

The Icore Mark II Checkweigher

*Icore's low cost checkweigher
that's reliable, easy to use,
flexible and accurate.*

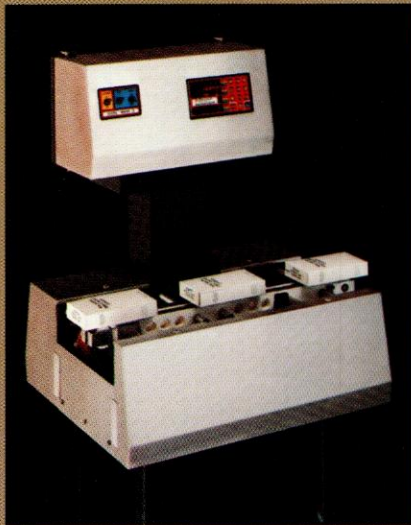


RAMSEY
TECHNOLOGY INC.

No matter what kind of business you're in, accurate weight monitoring is important.

No where else can you buy a checkweigher that's as reliable, easy to use, accurate and flexible as Icore's Mark II. And at a low cost!

Icore's newest checkweigher, Mark II, solves your checkweighing problems. And Mark II gives you benefits no other checkweigher manufacturer offers.



Mark II shown with Frame 10 mechanical arrangement

Only Mark II has a three program set-up.

Just like having three different machines. With a simple flip of a switch, Mark II is transformed to meet the need of each of three completely separate production settings. Mark II gives you complete parameter settings for each of the three set-ups including separate cutpoints, counters, speeds and even back-up speeds.

Only Mark II has Super Autozero system

Mark II autozeroes automatically without the need to disrupt production or creating a gap in the line. Not only does Super Autozero work faster and more accurately than any previous autozero, but it never zeros when a package is on the table.

Only Mark II offers a simple keyboard entry, color coded and in plain English.

Mark II makes set-up and data retrieval easy.

Only Mark II has automatic self-diagnostics.

Data integrity system continuously checks all critical stored data such as counters, password, program parameters, motor speed and all memory. If anything is missing, the operator is notified immediately.



Cutpoint/Reference key

With this key, you can display or change your current reference weight (package target weight), over cutpoint and under cutpoint.

Parameter validity checks tell the operator if the data entered makes sense. For example, is it within the capacity of the machine?

Another system checks the machine for problems which could affect the metrological characteristics such as a covered interlock, A/D overloaded, motor not running, trying to weigh without calibration, and reject system malfunction. Again, the operator is notified immediately if a problem is found.

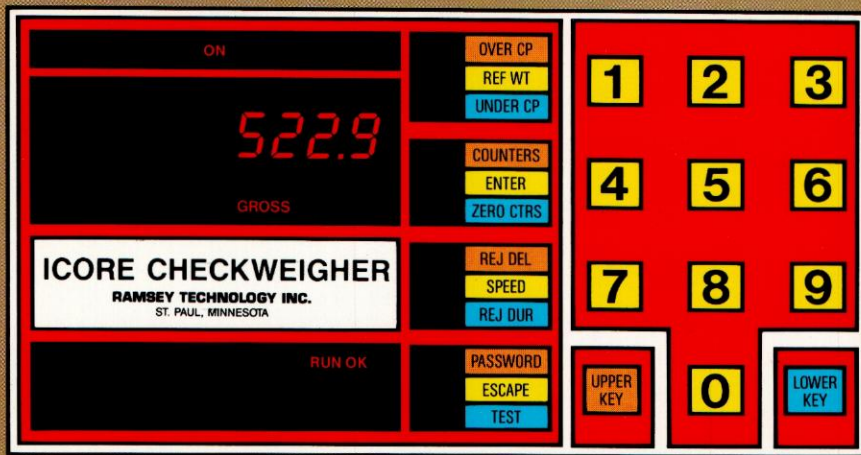


Counters/Enter key

This key enables you to display the number of under-, on-, or over-weights and lets you zero (reset) item counters as needed. The enter key is pushed to enter data.

Mark II knows if its important parts are operating properly and providing accurate weighing information. Behind the scenes, Mark II benefits the user by providing continuous, operator-free testing to insure proper, accurate weighing.





The Mark II has automatic grey zone measurement that can be calculated to any degree of confidence desired.

No need for special charts on the Mark III!



Reject/Speed key

Reject delay and duration times can be easily adjusted with this key without the need for special tools or tricky adjustments.

The speed key advises you exactly how fast your line is going.

And, that's not all.

Mark II allows the best system for statistically accurate calibration of its weighing system (both dynamically and statically). There's no need to set pots or do single sample guesswork.

Static weighing can be done on the Mark II. This is a valuable aid in testing the checkweigher's accuracy and as a handy static scale.

Mark II offers these outstanding benefits too:

- Mark II is being listed with Underwriter's Laboratories; not just the control panel, but the entire checkweigher. This lets you know Mark II is safe to operate.



Now you have accurate weight control at your fingertips.

The multi-function keyboard of the Mark II offers you an easy-to-read numeric keypad and a set of function keys, designed to simplify your entire weight and monitoring process.

See how simple Mark II is to operate:

- A back-up circuit for the motor speed allows the conveyor to operate and keep production running even if the main electronics are being serviced.
- As with all Icore checkweighers, Mark II is able to withstand hostile environments. Both the weighcell and the electronics are designed for washdown environments.
- Mark II is totally reliable, and is suited to fast and simple board replacement due to a modular printed circuit design.

The escape key lets you do two things. First, it serves as a "clear entry" key, clearing any mistakes made while entering numbers. It also enables you to "escape" from the function you are currently using and return to the normal checkweighing operation. (Mark II can still be checkweighing while you're changing data or reading displays.)

You can even access a variety of specialized functions to set-up, calibrate, diagnose and service your Mark II, just by striking the test key.

Password/Escape/Test key

Unauthorized cutpoint resets can be eliminated with the password protection key function. No data can be entered or altered without first entering the correct password.



**Unique features of the Mark II—
all standard**

- 3 programmed set-ups
- high accuracy (± 100 mg)
- Super Autozero
- computer controlled speed
- immune to unclean electricity (voltage spikes, EMI, electrostatic discharge, variations in voltage, etc.)
- automatic self-diagnostics
- 128 package reject memory
- low cost
- built-in grey zone measurement
- easy-to-use keyboard

**Technical Specifications
Programming**

Machine is capable of storing 3 complete set-ups including reference weight, cutpoints, zone counts, machine speeds, calibrations and reject information. Set-ups can be selected or changed easily from the keyboard.

Line Speed

22-220 feet/minute (7-68 meters/minute)

Weight Capacity

Up to 2,000 grams

Accuracy

Resolution: ± 100 milligrams
Electronic Accuracy: ± 100 milligrams
Grey Zone: from ± 200 milligrams depending on product speed, dimensions, weight and stability

Zeroing

Automatic self-zeroing (self-tare) often between each package. NEEDS REZERO light turns on whenever more than 4000 items have passed without an autozero occurring.

Weight Zones

3 for under-weight/on-weight/over-weight

Reject System

Machine comes equipped with three 110V output signals that may be used to drive rejects, external alarms or lights. Any zone may be set to trigger any one of the three output signals. Standard: 128 package shift reject memory.

Conveying Medium

Mylar belt 4.5" (114mm), 7" (178mm) or 10" (254mm). Stainless steel roller chain, flat top chain or bead chain.

Maximum Product Size

Length: 12" (305mm), depending on item rate.
Width: 10" (254mm), depending on rigidity.
Height: flexible, depending on product stability.

Nominal Line Heights

Low profile 11" (280mm); 28"-44" (710-1120mm)

Construction

Standard: USDA approved black epoxy paint with stainless steel electronics enclosure and guards. Stainless steel hardware. Electronics enclosure exceeds NEMA 4. Machine exceeds IEC standard IP55.
Optional: Stainless steel frame and legs.

Cutpoint Switches

May be set in pounds, ounces, grams or kilograms.

Drive Motor

Standard: NEMA 56C DC 1/4 permanent magnet motor with neoprene boot protection against washdown. Standard.

Weightcell

Strain gauge loadcell enclosed in a proprietary shroud to protect it from 1000 psi (70 bar) direct water washdown.

Environment

5000V electrostatic discharge
Temperature: 32-113°F (0-45°C)
Humidity: 10%-95%

Electrical

- Standard 115VAC $\pm 15\%$ 50/60Hz single phase, 300VA
- Optional 100VAC $\pm 15\%$ 50/60Hz single phase, 300VA
- 200VAC $\pm 15\%$ 50/60Hz single phase, 300VA
- 220VAC $\pm 15\%$ 50/60Hz single phase, 300VA

Compressed Air

(for reject devices) 30-50 psig, 1-4 CFM for accessory reject devices

Displays

- Weights can be displayed in kilograms, pounds or ounces, or grams
- Either gross weight or deviation from reference (target) weight
- Reference weight, over and under cutpoints
- Zone counts (under, on and over)
- Reject delay and duration in milliseconds
- Line speed (in feet/min or m/min)
- Self diagnostics (see below)

Password Protection

Keyboard protected by 1 to 6 digit customer settable password. No data may be changed or reset without first entering the secret number. Password protection can be removed at no extra cost.

Self Diagnostics

Built-in circuits constantly monitor key electronic and mechanical functions and signal the operator if a malfunction occurs. Several indicators located inside electronics enclosure. Following displays visible from front panel:

- No CPU — CPU board not functioning
- No GAP — indicates inadequate spacing between packages interfering with accurate weighing.
- NEEDS REZERO — autozero has not occurred for over 4,000 packages.
- RUN OK — all information required for checkweighing has been entered; no internal electronic diagnostics detected and motor is running to within 10% of required speed.
- NO ZERO — indicates the machine is not autozeroing.

Available Options

Optional Reject Devices

Standard Icore air boppers, air pushers, or air jets. Freestanding two and three zone carrier reject available including no-jam microprocessor controlled pin sensor electronics.

Optional Material Handling

Freestanding spacing conveyors, worm screws, side belts and 3-stage accelerating side belts.

Other Options

Vertically mounted photocell, guide rails, remotely mounted electronics and wet drive weighable arrangement.

Engineering Features

Interlock System

Fixed position infra-red interlock requiring no adjustment.

Electronics

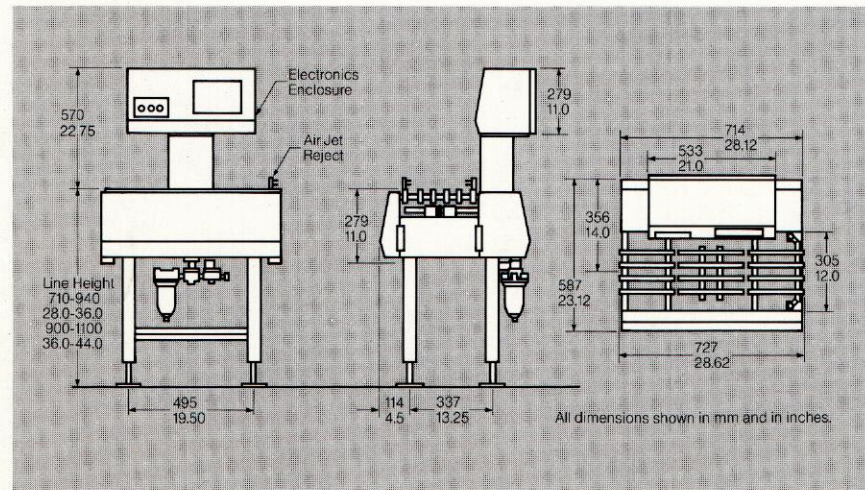
Based around the Intel 8085A 8 bit micro-processor. Includes rechargeable battery backup. Circuit breakers on high power circuits.

Keyboard & Display

Hermetically sealed keys. Display and keyboard coated with polycarbonate to resist abrasion, heavy washdown and continuous use (available in English, French, Spanish, German and Japanese). Display lights utilize light emitting diodes for long life.

Mechanical Arrangements

Mark II can be used with a variety of Icore mechanical arrangements. See "Mechanical Arrangements for Icore Checkweighers" brochure for selection guide and details.



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