

# Ramsey

## AC4000i Checkweigher Control

Packaging - Processing  
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### The Ramsey AC4000i Checkweigher Control

The Ramsey AC4000i checkweigher is offered as a reliable and economical solution for a broad range of checkweighing applications. Intended to be the basic “workhorse” of Ramsey checkweighers, the AC4000i will meet the production and weight inspection monitoring requirements of most checkweigher users in a cost-effective and efficient manner.

Incorporating the latest technology in microprocessor-based electronics and

software enhancements, the AC4000i will handle most checkweighing applications at line speeds up to 350 packages per minute. From single one-product under-weight rejects, to memory loaded set-ups for multiple products, to the capability to provide production statistics and digital communications with remote printers or data collection systems, the AC4000i is an economical and easy-to-use choice. Best of all, you only pay for the additional capabilities you need.

The AC4000i simply offers you the most for the least: accurate weighing, reliable performance, bright easy-to-read display controls that are simple to understand and operate, and messages and prompting in plain English. All of this is packaged in rugged, water-tight NEMA 4 or NEMA 4X enclosures suitable for washdown environments.

# AC4000i Checkweigher Control



## Standard features of the AC4000i include:

### Three Weight Zones

Underweight/On-Weight/Overweight

### Displays

- **Weight** - Displays gross, net, or deviation from reference weight of product in grams, kilograms, ounces or pounds. Bright, easy-to-read vacuum fluorescent display also displays set-up instructions, alarm and diagnostic messages when required. In normal run mode, the weight, units of measure, and product running are displayed.
- **Zone Indicators** - Provides visual indication of weight zone of last product weighed.
- **Status Indicators** - No-gap, re-zero and alarm indicator

lights advise operator of conditions that require attention. Various alarm conditions can be checked quickly via keyboard entry.

### Easy Set-up and Operation

All operator interface is entered digitally through straightforward membrane-type front panel keys that have tactile touch feedback. A basic telephone-type interactive 12-button pad is used to enter numeric data. Twelve additional well marked function keys allow the operator to enter data, and view and scroll through the machine menus. Each function is prompted by the easy-to-read display.

### AutoZero

The AC4000i's electronics will automatically zero the weightable between packages. This feature compensates for product build-up on the weightable. The operator can also manually re-zero the scale.

### Diverter Output

An output contact is available to operate a diverter or reject system to remove underweights from the line automatically. Both the time delay and duration of the contact closure are adjustable via the set-up scrolls.

### Sample Button

A push of the sample button rejects the next package across the weightable, and automatically displays and holds the weight of that package on the line. Both the time delay and duration of the contact closure are adjustable via the set-up scrolls.

### Grey Zone Test and Display

The operator can initiate a grey zone test. After the required number of packages pass over the weightable, the grey zone will be automatically calculated and displayed by the AC4000i.

### Power Failure Detection and Memory Backup

In the event of a power failure or extended power brownout, the unit will store all operating parameters and information so it can come up working on resumption of normal power. The memory backup uses advanced technology that does not require a battery.

### Password Protection

Collected data and set-up parameters are protected from unauthorized change by the password security feature of the AC4000i.

### Automatic Self-Diagnostics

Continually monitor system operation and assure that everything is operating properly. Faults are indicated on the display and specific information on a variety of problems can be displayed by initiating a query through the keyboard. With the multiple diverter option, it is also possible to assign a contact to actuate a remote alarm.

### Statistics

Production monitoring information can be called up on the AC4000i's display on demand. Information available includes the number of packages underweight, on-weight, and overweight, plus the total accepted weight since the statistics were last reset. The counters will be reset to zero when product parameters are changed or when a manual reset is initiated by the operator.

### Prompted Set-up Procedure

If required set-up information is not found in memory, for example on initial start-up, or if cold start procedure erasing all memory has been initiated, the operator is required to go through an initial set-up procedure before the unit can be run.

### Automatic Set-up

The AC4000i's AUTOCALC feature automatically calculates and selects required settings for filtering and sampling algorithms in the weighing software. If desired in special situations, these settings can be manually overridden by the operator.

## AC4000i options

### Multiple Product Set-up

An optional software package allows storing of set-up parameters and information for up to 50 different products. This information is stored in memory and, using the product menu, the AC4000i can be switched over from one product to another in a matter of seconds.

### Communications

The AC4000i provides hardware and software for digital communication with external devices. The communication options conform to either EIA 232 or EIA 422/485 standards. Modicon Modbus Protocols are also supported by this system. Two outputs are available: free running data (individual weights) or a formatted report. If connected to a printer, the formatted report output will generate a report of all the statistical information as described under the standard features, plus the date, time and reference weight. If the Multiple Product set-up software option has been

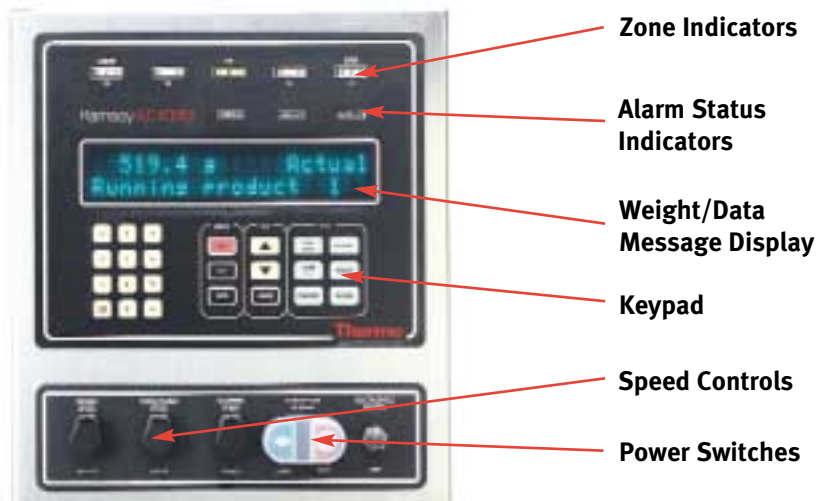
chosen, the report will also identify the product running. Reports can be printed upon request or at present timed intervals. Printouts will be automatically generated when the operator changes product parameters, clearing statistics, or manually clearing statistics.

### Multiple Diverters

This combination hardware and software option increases the number of diverter (reject) outputs from one to three. Product can be diverted into underweight, on-weight and overweight categories if desired. No Gaps (where product spacing is too close preventing proper weighing) can be directed to a specific diverter. Alternately, one of the diverter outputs can be assigned an alarm actuator. Whenever the alarm light on the checkweigher is on, this output will actuate to signal remote locations of the alarm status.

### Weighframes

The AC4000i can be used with any of the Ramsey weighframe arrangements. Frames are available with a variety of conveying media, isolated or integrally mounted infeed and outfeed conveyors, and a full array of reject devices. This versatility allows creation of checkweighing systems that can meet the specific needs of your applications and products. Each weighframe is designed to provide the ultimate in checkweighing speed and accuracy.



Zone Indicators

Alarm Status Indicators

Weight/Data Message Display

Keypad

Speed Controls

Power Switches



## GENERAL SPECIFICATIONS

### General

Product Rate: Up to 350 ppm

### Environment

Electrostatic Discharge Protected: 5000 V  
 Temperature: 32° to 90°  
 Humidity: 0% to 95%  
 Enclosure: Fiberglass, NEMA 4X  
 Optional Stainless Steel

### Electrical Input

Standard: 115/220 VAC ± 10%  
 50/60 HZ, Single Phase  
 300 VA

### Weight Zones

3 Zones Standard Underweight/on-weight/  
 overweight

### Weight Display

Displays gross, net, or deviation from reference weight in grams, kilograms, ounces or pounds

### Zone Indicators

Provides visual indication of the weight zone of last product weighed

### Counts / Zone

Total number of packages in each weight zone are displayed using the stats button

### AutoZero & Manual Zero

The electronics automatically re-zero the weightable. This feature compensates for product build-up on the weightable. Manual zero permits re-zeroing of scale at operator discretion.

### Automatic Self-Diagnostics

Self diagnostics continually monitor system operation and assure that everything is operating properly.

Self Diagnostics include:

- Needs re-zero
- No gap
- Erroneous system operation

### Grey Zone Display

The AC4000i can automatically calculate and display grey zone checkweigher accuracy.

### Password Protection

Collected data and set-up parameters are protected from unauthorized change by the password feature of the AC4000i.

### Digital Filter Set-Up

During set-up, filter parameters are selected for each individual product using the front panel keyboard. The process is easily performed because it requires no electronic adjustment. This exclusive feature improves the weighing accuracy by providing the optimum filter setting for each product.

### Data Integrity Alarm

Electronics provide automatic verification that all set-up values and data are valid.

### Options

- STATS II
- Multiple Product Setup (50)
- Communications
- Multiple Diverters
- Reject Verification
- Modicon Modbus

## Mounting Dimensions

