

## Ohaus Explorer Analytical Balances

The Ohaus Explorer Series of analytical balances combine modern features and design elements to offer unmatched functionality in a line of high-performance balances unlike any other on the market. These smart and intuitive balances and all their intelligent features simplify even the most complex laboratory measurements.

Explorer balances increase operational efficiency by offering features such as a large colour touchscreen and intuitive user interface, large weighing pans, multiple connectivity options and 14 weighing applications.

The balances are durably constructed and offer capacities up to 320g, readability of 0.0001g and provide exceptional weighing performance for applications requiring high accuracy and repeatability.



### Key features:

- ◆ Equipped with a weighing cell that's precision-machined from a solid metal block, Explorer balances are extremely accurate and durable, therefore ideal for laboratory and industrial environments
- ◆ Features such as four-level user management with password protection, alongside un-editable system log plus a high level of configurability make Explorer balances well-suited for regulated applications
- ◆ A detachable terminal with a large colour touchscreen, programmable IR sensors, automatic doors, and a frameless draftshield make Explorer analytical balances easy and convenient to use

### Weighing Performance

OHAUS' signature AutoCal™ internal calibration system ensures the balance is always ready for use. It eliminates the need for manual routine calibration and eliminates the need to maintain external calibration weights. Additionally a built in Repeatability Test helps evaluate the balance's performance and aids in determining a suitable minimum weight for applications requiring high accuracy.

## Connectivity

Explorer balances provide a variety of communication interfaces such as RS-232, USB, and Ethernet, allowing accessories such as printers and barcode scanners to be connected to the balance. A simple yet complete communication protocol allows Explorer balances to be easily connected to a PC or integrated with larger systems.

## Data Management

Explorer balances are equipped with internal databases which can be used to store, manage, and retrieve application and system data. An internal weighing mode library allows saving and loading of weighing mode configurations. A system event log records changes to the balance's settings, calibrations and adjustments, and user access. System logs can be exported as a non-editable PDF file and saved onto a USB memory stick. A built-in real time clock ensures that the data captured is contemporaneous.

## User Management

A simple yet effective user management system allows a system administrator to create up to 110 users and assign them to 1 of 4 pre-existing groups with varying access rights to the balance and enforce password policies. This provides security and allows Explorer balances to be used in multi-user workplaces and ensures that non-authorized users cannot change the balance's setup.

## Efficient Operation

Explorer balances are easy to setup and use. They feature a large colour graphic touch screen and intuitive user interface and can operate in 14 different languages. Additional features such as a detachable terminal and multiple programmable touchless sensors allow the user to initiate balance functions such as zero, tare, print, automatically open draftshield doors\*, and more.

\*(on models equipped with motorized draftshield doors only)



## Draftshield

Explorer's draftshield provides ample access and visibility to the weighing chamber through the versatile top door and side sliding doors. Select models feature motorized side doors that open and close automatically with use of the touchless sensors on the base and display.

- ◆ The automatic draftshield door models have a new function for automatically opening draftshield doors without touching the balance. It helps to eliminate sample residue transfer and contaminations
- ◆ Side doors seamlessly glide on top-mounted bearings
- ◆ The versatile top door offers two entry options; access the weighing chamber by flipping the top door or sliding the glass panel open
- ◆ The expansive side entry 6.3" x 9.4" (160 mm x 240 mm) allows the user to freely place and remove large weigh boats or other large vessels in the weighing chamber
- ◆ Antistatic coated glass helps dissipate static charges in the weighing chamber which could adversely affect the weighing results
- ◆ Easy to install and remove glass panels and a stainless steel bottom make Explorer extremely easy to clean
- ◆ A draftshield chamber light is available when the balance is used in low lighting environments



## Touchless Sensors

Explorer features up to four touchless sensors for hands-free operation of zero, print, calibration, tare, automated draftshield doors and other selectable functions:

- ◆ Hands-free operation improves weighing efficiency, eliminates sample residue transfer and minimises contamination
- ◆ Two sensors on the base and two on the display can be set up individually to allow for remote operations
- ◆ The sensors can be set up to provide automated operation of the draftshield side doors and can be programmed to automatically open the opposite side door to support efficient and logical sample placement with your free hand



## Intelligent Calibration

AutoCal™ ensures performance and assists with routine maintenance by automatically calibrating the balance daily.

- ◆ Self-calibrates the system when it senses a temperature change sufficient to effect weighing accuracy, or every 3-11 hours, depending on the user configuration
- ◆ Performs routine calibration and reduces the need for external masses
- ◆ External calibration models available



## Intuitive User Set Up

Explorer is an easy-to-use balance, featuring levelling assistance and instructional messaging for quick out-of-the-box setup and use.

- ◆ Easy to view illuminated level indicator placed at the front of the balance
- ◆ Adjustable thumbwheels are easy to turn to level the balance
- ◆ Level assist screen helps users quickly identify which thumbwheels need to be adjusted to level the balance
- ◆ Data Transfer Function helps to output data directly into Microsoft Excel
- ◆ Instructional messaging during application use guides users through the weighing process
- ◆ User information menu allows users quickly view and learn more about the available balances features
- ◆ Up to 14 operating languages make the Explorer's Intuitive User Setup truly universal



## Modular Design

Explorer's modular design features a color touch display that can be separated from the weighing base.

### Display features:

- ◆ 3 position, angular adjustment to optimise viewing
- ◆ Easy access communication ports include standard USB and RS232, and an optional third port for either RS232 or Ethernet
- ◆ Left and right side cable exit feature for customised installation capability
- ◆ Tower and wall mount ready for modular installation
- ◆ In-use cover for protection against rugged use
- ◆ Extension cable accessory extends remote use up to 9 metres



### Base features:

- ◆ Quadrastance™ design with four adjustable thumbwheels provides superior stability
- ◆ Robust die-cast metal bottom housing
- ◆ Accessory tower mount ready for modular installation
- ◆ Cable storage system underneath base, keeping excess cables manageable

### Practice approvals

Explorer series of balances meet or exceed the Class I or II accuracy requirements in accordance with NIST Handbook 44 and Canada's Weights and Measures Regulations. Certificate of Conformance Number 12-012 was issued under the National Type Evaluation Program (NTEP) of the National Conference on Weights and Measures. Notice of Approval AM-5847 was issued by Measurement Canada, an Agency of Industry Canada.

### Other standard features and equipment

Menu lock switch, security bracket, integral weigh below hook for below balance weighing applications, removable stainless steel weighing pan, stability indicator, overload and underload indicators, auto standby.

## Explorer Application Software

The OHAUS Explorer's advanced applications simplify even the most complex laboratory measurements. Whether it's determining the difference between initial and residual weights or calculating the density of solids and liquids.

Explorer eliminates the need for time consuming manual calculations and data logging. The high-resolution display and innovative user interface make balance setup and application use effortless.



*Displays your current application. One-touch drop down menu shows additional application choices*

*Touch to change your application settings*

*Quickly store and recall your library data of regularly used items*

*Need help? Just tap the Info button for built-in assistance*

*Battery life indicator when powered by optional battery pack (for High Capacity models only)*

*Press the weighing unit to change the unit of measure (activate in Weighing Units menu)*

*Fill and capacity bar indicators assure you are always in range (indicators vary by application)*

*Soft keys are application specific*

*Press Menu to choose applications, change user settings, balance setup and much more!*

*Easy-to-follow text prompts tell you what to do next*

*Large weigh results can be viewed at any angle*

*Results area shows pertinent application information (varies by application)*

*Seven quick keys make balance operation a breeze!*

Fill Status	0	80.7%	110
Diff. (wt.):	-19.33 g	Target:	100.00 g
Diff. (%):	-19.3 %		

## Standard Apps



### Weighing

Determine weight of items in the selected unit of measure. Minimum weight feature is also available.



### Percent Weighing

Measure the weight of a sample displayed as a percentage of a pre-established Reference Weight.



### Dynamic Weighing

Weigh an unstable load. Balance takes an average weight over a time period.



### **Totalisation**

Measure cumulative weight of multiple items. Cumulative total may exceed balance capacity.



### **Differential Weighing**

Store sample weights and calculate the difference between initial weights and final weights.



### **Peak Hold**

Capture and store highest weight in a series. Both stable and unstable weights are captured.



### **Parts Counting**

Count samples of uniform weight. Choose Standard Counting, Check Counting, or Fill Counting.



### **Pipette Adjustment**

Check pipette values by weight analysis, with built-in water density table.



### **Check Weighing**

Compare the weight of a sample against target limits. Choose from Standard, Nominal-weight, or Nominal-percent.



### **Filling**

Fill a container to a target weight. Progress bar displays filling status.



### **Formulation**

For compounding and recipe making. The number of components can be from 2 to 99.



### **Density Determination**

Determine density of solids denser than water, solids less dense than water, liquids, or porous material.



### **Ingredient Costing**

Determine cost of formula or recipe based on known cost or quantity of components or ingredients.



### **SQC**

Monitor and/or control processes to eliminate under and over filling.



Model	EX124	EX124/AD	EX224	EX224/AD	EX324	EX324/AD
Certified Model	-	-	EX224M	EX224M/AD	EX324M	EX324M/AD
Capacity	120g	120g	220g	220g	320g	320g
Readability	0.0001g					
Verification Interval*	-	-	1mg			
Class*	-	-	I			
Repeatability std	± 0.0001					
Linearity	± 0.0002					
Stabilisation Time	≤ 2				≤ 3	
Sensitivity Drift (ppm/°C)	1.5					
Typical Min-Weight (USP u=0.10%,k=2)	0.12g					
Optimized Min-Weight (USP, u=0.10%, k=2) SRP***≤0.41d	0.082g					
Typical Min-Weight (u=1%,k=2)	0.012g					
Weighing Units	Gram, Milligram, Kilogram, Carat, Ounce, Ounce Troy, Pound, Pennyweight, Grain, Newton, Momme, Mesghal, Hong Kong Tael, Singapore Tael, Taiwan Tael, Tical, Tola, Baht, Custom Unit 1, Custom Unit 2, Custom Unit 3					
Weighing Units (Approved Models)	-	-	mg, g, ct			
Weighing Units	Weighing, Percent Weighing, Parts Counting, Check Weighing, Dynamic/Animal Weighing, Filling, Totalization, Formulation, Differential Weighing, Density Determination, Peak Hold, Ingredient Costing, Pipette Adjustment, SQC					
Pan Size	∅ 90 mm					
Calibration	External calibration & AutCal internal calibration					
Tare Range	To capacity by subtraction					
Power Requirements	AC Adapter Input: 100-240 VAC 0.6A 50-60 Hz					
Display Type	Full-color VGA graphic display, 4-wire resistive touch screen					
Display Size	145 mm (diagonal)					
Display Housing (W x H x D)	195 x 90 x 154 mm					
Base Housing (W x H x D)	230 x 350 x 393 mm					
Communication	Standard RS232, 2x USB, Optional 2nd RS232 or Ethernet					
Temperature Range	10°C to 30°C					
Humidity Range	15% to 80% at 30°C decreasing linearly to 50% at 40°C, non-condensing					
Storage Conditions	-10°C to 60°C at 10% to 90% relative humidity, non-condensing					
Net Weight	6.9 kg					
Shipping Weight	9.6 kg					
Shipping Dimensions	55 x 38.5 x 55.1 cm					

\* Only applicable to certified models

\*\* AD models are advanced models with Automatic Doors (Draftshield)

