



T-Mech Beam Scales & A1-10 Indicator



Specification

Product Description

The T-Mech Beam Scales are a high quality weighing device suitable for use in an industrial, logistical and agricultural environment. The digital display screen allows these scales to work easily and quickly whilst the flexible positioning of the beams means you can easily weigh long items that would not fit on other scales.

With the ability to weigh up to 3000kg/3 tonnes using a variety of functions, these sturdy scales are an essential appliance for accurately weighing heavy items.

Item Contents

2 x T-Mech 1200mm long beam scales, 4 x support feet, A1-10 digital display indicator, mounting bracket components, splitter cable to connect scales to the display, charging cable with 13 amp 3 pin plug.

Technical Information

Voltage: DC 5V; up to 4, 350Ω load cells

External power supply: 230V (115V) AC.

Internal power supply: Rechargeable 6V DC battery

Operating temperature: 0 to 40°C

Storage temperature: -25 to 55°C

Relative humidity: ≤ 85%

Baud rate continuous ASCII data output

RS-232C interface, optional RS-485 interface 1200/2400/4800/9600

Product Specifics

Each beam: 120cm W x 12cm D x 6cm H (8cm with feet)

Digital display: 22cm W x 14cm D x 9.5cm H

Weight: 22kg

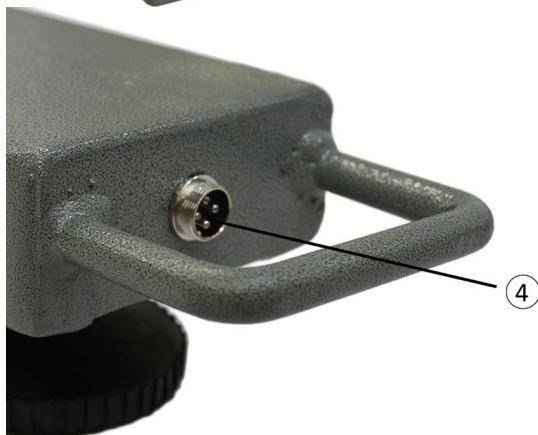
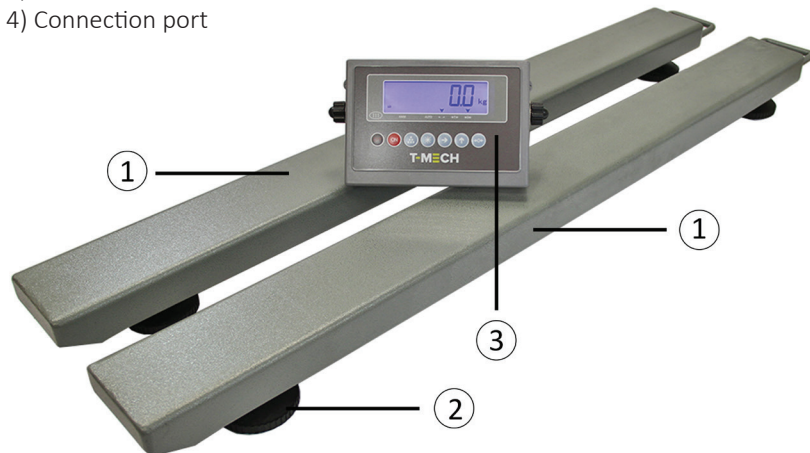
Capacity: 0-3000kg

Measurements: 0.5kg increments 6-bit display: 0.8 inches LCD

Specification

Product Features

- 1) Beam scales
- 2) Rubber non-slip feet
- 3) A1-10 indicator
- 4) Connection port



Specification

Keypad Functions

- 1) OFF button- turns display off
- 2) ON button- turns display on
- 3) Accumulation function- operates manual accumulation function
- 4) Function button- switches between normal function & configuration mode
- 5) Right adjust- moves adjustable (flashing) value on display during configuration
- 6) Up adjust- adjusts resolution on display screen, changes parameter value in configuration or sets present tare value.
- 7) Zero- sets display to zero, sets zero point or allows user to enter tare value



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Display Status

- 1) x10- display is set to a high resolution
- 2) LO/HI- the weight is lower/higher than the low point/high point threshold.
- 3) AUTO- automatic accumulation function is active
- 4) Level symbol- weight is stable on the scales
- 5) →T← - tare value included, display is showing net weight
- 6) →0← - scale is set to zero
- 7) lb/kg- weight is set to weigh in pounds or kilograms

Other indicators include:

AC - charging cable is plugged into display

Empty battery symbol- battery less than 30%



User Guide

Calibration Settings

Follow these instructions to calibrate your scales. If you face any issues contact our Support department via the details on the Contact page, who will be happy to guide you through the calibration process.

Step	Key controls	Display message	Explanation
1	a. Turn OFF keypad b. Press & hold [→0←] c. Then press [ON] once d. Release [→0←]	Display will begin to self test from [000000] to [999999]	This enters the calibration menu. When the display has finished the self test it will show the current weight on the scales e.g. 0.
2	e. Press function key [*] twice f. Then press [→]	Display will show d and a number e.g. [d 0.8]	The display must show d 0.5. Not 0.50 or 0.05. Use [↑] to cycle through the options.
3	g. Press function key [*] to confirm	Display will show [000000]	Then select the weight you wish to use to calibrate the scales, this must be a proper calibration weight or an item you definitely know the exact weight of.
4	h. Press [→] to choose a value then use the [↑] to change the number to the desired calibration weight. i. Press the function key [*] to confirm	Display will show [000000] then enter your calibration weight	Enter the weight of the calibration weights e.g. 500kg.

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Calibration Settings

Step	Key controls	Display message	Explanation
5	After confirming the calibration weight: j. Press function key [*] k. Press function key [*] l. Press function key [*]	[FLT 00] [AUTP 10] [Adr 10] [b 2400]	Press the function key to cycle through these settings. These are only really for manufacturer use to adjust the internal workings of the scales. Changing any of these settings may stop your scales from working correctly.
6	n. Press function key [*]	[0.5] kg	This is should be set to 0.5kg as the lowest the scales can weigh.
7	o. Press function key [*]	[3000] kg	This is should be set to 3000kg as the highest the scales can weigh.
8	p. Press function key [*] q. Press function key [*] to confirm these settings	[Led 0]	Again this is only really for manufacturer use to adjust the internal workings of the scales.
9	r. Press function key [*] s. Then press [->] t. Finally press function key [*] to finalise the calibration	After finalising the display will show the weight you set for calibration e.g. [500] kg	Finalise the calibration settings and the display will show the weight that you set for calibration. Now place the calibration weight on the scales.

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Calibration Settings

Step	Key controls	Display message	Function
10	u.Press function key [*]	Display will show [-----] as it sets the calibrated weight. It should then show the weight on the display.	With the weight loaded on the scales press the function key to finalise the calibration.
11.	v. Turn OFF the scales and turn ON again to resume normal operation		

Zero & Tare Modes

Zero mode

When the weight is stable, press the [→0←] key for two seconds to set the zero point and to zero the display. The display will then show [→0←] when this is turned on.

Tare mode

Digital tare- Press the [→] key. Set the tare value using the [→] and [↑] keys and press the [→0←] key to confirm. The input data will show the tare value and the tare status will show on the display screen.

Acquire tare- When the tare status is not showing on the screen and the weight is stable, press the [→0←] key to acquire the tare and switch to net mode. The tare status will then show on the screen.

Remove tare- When the tare status is on, press the [→0←] key to switch to gross mode and remove the tare. The tare status will not show on the screen.

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Parameter Configuration

Accumulation menu

Step	Key controls	Display message	Function
1	Press function key	[n 12]	This will show the amount of times the weight can be accumulated.
2	Press function key	[Aut 0]	Manual/Automatic Accumulation menu AUT=0 Manual Accumulation AUT=1 Automatic Accumulation and print when weight is added. AUTO will show on the display. AUT=2 Automatically memorize the displayed value when weight is added. Accumulates and prints when reading is stable and drops below 20d. AUT=3 Dynamic weighing method. When weighing >20d the alarm will sound and the display will lock for 6 seconds. When new data is entered the lock will activate again for 6 seconds. The lock is then released for weighing < 20d and the weight will automatically accumulate and print. The recommended filter for this function is [FLT>30]. AUTO will show on the display when accumulating. AUT=4 Peak value fixed weighing method. When the weight is . 20d the alarm sounds and the lock is displayed. When the weight is < 20d the fixed data display will flash and the automatic accumulation and print will activate. The lock can be released by pressing any key. AUTO will show on the display when accumulating. AUT=5 Dynamic weighing method. Manual accumulation and print. AUT=6 Peak value fixed weighing method. Manual accumulation and print. Aut=7 Counting function.

User Guide

Parameter Configuration

Accumulation menu (continued)

3	Press [↑]	[AUt 0]	The display digit will flash.
4	Press [↑] Press [↑] Press [↑] Press [↑]	[AUt 0] [AUt 1] [AUt 2] [AUt 3]	Sets the maximum capacity value. Moves the adjustable value to the right. E.G. [AUt 3] = Dynamic weighing method.
5	Press [↑]	[0]	Return to normal weighing status.

Manual weight accumulation- when the weight is stable press the accumulation key to accumulate the current weight to the total weight. The total number of accumulations will be displayed for 1.5 seconds.

High resolution display mode- press the [↑] key to switch to high resolution mode. Press the [↑] key to return to normal weight display mode.

Automatic memory accumulation- select the manual/automatic accumulation function for animal weighing, peak value retention and counting function.

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Parameter Configuration

Quantity accumulation menu

Step	Key controls	Display message	Function
1a	Place item on the scales	[n 12]	In this example the item weighs 27kg and there is a quantity of 30.
1b	Press [→] Press [→]	[cnt000] [cnt000]	Ready to input quantity. Moves the adjustable digit.
1c	Press [↑] Press [↑] Press [↑]	[cnt010] [cnt020] [cnt030]	Quantity of 10 Quantity of 20 Quantity of 30 (max. 200)
1d	Press the function key	[27]	Press the function key to confirm the quantity. This will show the item weight on the display.
1e	Press [↑]	[C 30]	Press [↑] to switch between quantity and weight.

1) Quantity input

If you have a number of items that are the same weight then you can calculate the weight by weighing one of the products and inputting the quantity. When the net weight on the scale is set to zero (tare can be removed by pressing the tare key if the net weight is not zero) the item that requires weighing can be placed on the scale (please note the total quantity of items cannot exceed 200). Press the [→] key to enter the quantity input and press the [↑] key to change the value (e.g. 30- display will show [CNT030]). Press the function key to confirm the amount of weight will display the total for 30 items. Quantity amounts will be memorized after the control unit is switched off.

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Parameter Configuration

Quantity accumulation menu

Step	Key controls	Display message	Function
2a	Place item on scales	[230]	Item weight = 230
2b	Press [↑]	[C 255]	Item quantity = 255
2c	Press the accumulation key	[n 4] [C 255]	Number of accumulations (displayed after 1.5 seconds)

2) Counting operation:

Place the item on the scale so that the weight is displayed on the screen.

Press the [↑] key to switch from the item weight to the item quantity and [C255] will show on the display. When the display is stable, press the accumulation key to accumulated the weight and quantity. Accumulation can only be done in the counting mode.

Step	Key controls	Display message	Function
3a	Press the function key	[C 1203]	Display the total quantity of the item = 1203
3b	Press [↑]	[H 0]	Display accumulated weight 4 digits higher
3c	Press [↑]	[L 1085]	Display accumulated weight 4 digits lower = 1085
3d	Press [↑]	[C 1203]	Back to counting status
3e		[C 0]	Delete accumulated quantity

3) Accumulate enquiries and delete:

Both at weighing mode and counting mode.

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Other Functions

- 1) Clear memory- press the →0← button to clear the memory. If the memory has previously been cleared the display will show [n 0] followed by zero weight when the function button is pressed.
- 2) Set the data- when adjusting parameters press the [->] key to move the adjustable digit and press the [↑] key to change the value.
- 3) Battery capacity- when the display is powered ON/OFF the battery capacity will be displayed for 1.5 seconds. If the capacity runs down to less than 20% the display will start to flash, switch the machine off and connect to the external power supply. When the battery is less than 10% the display will automatically switch off. Ensure the battery is never fully discharged, this can cause damage to the battery and prevent it from working correctly.
- 4) Weighting unit- the display will weigh in kilograms as standard but the scales can be set to weigh in lbs. To switch between kgs and lbs hold the function button for 2 seconds.



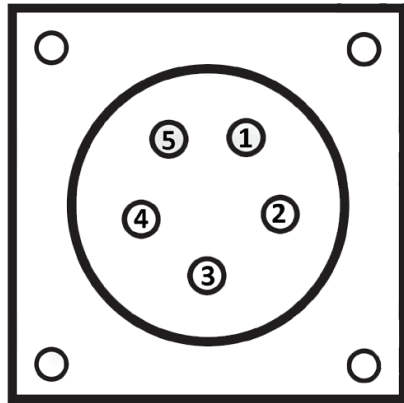
User Guide

Connection Wiring Diagram

The instructions below inform on how to wire the scales correctly to either a 5 pin or 9 pin DB-9 serial connection. The cable provided will already be wired, however should the cable need rewiring please consult this page.

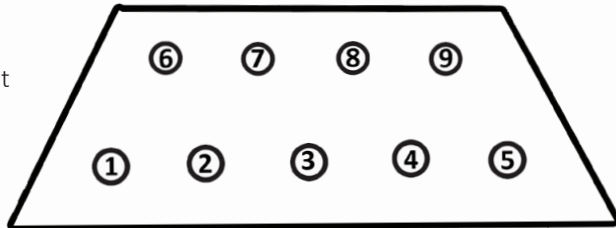
5 pin plug

- 1) Positive current
- 2) Positive signal
- 3) Negative signal
- 4) Negative current
- 5) Ground/Earth



DB-9 serial connection

- 1) Positive current
- 3) Ground/Earth
- 5) Negative current
- 7) Positive signal
- 8) Negative signal



User Guide

Printer Connection

If you require a print out from a mini printer or receipt printer please follow the instructions below.

- 1) Connect the display to the mini printer via a serial cable. (Before connecting to the printer ensure that the communication address is set as ADR=01 and baud rate is set as b=2400, see configuration.)
- 2) Print the current weight- ensure that the weighing data is less than 20d and the display is stable. Press the accumulation button and the reading will be printed.
- 3) Accumulated print- when the display is in weighing mode press the function button, then press the accumulation button to print out the accumulated figure.
- 4) Automatic accumulation print- when the display is set to automatically accumulate it will also automatically print the readings when the weight is stable and less than 20d. The second print will automatically begin when the weighing data is back to 20d and more weight is loaded.

Here is an example of a print reading:

Normal print

NO:1 (serial number)
Gross: 1234kg (gross weight)
Tare: 1000kg (tare weight)
Net: 234kg (net weight)

Accumulation print

NO: 9 (number of accumulation)
W: 8765kg (accumulated weight)

Safety Advice

Safe Working Practice

Please read through the safe working practice to ensure prevention of injury or damage to the device.

Do not use the machine if the adaptor wire is frayed or damaged.

To charge the battery use the included charging cable. Once the battery is fully charged unplug the cable, as prolonged operation from the mains will damage the battery.

When the device is not in use ensure that the power plug is removed from the socket. This will prevent damage to the appliance through power surges.

Do not operate or store the digital display near heat sources or in hot environments. The operating temperature for the scales and display is between -10°C and 50°C with a maximum humidity of 85%. Using the scales outside of these temperatures may lead to damage.

Do not use the scales in dusty areas as this can lead to damage in the display unit.

Do not overload the scales. This will cause damage to the appliance and will prevent it from working correctly.

Ensure the display is kept away from water sources as it is not waterproof.

Both the scales and the display should be fully sealed when in use. Do not attempt to remove or adjust any parts without expert attention.

Ensure the display and wires are kept clear from heavy objects as this will cause damage and prevent them from working.

Monster Guarantee

If you wish to return a product in perfect working order, we provide a 14 day returns policy as long as the item is unopened and in a resalable condition. A 12 month warranty applies to all of our electrical products, we will cover labour, parts and delivery charges. Our policy is to try and fix the item before arranging an exchange or refund. For full terms and conditions contact our Support department via the details on the Contact page.

Contact Us

Sales Department

For information regarding this device or other products from our Monster divisions please use the following details below.

Tel: 01347 878888

Email: sales@monstergroupuk.co.uk

Support Department

For queries about this device, warranty, returns or reporting faults please use the following details below.

Tel: 01347 878887

Email: support@monstergroupuk.co.uk

Website

To view our product range and fantastic offers in the Monster Scales division please visit our website:

www.monstershop.co.uk

Address

To visit our office Monster House and view our products, send postal correspondence or return items our address is provided below.

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