LOADRITE™ C-Weigh 1850™

User Guide

Software No: 60379 Version 1.00

Document No: MAN-81071-00

Issue Date: December 2009

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Contents

1 PRODUCT PURPOSE

The Loadrite C-Weigh 1850 weighing system measures the weight of material shifted by a standard conveyor belt typically found in quarries, mines or other similar bulk material applications.

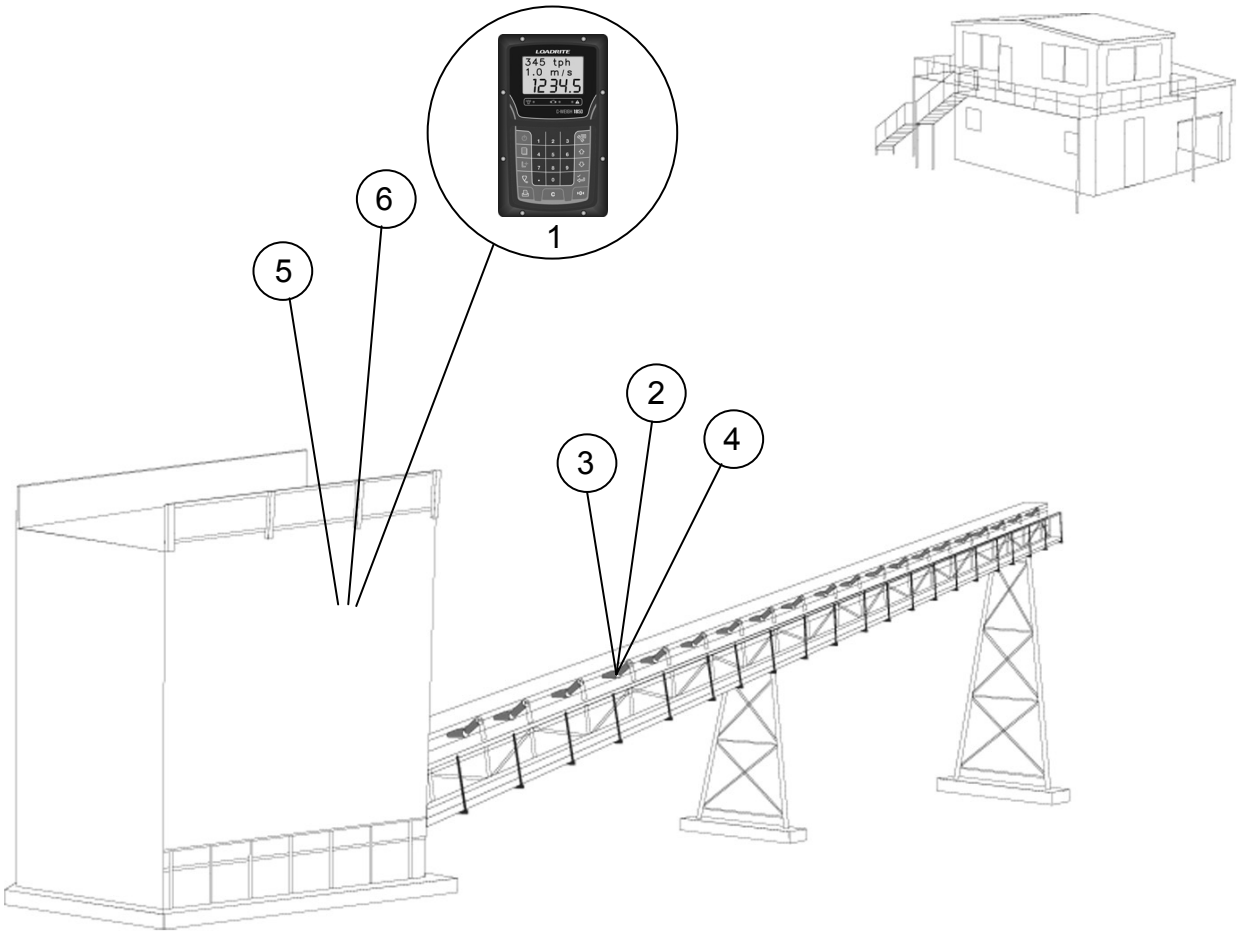
Sensors under the belt measure the load on the belt and the conveyor speed. These signals are read by the Loadrite C-Weigh integrator which calculates and displays the current material rate and totals moved.

The display has internal memory, which stores settings and production data even when switched off.

The functionality of the Loadrite C-Weigh product is designed to be as close as practical to other Loadrite products found in typical bulk handling applications. This helps to reduce training needs for users.

1.1 LOADRITE EQUIPPED CONVEYOR BELT

1. Loadrite integrator
2. Loadcells/scale frame
3. Speed wheel
4. Amplifier/junction box
5. Printer (optional)
6. Data module (optional)



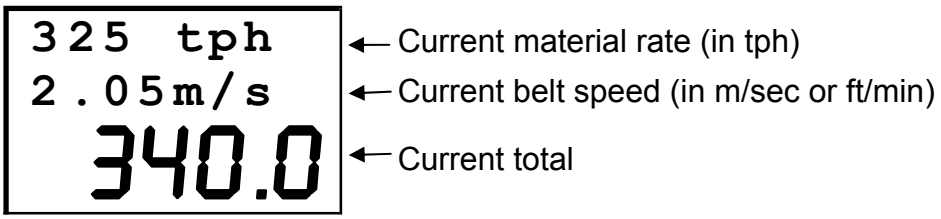
2 QUICK START GUIDE

2.1 SWITCHING ON

The Loadrite C-Weigh integrator powers up automatically when you switch on the power.

2.2 THE RUN SCREEN

The Run screen shows the normal operating data for the conveyor.



When the belt is running with load, the current total will count up. It is normal for the tph figure to change up and down (sometimes quite quickly) as material moves along the belt.

2.3 UNATTENDED VS INTERACTIVE

The Loadrite C-Weigh can be used in either an unattended or interactive manner. This means the system can either:

- Operate independently without regular user input; or
- Use functions that require a user to regularly enter data (such as product details).

Different functions described in this manual fall into either of these categories.

2.4 INDICATOR LIGHTS

Three indicator lights are used by the Loadrite C-Weigh:

The left hand light will flash when the C-Weigh integrator is communicating or attempting to communicate with a communications device.

The middle light will be ON when the belt is running and weights are being totalised.

The right hand light will flash if the Loadrite C-Weigh has detected an error condition.

2.5 KEYPAD

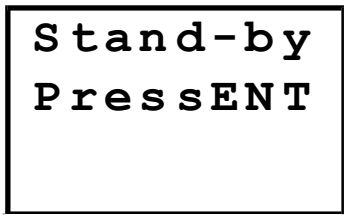
The table below shows the special functions that the keys have in addition to their numeric values used for entering data.

ICON	NAME	DESCRIPTION
	Power	When pressed on the Run screen, puts the C-Weigh into standby mode. To return to the Run screen, press any key.
	Settings Menu	Displays the time and accesses the set-up menu. Also exits an operation without changing the data.
	Data Menu	Allows a product code to be entered. Also allows you to enter additional data to print or log.
	Long Total	Displays the long total.
	Enter	Enter key for accepting data or changes.
	Up Arrow	Scroll up.
	Down Arrow	Scroll down.
	Diagnostics	Displays the Diagnostics menu.
	Print	Displays the Print menu and allows reports to be printed.
	Clear	Clears the short and long total for the current product.
	Update Zero	Zeroes out any build-up on the belt.
	Numerical keys	Used to enter the numbers 0 to 9.

2.6 STANDBY

The Loadrite C-Weigh integrator has a ‘standby’ mode which is similar to turning the power off.

Optionally, if the belt is stopped for more than 10 minutes, the display will automatically enter Standby mode. If this option is enabled, then the display will automatically restart when the belt starts.

To put the integrator manually into standby press  , the EXIT key, when in the **Run** screen. To restart the integrator, press any key.	

3 WEIGHING

3.1 FOR ACCURATE WEIGHING, MAKE SURE THAT:

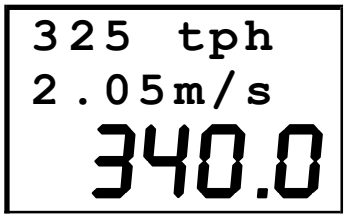
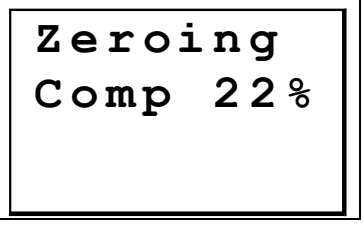
- The scale is correctly and regularly zeroed. (Zeroing is described below).
- There is no material build up on the belt scale weighing frame or speed wheel.
- The flow of material along the belt is fairly ‘smooth’ and evenly distributed on the belt.
- The size of each piece of material is less than 1/10th of the covered width of the belt.
- On sloping conveyors, ensure material does not roll down the belt.
- On portable conveyors, recalibration may be required if the slope of the conveyor is changed.

3.2 ZEROING

It is important to zero the scale regularly. This is to avoid inaccurate readings due to build up of material on the scale frame, or other changes to the conveyor belt itself.

Zeroing can be performed manually and there is an optional ‘Auto Zero Track’ mode which will automatically adjust for small changes (when the belt is run empty).

3.2.1 Manual Zero

While running, with the belt **empty**, press the ▸0◂ key. Note: If the belt is not running, an error message (**Belt to Slow!**) will be displayed and it is not possible to zero the scale.	
The Loadrite integrator measures the weight for one or more (depending on the settings) complete revolution(s) of the belt. A percentage complete value is displayed during this process.	

The zeroing process can be aborted at any time by pressing any key on the keypad.	
A completion message is displayed when completed.	Zeroed
If the zeroing process was not successful or aborted, a brief error message is displayed.	Not Zeroed

Large Zero Error

If the weight is greater than 10% of full scale, when you press  , the display prompts **Is belt empty?** If it is, press  which will perform a zero operation. Pressing  will not zero the scale.

The C-Weigh integrator automatically returns to the **Run** screen when zeroing is complete or zeroing was aborted.

3.2.2 Auto Zero Track

When enabled, the Auto Zero Track (AZT) function will automatically run when the load on the belt drops to close to zero.

AZT will run for one or more belt revolutions (configured at installation) and while operating will display a percentage complete message.

On completion, if the zero error is within preset limits, the C-Weigh will automatically adjust the zero.

If the accumulated zero error is too large, an error message is displayed. In this case a ‘Manual Zero’ will need to be performed.

If material is fed on to the belt during an AZT function, the C-Weigh returns to normal operation.

3.3 SHORT AND LONG TOTALS

The Loadrite integrator keeps totals of the material moved. Two independent totals are stored.

Short Total	Typically used to display the total weight of material conveyed for a shift or shorter time period. It can also be used in truck/rail loading applications.
Long Total	Typically used to accumulate the weights of material conveyed over a longer period, for example a day or week. To view the Long Total, press  . (See below).

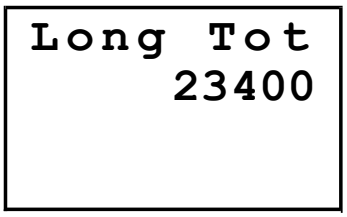
The Short Total is displayed on the bottom line of the display. As material moves along the belt, this value will increment.

The maximum value displayed of the Short Total is 99,999 t.

3.4 VIEWING LONG TOTAL

3.4.1 To view the Long Total

(Weights shown are examples only)

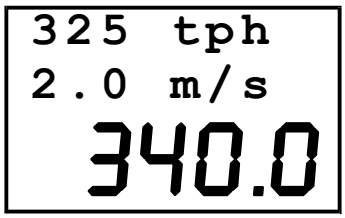
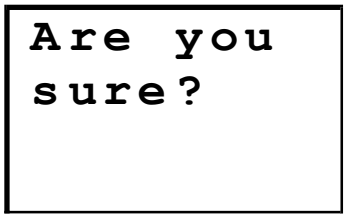
In **Run** screen, press  . After a few seconds, the display automatically returns to the **Run** screen.	

The maximum value displayed of the Long Total is 99,999 t.

3.5 CLEARING TOTALS

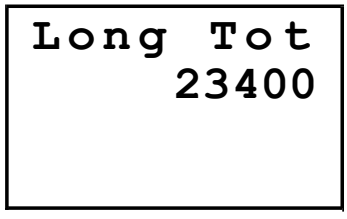
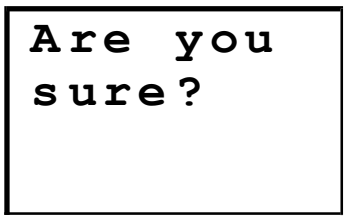
3.5.1 To clear the Short Total

(Weights shown are examples only)

In the **Run** mode, press C.	
The display prompts: Press ↵ to confirm.	
The display shows **Cleared Total** for a few seconds, and then returns to the **Run** Screen.	

3.5.2 To clear the Long Total

(Weights shown are examples only)

In the **Run** mode, Press L+. The display shows the Long Total.	
Press C. The display asks you to confirm the clear.	

Press  to confirm. The display shows **Long Tot [product number] Cleared** for a few seconds and then returns to the **Run** screen. The 3 in this example stands for product number 3.	Long To3 Cleared

When a total is cleared the value of that total and other data can be printed on a Loadrite Printer or sent to Loadrite MMS. See 'Event Printing' on page 14 for details.

4 PRODUCTIVITY INFORMATION

The C-Weigh integrator has several functions for recording and displaying information related to the productivity of the conveyor system. The most basic of these is the Total Display. The C-Weigh system also allows recording daily production information, tagging data with a definable data field and more. Many of these functions require a Loadrite Printer or the Loadrite MMS system to operate. (See also page 16 for a description of the ability that allows tracking of up to 9 different materials).

This section describes these productivity functions in more detail.

4.1 PRINTED REPORTS

The C-Weigh is able to print report summaries of daily or weekly throughput. (The detail of these reports are explained in the following two sections). As well as automatically printing at the end of a period, the reports can be printed by pressing the  key and selecting from one of:

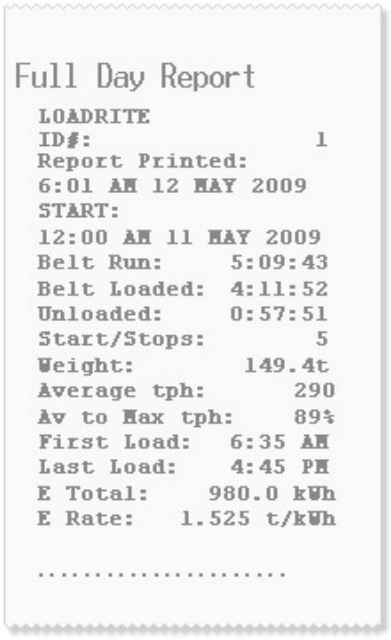
‘Today’	(A report of up to the current time for today)
‘Prev Day’	(A report for the full previous day)
‘This Week’	(A report of up to the current time this week)
‘Last Week’	(A report for the full previous week)

Scroll with the arrow keys to the required report and press Enter to confirm the selection.

4.2 DAILY REPORTS

This function requires the connection of a Loadrite Printer. The function generates a useful summary report of information on the productivity of the system being monitored by the scale.

Once per day the following report is automatically printed:



```
Full Day Report
  LOADRITE
  ID#:                  1
  Report Printed:
  6:01 AM 12 MAY 2009
  START:
  12:00 AM 11 MAY 2009
  Belt Run:      5:09:43
  Belt Loaded:   4:11:52
  Unloaded:      0:57:51
  Start/Stops:          5
  Weight:         149.4t
  Average tph:       290
  Av to Max tph:     89%
  First Load:    6:35 AM
  Last Load:     4:45 PM
  E Total:     980.0 kWh
  E Rate:    1.525 t/kWh

  ......................
```

Note: In some applications, the report shown above may print in the reverse order.

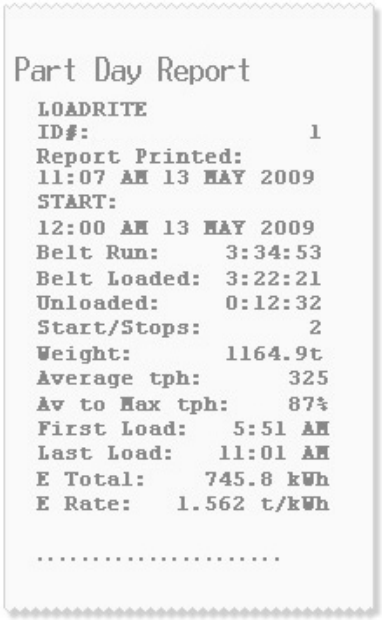
What each line means:

Full Day Report	This line describes the type of report printed.
'LOADRITE'	This line is a configurable 16 character identifier for when there are multiple systems.
ID#	The ID number of the system selected at installation.
Report Printed	The time and date the report was actually printed.
Start	The beginning of the 24hr period (time and date) the report covers.
Belt Run	The hours : minutes : seconds the belt was running for.
Belt Loaded	The hours : minutes : seconds the belt ran at above the minimum load.
Unloaded	The hours : minutes : seconds the belt ran below the minimum load.
Start/Stops	The number of times the belt started.

Weight	The total weight moved during the period.
Average tph	The average ‘rate’ (tonnes per hour) of the period.
Av to Max tph	The average ‘rate’ compared to the expected maximum rate selected at installation.
First Load	The time of day the belt first ran ‘loaded’.
Last Load	The time of day the belt last had a load on it.
E Total	Optional (requires extra sensors). Shows the total energy use for the period (kWh, Litres or Gallons).
E Rate	Optional (requires extra sensors). Shows the efficiency of throughout in terms of ‘t/kWh’, ‘t/l’ or ‘t/g’.

At any time the user can press the  key and print a copy of the same report from the previous day (‘Prev Day’).

The user can also print the data for the current day up until the current time by pressing the up or down arrow and selecting ‘Today’.



Part Day Report

LOADRITE
ID#: 1
Report Printed:
11:07 AM 13 MAY 2009
START:
12:00 AM 13 MAY 2009
Belt Run: 3:34:53
Belt Loaded: 3:22:21
Unloaded: 0:12:32
Start/Stops: 2
Weight: 1164.9t
Average tph: 325
Av to Max tph: 87%
First Load: 5:51 AM
Last Load: 11:01 AM
E Total: 745.8 kWh
E Rate: 1.562 t/kWh

.....

Note: In some applications, the report shown above may print in the reverse order.

Notes:

1. These reports are completely independent of the Short and Long Totals.
2. These reports are not affected by the selection of product (refer page 16).
3. The start time for the reporting period is midnight (12:00am).
4. A report that covers a full period is headed ‘Full Day Report’ or ‘Full Week Report’. A report that may only cover part of a day or week is headed ‘Part Day Report’ or ‘Part Week Report’.

4.3 WEEKLY REPORTS

Weekly reports operate in exactly the same manner as daily reports. The difference is that weekly reports cover the period from midnight Sunday through to midnight Sunday. The weekly report is automatically printed the next time the C-Weigh is powered on after the roll over time. Weekly reports can also be manually printed by pressing the  key and selecting the current (‘This Week’) or previous week (‘Last Week’).

All other data is the same as for the daily reports.

4.4 EVENT PRINTING

This function requires the connection of a Loadrite Printer. The function generates a printed record of ‘events’ from the system being monitored by the scale. The following ‘events’ will cause data to be printed:

Event	Data Printed	Optional
C-Weigh Power Up	Loadrite C-Weigh ID Number Product Number	Always Always Optional
Belt Start / Belt Stop	‘Belt Started’ and time or ‘Belt Stopped’ and time	Optional Optional
Change of Product	“Change to Prod #:” and product ID Time	Always

Event	Data Printed	Optional
Clear Short Total (C Pressed)	Short Total Value Product Belt Run Time Belt Loaded Time ID Number User Data Time / Date Name (e.g. Company or Belt name)	Always Optional Always Always Always Optional Always Optional
Clear Long Total	Long Total Value Product ID Number Time / Date Name (e.g. Company or Belt name)	Always Optional Always Always Always
→0←	'Zeroed' message Time	Always

4.5 TIMED LOGGING

This function requires the connection to Loadrite MMS (e.g. via the LD951 data logger, an Ethernet link or Radio Modem). The C-Weigh scale can be configured to log a short status record on a timed basis. The times can be every 1, 5, 10, 15, 30, 60, 90 or 120 minutes.

By using this logging function, in conjunction with Loadrite MMS, it is possible to report on the productivity throughout the course of the day.

Your Loadrite C-Weigh distributor can assist with details on how Loadrite MMS can be configured to your specific needs.

5 TRACKING PRODUCTS & DATA

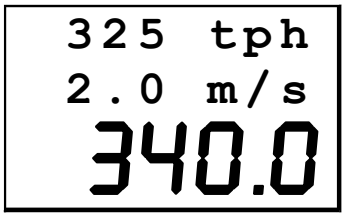
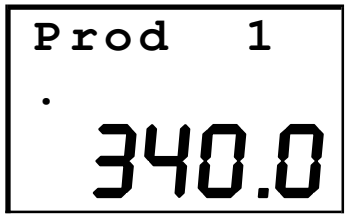
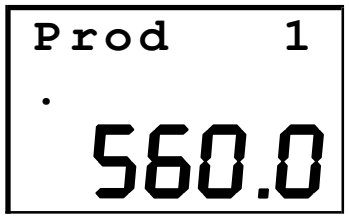
The Loadrite C-Weigh can track both ‘Products’ and another 8 digit data field (see details below). When enabled, these are accessed in turn by pressing the {*Product / Data menu*} key.

5.1 PRODUCTS

The Loadrite C-Weigh can track up to 9 different materials or ‘products’. It does this by using a different ‘Short’ and ‘Long’ Total for each product. (Refer to page 8 for details on the totals). Product tracking is an option that can be enabled at installation. If the option is not enabled, product details are not displayed or able to be changed.

Note: Product tracking requires an operator to enter product details into the C-Weigh integrator each time the material on the belt changes. As such, this function is not suitable for ‘unattended’ applications.

If enabled, a new product can be selected by:

In the **Run** mode, press  {*Product / Data Key}*.	
The integrator prompts for a new product number and displays the ‘short’ total for the current product on the bottom line of the display.	
To change the product number, either: - Enter a new number with the numeric keys; or - Use the arrow keys  .	
Press  to confirm. (Display will return to the **Run** screen or move on to the **Data** function if enabled).	

Notes on using the product function:

- The total(s) for each product must be cleared separately.
- The automated daily reports (refer to page 11) are not affected by which product is selected. They simply report on the total material carried by the belt.

5.2 DATA FUNCTION

This function requires the use of a Loadrite Printer or connection to Loadrite MMS. The function allows a single number to be entered (up to 8 digits) that will then be printed / logged along with:

- A total that is 'Cleared'
- 'Timed' logging data (see page 15)

Generally this 'data field' is used to track useful extra data such as 'Batch Number', 'Area' or similar. The meaning for the data (and its associated text name) is typically set during installation.

As this function requires operator input, it is generally not used in 'unattended' applications.

The number can be entered or changed by pressing the  {*Product /Data Key*}. (If enabled the current Product Number will be displayed first – Press  to step on to **DATA** editing).

The numeric keys are used to enter a new value which is then saved by pressing  .

6 MENU OPTIONS

The User menu allows you to change some of the settings of the integrator.

Setup	Installation functions (security code required)
Clock	Clock setting

6.1 TO ACCESS AN ITEM ON THE MENU:

1. Press  .
2. The current time and date will briefly be displayed.
3. Use ⇧ ⇩ to scroll to the required option.
4. Press  to select the option.

When you have finished with an option, the display returns to the main menu. To return to the Run screen, press  .

6.2 SETUP

The Setup option enables you to access special functions such as span calibration. You need a security code to access these functions.

6.2.1 To access the Setup options:

1. Press  .
2. Use ⇧ ⇩ to scroll to **Setup**.
3. Press  to select.
4. The display prompts you to enter an access code.
5. Enter the access code.
6. Press  to confirm.

6.3 CLOCK SETTING (CLOCK)

To set the time and date – refer to page 19.

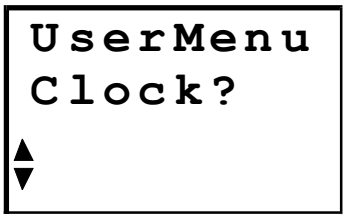
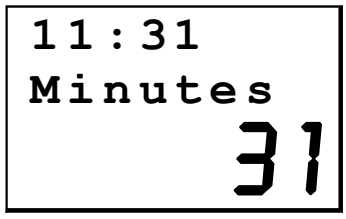
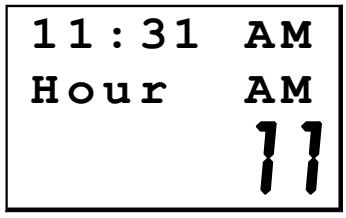
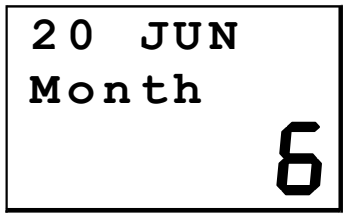
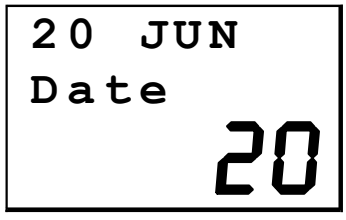
7 SETTING THE CLOCK (TIME AND DATE)

The Loadrite C-Weigh integrator has an internal clock that can be used for inserting the time and date into printed data.

You can display the time and date by pressing the **MENU** key.

7.1 TO SET THE TIME AND DATE

To set the clock:

Press  Use ⇧ ⇩ to scroll through to **Clock**. Press  .	
The integrator displays the first of the time/date screens. Enter the new minutes setting then press  .	
Enter the new hours setting. The ⇧ ⇩ arrow keys change AM/PM. Press  to confirm.	
Enter the new month (enter the month number with the numeric keys). Press  to confirm.	
Enter the new date. Press  to confirm.	

Enter the new year. Press  to confirm.	

Note: At any stage during the clock setting process, pressing **MENU** will return to the **Run Screen** without saving the new time.

8 DIAGNOSTIC FUNCTIONS & ERROR MESSAGES

8.1 DIAGNOSTIC MENU

The Loadrite C-Weigh has a series of diagnostic functions easily available. To access the diagnostic functions, press  when the **Run** screen is displayed.

Four separate functions are available:

- Loadcell test
- Speed wheel sensor test
- Supply voltage measurement
- Live weight display

The arrow keys  can be used to scroll to the required function, press  to select.

8.1.1 Sensor/Loadcell Signal (Loadcell)

The Sensor Input function allows each loadcell signal to be monitored in ‘real time’. The percentage value is the loadcell output. The message **-NT-%** indicates that there is no signal or that the loadcell has been disconnected. If the message **-OR-%** (Over range) is displayed, the signal from the loadcell is over range. Both of these indicate a fault.

Press the **MENU** key to return to the menu.

8.1.2 Speed Sensor Test (Speed W)

The Speed Sensor shows the state of the sensor input. This input should pulse **’Active’** as the sensing wheel rotates. If the wheel is rotated very slowly, the display should display ‘**On**’ or ‘**Off**’.

If the speed wheel is rotating and the indicator displays ‘**Off**’, this indicates a fault.

Most standard Loadrite C-Weigh speed sensors use a ‘proximity switch’ to measure pulses from a ‘speed wheel’. These proximity switches typically have a small lamp that should also flash as the wheel rotates.

Press the **MENU** key to return to the menu.

8.1.3 Power Supply Check (Supply V)

The Power Supply Check function displays the input voltage. The input voltage should be between 12V and 32V and stable to within +/-0.5V.

Press the **MENU** key to return to the menu.

8.1.4 Live Weight Display (LiveWght)

This function allows the weight seen by the loadcells to be displayed. The weight is displayed in kg or lb. A test can be performed by loading a suitable weight (typically less than 100kg/220lb) onto the belt directly over the 'idler' supported by the loadcells. The display should show the approximate value of the weight.

Note: This test may not show the exact value of the test weight. Other factors such as exact load position, conveyor slope and belt tension may alter the true reading.

Press the **MENU** key to return to the menu.

8.2 ERROR MESSAGES

Over Range **[OR]**	Occurs if one or more loadcells are loaded over their maximum or have been damaged.
-NT-%	Indicates that there is no signal or that the loadcell has been disconnected.
BeltStop	Either the belt is stopped, or there is a fault with the speed sensor.
Logger Fault [LD951 Error]	The optional LD951 data logger (used with Loadrite MMS) has been unplugged.
Loadcell Error	This message appears when a loadcell fault occurred and the DIAG key is pressed.
Trigger Fault [TiltSense Fault]	Indicates that there is no signal or that the tilt sensor has been disconnected.

9 SYSTEM SPECIFICATIONS

9.1 SUITABLE APPLICATIONS

The Loadrite C-Weigh scale measures the weight of bulk material moved by conveyor belts in quarries, mines and other similar environments. Please refer to your Loadrite distributor for details.

9.2 WEIGHING ACCURACY

Typical accuracy is ±1% for most conveyors and weighing of a single idler. This may vary with different conveyor types, installation options and the physical condition of the conveyor and belt.

9.3 TRADE APPROVAL

The Loadrite C-Weigh system is a very accurate weighing system, but not Legal for Trade.

Each country or state may have different rules on the definition of Legal for Trade. It is important that the operator/owner of the equipment understands these definitions.

9.4 POWER REQUIREMENTS

Supply voltage	12 to 32 Volts DC.
Supply current	Loadrite integrator: 160mA typical, 350mA max. Loadrite printer: 50mA standby, 4A peak.

9.5 SIGNAL INPUTS AND OUTPUTS (INTEGRATOR UNIT)

Weight sensor input	4 - 20mA (0-100%).
Speed sensor input	Pull-up resistor requiring switch to ground.
Serial communications	RS232 to printer and other devices.

9.6 DISPLAY

LCD display	2 lines x 8 char, 1 line x 5 numeric Back light.

9.7 KEYPAD

22 keys	Back light. Numeric and special functions.

9.8 CLOCK

Built-in clock	Hours, minutes, day, month, year.

9.9 PHYSICAL

Loadrite integrator	Protected to IP53 (Optional Enclosure for outdoor use required).
Weight	1.6kg.

9.10 AVAILABLE OPTIONS

Loadrite angle sensor	Sensor to measure the angle of the belt. Increases the accuracy of belts with changing incline.
Loadrite printer	24 column.
Loadrite MMS	Loadrite data management reporting tools.
Data logger	Provides electronic data collection for MMS.
Loadrite modem	Wireless data transfer from the integrator to Loadrite MMS.
Ethernet	Wired or Wifi Ethernet data connection to Loadrite MMS.
4-20mA module	The 4-20mA output can be used to interface the C-Weigh to an industrial PLC (Programmable Logic Controller).

Pulse output	The pulse output can be used to interface the C-Weigh to an industrial PLC.

A number of additional operating features can be enabled at installation time.

9.11 OUTPUT / INPUT CONNECTIONS

Transducer

1. +12V output
2. Loadcell signal input # 2
3. No function
4. +10 volt excitation
5. Loadcell signal input #1
6. Shield
7. Ground

Power/Control

1. Negative supply (ground)
2. Positive supply
3. Input 2
4. Input 1
5. N.C.
6. Speed sensor input
7. N.C.
8. +12V supply for speed sensor (and optional angle sensor)
9. N.C.
10. Angle Sensor input
11. N.C.
12. N.C.
13. Ground output
14. Positive output
15. Ground output

Printer/Logger

1. Negative supply to printer
2. Positive supply to printer
3. +12V output
4. N.C.

5. Reserved
6. Printer RS232 output
7. Printer busy input
8. EDP RS232 input
9. EDP RS232 output
10. Ground output
11. Reserved
12. N.C.

APPENDIX A: LOADRITE TERMINOLOGY

The following table lists a range of terms and definitions that are used to describe Loadrite products, features and processes.

4-20 mA module	The 4-20mA Module is used to provide an analogue output signal for a PLC. It is an optional accessory.
Amplifier	The amplifier converts the electronic signal of the loadcells from voltage to current.
Auto Zero Track	The Auto Zero Track (AZT) function automatically zeros the conveyor belt when the load on the belt drops to close to zero.
Data field	Customisable fields providing additional data, e.g. customer, docket, truck.
Data module	A memory device which can be attached to the Loadrite console to store data. It is an optional accessory.
Display	An LCD screen with adjustable backlighting for night and low light operations. Used to display weight information and operator messages.
Integrator	The visible Loadrite hardware that operators interface with. Also referred to as a console or indicator.
Keypad	The set of keys which operate the Loadrite integrator.
Legal for Trade	Certification by a local weights and measures authority to legally sell product from the conveyor belt.
Load	One discrete weigh lot.
Load cell	The load cells measure vertical forces on the weighing idler.

Loadrite system	Refers to the entire Loadrite system including the integrator, loadcells, speed wheel, amplifier etc.
Long Total	The long total is typically used to accumulate the weight conveyed over a long period, for example a day or week.
MMS	Material Management Software. Site management software used to track productivity for the whole site.
Modem	Used to transfer data, live, from the Loadrite integrator, to the office.
Printer	The printer provides a paper record of the weighing information collected by the Loadrite system. It is an optional accessory.
Product/Material	Material that is conveyed on the belt.
Scale frame	The scale frame connects the loadcells with the idler and is attached to the conveyor frame.
Short Total	The short total is typically used to accumulate the weight conveyed over a short period, for example a shift or day or for loadouts.
Speed wheel	The speed wheel or speed sensor provides a signal to the integrator for the calculation of belt speed, flow rate and totalised weight. Pulses are generated by an internal proximity switch as the wheel rotates on the return belt.
Standby	The Loadrite can be put into standby mode in which the integrator is deactivated.
Weighbridge	A platform scale for weighing vehicles. Also referred to as scale house and truck scale.
Zero/Zeroing	Zero or zeroing describes the process setting the weight of the empty conveyor belt to zero. This is required to avoid inaccurate readings due to build up of material on the scale frame, or other changes to the conveyor belt itself.

APPENDIX B: SPAN CALIBRATION ADJUSTMENT

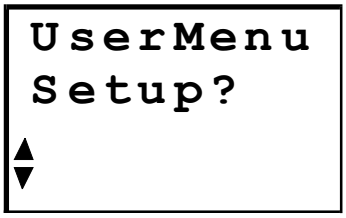
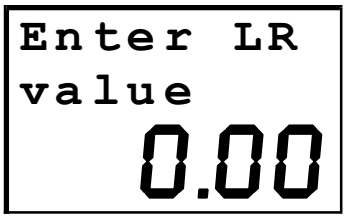
This function allows small changes to be made to the C-Weigh calibration if the conveyor is modified or moved, or if no accurate test weight was available when the Loadrite C-Weigh was calibrated at installation time.

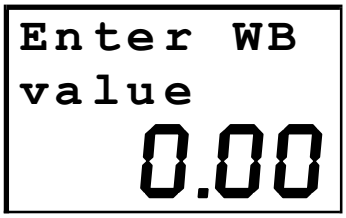
The adjustment is carried out by entering the total weight recorded at a weigh bridge or other reference and the corresponding Loadrite C-Weigh total.

To perform the adjustment you need to obtain a security access code from your Loadrite installer.

WARNING The Loadrite C-Weigh alters its calibration every time this function is used. It is important that you only use this function once with a given set of data. If the same weights are entered again, the Loadrite C-Weigh will over correct and its accuracy will be seriously impaired.

The method is explained below using an example.

Press  . Use ⇧ ⇩ to scroll through to Setup. Press  .	
Enter the access code supplied by your Loadrite installer. Then press  .	
The integrator prompts you to enter at first the Loadrite C-Weigh total weight. Key in the Loadrite C-Weigh total and press  .	

Key in the weigh bridge (or other reference) total and press  .	
The Loadrite integrator briefly displays **Scale altered %** and displays a percentage value, then returns to the menu.	

Checking the Adjustment

You can check the Calibration Adjustment by obtaining and comparing new Loadrite C-Weigh and weighbridge values. If necessary, the Calibration Adjustment can be performed again using the new data.

Notes to remember:

All trucks and trailers should have tare weights confirmed for all loads to be checked. This ensures that a true weight can be established. Avoid split weighing the truck and trailer.

APPENDIX C: MAINTENANCE

For accurate weighing with the Loadrite C-Weigh, it is advised to service the belt scale regularly. The following checklist gives an overview of tasks which should be carried out in regular intervals by the operator.

Preventative Maintenance Checklist

Item / Area	Task	Maintenance Interval				
		D	W	M	Q	Y
Zero adjustment	Press zero before loading the belt with material	■				
Belt tension	The belt should touch the weighing idler and the two neighbouring idlers when the belt is running empty	■				
Belt condition	Inspection visually for wear, tear and cuts		■			
Scale frame	Remove any material/debris from scale frame and between scale frame and belt frame; any material build up can cause inaccuracy. Determine cause of build up and take steps to prevent/reduce it.		■			
Speed wheel	Inspect for wear, material build-up, belt warp and check bearings		■			
Weighing idler	Inspect the weighing idler for wear and tear. If necessary replace idler or bearings.		■			
Neighbouring idlers	Inspect neighbouring idler (left and right from weighing idler) for wear, tear and alignment with weighing idlers. If necessary replace idler or bearings, or align idlers		■			
Calibration	Recalibrate as per instruction in this User Guide			■		
Take-Up	Inspect for free travel (bearings, etc.)			■		
Cables / Wire terminations	Visually check all cables and wire terminations for corrosion, moisture, deterioration and tightness					■
Print cal	Print C-Weigh calibration settings after every change to the set-up configuration.					

Maintenance intervals: D: Daily / W: Weekly / M: Monthly / Q: Quarterly / Y: Annually

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Notes