

# TOPLOADER 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.

(An additional benefit of our new SHS is that the GX automatically performs self calibration using the internal mass when the balance detects ambient temperature changes.)

## Super Hybrid Sensor



## Motor-driven Internal Calibration

## 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. With our internal calibration with internal mass, there is no downtime while the 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  $\pm 0.010\text{g}$  with a change of  $10^{\circ}\text{C}$ . (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.



\* On "FAST" setting

Note: USB hub and USB/RS-232C converter must be provided by end-user.



# TOPLOADABLE BALANCES

## Splash Proof Keyboard and Display



Balances protected from dust and spills up to IP54 level

## GLP/GMP/GCP/ISO Compliance



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

```
A&D
MODEL 6K-2000
S/N 01234567
ID ABCDEF
DATE 2003/10/01
TIME 12:34:56
CALIBRATED<INT.>
SIGNATURE
```

## Standard RS-232C



Bi-directional communication with a PC or connects directly to a printer

## Commands



A PC can control the balance by sending commands to the balance.

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

## 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.

## Display Auto Power Off Function



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

## 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

## Time & Date (GX only)



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

## 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

## Auto Re-Zero Function



Re-Zeroes automatically after data output

## Large Square Weighing Pan



Standard large square weighing pan on all models

128 x 128mm for 0.001g resolution models

165 x 165 mm for 0.01g and 0.1g resolution models

## 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

	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		610g		610g		±0.02g								±0.03g		±0.1g				
Stabilization time (typical at FAST)	Approx. 1 second																		Approx. 1.5 seconds		Approx. 1 second				
Sensitivity drift (10°C to 30°C/50°F-80°F)	±2ppm/oC (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) *SHS: Patent issued and pending																								
Display type	Vacuum Fluorescent Display (VFD)																								
Display refresh rate	5 times/second or 10 times/second																								
Counting mode	Minimum unit mass				0.001g								0.01g								0.1g				
	Number of samples				10, 25, 50 or 100 pieces																				
Percent mode	Minimum 100% reference mass				0.100g								1.00g								10.0g				
	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)																								
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 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 versions available on request

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

## Options

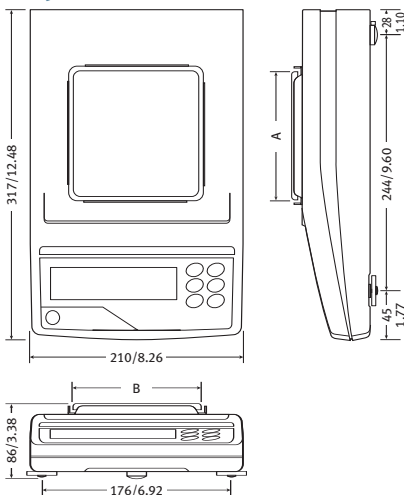
- GX-04\*** Comparator Output with a Buzzer/RS-232C/Current Loop Output
- GX-06\*** Analog Output/Current Loop Output
- GX-10** Breeze Break for GX-200/400/600 and GF-200/300/400/600
- GX-11** Glass Breeze Break for GX-2000/4000/6100/6000/8000 and GF1200/2000/3000/4000/6100/6000/8000
- GX-12** Animal weighing pan for GX-400/600/2000/4000/6100/6000/8000 and GF-300/400/600/1200/2000/3000/4000/6100/6000/8000
- GX-13** Density Determination Kit for GX-200/400/600 and GF 200/300/400/600

\* 04& 06 cannot co-exist \* Factory installed option

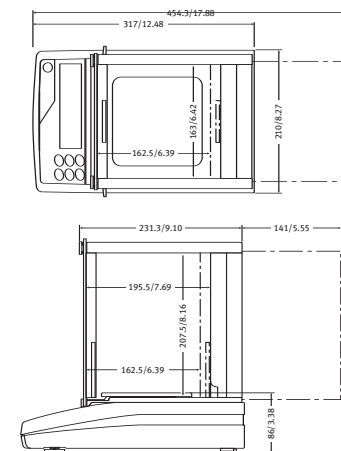
## Accessories

- AD-8121A** Dot Matrix Compact Printer
- AD-8118B** Universal Printer
- AD-8920** Remote Display
- AD-1682** Rechargeable Battery Unit (Maximum operating time: 8hours)
- AX-KO1710-200** RS-232C Cable (25P-9P)
- AX-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	128/5.03	128/5.03
GF-200/300/400/600		
GX-2000/4000/6100/6000/8000	165/6.49	165/6.49
GF-1200/2000/3000/4000/6100/6000/8000		

Approx. 1 second

Specifications subject to change without notice.