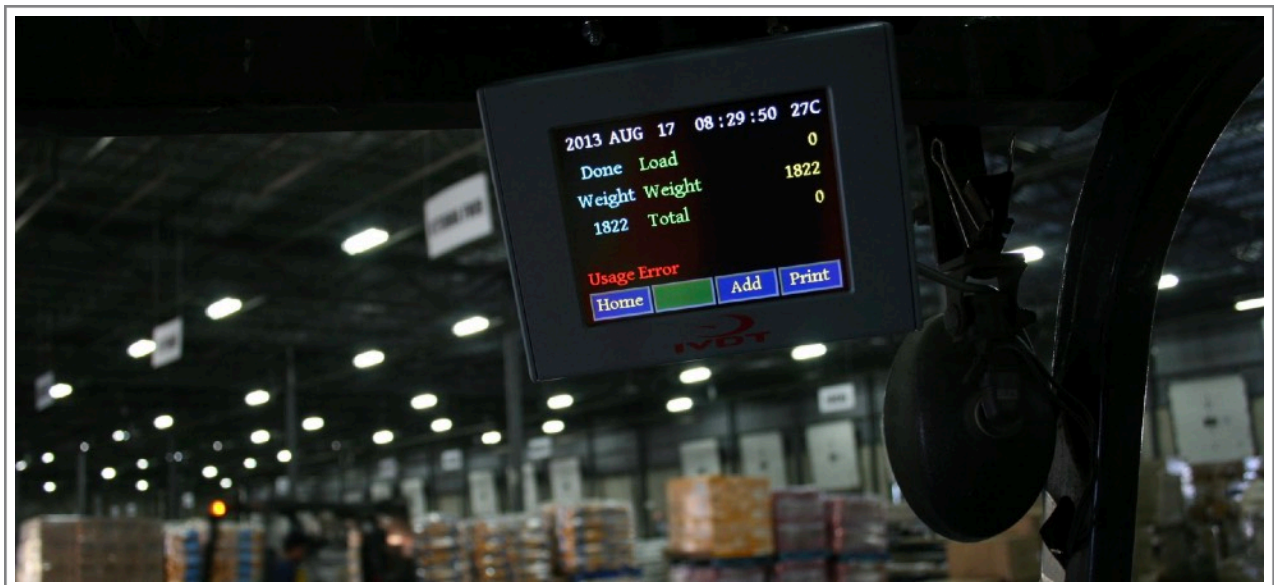


Installation & Calibration and Usage Manual **SkidWeigh ED5 Series**



Lift Truck Onboard Check Weighing Scale 5.7" Touch Screen

ED5V3.3

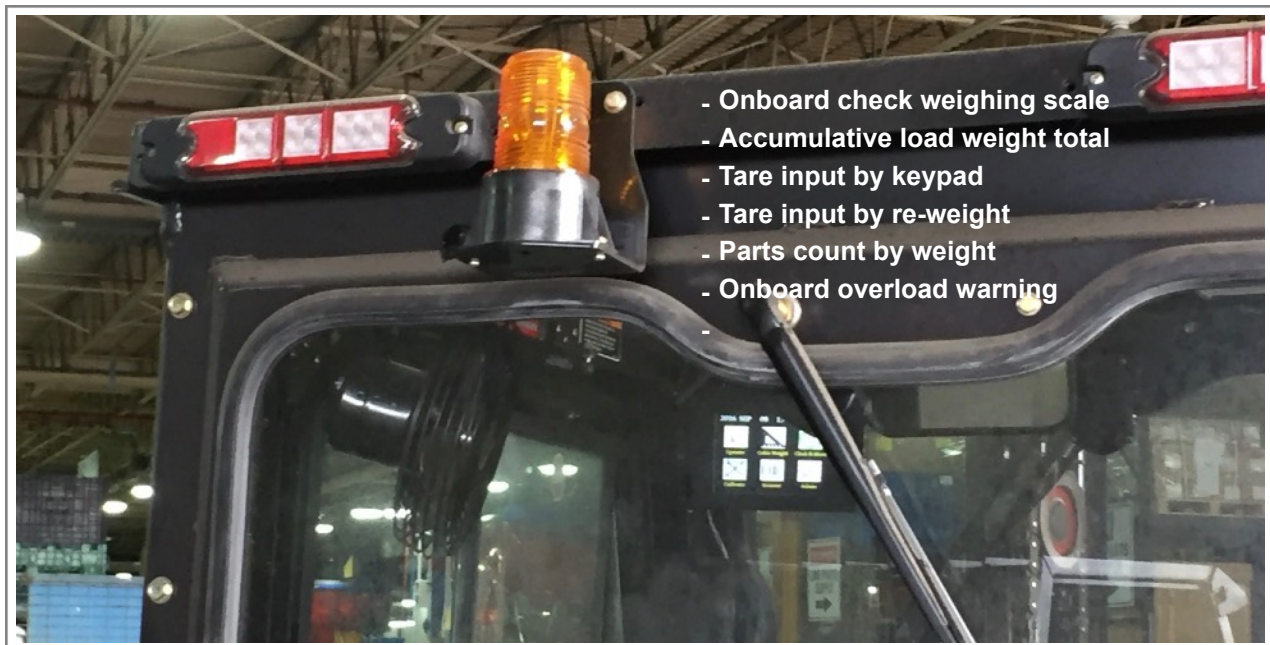
General

This SkidWeigh ED5 series V3.2 system installation & calibration guide describes how to install, calibrate, test and use your on-board check weighing system. Following the instructions in this guide will enable you to get your system operating quickly and easily. In the event that you require additional assistance, please contact customer support via e-mail at support@skidweigh.com or visit www.skidweigh.com or contact us at the address or contact number below:

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Safety

Always disconnect the vehicle battery while installing ED5 system or any other electronic product. Make sure that indicator, pressure transducer and any other associated cables are securely mounted and do not impede any of the vehicle's controls. Use care when routing the components cables. Route the cables where they will be protected. Use commonly accepted install practices for after market industrial vehicle electronic devices. The installation of the ED5 systems should only be performed by an acknowledged lift truck dealer technician or end user electro and hydraulic technical installer.

Here are two acceptable methods of making a wire connections:

- * Soldering your connections (recommended)
- * Crimp connectors (with the use of the proper crimping tool)

Regardless of the method you choose, ensure that the connection is mechanically sound and properly insulated. Use high quality electrical tape and shrink tubing where necessary.

The system is connected directly to the vehicle's ignition switch, 12 to 55 VDC. There is no on/off switch on the unit.

Electro-Magnetic Compatibility

CE conformity to EC directive 89/336 (EMC) by application of harmonized standards: Interference stability EN 61000-6-2 and EN 61326-1 interference emit EN 61000-6-3, EN 61326-1 for the pressure transducer.

ED5 Series

Our policy is one of continuous improvement and the information in this document is subject to change without notice. Check that software version displayed on LCD is the one applicable for your application.

Overview of components

The standard SkidWeigh ED5 system consist of two main components:

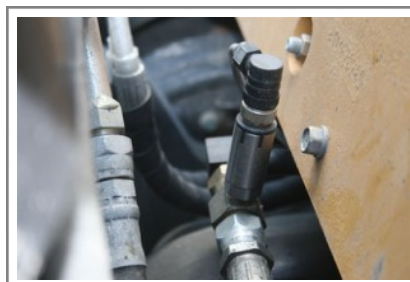
- * Digital indicator with wiring harness, mounting bracket
- * Hydraulic pressure transducer with 3 wires cable
- * Installation & calibration manual and operator usage instruction

Operational principal

The SkidWeigh ED5 system check weighing operational principal is based on the hydraulic pressure transducer mounted in the vehicle lifting hydraulic circuit that will automatically activate the “weighing cycle / specific algorithm ” every time a skid load is lifted just above the ground. The increase in pressure is converted in an electronic signal at the sample rate of 16000 readings which is converted into a load weight reading. The ED5 system with optional impact detection function have the impact module mounted inside the instrument enclosure.

Pressure transducer installation

The pressure transducer must be installed in the lifting hydraulic line between the lift control valve and lift cylinder(s). Mount a T-piece in lifting hydraulic line. In some cases you can install the pressure transducer in the flow divider, drilling and tapping for 1/4”-18 NPT male in spare plug (if only single or double mast configuration) or in the body of the flow divider. Also, you can drill and tap on any “larger elbow” that might be available in the hydraulic lifting circuit found in vehicles with larger hydraulic hoses to accommodate larger vehicle lifting capacities.



Pressure transducer installation precautions

Before installation of the pressure transducer the hydraulic lift circuit must be pressure free.

There are two ways to do that:

1. Place the forks on the ground in their lowest position and make the hydraulic system pressure free by tilting the mast forward. The chain(s) should be slack.
2. Lift the forks and position them on the top of a supporting fixture. Start lowering the lifting cylinder into its lowest position. Be sure that chain(s) are slack.

Make sure that that installed pressure transducer will not touch any moving parts or assembly of the vehicle while in normal operation. Pressure transducer has 1/4"-18 NPT male thread. Use thread seal to ensure tight fit.

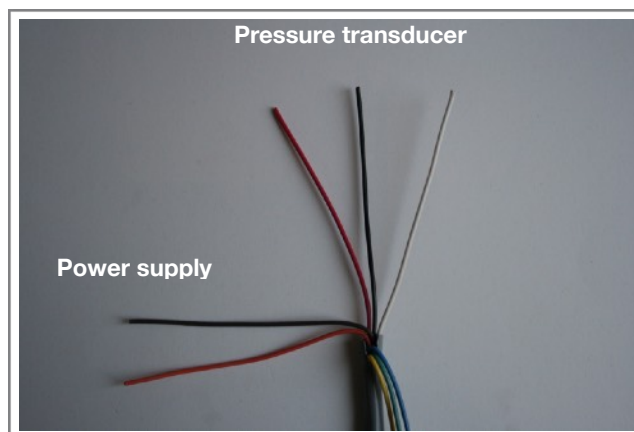
Selecting the mounting location for digital indicator

Use the mounting bracket to fasten digital indicator on the vehicle dashboard, side railing or preferably on the top of the operator guard.



There are many examples of mounting locations that will depend on the vehicle model. However, additional mounting items such as a flat brackets may be needed to help secure the unit to upper right corner of the guard or side railing.

Electrical Connections



Power Supply

- Orange Wire (+) Ignition switch
- Brown Wire (-) Battery negative

Pressure Transducer

- Red Wire, connect to RED wire of the pressure transducer cable
- Black Wire, connect to BLACK wire of the pressure transducer cable
- White Wire, connect to WHITE wire of the pressure transducer cable

Electrical power short circuit protection

- All of the ED5 systems are internally short circuit protected with resettable fuse. There is no need to install external inline fuse in orange wire connected to the ignition switch, vehicle positive connection 12 to 55 VDC.
- Automotive 60 V load dump protection.
- Reversal power supply protection.

“Quick test to determine if electrical connections are done correct”

After you have connected electrical power and pressure transducer cable you can check the system operation.



- Turn on ignition switch.
- Tap on Home icon and then tap on the “**Clock & More**” icon shown on LCD display home page.
- Tap on “**Pressure Transducer Test**”. LCD display will show digital readout change as forks are lifted and lowered.

- If the above test is valid then the system pressure transducer electrical connections are done right.

Note: If the readout shows 0 or only high readout number value over 65000, then check wiring connection to the pressure transducer.

Date / Time Set Up

Tap on the icon Clock & More shown on home page.



- Tap on the icon “**Set Clock**”.
- Use “Set” and “arrow up” and “arrow down” input to change time and date if required
- When done tap on “**Home**” icon to save the values.

Vehicle ID#

- Tap on the icon “**Admin**”. - Password table will be shown.
- Input a following password: **A123** and press “**Next** icon”.
- Input valid Vehicle ID#

Note: Maximum 3 digits.

- Tap on “**Next** icon” to confirm the vehicle ID#. Press **Home** icon.



Instructions for Load Weight Calibration Procedure

To initiate calibration of the load measurement process you must press “**Home**” icon, and on the Home page press “**Calibrate**” icon.

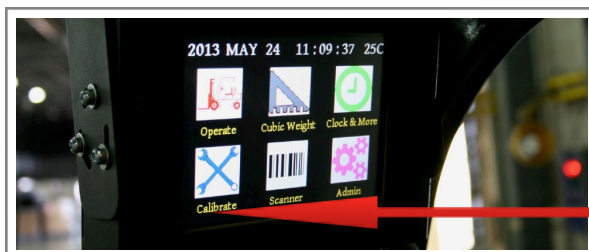


- For the best results use at least minimum known calibration load weight of 30 to 50% of maximum lifting capacity of the lift truck. Use customer floor scale or find a known load weight within the operational facility.

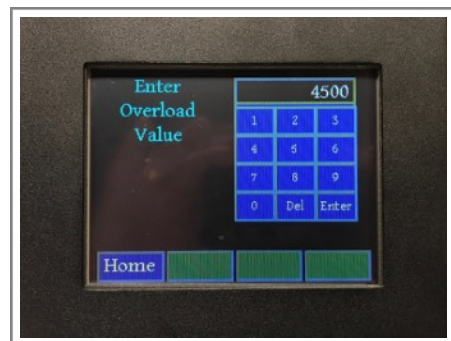
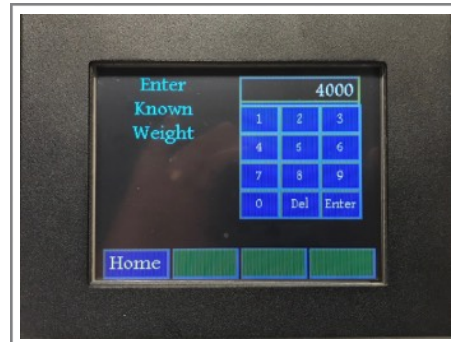
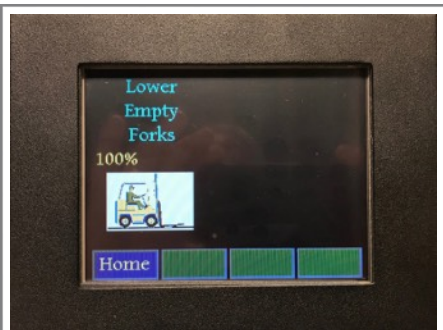
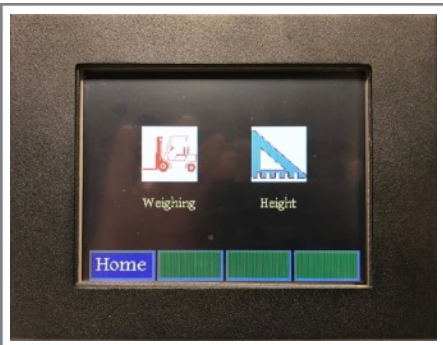
- Important:

If you want the system to show load weight in pounds, use the known load weight in pounds and enter that value accordingly. The same would apply if you want the system to show load weight in kilograms.

Scale Calibration (Note: In our example a known calibration load weight is 4000.)



- To initiate system weighing calibration tap on the “Calibrate” icon shown on Home page.
- In the Password menu input A123.
- Tap on Weighing icon
- Lower empty forks on the ground and follow instructions (1 to 8) to calibrate scale and set overload alert.



- The SkidWeigh ED5 calibration is done.
- The SkidWeigh ED5 overload warning. (Enter Overload value and press Enter key)
- With calibrated load weight lowered to the ground **system is calibrated and ready for use**

Operator Usage Guide



- Turn on ignition switch
- Display will show IVDT logo, software version and serial number for the moment.
- With forks on the ground system display will show normal weighing mode window



- WEIGHING PROCEDURE

- Insert the forks into the pallet or product to be weighed
- Lower the loaded forks to the ground
- Lift the load approx. 2" off the ground using the hydraulic lift lever same as during normal use.
- Do not use lift lever by lifting load "slow".
- Within few seconds load weight will be shown on LCD display.

Accumulative Load Weight Total Function

- When load is lifted and display will show the load weight. To add the load to the accumulative total tap on **Add** icon.
- In addition to the current last load weight the accumulative load weight total will be shown on display.
- When finished with accumulative load weight total procedure, on last load weight shown on display, press **Send** icon to reset accumulative load weight total function.



TARE Function

With display showing normal weighing screen, press **Home** icon. On Home page, press **Clock & More** icon



- Press **Tare Input by Keypad** icon.
 - Input **TARE** value and press **Next** icon.
 - Every load lifted will be calculated with TARE value
 - Display will show **TR** icon on display
 - The accumulative load weight totals function if used will be calculated with TARE value
 - To cancel current TARE value, tap on the **TR** icon.
- Note:** You can use TARE IN REWEIGH function in **Tare Input by Weight**. Press **Clock & More** icon and follow instruction shown on LCD display.



Parts Count

- On Home page, press **Clock & More** icon
 - Press icon **Parts Count by Weight**.
 - In **Part Weight table** input single part weight and press **Next** icon. (Example: 2.0, 2.8, 5.8, etc.)
 - Every time load is lifted LCD display will show load weight and number of parts.
 - You can count parts with system being in TARE mode as well. You can cancel TARE function by pressing **TR** icon on display.
- Note:** To cancel **Parts Count by Weight Function**, you must go back to home page, press on **Parts Count by Weight** and input "0" value in **Parts Count** table and press **Next** key.

