When product integrity counts...
Manufacturers of laboratory calibrated temperature and humidity data loggers, real-time monitoring and cold chain solutions

Data Logger Use Specifications

Temprecord International Data Loggers are precision instruments for the measurement of temperature and/or humidity. As with all precision instruments, please handle with care.

1. The Data Logger MUST NOT be exposed to temperature environments beyond the following operating temperature ranges:
    - Logger Case:
      -25 °C to +60 °C, (-13 ˚F to +140 ˚F) for Mon-T, Inland/Export, Econolog, Multitrip Green and RH.
    - Logger Case:
      -50 °C to +60 °C, (-58 ˚F to +140 ˚F) for Multitrip Blue Low Temp, Multitrip Blue Supercool, Medical and Scientific)
    - Standard Probe:
      -50 °C to +110 °C, (-58 ˚F to +230 ˚F) for Multitrip Green and Multitrip Blue Low Temp
    - Low Temp Probe:
      -80 °C to +110 °C, (-112 ˚F to +230 ˚F) for Multitrip Blue Supercool and Scientific
2. The Data Logger MUST NOT be left submerged at depth of 1metre beyond 30 minutes
3. The Data Logger MUST NOT be pierced, squashed or dropped.
4. The Logger's front label MUST NOT be removed for any reason.
5. The Data Logger MUST NOT be exposed to high static emissions, as with any other precision instrument.
6. Metallic labels must not be applied to loggers as they affect the ability to read the logger.
7. The Data Logger MUST NOT be withdrawn from the reader interface before logger programming or downloading of data is complete. (The result is similar to a file on a memory stick becoming corrupted if the memory stick is removed from a PC before the action has been completed).
8. If at any time any of the above situations occurs, then the Data Logger MUST be returned to Temprecord for checking, testing and re-calibration. A standard repair fee is applicable.
9. Before use of the Logger it must be reset and checked using the "Temprecord for Windows" or "Palm Application" Software. It is the responsibility of the User to ensure that correct parameters are applied to the Logger. Default parameters are preset at factory as per product specifications.
10. Any modifications made to any part of the loggers, including probe or probe cable, void the Temprecord warranty.
11. RH Loggers are supplied with a dust cover for protection from large dust particles and splashes of water.
12. Temprecord International Limited accepts no liability, including contingent liability or consequential loss, for any product used where a Logger is used in contravention of the requirements of this schedule or product is used where the procedures set out herein have not been followed exactly.

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Calibration

Source: MSL: Measurement Standards Laboratory

4.0 Ensuring that your calibration remains useful

A calibration certificate provides the user with an assurance that the instrument will be reliable in use. This assurance is based on the calibration laboratory's knowledge and expertise on the behaviour of similar instruments, but is conditional upon reasonable care and use of the instrument**.**

Proof that the instrument performance continues to be consistent with its calibration history rests with the user. This can be checked by performing Ice Point checks, see our website www.temprecord.com/support/ice-point-check for instructions.

4.1 Care of the instrument

To demonstrate adequate care of an instrument ISO Guide 25 recommends a log for the instrument that contains procedures for use, records of calibrations and checks, records of repair and servicing, and most importantly, restrictions on the use of the instrument to approved staff and sites. This ensures that you can:

1. demonstrate through regular checks and calibrations that the instrument is stable, and
2. demonstrate that the instrument has not been exposed to conditions or use that may adversely affect its performance.

Adjustments, other than front panel offset or scale adjustments that are a part of the normal measurement procedure, will cause an irreversible change in the instrument's behaviour. This effectively breaks the link between your measurements and the SI, so immediately invalidating the certificate. For this reason non-routine adjustments (e.g. those requiring screwdriver or password access to the instrument) should not be carried out unless that instrument has had to be repaired, or because the inconvenience of having to make corrections is intolerable.

If you must adjust the instrument it is best to co-ordinate the adjustment with the calibration laboratory. To ensure that your history of stability is not broken and that the certificate can be used retrospectively, the calibration laboratory will carry out measurements before and after the adjustment.

4.2 Recalibration

Placing the burden of proof of validity of the certificate with the user clarifies the question of recalibration. Traditionally a certificate was treated like a dog licence with an expiry date.

Recalibration is required as soon as you no longer have confidence in the results because you are unable to demonstrate that the measurements are traceable

As a general guide MSL recommends that instruments be calibrated:

1. when they are first purchased, (Temprecord Loggers are calibrated when purchased).
2. after one year's service (depending on use) to confirm the stability, then
3. as necessary up to a maximum interval of five (5) years.

For Temprecord Scientific/Medical Data Loggers, it is recommended that Loggers are returned to Temprecord for re-checking and re-calibration at a maximum interval of two (2) years due to battery life conditions or if the Logger was exposed to conditions outside of Logger Specifications.

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Appendix: The information required on a calibration certificate

Information Required	Why?
Title: "Calibration Certificate."	To establish what the document claims to be.
Name and address of calibration laboratory.	So you know who to contact for further information.
Unique identification of certificate e g a report number.	So you and the laboratory can trace all work relating to the calibration and use of the instrument.
Each page should be numbered and the total number of pages given.	So you know that the information is complete.
Unambiguous identification of the instrument, including make, model, serial number and software version numbers.	So you know that this is the correct report and that the instrument is complete.
Date of calibration	So you know how current the results are.
Identification of calibration method used or unambiguous description of any non-standard method used, and/or departures from standard methods.	How were the results obtained? How will they relate to measurements I make? This and the next information category is the "fine print" of the report: read with care!
Conditions under which the calibration is carried out e.g. ambient temperature, loading conditions, instrument options.	This ensures that you can reproduce the calibration conditions and ensure that the results are applicable to your situation.
Measurements and derived results.	These form the heart of the report, what you have paid your money for!
A statement of the estimated uncertainty of the calibration results.	To enable you to calculate the uncertainty in your measurements.
A signature and title of the person(s) accepting responsibility for the report contents	This indicates that the report has gone through the quality system of the laboratory.
A statement that the certificate shall not be reproduced in full, without the written approval of the laboratory.	This ensures that all relevant information is always available to the user of the certificate, and that the data used in the certificate cannot be used to mislead.
ISO Guide 25 accreditation endorsement.	An assurance that the laboratory is competent to provide all of the above information.