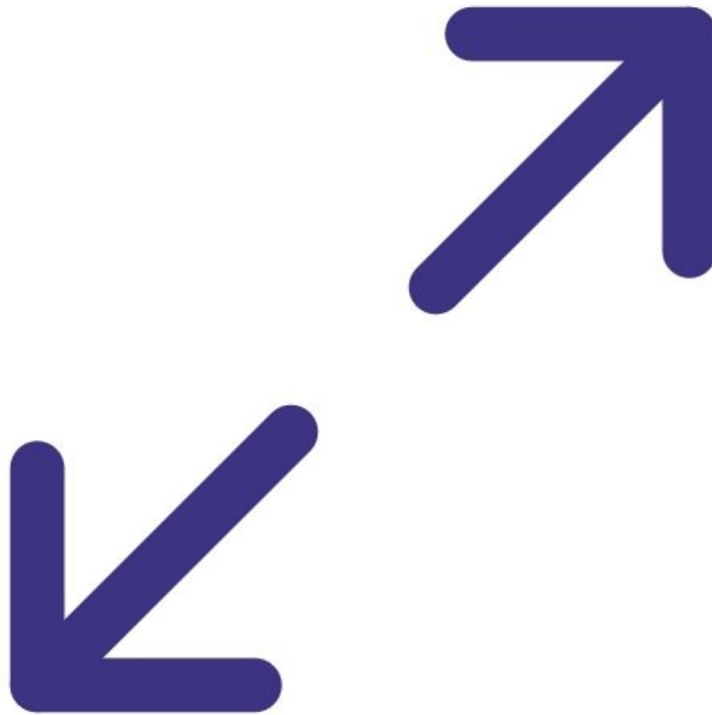




# Manually span calibrate (via software)

Written By: Tanya Taylor



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## INTRODUCTION

Use this guide to manually carry out a span check using the AirCal 1000 PC software.

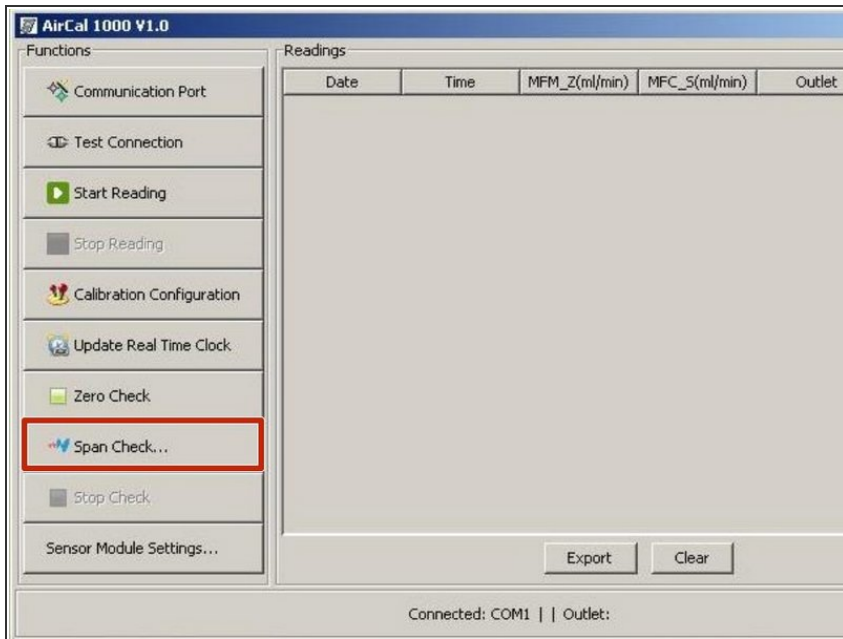
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### PARTS:

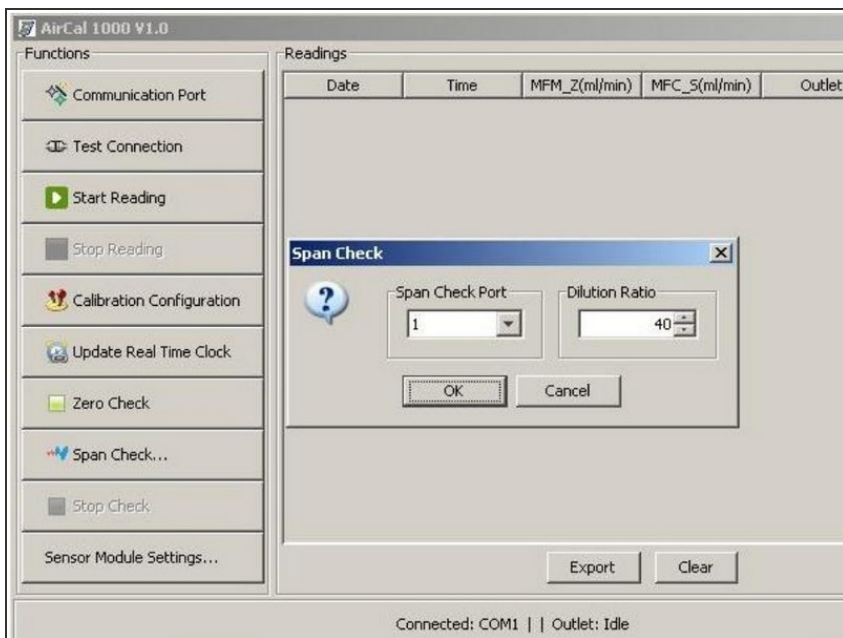
- [AirCal 1000 portable calibrator](#) (1)
  - [USB to RS232 converter](#) (1)
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## Step 1 — Enter span function



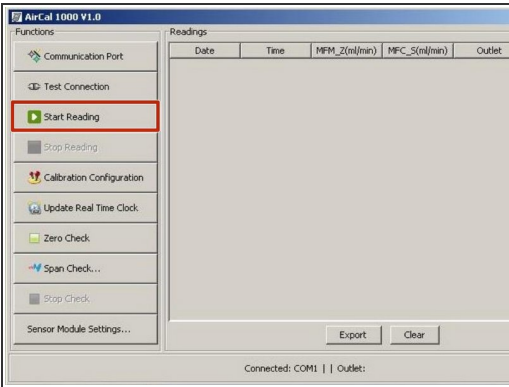
- Select the **Span Check** option in the **Functions** panel.

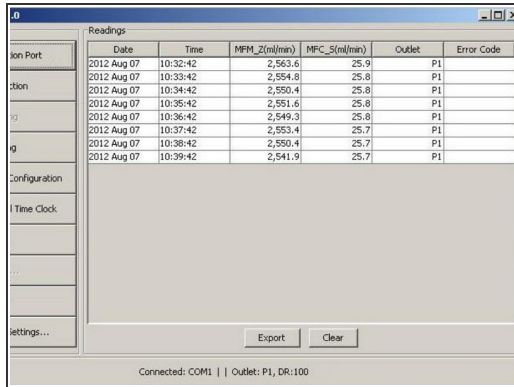
## Step 2 — Choose span port



- When the **Span Check** dialog box appears, select the span check port from the drop-down menu.
- ❗ Each connected gas cylinder has a port assigned to it. Both ports are labelled clearly on the back of the AirCal 1000.
- [Calculate the dilution ratio.](#)
- Select the dilution ratio based on your calculation.
- Press **OK**.

## Step 3 — Start span check





ion Port	Date	Time	MFH_Z(nl/min)	MFC_S(nl/min)	Outlet	Error Code
ion Port	2012 Aug 07	10:32:42	2,563.6	25.9	P1	
	2012 Aug 07	10:33:42	2,554.8	25.8	P1	
ion	2012 Aug 07	10:34:42	2,550.4	25.8	P1	
	2012 Aug 07	10:35:42	2,551.6	25.8	P1	
ion	2012 Aug 07	10:36:42	2,549.3	25.8	P1	
	2012 Aug 07	10:37:42	2,553.4	25.7	P1	
ion	2012 Aug 07	10:38:42	2,550.4	25.7	P1	
	2012 Aug 07	10:39:42	2,541.9	25.7	P1	

$$\text{Dilution ratio} = \frac{MFH + MFC}{MFC}$$

- To start the recording of data every minute, select **Start Reading** in the **Functions** panel.
- Wait 15 minutes for the flow rates to stabilize.
- ❗ The MFC flow rate adjusts to track to MFH flow rate. This ensures the correct dilution ratio is maintained.
- To stop data recording, select **Stop Reading** in the **Functions** panel. The data can then be cleared or exported to spreadsheet.
- To stop the span check completely, select **Stop Check** in the **Functions** panel.
- ❗ The dilution ratio can be checked manually using the equation shown.

For further support, contact [Technical Support](#).