



DEFENDER 3000 Series Floor Scale Instruction Manual



INTRODUCTION

This manual contains installation, operation and maintenance instructions for the DEFENDER 3000 Series Floor Scale.

SAFETY PRECAUTIONS



Please follow these safety precautions:

- Never operate in hazardous areas.
- The foundation at the installation site must be capable of safely supporting the weight of the floor scale plus the weight of the maximum load.
- Ensure that vibrations due to machines near the installation site are kept to a minimum. This applies also when the floor scale is integrated into conveying systems.

INSTALLATION



**CAUTION: THE FLOOR SCALE IS VERY HEAVY.
ALWAYS USE AN APPROPRIATE HOIST TO LIFT IT FROM THE PACKAGING
OR TO MOVE IT INTO THE REQUIRED POSITION.**

Unpacking

1. Remove the outer packaging materials from the top and sides of the floor scale.
2. Install the two included eye bolts into holes in top of platform.
(See *Figure 1.*)
3. Lift the floor scale from the packaging material, see caution notice.

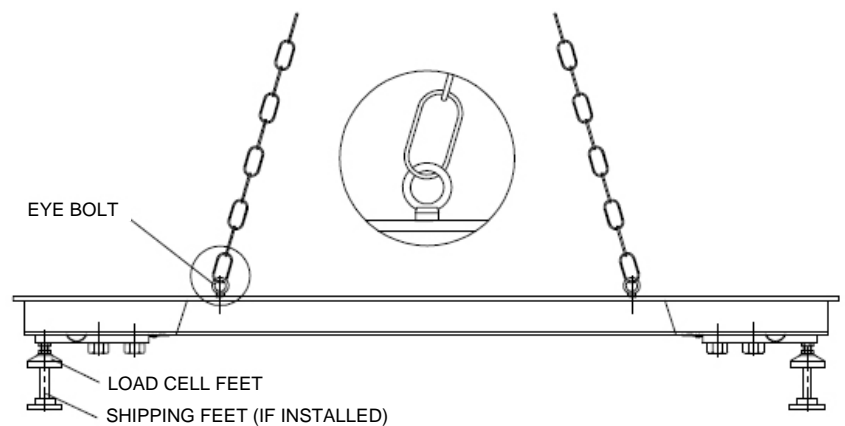


Figure 1. Hoisting Method.

Positioning

Ensure the surface is flat in the area where the scale will be positioned, especially in the region of the load cell feet. Small differences in height can be compensated by adjusting the load cell feet.

1. If an Indicator is included with the floor scale, ensure that it is kept with the floor scale during positioning as there may be an attached connecting cable.
2. With the floor scale positioned over the final work area, remove the 4 shipping feet (if installed).
3. Install the 4 load cell feet (if not already installed).
4. Lower the scale on to the final work area.
5. Check that the floor scale is level; check that the 4 feet are in contact with the floor; make adjustments by rotating the nuts on the load cell feet. Use an external level.
6. Ensure that the floor scale's output cable does not become trapped or crushed during lifting or positioning.

Connecting an Indicator

When connecting the base to TD52 indicator, 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. 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.

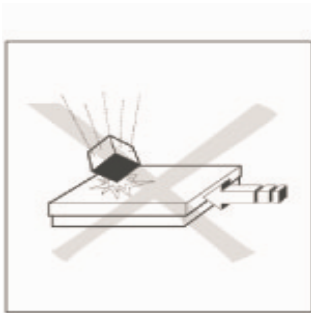
The extension cable accessory (P/N: 30429931) cannot be used if the scale will be used in a legal for trade or legally controlled application, because there is no provision to seal the connection between the indicator and platform.

TABLE 1. FLOOR SCALE WIRING COLOR CODE

Indicator Signal Name	Floor Scale Wire Color
EXE+	Green
SEN+	Blue
SIG+	White
SIG-	Red
SEN-	Yellow
EXE-	Black

OPERATION

For setup, calibration and proper operation, refer to the instruction manual supplied with the indicator. Refer to the specifications section of the floor scale for capacity, and readability information.



For continued best operating performance:

- Avoid falling loads, shocks and hard lateral impacts
- When weighing, all items should be centrally located on the floor scale and not over hanging the sides or the ramps.
- Verify the calibration of the floor scale system at regular intervals.

Operating Limits

Although the floor scales have extremely rugged construction, certain load limits must not be exceeded. Depending on the type of loading, the maximum safe static load, i.e. the maximum admissible loading, is shown in Table 2.

TABLE 2. MAX ADMISSIBLE LOADING

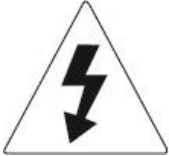
Model	Maximum Central Load ¹ (80% Surface Area)	Maximum side Load ² (30% Surface Area)	One Side corner load ³ (10% Surface Area)	
i-DF3000B1LAU	3800 kg	1800 kg	1200 kg	
i-DF3000C1LAU	3800 kg	1800 kg	1200 kg	

MAINTENANCE

Daily Checks

- Check that the rocker feet are properly seated in the holes of each load cell.
- Check that the 4 feet are in contact with the floor.
- Check that the scale is free from debris, especially under the edges of the scale.
- Check that there is no damage to the connecting cable.

Cleaning



Risk of Electrical Shock

Disconnect the power source before cleaning the scale with any liquids.



Maintenance of the floor scale is limited to regular cleaning.

- Wipe surfaces with a damp cloth.
- Use only common household cleaning agents.
- Never use water spray or high pressure cleaners.



When using optional Ramps or Foot Plates:

- Keep the air gap at the edge of the Floor Scale free of debris.

TECHNICAL DATA

Specifications

TABLE 3. FLOOR SCALE SPECIFICATIONS

Floor Scale Models	i-DF3000B1LAU	i-DF3000C1LAU
Dimensions (mm)	1,200 x 1,200 x 110	
Capacity (kg)	3000	
Operating temperature/ Humidity	-10° to 40° / 0% to 95% Relative Humidity, Non-condensing	
Emin (kg)	1	
Material	Painted carbon steel, black painted, treaded surface, fixed top plate 5 mm thick	Stainless steel, treaded surface, fixed top plate 5 mm thick
Platform net wt (kg)	122	
Feet	4 x swivel design, screw-in, carbon steel with rubber bottom cap, adjustable height	
Load Cell Model / Material	4 x OIML C3, IP67 alloy steel, shear beam	4 x OIML C3, IP67 stainless steel, shear beam
Load Cell Capacity Emax (kg)	1,500	
Load Cell Safe Overload Limit	150% of Emax	
Load Cell Output Impedance	350 $\Omega \pm 1 \Omega$	
Load Cell Excitation Voltage	5V ~ 15V, DC/AC	
Junction Box	Top access, IP65, Stainless steel, with 5m long cable	

DRAWINGS

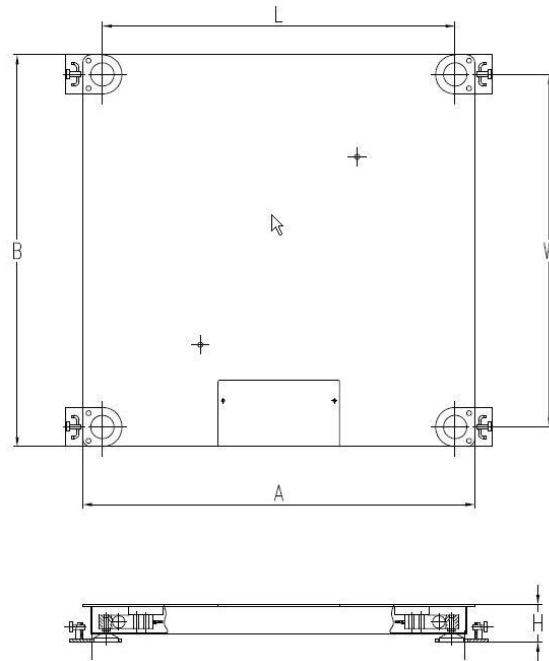


Figure 2. Floor Scale Dimensions, (Shown with optional Foot Plates)

TABLE 4. FLOOR SCALE DIMENSIONS

MODELS	DIMENSIONS(mm)				
	FLOOR SCALE PLATFORM			FOOT CENTERS	
	A	B	H	W	L
i-DF3000B1LAU	1200	1200	110	1100	1100
i-DF3000C1LAU					

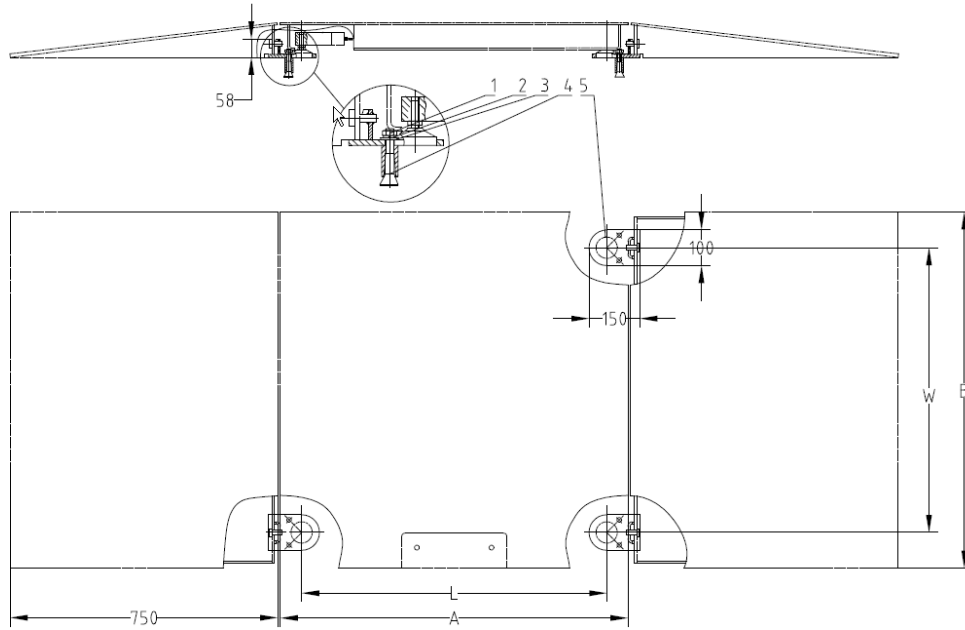
ACCESSORIES

TABLE 5. LIST OF ACCESSORIES

ITEM	PART NUMBER
Foot Plate Kit, Painted steel, DF-B	72225239
Ramp Kit, Painted steel, 1.2m, DF-B	80252724
Pit Frame Kit, Painted steel, 1.2m, DF-B	83033710
Foot Plate Kit Stainless steel DF-C	30555522
Ramp Kit Stainless steel 1.2m DF-C	30555523
Pit Frame Kit Stainless steel 1.2m DF-C	30555524

DEFENDER 3000 SERIES FLOOR SCALE, Installation of Optional Foot Plates and Ramps

Plates are required for certifiable installations. Installation of each Ramp also requires the installation of one set of Foot Plates. Foot Plates are available separately and are included with the Ramp accessory kit. Refer to Figure 3 for mounting of the Foot Plates and Ramps. Installation of Floor Plates and Ramps must be done before final placement of the Floor Scale.



LEGEND: 1. Nut, 2. Spring Washer, 3. Washer, 4. Expanding Bolt, 5. Foot Plate

Figure 3. Optional Foot Plate and Ramp Installation

- Notes:**
1. Expanding bolts require 12.5mm diameter holes drilled 60mm deep into the floor surface.
 2. Foot Plate center to center dimensions W and L are shown in Table 6.
 3. The Floor Scale must be positioned so the load cell feet rest within the large holes of the Foot Plates.
 4. Ensure that a free air gap exists between the sides of the Floor Scale and the edges of the Ramps.

TABLE 6. DIMENSIONS FOR FLOOR PLATE AND RAMP INSTALLATION

MODELS	DIMENSIONS (mm)			
	RAMP		FOOT PLATE CENTERS	
	A	B	W	L
i-DF3000B1LAU	1200	1200	1100	1100
i-DF3000C1LAU				

**DEFENDER 3000 SERIES FLOOR SCALE,
Installation and Dimensions of Pit Frame**

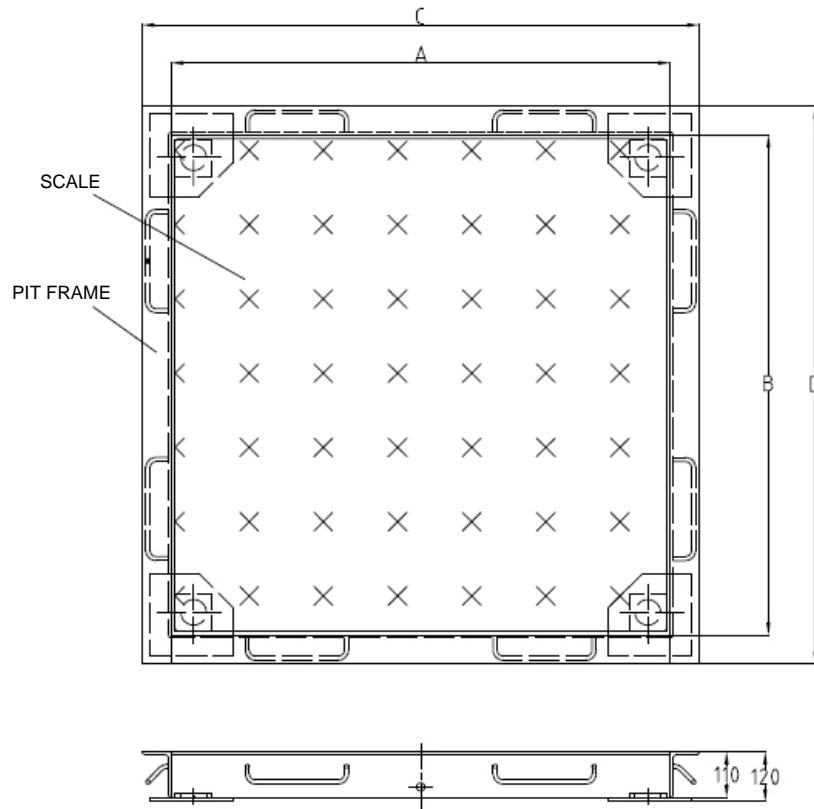




Figure 4. Pit Frame Installation

TABLE 7. DIMENSIONS OF PIT FRAME

SCALE MODEL	MATCHED PIT FRAME MODEL	DIMENSIONS(mm)			
		A	B	C	D
i-DF3000B1LAU	Pit Frame 1.2m	1210	1210	1340	1340
i-DF3000C1LAU					

COMPLIANCE

	<p>This product complies with the applicable EU Directives. The EU Declaration of Conformity is available online at www.ohaus.com/ce.</p>
	<p>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 www.ohaus.com/weee.</p>

ISO 9001 Registration

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

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.



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