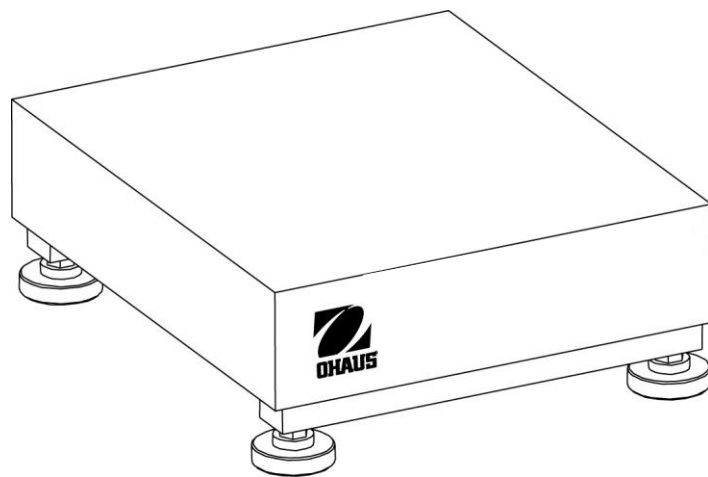




Defender™ 2000 Series Base Instruction Manual



INTRODUCTION

This manual covers installation, and maintenance instructions for the Ohaus Defender™ 2000 Series Base. Please read this manual completely before installation and operation.

SAFETY PRECAUTIONS

For safe and dependable operation of this product, please comply with the following precautions:



- Operate the base only under ambient conditions specified in these instructions
- Ensure that the load cell cable does not pose an obstruction or tripping hazard
- Do not operate the base in hazardous environments or unstable locations
- Do not drop loads on the base
- Do not lift the base by the top frame; always lift from the bottom frame when moving the base
- Service should only be performed by authorized personnel
- To avoid injury, use caution when lifting or moving the base

INSTALLATION

Unpacking

Unpack and inspect the product to make sure that all components have been included. The package includes the following:

- Defender™ 2000 Series Base
- Weighing Pan
- Warranty Card
- Instruction Manual
- Column Assembly
- Quick Start Guide



WARNING: Lifting Hazard. The bases weigh between 9.5 kg (20.9 lb) and 38.5 kg (84.9 lb). Single person lift could cause injury. Use assistance when lifting or moving the base.

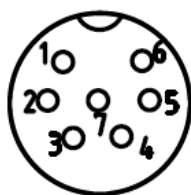
Assembly

Weighing Pan

Place the weighing pan on the top frame of the base.

Wiring Connections

The load cell cable is soldered to the load cell connector as below:



Pin	Connection
1	+EXE
2	+SEN
3	+SIG
4	GND
5	-SIG
6	-SEN
7	-EXE

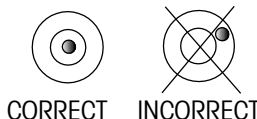
Note: To connect Defender 2000 base to another indicator besides T24PE, please cut the load cell connector and connect directly.

Selecting the Location

To ensure accuracy, proper performance and safety, locate and operate the base on a stable, level surface. Avoid locations with rapid temperature changes or excessive dust, air currents, vibrations, electromagnetic fields or heat.

Level the base by adjusting the four leveling feet until the bubble in the level indicator (located at the rear of the base) is centered. A wrench may be needed to loosen the locking nut above each leveling foot. When the base is level, retighten the locking nuts up against the base to lock each foot into place.

Note: Ensure that the base is level each time its location is changed.



MAINTENANCE

Cleaning

The base components should be kept clean and free of excessive material build up.

- Damp cloth with water and a mild detergent may be used to wipe clean the external surfaces—do not use acids, alkalis, strong solvents or abrasive materials and chemicals

Troubleshooting

Aside from installing components and leveling adjustments, the Defender Series Base does not require any other adjustments as shipped from the factory.

Operational difficulties that may be encountered can often be traced to simple causes such as:

- Loose or incorrect wiring connections
- Obstructions to the base frame
- Unstable environments
- Incorrect calibration or setup of the indicator

If the troubleshooting section does not resolve or describe your problem, contact your authorized Ohaus service agent. For service assistance or technical support in the United States call toll-free 1-800-526-0659 between 8:00 AM and 5:00 PM EST. An Ohaus product service specialist will be available to provide assistance. Outside the USA, please visit our web site, www.ohaus.com to locate the Ohaus office nearest you.

TECHNICAL DATA

Technical Specifications

The technical data is valid under the following ambient conditions:

Ambient temperature: -10° C to +40° C

Relative humidity: up to 80% at 31° C, decreasing linearity to 50% at 40° C

Height above sea level: Up to 2,000m

Operability is assured at ambient temperature -10° C to + 40° C

TABLE 2. SPECIFICATIONS

MODEL	D30FR	D60FR	D60FL	D150FL	D150FX	D300FX	D300FV	D600FV
Capacity	30 kg	60 kg	60 kg	150 kg	150 kg	300 kg	300 kg	600 kg
Maximum Resolution	6000d	6000d	6000d	7500d	7500d	6000d	6000d	6000d
Pan Dimensions	300 x 350 x 50 mm		400 x 500 x 50 mm		500 x 600 x 100 mm		600 x 800 x 100 mm	
Base Construction	430 steel platform with painted carbon steel frame and rubber leveling feet							
Load Cell Cable	Length 2m, 4-wire						Length 2m, 6-wire	
Load Cell Type	350 Ohm, aluminum, single point							
Load Cell Excitation	5-15V DC/AC							
Load Cell Rated Output	2mV/V							
Load Cell Protection	IP65							
Safe Overload Capacity	150% of capacity							
Net Weight	9.5 kg		13.5 kg		24.5 kg		38.5 kg	
Shipping Weight	11.5 kg		15.5 kg		27.5 kg		43.5 kg	

Drawings

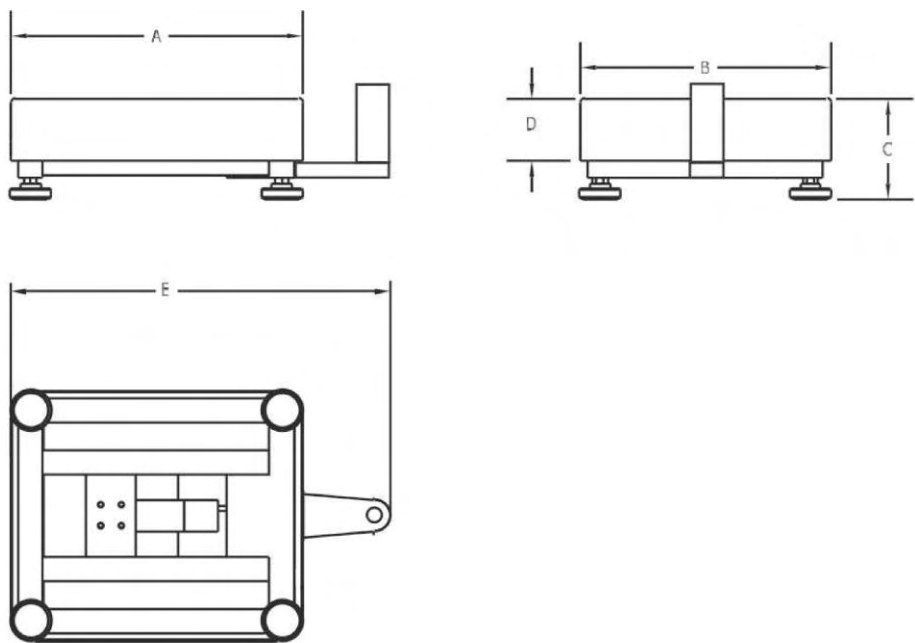


Figure 1. Defender Base Dimension Drawing.

TABLE 3. DIMENSIONS.

Base	A	B	C	D	E
	Pan Depth	Pan Width	Height of Pan to Surface of Table*	Height of Pan	Depth Including column support
R	350 mm	300 mm	103 mm	50 mm	462 mm
L	500 mm	400 mm	115 mm	50 mm	612 mm
X	600 mm	500 mm	145 mm	100 mm	712 mm
V	800 mm	600 mm	170 mm	100 mm	912 mm

Compliance



This product conforms to the EMC Directive 2004/108/EC and the Low Voltage Directive 2006/95/EC when used with an Ohaus indicator. The complete Declaration of Conformity is available at www.ohaus.com/ce.

Disposal

In conformance with the European Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE) this device may not be disposed of in domestic waste. This also applies to countries outside the EU, per their specific requirements.



Please dispose of this product in accordance with local regulations at the collecting point specified for electrical and electronic equipment.

If you have any questions, please contact the responsible authority or the distributor from which you purchased this device.

Should this device be passed on to other parties (for private or professional use), the content of this regulation must also be related.

For disposal instructions in Europe, refer to www.ohaus.com/wEEE.

Thank you for your contribution to environmental protection.

ISO 9001 Registration

In 1994, Ohaus Corporation, USA, was awarded a certificate of registration to ISO 9001 by Bureau Veritas Quality International (BVQI), confirming that the Ohaus quality management system is compliant with the ISO 9001 standard's requirements. On May 21, 2009, Ohaus Corporation, USA, was re-registered to the ISO 9001:2008 standard.

LIMITED WARRANTY

Ohaus products are warranted against defects in materials and workmanship from the date of delivery through the duration of the warranty period. During the warranty period Ohaus will repair, or, at its option, replace any component(s) that proves to be defective at no charge, provided that the product is returned, freight prepaid, to Ohaus. This warranty does not apply if the product has been damaged by accident or misuse, exposed to radioactive or corrosive materials, has foreign material penetrating to the inside of the product, or as a result of service or modification by other than Ohaus. In lieu of a properly returned warranty registration card, the warranty period shall begin on the date of shipment to the authorized dealer. No other express or implied warranty is given by Ohaus Corporation. Ohaus Corporation shall not be liable for any consequential damages. As warranty legislation differs from state to state and country to country, please contact Ohaus or your local Ohaus dealer for further detail.



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