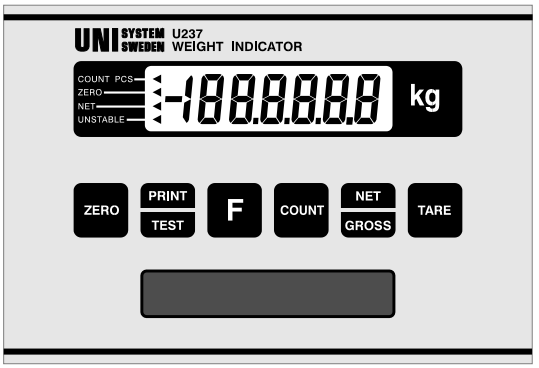

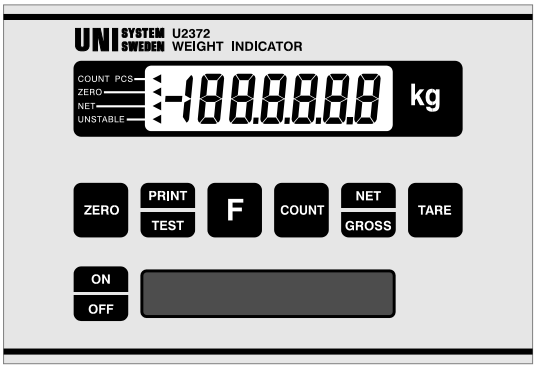

These weighing indicators are used in both verified and other scales.
The calibration is described in the document B01950, where also further documents needed for special functions are mentioned.
If not the stainless case is used, the indicators are sensitive for high humidity, and must thus be used in dry environments. Fast temperature change may temporary disturb, and especially lowering the temperature may result in condensation of water inside.
The protection against interference from external EMI sources is excellent, but UHF transmitters (e.g. wireless telephones) may interfere in very short distances at not verified scales.
The load receptor must be placed in a stable location, where shocks and vibrations are minimized. At calibration, it is possible to increase the attenuation of unstable signals at the expense of speed.
Normally our scales are delivered with 3 multiple ranges e.g.:
0.1kg up to 300kg, 0.2kg up to 600kg and 0.5kg up to 1500kg.
In this way the influence from vibrations and temperature change is smaller, than if 0.1kg interval was used in all the range.
The display is blanked when the weight exceeds full scale or passes below zero.
At power on, the following is displayed: UniSy-, number and date, yymmdd, of software, where yy are the two last digits of the year, mm month and dd day. After this all segments are tested by switching on and off 5 times and at last the weight is displayed in gross mode.

FUNCTION INDICATORS

COUNT PCS The number of pieces is displayed.
ZERO Indicates that the weight is within ±1/4 of a scale interval from zero. (00000 is displayed up to ±1/2 of a scale interval from zero.)
NET Indicates the net value. Zero tracking or automatic zero setting does not work.
UNSTABLE Indicates that the displayed weight is not stable. Various conditions may be chosen at calibration e.g. the last digit is blanked at motion and normally tare and print are performed when the indicator becomes stable.

MULTIPLE RANGE INDICATION. VERIFIED SCALES.
Range 1 (Lowest). No indication.
Range 2 Left lowest horizontal segment on.
Range 3 As above + middle horizontal segment on.
Range 4 As above + highest horizontal segment on.
Range 5 As above + low left vertical segment on.
Range 6 (Highest). As above + low right vertical segment on.

Multiple range for verified scales may autorange up. Downrange is allowed only at zero indication. This can be done by pushing ZERO. Insignificant 0 in a decimal must be blanked. E.g. the interval 1 may not be displayed as 1.0.
Not verified scales do not have these restrictions.

KEYBOARD

{X} in the following means, that the button X on the keyboard is pushed.

ZERO **{ZERO}** Sets the indicator and tare to zero, if the signal is within -0.8% and +3.1% of full scale. Verified scales with multiple range have zero range ±2% of the lowest range.
When pushed longer, the deviation from the calibrated zero is displayed. This is a good way to check the condition of the scale, because the zero signal may be changed by heavy overload, blows, shocks and also high humidity during long times.
The indicator is normally automatically set to zero by zero tracking or setting.
At power on, the scale must not have any load and is, dependent on setup, normally automatically set to zero, else the zero, entered at calibration, is used.

PRINT / TEST **{PRINT/TEST}** Print command. When further pushed, the display switches on and off for test.
Normally the print command is performed when the weight becomes stable.

F **{F}** Is used for special functions.

COUNT **{COUNT}** Suggests 0, 1, 2, 5, 10, 20, 50 or 100 pieces for the unit weight calculation in counting mode. The button must be released at the appropriate number on the load receptor. At 0 previous unit weight is used. {COUNT} again returns to normal weighing mode.
Always autotare immediately before the pieces are put on the load receptor because one gets a very good zero and in net mode, there is no zero tracking, which may disturb at small unit weights.

NET / GROSS **{NET/GROSS}** Switches between net and gross weight.

TARE **{TARE}** Autotares, i.e. subtracts the weight on the load receptor, and the indicator thus displays net 00000. Autotare may be pushed anytime but is performed after the weight is stable.

ON / OFF **{ON/OFF}** Only U2372. Normally there is a 4 minutes switch off timer, when there have been no weight change or key push. However 1, 17 minutes or infinite time may also be chosen at calibration.

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PRESET TARE.

A preset tare is entered in the following way.
Note! At multiple range the range changes with tare.
{F} {TARE} enters preset tare mode. The **NET** indicator blinks.
{NET/GROSS} selects the digit position and {COUNT} increments the digit value to get the wanted tare weight.
{TARE} or {PRINT/TEST} leaves the mode and tares with the entered value. {PRINT/TEST} also prints.

POWER.

When line operated, the power shall be left on, in order to get the highest stability.
U2372 with an internal lead battery has an {ON/OFF} button. There is a switch off timer, which restarts when any key is pushed or the weight is changed. When the battery is discharged, the indicator is switched off.
The battery charger U1432 has a three step indication of charging status. Charge often!

NOTE! The load cell (load receptor) cable must never be removed or inserted with power on the indicator, as this may destroy the input amplifier.

PEAK VALUE.

This function must be chosen at calibration. It replaces the counting function. The gross value is used.
{COUNT} Switches between max value, min value and normal weighing.
COUNT PCS blinks for max value and is continuously on for min value.
{ZERO} Resets the max or min value respectively, when displayed.

SETPOINTS.

By pushing {ZERO} and {TARE} simultaneously is possible to enter 2 setpoints (must be an even number). First setpoint 1 is displayed and after {ZERO} setpoint 2. The later is indicated by **COUNT PCS** on. {ZERO} again shifts between the setpoints. {NET/GROSS} selects the digit position of the data. In sign position, the **NET** indicator blinks. {COUNT} increments the digit value and changes sign at setpoints. {F} {F} leaves the mode.

WATER LEVEL.

Verified scales have a water level. The deviation of the bubble must be less than one mm.
Mobile scales have a water level with a two mm wider, outer ring, within which the bubble must be, in order to meet allowed error. Some mobile scales have electronic tilt compensation and water level is missing.

PRINTING FUNCTIONS

The indicator is equipped with a RS232 interface for connection to a computer or a printer.
Different outputs can be chosen at calibration. This is described in a separate the calibration document. Standard delivery for the indicator is to output the displayed weight when the {PRINT/TEST} button is pushed. If the indicator is calibrated to output date and/or time together with the weight, the date and time must be set each time the indicator is switched on.

Time and Date setting

Time.
Push {F} {COUNT} {ZERO} and hhmmss for hours, minutes and seconds are displayed. Change time.
{NET/GROSS} selects the digit position and {COUNT} increments the digit value to get the present time.

Date.
Push {F} {COUNT} {COUNT} {ZERO} and yymmdd for year, month and day is displayed. Change date.
{NET/GROSS} selects the digit position and {COUNT} increments the digit value to get the present date.

Both are left by {F} {F} or {PRINT/TEST}.

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