

DALVEY
— 1897 —

BAROMETER

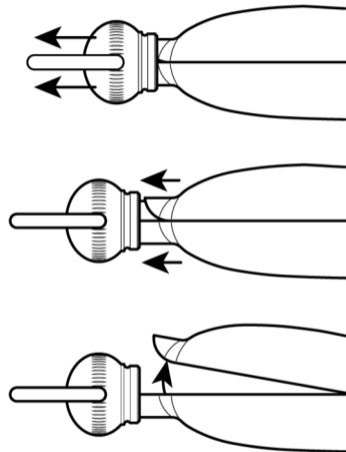
INSTRUCTIONS

(Fig.i) The Barometer is held closed by the spring loaded pommel catch, to open the Barometer please pull the pommel. The pommel will move away from the Barometer case releasing the upper half of the case which can then be opened fully.

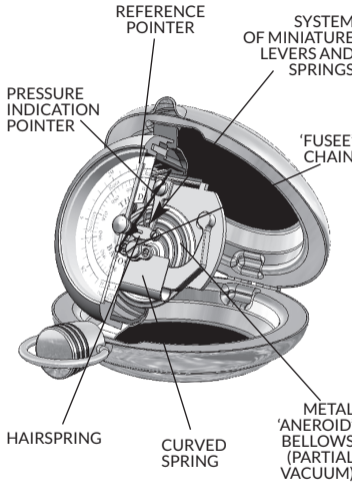
Secure the barometer in its upright position by inserting the locator, found on the bottom of the barometer mechanism, into the locating recess in the lower case.

(Fig.ii) Flexible 'metal bellows' at the centre of the barometer are responsive to changes in atmospheric pressure. As the weather changes, the bellows contract or expand. The movement is amplified by a system of levers and springs, which alter the tension on the 'fusee chain'. This tension is translated into radial movement via the 'hairspring' and pointer so as to be easily read upon the face. The 'reference pointer', when preset to the initial pressure reading, indicates whether the pressure is rising or falling - **rising pressure denotes improving weather, and falling, the contrary.**

(Fig.i)



(Fig.ii)



USING YOUR BAROMETER

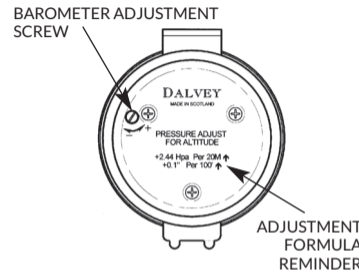
For general weather forecasting no adjustment is necessary to your barometer.

The Dalvey Barometer is factory set to correctly read barometric pressure at sea level, and will continue to read accurately at altitudes of up to 31 metres (100 feet). However, if you are at a higher altitude, you will need to correct the reading as pressure reduces with altitude.

Adjust the barometer pointer clockwise by the amount indicated in the adjustment table. To do this turn the adjustment screw on the rear of the mechanism **(Fig.iii)** using a small screwdriver. Ensure that the current barometric reading prior to adjustment is marked by the reference pointer. An approximate adjustment formula can be found on the rear of the mechanism.

Local barometric pressure readings can be obtained by contacting your local weather station or from detailed local weather forecasts.

(Fig.iii)



The expected tolerance of the Dalvey Barometer movement is as follows:

Linearity deviation: +/- 3hPa.
Temperature deviation: +/- 3hPa per 10° C temperature change.
All values for readings within 980 - 1030hPa.

Please Note: The barometer should be tapped gently two or three times prior to reading. This helps free up any 'stiction' which may have set into the needle since its last reading.

Metric		Imperial	
Altitude	Adjust by	Altitude	Adjust by
M.	mb.	Ft.	inch.
50	6	180	0.2
100	12	270	0.3
150	18	360	0.4
200	24	450	0.5
250	30	540	0.6
300	37	630	0.7
350	43	720	0.8
400	49	810	0.9
450	55	900	1.0
500	61	990	1.1
550	67	1080	1.2
600	73	1170	1.3
650	79	1260	1.4
700	85	1350	1.5
750	91	1440	1.6
800	98	1530	1.7
850	104	1620	1.8
900	110	1710	1.9
1000	122	1800	2.0
etc.	etc.	etc.	etc.

ADJUSTMENT TABLE

The right hand columns of each table show the amount of graduated sections of the dial by which the pressure indicator pointer has to be turned clockwise, when compared to the respective altitude above sea level.

For example, The local altitude is 400m / 1260ft and the barometer is reading 984mb / 29.2", the pointer should be rotated clockwise by 49mb / 1.4" so that it reads 1033mb / 30.6", the barometer will now give a reading **"true to sea level"**.

Adjust the pressure indicator pointer clockwise by 0.1" per 90' above sea level.

Adjust the pressure indicator pointer clockwise by 2.44mb per 20m above sea level.

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