Tru-Test Models 3 and 4

User Manual

TRU-TEST®

EziWeigh

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Introduction

The *TRU-TEST EziWeigh* system consists of an Indicator (keyboard / display unit) and four *EziFeet* which support the weighing platform or crate and transmit the weight measurement to the indicator.

Statistical data from each weighing session can be recorded in memory and is retained even when the indicator is switched off.

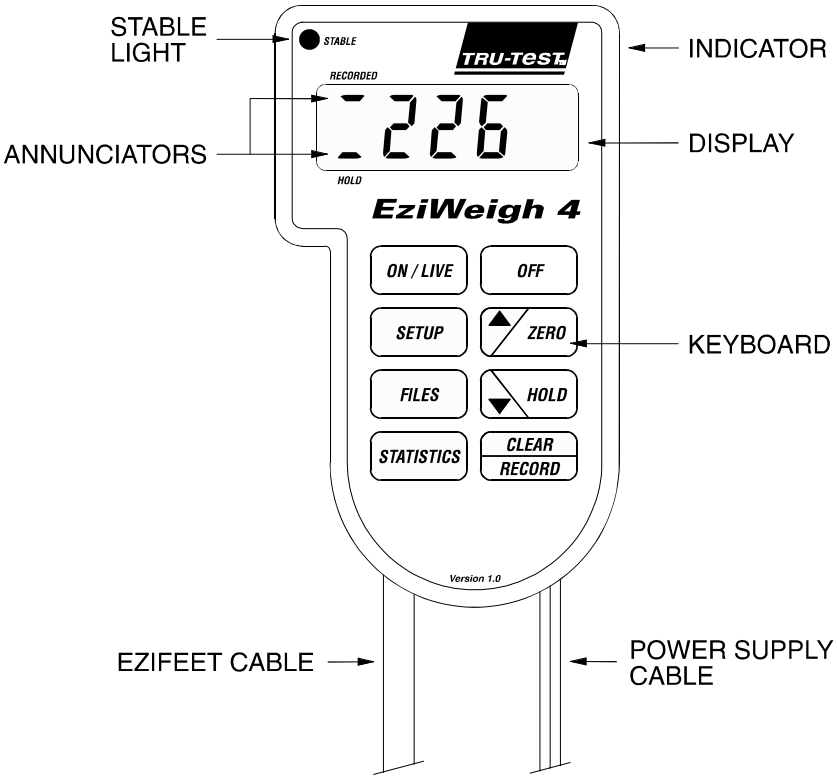
The *EziWeigh* system also provides the facility to draft (sort) by weight.

Upgrading the EziWeigh Model 3

The *EziWeigh* Model 3 Indicator can be upgraded to an *EziWeigh* Model 4 if required. The *EziWeigh* Model 4 offers the added convenience of an internal rechargeable battery. Contact your local *TRU-TEST* Service Centre.

Installation

When you unpack the scale, complete and post the guarantee card to ensure you receive the service you are entitled to.



1. Install the *EziFeet* under the platform on a firm surface. See *Installing EziFeet* on page 22.

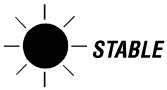
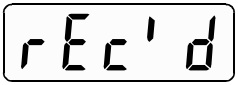
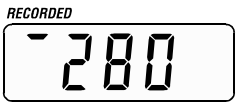
2. Connect the *EziFeet* cable to the *EziWeigh* Indicator. Screw the protection caps together to keep out dirt and moisture.

3. **Model 3**
Connect the Indicator power cable to a 12V DC power supply (car battery or *TRU-TEST* power adapter), red clip to positive terminal, black clip to negative terminal.

Model 4
Make sure the internal battery is fully charged before starting. Otherwise use an external battery or *TRU-TEST* power adapter.

THE SYSTEM IS NOW READY TO WEIGH.

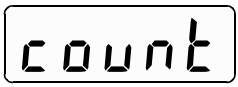
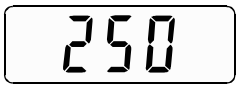
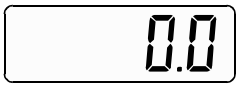
Operation

1.	Press ON / LIVE. The scale normally zeroes on power up and then displays zero weight. (See *Zeroing* on page 15.)	then
2.	Move the animal onto the platform.	
3.	Wait for the *Stable* light to come on (shows that a reliable weight is displayed).	
4.	If animal statistics required, press RECORD. The "rEc'd" message should come on briefly followed by the weight. If not, the weight has not been recorded. See *Display Messages* on page 28.	 then 
5.	If required, when the *Stable* light is on, you can press HOLD to hold the display until the next animal comes onto the platform (or press the LIVE or ZERO key).	

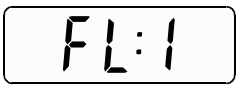
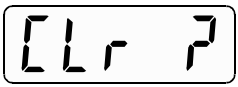
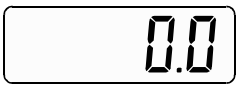
Ensure the statistics are cleared before recording a new group of animals. See *Clearing Statistics* on page 5.

Statistics

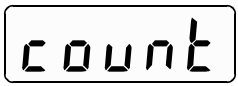
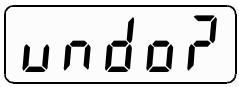
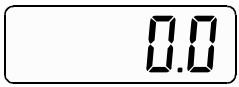
Displaying Statistics

1.	Press STATISTICS. The number of animals weighed (count) is displayed.	 and
2.	Press ▲ or ▼ to display *Average*, *Total*, *Minimum* (Lo), and *Maximum* (Hi) animal weights in sequence.	 and 
3.	Press ON / LIVE to return to the live display.	

Clearing Statistics

1.	Press FILES.	
2.	Press CLEAR.	
3.	Press CLEAR again to confirm, otherwise press ON / LIVE.	

Undo Last Record

1. Press STATISTICS. The number of animals weighed (count) is displayed.	 and
2. Press CLEAR.	
3. To confirm, press CLEAR again, or press ON / LIVE to return to live display without undoing the last record.	

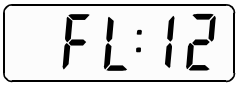
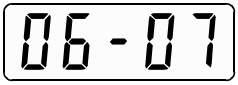
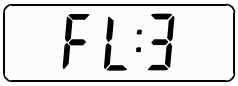
Working with Files

The indicator has 12 general purpose files (1 per month) which store the statistics for each weighing session. In addition a file named "A" holds the statistics for "All" files combined.

Files can be identified by their date which you can optionally enter.

When the indicator is switched off, the statistical data and current file number are retained in memory.

Selecting / Viewing a File

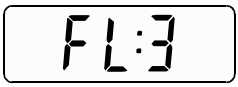
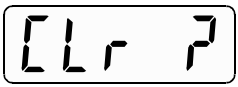
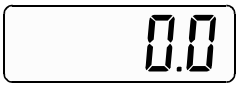
1. Press FILES. The current file number is displayed. If a date has been entered for the current file, the display alternates between file number and date.	 and 
2. To select another file, press ▲ or ▼ until the required file is displayed. (If Drafting / Sorting is on, only the 3 drafting files are available.)	
3. To view the data, press STATISTICS.	and

Note

The "All" file is used purely for viewing and clearing the combined statistics, you cannot use it for a weighing session. See page 10.

Clearing files

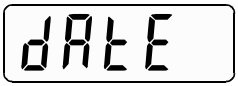
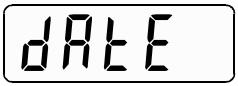
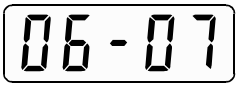
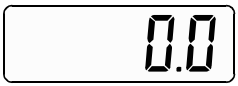
This deletes the data from the current file.

1.	Press FILES, then select the required file using ▲ or ▼.	
2.	Press CLEAR.	
3.	To confirm, press CLEAR again, or press ON / LIVE to return to live display without clearing the file.	

Notes

- If the "All" file is selected, an extra press of the CLEAR key is required to confirm that all files are to be cleared. See page 10.
- If Drafting is on, an extra press of the CLEAR key is required to confirm that all 3 drafting files are to be cleared.

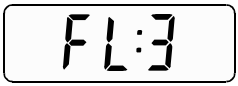
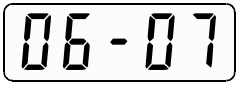
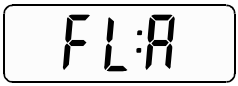
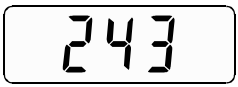
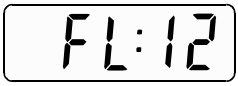
Entering a Date for the Current File

1.	Press SETUP until "dAtE" is displayed.	 and
2.	Press ▲ or ▼ to alter the day. The month changes automatically as you go past the end of the month.	 and 
3.	Press ON/LIVE to return to live display.	

Using the "All" File

File "A" is the "All" file. It is used purely for viewing the combined statistics, you cannot use it for a weighing session.

Displaying Statistics for all Files Combined

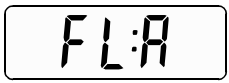
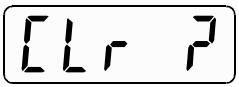
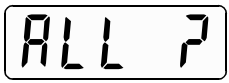
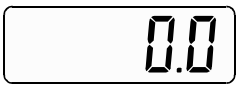
1.	Press FILES. (If a date has been entered for the current file, the display alternates between file number and date.)	 and 
2.	Press ▲ or ▼ until "FL:A" (all file) is displayed.	
3.	Press STATISTICS and then ▲ or ▼ to display *Average*, *Total*, *Minimum* (Lo), and *Maximum* (Hi) animal weights in sequence.	 and 
4.	Press FILES and re-select the working file using ▲ or ▼.	
5.	Press ON / LIVE to return to live display.	

Notes

- If statistics are displayed with "t" at the end, the reading is in thousands. eg. "534t" is 534,000 kg or lb.
- When Drafting / Sorting is on, the only available files are the 3 drafting files. See page 12.

Clearing the "All" file

This deletes the statistical data from **all** the files.

1.	Press FILES, then select the "All" file using ▲ or ▼.	
2.	Press CLEAR.	
3.	To confirm, press CLEAR again, or press ON / LIVE to return to live display without clearing all the files.	
4.	For final confirmation, press CLEAR again, or press ON / LIVE to return to live display without clearing all the files.	

Drafting / Sorting

When weighing with Drafting / Sorting on, the indicator separates the weights into two files:

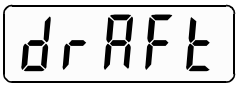
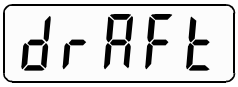
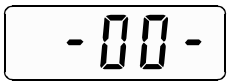
Weights less than the draft limit	**FL: L**
Weights greater than the draft limit	**FL: H**

The combined statistics for the two groups of animals are stored in the total file: **FL: t**

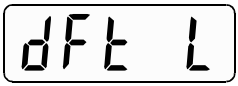
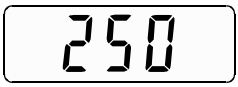
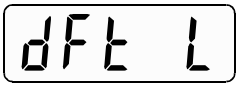
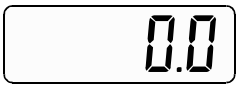
Rather than displaying live weights, the indicator displays one of the following messages:

For zero weight	**- 00 -**
For unstable weights	**- - - -**
For weights less than the draft limit	**- Lo -**
For weights greater than the draft limit	**- Hi -**

Turning Drafting / Sorting On or Off

1. Press SETUP until "Draft" is displayed.	 and
2. Press ▲ or ▼ to change the setting.	 and
3. Press ON / LIVE to return to live / drafting display.	

Setting Drafting / Sorting Limit

1. Press SETUP until "dft L" is displayed.	 and 
2. Press ▲ or ▼ to change the draft limit.	 and
3. Press ON / LIVE to return to live display.	

Note

Changing the drafting limit during a weighing session will not effect statistic calculations.

Example It is possible to change the draft limit from 250kg/lb to 270kg/lb, and still have an accurate average for the low weight group of animals and high weight group of animals at the end of the weighing session.

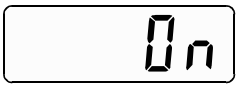
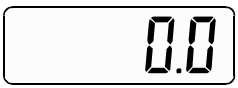
Only the three drafting files are available when drafting is on.

Fine Weighing

Fine weighing allows precise measurement of small weights.

You can weigh fleece(s), produce or small animals up to 100kg (200lb) with weight changes as small as 0.1kg (0.2lb).

Setting Fine Weighing On or Off

1. Press SETUP until "Fine" is displayed.	and
2. Press ▲ or ▼ to change the setting.	and 
3. Press ON/LIVE to return to live display.	

Zeroing

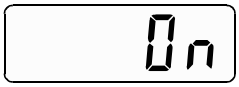
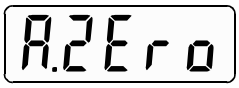
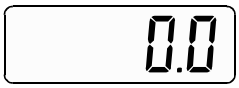
When *Auto Zero* is on, the Indicator zeroes both on power up or when there is no load on the platform.

This zeroes the weight of the platform on the *EziFeet* and compensates for any build up of dirt (up to 3kg/6lb).

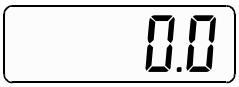
In some circumstances this feature should be turned off. Two common examples are:

1. To avoid accidental zeroing of the user's hand pressure on the entry gate, particularly with fast throughput situations such as sheep crate weighing.
2. To avoid zeroing a partially filled bale left in a wool press when the Indicator is turned off and then on again later.

Turning Auto Zero On or Off

1. Press SETUP until "AZEro" is displayed.	and 
2. Press ▲ or ▼ to change the setting.	 and
3. Press ON / LIVE to return to live display.	

Manually Zeroing the scale

• Press ZERO.	then 

Note

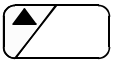
If auto zero is on, manual zeroing is usually unnecessary.

Annunciators

HOLD	The displayed weight is held constant at the last animal's weight until the next animal enters the platform or LIVE is pressed.
STABLE	The red light comes on showing that the displayed weight is reliable, and accurate.
RECORDED	The current weight has been recorded.

Keys

ON / LIVE	Turns the Indicator on or returns Indicator to live display (live weight or drafting).
OFF	Turns the Indicator off.
RECORD	Adds the current weight to the statistics. The "RECORDED" annunciator comes on to confirm.
STATISTICS	Displays the statistics for the current file. To display *Count*, *Total*, *Average*, *Minimum*, *Maximum* in sequence, press ▲/ or ▼\ . To return to live display, press ON / LIVE.
FILES	View or select the current file.
SETUP	Access Setup functions: fine, draft, draft limit, auto zero and date.
CLEAR	Clears current file data. Press FILE first, then press CLEAR and then again to confirm, or press LIVE to abort the clear operation. Undo last record. Press STATISTICS first, then press CLEAR and then again to confirm, or press LIVE to abort the undo operation.
/ ZERO	Manually zeroes the scale.
\ HOLD	Holds the displayed weight until the next animal.

	Displays next higher option.
	Displays next lower option.

Internal Battery - Model 4 Only

The internal rechargeable battery option allows the Indicator to be operated independent of any external power supply.

The internal battery comes with its own internal battery charger. See *Charging the Internal Battery* below.

Once charged the internal battery gives at least 8 hours of continuous operation at normal temperatures (0°C to 45°C) (32°F to 112°F) with *EziFeet* connected.

The low battery warning message "bat" gives you enough time to record the weight of the current animal (30 seconds). The Indicator may then be powered from a car battery or *TRU-TEST* power adapter until it is convenient to recharge the internal battery.

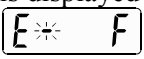
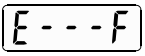
To maximise battery life, observe the following simple guidelines:

- Recharge the battery overnight before use.
- Store the Indicator in a cool dry place.
- Use the recommended power supply.

Charging the Internal Battery

The internal battery charger operates from either the recommended *TRU-TEST* power adapter or a 12 volt car battery. Damage to the Indicator caused by other charging supplies, including automotive battery chargers, is not covered by the warranty.

The internal battery charger ensures maximum life of the battery, while giving the fastest charging rate possible. The battery is protected from overcharging. Charging from a flat battery takes 8 hours at temperatures from 10°C to 40°C (50°F to 104°F).

The 'Charge Level' is displayed during charging to indicate charging progress.  is displayed at start of charging for a low battery.  is displayed when the battery is fully charged. You can safely continue charging even when the 'Charge Level' indicates full.

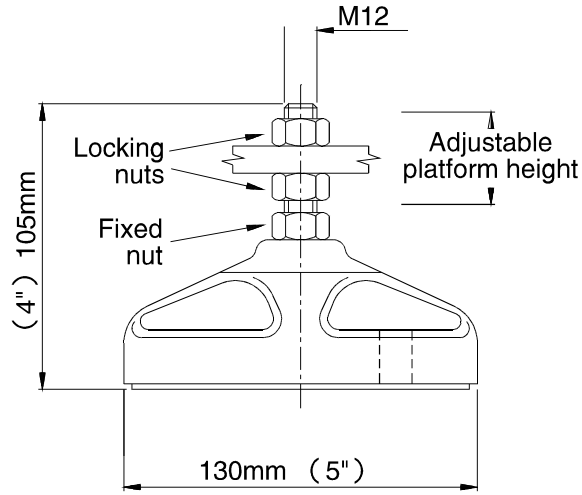
After prolonged storage, ensure that the Indicator is charged for 16 hours (the 'Charge Level' will indicate full well before charging is complete).

You can safely leave the Indicator on charge all the time.

Charging at low or high temperatures could lengthen the charging time to 16 hours. At extreme temperatures the indicator will not charge.

Never charge the Indicator in direct sunlight.

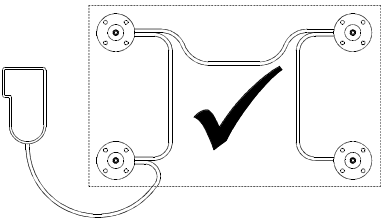
Installing EziFeet



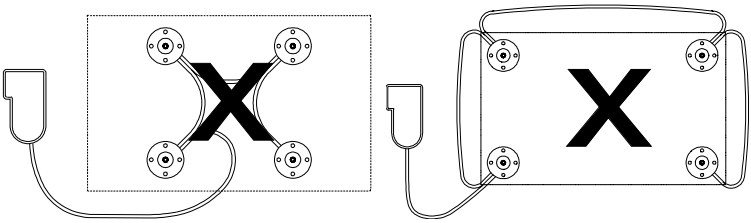
The four *EziFeet* can be temporarily or permanently installed on a weighing site. A level concrete surface is advised to minimise twisting effects which could cause inaccurate weighing.

The platform or crate should be rigid and should not flex even with heavy animals.

The *EziFeet* should be fixed as near to each of the four corners of the platform / crate as practicable ensuring that the cables point inwards as illustrated in the diagram below.

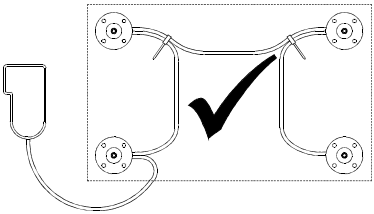


The following two diagrams show <u>incorrect</u> installation of the cables.



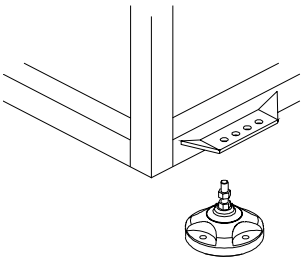
For smaller crates and platforms it may be necessary to gather the cables together underneath to ensure that they are not damaged by animals standing on them. 2 plastic zip-ties are provided for this.

Make sure that the cable from the *EziFeet* to the indicator cannot be chewed by animals.

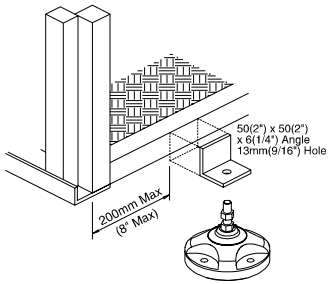


The diagrams on the next page show common methods of attaching *EziFeet* to platforms and crates.

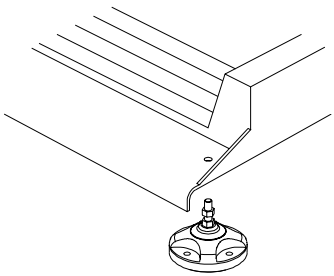
Direct Crate Attachment



Welded Angle Attachment



Direct Platform Attachment



Adjust the height of the locking nuts so that the platform rests evenly on all four *EziFeet* (i.e. does not rock). The locking nuts should be tightened until they grip the platform / crate base firmly.

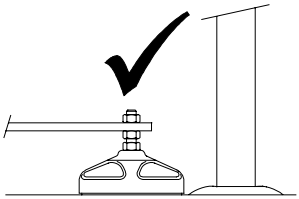
Lower the platform / crate carefully into position on the weighing site.

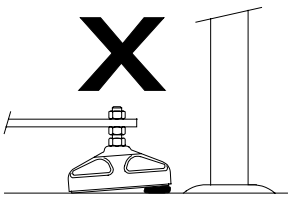
WARNING

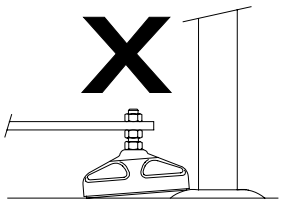
DROPPING THE PLATFORM OR CRATE WILL CAUSE SHOCK OVERLOADING OF THE EZIFEET.

DO NOT WELD PLATFORM WITH EZIFEET ATTACHED.

When the platform or crate has been lowered into the correct position, the *EziFeet* should sit flat and not appear twisted or skewed.







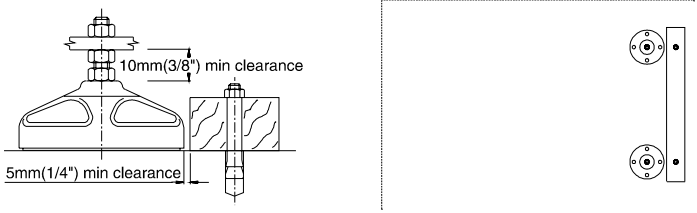
The platform or crate is now ready to weigh.

Large Active Animals

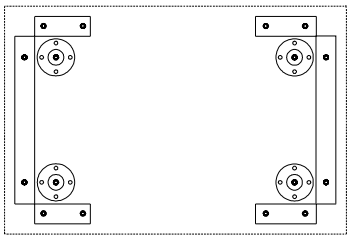
If weighing large extremely active animals it may be necessary to restrain the *EziFeet* to prevent excessive movement of the platform/crate.

This can be achieved as follows:

1. Position the platform/crate (with *EziFeet* attached) on the concrete pad.
2. Align a beam of wood (eg. fence batten) or a steel channel section so that it runs level with the front two *EziFeet* with 5mm (1/4") clearance.
3. Fix the beam to the concrete, using masonry anchors or similar.



4. The same technique can be used to prevent sideways and backwards movement. Make sure there is 5mm (1/4") clearance between the *EziFeet* and the beams.



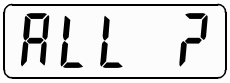
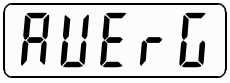
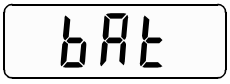
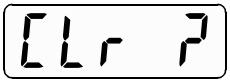
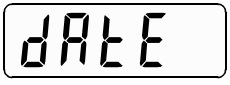
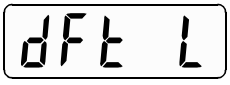
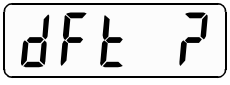
Operating Notes

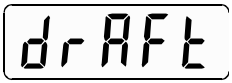
- During weighing, check that the animals are fully on the platform.
- Ensure that the underside surface of the platform or crate is kept clear of dirt and stones.

- Do not leave the Indicator or *EziFeet* in water. Store the Indicator in a cool dry place.
- Replace the caps onto the connectors whenever the *EziFeet* are detached from the Indicator.
- The Indicator automatically turns off after 15 minutes of no activity to stop drain on the internal or external batteries. This feature can be disabled. Contact your local *TRU-TEST* Service Centre.
- The Indicator is set to kg or lb in the factory. This setting can be changed if required. Contact your local *TRU-TEST* Service Centre.
- For **SERVICE,** contact:

New Zealand	0800 653 356.	
Australia	Your local Sunbeam office:	
	N.S.W.	(02) 789-8555
	QLD.	(07) 848-5171
	VIC/TAS.	(03) 318-2111
	S.A.	(08) 375-0300
	W.A.	(09) 444-7788
USA	1-800-874-8494	
Other countries	Your *TRU-TEST* service centre.	

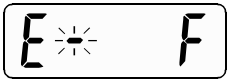
Display Messages

Message	Meaning
	100,300 lb or kg.
	Clear ALL files warning. Press again to clear all files (not draft / sort files).
	Average weight in a file.
	Auto zero option displayed.
	Model 4 only. Recharge battery.
	Model 4 only. Indicator is charging its battery. Note: the Indicator can be used while charging.
	Clear file warning. Press again to clear.
	Count statistic (number of animals weighed in a file).
	Date displayed
	Draft / sort limit displayed.
	Clear draft / sort files warning. Press again to clear all draft / sort files.

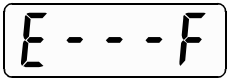


Drafting / sorting option displayed.

Animal already recorded (duplicate).

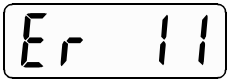


Model 4 only. Battery is low.

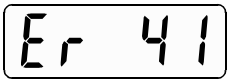


Model 4 only. Battery is fully charged. You can safely continue charging.

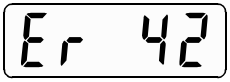
Indicator requires service. Record error number and contact your local *TRU-TEST* Service Centre.



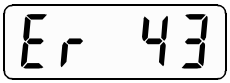
"



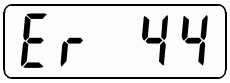
"



"

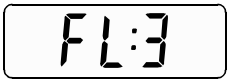


"

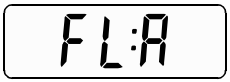


"

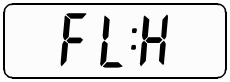
Fine weighing option displayed.



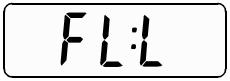
File 3 selected.



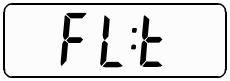
"All" file selected.



High file selected (Drafting / Sorting).

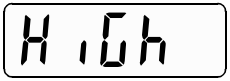


Low file selected (Drafting / Sorting).



Total file selected (Drafting / Sorting).

File is full.



Heaviest weight in file.

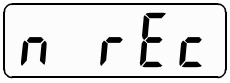
External power supply too high. Check power supply.

The weighing units are pounds.

Lightest weight in file.

External power supply too low.
Model 4 only: voltage too low to charge the battery.

No date entered.

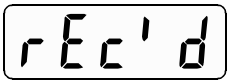


Not recorded.
Could be unstable weight, zero or negative weight, no *EziFeet* connected or current file recorded with different type of load cell.

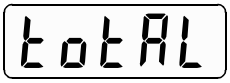
Function is off.

Function is on.

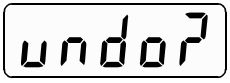
Overload. Weight on scale is greater than its capacity.



Weight has been recorded.

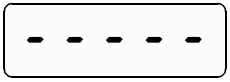


Combined weight in a file.

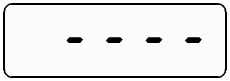


Undo last record warning. Press again to clear.

Indicator is zeroing.

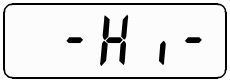


The Indicator is ready with no *EziFeet* connected.

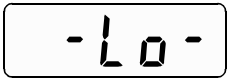


Drafting / Sorting, unstable load.

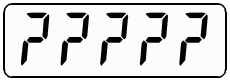
Drafting / Sorting, zero load.



Drafting / Sorting, weight heavier than draft limit.



Drafting / Sorting, weight lighter than draft limit.



Unable to calculate statistics.

Specifications

Total Capacity	500kg (100kg with *Fine* on) 1000lb (200lb with *Fine* on)
Min resolution	0.5kg (0.1kg with *Fine* on) 1lb (0.2lb with *Fine* on)
Accuracy	±1% or 2 resolutions (whichever is greater)

Weight Range	**Resolution**
0 to 200kg 0 to 500lb	0.5kg 1lb
200kg to 500kg 500lb to 1000lb	1kg 2lb

Power supply	12VDC
Operating temp	-10°C to +45°C 14°F to +113°F
Storage temp	-20°C to +35°C -4°F to +95°F

Note: Product Specifications may change without prior notice.

FCC Notice

The *TRU-TEST* Scale Indicator has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction leaflet, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

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