

SAFE-AID TS350

FORKLIFT TRUCKS

Operators Manual - Version I



! WARNING !

THE PURPOSE OF THIS MANUAL IS TO PROVIDE THE USER WITH THE OPERATING PROCEDURES ESSENTIAL FOR THE PROMOTION OF PROPER MACHINE OPERATION FOR ITS INTENDED USE. THE IMPORTANCE OF PROPER USAGE CANNOT BE OVERSTRESSED. ALL INFORMATION IN THIS MANUAL SHOULD BE READ AND UNDERSTOOD BEFORE ANY ATTEMPT IS MADE TO OPERATE THE MACHINE.

SINCE THE MANUFACTURER HAS NO DIRECT CONTROL OVER MACHINE APPLICATION AND OPERATION, CONFORMANCE WITH GOOD SAFETY PRACTICE IN THIS AREA IS THE RESPONSIBILITY OF THE USER AND HIS OPERATING PERSONNEL.

ALL PROCEDURES ARE BASED ON THE USE OF THE SYSTEM UNDER PROPER OPERATING CONDITIONS, WITH NO DEVIATIONS FROM THE ORIGINAL DESIGN. ALTERATION AND OR MODIFICATION OF THE EQUIPMENT IS STRICTLY FORBIDDEN WITHOUT PRIOR WRITTEN APPROVAL FROM ELEC-MECH (PTY) LTD.

BEFORE OPERATING A MACHINE EQUIPPED WITH A SAFE-AID TS350 THE OPERATOR MUST READ THE INFORMATION IN THIS MANUAL CAREFULLY. CORRECT FUNCTIONING OF THE SYSTEM DEPENDS UPON ROUTINE DAILY INSPECTION AND ANY SUSPECTED FAULTS OR

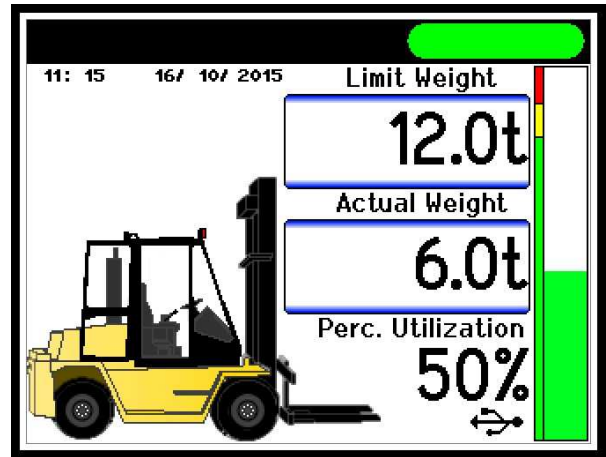
APPARENT DAMAGE SHOULD BE IMMEDIATELY REPORTED TO THE RESPONSIBLE PERSON BEFORE USING THE MACHINE.

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SYSTEM USE

The Safe-Aid TS350 unit is designed with ease of operation in mind. The system goes directly into its normal operating/monitoring screen requiring no input from the operator unless a tare load is required. All inputs to the system are done by the operator via the touch screen including the buzzer override function and momentary bypass (if applicable). The touch screen is sensitive to touch therefore it is **not** necessary to **push hard** on the screen (*if touch screen does not work or selects incorrectly see Touch Screen Calibration*).



SYSTEM STARTUP

The TS350 display unit will automatically power up when the machine is switched on and the buzzer will sound once.

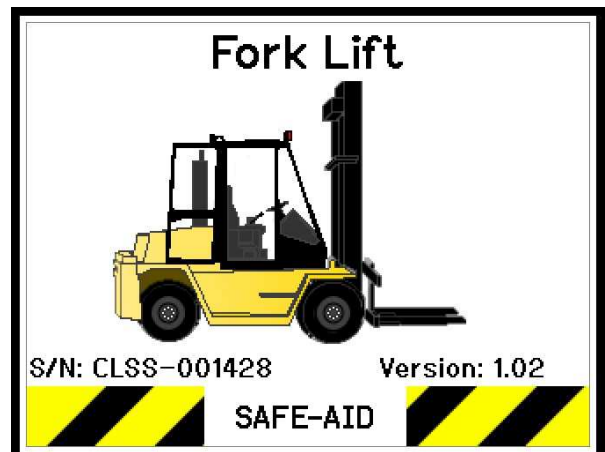
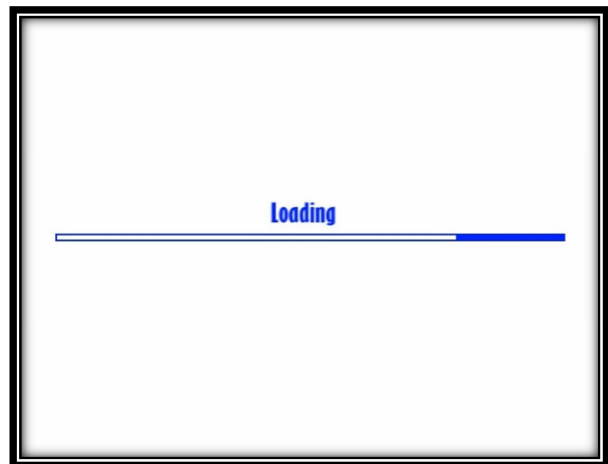
The system will run a CRC (cyclic redundancy check) to make sure that all raw data is correct.

Once the system has completed the CRC the buzzer will sound again and a set of internal diagnostics (watchdogs) will be utilised to verify that all inputs and outputs are working correctly.

At this point screen calibration can be done if required (see Screen Calibration for process).

This screen displays the display serial number as well as the firmware version:

- S/N CLSS – serial number
- Version – Firmware Version

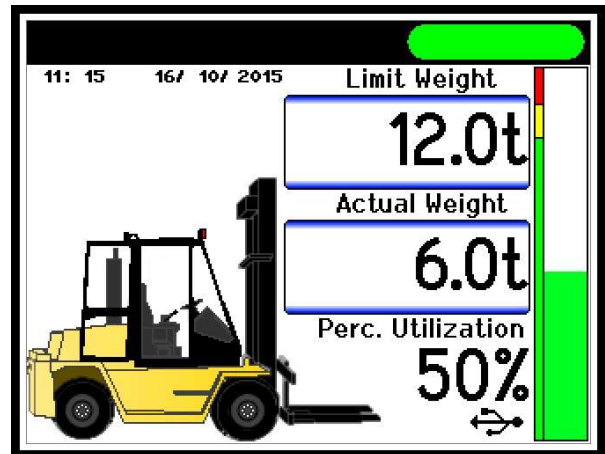


OPERATING SCREEN

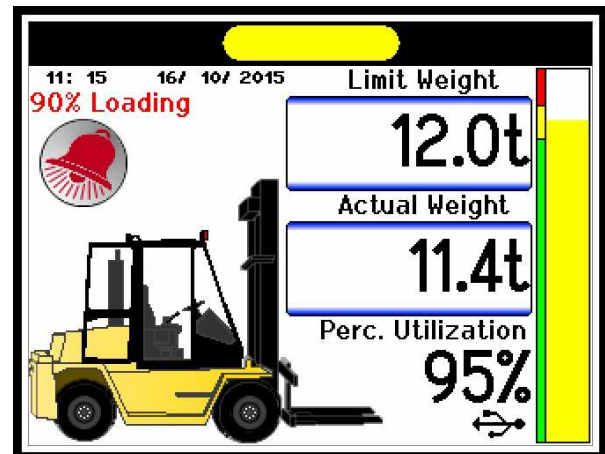
All the system information can be viewed from here including all the set parameters.

In operating mode, you can see all the current parameters.

Actual Weight: This is the load on the machine at the present moment. If the green light on the top of the screen and the Actual Weight are flashing it is a tare load.



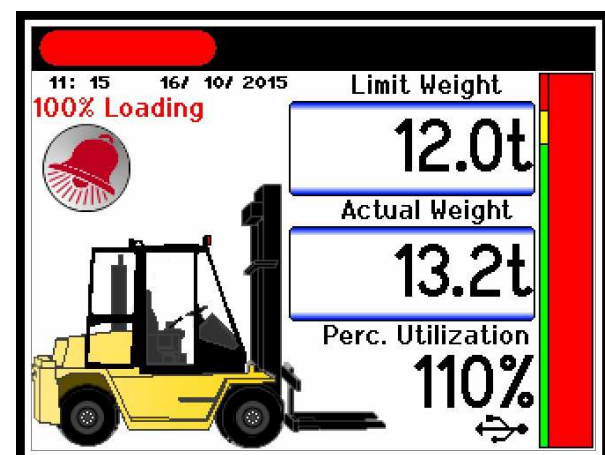
The Tare is activated by pressing directly on the Actual Load then the Actual Weight will be zeroed allowing for a reading excluding the original weight. The original weight (gross) is still taken into account when calculating the percentage of utilisation therefore the TS350 will still give the correct 90% and 100% warnings. Once pressed the Actual Load will flash showing no value, only 0,0t and the GREEN block will flash intermittently. If a load is now lifted, only the new load lifted will be displayed excluding the original tare load. To return to the gross load, press the Actual Load again, it will stop flashing and the gross load will be displayed.



Limit Weight: This is the maximum permitted load as stipulated by the manufacturer. This load is programmed on installation of the system and is normally stipulated with the load in the centre of the forks.

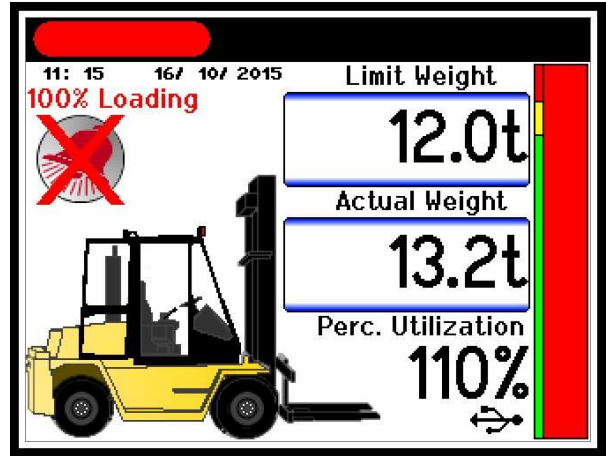
% Utilisation: Percentage utilisation is the percentage of the limit weight used by the actual load.

Utilisation Bar: The percentage utilisation is also displayed graphically by a bar graph, going from green (0% - 89%), then amber (90% - 99%) and finally red (100% and above) increasing incrementally with the percentage utilisation.





The **buzzer** or **buzzer override** which is located at the **top left** of the screen above the machine graphic – the buzzer symbol will only appear 5 seconds after the error occurs; when the buzzer override is pressed, a red cross will be placed through the picture of the buzzer and the buzzer will shut off. The buzzer override is needed for each alarm condition i.e. if one error has been overridden and another error occurs the buzzer will sound again.



ERROR CONDITIONS & ALARMS

The TS350 system will alert the operator to the following conditions:

- 90% Loading
- $\geq 100\%$ Loading
- Transducer Error

90% Loading - when the actual load is greater than or equal to the Limit weight



100% Loading – when the actual load is greater than or equal to occurs

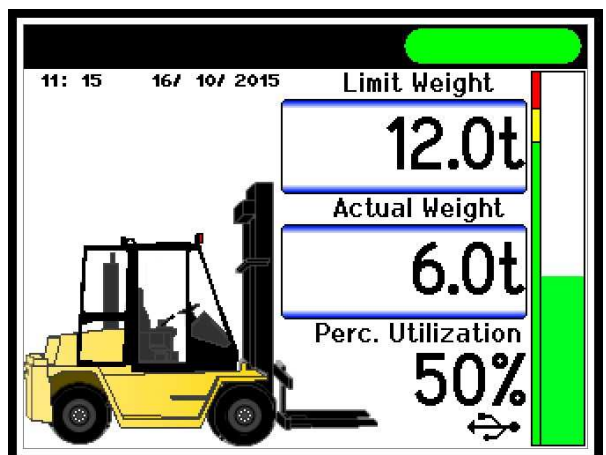


Transducer Error – Pressure transducer faulty or damaged cable



REAL TIME CLOCK

The TS350 system has an internal real time clock which displays date a time on the main running screen in the top left hand corner. It is imperative that the date and time are correct as the data logging utilises this when errors are logged.



TOUCH SCREEN CALIBRATION

If the screen is not responding correctly to touch, the touch screen may need to be calibrated. Make sure that the Front Facia (Sticker) is in good condition (no dents or damage) as this can affect the touch screen. Replace Front Facia if damaged.

Switch the TS350 display power off, power up the TS350 while pressing in the middle of the screen.

While the splash screen is on, keep pressing in the centre of the screen for a full five seconds until the touch calibration is activated and loaded. Immediately lift your finger and follow the on screen instructions.

If the calibration screen has been entered by accident and touch calibration is not necessary, press the **Exit** button without pushing anywhere else on the screen to continue with normal start up procedures.

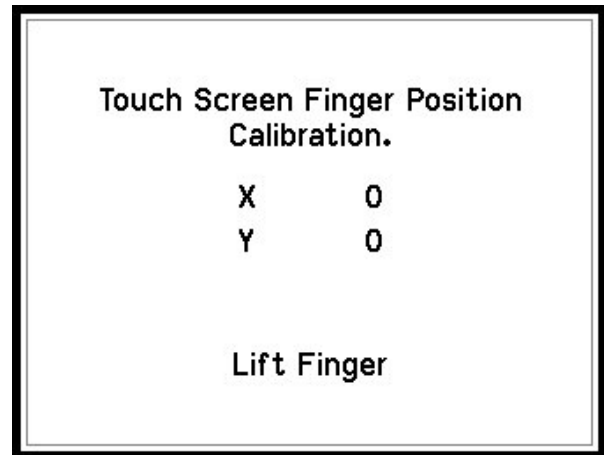
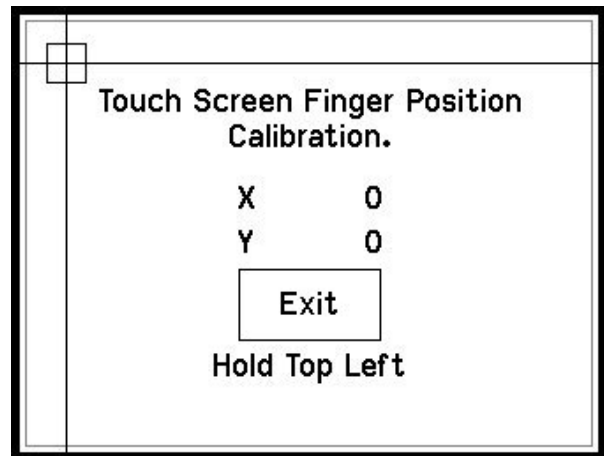
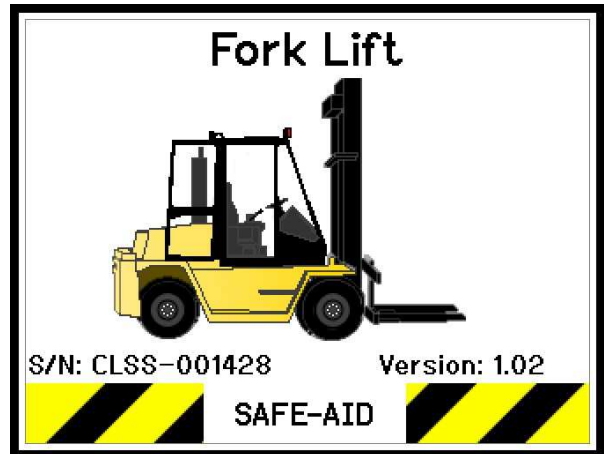
If the touch screen calibration is required follow the below procedure:

Press and hold finger where the two lines meet inside the small box at the top left hand corner. Calibration works fine when using a finger but for better results use a pen taking care not to press too hard or the screen will be damaged.

Hold finger/pen in this area until prompted to lift. Prompts will then be given for three more touch zones resulting in co-ordinates for all four corners of the screen.

Once calibration is complete the software automatically goes to the working screen.

TS350 Front Facia's are available from the manufacturer at a nominal charge and should be changed as part of a maintenance schedule



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