

Micro Analytical Balances

# GH / HR-i

Series



## Motor-driven Internal Calibration (GH models only)

- The GH internal calibration with an internal mass saves time and money. External calibration requires a great deal of skill, time and an expensive external mass. With our internal calibration with internal mass, the balance calibrated very quickly.

### ■ Automatic Self Calibration (GH models only)

Self-calibrates automatically when the balance detects ambient temperature changes.

### ■ One Touch Automatic Calibration (GH models only)

Allows you to calibrate the balance on demand with just the push of a button.

## Standard RS-232C

- Incorporates bi-directional communication with a PC, printer or other peripheral device.

## Multiple Weighing Units

- Uses programmable or standard units of measurement: g, mg, PCS (with ACAI\* function), %, oz, ozt, ct, dwt, GN, tl, etc.

\*ACAI (Automatic Counting Accuracy Improvement)

## Data Memory Function (GH models only)

- 200 PCS Weighing data without date and time
- 100 PCS Weighing with date and time
- 50 PCS Calibration history data

## GLP/GMP/GCP/ISO Compliance

Allows GLP or LIMS balance management by outputting the Balance ID number and data used to calibrate the balance. This data can be output to A&D's AD-8121B printer or a computer, indicating date, time, Balance ID number, serial number and calibration data.

## ID Number

The balance ID number can be set. It is used to identify the balance when GLP in use. The ID number is memorized and maintained once it is fixed, even when the AC adapter is removed.

## Auto Power On Function

Plug in the unit and it turns itself on without having to press the ON/OFF key.

## Time & Date (GH models only)

Standard Time & Date Function complies with GLP and Interval Weighing in the Data Memory Function.

## Interval Time Setting (GH models only)

Weighing intervals of 2, 5, 10, 30 seconds and 1, 2, 5, 10 minutes in the Data Memory Function.

## Standard Underhook

Ideal for density determination and weighing magnetic substances.

## Auto Re-Zero Function

Re-zeroes automatically after data output.

## Standard Windows Communication Tools Software

A free copy of WinCT - A&D's powerful and flexible data collection software tool for virtually instant connection to a PC and a network of other devices.

## Quick USB Interface (GH-02)

Easy-to-use optional USB interface, with no driver or software installation necessary, for transfer of weighing data to a computer (Unidirectional communication from a balance to a PC only. Please use the standard RS-232C interface for sending commands from a PC to the balance.)

## Ethernet Interface (GH-08) with WinCT-Plus software (CD-ROM)

WinCT-Plus software makes it possible for the user to easily set up an IP address, subnet mask etc. The user can also send commands to control and acquire data from multiple GH balances.





**Accessories**  
AX-054016580-S Discharge Electrode Pin

### AD-1683A Static Eliminator

The AD-1683A static eliminator, which incorporates a high-voltage power source, is a DC power-operated compact device which can eliminate static electricity from charged objects without the need of an external high-voltage power source. Since this static eliminator is compact and lightweight with no fan (no breeze is produced) and requires no high-voltage wiring, it is very easy to handle. It can generate ions very easily because it is a DC type.

## DISCONTINUED

### GH/HR-i Series Specifications

|   |                             | GH-252   | GH-202                      | GH-300              | GH-200        | GH-120                     | HR-202i                                | HR-300i             |
|---|-----------------------------|--|-----------------------------|---------------------|---------------|----------------------------|--|---------------------|
| Gram  | (g)                         | 250x0.0001/101x0.00001   | 220x0.0001/51x0.00001       | 320x0.0001          | 220x0.0001    | 120x0.0001                 | 220x0.0001/51x0.00001                  | 320x0.0001          |
|   | (mg)                        | 250000x0.1/101000x0.01   | 220000x0.1/51000x0.01       | 320000x0.1          | 220000x0.1    | 120000x0.1                 | 220000x0.1/51000x0.01                  | 320000x0.1          |
| Decimal Ounce (oz)                                      |                             | 8.82x0.00001/3.56x0.000001   | 7.76x0.00001/1.80x0.000001  | 11.29x0.00001       | 7.76x0.00001  | 4.23x0.00001               | 7.76x0.00001/1.80x0.000001             | 11.29x0.00001       |
| Troy Ounce (ozt)  |                             | 8.04x0.00001/3.25x0.000001   | 7.07x0.00001/1.64x0.000001  | 10.29x0.00001       | 7.07x0.00001  | 3.86x0.00001               | 7.07x0.00001/1.64x0.000001             | 10.29x0.00001       |
| Penn yw eight (dwt)                                     |                             | 160.8x0.0001/64.9x0.00001  | 141.5x0.0001/32.8x0.00001   | 205.8x0.0001        | 141.5x0.0001  | 77.2x0.0001                | 141.5x0.0001/32.8x0.00001              | 205.8x0.0001        |
| Carat (ct)  |                             | 1250x0.001/505x0.0001  | 1100x0.001/255x0.0001       | 1600x0.001          | 1100x0.001    | 600x0.001                  | 1100x0.001/255x0.0001                  | 1600x0.001          |
| Momme (mom)   |                             | 66.7x0.0001/26.9x0.00001   | 58.7x0.0001/13.6x0.00001    | 85.3x0.0001         | 58.7x0.0001   | 32.0x0.0001                | 58.7x0.0001/13.6x0.00001               | 85.3x0.0001         |
| Grain Unit (G N)  |                             | 3858x0.002/1559x0.0002   | 3395x0.002/787x0.0002       | 4938x0.002          | 3395x0.002    | 1852x0.002                 | 3395x0.002/787x0.0002                  | 4938x0.002          |
| Tola (t)  |                             | 21.43x0.00001/8.66x0.000001  | 18.86x0.00001/4.37x0.000001 | 27.44x0.00001       | 18.86x0.00001 | 10.29x0.00001              | 18.86x0.00001/4.37x0.000001            | 27.44x0.00001       |
| Tael (TL)   |                             | 6.67x0.00001/2.69x0.000001   | 5.87x0.00001/1.36x0.000001  | 8.53x0.00001        | 5.87x0.00001  | 3.20x0.00001               | 5.87x0.00001/1.36x0.000001             | 8.53x0.00001        |
| Repeatability (Standard Deviation)                      |                             | 0.1 mg / 0.03mg  | 0.1 mg / 0.02mg             | 0.2mg               | 0.1 mg        | 0.1 mg                     | 0.1 mg / 0.02mg                        | 0.2mg               |
| Linearity   |                             | ±0.2mg / ±0.10mg   | ±0.2mg / ±0.03mg            | ±0.3mg              | ±0.2mg        | ±0.2mg                     | ±0.2mg / ±0.03mg                       | ±0.3mg              |
| Stabilization Time (typical at F AST)                   |                             | Approx. 3.5 sec(0.1mg) / 8 sec(0.01mg)   |                             | Approx. 3.5 seconds |               |                            | Approx. 3.5 sec(0.1mg) / 8 sec(0.01mg) | Approx. 3.5 seconds |
| Sensitivity Drift (1 0°C to 3 0°C)                      |                             | ±2ppm/°C (when automatic self calibration is not used)   |                             |                     |               |                            |  |                     |
| Operating Temperature                                   |                             | 5°C to 40°C (41 F to 104 F),85%RH or less (no condensation)  |                             |                     |               |                            |  |                     |
| Display Type  |                             | Liquid Crystal Display (LCD)   |                             |                     |               |                            |  |                     |
| Display Refresh Rate                                    |                             | 5 times/second or 10 times/second  |                             |                     |               |                            |  |                     |
| Counting Mode   | Minimum unit mass           | 0.1mg  |                             |                     |               |                            |  |                     |
|   | Number of samples           | 10, 25, 50 or 100 pieces   |                             |                     |               |                            |  |                     |
| Percent Mode  | Minimum 100% reference mass | 10.0mg   |                             |                     |               |                            |  |                     |
|   | Minimum 100% display        | 0.01%, 0.1%, 1% (Depends on reference mass stored)   |                             |                     |               |                            |  |                     |
| Standard Serial I / F                                   |                             | RS-232C interface with Windows Communication Tools (WinCT : included as CD-ROM)                    |                             |                     |               |                            |  |                     |
| Calibration Weights to be used for External Calibration |                             | 200g<br>100g<br>50g<br>20g   | 300g<br>200g<br>100g        | 200g<br>100g        | 100g<br>50g   | 200g<br>100g<br>50g<br>20g | 300g<br>200g<br>100g                   |                     |
| Weighing Pan  |                             | Ø90mm  |                             |                     |               |                            |  |                     |
| External Dimensions                                     |                             | 217(W) x 442(D) x 316(H)mm   |                             |                     |               |                            |  |                     |
| Power   |                             | Confirm that the adapter type is correct for the local voltage and power receptacle (Approx. 11VA) |                             |                     |               |                            |  |                     |
| Weight  |                             | Approx. 8.2kg(GH) / 7.9kg(HR-i)  |                             |                     |               |                            |  |                     |
| Standard Accessories                                    |                             | WinCT in CD-ROM, Manual, AC Adapter  |                             |                     |               |                            |  |                     |



### Options

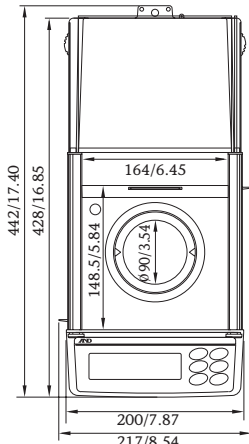
- GH-02** Quick USB interface with cable
- GH-08** Ethernet interface
- ★ GH-02 and GH-08 cannot be used at the same time.

### Accessories

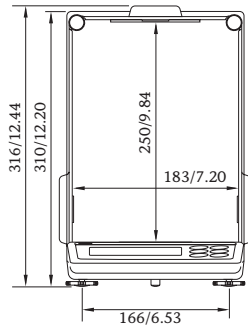
- AD-1653** Density Determination Kit
- AD-1682** Rechargeable Battery Unit (Maximum operating time: 8 hours)
- AD-1683** Static Eliminator
- AD-1684** Electrostatic Fieldmeter
- AD-1688** Weighing Data Logger
- AD-1689** Tweezers for Calibration Weight
- AD-8121B** Dot Matrix Compact Printer
- AD-8527** Quick USB Adapter
- AD-8920A** Remote Display
- AD-8922** Remote Controller
- AX-KO2466-200** RS-232C Cable (9P-9P, 2m)
- AX-USB-9P** Serial/USB Converter



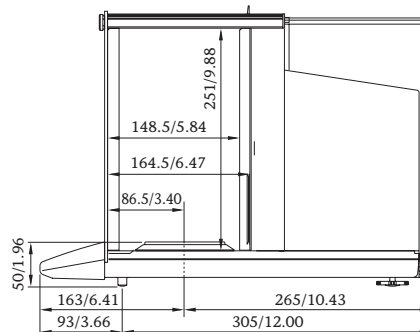
### Dimensions (mm/inches)



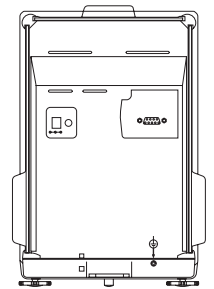
Top View



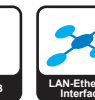
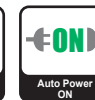
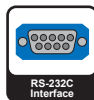
Front View



Side View



Rear View



(GH)

(GH)

(GH)

(GH)

(HR-i)



## Discover Precision

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