

A&D WEIGHING

# ANALYTICAL/SEMI-MICRO BALANCES



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## PHOENIX™ SERIES

### Internal Calibration Mass with Rear-Mount Motor Drive Assembly and Anti-Static Glass



-  • 0.01mg Semi-Micro Resolution
-  • GLP/GMP/GCP/ISO Compliance
-  • Internal Calibration Standard
-  • Balance ID Number
-  • Full Digital Calibration
-  • Time and Date Function
-  • User Friendly Operation
-  • Data Memory Function
-  • Liquid Crystal Display
-  • Automatic Counting Accuracy Improvement
-  • RS-232C bi-directional Interface
-  • Auto Power On Function
-  • Windows Communication Tools Software
-  • Bluetooth® Interface (option)
-  • Underhook Capability

### Phoenix Series Specifications

Capacity / Resolution		GH-120	GH-200	GH-300	GH-202	GH-252
Gram	(g)	120x0.0001	220x0.0001	320x0.0001	220x0.0001 / 51x0.00001	250x0.0001 / 101x0.00001
	(mg)	120000x0.1	220000x0.1	320000x0.1	220000x0.1 / 51000x0.01	250000x0.1 / 101000x0.01
Decimal Ounce	(oz)	4.23x0.00001	7.76x0.00001	11.29x0.00001	7.76x0.00001 / 1.80x0.000001	8.82x0.00001 / 3.56x0.000001
Troy Ounce	(ozt)	3.86x0.00001	7.07x0.00001	10.29x0.00001	7.07x0.00001 / 1.64x0.000001	8.04x0.00001 / 3.25x0.000001
Pennyweight	(dwt)	77.2x0.0001	141.5x0.0001	205.8x0.0001	141.5x0.0001 / 32.8x0.00001	160.8x0.0001 / 64.9x0.00001
Carat	(ct)	600x0.001	1100x0.001	1600x0.001	1100x0.001 / 255x0.0001	1250x0.001 / 505x0.0001
Momme	(mom)	32.0x0.0001	58.7x0.0001	85.3x0.0001	58.7x0.0001 / 13.6x0.00001	66.7x0.0001 / 26.9x0.00001
Grain Unit	(GN)	1852x0.002	3395x0.002	4938x0.002	3395x0.002 / 787x0.0002	3858x0.002 / 1559x0.0002
Tola	(t)	10.29x0.00001	18.86x0.00001	27.44x0.00001	18.86x0.00001 / 4.37x0.000001	21.43x0.00001 / 8.66x0.000001
Tael	(TL)	3.20x0.00001	5.87x0.00001	8.53x0.00001	5.87x0.00001 / 1.36x0.000001	6.67x0.00001 / 2.69x0.000001
Percentage Min Div		0.01%, 0.1% or 1% (auto prompt)				
Counting Min Weight		0.1 mg				
Linearity		±0.2 mg	±0.2 mg	±0.3 mg	±0.2 mg / ±0.03 mg	±0.2 mg / ±0.10 mg
Repeatability / Std Dev		0.1 mg	0.1 mg	0.2 mg	0.1 mg / 0.02 mg	0.1 mg / 0.03 mg
Stabilization Time		Approx. 3.5 sec (0.1 mg) / 8 sec (0.01 mg)				
Sensitivity Drift (10°C - 30°C)		±2ppm / °C (when automatic self calibration is not used)				
Display Refresh		5 times per second / 10 times per second				
Pan Size		Ø 90 mm / 3.6 inches				
Physical Dimensions	(mm)	217(W) x 442(D) x 316(H)				
	(in)	8.54(W) x 17.4(D) x 12.24(H)				
Breeze Break Dimensions	(mm)	164(W) x 148.5(D) x 251(H)				
	(in)	6.45(W) x 5.84(D) x 9.88(H)				
Operating Temperature		5C to 40C (41 F to 104 F), 85% RH or less (no condensation)				
Weight		Approx. 8.2 kg / 18 lb				
Power		100, 120, 220, 240 VAC (AC Adapter) 50 Hz / 60 Hz, 11 VA				
Standard Accessories		WinCT in CD-ROM, Manual, AC Adapter				
Ext. Cal. Mass (optional)		50 g / 100 g	100 g / 200 g	100 g / 200 g / 300 g	20 g / 50 g / 100 g / 200 g	

**0.01 mg**

- **0.01mg Semi-Micro Resolution** (some models).

- **Internal Calibration Standard** with built-in motor driven calibration mass saves time and money. Balance can even calibrate itself when sensing a change in ambient temperature.



- **Full Digital Calibration** simplifies calibration by eliminating the need to continuously loan and unload calibration weights to adjust Zero and Span.



- **User Friendly Operation** with large, clearly marked English Language Keys.



- **Liquid Crystal Display** with large, easy-to-read digits from a wide viewing angle.



- **RS-232C bi-directional Interface** for use with PC, Printer or Remote Display.



- **Windows Communication Tools Software** provides easy transmission of weighing data from A&D Balances and scales to a computer using an RS-232C interface. You can quickly collect data into Windows applications in a manageable format limited only by your own computers capabilities. Free Download from our website.



- **Bluetooth® Interface** (optional) allows Wireless Communication between the Balance and PC.

**GLP**

- **GLP/GMP/GCP/ISO Compliance** allows GLP and LIMS balance management by outputting the Balance ID number and data used to calibrate the balance. The data can be output to A&D AD-8121B printer or a computer, indicating date, time, Balance ID number, serial number and calibration data.



- **Balance ID Number** can be user-set when GLP is used. The ID Number is maintained even when AC power is removed.



- **Time and Date Function** complies with GLP and Interval Weighing in the Data Memory Function.



- **Data Memory Function** 200 PCS Weigh Data. (GH Models also offer choices of 100 PCS Weigh Data with T&D, or 50 Sets of Calibration Data.)



- **Automatic Counting Accuracy Improvement** for continuous recalculation and update of average piece weight ensures optimum count accuracy even with very small parts.



- **Auto Power On Function** Just plug in the AC adapter and the Balance turns itself on.



- **National Type Evaluation Program (model HR-60 only).**



- **Underhook Capability** for Density Measurement and weighing of large or magnetic materials.

### Options and Accessories:

AD-8920	Remote Display	GH-29	Bluetooth® (wireless) Adapter for GH and HRi Models
AD-8922	Remote Controller	GR-29	Bluetooth® (wireless) Adapter for GR Models
AD-1653	Density Determination Kit	HR-29	Bluetooth® (wireless) Adapter HR-60/120/200
AD-1682	Rechargeable Battery Pack (Ni-MH, external)	AD-100-2	Anti-Theft Device
AD-1683	Static Eliminator	CC:103E	Carrying Case (for HR-60, HR-120, HR-200 only)
AD-1191	Compact Printer with Time & Date	HR-03	RS-232C is standard for all HR-I, GH & GR Models
AD-8121B	Compact Printer with Time, Date and Statistics	HR-05	20mA Current Loop Interface; (HR-60, HR-120 & HR-200 only)
AD-8118A	Universal Printer	HR-09	Rechargeable Battery Pack (internal, for HR-60, HR-120 & HR-200 only)
AD-8118B	Multi-Function Printer		
Win-CT	Data Collection Software		



#### AD-1683 Static eliminator

AD-1683 static eliminator, which incorporates a high-voltage power source, is a DC power-operated small-size 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. Being of a DC type, it has a remarkable ability for generating ions.



#### AD-8922 Remote controller

AD-8922 is a remote controller that can be connected to certain A&D weighing instruments in order to display weighing data and control the weighing instrument with key operation. (Access to the internal setting of weighing instrument is not allowed.)

Access Device	AD-8922 Key Functions					
	ON : OFF	CAL	SAMPLE	PRINT	MODE	RE-ZERO
GH, GP, GX, GX-K	Turns the display on and off	Calibrates using internal mass	Turns the minimum weighing value on and off #1)	Output weighing data to an external device #2)	Switches the weighing unit #3)	Returns weighing value to zero (tare)
GR		—				
AD-4212, EK-H, GF, GF-K, HR, HR-I	—	—	—	—	—	—
EK-I, EW-I	—	—	—	—	—	—
EK-G, EW-G, FC-I, FC-SI, FG, FR, FS, FS-KL, HV-G, HW-WP, HW-G, HW-WP	—	—	—	—	—	—

#1) Excluding PCS and % mode. #2) When the weighing machine is in stream mode, and AD-8922 is in key mode. #3) Excluding AD-4212

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