Access to **your** success

⊕ **SHIMADZU**

SHIMADZU ELECTRONIC BALANCE

UW/UX Series

Featuring New UniBloc Technology

Easy and Convenient Functions Supplement
Superb Basic Performance

UW Series: Fully automatic calibration model (with built-in calibration weights)
UX Series: Standard calibration model

Rapid Response — Weighing takes just 0.7 seconds (S type)
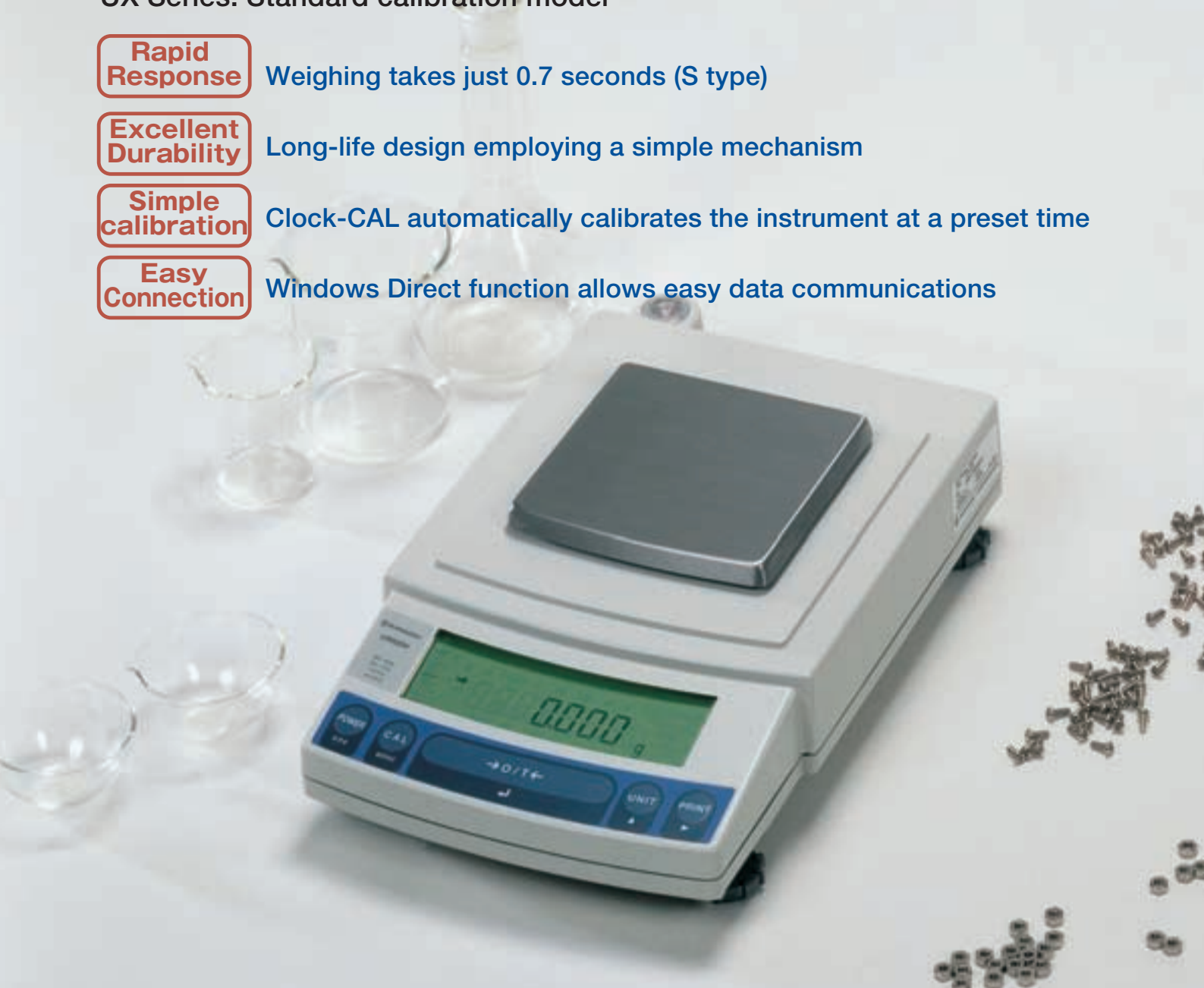
Excellent Durability — Long-life design employing a simple mechanism

Simple calibration — Clock-CAL automatically calibrates the instrument at a preset time

Easy Connection — Windows Direct function allows easy data communications

Great for the Following Applications

**High-precision balances with comprehensive functions
to handle diverse applications**

I want to upload measured data to a PC but installing the software is difficult ....

No software needed, just a single cable!

Windows direct function transmits data to a PC via a single cable. No troublesome procedures required. Achieve remarkable improvements in work efficiency with no additional investment, except for a cable.

Further enhance convenience with the auto print function that automatically transfers data each time a weighed sample is placed on balance.

I always need to weigh accurately but calibrating my balance is tedious........

Easy calibration for every application

Just set a time in the UW Series balance and the instrument automatically calibrates itself at the set time every day, using its built-in calibration weights. Calibration can also be triggered by the temperature-fluctuation sensor. In addition, calibration can be started at any time by a simple key operation.

Sensitivity calibration of the UX Series is simple too. Just place the calibration weights on the balance according to the displayed instructions.
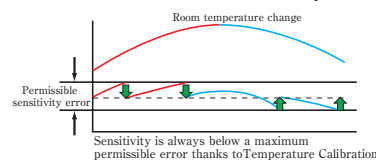

Windows DIRECT — **Windows Direct Function** (Pat. Pending)

Only a single cable is required to transfer balance data to MSExcel®, or other application.
No troublesome interface attachment or software installation is necessary. This unique function makes Shimadzu balances extremely convenient.

Motor-CAL — **One-key Calibration** (UW only) **Auto Touch-key Calibration**

Press just one key to calibrate the balance whenever calibration is needed.

PSC — **Full Auto Temperature Calibration** (UW only) (Pat. Pending)

Detected temperature changes trigger calibration to automatically maintain the balance sensitivity.

Room temperature change

Permissible sensitivity error

Sensitivity is always below a maximum permissible error thanks to Temperature Calibration

Clock CAL — **Clock-CAL** (UW only) (Utility model patent)

This function conducts calibration automatically at pre-set time. Clock-CAL can be set to operate at up to 3 specific times per day. Once you set it, Clock-CAL works everyday, even during holidays.

I need to manage weighing according to international standards.......

Using Shimadzu network-compatible software provides full compatibility with FDA 21 CFR Part11.

Automatic calibration, such as Clock-CAL, ensures accurate weighing at all times. Just connect a printer to automatically output a time- and date-stamped hardcopy calibration report each time sensitivity calibration is complete. Balance ID number can be set internally to identify the balance output on calibration reports.

Authority to calibrate the built-in calibration weight of the balance can be restricted by setting a user password. Adding CLASS-Agent Ver. 2.1-the Shimadzu network-compatible database registration and management tool-provides full compatibility with FDA 21 CFR Part11 (Electronic Records, Electronic Signatures).

I work in a drafty, dark environment........

Display sensitivity adjustable to match the environment

Wind protection is provided as standard on all balances offering 1 mg display accuracy. It is available as an option for other models.

The Auto Zero function is useful in an environment where the TARE key must be pressed for every measurement. It automatically ensures stable tare, printing and data transfer.

The backlit display provides a clear display in dark environments.

But I Have Special Requirements.......

I Have to Weigh a Lot of Valuable Samples Very Accurately

The improved UW/UX Series resolution achieves a minimum display accuracy of 0.01 g for 6 kg or 1 mg for 600 g.

I Need to Weigh Large Objects

The large receptor supported at the corners can easily accommodate large samples sticking out of the pan.

Can I Weigh Living Animals?

The standard animal-weighing mode permits accurate weighing of animals, even moving animals! It allows the next animal to be weighed without cleaning the tray or tare weighing the balance each time. An animal container is available as an option.

I Have to Handle Chemicals

The stainless-steel tray can be easily removed for washing. The metal balance casing is resistant to organic solvents. The balance can be kept clean at all times.

ISO-compatible Calibration Record

Just connect the optional printer to automatically output calibration results, showing who calibrated which balance and when.

Time- and Date-stamped Printouts

The optional printer outputs time- and date-stamps printed data. Calibration results are similarly time- and date- stamped. This feature is perfect for establishing the measuring control and traceability demanded by GLP/GMP/ISO-9000.

Rechargeable Battery Operation

Connect the optional external battery to use the balance outside or anywhere no power supply is available.

Backlit LED Display

The backlit LED display can be clearly read in the darkest of environments

Resolution 1/620,000 Ultimate Resolution

High-resolution models with a resolution of 620 g/1 mg or 6200 g/0.01 g can accurately detect minute changes in a large mass. Ideal for trace mixing and weighing minute changes in mass.

PASS/FAIL Evaluation

When upper and lower limits are preset, the balance indicates if the sample weight is correct (GO), high or low.

Specific Gravity Function

The internal specific gravity calculation function uses the precipitation method. Attaching the optional specific gravity measurement kit allows the balance to be used as a hydrometer

Item Counter

In addition to item counting, the balance handles various unit systems including % weights and carats.

High-precision Balances
for a Wide-range of Applications

I Need to Weigh A Lot of Objects........

Offers Rapid, Stable and Accurate Results

The ultra-fast response reduces operator stress and shortens work time.

UniBloc technology significantly enhances stability and durability. It ensures reliable weighing results over repeated operations.

※If a weighing record is required, the optional auto print function can automatically transfer data to the printer each time a weighed sample is removed from the balance. For compatibility with automated production-line operation, all operations can be controlled from a computer.

UniBloc Technology

UniBloc is a revolutionary new type of mass sensor that further improves on Shimadzu's world-leading aluminum integral mass sensor, the OPF sensor (Japan Patent 19056861995, US Patent 47995611989).

Shimadzu Electronic Balance
UW/UX Series Specifications

UW（with built-in calibration weights）

UW Series Model	UW220H	UW420H	UW620H	UW2200H	UW4200H	UW6200H	UW420S	UW820S	UW4200S	UW8200S
Capacity	220g	420g	620g	2200g	4200g	6200g	420g	820g	4200g	8200g
Minimum display	0.001g	0.001g	0.001g	0.01g	0.01g	0.01g	0.01g	0.01g	0.1g	0.1g
Calibration range with external weights	100-220g	100-420g	100-620g	1000-2200g	1000-4200g	1000-6200g	100-420g	100-820g	1000-4200g	1000-8200g
Repeatability(σ) (g)	≦0.001			≦0.01			≦0.008		≦0.08	
Linearity(g)	±0.002			±0.02			±0.01		±0.1	
Response time(s)	1.5-2.5						0.7-1.2			
Ambient temperature(℃)	5-40									
Temperature coefficient sensitivity(ppm/℃)(10-30℃)	±3						±5			
Pan size(mm)approx.	108×105			170×180			108×105		170×180	
Main body dimensions (mm)approx.	190W×317D×78H									
Weight(kg)approx.	3.4			4.6			3.4		4.6	
Display	LCD with backlight									
Power requirement	12V 1A									
Data I/O	RS-232C									
Features	WindowsDirect　PSC　Clock-CAL　GLP/GMP/ISO conformance Analog display,% display,PCS,User unit,Animal weighing,Specific gravity measurement S/W,Checkweighing									

UX（Standard model）

UX Series Model	UX220H	UX420H	UX620H	UX2200H	UX4200H	UX6200H	UX420S	UX820S	UX4200S	UX8200S
Capacity	220g	420g	620g	2200g	4200g	6200g	420g	820g	4200g	8200g
Minimum display	0.001g	0.001g	0.001g	0.01g	0.01g	0.01g	0.01g	0.01g	0.1g	0.1g
Calibration range with external weights	100-220g	100-420g	100-620g	1000-2200g	1000-4200g	1000-6200g	100-420g	100-820g	1000-4200g	1000-8200g
Repeatability(σ) (g)	≦0.001			≦0.01			≦0.008		≦0.08	
Linearity(g)	±0.002			±0.02			±0.01		±0.1	
Response time(s)	1.5-2.5						0.7-1.2			
Ambient temperature(℃)	5-40									
Temperature coefficient sensitivity(ppm/℃)(10-30℃)	±3						±5			
Pan size(mm)approx.	108×105			170×180			108×105		170×180	
Main body dimensions (mm)approx.	190W×317D×78H									
Weight(kg)approx.	2.7			2.9			2.7		2.9	
Display	LCD with backlight									
Power requirement	12V 1A									
Data I/O	RS-232C									
Features	WindowsDirect　GLP/GMP/ISO conformance Analog display,% display,PCS,User unit,Animal weighing,Specific gravity measurement S/W,Checkweighing									

Option	Peripherals	Catalog No.
UW/UX series	Electronic Printer EP-50 100V(including AC adaptor for 100V)	321-34986
	Electronic Printer EP-50	321-34986-80,320-03692(AC Adapter 120/220V)
	Electronic Printer EP-60A 100V(including AC adaptor for 100V)	321-42008-10
	Electronic Printer EP-60A	321-42008-90,074-83004-01(AC Adapter 100/240V)
	RS-232C Interface IFB-102A(needed only for multiple connection)	321-41167-10
	Small Size Windbreak(for models with capacity of 300g to 620g only)(Std.Acc.for models with readability of 0.001g)	321-60575
	Large Size Windbreak(for all models)	321-53537
	Specific Gravity Measurement Kit SMK-101(for Large size pan 170×180mm)	321-60576-01
	Specific Gravity Measurement Kit SMK-102(for Small size pan 108×105mm)	321-60576-02
	Protective in-use cover for large-pan models(with capacity of 3000g and up)(5 pcs)	321-61228
	Protective in-use cover for small-pan models(with capacity of 300g to 620g)(5 pcs)	321-61229
	Angle Adjuster and Wall Hook for Remote Display	321-55953
	Stand for Remote Display(1m high)	321-55954-01
	Comparator Lamps 100V(needs IFB-RY1)	321-60112
	Interface for comparator IFB-RY1 100V	321-54026
	Foot Switch FSB-102PK(For printing)	321-60110-11
	Foot Switch FSB-102PK(For taring)	321-60110-12
	RS-232C Cable, forIBM PC/AT Compatibles,(25P-9P,Null modem. 1.5m)	321-60117-01
	RS-232C Cable,for multiple connection(25P-25P,Null modem,1.5m)	321-60116-01
	Battery Pack 100V	321-61691-02
	Application Keyboard AKB-301	321-53382-01
	Remote Display Unit RDB-201 with operation keys	321-53600-01
	Remote Display Unit RDB-202	321-53600-02

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