



i-D33P75SD Bench Scale Quick Start Guide



1. INTRODUCTION

This quick start guide contains the installation, operation and maintenance instructions for the i-D33P75SD bench scale. Please read it completely before installation and operation.

1.1. Safety Precautions

Definition of Signal Warnings and Symbols

Safety notes are marked with signal words and warning symbols. These show safety issues and warnings. Ignoring the safety notes may lead to personal injury, damage to the instrument, malfunctions and false results.

WARNING	For a hazardous situation with medium risk, possibly resulting in severe injuries or death if not avoided.
CAUTION	For a hazardous situation with low risk, resulting in damage to the device or the property or in loss of data, or minor or medium injuries if not avoided.
ATTENTION	For important information about the product. May lead to equipment damage if not avoided.
NOTE	For useful information about the product.

Warning Symbols



General hazard



Explosion hazard



Electrical shock hazard

Safety Precautions



CAUTION: Read all safety warnings before installing, making connections, or servicing this equipment. Failure to comply with these warnings could result in personal injury and/or property damage. Retain all instructions for future reference.

- Before connecting power, verify that the equipment's input voltage range and plug type are compatible with the local AC mains power supply.
- Do not position the equipment such that it is difficult to reach the power connection.
- Only connect the power cord to a compatible grounded electrical outlet.
- Only use a power cord with a rating that exceeds the specifications on the equipment label.
- Make sure that the power cord does not pose a potential obstacle or tripping hazard.
- Operate the equipment only under ambient conditions specified in these instructions.
- Do not operate the equipment in hazardous or unstable environments.

- Do not allow liquids to enter the equipment.
- Use only approved accessories and peripherals.
- Disconnect the equipment from the power supply when cleaning.
- Service should only be performed by authorized personnel.



WARNING: Never work in an environment subject to explosion hazards! The housing of the instrument is not gas tight. (Explosion hazard due to spark formation, corrosion caused by the ingress of gases).



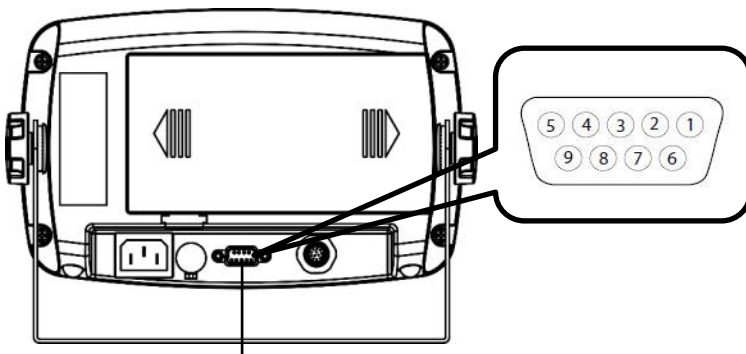
WARNING: Electrical shock hazards exist within the housing. The housing should only be opened by authorized and qualified personnel. Remove all power connections to the unit before opening.

2. INSTALLATION

2.1. External Connections

RS232 Connection

Connect the optional RS232 cable to the RS232 connector on the rear housing of the i-DT33P indicator. Please refer to table 2-1 for the definition of each pin if needed.



RS232 Connector

Figure 2 i-DT33P RS232 Connector

Table 2-1 RS232 Pins

Pin	Connection
1	N/C
2	TXD
3	RXD
4	N/C
5	GND
6	N/C
7	N/C
8	N/C
9	N/C

Rechargeable Battery Power (Option)

Allow the battery to charge for 12 hours before using the scale on battery power. The instrument can be operated during charging, and the battery is protected against overcharging. For maximum operating time, the battery should be charged only at room temperature.

3. OPERATION

3.1. Overview of Display and Controls



Figure 3 i-DT33P Control Panel

Button	On/Zero Off Yes	Print Units No	Function Mode Back	Tare Menu Exit
Primary Function (Short Press)	On/Zero If the terminal is off, press to power on; If the terminal is on, press to set the zero point.	Print Sends the current value to the RS232 port.	Function Initiates an application mode.	Tare Performs a tare operation.
Secondary Function (Long Press)	Off If the terminal is on, press to power off.	Units Changes the weighing unit.	Mode Changes the application mode. The i-D33P75SD scale should be used in "Weigh" mode for materials testing.	Menu Enters the user menu. Shows a tare value in application modes.
Menu Function (Short Press)	Yes Accepts the current setting on the display or selects a sub-menu or menu item.	No Advances to the next menu or menu item. Rejects the current setting on the display and advances to the next available one.	Back Moves back to the previous menu item.	Exit Exits the user menu. Aborts a calibration in progress. Exits when displaying totalization result or under and over value in check mode.

Notes:

- Short Press: press less than 1 second.
- Long Press: press and hold for more than 3 seconds.

4. CALIBRATION MENU

Enter the calibration menu **└.R.L** to perform calibrations.

4.1. Initial Calibration

When the scale is operated for the first time, a zero and span calibration are recommended to ensure accurate weighing results.

Table 4-1 Suggested Span Calibration Mass (Sold Separately)

Max Capacity (kg)	Mass (kg)	Max Capacity (lb)	Mass (lb)
75 kg	75 kg	150 lb	150 lb

Note: Calibration unit used must match the calibration unit selected in menu option **Capacity Unit**.

4.2. Zero Calibration [**2E-0**]

Zero calibration uses one calibration point. The zero calibration point is established with no weight on the scale.

Use this calibration method to adjust for a different static load without affecting the span or linearity calibration.

Calibration procedure (when the calibration unit is kg)

1. Long press the **Menu** button until you see **┐.E.N.U.**
2. Release the button and wait for the display to show **└.R.L**. Press the **Yes** button.
3. The display shows **2E-0**. Press the Yes button.
4. **0** kg and the calibration unit are flashing on the display. With no weight on the pan, press the Yes button to establish the zero point.
5. The display shows **--E--**, and then **-000E-** when the Zero calibration is finished.

Note:

If zero calibration has failed or if after 40 seconds the calibration is still not successful, **└.R.L E** is displayed for 3 seconds and the previous calibration data will be restored.

6. Then the display shows **SPAN**. Press the Exit button to exit.

4.3. Span Calibration [SPAN]

Span calibration uses one calibration point. It is established with a calibration mass placed on the scale.

Note: Span calibration should be performed after zero calibration.

Calibration procedure (when the calibration unit is kg)

1. Long press the Menu button until you see **000.000**.
2. Release the button and wait for the display to show **CAL**. Press the **Yes** button.
3. Short press the No button to navigate until you see **SPAN**. Press the Yes button.
4. The calibration point and the unit are flashing on the display based on the scale capacity and unit set in the menu. (e.g. **000.000 kg**) If you do not need to change the calibration point, skip to step 6.
5. To change the calibration point:
 - a) Short press the **No** button several times until the desired number appears.
Note: press the **Back** button can decrease the digit.
 - b) Short press the **Yes** button to accept the number and move on to the next digit.
 - c) Repeat the process until all the digits are correct.
 - d) Press the **Yes** button to accept calibration point. It is flashing on the display.
6. Place a calibration mass of the specified weight on the pan and press the Yes button.
7. The display shows **--E--**, and then **done** when the calibration is finished.
8. Then the display shows **0.00**. Press the **Exit** button to exit.

Note:

- If calibration has failed, **CAL E** is displayed for 3 seconds and the previous calibration data is restored.
- If after waiting for 40 seconds the calibration is still not successful, **CAL E** is displayed for 3 seconds and the previous calibration data is restored.

4.4. Linearity Calibration [L IN]

Linearity calibration uses 3 calibration points. The full calibration point is established with a weight on the pan. The mid calibration point is established with a weight equal to half of the full calibration weight on the pan. The zero calibration point is established with no weight on the pan. The full calibration and mid calibration points can be altered by users during the calibration procedure to reflect actual weights available for calibration.

Calibration procedure (when the calibration unit is kg)

1. Long press the Menu button until you see **000.000**.
2. Release the button and wait for the display to show **CAL**. Press the Yes button.
3. Short press the **No** button several times to navigate until you see **L IN**. Press the Yes button.

4. 0 kg and the calibration unit are flashing on the display. With no weight on the pan, press the Yes button to establish the zero point. The display shows --[--.
5. Then the first calibration point and the unit are flashing on the display based on the scale capacity and unit you set in the setup menu. (For example, 0 15.000 kg). If you do not need to change the calibration point, skip to step 7.
6. To change the calibration point:
 - a) Short press the **No** button several times until the desired number appears.
Note: press the **Back** button can decrease the digit.
 - b) Short press the **Yes** button to accept the number and move on to the next digit.
 - c) Repeat the process until all the digits are correct.
 - d) Press the **Yes** button to accept calibration point. It is flashing on the display.
7. Place a calibration mass of the specified weight on the pan and press the Yes button. The display shows --[--.
8. The second calibration point and the unit are flashing on the display based on the capacity and unit you set in the setup menu. (For example, 030.000 kg)
Note:
 - If calibration has failed, [AL E is displayed for 3 seconds and the previous calibration data is restored.
 - If after waiting for 40 seconds the calibration is still not successful, [AL E is displayed for 3 seconds and the previous calibration data is restored.
9. Repeat step 6 and 7.
10. The display shows --[--, and then -[00E- when the Linearity calibration is finished.
11. After that the display shows [E0. Press the Exit button to exit.

4.5. Calibration Test [L.E5E]

A calibration test printout can be generated if a printer is attached.

For more information refer to section 4.2.6 in the Defender 3000 Indicators (i-DT33) manual.

End Cal [End]

When End is displayed, press the **Yes** button to exit this menu and advance to the next sub-menu, or press the **No** button to advance to the first menu item in the this sub-menu.

5. MAINTENANCE

CAUTION: DISCONNECT THE UNIT FROM THE POWER SUPPLY BEFORE CLEANING.

5.1. Cleaning

The housing may be cleaned with a cloth dampened with a mild detergent if necessary.



WARNING: Electric Shock Hazard. Disconnect the equipment from the power supply before cleaning. Make sure that no liquid enters the interior of the instrument.



Attention: Do not use solvents, harsh chemicals, ammonia or abrasive cleaning agents.

5.2. Troubleshooting

For technical issues contact an Authorized Ohaus Service Agent. Please visit our website www.ohaus.com to locate the OHAUS office nearest you.

6. TECHNICAL DATA

6.1. Specifications

Equipment Ratings:

Altitude:	2,000m
Operating temperature:	-10°C to 40°C
Humidity:	Maximum relative humidity 80% for temperatures up to 31 °C decreasing linearly to 50% relative humidity at 40°C.
Electrical supply:	100 - 240V~, 0.5A, 50/60Hz
Voltage fluctuations:	Mains supply voltage fluctuations up to $\pm 10\%$ of the nominal voltage.
Overvoltage category (Installation category):	II
Pollution degree:	2

Model	i-D33P75SD
Capacity x Readability	75 kg x 0.02 kg 150 lb x 0.05 lb
Weighing units	Kilogram, Gram, Pound, Ounce, Pound: Ounce
Modes	Weighing, Counting, Check, Totalization
Stabilization time	Within 2 seconds
Zero range	To capacity by subtraction
Maximum Overload	150%
Battery Operating Time	Dry cell battery: up to 150 hours continuous use with backlight off Rechargeable battery (optional): up to 75 hours continuous use with backlight off
Operating Temperature Range	-10°C to 40°C/14°F to 104°F
Indicator to Base Cable Length	1.8m / 72" (uncoiled)
Display	45 mm / 1.8 in digit height LCD display with 4-color backlight
Power cord length	1.9m / 75" (fully extended)
Scale Base Size	316mm L x 280mm W x 45mm H / 12.4" L x 11" W x 1.77" H
Indicator Size	252 x 176 x 80 mm / 9.9 x 6.9 x 3.1 in
Power	100-240 VAC / 50-60 Hz internal power supply
Net Weight	4.5kg / 9.9lb
Shipping Weight	9.2kg / 20.3lb

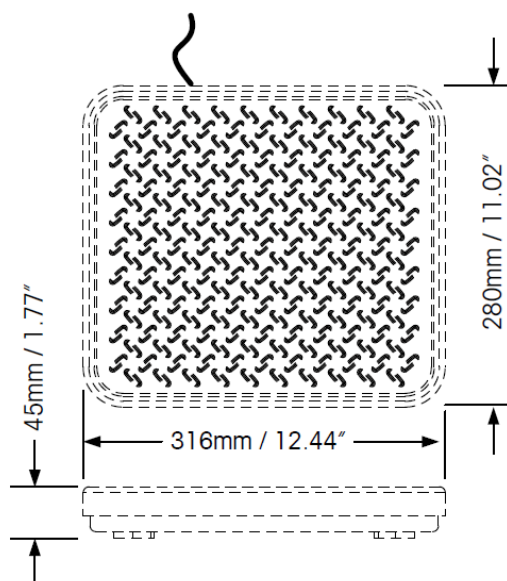


Figure 6 Scale Base Overall Dimension



INSTRUCTION MANUAL

For more detailed information about the indicator, please refer to the product instruction manual. The instruction manual can be obtained either by scanning the QR code or by going to the product page and from there download it.

QR Code:



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