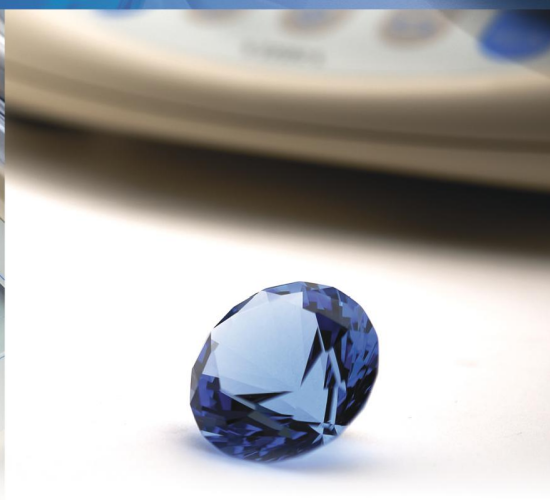




# Tuning-Fork Balances AJ series



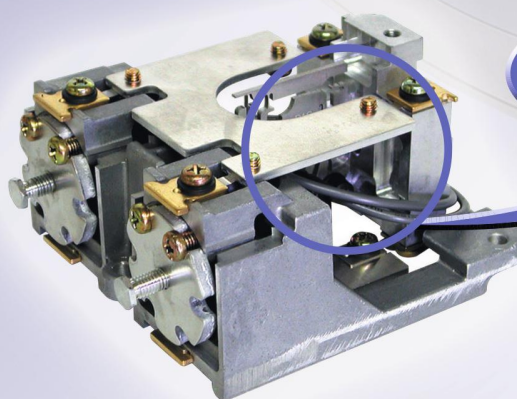
Tuning-Fork Sensor Technology for  
high performance super-precision balances !



# Equipped with latest MMTS for incredible 1/620,000 resolution!

## MMTS- An evolution in the fundamental qualities of measurement

The MMTS (Mono-Metal Tuning-Fork Sensor) ensures high performance, solid noise resistance, rapid response, and a steady display with little flickering. Moreover, its energy-saving design and simple structure result in excellent long-term stability and outstanding durability.



MMTS  
(Mono-Metal Tuning Fork Sensor)

Loaded in AJ220E~ 1200E/AJ220E~ 620E

## Tuning-Fork Sensors

*-taking us billions of light years ahead*

Shinko Denshi's Tuning-Fork Sensors are used as high-precision, super-durable force sensors in the primary mirror control systems of Subaru, the world's largest optical telescope.

## A full line-up of solutions for your needs



AJ-220E~620E



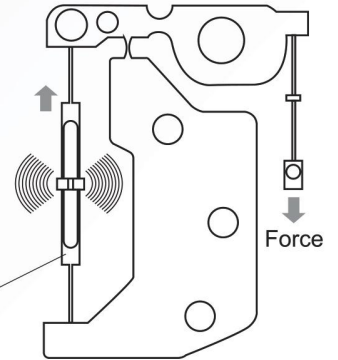
AJ-1200E~12000E



Loaded in AJ2200E~12KE/  
AJ2200E~4200E

### What makes the Tuning-Fork Sensor so precise?

The Tuning-Fork Sensor measures force or mass by gauging changes in oscillation frequency when a load is applied to a long, narrow vibrator. The reading output is digital.



Tuning-Fork Vibrator

Unlike load cell or electromagnetic systems, the Tuning-Fork Sensor does not rely on material distortion, electromagnetic force, heavy power consumption, or A/D converters. As a result, the inherent margin of error is extremely small, and high precision can be maintained for a long time.

### Comparison with other sensors

	Tuning-Fork	Load cell	Electromagnetic
Long-term stability (span drift per year)	1/200,000	1/10,000	1/50,000
A/D converter	Unnecessary (digital output)	Necessary (analog output)	Necessary (analog output)
Power consumption	Minute (1/10 of Load cell)	Low	High
Noise-proof	High	Low	Middle
Warm up	Unnecessary	Necessary	Necessary

### Innovative design in a compact body (patent pending)



AJ-820E/ 1200E

### Options for modes and units

Users can select from 3 modes (weight, unit count, and percentage) and from 2 units of weight.

weight



percentage



quantity



Weighing units : g & ct

### Comparator function

Users can tell at a glance whether a load is too heavy, too light, or the right weight according to the upper/lower weight limits they preset.



### Quick-assembly shield

The sturdily constructed, fastener-free shield can be easily assembled or removed, making cleaning and storage simple.

### Bar graph display

A 20-step bar graph display readily indicates the current load's weight against the capacity.



### RS-232C interface (standard feature)

This interface allows users to connect the balance with a computer or print out.

## Technical Specifications

Model	AJ-220E	AJ-320E	AJ-420E	AJ-620E	AJ-820E	AJ-1200E	AJ-2200E	AJ-3200E	AJ-4200E	AJ-6200E	AJ-8200E	AJ-12KE
Capacity	220g	320g	420g	620g	820g	1200g	2200g	3200g	4200g	6200g	8200g	12000g
Readability	0.001g	0.001g	0.001g	0.001g	0.01g	0.01g	0.01g	0.01g	0.01g	0.01g	0.1g	0.1g
Repeatability(s)	0.001g	0.001g	0.001g	0.001g	0.01g	0.01g	0.01g	0.01g	0.01g	0.01g	0.1g	0.1g
Linearity(typ.)	±0.001g	±0.001g	±0.001g	±0.002g	±0.01g	±0.01g	±0.01g	±0.01g	±0.01g	±0.02g	±0.1g	±0.1g
Pan size	ø118mm				170x142mm			180x160mm				
Dimensions	235x182x165mm(including windshield)				235x182x75mm			265x192x87mm				
Weighing units	g, ct											
Power source	AC 230V DC9V											
Output	RS-232C(standard)											
Measuring system	Tuning-Fork Frequency Sensing(MMTS)											
Tare	Full weighing range											
Calibration	With external calibration weight											
Display	LCD(height: 16.5mm)											
Modes	weighing, counting, %											
Weight	Approx. 1.3kg						Approx. 3.7kg					

## Optional Accessory

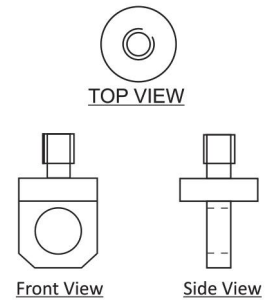
### Remote Display



### Charger with Battery (12V/1.3Ah)

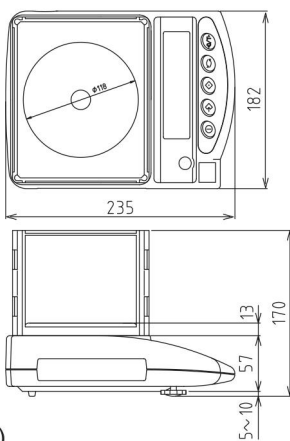


### Weigh Below Hook

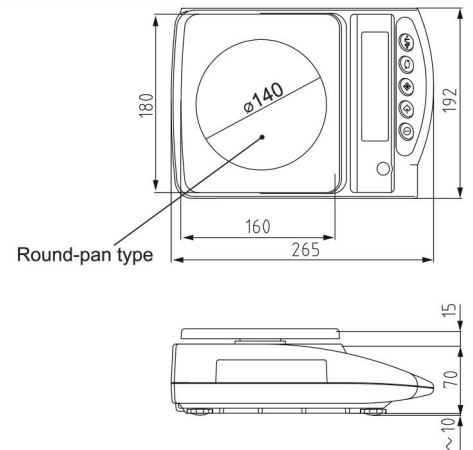
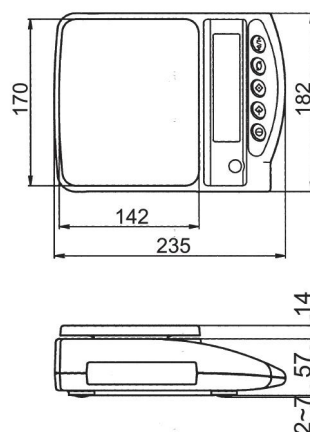


Used for capacity 220g, 320g, 420g, 620g, 820g and 200g

## Dimensions



(unit : mm)



Manufactured by: **Shinko Denshi Co.,Ltd.,Japan**

Marketed By:

**Essae-Teraoka Pvt. Ltd.**

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