

DL - 3000 SpO₂ Simulator.

Calibration Procedure.



Viamed

Manufactured by :

Viamed Ltd.,
15 Station Road,
Crosshills,
Keighley,
West Yorkshire,
BD20 7DT.
United Kingdom.

Tel : +44 (0)1535 634542.
Fax : +44 (0)1535 635582.

Web site : www.viamed.co.uk.

E-mail : info@viamed.co.uk.

Quality Standards Accreditations : BS EN ISO 9001 / BS EN 46001.

Distributed by :

Calibration instructions contained within are for use with DL-3000 SpO₂ simulators and in conjunction with the DL-3000 SpO₂ simulator : Operating Instructions.

This publication is protected by copyright and all rights are reserved. No part of this manual may be reproduced or transmitted in any form or by any means electronic or mechanical, including photocopying and recording for any purpose other than the purchasers personal use, without the written permission of Viamed Ltd.

Information within this document is subject to change. Changes will be made without notice and incorporated in further issues.
DL-3000 is a registered trademark of Viamed Ltd and patent number GB2280024A applies to this product.
Viamed Ltd recognises all trademarks and products of manufacturers mentioned.

Calibration of the DL-3000 SpO₂ Simulator.

The DL-3000 only requires a simple calibration procedure which should be carried out annually, to guarantee the accuracy of the unit.

The DL-3000 calibration procedure involves circuitry adjustments as detailed below. Test equipment used (DVM) should be calibrated and traceable to National Standards. Viamed Ltd. cannot be liable for the accuracy of the unit once the original calibration seal is broken.

1. Remove the rear panel retaining bolts (4) and separate the rear panel from the remainder of the casing. Slide out the upper casing cover.
2. Remove the shorting link at 'Lk2' from the RUN position and refit in the CAL position.
3. Identify the Issue No. printed on the motherboard under the test finger connector.
"Iss.A" : Carry out steps (1 - 10). "Iss.B", "Iss.C" : Carry out steps (1 - 7) and (10).
4. Switch on the DL-3000 whilst F4 is depressed. The unit enters its calibration routine. Whilst F4 is depressed the unit displays it's software version.

Trim vr2 for zero
tp11 - to - tp12
next



Enter : No function.

5. Connect a calibrated DVM between Tp11 & Tp12. Trim Vr2 until the voltage between Tp11 and Tp12 equals 0.00V. Press F4.

Selections.

F1, F2 & F3 : No function.

F4 : Select next measurement.

Trim vr3 for zero
tp11 - to - tp12
next



Enter : No function.

6. Trim Vr3 until the voltage between Tp11 and Tp12 equals 0.00V. Press F4.

Selections.

F1, F2 & F3 : No function.

F4 : Select next measurement.

Trim vr1 for zero
tp11 - to - tp12
next



7. Trim Vr1 until the voltage between Tp11 and Tp12 equals 0.00V.

Selections.

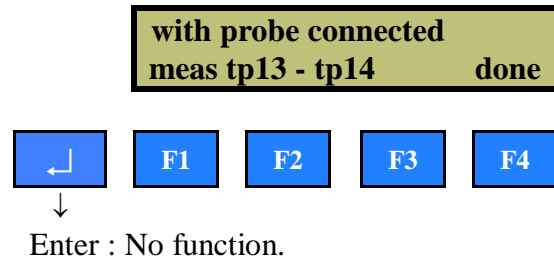
F1, F2 & F3 : No function.

F4 : Select next measurement.

Enter : No function.

This completes the necessary adjustments for Iss.B and Iss.C motherboards. Go to (10).

Steps (8) & (9) for “Iss.A” mother boards only.

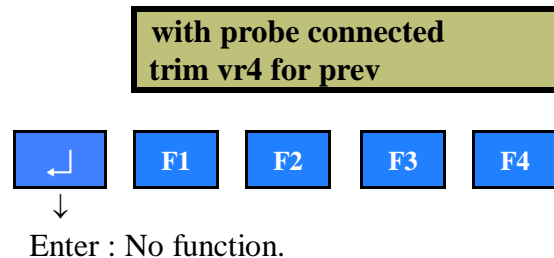


8. Connect the DVM between Tp13 and Tp14. Measure and record the voltage difference.

Selections.

F1, F2 & F3 : No function.

F4 : Select next measurement.



9. Trim Vr4 until the voltage between Tp13 and Tp14 equals the recorded value at (8).

Selections.

F1, F2 & F3 : No function.

F4 : Return to (5).

10. Switch off the unit, refit ‘Lk2’ in the RUN position and reassemble the unit.

The unit must be switched off to exit the calibration routine.

DL-30 & DL-300 : Calibrated Light Source & Test Finger Calibrator.

The DL-30 is a calibrated light source used to verify the DL-300 test finger calibrator. The instrument produces a precise infrared light output of 45μW. The DL-300 is a calibrated test unit which connects to the test finger and verifies the correct output of light using an independent photodetector. The calibration is traceable to National Standards.

