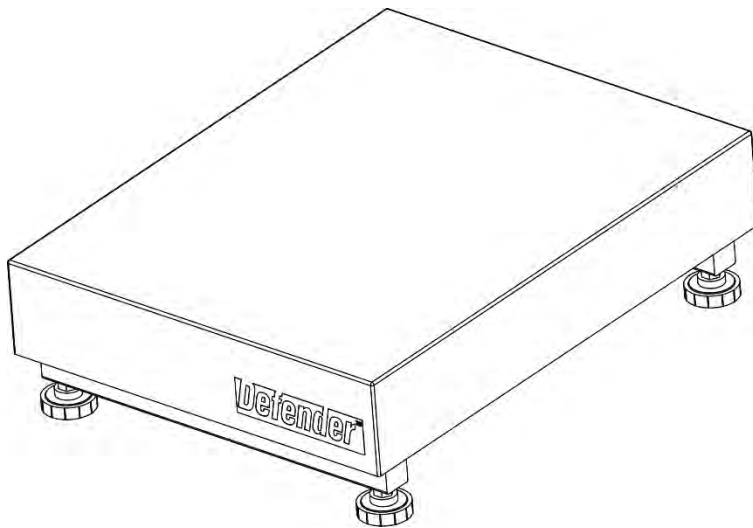




# Defender™ 3000 Series Base Instruction Manual



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# INTRODUCTION

This manual covers installation, and maintenance instructions for the OHAUS Defender™ 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

## INSTALLATION

### Unpacking

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

- Defender™ Series Base
- Weighing Pan
- Instruction Manual

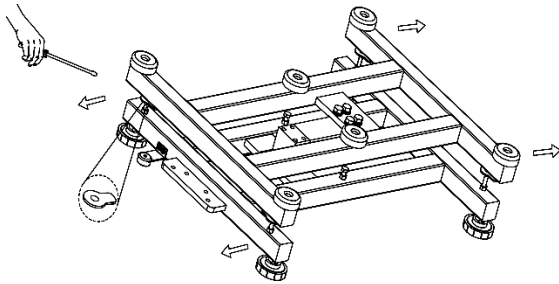
When purchased as a complete Defender Series Scale, the package will also include:

- Indicator
- Column Kit (Front-mount Kit)

## ASSEMBLY

### Weighing Pan

Remove the shipping spacers, and place the weighing pan securely over the rubber load pads on the top frame of the base.



**Note:** Not included with some models

### Wiring Connections

When connecting the base to an OHAUS indicator equipped with the matching circular connector, push the base connector onto the indicator connector and turn the locking ring clockwise to lock it in place.

When connecting the base to an indicator that does not have the matching connector, install the optional load cell cable adapter (P/N 30429931 sold separately) to the indicator using the wiring codes in Table 1. Then attach the load cell cable to the cable adapter.

**Note:** As an alternate wiring method, cut off the connector, strip the wires and attach them to the indicator using the wiring codes in Table 1.

The extension cable accessory (P/N: 30429931) cannot be used if the scale will be used in a legal for trade or legally controlled application, because there is no provision to seal the connection between the indicator and platform.

If your base does not support EasyConnect™, please refer to the indicator's manual for how to connect load cell connector.

**TABLE 1. LOAD CELL CONNECTION**

**Type1. For model i-DxxxB1R, i-DxxxB1L base**

FUNCTION	WIRE COLOR
+ Excitation	Red
- Excitation	Black
+ Signal	Blue
- Signal	White
Shield	Transparent

**Type1. For model i-DxxxB1X, i-DxxxB1V base**

FUNCTION	WIRE COLOR
+ Excitation	Red
- Excitation	Black
+ Signal	Green
- Signal	White
+ Sense	Blue
- Sense	Yellow
Shield	Transparent

**Type2. For model i-DxxxC1x base**

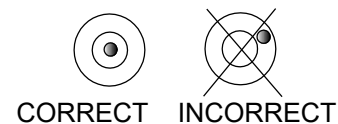
FUNCTION	WIRE COLOR
+ Excitation	Green
- Excitation	Black
+ Signal	Red
- Signal	White
+ Sense	Blue
- Sense	Brown
Shield	Yellow

## 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 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.

- A 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.

To maintain surface integrity, do not allow debris to remain on the surface of the painted or stainless steel base frame.

- Remove the pan and use fresh water to clean the base frame surface of any debris. Dry the base with a clean cloth or allow to air dry before replacing the pan. Repeat daily for best care.

## 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
- Failure to remove the shipping spacers
- 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 OHAUS toll-free 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 the OHAUS web site to locate the OHAUS office nearest you.

## TECHNICAL DATA

### Technical Specifications

The technical data is valid under the following ambient conditions:

Operating temperature: -10°C to +40 °C (14 °F to 104 °F)

Relative humidity: maximum relative humidity 80% for temperatures up to 31 °C decreasing linearly to 50% relative humidity at 40°C.

Altitude: Up to 2,000m

Pollution degree: 2

**Note:** Not all models may be available in your area. Check with your local OHAUS representative.

**TABLE 2.1 SPECIFICATIONS**

Model	i-D15B1R	i-D30B1R	i-D60B1R	i-D60B1L	i-D150B1L	i-D150B1X	i-D300B1X	i-D300B1V	i-D600B1V
Capacity	15 kg	30 kg	60 kg	60 kg	150 kg	150kg	300 kg	300 kg	600 kg
Approved Resolution	OIML 3000e								
Safe Overload Capacity	150% of capacity								
Pan Dimensions	305 x 355 mm			420 x 550 mm		500 x 650 mm		600 x 800 mm	
Base Construction	Stainless Steel platform with carbon steel frame and rubber leveling feet								
Load Cell Capacity	30 kg	50 kg	100 kg	100 kg	250 kg	250kg	500 kg	500kg	750kg
Load Cell Cable	2 m L x 4-wire					3 m L x 6-wire			
Load Cell Type	350 Ohm aluminum single point								
Load Cell Excitation	5-12V DC/AC								
Load Cell Rated Output	2 mV/V								
Net Weight	7 kg / 15.9 lb			13 kg / 28.8 lb		23 kg / 51.2 lb		41 kg / 90.6 lb	
Shipping Weight	10 kg / 22.5 lb			17 kg / 37.8 lb		27 kg / 58.9 lb		45 kg / 99.4 lb	
Load Cell Protection	IP65								

TABLE 2.2 SPECIFICATIONS

Model	i-D15C1R	i-D30C1R	i-D60C1R	i-D60C1L	i-D150C1L	i-D150C1X	i-D300C1X
Capacity	15 kg	30 kg	60 kg	60 kg	150 kg	150 kg	300 kg
Approved Resolution	OIML 3000e						
Safe Overload Capacity	150% of capacity						
Pan Dimensions	305 x 355 mm			420 x 550 mm		500 x 650 mm	
Base Construction	Stainless Steel platform with stainless steel frame and rubber leveling feet						
Load Cell Capacity	30 kg	50 kg	100 kg	100 kg	300 kg	300 kg	500 kg
Load Cell Cable	2 m L x 6-wire						
Load Cell Type	350 Ohm Stainless steel single point						
Load Cell Excitation	5-15V DC/AC						
Load Cell Rated Output	2 mV/V						
Net Weight	8 kg / 17.1 lb			14 kg / 30.7 lb		27 kg / 58.5 lb	
Shipping Weight	11 kg / 23.7 lb			18 kg / 39.6 lb		30 kg / 66.2 lb	
Load Cell Protection	IP67						

TABLE 2.3 SPECIFICATIONS

Model	i-D15B1R	i-D30B1R	i-D75B1R	i-D75B1L	i-D150B1L	i-D150B1X	i-D300B1X	i-D300B1V	i-D600B1V
Capacity	30 lb / 15 kg	60 lb / 30 kg	150 lb / 75 kg	150 lb / 75 kg	300 lb / 150 kg	300 lb / 150kg	600 lb / 300 kg	600 lb / 300 kg	1200 lb / 600 kg
Approved Resolution	NTEP and measurement Canada 3000e								
Safe Overload Capacity	150% of capacity								
Pan Dimensions	305 x 355 mm			420 x 550 mm		500 x 650 mm		600 x 800 mm	
Base Construction	Stainless Steel platform with carbon steel frame and rubber leveling feet								
Load Cell Capacity	30 kg	50 kg	100 kg	100 kg	250 kg	250kg	500 kg	500kg	750kg
Load Cell Cable	2 m L x 4-wire					3 m L x 6-wire			
Load Cell Type	350 Ohm aluminum single point								
Load Cell Excitation	5-12V DC/AC								
Load Cell Rated Output	2 mV/V								
Net Weight	7 kg / 15.9 lb			13 kg / 28.8 lb		23 kg / 51.2 lb		41 kg / 90.6 lb	
Shipping Weight	10 kg / 22.5 lb			17 kg / 37.8 lb		27 kg / 58.9 lb		45 kg / 99.4 lb	
Load Cell Protection	IP65								

TABLE 2.4 SPECIFICATIONS

Model	i-D15C1R	i-D30C1R	i-D75C1R	i-D75C1L	i-D150C1L	i-D150C1X	i-D300C1X
Capacity	30 lb / 15 kg	60 lb / 30 kg	150 lb / 75 kg	150 lb / 75 kg	300 lb / 150 kg	300 lb / 150 kg	600 lb / 300 kg
Approved Resolution	NTEP and measurement Canada 3000e						
Safe Overload Capacity	150% of capacity						
Pan Dimensions	305 x 355 mm			420 x 550 mm		500 x 650 mm	
Base Construction	Stainless Steel platform with stainless steel frame and rubber leveling feet						
Load Cell Capacity	30 kg	50 kg	100 kg	100 kg	300 kg	300 kg	500 kg
Load Cell Cable	2 m L x 6-wire						
Load Cell Type	350 Ohm Stainless steel single point						
Load Cell Excitation	5-15V DC/AC						
Load Cell Rated Output	2 mV/V						
Net Weight	8 kg / 17.1 lb			14 kg / 30.7 lb		27 kg / 58.5 lb	
Shipping Weight	11 kg / 23.7 lb			18 kg / 39.6 lb		30 kg / 66.2 lb	
Load Cell Protection	IP67						

# Drawings

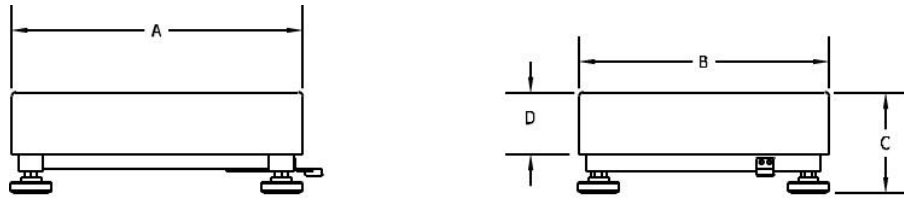


Figure 1. Defender Base Dimension Drawing.




**TABLE 3. DIMENSIONS**

Base	A	B	C	D
	Pan Depth	Pan Width	Height of Pan to Surface of Table	Height of Pan
i-DxxxB1R	355 mm / 14.0 in	305 mm / 12.0 in	128 mm / 5.3 in	75mm / 3.0 in
i-DxxxB1L	550 mm / 21.7 in	420 mm / 16.5 in	140 mm / 5.5 in	80 mm / 3.1in
i-DxxxB1X	650 mm / 25.6 in	500 mm / 19.7 in	150 mm / 5.9 in	90 mm / 3.5 in
i-DxxxB1V	800 mm / 31.5 in	600 mm / 23.6 in	154 mm / 6.1 in	90 mm / 3.5 in
i-DxxxC1R	355 mm / 14.0 in	305 mm / 12.0 in	128 mm / 5.0 in	75mm / 3.0 in
i-DxxxC1L	550 mm / 21.7 in	420 mm / 16.5 in	140 mm / 5.5 in	80 mm / 3.1in
i-DxxxC1X	650 mm / 25.6 in	500 mm / 19.7 in	150 mm / 5.9 in	90 mm / 3.5 in

\*For leveling purposes, the feet may be extended up to an additional 15 mm.

# COMPLIANCE

Compliance to the following standards is indicated by the corresponding mark on the product.

Mark	Standard
	This product complies with the applicable harmonized standards of EU Directives 2011/65/EU (RoHS). The EU Declaration of Conformity is available online on the OHAUS website.
	This product complies with the applicable statutory standards of the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012. The UK Declaration of Conformity is available online on the OHAUS website.
	This product complies with the EU Directive 2012/19/EU (WEEE). Please dispose of this product in accordance with local regulations at the collecting point specified for electrical and electronic equipment. For disposal instructions in Europe, refer to the OHAUS website.

## ISO 9001 Registration

The management system governing the production of this product is ISO 9001 certified.

# ACCESSORIES

TABLE 4. ACCESSORIES

Part Number	Description
30616409	Wheel Kit Defender Series SST
30372146	Wheel Kit Defender Series CS
30696595	Column Assembly 330mm SST i-D33
30696596	Column Assembly 680mm SST i-D33
30696597	Column Assembly 330mm CS i-D33
30696598	Column Assembly 680mm CS i-D33
30696599	Column Assembly 980mm CS i-D33
30696600	Front Mount Kit i-D33

# 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 details