SMART WEIGHING SOLUTIONS

400 Series
(K481)
Summing Indicator Operator Manual

RI00-618-100

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1.Introduction

This precision digital summing indicator can sum up to nine slave indicators. The summing indicator will show an error message (------) if any of the slave weights are negative or if there is a mix of gross and net weights, as defined by Technical Schedule S1/0/A.

Facilities are provided to view and use individual slave weights and sub totals of a subset of the slave weights. Zero and Tare functionality as well as pluggable modules and battery backed clock/calendar, special function keys (for printing and slave weights, etc).

2. Safety

2.1. Operating Environment

- Operating Temperature: –10 to 50°C
- Humidity: <90% non-condensing
- Operating Voltage: Shown on Rear Label

2.2. Electrical Safety

- For your protection all mains electrical hardware must be rated to the environmental conditions of use.
- Pluggable equipment must be installed near an easily accessible power socket outlet.
- To avoid the possibility of electric shock or damage to the instrument, always switch off or isolate the instrument from the power supply before maintenance is carried out.

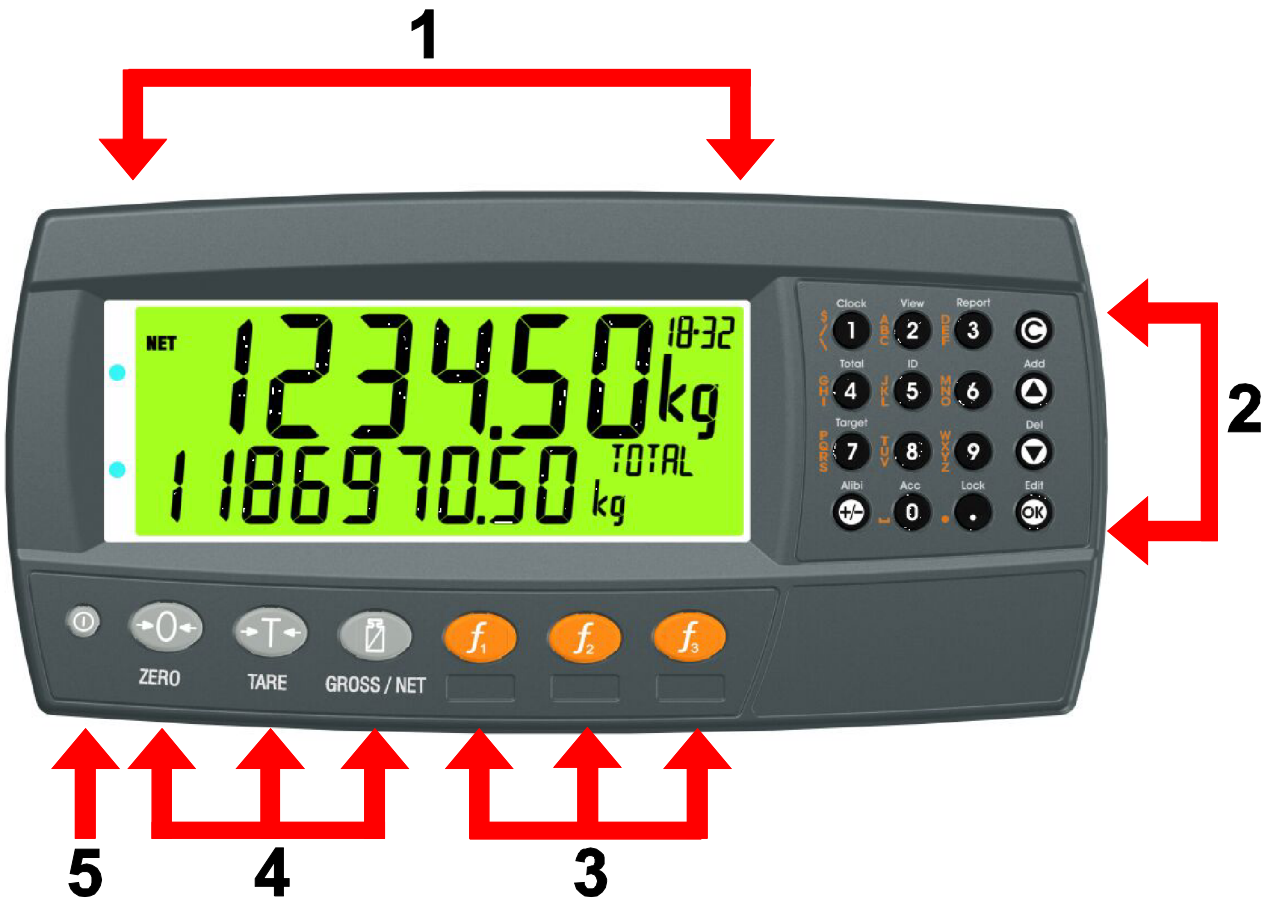
2.3. Cleaning

- To maintain the instrument, never use harsh abrasive cleaners or solvents. Wipe the instrument with a soft cloth **slightly** dampened with warm soapy water.

3. Basic Operation

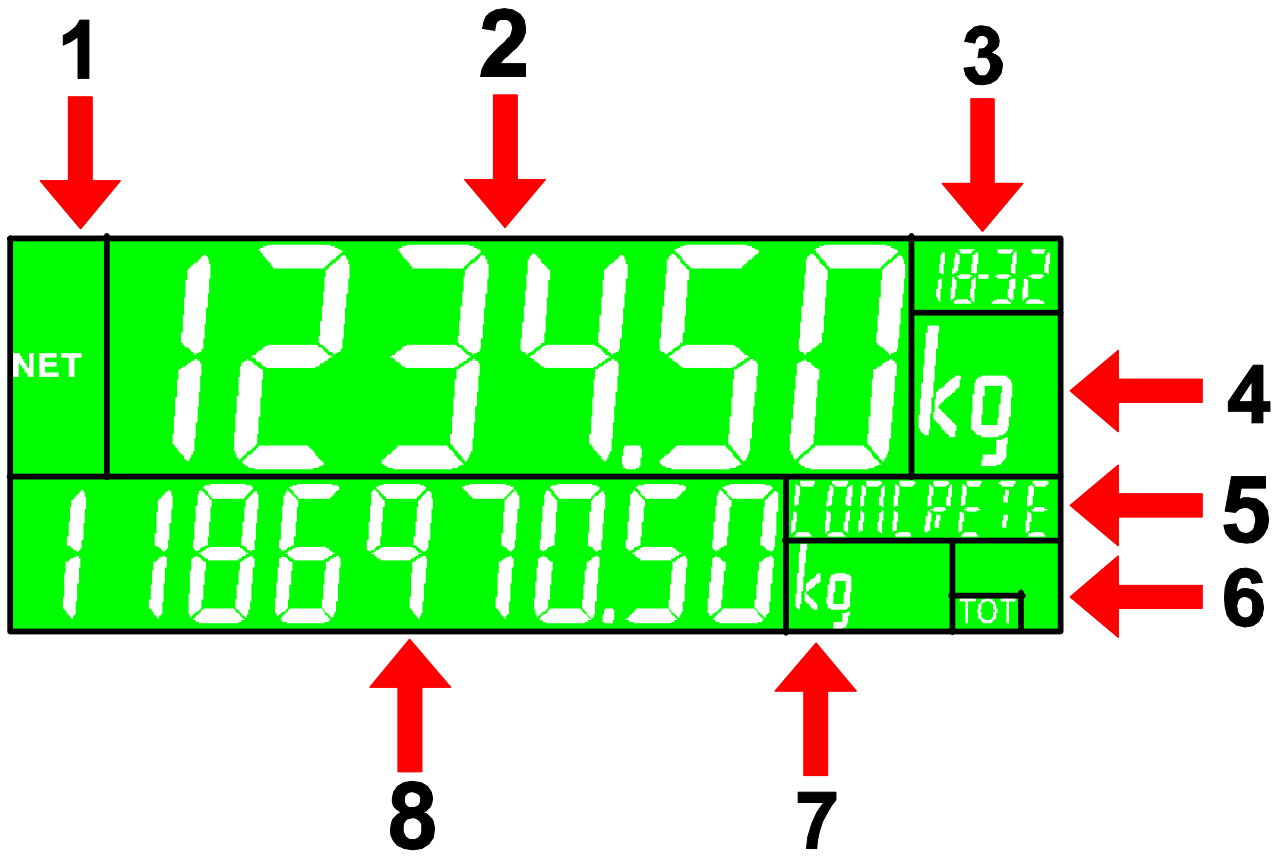
3.1. User Interface Display and Controls

Overview



Code	Description
1	Display
2	Numeric Keypad
3	Function Keys (user defined)
4	Function Keys (Fixed)
5	Power Key

Display

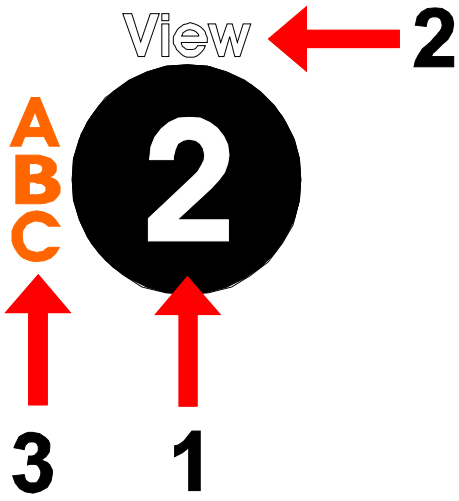


Code	Description
1	Primary Annunciators
2	**Primary Display**
3	**Auxiliary Display**
4	Primary Units
5	**Secondary ID**
6	Miscellaneous Annunciators
7	Secondary Units
8	**Secondary Display**

Primary Annunciators

Symbol	Name	Description
HOLD	**HOLD**	Visible when the displayed reading is held.
NET	**NET**	Visible when the displayed reading represents Net weight.
→0←	**ZERO**	Visible when the gross reading is within ± ¼ of a division of true zero.
	MOTION	Visible when the displayed reading is not stable.
	ZERO BAND	Visible when the displayed weight is within the zero 'dead' band setting.
	RANGE	Indicates current range (for dual range/interval).

Keypad

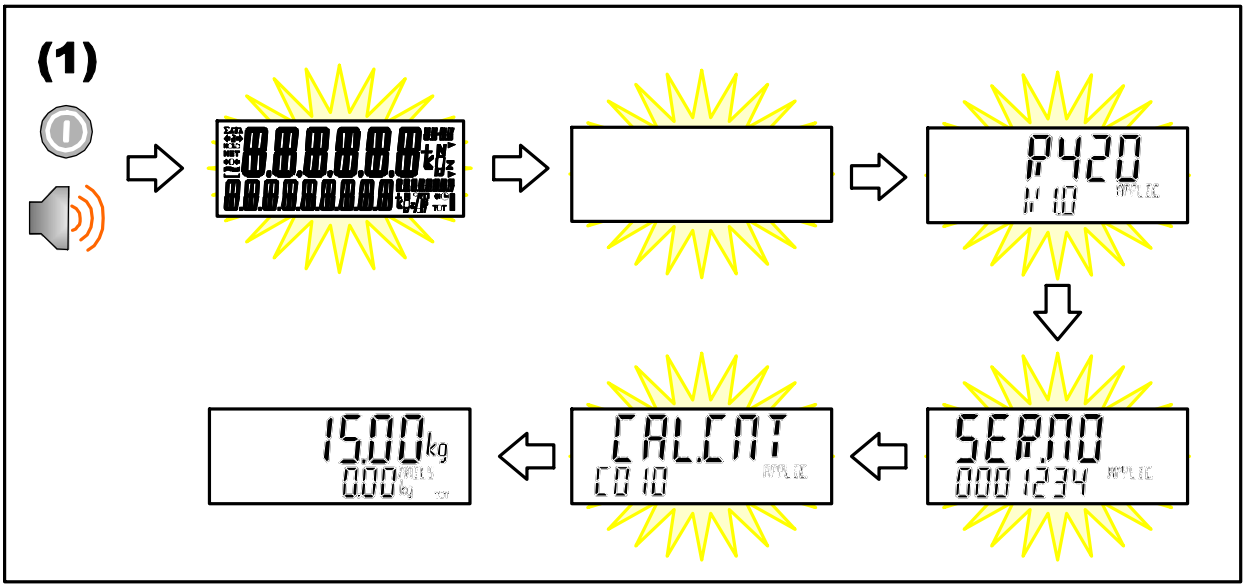


Code	Description	
1	Numeric Button	0-9
2	White Characters	Additional Functions (Hold 2 seconds)
3	Orange Characters	(Alpha and Symbols)
C	Cancel	Undo last command; step backwards (including in menus).
▲	Up	Move cursor backwards; previous option
▼	Down	Move cursor forwards; next option
OK	OK	Accept this choice
.	Decimal Point	Place decimal point
+/-	+/-	Change to negative or positive number; access or exit Alibi

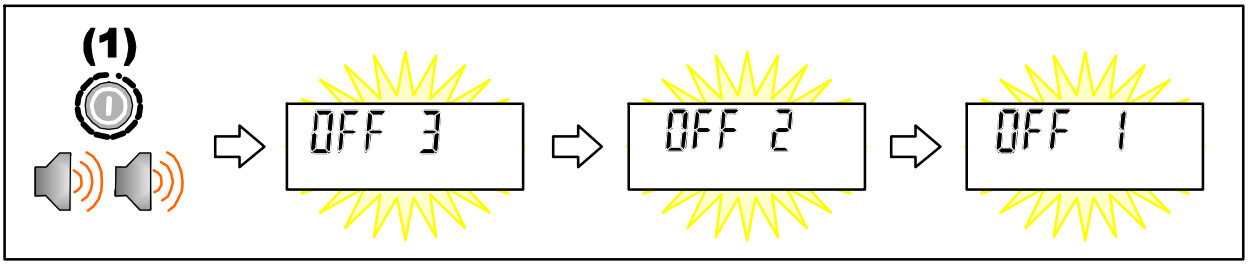
3.2. Basic Operation

Power Key

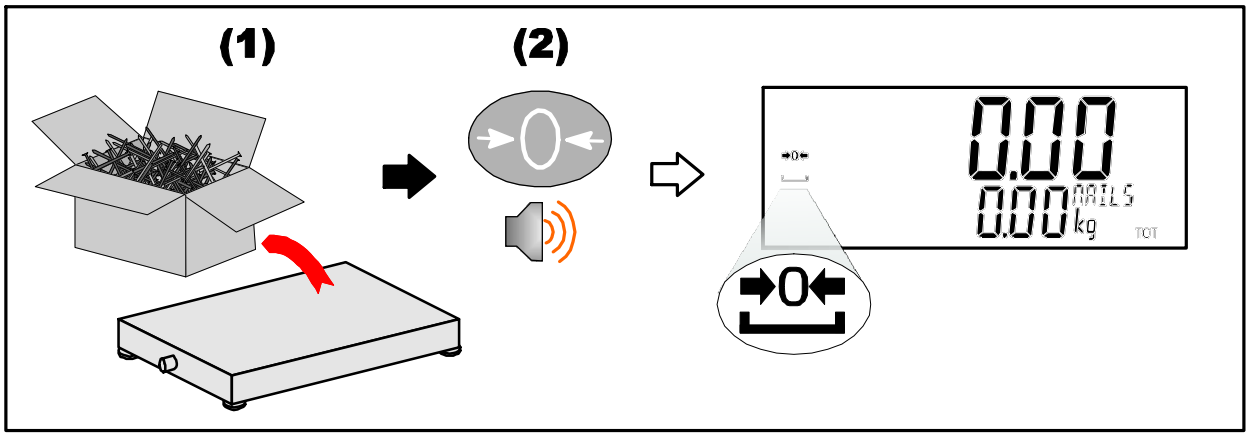
ON Instrument



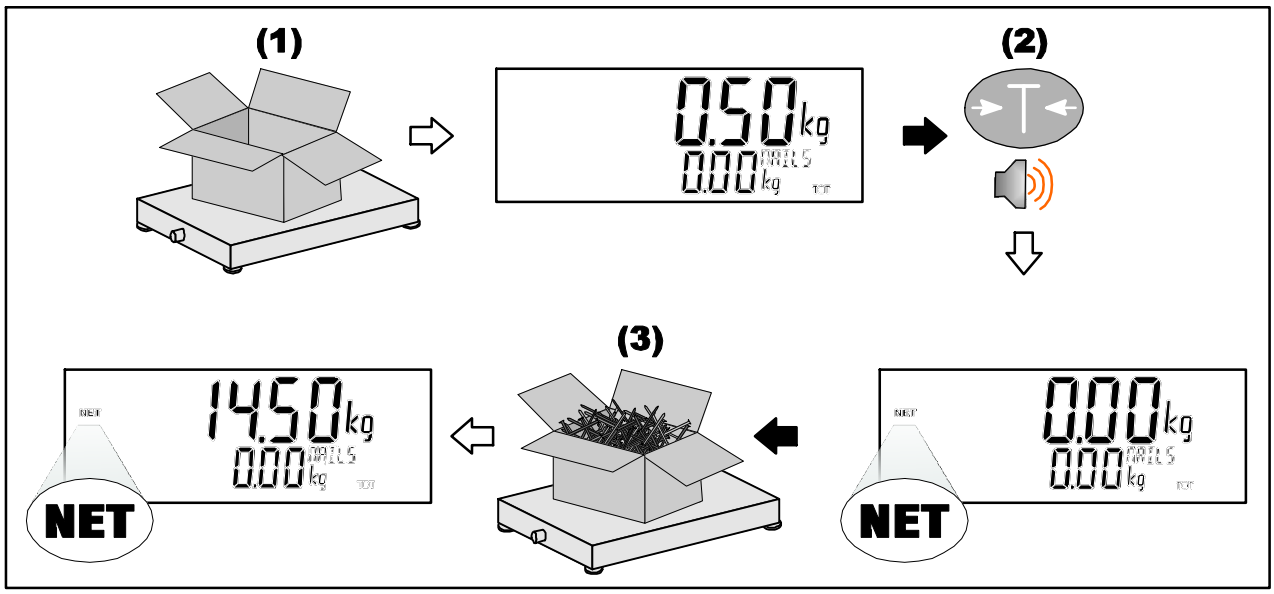
OFF Instrument



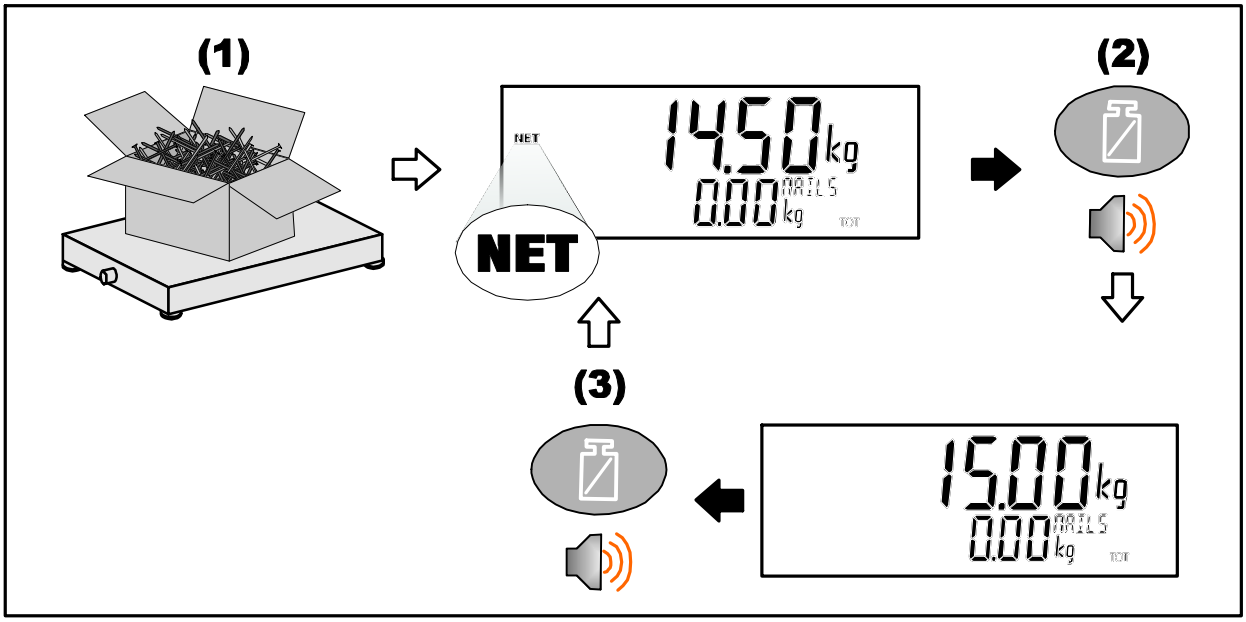
Zero Key



Tare Key



Gross/Net Key



3.3. Stability Considerations

Some functions (E.g. Tare and Zero) require a stable weight. These functions will wait for up to 10 seconds for stable weight.

3.4. Security

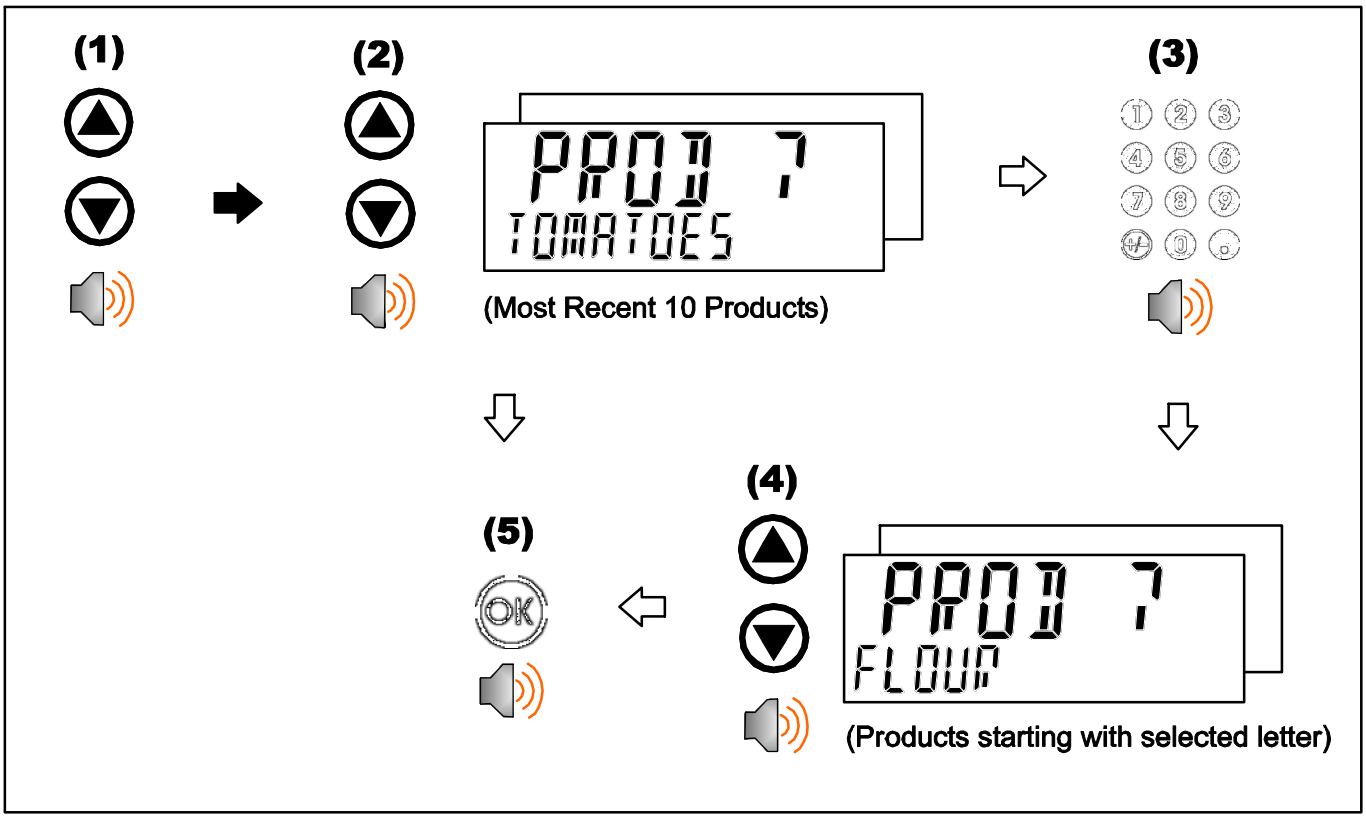
Most functions can be locked in setup. The locking options are:

- Disabled
- Operator Passcode required
- Safe Setup Passcode required
- Enabled

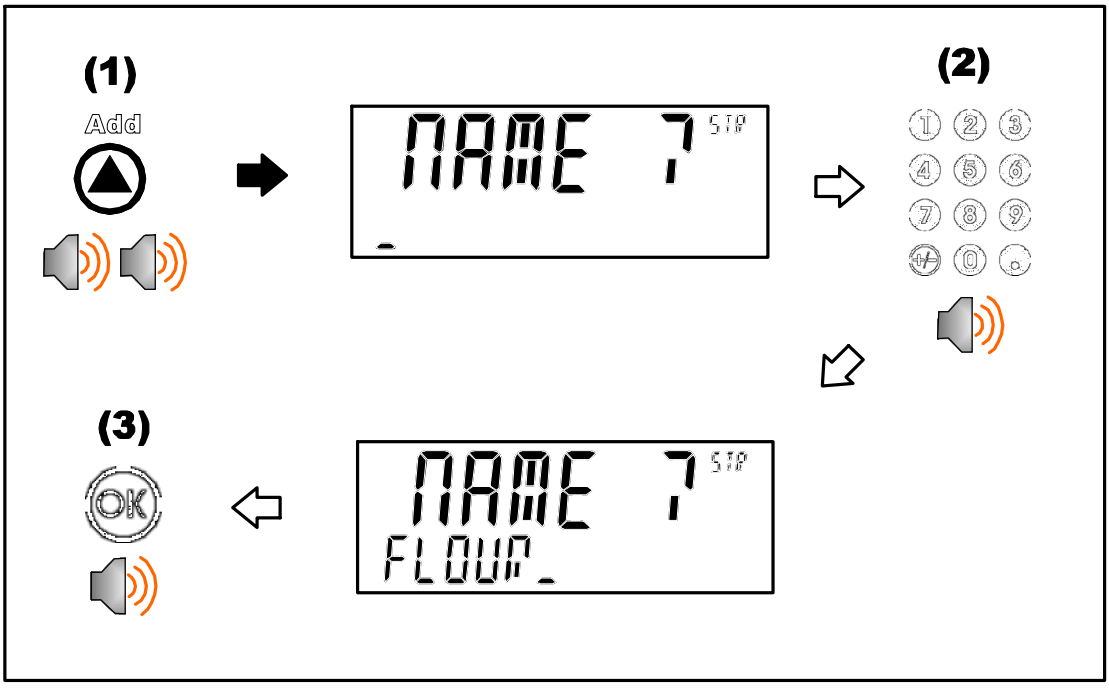
Operator Passcodes only need to be entered once. The system can be locked using the Lock key.

4. Additional Functions

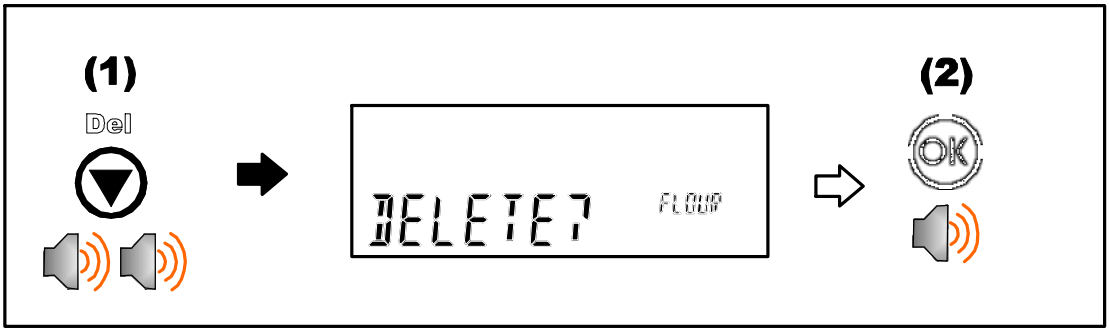
4.1. Product Selection



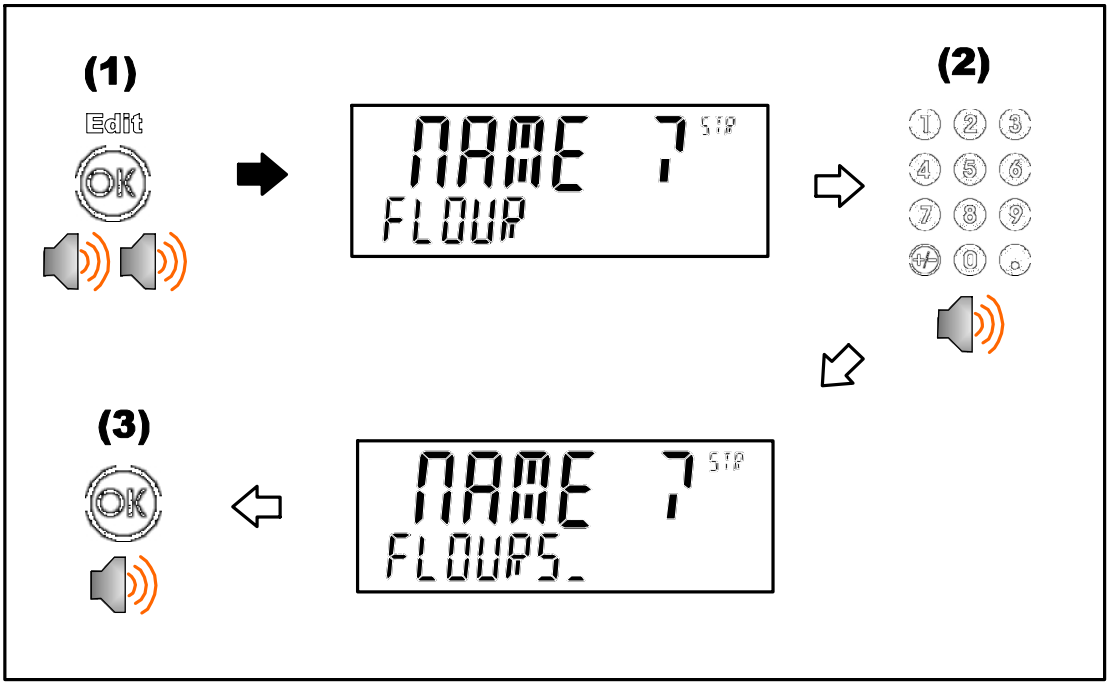
4.2. Add Product



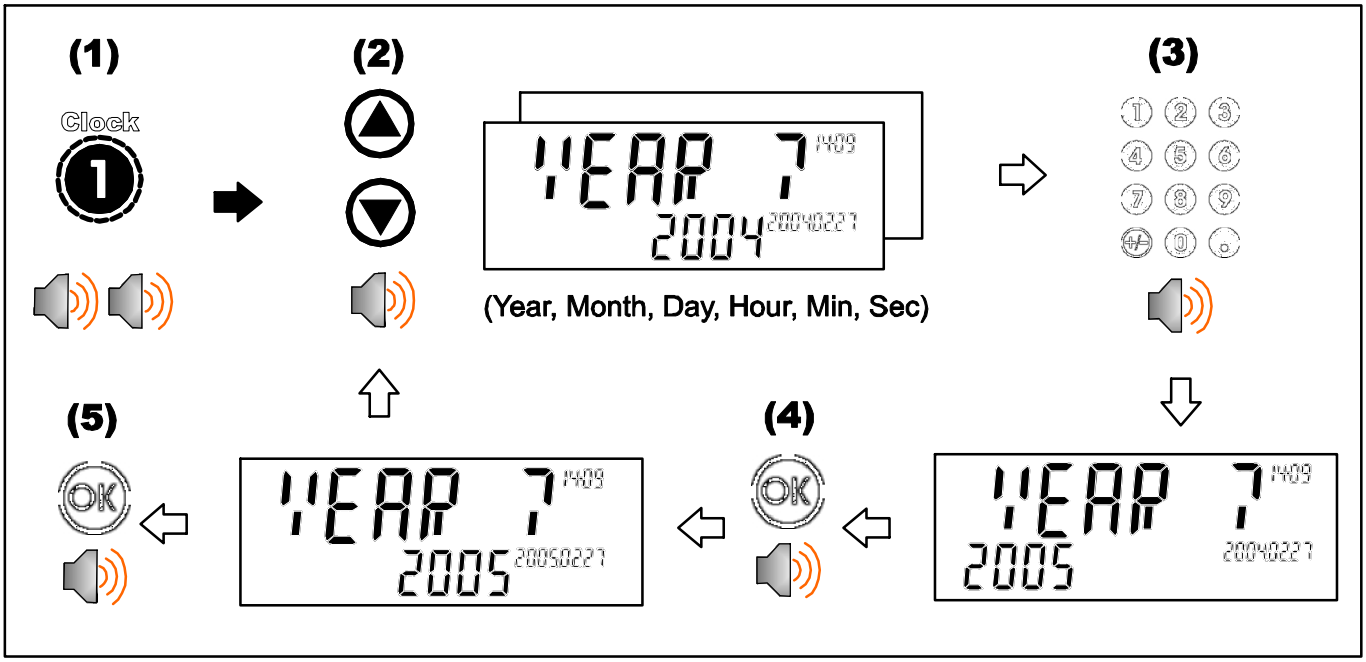
4.3. Delete Product



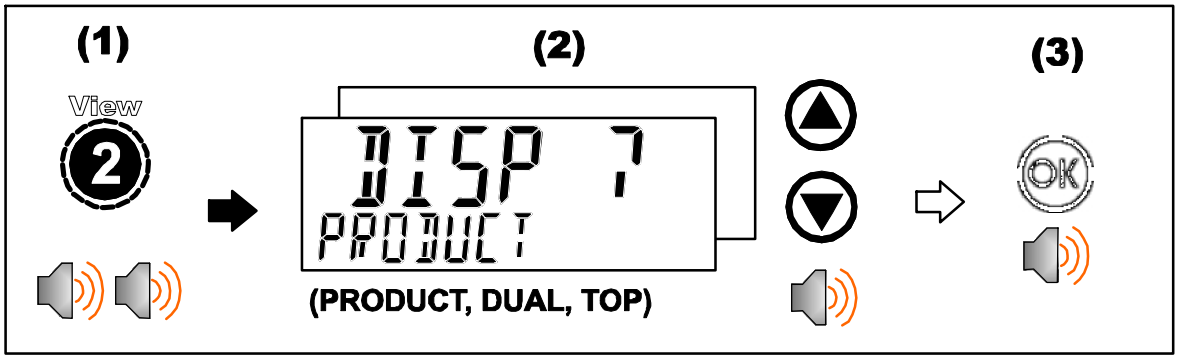
4.4. Rename Product



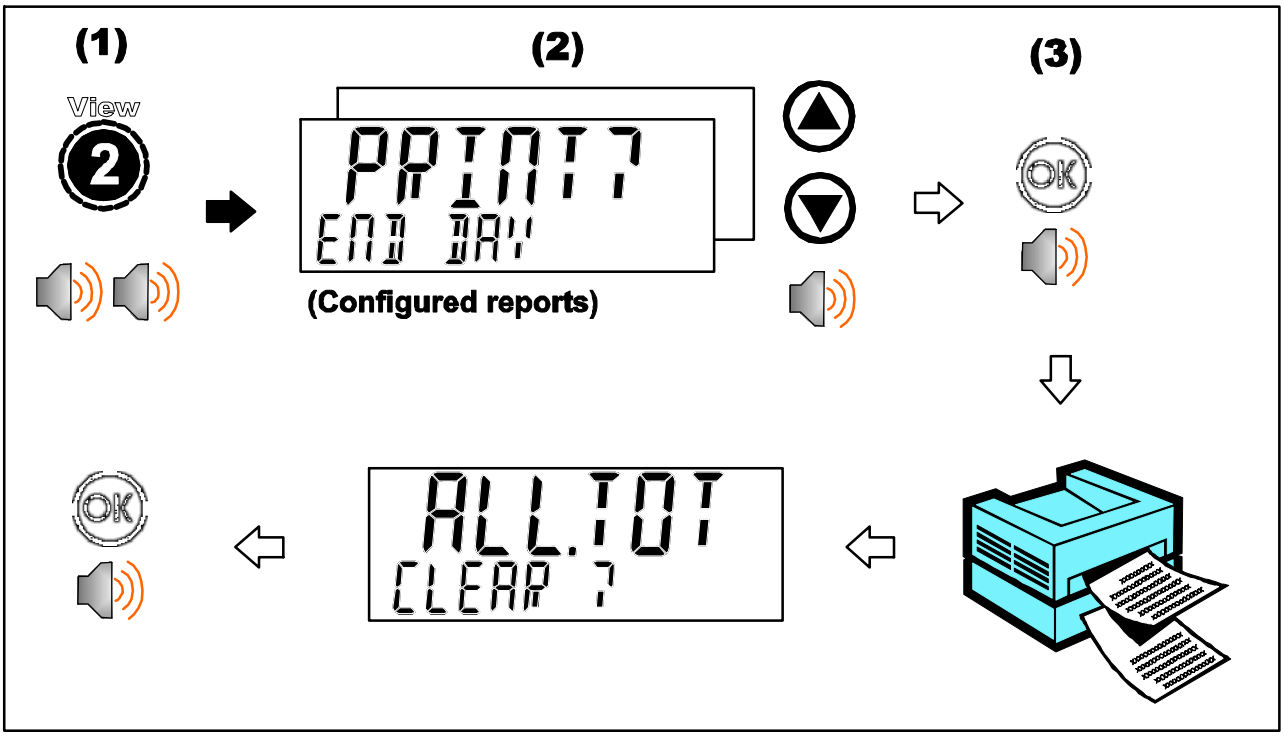
4.5. Clock



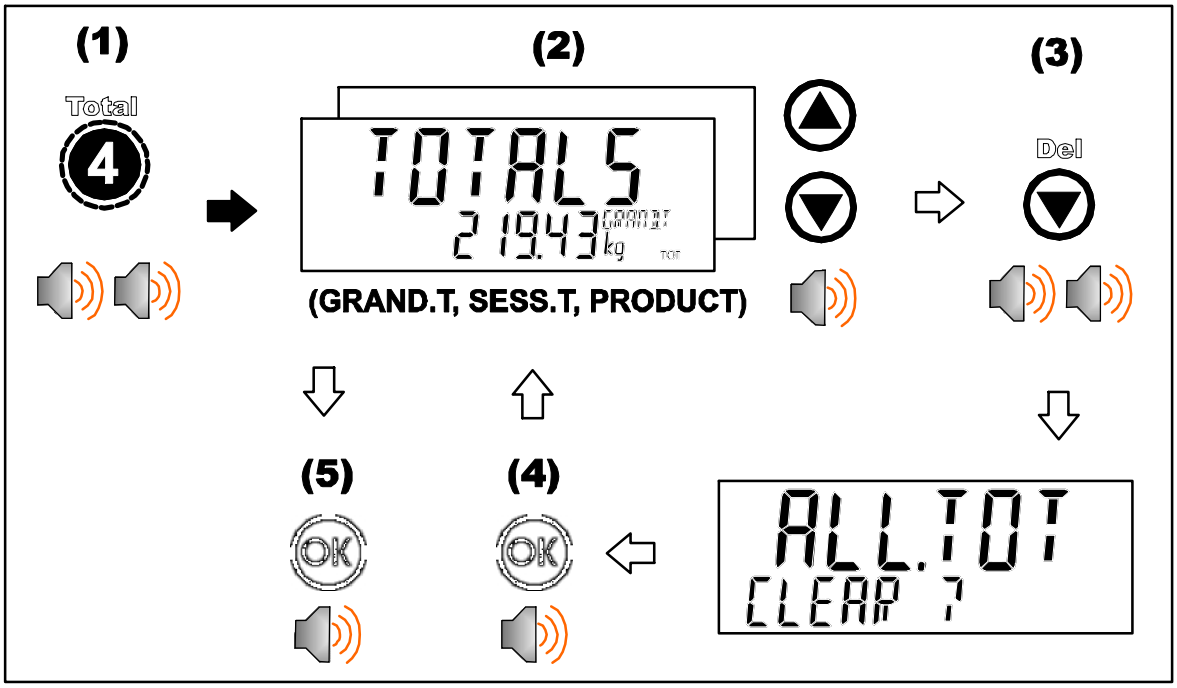
4.6. View



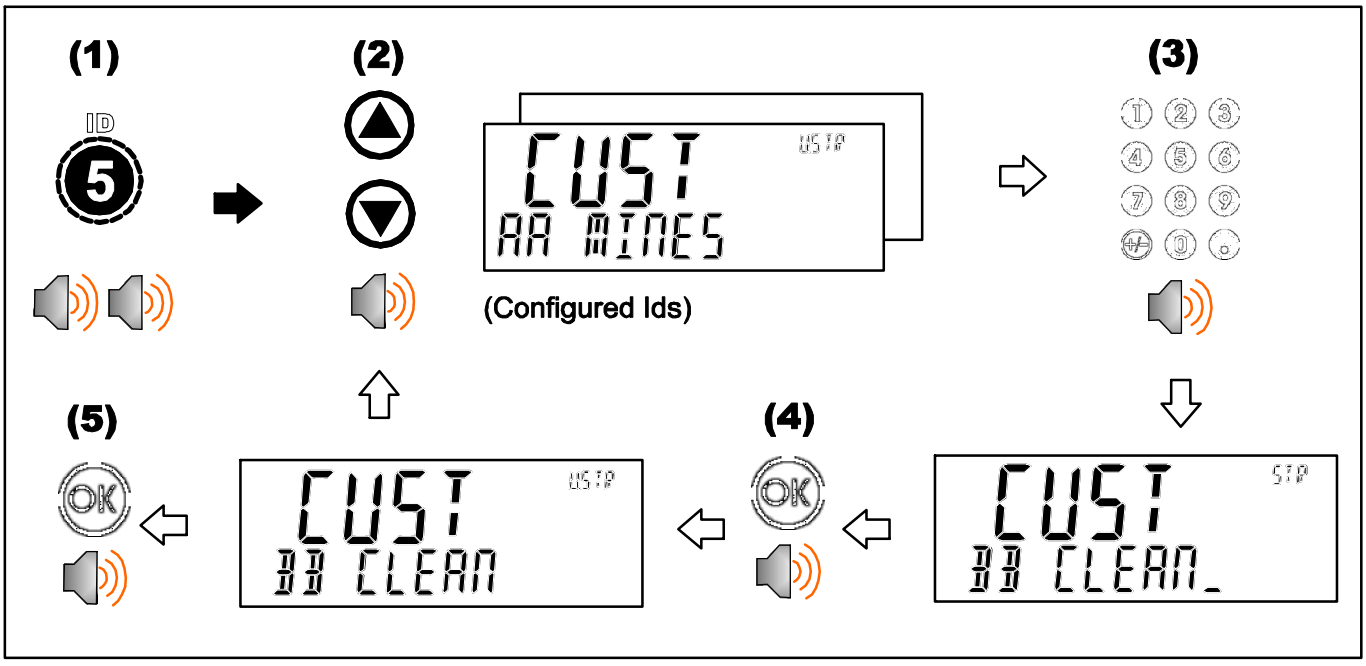
4.7. Report



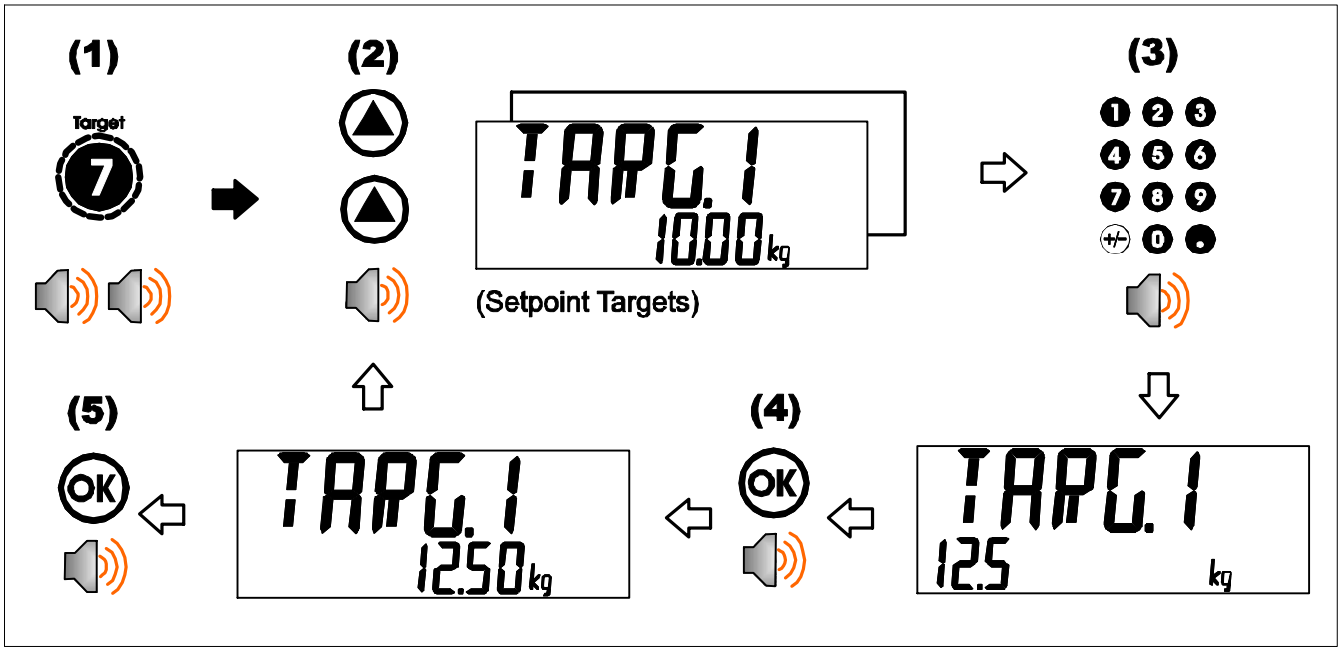
4.8. Totals



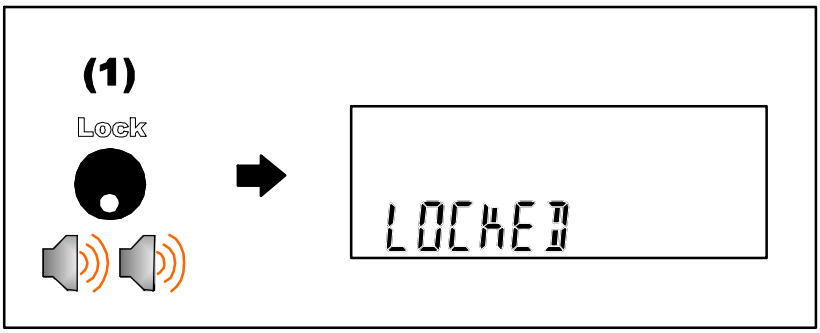
4.9. IDs



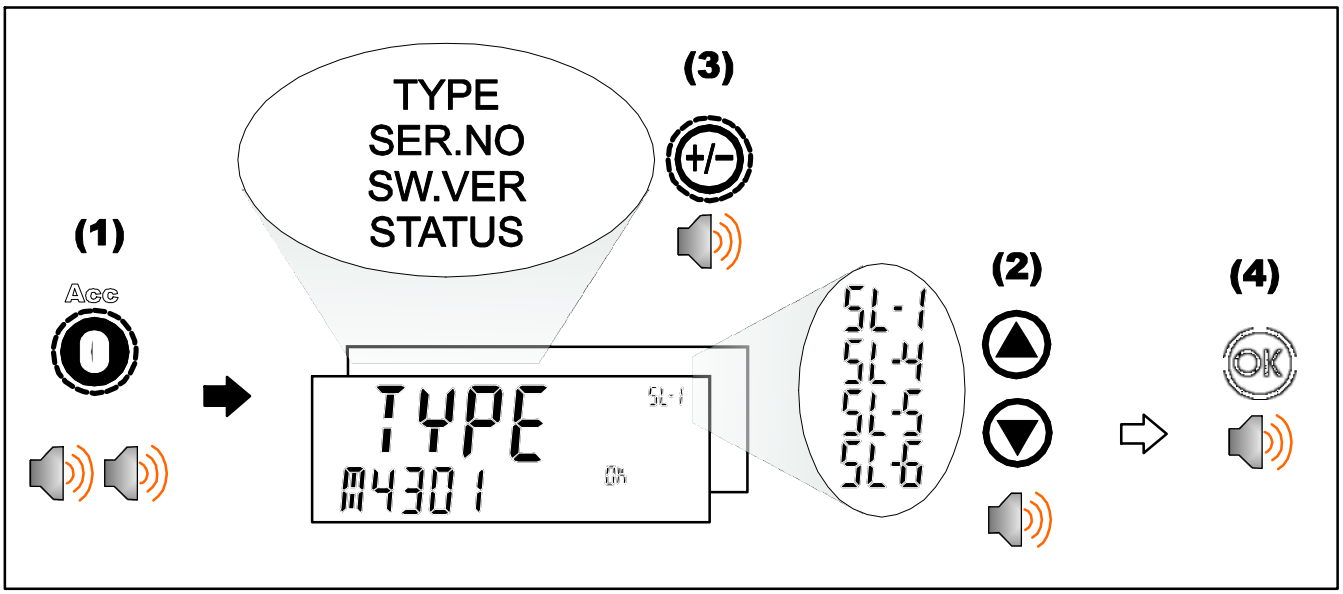
4.10. Targets



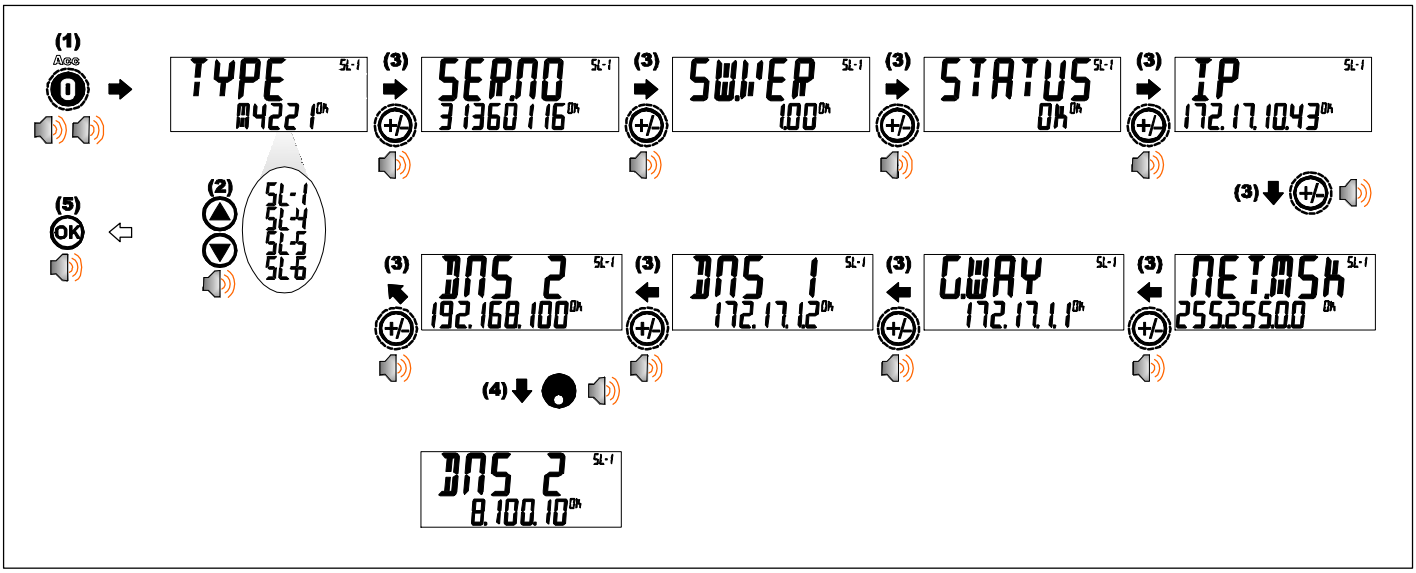
4.11. Lock



4.12. Acc

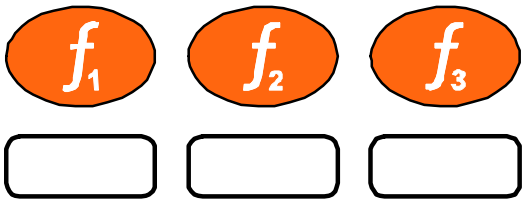


M4221 Ethernet Module



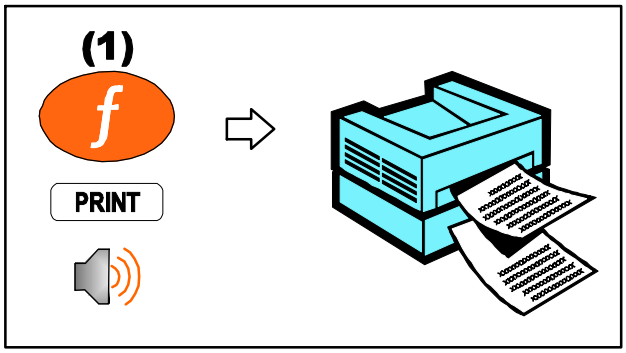
5.Function Keys

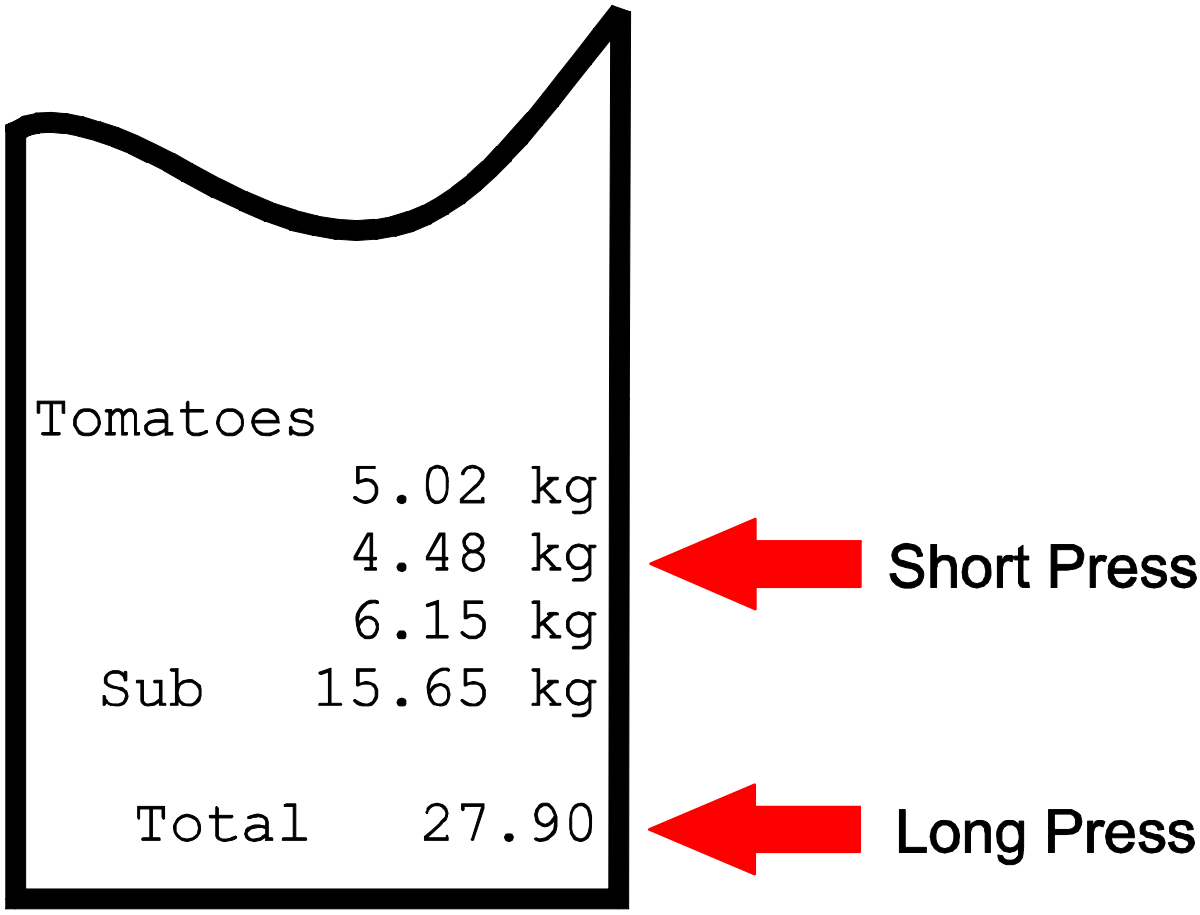
5.1. Introduction



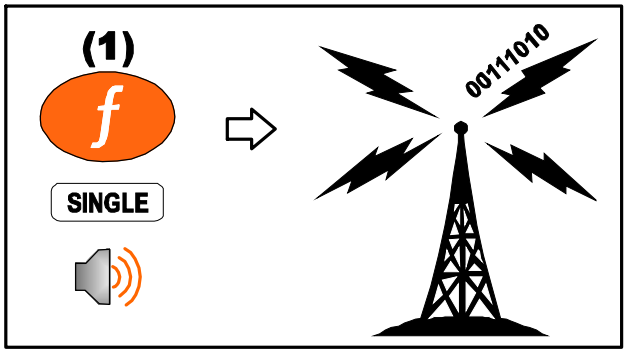
The instrument has 3 function keys. External keys can also be used. The function of the keys can be configured to any of the functions detailed below

5.2. Print

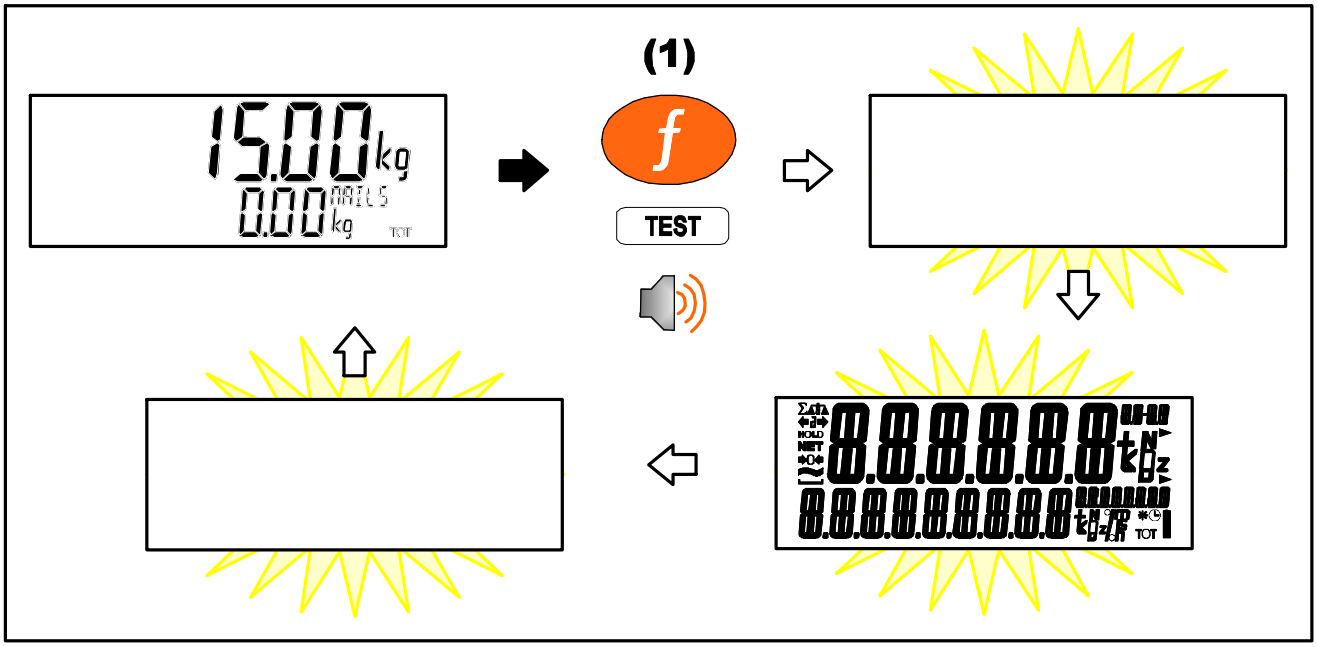




5.3. Single



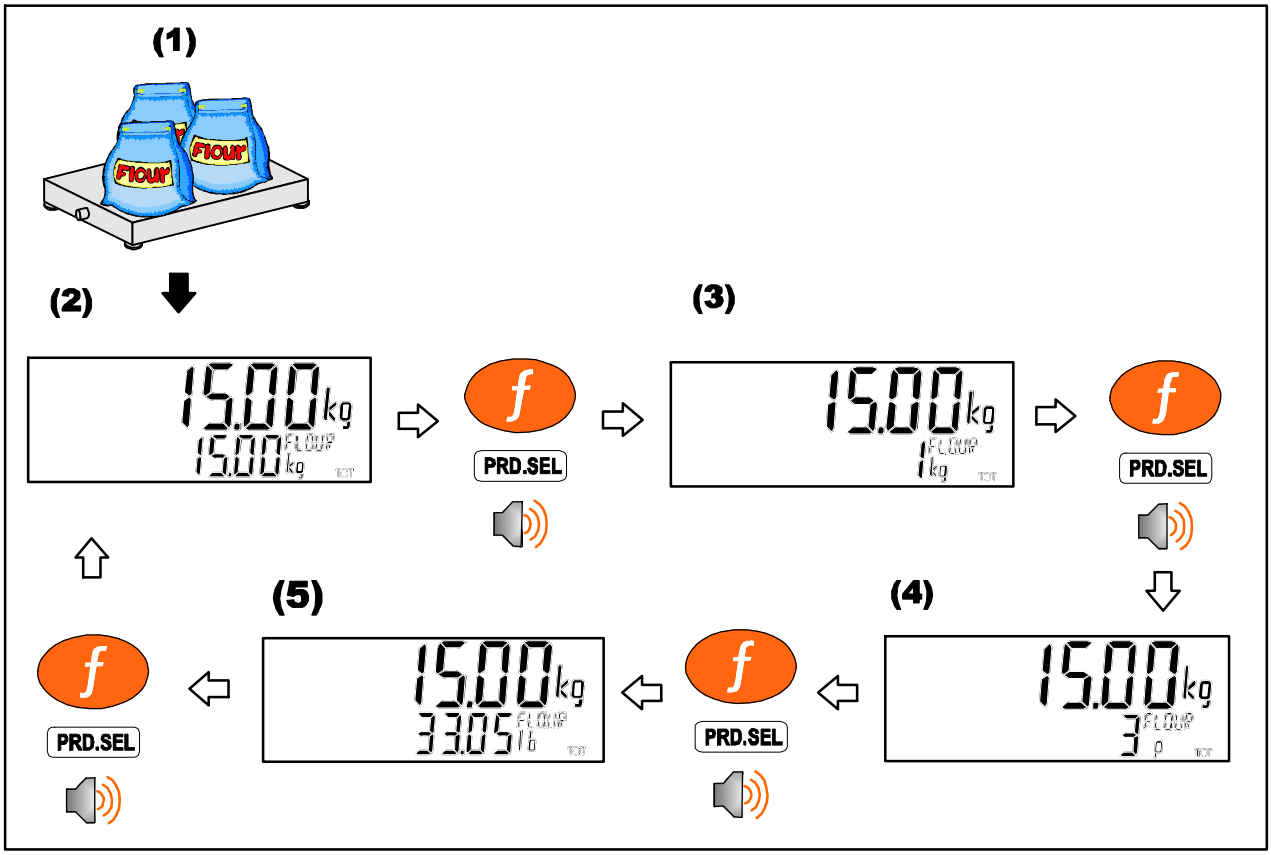
5.4. Test



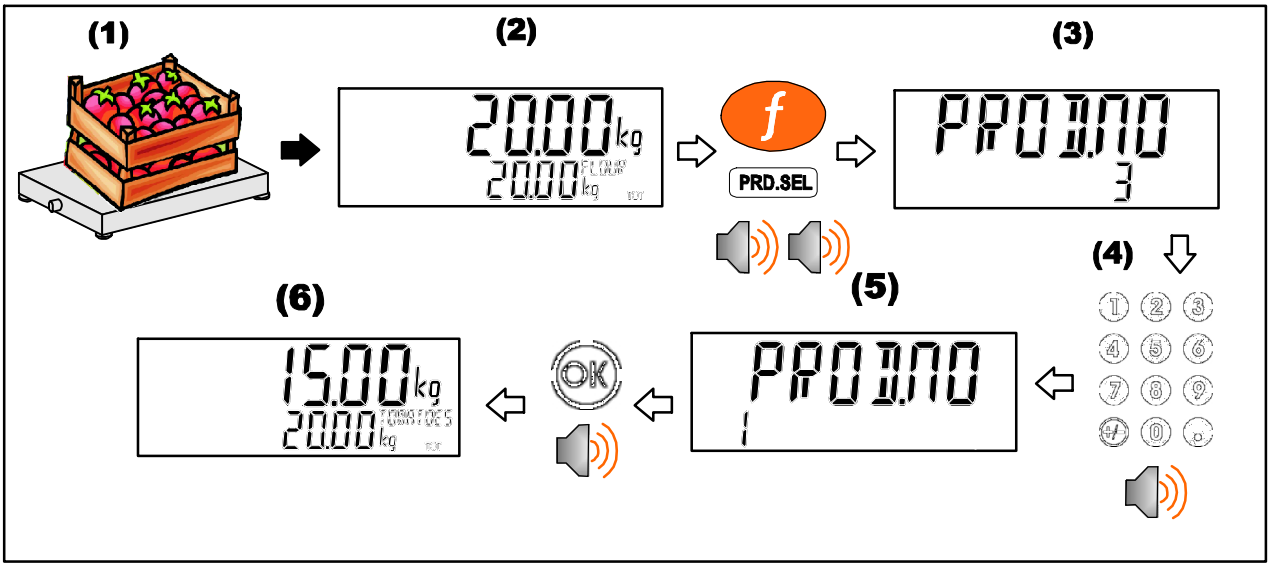
5.5. Prd.Sel

Product Select.

Short Press: Cycles the display of available totals for the current product

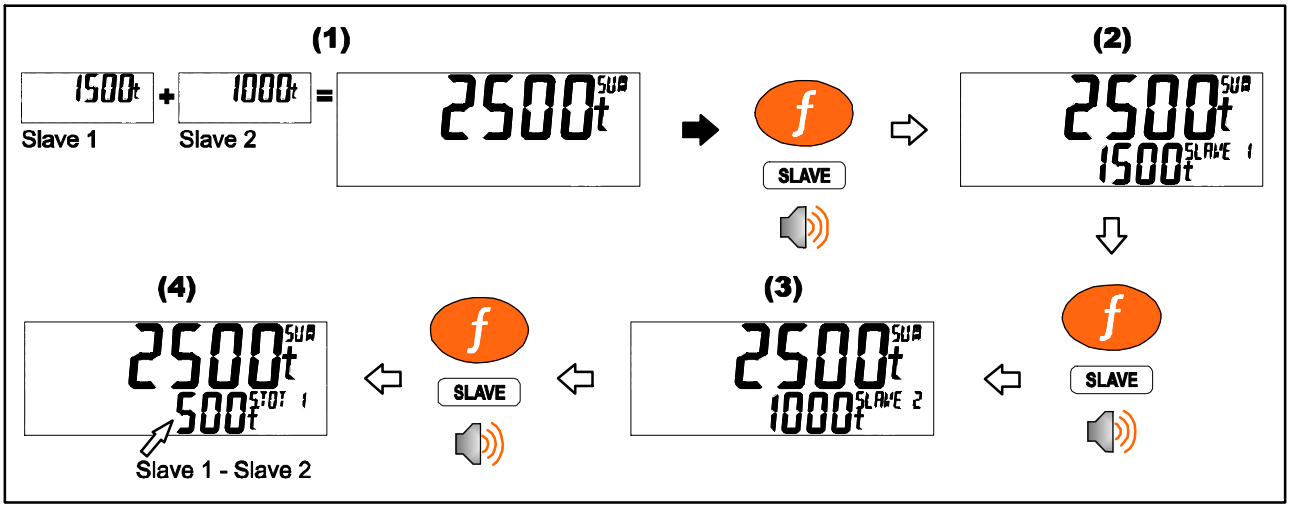


Long Press: Select product by number



5.6. SLAVE

A short press of the slave key will cycle through each slave weight followed by each sub total on the lower display.



6. Error Messages

6.1. Weighing Errors

These messages show status messages or errors that may occur during normal weighing operation.

Error	Description	Resolution
U.LOAD	The weight is below the minimum allowable weight reading.	Increase the weight or decrease the minimum allowable weight reading.
O.LOAD	The weight is above the maximum allowable weight reading. Warning - overloading may damage mechanical scale elements.	Check the condition of load cell connections. Check for damaged load cell.
(------)	The summed weight could not be calculated.	Check that all units are displaying positive weight, and all are displaying either gross or net (not a mismatch). If an error code is displayed on the bottom display, refer to Section 6.2.

6.2. Summing Errors

Error	Description
No Resp	One or more slaves are not responding. Slave shown in the bottom right display.
Hdr Adr	The address in the command header is bad
Hdr Cmd	The command in the command header is bad
Hdr Reg	The register in the command header is bad
Hdr Dlm	The delimiter in the command header is bad
Bad Adr	The address in the command header is incorrect (ie different to what was requested)
Bad Rply	The reply was not the expected reply
Not Rply	The response was not a reply
Err Rply	The slave replied with an error
Bad Cmd	The command in the command header is incorrect (ie different to what was requested)
Bad Reg	The register in the command header is incorrect (ie different to what was requested)
Bad Data	The payload could not be parsed
Data Rng	The data in the payload was outside the allowable range
No Slaves	No slaves replied on the ring network
Bad Setup	The summing indicator setup is bad (ie bad number of slaves or subtotals)
Setup Chg	The setup of one of the slaves has changed
Reg Error	One of the slaves is reporting an error when reading a register
Unit.Match	There is a mismatch in the units reported by the slaves (for example mix of kg and t)
Model Err	There is a mix of R300 and R400 indicators on the bus (must all be the same type of unit)

Notes

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