

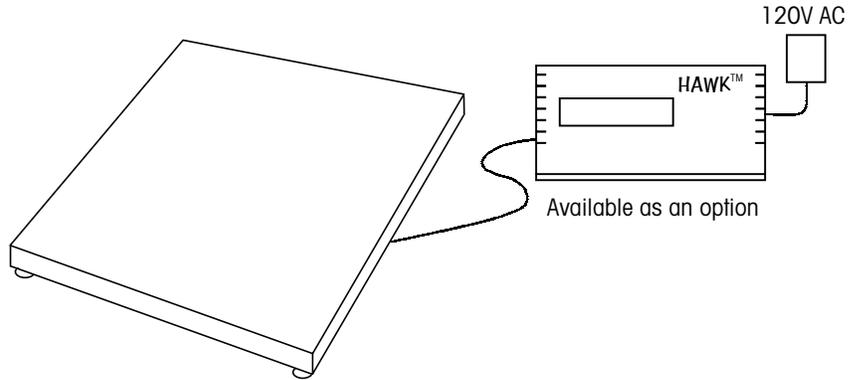
# VLX™ Floor Scale Operator Card

## 1 General Description

The VLX floor scale is a fully electronic scale for top-of-the-floor installation. It meets or exceeds all metrological performance characteristics listed in NIST Certificate of Conformance No. 99-132A1 (Class III, Nmax = 5,000). It is capable of resolutions up to 5,000 divisions for legal applications (the precalibrated VLX/HAWK™ package has this configuration).

Size	Capacity	Load Cells
36" x 36" (914 x 914 mm)	1000 lb	Four 500 lb
	2500 lb	Four 1000 lb
48" x 48" (1219 x 1219 mm)	1000 lb	Four 500 lb
	2500 lb	Four 1000 lb
	5000 lb	Four 2500 lb

Scale height is 4.5" (114 mm).



## 2 Installation

1. When you receive the VLX floor scale, inspect it to make sure that it was not damaged during shipping.
2. After placing the scale in its final location, use a screwdriver to adjust each leveling foot so that all four feet touch the floor.
3. Check the bubble level on the top of the scale platform, and adjust the feet until the bubble is centered within the level.
4. When the scale platform is level, tighten the hex nut on each foot to lock the feet in place against the load cells.

NOTE: Do not apply torque to the load cells.

5. If the VLX floor scale is packaged with a HAWK indicator, continue to step 6. If it is not packaged with a HAWK indicator, follow the instructions on this card for instrument cable wiring and calibration, and then finish with step 7.
6. Place the HAWK indicator on a desk or attach it to a wall with the optional wall-mount bracket. Plug the round connector from the power transformer into the side of the indicator. Plug the power transformer into a 120V AC outlet (indicator can also operate on batteries). To power up the indicator, press the On/Off (PRINT) key and hold it for three seconds.
7. Check the scale to make sure that it is working properly. Place a known load or test weight equal to half the scale's rated capacity on the platform. If the recommended test weight is not available, use as much weight as possible to verify proper operation. If the scale indicator reads incorrectly, contact your local METTLER TOLEDO authorized representative for help.

## 3 Instrument Cable Wiring

1. Remove the two screws from the junction box access cover on the side of the platform, and remove the cover.
2. Route approximately 6" (150 mm) of the indicator cable through the junction box bushing. Strip 1.5" (40 mm) of the outer covering from the end of the cable. Strip 0.25" (6 mm) of the covering from the end of each wire.
3. Connect the indicator cable to the seven-position INPUT terminal strip on the PCB located on the inside of the junction box access cover (see Figure 3-1 and Table 3-1 for the terminal location and the wiring color codes). To connect the wires, use the tip of a screwdriver to apply pressure to the lever on each spring-loaded terminal. Then insert the wire and release the lever.

\* See Section 5 for wiring codes used for Model 713 load cells.

Function	Indicator Cable	Load Cell
	Wire Color	Wire Color*
- Signal	Black	Red
+ Signal	Green	White
- Sense	Red	Not Used
- Excitation	Blue	Black
+ Sense	Yellow	Not Used
+ Excitation	White	Green
Shield	Orange	Yellow

Table 3-1: Indicator and Load Cell Wiring Codes

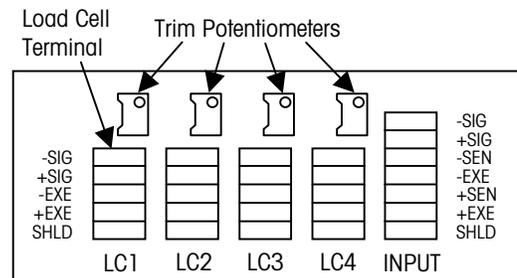
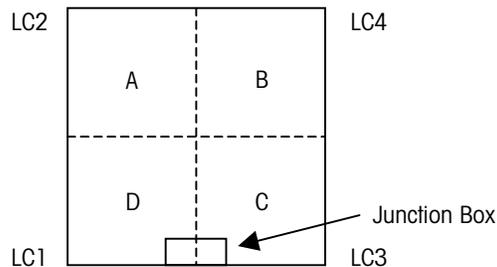


Figure 3-1: Junction Box PCB Layout

## 4 Calibration (Shift Adjustment)

When you shift adjust a scale, you are adjusting the output voltage (signal) of each load cell so that all load cells in the system produce a consistent signal. Before shift adjusting the scale, check the scale's repeatability by placing a test weight on the same location on the platform several times to make sure that you get the same weight reading each time.



**Figure 4-1: Top View of Scale**

- Figure 4-1 shows test weight locations (A, B, C, and D) at the center of each quadrant of the scale platform. Place a test weight (equal to half the rated scale capacity) at location A and record the weight reading. Then move the test weight to location B and record the weight reading. Continue until you have taken a weight reading at each of the four locations.
- Place the test weight at the location immediately clockwise from the location at which you got the lowest weight reading. Then adjust the trimming potentiometer for the load cell that corresponds to the corner of the scale where the test weight is positioned (see Figure 4-1). Make the adjustment by turning the potentiometer until the weight reading matches the lowest reading.
- Proceeding clockwise, repeat the adjustment described in Step 2 for the next two test weight locations.
- Trimming potentiometers may interact with each other. Repeat Steps 1 to 3 until the weight readings at all corners of the platform are the same.
- Replace the junction box access cover.

## 5 Parts List

Part Number	Description
TB601019-008*	Model 793 Load Cell, 500 lb
TB601015-008*	Model 793 Load Cell, 1000 lb
TB601016-008*	Model 793 Load Cell, 2500 lb
TN800647	Load Cell Mounting Bolts (500 lb)
TN800650	Load Cell Mounting Bolts (1K/2.5K)
TN600839-ZN	Load Cell Mounting Block Spacer
TN203980	Swivel Foot Assembly
14378800A	Junction Box PCB
TN100751	Junction Box Cover Assembly
TN201817	Bubble Level

### Options:

Part Number	Description
TE-00000	HAWK Wall-Mount Bracket, SS
VLXA0100	Ramp, Painted Steel, 48" x 48"
VLXA0201	Foot Locating Plates

\* Earlier versions of the VLX floor scale use Model 713 load cells. If the scale's model number is in the VLX0xxx format, the following load cells are used: TB600830-008 (500-lb cell), TB600831-008 (1,000-lb cell), TB600833-008 (2,500-lb cell). Note that the following wiring color codes are used for 713 load cells: -SIG = White, +SIG = Green, -EXE = Black, +EXE = Red, SHLD = Yellow.

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This document is provided as a guide for the trained technician for installing and servicing of the VLX floor scale. Repair or adjustment by unauthorized persons voids the METTLER TOLEDO Warranty. For more information please contact your local authorized METTLER TOLEDO Distributor, Sales, and Service location, or contact:

METTLER TOLEDO  
1900 Polaris Parkway  
Columbus, Ohio 43240 USA  
(614) 438-4511

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