



Industrial balance with  
GLP and density formulation

*Technical Specification*

*ZK840 9" x 12" (230 x 305 mm)  
programmable indicator*

## DESCRIPTION

This balance application combines the outstanding accuracy offered by our Quartzell™ technology, with the strength of our BSQ base. Benefit from 1100% overload protection and full side load and shock load protection along with commonly used balance features including a wide range of supervisor selectable units of measure, high resolution mode, Good Laboratory Practice (GLP), percentage weighing and density formulation.

This ZK840 balance provides technicians and operators with comprehensive, accurate weight data analysis without the worry of damaging the balance.

This balance software allows the scale to be used in multiple applications from laboratories to production line quality assurance stations around a factory.

### **Wide range of accessible units of measure**

The ZK840 balance application allows a much larger number of commonly used units of measure to be accessed and activated through the supervisor menu.

### **Density formulation**

Designed to automatically calculate and record density formulations for better time management.

### **Good laboratory practice (GLP)**

Allows accurate data to be recorded based on known calibration records or the ability to regularly recalibrate prior to carrying a set weighing procedure. GLP recalibration can easily be achieved through supervisor access menus.

### **High resolution mode**

This mode allows the balance to operate in high resolution (a factor of x10) for 5 seconds before returning back to normal weighing resolution.

### **Percentage weighing**

A graphical data line helps to identify any percentage weight gain or loss of a substance being measured.

### **Percentage recipe mixing**

Ideal for a wide range of mixing applications where all the ingredients are measured based off a percentage of the core ingredient.

BALANCE AND DENSITY FORMULATION APPLICATION

Application	To be downloaded from Ztools library by a fully trained technician
Display Screens	Display screens have been designed to simplify application with step by step prompts



Density formulation



General weighing



Percentage recipe

Visual Display Aids	Percentage bar graph
Operational Keys	Subject to configuration, basic keys being: zero, tare, print,info, units of measure, high res, GLP, target, Advanced keys: operator I.D., clear, reset, data entry

<b>GLP</b>	Can be carried out manually prior to operation or set based off a timer or daily requirements. The data that can be recorded or printed out for a test is as follows: <ul style="list-style-type: none"> <li>› Manufacturer of the scale</li> <li>› Model</li> <li>› Serial Number of the scale</li> <li>› ID number of the scale</li> <li>› Time of calibration</li> <li>› Date of calibration</li> <li>› Calibration type (External)</li> <li>› Calibration Weight</li> <li>› Signature</li> </ul>
<b>Units of Measure</b>	Four can be selected through the front panel if activated within the supervisor menu Fixed selectable units of measure : lb, kg , grams , oz Custom units of measure: Troy ounce, Metric Carat, Momme, Pennyweight, Grain (UK), Tael (HK general, Singapore), Teal (HK jewellery) Teal (China), Tola (India), Messghal (Iran) which all have their custom conversions listed in the user manual
<b>Density Formulation</b>	Designed to easily calculate a density of a known object by first weighing in air and then in a known solution, the ZK840 gives clear step by step prompts before automatically calculating the density of the object being weighed
<b>High Resolution</b>	Designed to give x10 extra resolution for 5 seconds
<b>Percentage Weighing</b>	Designed to easily measure and record any percentage weight gain or loss off a substance being weighed
<b>Percentage Recipe Mixing</b>	Designed to accurately measure out ingredient by percentage based off the core ingredient
<b>Data Capture and Reports</b>	A wide range of data can be quickly generated and printed or transferred to a known PC application to allow further data analysis
<b>Tare Entry</b>	Push button tare, manually entered tare, pre-stored tare found within the PLU data base
<b>Base Sizes and Capacities</b>	Three base sizes ranging from 2lb to 175 lb or 1 kg to 80kg ( <i>please refer to our ZK840 counting specification sheet</i> )
<b>Legal for Trade</b>	10,000 d single or multi-interval class III down rangeable ( <i>each with three ranges of 10,000 d</i> )
<b>Non Legal for Trade</b>	100,000 d single or multi-interval ( <i>down rangeable based on current ZK840 capacity offerings</i> )
<b>Readability</b>	3.5 million divisions
<b>Digital Filters</b>	Harmonizer filtering with adaptable constant filtering
<b>Indicator Display</b>	Touch screen with protective screen cover. Display type is an Improved Super Twisted Nematic (ISTN) Graphic Display: the green illuminated with black background 320 x 160 pixel display provides wide viewing angles and high brightness. On screen messaging, user prompts and graphics can be displayed on screen. A mode selection allows the image to be displayed in reverse image for applications that would benefit from dark characters with a clear/light contrasted background.



<b>Operator Keys</b>	ZK840 uses a touch screen display with six metal domed keys with audible feedback ( <i>sample, tare, zero, setup, two custom keys</i> )
<b>INPUT/OUTPUT</b>	
<b>Remote Inputs</b>	Three TTL or voltage free logic level inputs can be received for basic key functions or application program events
<b>Standard Outputs</b>	Three outputs can be used for system variable set points or in combination with application program events

<b>Serial Ports</b>	<p>(2) Two serial ports:</p> <ul style="list-style-type: none"> <li>› Comm 1 RS232 full duplex with handshake</li> <li>› Comm 2 RS232 full duplex</li> </ul> <p>Manual and Auto print function</p> <p>Printer and scanner can share one RS232 port, with a custom application</p> <ul style="list-style-type: none"> <li>› Supports SMA, ENQ and NCI command response protocols and broadcast</li> <li>› Supports BSQ digital bench bases</li> <li>› Supports External expansion box for allowing other external option cards</li> </ul>
<b>USB /VCP (Device)</b>	PC Connection <i>(uses one of the RS232 ports)</i>
<b>USB Side Host</b>	<p>(2) Two USB host ports <i>(found on the side of the indicator)</i> can be used for:</p> <ul style="list-style-type: none"> <li>› USB flash memory</li> <li>› Remote USB keyboard</li> <li>› Scanner</li> <li>› Printer</li> </ul>
<b>Ethernet</b>	The Ethernet port can be configured to support ten independent devices. It supports DHCP, UDP Sockets, TCP/IP (client or server), embedded web server, email, SMA, NCI, FTP, ENQ and Broadcast. Fieldbus Ethernet/IP™ and Modbus-TCP
<b>Expanded Memory</b>	Internal expanded data storage can hold up to 4GB extra storage data , ZK840 has one Micro SD slot that is compatible with most Micro SD cards from 4GB to 32GB
<b>Options and Approvals</b>	For full list of options please refer to the main ZK840 counting specification sheet (AWT35-501705)
<b>Embedded Web Server</b>	Designed to allow the ZK840 to serve up web pages to a web browser for easy access of data and control from other PC, tablet or mobile data devices
<b>Application Platform</b>	This application program has been specially designed to work on both the ZK840 bench scale and ZM615 weight indicator



## Avery Weigh-Tronix

[www.averyweigh-tronix.com](http://www.averyweigh-tronix.com)

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zk840 balance\_Spec\_501708.indd  
V1 AWT35-501708