User Manual

PFD774_PFD779

Floor Scale



PFD774



PFD779

METTLER TOLEDO

METTLER TOLEDO Service

Congratulations on choosing the quality and precision of METTLER TOLEDO. Proper use of your new equipment according to this Manual and regular calibration and maintenance by our factory-trained service team ensures dependable and accurate operation, protecting your investment. Contact us about a service agreement tailored to your needs and budget. Further information is available at ▶ www.mt.com/service.

There are several important ways to ensure you maximize the performance of your investment:

1 **Register your product**: We invite you to register your product at www.mt.com/productregistration so we can contact you about enhancements, updates and important notifications concerning your product.

2 **Contact METTLER TOLEDO for service**: The value of a measurement is proportional to its accuracy – an out of specification scale can diminish quality, reduce profits and increase liability. Timely service from METTLER TOLEDO will ensure accuracy and optimize uptime and equipment life.

- **Installation, Configuration, Integration and Training**: Our service representatives are factory-trained weighing equipment experts. We make certain that your weighing equipment is ready for production in a cost effective and timely fashion and that personnel are trained for success.
- **Initial Calibration Documentation**: The installation environment and application requirements are unique for every industrial scale so performance must be tested and certified. Our calibration services and certificates document accuracy to ensure production quality and provide a quality system record of performance.
- **Periodic Calibration Maintenance**: A Calibration Service Agreement provides on-going confidence in your weighing process and documentation of compliance with requirements. We offer a variety of service plans that are scheduled to meet your needs and designed to fit your budget.

Safety Instructions

- Read this manual BEFORE operating or servicing this equipment and FOLLOW these instructions carefully.
- SAVE this manual for future reference.



⚠ WARNING

1 Permit only qualified personnel to service this equipment. Exercise care when making checks, tests and adjustments that must be made with power on.

2 Before connecting/disconnecting any internal electronic components or interconnecting wiring between electronic equipment always remove power and wait at least thirty (30) seconds before any connections or disconnections are made.

3 METTLER TOLEDO assumes no responsibility for correct installation of this equipment with a hazardous area. The installer must be familiar with all applicable wiring and installation requirements.

4 Use caution when lifting and moving the scale. Use a forklift or crane with a rated capacity that exceeds the weight of the scale. Do not attempt to lift the scale manually, or injury could occur.

5 Connect the equipotential bonding (EB) of all devices, including the floor scale and the weighing terminal, in accordance with country-specific regulations and standards. In the process, it must be ensured that: a) All the device housings are connected to the same potential via the grounding terminals. b) No circulating current flows via the cable shielding for intrinsically safe circuits. c) The neutral point for grounding is as close to the weighing system as possible.



NOTICE

The following special condition of use for load cells must be fulfilled with for the Ex version of PFD77_ floor scale:

1 Install the load cell in such a way that the risk for mechanical damage is low.

2 Only use the equipment in an area of not more than pollution degree 2, as defined in IEC 60664-1.

Disposal of Electrical and Electronic Equipment



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.

Thank you for your contribution to environmental protection.

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1 Introduction

The PowerDeck ™ line of floor scales uses POWERCELL® technology to provide highly accurate and reliable weighing. The load cells transmit weight signals to the scale terminal without a junction box.

Model PFD774 is constructed of mild steel with a painted finish. Model PFD779 is constructed of Type 304 stainless steel. A PowerDeck™ floor scale can be installed in a pit or on top of the floor. For pit installations, we recommend using a Quick-Pit frame or pit liner. For top-of-floor installations, we offer optional ramps, scale guards, and forklift-channel frames.

A METTLER TOLEDO scale terminal is used to power the load cells. Refer to the terminal's technical manual for the terminal's power requirements.

Compliance Documents Download

National approval documents, e.g. the FCC Supplier Declaration of Conformity, are available online and/or included in the packaging. ▶ www.mt.com/ComplianceSearch

Manuals Download

Customers can click the link ▶ www.mt.com/PFD774/779-downloads or scan the QR Code below to download more product manuals.

Feedback

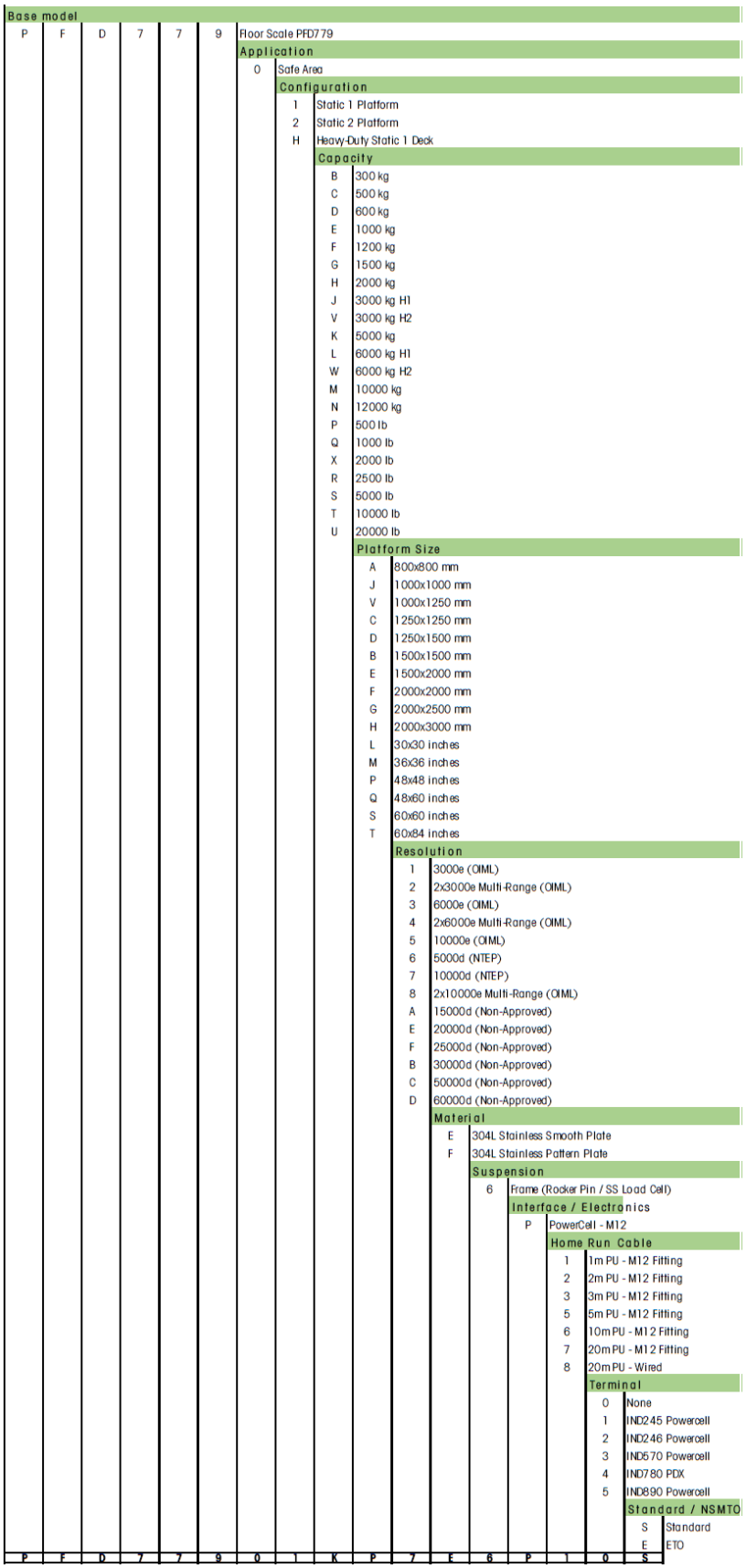
We always strive to provide high-quality information and value your feedback. If you find ambiguous information or mistakes in this manual, please do not hesitate to let us know by e-mail.

▶ feedback.manuals.industry@mt.com

1.1 Model Number Configuration

The following tables explain how model numbers are configured for PFD774 (mild steel) and PFD779 (stainless steel) floor scales.

Base model						
P	F	D	7	7	4	Floor Scale PFD774
Application						
					0	Safe Area
Configuration						
					1	Static 1 Platform
					2	Static 2 Platform
					H	Heavy-Duty Static 1 Deck
Capacity						
					B	300 kg
					C	500 kg
					D	600 kg
					E	1000 kg
					F	1200 kg
					G	1500 kg
					H	2000 kg
					J	3000 kg H1
					V	3000 kg H2
					K	5000 kg
					L	6000 kg H1
					W	6000 kg H2
					M	10000 kg
					N	12000 kg
					P	500 lb
					Q	1000 lb
					X	2000 lb
					R	2500 lb
					S	5000 lb
					T	10000 lb
					U	20000 lb
Platform Size						
					A	800x800 mm
					J	1000x1000 mm
					V	1000x1250 mm
					C	1250x1250 mm
					D	1250x1500 mm
					B	1500x1500 mm
					E	1500x2000 mm
					F	2000x2000 mm
					G	2000x2500 mm
					H	2000x3000 mm
					L	30x30 inches
					M	36x36 inches
					P	48x48 inches
					Q	48x60 inches
					S	60x60 inches
					T	60x84 inches
					X	72x72 inches
Resolution						
					1	3000e (OIML)
					2	2x3000e Multi-Range (OIML)
					3	6000e (OIML)
					4	2x6000e Multi-Range (OIML)
					5	10000e (OIML)
					6	5000d (NTEP)
					7	10000d (NTEP)
					8	2x10000e Multi-Range (OIML)
					A	15000d (Non-Approved)
					E	20000d (Non-Approved)
					F	25000d (Non-Approved)
					B	30000d (Non-Approved)
					C	50000d (Non-Approved)
					D	60000d (Non-Approved)
Material						
					A	Mild Steel Pattern Plate
					B	Mild Steel Smooth Plate
Suspension						
					6	Frame (Rocker Pin / SS Load Cell)
Interface / Electronics						
					P	PowerCell - M12
Home Run Cable						
					1	1m PU - M12 Fitting
					2	2m PU - M12 Fitting
					3	3m PU - M12 Fitting
					5	5m PU - M12 Fitting
					6	10m PU - M12 Fitting
					7	20m PU - M12 Fitting
					8	20m PU - Wired
Terminal						
					0	None
					1	IND245 Powercell
					2	IND246 Powercell
					3	IND570 Powercell
					4	IND780 PDX
					5	IND890 Powercell
Standard / NSMTO						
					S	Standard
					E	ETO
P	F	D	7	7	4	0	1	K	P	7	A	6	P	1	0	S



1.2 Technical Data

Dimensions and Weight

Metric Sizes									
Scale Size (meters)	0.8x0.8	1.0x1.0	1.25x1.00	1.25x1.25	1.5x1.25	1.5x1.5	2.0x1.5	2.0x2.0	2.0x2.5

Metric Sizes									
Height (mm)	78	78	78	78	78	78/102*	78/102*	102	102
Weight (kg)	95	132	158	184	215	276	320	425	730

*The smaller height is for capacities up to 6 tons; the larger height is for capacities up to 12 tons.

English Sizes						
Scale Size (inches)	30x30	36x36	48x48	48x60	60x60	60x84
Height (inches)	3	3	3/4**	3/4**	3/4**	3/4**
Weight (lb)	211	293	409	489	622	756

** The smaller height is for capacities up to 10K; the larger height is for capacities of 20K.

General Specification

Model		PFD774	PFD779
Platform Material	Mild steel, painted blue	●	
	Stainless steel AISI 304L		●
	Stainless steel AISI 316L		●*
Platform Surface	Stainless steel AISI 304L, glass-bead blasted, Ra < 2.1 µm (80 µin)		●
	Stainless steel AISI 304L, polished, Ra < 0.8 µm (32 µin)		
Deck Plate	Smooth	●*	●
	Tread-plate pattern	●	●*
Home-Run Cable/Length		Polyurethane / 1, 2, 3, 5, 10, and 20 meters	
Load Cell		SLB615D, E-polish, IP68/IP69K	
Terminal		IND245Powecell, IND246Powercell (246H5), IND570Powercell (T57000H5), IND780PDX, and IND890Powercell	
Ingress Protection of Platform		IP68/IP69K	
Scale Interface		POWERCELL® CanOpen Network	
Compliance	Metrology	OIML Class III, NTEP Class III, CMC Class III, MC pending	
	Safety	FM, UL	
	EMC	10V/m	
Temperature Range	Compensated	-10°C to +40°C (+14°F to +104°F)	
	Operating	-20°C to +65°C (-4°F to +149°F)	
	Operating (Ex Version)	-20°C to +55°C (-4°F to +131°F)	

*Specify when ordering.

1.3 Top Deck Plate Options

Choose the appropriate scale platform (1) thickness from "Top Deck Plate Thickness Options Table" according to the contact area between the load and the scale platform.



If there are multiple contact points (2) between the load and the scale platform, choose one typical point to measure and calculate the contact area. If these contact points have different contact areas, choose the smallest one to measure and calculate.





If a trolley or pallet jack truck is used, suppose the contact area between its wheel and the scale platform is 1 cm × the wheel width.



Top Deck Plate Thickness Options

Contact Area S (cm^2) between Load and Top Deck Plate	Scale Capacity					
	6.0 t	3.0 t	2.0 t	1.5 t	1.2 t / 1.0 t	< 1.0 t
10≤ S <25	16mm	12mm	8mm	8mm	8mm	6mm
25≤ S <50	16mm	12mm	8mm	8mm	8mm	6mm
50≤ S <100	16mm	12mm	8mm	8mm	8mm	6mm
100≤ S <150	16mm	12mm	8mm	8mm	8mm	6mm
150≤ S <200	16mm	12mm	8mm	8mm	6mm	6mm
200≤ S <250	12mm	12mm	8mm	6mm	6mm	6mm
250≤ S <300	12mm	12mm	8mm	6mm	6mm	6mm
300≤ S <350	12mm	12mm	8mm	6mm	6mm	6mm
350≤ S <400	12mm	8mm	6mm	6mm	6mm	6mm
400≤ S <500	12mm	8mm	6mm	6mm	6mm	6mm
500≤ S <600	12mm	8mm	6mm	6mm	6mm	6mm
600≤ S <700	12mm	8mm	6mm	6mm	6mm	6mm
700≤ S <800	8mm	6mm	6mm	6mm	6mm	6mm
800≤ S <1600	8mm	6mm	6mm	6mm	6mm	6mm
1600≤ S	6mm	6mm	6mm	6mm	6mm	6mm

Note: Standard top deck plate thickness options are highlighted in blue. The rest thickness options can be specified when ordering.

2 Installation

When you receive the floor scale, inspect it for any damage that might have occurred during shipping and handling. If the scale is damaged, contact your freight carrier immediately.

2.1 Site Selection

Many problems associated with floor scale installations are caused by improper site conditions. Before installing the scale, check the proposed location to make sure that it meets the following requirements:

- The floor where the scale will be positioned should be level. The scale can be shimmed to compensate for floors that are slightly out of level.
- The floor/support at each corner of the scale should be strong enough to support the scale when it is loaded to full weighing capacity.
- There should be proper drainage away from the scale.
- There should be no heavy vibrations or wind currents at or near the scale.
- The scale should not be subjected to excessive or unusual loading due to the location or type of equipment used.

If the site is acceptable, proceed with the installation. If not, choose a new location.

2.2 Concrete Work



⚠ CAUTION

Use all-personal-protective equipment that is appropriate for working with concrete.



⚠ CAUTION

Comply with all safety requirements specified in OSHA standard 1926.1153 governing exposure to silica when cutting, grinding, drilling, or demolishing concrete. Use the appropriate protective equipment mandated by OSHA.

2.3 Unpacking

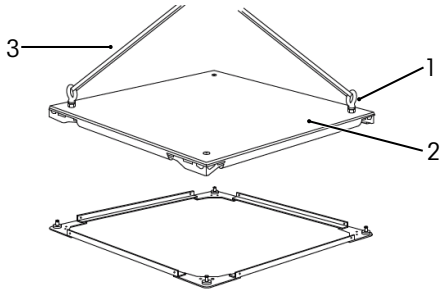
When you receive your floor scale, open the package to make sure that nothing is missing. Keep the packaging material in case you need to return the scale. A standard PowerDeck ™ floor scale includes the following items:

- Scale platform (1)
- Scale frame (1)
- Home-run cable (1)
- Shims (6), two each of 0.2-mm, 0.5-mm, and 1-mm thicknesses
- Eyebolts (2 or 4)
- Anchors (8)
- Anchor bolts (8)
- Sealing bolts (4), not included with all scales
- Quick Guide (1)

2.4 Top-of-Floor Installation

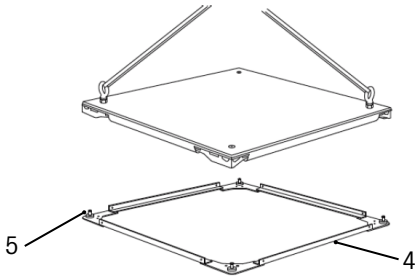
2.4.1 Remove the Platform

1 Install M16 eyebolts (1) in the threaded holes located in the corners of the platform (2).
   ➡ Make sure that the eyebolts are snug and completely threaded into the holes.
2 Attach a chain or strap (3) to the eyebolts.
3 Lift the platform with a forklift or crane.



2.4.2 Position the Frame

1 Remove the scale frame (4) from the packaging, and set it on the floor in the location where the scale will be used.
   ➡ The floor must be level (Levelness: ≤3°, height difference of scale corner: ≤2.5mm).
2 Install the four rocker pins (5) in the frame's receivers.
3 Replace the platform on the frame.
   ➡ Make sure that the rocker pins seat properly in the load cells and receivers.
   ➡ The cable connector should extend outside the scale platform.

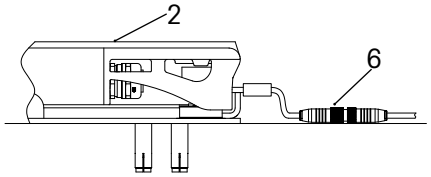


2.4.3 Connect the Platform to the Terminal

Important: Before you connect the platform to an IND570 terminal, check the terminal to make sure that it is set to the floor scale application. Power up the terminal and navigate to the scale type settings (Setup/Scale/Type). Verify that "Floor" is selected in the "Application" drop-down box. Then power down the terminal, disconnect it from the power source, and use the following procedure to connect the platform to the terminal.

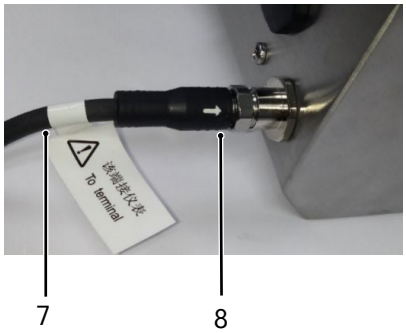
Use the home-run cable to connect the platform to the scale terminal. Connect the terminal to the power source, and then power up the terminal.

1 Connect the home-run cable to the Y cable connector (6) from the platform (2). Use the end of the home-run cable that has the following pin array:



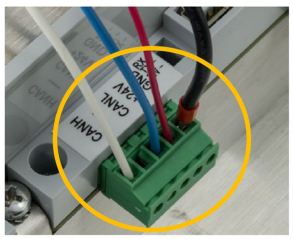
2 Connect the other end of the home-run cable to the terminal.

- The home-run cable (7) for IND246Powercell and IND570Powercell terminals has an M12 connector (8) and is connected as shown.

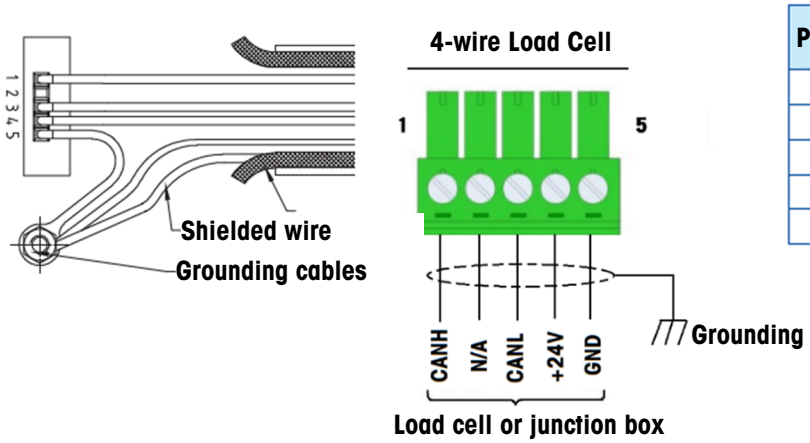


- The home-run cable for an IND570xx terminal is wired to the terminal as shown.



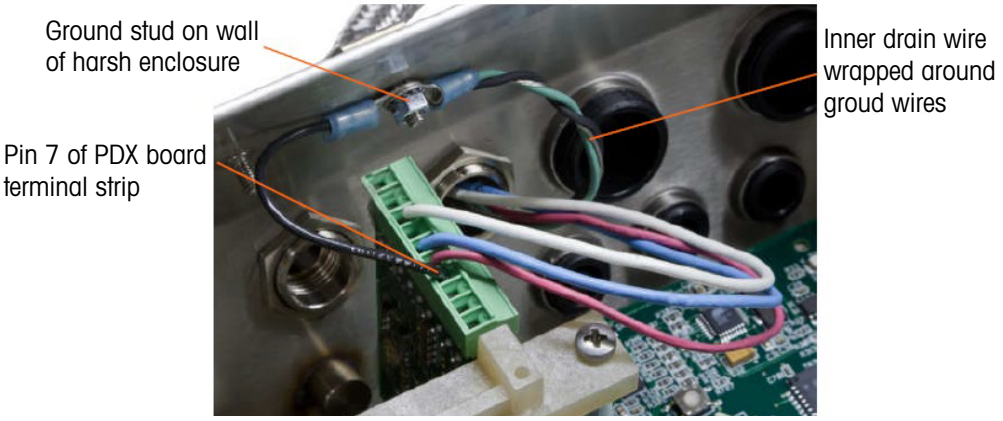


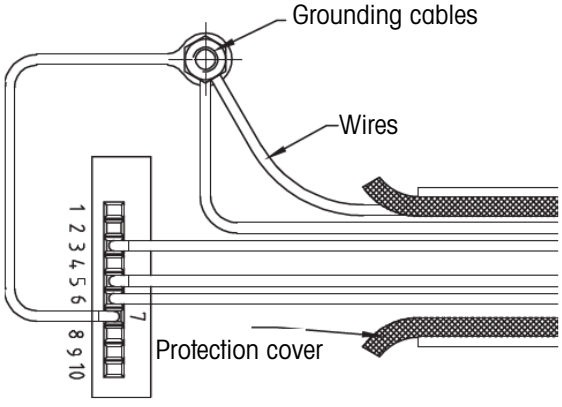




Position	Color	Function
1	White	CAN-H
2	N/A	N/A
3	Blue	CAN-L
4	Red	24V_OUT
5	Black	GND

- The home-run cable for an IND780PDX terminal is wired to the terminal as shown. Refer to the terminal's technical manual for detailed wiring instructions.





Position	Color	Function
1	N/A	N/A
2	N/A	N/A
3	White	CAN_H
4	N/A	N/A
5	Blue	CAN_L
6	Red	12V_Out
7	Black	GND (Module-Terminal Cables)
8	Red	24V_Out
9	Red	24V_In
10	Black	GND (Terminal)

Note:

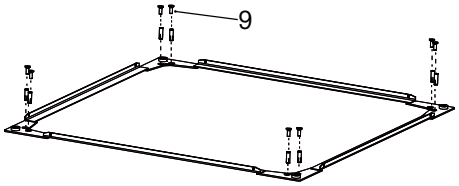
1. In hazardous explosion-proof situations or when connecting up to 8 sensors, connect thepower cable of the module-terminal cable to terminal 6 (12V_Out).
2. Terminals 8, 9, and 10 are only used for connections up to 14 sensors. Not suitable forhazardous explosion-proof occasions.

2.4.4 Level the Scale and Check its Adjustment

Level the scale. Then check the scale for repeatability, linearity, and corner shift.

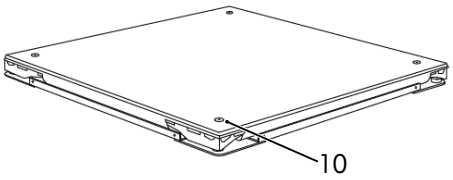
2.4.5 Anchor the Frame

After leveling and adjusting the scale, anchor the frame to the floor.



1 Remove the platform from the frame.
2 Locate the anchor holes in the corners of the frame. There are eight anchor holes, two holes per corner. Larger scales have an additional hole at the midpoint of the longest sides.
3 Use the frame as a guide to drill anchor holes into the floor.
4 Secure the frame to the floor by installing an anchor and an anchor bolt (9) in each hole.
   ➡ Be sure to maintain clearance between the heads of the bolts and the underside of the platform throughout the scale's weighing range.

2.4.6 Reinstall the Platform

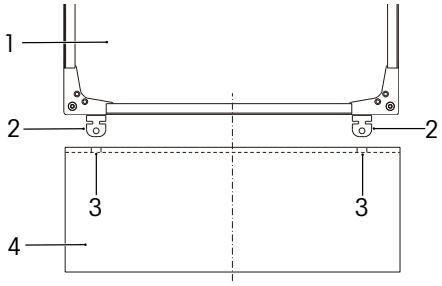


1 Clear all debris from the frame and the area around it.
   ➡ Make sure that the frame's receivers are clean and free of foreign material.
2 Install the four rocker pins in the frame's receivers.
3 Replace the platform on the frame.
   ➡ Make sure that the rocker pins seat properly in the load cells and receivers.
4 Oscillate the platform to make sure that the rocker pins are seated properly and there is no binding.
5 Remove the eyebolts from the platform. If sealing bolts (10) are supplied, install them in the platform's bolt holes.
6 Check the scale again for repeatability, linearity, and corner shift. If the scale needs to be calibrated, refer to the instructions for onsite calibration.

2.5 Ramp Installation

Ramps are available for scales that are installed on top of the floor. You can install ramps on more than one side of a scale.

Each ramp is shipped with a kit of parts, which includes two ramp-attachment blocks and anchor bolts for securing the blocks to the floor.



1 After the scale frame (1) is anchored to the floor, position the two ramp-attachment blocks (2) so that they are flush against the side of the frame and aligned with the slots in the ramp's front plate.

- To align the blocks correctly, measure the distance from the centerline of the ramp's front plate to the center of each slot (3). Measure the same distance from the centerline of the scale frame, and center the blocks at those locations.

2 Drill holes into the floor, using the holes in the ramp-attachment blocks as guides.

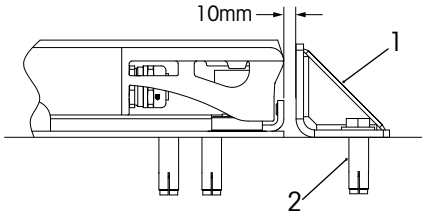
3 Secure the blocks to the floor by installing an anchor and anchor bolt in each hole.

4 Lift the ramp (4) and align the front-plate slots with the slots in the ramp-attachment blocks.

5 Lower the ramp until the slots are fully engaged.

2.6 Scale Guard Installation

Scale guards are available for scales that are installed on top of the floor. Scale guards protect the scale against side damage caused by forklift hits and other accidents.



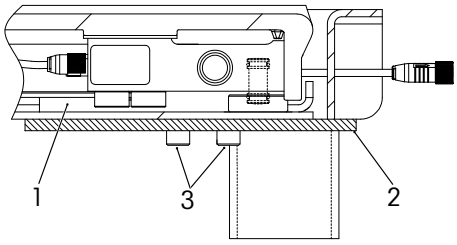
1 Locate the scale guard (1) a minimum of 10 mm (3/8 inch) from the edge of the scale platform. The scale guard must not touch the scale.

2 Each scale guard is equipped with two holes for anchoring it to the floor. Drill holes into the floor (using the holes in the side guard as guides), and then install an anchor in each hole.

3 Insert anchor bolts (2) and tighten them to secure the scale guard to the floor.

2.7 Forklift Frame Installation

A standard scale can be mounted on a forklift frame for easy portability. The forklift frame is supplied with eight flat-head screws.



1 Remove the platform from the scale frame.

2 Place the scale frame (1) into the forklift frame (2). Line up the eight mounting holes in both frames, two per corner. Insert the eight mounting screws into the holes and through both frames.

3 Install a clamping bar beneath each corner of the forklift frame by threading the two mounting screws (3) into the tapped holes. Tighten all screws until they are finger-tight.

4 Make sure that there is an equal gap between the two frames on all sides. The oversized mounting holes in the forklift frame allow you to make adjustments. Once the gap is equal, finish tightening all mounting screws.

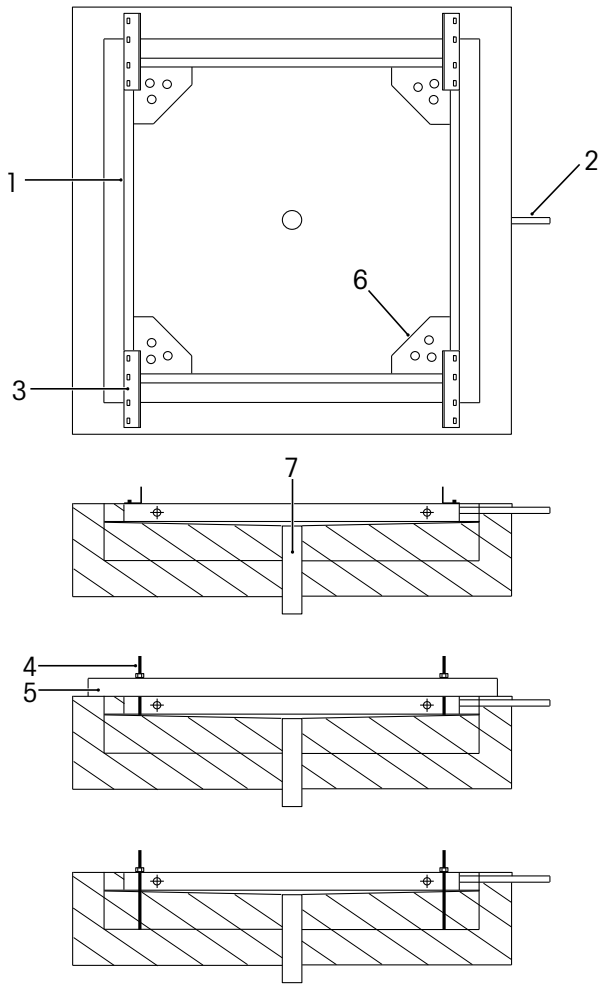
5 Place the rocker pins into the scale frame's receivers.

6 Reinstall the platform on the frame, carefully routing the home-run cable out the appropriate corner of both frames.

7 Continue with the installation and calibration as described in the terminal's manual.

2.8 Pit Installation

For pit installations, we recommend using an optional Quick-Pit frame or pit liner. A Quick-Pit frame simplifies installation by providing a ready-made pit coping around the perimeter of the scale. A pit liner provides a pit with an easy-to-clean surface. The following procedure explains how to install a Quick-Pit frame or pit liner.



Excavating the Pit

- Before constructing a pit, contact METTLER TOLEDO or an authorized METTLER TOLEDO distributor to obtain the correct pit construction drawing.

1 Cut a pit (1) in the floor, matching the dimensions shown on the pit construction drawing. The pit must allow a gap of 92 mm (3-5/8 inches) around the perimeter of the frame or liner.

2 Position the home-run cable conduit (2) as shown. Use high-grade steel conduit (minimum 3/4-inch EMT thin-wall conduit or metric equivalent). Conduit is not supplied by METTLER TOLEDO. Do not secure the conduit until the frame or liner is in the correct position.

Preparing Framework

If the scale was shipped inside the frame or liner, remove the scale. Use one of the following support methods for the frame or liner:

1 Bolt the four installation brackets (3) to the frame or liner so that they extend outward from the frame with the flanges facing up.

2 Use threaded rods (4) and nuts to mount two wooden support beams to the top of the frame or liner. There is a hole in each corner of the frame or liner for securing the threaded rods.

3 Insert threaded rods through the holes in the corners of the frame or liner and thread a nut onto each rod.

4 Lower the frame or liner into the pit:

- ➡ The shipping brackets should rest on the surface of the floor to support the frame or liner.
- ➡ The wooden beams (5) should rest on the surface of the floor to support the frame or liner.
- ➡ The threaded rods should rest on the bottom of the pit to support the frame or liner.

5 Center the frame or liner in the pit opening, and make sure that it is level. If the frame or liner is not level, adjust it by shimming between the shipping brackets and floor, or shimming between the wooden beams and floor, or adjusting the threaded rods and nut.

Concreting

1 Secure the home-run cable conduit to the frame or liner.
2 Mask off the four corner plates (6) and the top flange of the frame or liner to prevent concrete from adhering to these surfaces.
3 Cover the interior of the pit liner to protect the surface while pouring concrete.
4 Pour concrete around the perimeter of the frame or liner.
5 Work the concrete until it is level with the top flange of the frame or liner.
➡ The undersides of all corner plates are completely covered.
6 Slope the floor of the pit at least 1/2 inch per foot to a suitable drain (7) at the center of the pit.

Note: Use a minimum of 3,000 psi (20.7 MPa) strength concrete cured for 28 days with 5 to 7 percent air entrainment.

Installing the Floor Platform in the Pit

Once the concrete has cured, remove the hardware that provided temporary support for the frame or liner

- Remove the installation brackets.
- Remove the wooden beams, threaded rods, and nuts.
- Remove the nuts and saw off the protruding threaded rods.

Install the scale in the Quick-Pit frame or pit liner, using the procedure described in [Top-of-Floor Installation ▸ Page 9].

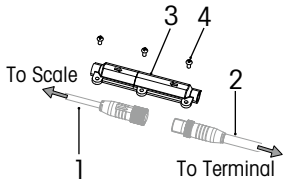
2.9 Installation of Cable Protection Kit

It's the customer's responsibility to protect all the accessories and cables when an Ex version of the PFD7_ floor scale is installed in a hazardous area. METTLER TOLEDO provides a kit of parts to protect the Y cable and the home-run cable connection when the scale is used in a hazardous area. According to the installation environment or requirements, the customer can choose different installation possibilities:

- Installing the long clamp
- Installing the straight pipe
- Installing the straight pipe and the elbow pipe combination

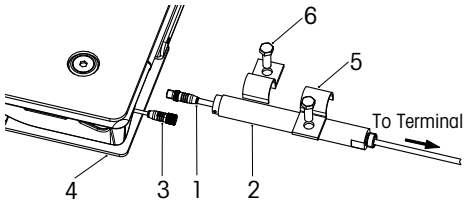
2.9.1 Long Clamp Installation

1 Connect the Y cable (1) to the home-run cable (2).
2 Cover the cable connectors with the long clamp (3).
3 Fasten the long clamp with three M3 screws (4) provided.



Important: Make sure that the cables and the long clamp are well protected from any damage, especially when they are installed in a hazardous area.

2.9.2 Straight Pipe Installation

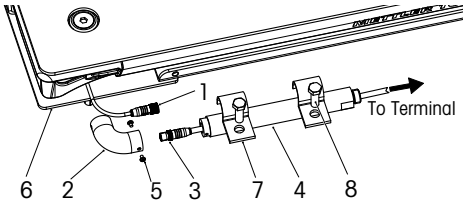


1 Route the home-run cable (1) (the end with loose wires) through the straight pipe (2).
   ➡ Ensure the connector is outside of the pipe.
2 Connect the home-run cable to the Y cable (3), and insert the cable connectors into the pipe.
3 Gently pull the loose-wires end of the home-run cable and position the straight pipe.
   ➡ Ensure the connectors of the Y cable and the home-run cable are fully protected by the pipe and the pipe rests against the installation frame (4).
4 Fix the clips (5) to the straight pipe.
5 Using the clips' holes as guides, drill holes for M12x35 bolts (6).
6 Fasten the straight pipe to the floor with the clips and the M12x35 bolts.

Important: Make sure that the straight pipe does not touch the scale platform.

Important: Make sure that the home-run cable that is outside the straight pipe is well protected from any damage, especially when the scale installed in a hazardous area.

2.9.3 Elbow Pipe Installation



1 Route the Y cable (1) through the elbow pipe (2).
2 Route the home-run cable (3) (the end with loose wires) through the straight pipe (4).
   ➡ Ensure the connector is outside of the pipe.
3 Connect the home-run cable to the Y cable, and insert the cable connectors into the straight pipe.
4 Insert the straight pipe into the elbow pipe, and fasten the two pipes with two M4 bolts (5).
5 Gently pull the loose-wires end of the home-run cable and position the pipes as shown.
   ➡ Ensure the connectors of the Y cable and the home-run cables are fully protected by the pipes and the elbow pipe rests against the installation frame (6).
6 Fix the clips (7) to the straight pipe.
7 Using the clips' holes as guides, drill holes for M12x35 bolts (8).
8 Fasten the straight pipe to the floor with the clips and the M12x35 bolts.

Important: Make sure that the elbow pipe does not touch the scale platform.

Important: Make sure that the home-run cable that is outside the pipes is well protected from any damage, especially when the scale installed in a hazardous area.

2.9.4 Connecting Home-Run Cable to Terminal

The Ex version of the PFD7_ floor scale should work with IND570xx terminal only. Refer to the manual of IND570xx and connect the home-run cable to the terminal through one of the M16 connectors (1).

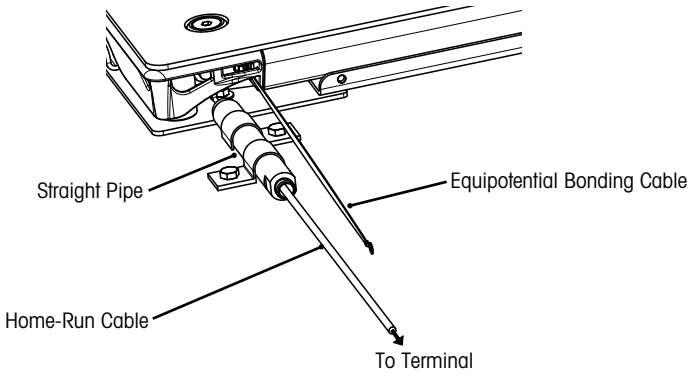


2.10 Equipotential Bonding

The equipotential bonding must be installed by a professional electrician when using the Ex version of a PFD77_ floor scale in a hazardous area. METTLER TOLEDO Service only has a monitoring and consulting function here.

Connect the equipotential bonding (EB) of all devices, including the floor scale and the weighing terminal, in accordance with country-specific regulations and standards. In the process, it must be ensured that:

- All the device housings are connected to the same potential via the grounding terminals.
- No circulating current flows via the cable shielding for intrinsically safe circuits.
- The neutral point for grounding is as close to the weighing system as possible.



2.11 Special Condition of Use

The following special condition of use for load cells must be fulfilled with for the Ex version of PFD77_ floor scale:

- The load cell shall be installed in such a way that the risk for mechanical damage is low.
- The equipment shall only be used in an area of not more than pollution degree 2, as definedin IEC 60664-1.

3 Operation

The scale terminal is the user interface for the PowerDeck™ floor scale. There are five types of METTLER TOLEDO terminals that are available to be used with this floor scale: IND245Powecell, IND246Powercell, IND570Powercell, IND780PDX, and IND890Powercell. This chapter describes the basic functions for weighing on a PowerDeck™ floor scale. The terminal provides proactive warnings, such as overload, shock load, and debris under the scale. Refer to the terminal's user's guide for information about how to operate the terminal.

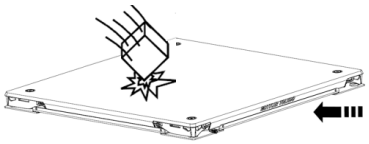
3.1 Startup

1 Connect the terminal to a power source, and power up the terminal.
2 Confirm that the weight reading is zero.
3 If the weight reading is not zero, press the zero button.

3.2 Loading

If you are using a forklift or crane to place loads onto the scale platform, observe the following requirements:

- Do not drop loads onto the platform.
- Avoid shock loading and side impacts.
- The forklift truck's forks must not touch the scale during weighing.



3.3 Confirm Data

Confirm the weight reading on the terminal. Print a weight ticket if required by your operation's procedures.

3.4 Loading Alert

The **Loading Alert** screen helps the operator position loads on the scale platform for accurate and repeatable weighing. It provides a graphical representation of the position of a load on the platform, showing the operator when a load needs to be moved and when it is positioned correctly.

Note: The loading alert is available only with the IND570 terminal.

3.4.1 How to Enable the Loading Alert

Before you can use the loading alert, you must enable it and enter information about the scale and application.

1 Navigate to the Loading Alert setup screen (Setup/Application/Operation/Loading Alert).
2 Enable the loading alert in the drop-down box.



3 Enter a threshold weight (the minimum weight that activates the loading alert).

4 Scroll down to the bottom of the screen, and enter a number in the **OK Zone** field. This number is a percentage of the distance from the center of the platform to the edge of the platform. For example, an OK zone of 10 percent on a platform measuring 1250 by1250 mm will equal an area of 125 by 125 mm at the center of the platform.



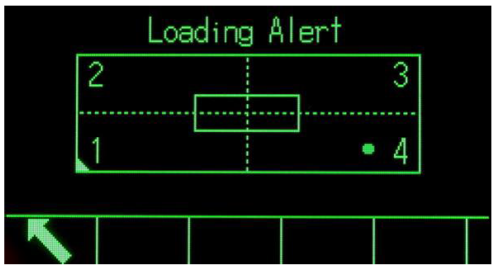
5 Enter the platform size of the floor scale that is connected to the terminal. Be sure to specify the unit of measure.

6 After all settings have been entered, Press the BACK softkey↖ to return to the weighing screen.

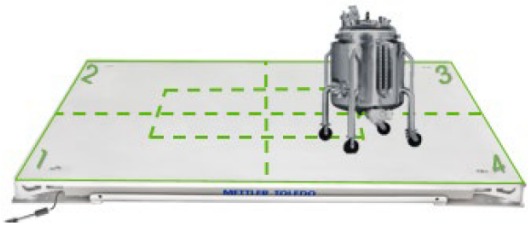
3.4.2 How the Loading Alert Works

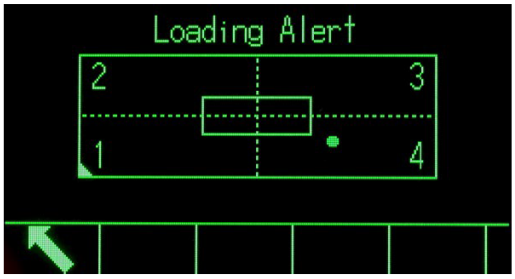
The **Loading Alert** screen opens automatically if the center of gravity of a load is positioned outside the OK zone (acceptable loading area) on the platform.



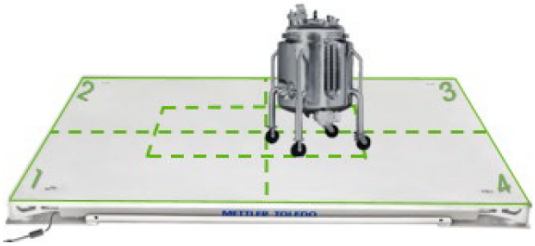


The **Loading Alert** screen displays an outline of the scale platform with the OK zone marked at the center of the platform. A dot indicates the position of the load on the platform. If you reposition the load so that it is closer to the center of the platform but still outside the OK zone, the screen will show the new position of the load.





Reposition the load so that the dot is within the OK zone. The Loading Alert screen will show the new position of the load and then automatically switch to the weight display screen. You can override the loading alert by using the BACK softkey↖ to close the screen.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3
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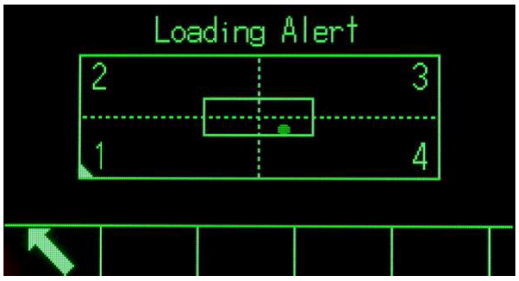
4


Loading Alert
2
3
1
4

4 Service and Maintenance

Have an authorized METTLER TOLEDO service representative inspect and calibrate the floor scale periodically. If the scale is used for legal-for-trade purposes, consult the local weights and measures authorities for minimum inspection requirements. Contact your local authorized METTLER TOLEDO service representative for information about periodic inspection and calibration services.



⚠ WARNING

Permit only qualified personnel to service this equipment. Exercise care when making checks, tests, and adjustments that must be made with power on. Failing to observe these precautions can result in bodily harm.



⚠ WARNING

Before connecting/disconnecting any internal electronic components or interconnecting wiring between electronic equipment, always remove power and wait at least thirty (30) seconds. Failure to observe these precautions could result in bodily harm or damage to or destruction of the equipment.

4.1 Scale Maintenance

4.1.1 Daily Check

- Check the scale every day before using it.
- Oscillate the platform to make sure that the rocker pins are seated properly and there is no binding.
- Make sure that all corners of the frame are supported and the scale does not rock.
- Make sure that the home-run cable connections are not loose.

4.1.2 Weekly Check

- Check for debris between the platform and frame or pit frame.
- Check for debris between the overload stop and load cell.
- Check for debris in the bumper gap between the receiver and platform.

4.1.3 Monthly Check

- Check the load cell mounting hole and the receiver. Add lubricant if needed.

4.2 Service

If you have any questions about the scale's accuracy or operation, please contact the METTLER TOLEDO service team.

To protect your product's future:
METTLER TOLEDO Service assures the quality, measuring accuracy and preservation of value of this product for years to come.

Please request full details about our attractive terms of service.

www.mt.com/service

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