

SAFE-AID TS350

DUMP TRUCK LEVEL INDICATOR

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.

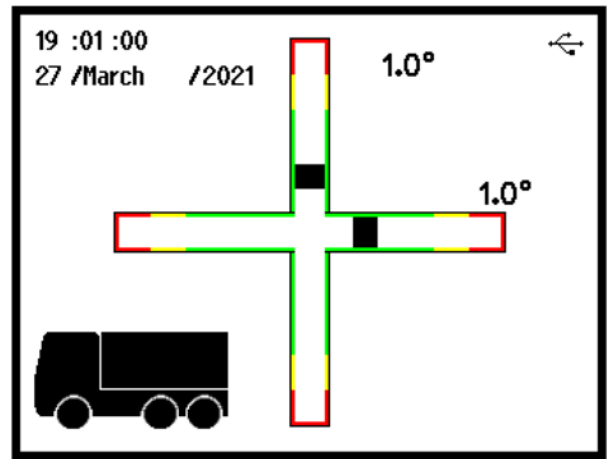
BEFORE OPERATING A MACHINE EQUIPPED WITH A SAFE-AID TS350 THE OPERATOR MUST READ THE INFORMATION IN THIS MANUAL CAREFULLY. CORRECT FUNCTIONING OF THE SYSTEM DEPENDS UPON ROUTINE DAILY INSPECTION AND ANY SUSPECTED FAULTS OR APPARENT DAMAGE SHOULD BE IMMEDIATELY REPORTED TO THE RESPONSIBLE PERSON BEFORE USING THE MACHINE.

Contents

SYSTEM USE	3
SYSTEM STARTUP	3
OPERATING SCREEN.....	4
ERRORS & ALARMS	5
SET DATE & TIME.....	7
PRE-OPERATION CHECKS	7
TOUCH SCREEN CALIBRATION	8
INSTALLATION DETAILS.....	10

SYSTEM USE

The Safe-Aid TS350 unit is designed with ease of operation in mind. The system goes directly into its monitoring screen requiring no input from the operator. All inputs to the system are done by the operator via the touch screen. 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.

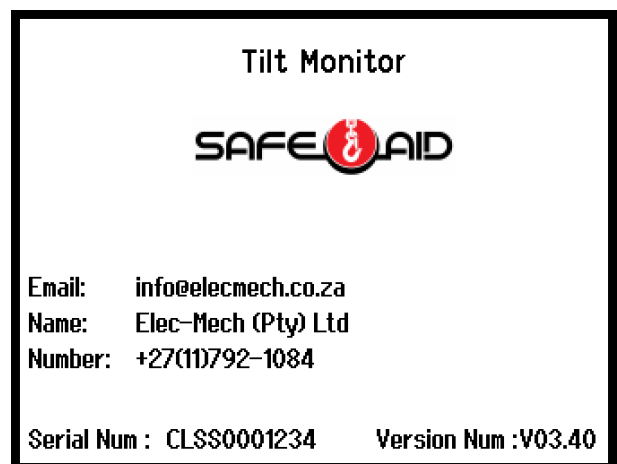
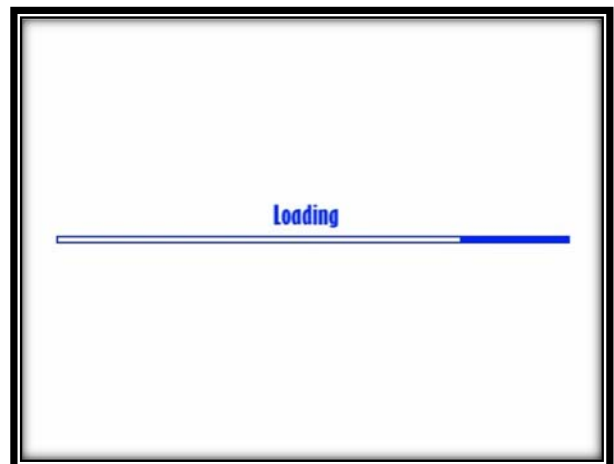
The system will run a CRC (cyclic redundancy check) to make sure that all raw data is correct.

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).

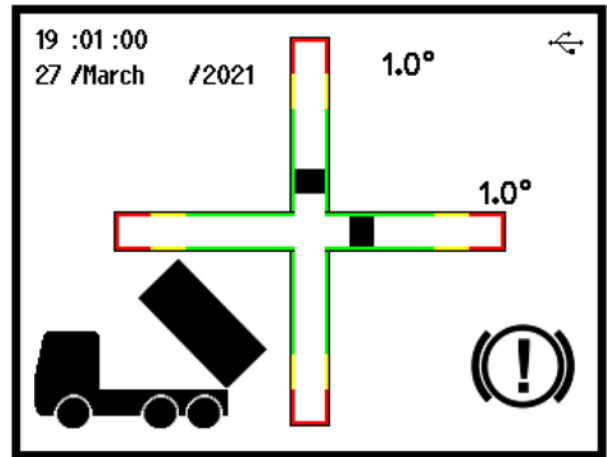
This screen displays the display serial number as well as the firmware version:

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

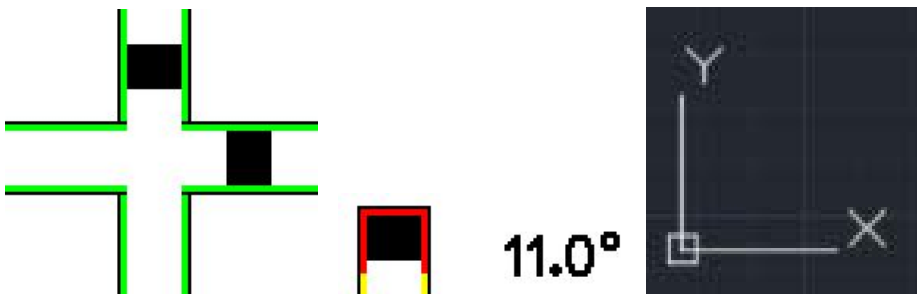


OPERATING SCREEN

The current machine information can be viewed from here.



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



X & Y axis of machine where X is left to right of machine and Y is front to back. The positive angle will be shown which will be shown on the position where the machine is highest. The position of the cursor moves towards the high angle.



Load Bin Down – automatically monitored by a proximity switch therefore should be confirmed as working before starting work. Switch is activated when load bin is down.



Load Bin Up - automatically monitored by a proximity switch therefore should be confirmed as working before starting work. When the switch contact is broken or in case of failure this is the default setting.



Park Brake On – automatically monitored by a pressure switch therefore should be confirmed as working before starting work. Fail safe operation so will show as off in case of switch failure.

19 :01 :00

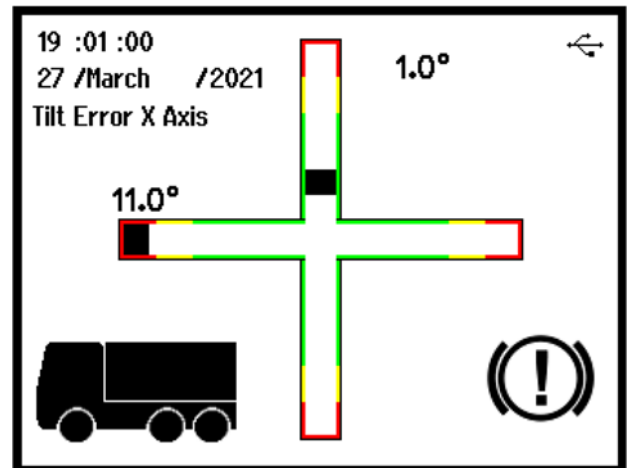
19 /April /2021

Date & Time – 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 This must be checked monthly and set as and when required as the data logger uses this for setting the logged information – Set Date & Time

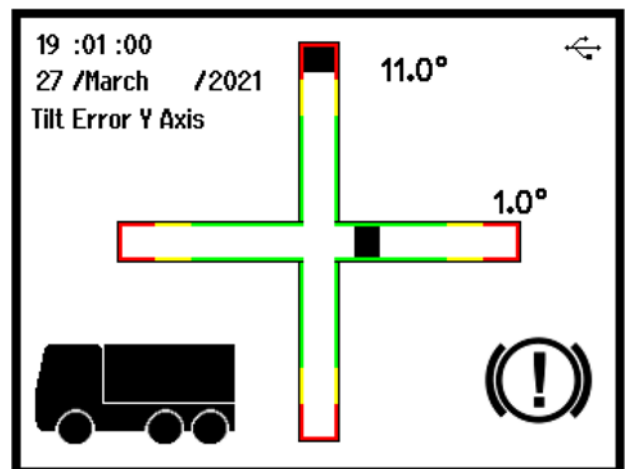
ERRORS & ALARMS

The system monitors the following functions:

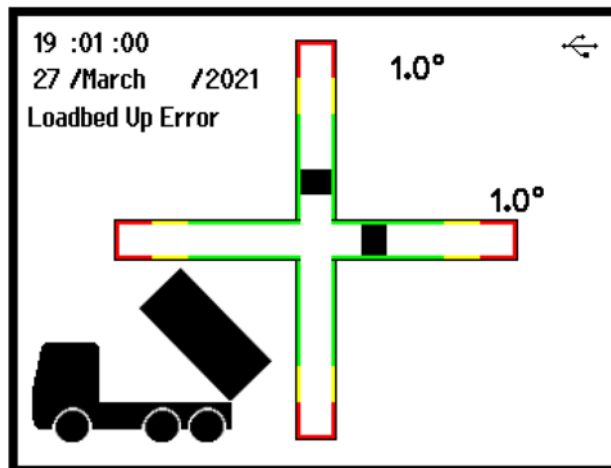
X Axis – alarm at pre-set angle



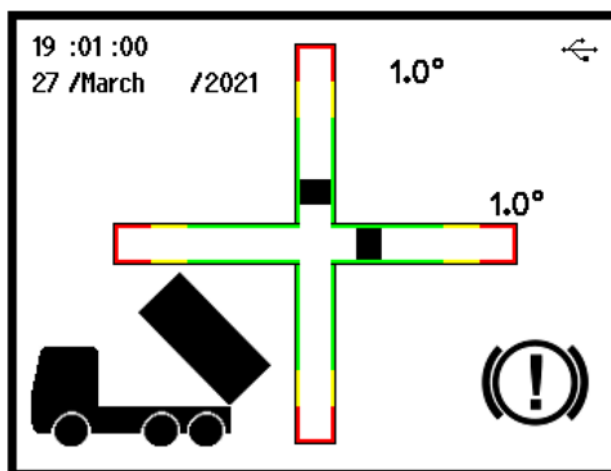
Y Axis – alarm at pre-set angle



Load Bin Down - must be down when park brake is off after a pre-set time delay. Loadbed Up Error displayed when park brake is disengaged, and the load bed is not down.



Park Brake – monitored when engaged.

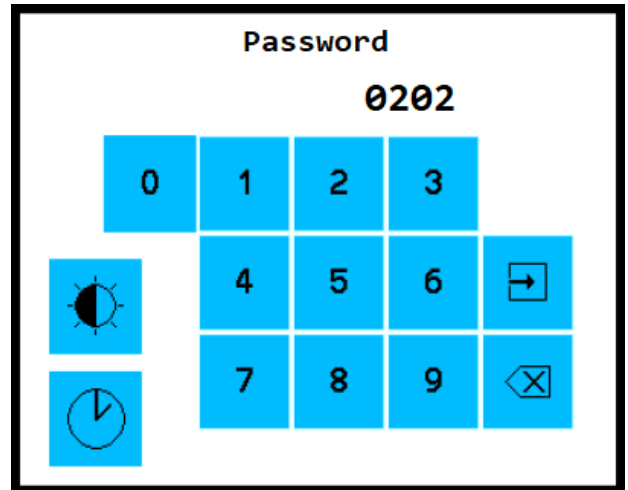



SET DATE & TIME

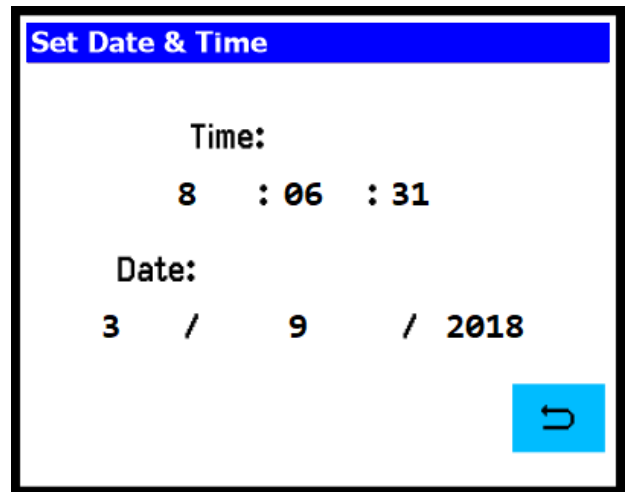
The date and time can be adjusted as required, if the date and time does not save the battery for the real time clock is no longer working (see Real Time Clock battery replacement).

Use the following steps to adjust the date & time:

1. Press the top left-hand corner and the **Password** screen will be displayed.



2. Press the  and the Set Date & Time screen will be displayed. Select the data to be adjusted and set the correct time and date.
3. Time format is 24 Hour Clock hh : mm : ss
4. Date format is dd / mm / yyyy
5. Once the time & date have been adjusted



press the  button to return to the operating screen.

PRE-OPERATION CHECKS

1. Date and time – ensure correct date and time – if incorrect see Set Date & Time
2. Machine level indicator – Check level is showing correct by looking at slope of machine and seeing that the indication is correct. If incorrect service call needs to be logged.
3. Load bed down indicator – Check load bed shows down if not service call needs to be logged.
4. Park Brake Engaged – Check park brake shows on if not service call needs to be 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.

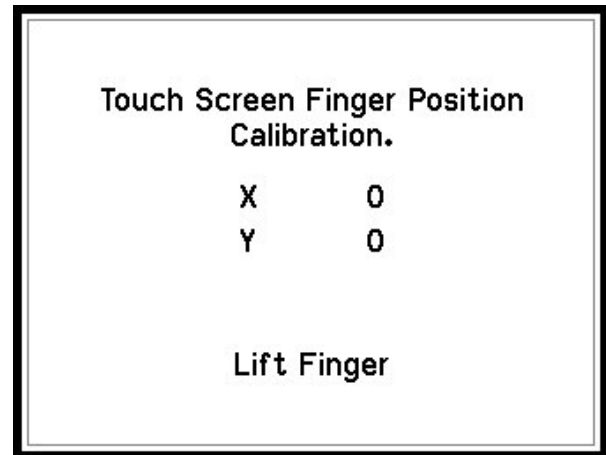
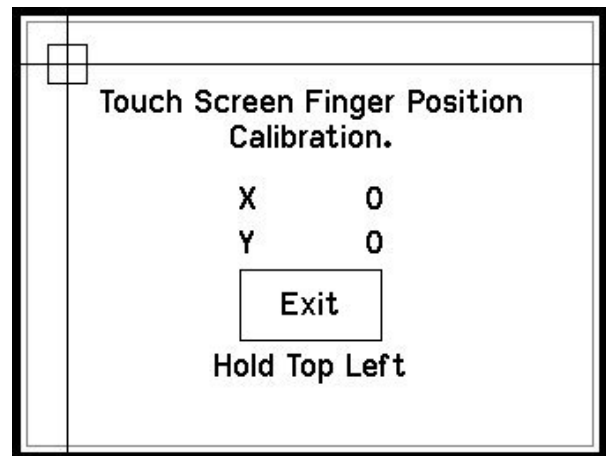
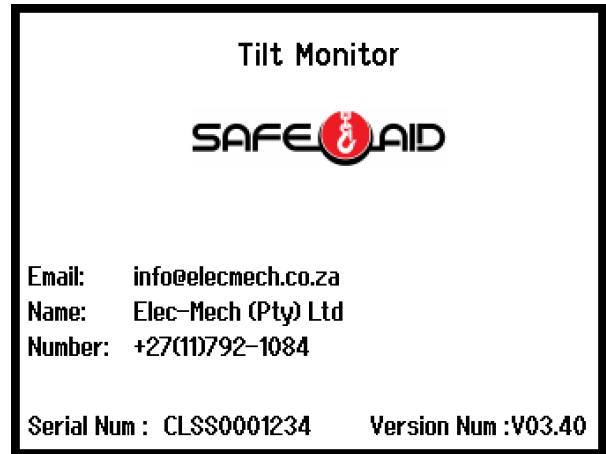
If the touch screen calibration is required follow the below procedure:

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



**This page is
intentionally
left blank.**

