



Defender™ 5000

Square Semi-Washdown Scales



Smart Functionality, Durability, Ohaus Quality and Value

The OHAUS Defender™ 5000 Series is a feature-rich line of bench scales, combining an ABS plastic T51P indicator with square, all-stainless steel washdown base and a stainless steel column. Ideal for production, packaging and general commercial and industrial weighing applications where full washdown protection of the base is required, the Defender 5000 offers a multifunctional indicator with multiple weighing units and software modes to meet the requirements of industrial and lab applications. With rugged construction, comprehensive yet intuitive software and multiple connectivity options, the Defender 5000 can meet the needs of demanding industrial operations.

Standard Features Include:

- Painted steel base with ABS indicator
- 10,000-12,500d default resolution
- Quick display of results using large LCD with high-contrast white backlight
- Temporary display of 10x readability in weighing mode using quick key press
- Easy to operate with 4-key membrane keypad with raised tactile keys
- Weighs in one or more units: kg, g, lb, oz, lb:oz (decimal), tonnes and user-definable custom unit
- Multiple weighing modes including Counting, Percent Weighing, Dynamic/Animal Weighing, Checkweighing, and Display Hold
- Internal power supply with universal line cord or 6 "C" batteries (80 hour battery life) – optional NiMH internal rechargeable power pack available
- Includes RS232 interface with GMP/GLP data output including date and time
- Base and indicator connected using quick connect plug
- Optional interfaces include DC relay control kit, AC relay control kit, 2nd RS232 and RS485/422

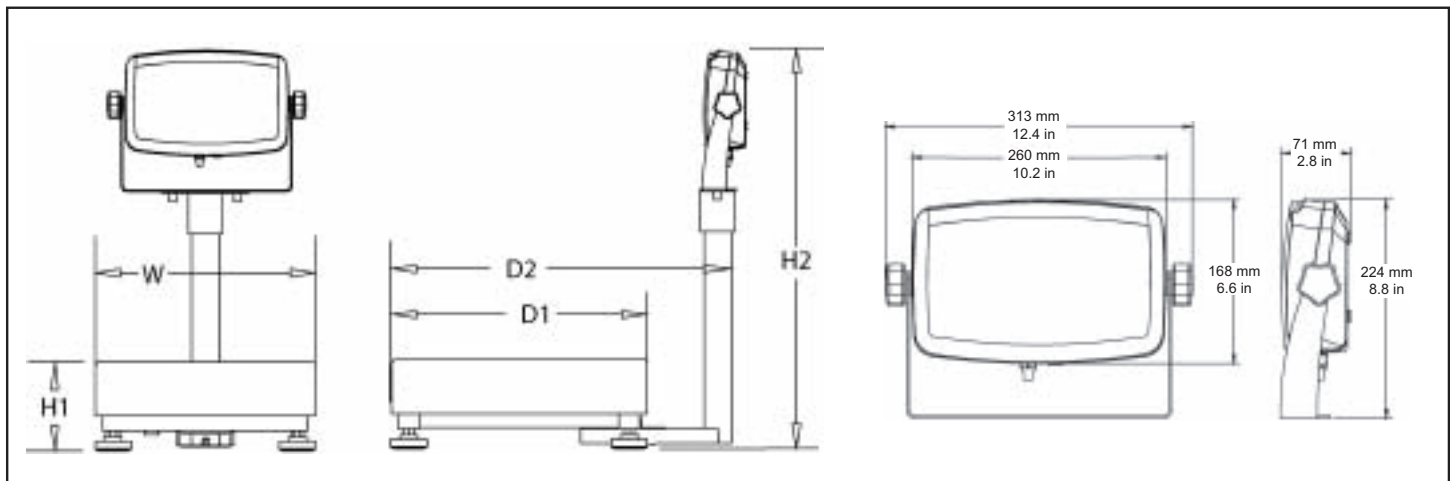
Defender™ 5000 Square Semi-Washdown

The Defender 5000 Offers Multiple Features and Easy Configuration:

To meet different operational needs, the Defender 5000 includes a suite of configurable software:

- Counting mode for packaging and inventory control, enabling counting into a container or out of a container for bulk operations. Supports a maximum counting resolution to 1:300,000 (minimum APW equal to 0.1d), selectable auto-optimization of average piece weight (APW). APW data can be displayed at any time using a quick key press
- Percent Weighing mode for formulation and mixing applications, with display of reference weight with quick key press.
- Dynamic/Animal Weighing with selectable weigh times from 0-60 seconds
- Checkweighing function for packaging and weight checking, with display of results using LCD display and red/yellow/green LEDs. Audible beeper can be configured to prompt when weight is within range, under, over, or under or over range. Target weight values can be displayed at any time using a quick key press
- Display Hold mode for weighing large packages holds last stable weight on display until cleared
- The Defender 5000 weighs in one or more user-selectable units: kg, g, lb, oz, lb:oz (decimal), tonnes and user-definable custom unit
- Supports GMP/GLP data output with date, time user ID, project ID and scale ID. The Defender 5000 features selectable print options for data and print format
- To limit operator access to functions, the Defender 5000 offers both software lockouts for menu items as well as individual key functions

Outline Dimensions



Standard Features:

3-Color LED Checkweigh Indication
with configurable beeper alert

High-Visibility LCD Display
with bright white LED back-
light and fast display stable
weight within 2 seconds

**Internal Slot for Capacity
Label** Protects label from
the effects of moisture
and external environments

Reversible Rear Housing
Cables can exit above (table or front scale
mounting) or below (wall or bench scale
mounting) for convenient mounting. Front
scale mounting with available accessory.
Internal structural ribs provide strength and
minimize flexing.

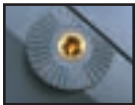
Simple Plug-In Battery Installation



Use six C-alkaline
batteries or the
optional NiMH
battery

Included Table/Wall Mount Bracket

With large ergonomic adjustable knobs
to maximize viewing angles. A ratchet-type
angle adjustment with metal inserts ensure
that viewing angles are set
securely, and last a long time
even with frequent adjustments



Universal Switching Power Supply



100-240 VAC with AC line
cord; no need for an
external AC adapter!

Stainless Steel Columns

Available in both short and tall lengths

Fully Adjustable Feet

Four rugged, adjustable feet
help prevent slippage on
wet or uneven surfaces



Stay Connected

Built in RS232 bi-directional interface and
external input, optional RS422/485, optional
second RS232 and optional AC or DC relay

One-Key, Multiple Mode Selection

Counting, Dynamic Weighing,
Display Hold, Percent Weighing
and Checkweighing

Plug-in Load Cell Connector

Allows for simple connection to Defender bases or
directly to terminal block.



Durable Base Frame Construction

Stainless steel pans and form-and-
weld frames (R, L bases) provide
maximum durability, rigidity and
structural integrity. Load-unload cycle
tested to ensure long-
term performance.



Options and Accessories

Interface Options

	OHAUS Number
AC Relay Kit	80500720
DC Relay Kit	80500727
RS422/485 Interface Kit	80500731
Second RS232 Interface Kit	80500733
Foot Switch	71173378

Power Options

Rechargeable Battery Kit, T51P/T51XW	80500729
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Other Accessories

RS232 Cable to SF42 Printer	80500571
RS232 Cable to PC 25-pin	80500524
RS232 Cable to PC 9-pin	80500525
Compact Impact Printer, 42 Column	SF42
Paper for SF42 printer (5 pack)	12101511
Ribbon for SF42 printer	12101512

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Specifications

Model	D51P10WR3	D51P25WR3	D51P50WL4	D51P100WL4	D51P250WX4
Capacity (max) x Default Readability (d)	25lb x 0.002lb 400oz x 0.05oz 25lb : 0.05oz 10kg x 0.001kg 10000g x 1g	50lb x 0.005lb 800oz x 0.1oz 50lb x 0.1oz 25kg x 0.002kg 25000g x 2g	100lb x 0.01lb 1600oz x 0.2oz 160lb : 0.2oz 50kg x 0.005kg 50000g x 5g	250lb x 0.02lb 4000oz x .5oz 250lb : .5oz 100kg x 0.01kg 100000g x 10g	500lb x 0.05lb 8000oz x 1oz 500lb : 1oz 250kg x 0.02kg 250000g x 20g
Maximum Displayed Resolution	1:12500	1:12500	1:10000	1:12500	1:12500
Indicator Model	T51P				
Column	13.8 in / 350 mm stainless steel		26.8 in / 680 mm stainless steel		
Construction	ABS plastic indicator, stainless steel removable weighing platform and loadcell, painted steel column and base construction				
Safe Overload Capacity	150% of maximum capacity				
Protection	Dry use for indicator, IP67 loadcell				
Weighing Units	lb, oz, lb:oz, kg, g, custom unit				
Modes	Static Weighing, Dynamic Weighing, Counting, Checkweighing, Percent Weighing, Display Hold				
Display	1 in / 25mm high 6-digit, 7-segment bright white backlit LCD				
Keyboard	4-button membrane switch				
Stabilization Time	Within 2 seconds				
Auto-zero Tracking	Off, 0.5, 1 or 3 d				
Zeroing Range	2% or 100% of capacity				
Calibration	Span: 1kg or 1lb to 100% of capacity / 3-point linearity (0-50% – 100% fixed)				
Power	100-240 VAC / 50-60Hz internal universal power supply / 6 'C' cell batteries (not supplied) with 80 hour life				
Interface	RS232 and external tare Input				
Operating Temperature Range	14°F to 104°F / -10°C to 40°C				
Shipping Dimensions (L x W x H)	19.3 x 16.1 x 17.3 in 490 x 410 x 440 mm		31.2 x 23.6 x 9.5 in 810 x 600 x 240 mm		39.4 x 29.9 x 9.8 in 1000 x 760 x 250 mm
Scale Dimensions (W x H1 x H2 x D1 x D2)	12 x 3.7 x 23.2 x 12 x 16.7 in 305 x 95 x 590 x 305 x 425 mm		18 x 4.5 x 37 x 18 x 22.7 in 457 x 115 x 940 x 457 x 577 mm		24 x 5.4 x 37 x 24 x 28.7 in 610 x 137 x 940 x 610 x 730 mm
Net Weight	32.4 lb / 14.7 kg		66.6 lb / 30.2 kg		83.8 lb / 38.0 kg
Shipping Weight	37.7 lb / 17.1 kg		71.4 lb / 32.4 kg		97.9 lb / 44.4 kg

Features

T51P: ABS plastic housing with internal rib reinforcements, reversible rear cover, backlit LCD weight display, checkweighing indication (green, yellow, red), membrane keypad with raised tactile keys, built-in bi-directional RS232 with manual/continuous/interval printing, external tare input, hardware configuration lockout switch, internal switching power supply with line cord and battery power using 6 "C" cell batteries.

Other Features

Zero point calibration, calibration test, span or linear calibration, selectable auto-zero tracking range, selectable stability range, selectable averaging level, selectable LCD backlight, selectable auto shutoff, retain zero weight data after power-off, Geo gravity adjustment, selectable key beep, key function lock, menu lock, selectable power-on and calibration unit, battery status display, display of gross/net weight, indication of stability, center of zero, over- and underweight, overload and underload conditions. Configuration menus for PRINT1, PRINT2, COM1, COM2, and I/O.

Compliance

- **Safety and EMC: Safety and EMC:** cUL_{US} 2005/95/EC low voltage directive: EN60950-1:2001, FCC Part 15 Class A 2004/108/EC
Compliant to Directive 202/96/EC on waste electrical and electronic equipment (WEEE)
- **Quality:** OHAUS quality management system registered to ISO 9001:2000

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With offices throughout Europe,
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* **ISO 9001**
Registered Quality Management System

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