

WEIGHING  
PRECISION  
BALANCES  
A&D

# PRECISION BALANCES



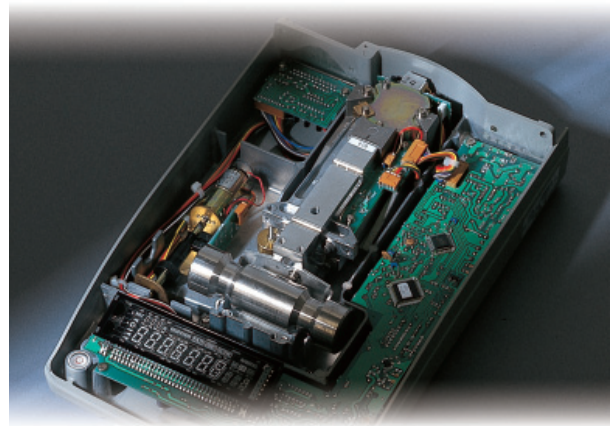
**GX/GF SERIES**



## GX/GF SERIES

# The World's Most User-Friendly Balances...

Our revolutionary Super Hybrid Sensor (SHS) technology improves response speed, accuracy and minimizes maintenance costs. SHS combines the best of magnetic force restoration and single point parallelogram load sensing technologies. Its unique design provides the fastest response speed in its class—just 1 second! And if the time ever comes when the SHS needs repair, you just replace one of three parts; there is no need to replace the whole sensor! This translates to minimum maintenance costs.



### Super Hybrid Sensor



## Motor-driven Internal Calibration

The GX internal calibration with an internal mass saves time and money. External calibration requires a great deal of skill, time and an expensive external mass. Our internal calibration means there is no downtime while a technician calibrates the balance.

- **Automatic Self Calibration** — Self-calibrates automatically when the balance detects ambient temperature changes.
- **One Touch Automatic Calibration** — Lets you calibrate the balance on demand with just the push of one button.

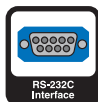


- **Calibration is essential** for accuracy in weighing. For example, in high resolution balances, changes in sensitivity drift can be caused by changes in the ambient temperature. Take the GX 600 for example, the weight might change by  $\pm 0.010g$  with a change of  $10^{\circ}C$ . (Sample's weight: 500g)
- **The GX's internal calibration** mass is adjusted to an "OIML F1 class level." by the standard balance calibrated with an "OIML E2 class level mass". (The GX's internal calibration mass is not "the standard mass for legal metrology" nor "OIML's level of calibration mass." Instead it is the mass for adjustment.)

## Just 1 Second — Ultra Fast Response Speed

- Ultra Fast Response Speed—Just 1 Second. Ideal for installation on filling machines.
- Ultra High Performance with minimum maintenance costs.

## Standard RS-232C



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

## Standard Windows Communication Tools Software WinCT



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.



Provided by end-user



# PRECISION BALANCES

## Splash Proof Keyboard and Display



Dust and spill protection up to IP54 level

## GLP/GMP/GCP/ISO Compliance



Allows GLP or LIMS balance management. 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.

	A & D
MODEL	GX-2000
S/N	01234567
ID	ABCDEFGH
DATE	2003/10/01
TIME	12:34:56
CALIBRATED<INT.>	
SIGNATURE	

## ID Number



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

## Time & Date (GX only)



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

## Commands

Control the balance with a PC using:

- Commands to query weighing data
- Commands to control the balance
- Commands to control the memory function
- Commands to control the comparator function

## Large Square Weighing Pan

Standard on all models:

- 128 x 128mm for 0.001g resolution models
- 165 x 165 mm for 0.01g and 0.1g resolution models

## Data Memory Function (Patent Pending)



Format the Data Memory Function for:

- GX** • 200 sets of weighing data
  - 100 sets of weighing data with Time & Date
  - 50 sets of GLP Data—Time & Date, Calibration Data, ID number and Serial number
  - 20 sets of Unit Weight for Counting Mode
- GF** • 40 sets of weighing data
  - 20 sets of Unit Weight for Counting Mode

## Auto Self Checking

Automatically checks itself when setting the Automatic Adjustable Environment

## Standard Underhook



Ideal for density determination and weighing magnetic substances.



## Density Measurement Function

Picture shown with GX-13 Density Measurement Kit

## Interval Time Setting

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

## Auto Power On Function



Plug it in and it turns itself on without pressing ON/OFF key

## Display Auto Power Off Function



Display turns off after 10 minutes of inactivity (can be disabled)

## Auto Re-Zero Function

Re-Zeroes automatically after data output

## Multiple Weighing Units & Programmable Unit

Uses Programmable or standard units of measure (g, ct, dwt etc.)

## Front Air Bubble Leveling

Easily check the balance's level from the front

## Quick Reference Card

A fast, convenient operating guide installed at the bottom of the balance



## GX/GF Series Specifications

MODEL	GX-200		GX-400	GX-600	GX-800	GX-1000		GX-2000		GX-4000	GX-6100	GX-6000	GX-8000
	GF-200	GF-300	GF-400	GF-600	GF-800	GF-1000	GF-1200	GF-2000	GF-3000	GF-4000	GF-6100	GF-6000	GF-8000
Weighing capacity	210g	310g	410g	610g	810g	1010g	1210g	2100g	3100g	4100g	6100g	6100g	8100g
Minimum weighing value	0.001g						0.01g						0.1g
Repeatability (Standard Deviation)	0.001g						0.01g						0.1g
Other units of measure	Decimal ounce, Troy ounce, Pennyweight, Carat, Momme, Grain unit, Pound, Pound/Ounce												
Linearity	±0.002g			±0.003g			±0.02g				±0.03g	±0.1g	
Stabilization time (typical at FAST)	Approx. 1 second				Approx. 1.5 second			Approx. 1 second				Approx. 1.5 seconds	Approx. 1 second
Sensitivity drift (10°C to 30°C/50°F-80°F)	±2ppm/°C (When automatic self calibration is not used)											±5ppm/°C (auto-self calibration OFF)	
Operating temperature	5°C to 40°C (41°F to 104°F), 85%RH or less (No condensation)												
Sensing method	Super Hybrid Sensor (SHS)												
Display type	Vacuum Fluorescent Display (VFD)												
Display refresh rate	5 times/second or 10 times/second												
Counting mode	Minimum unit mass						0.01g						0.1g
	Number of samples												
Percent mode	Minimum 100% reference mass						1.00g						10.0g
	Minimum 100% display												
Standard serial I/F	RS-232C Interface with Windows Communication Tools (WinCT: included as CD-ROM)												
Weighing pan	128 x 128mm (5.04 x 5.04inch)						165 x 165mm (6.50 x 6.50inch)						
Calibration	Motor-driven Internal Calibration (GX only), External Calibration for GF												
External dimensions	210(W) x 317(D) x 86(H)mm (8.27 x 12.48 x 3.39inch)												
AC adapter	Confirm that the adapter type is correct for the local voltage and power receptacle												
Power consumption	Approx. 11VA (supplied by AC adapter)												
Net weight	Approx. 4.6kg(GX)/3.8kg(GF)						Approx. 5.1kg(GX)/4.3kg(GF)						
NTEP Class II Approved version	GF-200N	GF-300N	-	-	-	-	GF-1200N	GF-2000N	GF-3000N	-	-	GF-6000N	-

Notes: The internal mass is equal to (approximately) 500 grams. Standard breeze break included for GX-200/400/600/800/1000 and GF-200/300/400/600/800/1000

Specifications subject to change without notice.

### Options

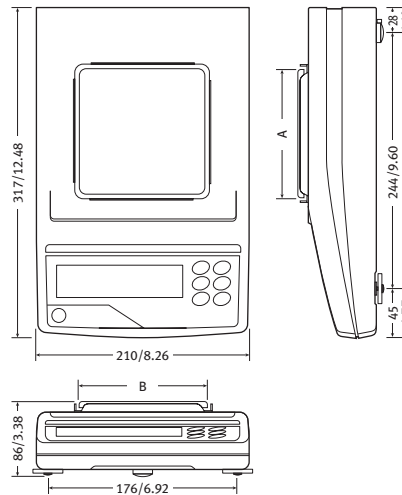
- GX-02\*** Uni-directional USB interface with cable
- GX-04\*** Comparator Output with a Buzzer/RS-232C/Current Loop Output
- GX-06\*** Analog Output/Current Loop Output
- GX-10** Breeze Break for GX-200/400/600/800/1000 and GF-200/300/400/600/800/1000
- GX-11** Glass Breeze Break for GX-2000/4000/6100/6000/8000 and GF1200/2000/3000/4000/6100/6000/8000
- GX-12** Animal weighing pan for all models except GX-200 and GF-200
- GX-13** Density Determination Kit for GX 200/400/600/800/1000 and GF 200/300/400/600/800/1000

\* If selected, only one of option GX-02, GX-04 or GX-06 can be installed (factory installed option).

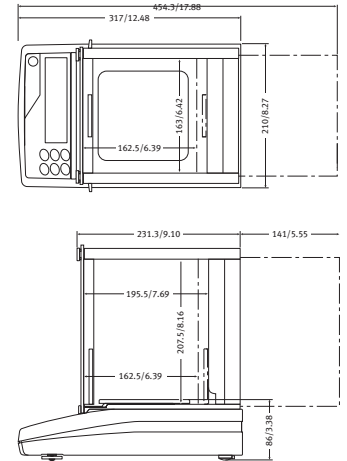
### Accessories

- AD-8121B** Dot Matrix Compact Printer
- AD-8920A** Remote Display
- AD-1682** Rechargeable Battery Unit (Maximum operating time: 8 hours)
- KO:WW9/25** RS-232C Cable (25P-9P)
- SW-128** Foot Switch
- AX-073003691-S** Dust Cover for GX-200/400/600 and GF-200/300/400/600
- AX-073003692-S** Dust Cover for GX-2000/4000/6100/6000/8000 and GF1200/2000/3000/4000/6100/6000/8000

### Physical Dimensions (mm/inches)



### Dimensions With Optional Glass Breeze Break (mm/inches)



### Pan Size (mm/inches)

Model	A	B
GX-200/400/600/800/1000 GF-200/300/400/600/800/1000	128/5.03	128/5.03
GX-2000/4000/6100/6000/8000 GF-1200/2000/3000/4000/6100/6000/8000	165/6.49	165/6.49

