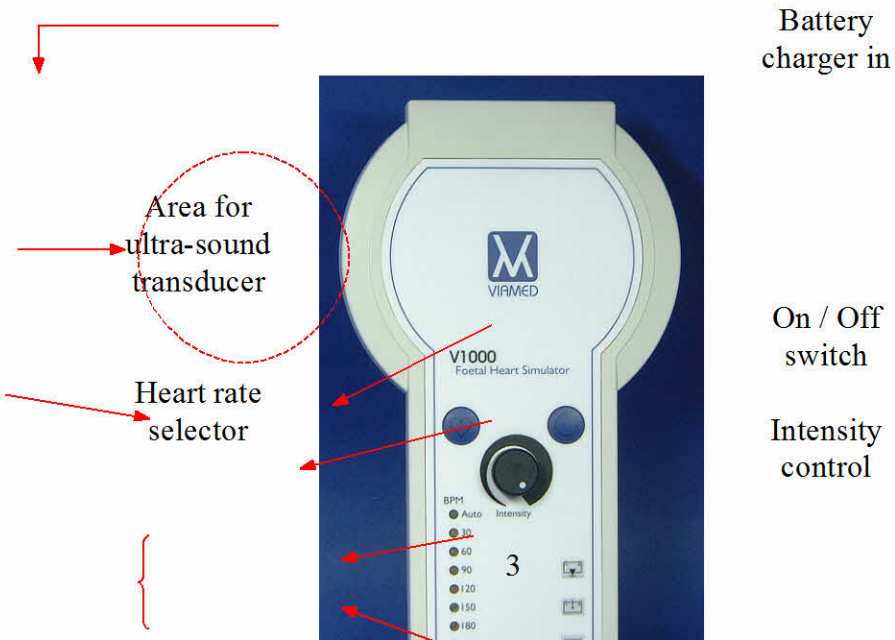
The V1000 generates movements very similar to a healthy foetal heart which can be picked up by the ultrasound transducer / monitor to produce displayed heart rates in the range of 30 - 210 bpm.

Amplitude of movement, can be varied by altering the intensity control on the front panel, allowing the sensitivity of pick up by the ultrasound monitor to be assessed.

The V1000 can be used on all manufacturers' ultrasound monitors using standard ultrasound transducers and gels.

The V1000 can simulate for over 6 hours at maximum intensity on batteries alone or can run continuously when connected to a mains outlet via the mains adapter.

Indicators and User Selectors.



Operating the V1000.

The V1000 can simulate at fixed heart rates of 30 – 210 bpm at 30 bpm intervals. It can also run an automatic test routine of one minute at 60 bpm followed by the same duration at 90, 120, 150, 180 & 210 bpm. This test routine is continuous until "auto" test is deselected or the simulator is switched off.

1. Place ultrasound gel on the centre of the Viamed logo on the front panel of the V1000.

2. Obtain a good connection between the ultrasound transducer and the V1000, with the ultrasound transducer remaining centrally over the logo.

3. Press the On/Off button and ensure that the 120bpm indicator begins to flash. If the low battery indicator is lit, the V1000 requires charging (refer to "Charging the V1000").

4. Adjust the intensity control until the ultrasound monitor under test begins to respond. Set the intensity control then as necessary.

5. Press the heart rate select button as required to assess the ultrasound monitor, either manually at higher or lower bpm rates or by using the auto test facility.

6. Press the V1000 On/Off button, ensure that all rate indicators extinguish, detach the ultrasound transducer and remove any residual gel using a damp cloth.

Charging the V1000.

When the V1000 battery low indicator is lit, the simulator requires charging from the mains outlet using the mains adapter. The V1000 will not simulate whilst the battery low indicator is lit.

Connect the jack plug from the mains adapter into the V1000 at the mains adapter input socket. Connect the adapter to the mains outlet and switch the outlet on.

Ensure that the power and fast charge indicators are lit.

Full charge is completed when the fast charge indicator extinguishes after approximately 180 minutes.

Replacing batteries.

The batteries contained within the V1000 are rechargeable, AAA size, nickel metal hydride. Batteries should not need to be replaced during the lifetime of the simulator unless they become degraded. Should the V1000 fail to simulate at full intensity for 5 hours, please return the simulator to Viamed Ltd for battery replacement.

The V1000 should never be fitted with batteries of any other type than that specified.

Technical Specification.

Rechargeable batteries:

4 x 1.5V nickel metal hydride, AAA or equivalent.
Approximately 6 hours usage.

Warranty:

1 year from date of purchase.

Cleaning:

Use a soft damp cloth to remove residual ultrasound gel and small amounts of isopropyl alcohol for more persistent marks.

Water-proofing:

The simulator is intended to be splash proof (IP41).