

# Weighing Environment Logger

# AD-1687

DATE	MODEL	AD-1687	S/N	T1200112	ID	VR	1.3		
277	2012/1/25	17:20:47	25	C	44.8 %	1001 hPa	1 mG	ST	0.154 g
278	2012/1/25	17:21:33	25	C	44.8 %	1001.1 hPa	2 mG	ST	0.156 g
279	2012/1/25	17:28:24	25	C	44.8 %	1001.4 hPa	1 mG	ST	0.151 g
280	2012/1/25	17:28:27	25	C	44.8 %	1001.3 hPa	1 mG	ST	0.151 g
281	2012/1/25	17:28:30	25	C	44.8 %	1001.3 hPa	1 mG	ST	0.151 g
282	2012/1/25	17:28:34	25	C	44.8 %	1001.4 hPa	2 mG	ST	0.152 g
283	2012/1/25	17:28:37	25	C	44.8 %	1001.4 hPa	1 mG	ST	0.151 g
284	2012/1/25	17:28:37	25	C	44.8 %	1001.4 hPa	1 mG	ST	0.151 g
285	2012/1/25	17:28:38	25	C	44.8 %	1001.3 hPa	1 mG	ST	0.151 g
286	2012/1/25	17:28:40	25	C	44.8 %	1001.4 hPa	2 mG	ST	0.151 g
287	2012/1/25	17:28:42	25	C	44.8 %	1001.4 hPa	1 mG	ST	0.151 g
288	2012/1/25	17:28:43	25	C	44.8 %	1001.3 hPa	1 mG	ST	0.151 g
289	2012/1/25	17:28:44	25	C	44.8 %	1001.4 hPa	1 mG	ST	0.151 g
290	2012/1/25	17:28:45	25	C	44.8 %	1001.3 hPa	1 mG	ST	0.151 g
291	2012/1/25	17:28:46	25	C	44.8 %	1001.4 hPa	2 mG	ST	0.151 g
292	2012/1/25	17:28:47	25	C	44.8 %	1001.3 hPa	1 mG	ST	0.151 g
293	2012/1/25	17:28:48	25	C	44.8 %	1001.4 hPa	1 mG	ST	0.151 g
294	2012/1/25	17:28:49	25	C	44.8 %	1001.3 hPa	1 mG	ST	0.152 g
295	2012/1/25	17:28:50	25	C	44.8 %	1001.4 hPa	1 mG	ST	0.152 g
296	2012/1/25	17:28:51	25	C	44.8 %	1001.3 hPa	1 mG	ST	0.151 g
297	2012/1/25	17:28:52	25	C	44.8 %	1001.4 hPa	1 mG	ST	0.152 g
298	2012/1/25	17:28:53	25	C	44.8 %	1001.3 hPa	1 mG	ST	0.152 g
299	2012/1/25	17:28:54	25	C	44.8 %	1001.4 hPa	1 mG	ST	0.151 g
300	2012/1/25	17:28:55	25	C	44.8 %	1001.3 hPa	1 mG	ST	0.151 g
301	2012/1/25	17:28:56	25	C	44.8 %	1001.4 hPa	1 mG	ST	0.152 g
302	2012/1/25	17:28:57	25	C	44.8 %	1001.3 hPa	1 mG	ST	0.152 g
303	2012/1/25	17:28:58	25	C	44.8 %	1001.4 hPa	1 mG	ST	0.151 g
304	2012/1/25	17:28:59	25	C	44.8 %	1001.3 hPa	1 mG	ST	0.152 g
305	2012/1/25	17:29:00	25	C	44.8 %	1001.4 hPa	1 mG	ST	0.152 g
306	2012/1/25	17:29:01	25	C	44.8 %	1001.3 hPa	1 mG	ST	0.152 g
307	2012/1/25	17:29:02	25	C	44.8 %	1001.4 hPa	1 mG	ST	0.152 g
308	2012/1/25	17:29:03	25	C	44.8 %	1001.3 hPa	1 mG	ST	0.152 g

**Temperature**

**Barometric Pressure**

**Humidity**

**Vibration**



**Weighing Data**

**All in One Device!**



**AND** ...Clearly a Better Value  
 A&D Company, Limited  
<http://www.aandd.jp>

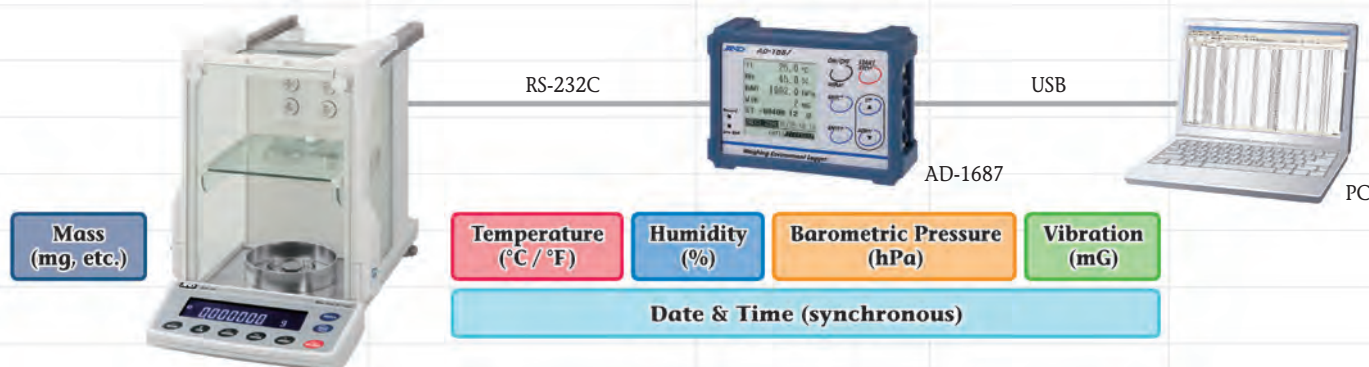


# Who Else Wants to Manage Environmental and Weighing Data With Just One Device?

Temperature, humidity, barometric pressure, and mass values – Isn't it troublesome to unify and process these data from different recording devices? The AD-1687 Weighing Environment Logger, which also detects vibration, is ideal for monitoring environmental conditions that influence the performance of precision analytical balances. A unique product that A&D ourselves long wished to have as a balance manufacturer!

## Simultaneous and chronological recording of environmental and weighing data

When connected to an A&D balance, the AD-1687 saves mass values sent from the balance while simultaneously collecting temperature, humidity, barometric pressure, and vibration data from the setup environment, all with date and time of recording. You will no longer be bothered by complicated, error-prone data integration tasks.



## Instant data saving to a PC requiring no special software

The PC recognizes the AD-1687 as USB storage. The data is stored in CSV format and can be opened using software such as Microsoft Excel, allowing easy processing and graphing of results for analysis and documentation.

### Real-time transmission mode

By linking a balance and a PC, the AD-1687 can transfer weighing data along with environmental data to the PC in real time without saving the data on the device itself.

## Large memory capacity of 10,000 data sets

The AD-1687 stores up to 10,000 sets<sup>i</sup> of environmental and weighing data with date and time. You can select either endless recording (overwrites the oldest data when memory is full) or one-time recording (stops recording when memory becomes full).

\* i Roughly 100 days' worth of continuous recording at a 15-minute interval

## ***No battery required when connected to either a balance or a PC***

The AD-1687 can receive power directly from a balance via RS-232C or from a PC via USB. Three types of RS-232C cables (9-pin D-Sub, 25-pin D-Sub, and 7-pin DIN) and a USB cable are provided as standard.

### ***Power-saving function when operated on batteries***

The AD-1687 is automatically turned off after a set period<sup>ii</sup> of inactivity. (Only the display is turned off while recording in interval mode.) The remaining battery level is displayed to avoid unexpected recording failure.

\* ii Settings are 30 sec, 1 min, 2 min, 5 min, 10 min, and OFF

## ***Various display modes***

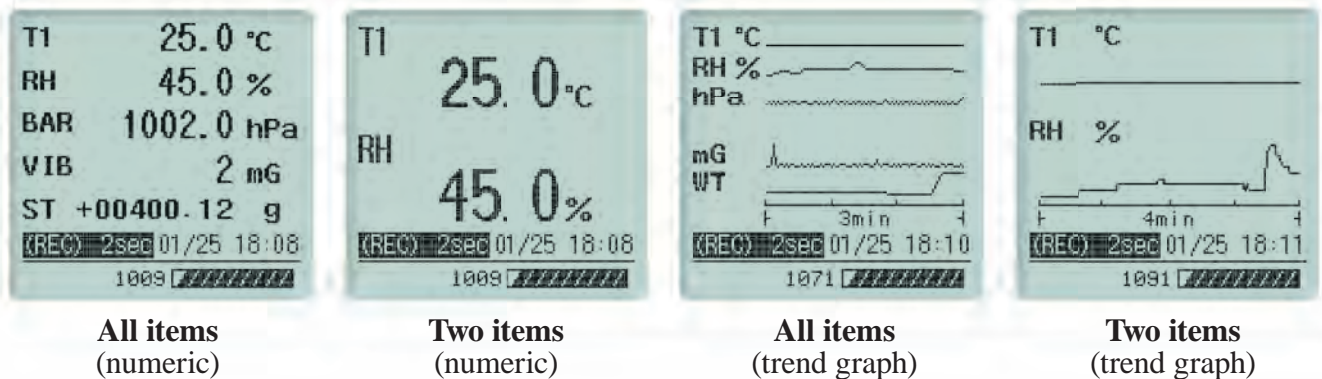
Depending on your purpose or preference, you can set the AD-1687 to display either all data items or only two important ones (primary data mode), and display data either numerically or by trend graphs (trend graph mode).

### ***Primary data mode***

Only two data items (e.g. temperature and humidity) of your choosing are displayed for easier reading.

### ***Trend graph mode***

Results are graphed using automatic scaling so you can grasp chronological changes quickly and intuitively.



## ***Interval time setting for environmental data recording***

It is possible to set an interval time between 1 second to 60 minutes at which the AD-1687 measures and records the environmental data.<sup>iii</sup>

\* iii For weighing data, use the interval output mode of the weighing instrument.

## ***High portability and IP65 dust and waterproof construction***

The AD-1687 is compact enough (127 × 90 × 36 mm with the protective cover) to be carried around. With the protective cover, it is IP65 dust and waterproof and suitable for use at various sites where the conditions are not as favorable as laboratories.

## ***Industry's first environment logger that detects vibration***

Because the AD-1687 measures vibration, it is useful for managing not just weighing environments but also areas like production facilities where the amount of vibration becomes an issue.

# Specifications

	Resolution	Measurement range	Accuracy
Temperature	0.1 °C	0 to 60 °C	±0.5 °C (20 to 30 °C)
	0.1 °F	32 to 140 °F	±0.9 °F (68 to 86 °F)
Relative humidity	0.1% RH	0 to 100%	±3% (20 to 80%)
Barometric pressure	0.1 hPa	500 to 1100 hPa	±3 hPa (0 to 60 °C)
Vibration	1 mG	0 to 2000 mG	±20 %, static acceleration
<b>Data capacity</b>			
	Maximum 10,000 sets (including date and time)		
<b>Interval time</b>			
	1, 2, 5, 10, 15, 20, 30 seconds, 1, 2, 5, 10, 15, 20, 30, 60 minutes		
<b>Power supply</b>			
	Two LR6 (AA) batteries, RS-232C, or USB		
<b>Battery life</b>			
	Approx. 6 months (with measurement interval at 1 minute, alkaline batteries)		
<b>Clock accuracy</b>			
	Maximum ±1 minute/month		
<b>Compatible operating systems</b>			
	Windows 2000 / XP / Vista / 7 (32 / 64 bit)		
<b>Operating environment</b>			
	0 to 60 °C / 32 to 140 °F, 85% RH or less (no condensation)		
<b>Dimensions</b>			
	127 (W) × 90 (H) × 36 (D) mm (including the protective cover)		
<b>Weight</b>			
	Approx. 275 g (including batteries and the protective cover)		

## Standard accessories

- Three RS-232C cables for weighing instruments (9-pin D-Sub, 25-pin D-Sub, and 7-pin DIN, 1 m)
- USB cable (1 m)
- Two LR6 (AA) batteries (for operation check)
- Protective cover
- Instruction manual

## You only need to record weighing data? Then please consider the AD-1688 Weighing Data Logger.



The AD-1688 is a handheld device (55 × 103 × 16.5 mm) that stores up to 5,000 weighing results with date and time. You can retrieve the saved data later by connecting the AD-1688 to a USB port of your computer. (No driver software is necessary.)



Save



Carry



and Retrieve the Data!

As with the AD-1687 weighing environment logger, the AD-1688 becomes especially handy where a PC or printer cannot be placed near the weighing instrument, such as clean rooms.



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