

LHS/LHSa SERIES

Software version 1.2



1.0 CONTENTS

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2.0 INTRODUCTION

2.1 FEATURES

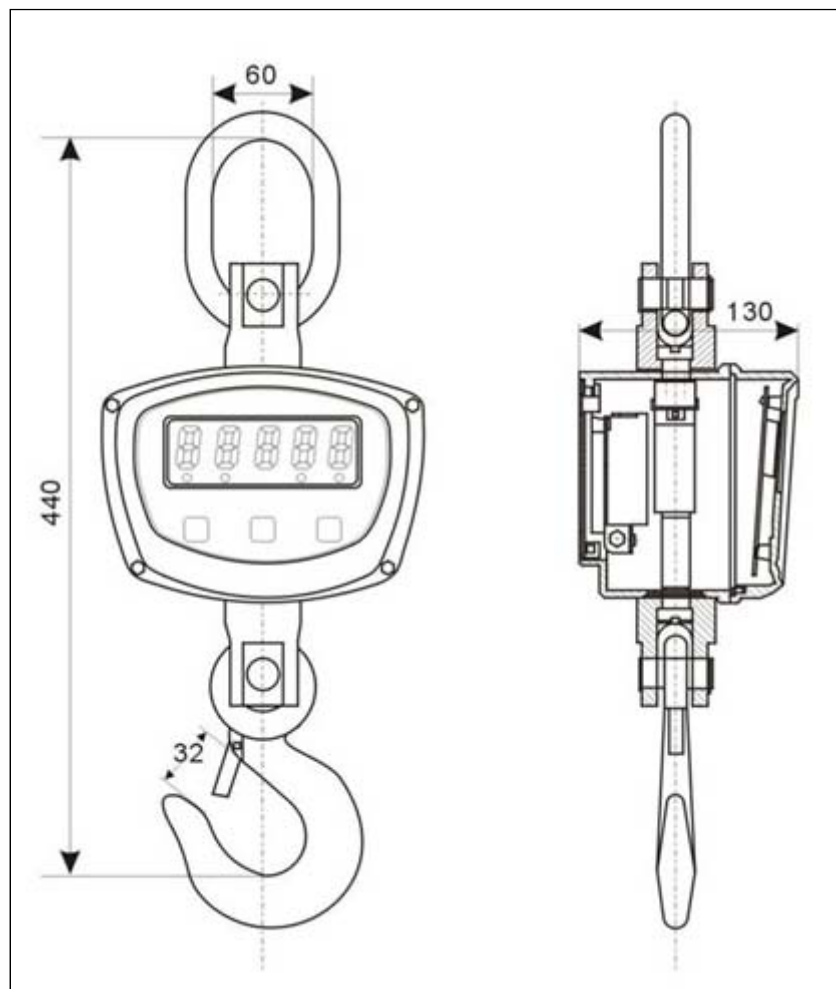
The LHS/LHSa Series are a range of heavy-duty lower capacity crane scales

The main features include:

- Easy Operation & Rugged construction
- 25mm bright red LED display enabling a good viewing angle.
- 360 degree rotary safety hook and support ring design
- Overload safety up to 125% of model capacity
- Selectable weighing units of kg, Lbs and Newtons (Newtons not available for “a” models)
- Standard and Peak Hold feature
- Internal rechargeable battery fitted as standard
- Auto power off after 30 minutes of non use
- 6Vdc 600ma battery charger
- Strong Die cast Aluminium housing
- Infrared remote control

2.2 TECHNICAL SPECIFICATIONS

Model No	Capacity	Division	Model No	Capacity	Division
LHS-500	500kg	0.1kg	LHS-1000a	1000lb/500kg	0.2lb/0.1kg
LHS-1500	1500kg	0.2kg	LHS-3000a	3000lb/1500kg	0.5lb/0.2kg
LHS-2000	2000kg	0.5kg	LHS- 4000a	4000lb/2000kg	1lb/0.5kg



2.3 SAFETY NOTICE

The limit stated below is the Ultimate Overload Limits of the scales.

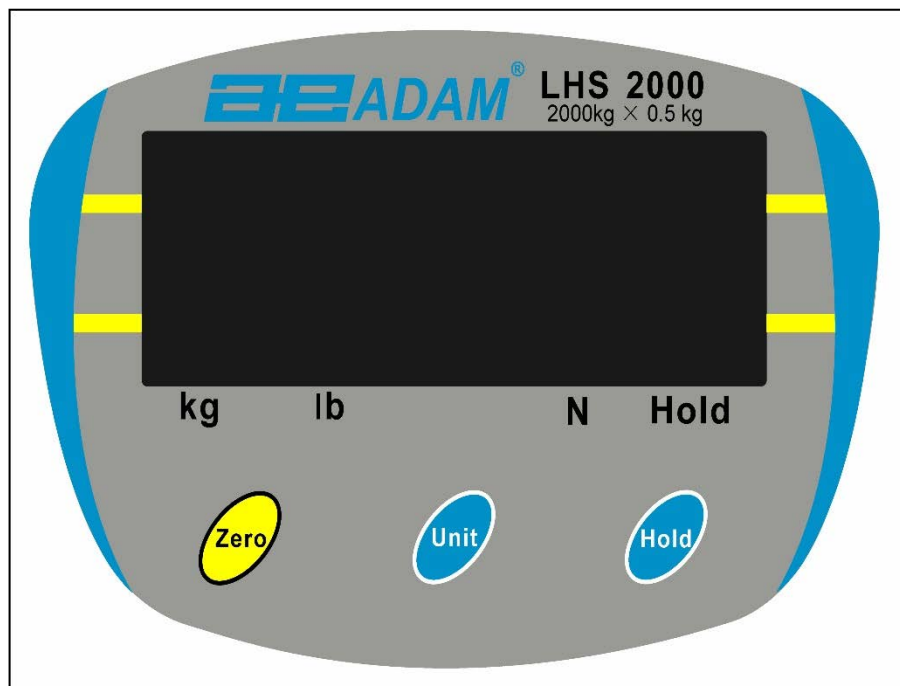
Adam Equipment Co. Ltd. Its directors, owners and affiliated companies and organisations cannot be held liable for any resulting damage or injury sustained as a result of the machines being used in excess of their stated capacities or ultimate overload limits.

Model No.	LHS 500/1000a	LHS 1500/3000a	LHS 2000/4000a
Max capacity	500kg/1000lb	1500kg/3000lb	2000kg/4000lb
Overload capacity	625kg/1250lb	1875kg/3750lb	2500kg/5000lb

NOTICE:

Do not use the scales if any parts are bent or loose or show signs of damage or wear. Refer to the user manual.

2.4 KEY AND PANEL DESCRIPTION



[ON/OFF]	The power switch is located on the rear housing. Use this key to turn the scale ON and OFF.
[Zero]	Press the [Zero] key to return the reading to zero.
[Unit]	Press the [Unit] key to change the weighing unit being displayed between Kg, Lbs and Newtons (Newtons not available for “a” models)
[Hold]	<p>Use this key to activate standard Hold. When pressed the Hold LED will light at the top left side of the display and the reading on the display will lock and flash. Press the [Hold] key again to cancel the [Hold] function.</p> <p>*When Peak hold is selected from the parameter section the press of the Hold key will activate Peak Hold. The Hold LED will flash and the display will also flash and lock showing the maximum weight registered of a single weighing process.</p> <p>Press the [Hold] key again to cancel the [Hold] function.</p>

2.5 DISPLAY INDICATIONS WITH LED

Kg lb N	The LED will light up in the weighing unit that is being used to indicate when the weight is stable.
Hold	Hold Indicator

3.0 OPERATION

3.1 SAFETY INSTRUCTIONS

Read this manual carefully before you operate the SHS Crane Scale.

- Unpack the Crane Scale carefully from the packaging.
- Attach it to your hoist or equivalent existing equipment securely at the ground level to the support ring in the upright position. Make sure that the equipment to which the scale is attached is in proper condition. The operator should be trained for its safe operation.
- Carry out regular visual inspection for any damage or wear and tear on parts. The split pins in particular at the hook and eyebolts, as well as the inner wall of the hook

and all joints should be checked regularly. If any damage or wear has taken place, stop using the scale and replace the parts.

- Do all inspection and maintenance work when the scale is not in use.
- Do not expose the scale to extreme temperatures. The operating temperature range is 0° C to 40° C.
- Secure the sample to be weighed in the hook of the scale. Ensure that the sprung Safety Lever returns to its resting position which prevents the sample from slipping out of the hook.
- Do not exceed the maximum capacity of the Scale .
- Clean and protect your scale after use.

Overload Warning

Please do not add any item that exceeds the maximum capacity of the scale. When the display shows "- - - - -" remove the item to avoid damage to the load cell and scale.

3.2 BATTERY OPERATION

- The rechargeable battery will operate continuously for between 20 and 30 hours before requiring recharging.
- To charge the battery, plug the charger unit into the socket as marked on the rear of the scale. Plug the charger into the mains power supply and wait until the LED on the charger shows green. The battery is now fully charged.
- Charging time for a completely discharged battery is approximately 16 hours. A full battery pack is recommended to keep the scale continuously operational.
- Only use the charger as supplied with the unit.
- The scale will automatically power down after 30 minutes of non use to further protect the battery.
- To replace the battery, turn the locking screw on the battery cover 90 degrees clockwise and lift open the cover. Disconnect and remove the old battery and replace with a new one.
- Contact your dealer for a replacement battery.

BASIC OPERATIONS

Power on and off

Press the **[ON/OFF]** button to turn the scale on or off. The display on the scale will show the model capacity then countdown from 9 to 0 before displaying zero weight.

Zero the scale

Press the **[Zero]** key so that the display shows zero.

Change the weighing Unit

Press the **[Unit]** key to change the weighing unit

Standard Hold (setting 1)

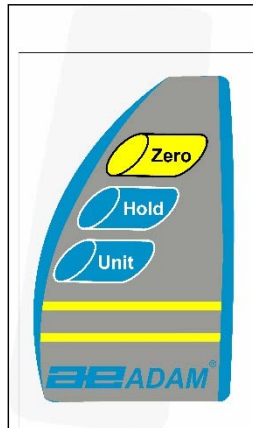
When the reading may not be perfectly stable or you cannot view a reading easily you can press the **[Hold]** key to lock it. The reading will be locked and also flash at the point you press the **[Hold]** button enabling you to view it when you can. The Hold LED will also light up and once you have noted the reading a press of the **[Hold]** key will return the scale to the normal weighing mode.

Peak Hold (setting 0)

Peak Hold is the highest weight reading registered by the scale when a weighing takes place. Press the **[Hold]** key when the display is at zero and the Hold LED will flash which denotes Peak Hold has been activated. When weight/force is applied to the scale the display will also flash and lock the highest recorded weight of that weighing process. This value and the Hold LED will remain flashing on the display until the **[Hold]** key is pressed again at which point the scale will return to normal weighing mode displaying the current weight on the scale.

Press **[Hold]** again to perform another Peak Hold weighing at any time.

3.3 REMOTE CONTROL UNIT



The remote control works via infra red and can be used to operate the LHS from long distances. It operates using 2 x AAA batteries and these can be exchanged by unclipping a cover on the rear of the remote control unit.

3.5 USER PARAMETERS

Five USER parameters are on the SHS, to access these power up the scale and whilst the display is counting down press and then release the **[Unit]** button. The display will show 00000. Use the **[Hold]** and **[Unit]** buttons to enter the code 11111 and then press **[Zero]**. bEE 1 will be displayed. Press the **[Hold]** button to change the setting and the **[Zero]** button to move to the next parameter.

PARAMETER SETTING TABLE

FUNCTION	DESCRIPTION	DEFAULT
BEE	Sets buzzer 0: Disable 1: Enable	1
HOD	Sets the Hold function 0: Peak 1: Standard	1
STB	Sets the Stable function 0: Disable 1: Enable	1
CHT	Sets weighing unit on power up 0: kg 1: Lb's 2: Newtons(Newtons not available for "a" models)	0
YES	Sets save: 0: Not saved 1: Save new settings	0

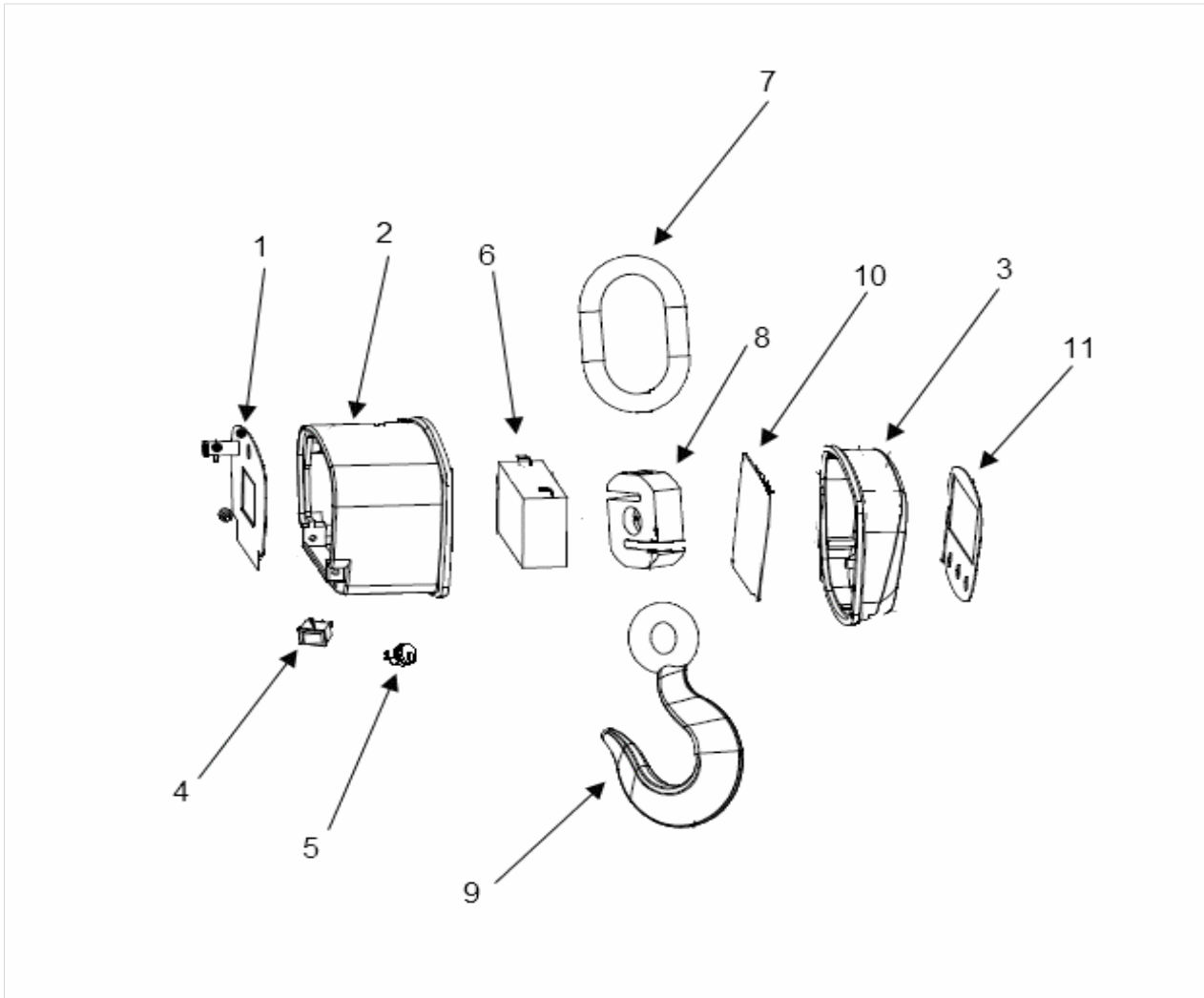
4.0 CALIBRATION

- Press the **[Zero]** key and power up the scale using the on/off button.
- Release the **[Zero]** key and the display will show "SPAN". Make sure the hook is empty unless you intend to use any chains, slings etc to hold the calibration mass. Add any items such as these to the hook before continuing.
- Press the **[Zero]** button and the display will show "SET" then "00000" when the reading at zero is stable. This completes the zero calibration.
- Following zero calibration the value of the mass being used to calibrate the scale should be entered. Use the **[Hold]** button to increment the right hand digit, and the **[Unit]** button to move this digit to the left. Proceed by entering a number for the next digit if required, until the value of your chosen calibration weight is displayed correctly.
- Load this mass onto the hook and when the scale is stable press the **[Zero] key**. The display shows '**HOLD**'.
- After a few seconds, the calibration is complete and the scale returns to normal weighing showing the value of the calibration mass as used.

** To calibrate in Lbs make sure that the scale is Lbs mode before commencing, to calibrate in Kg make sure the scale is in Kg mode before commencing.

5.0 PARTS LIST

<u>LHS/LHSa</u>		
<u>Part number</u>	<u>Description</u>	<u>Item No</u>
7.00.1.2.0005	LHS COMPLETE HOUSING – 500kg/1000lb, 1500kg/3000lb	1, 2, 3
7.00.1.2.0012	LHS COMPLETE HOUSING – 2000kg/4000lb	1, 2, 3
7.00.4.0.0083	LHS ON/OFF SWITCH	4
7.00.4.0.0086	LHS POWER CONNECTOR SOCKET	5
7.00.4.0.0084	LHS LEAD ACID BATTERY 6Vdc 3.2ah	6
7.00.1.0.0279	LHS RING SUPPORT	7
7.00.1.0.0273	LHS LOAD CELL - 500kg/1000lb	8
7.00.1.0.0274	LHS LOAD CELL - 1500kg/3000lb	8
7.00.1.0.0275	LHS LOAD CELL - 2000kg/4000lb	8
7.00.1.0.0276	LHS HOOK	9
7.00.4.0.0085	LHS MAIN PCB	10
7.00.5.6.0045	LHS FASCIA PANEL - 500kg	11
7.00.5.6.0046	LHS FASCIA PANEL - 1500kg	11
7.00.5.6.0047	LHS FASCIA PANEL - 2000kg	11
7.00.2.0.0081	LHSa FASCIA PANEL - 1000lb	11
7.00.2.0.0082	LHSa FASCIA PANEL - 3000lb	11
7.00.2.0.0083	LHSa FASCIA PANEL - 4000lb	11
7.00.4.0.0094	LHS KEYBOARD PUSHBUTTON	
7.00.3.0.0025	LHS COMPLETE PACKAGING SET	
7.00.4.0.0109	LHS 6VDC @ 600ma POWER/CHARGER UNIT USA	
7.00.4.0.0110	LHS 6VDC @ 600ma POWER/CHARGER UNIT AUSTRALIA	
7.00.4.0.0111	LHS 6VDC @ 600ma POWER/CHARGER UNIT SA	
7.00.4.0.0087	LHS 6VDC @ 600ma POWER/CHARGER UNIT UK	
7.00.4.0.0088	LHS 6VDC @ 600ma POWER/CHARGER UNIT EU	
7.00.4.0.0090	LHS REMOTE CONTROL UNIT	





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CRANE SCALES SAFE-LOAD STATEMENT

We hereby state that our Crane Scales are tested and inspected prior to dispatch. The safe-loads for the crane scales are listed below:

Model no	Max. capacity	Max ultimate overload limit
LHS 500 / LHS 1000a	500 kg / 1000 lb	625 kg / 1250 lb
LHS 1500 / LHS 3000a	1500 kg / 3000 lb	1875 kg / 3750 lb
LHS 2000 / LHS 4000a	2000 kg / 4000 lb	2500 kg / 5000 lb
SHS 50 / SHS 100a	50 kg / 100 lb	62.5 kg / 125 lb
SHS 150 / SHS 300a	150 kg / 300 lb	187.5 kg / 375 lb
SHS 300 / SHS 600a	300 kg / 600 lb	375 kg / 750 lb
IHS 1/ IHS 2a	1000 kg / 2000 lb	1250 kg / 2500 lb
IHS 3 / IHS 6a	3000 kg / 6000 lb	3750 kg / 7500 lb
IHS 5 / IHS 10a	5000 kg / 10000 lb	6250 kg / 12500 lb
IHS 10 / IHS 20a	10000 kg / 20000 lb	12500 kg / 25000 lb

The limits stated above are the ultimate overload limits of the scales. Adam Equipment Co. Ltd. its directors, owners and affiliated companies and organizations cannot be held liable for any resulting damage or injury sustained as a result of the machines being used in excess of their stated maximum capacity, capabilities and ultimate overload limits. To avoid possible injury or death, read all instructions stated in the Manual before using.

WARRANTY INFORMATION

Adam Equipment offers Limited Warranty (Parts and Labour) for the components failed due to defects in materials or workmanship. Warranty starts from the date of delivery.

During the warranty period, should any repairs be necessary, the purchaser must inform its supplier or Adam Equipment Company. The company or its authorised Technician reserves the right to repair or replace the components at any of its workshops depending on the severity of the problems. However, any freight involved in sending the faulty units or parts to the service centre should be borne by the purchaser.

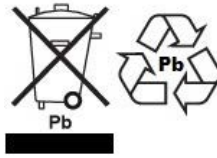
The warranty will cease to operate if the equipment is not returned in the original packaging and with correct documentation for a claim to be processed. All claims are at the sole discretion of Adam Equipment.

This warranty does not cover equipment where defects or poor performance is due to misuse, accidental damage, exposure to radioactive or corrosive materials, negligence, faulty installation, unauthorised modifications or attempted repair or failure to observe the requirements and recommendations as given in this User Manual. Additionally rechargeable batteries (where supplied) are not covered under warranty.

Repairs carried out under the warranty does not extend the warranty period. Components removed during the warranty repairs become the company property.

The statutory right of the purchaser is not affected by this warranty. The terms of this warranty is governed by the UK law. For complete details on Warranty Information, see the terms and conditions of sale available on our web-site.

WEEE 2012/19/EU



This device may not be disposed of in domestic waste. This also applies to countries outside the EU, per their specific requirements. Disposal of batteries (if fitted) must conform to local laws and restrictions.

Cet appareil ne peut être éliminé avec les déchets ménagers. L'élimination de la batterie doit être effectuée conformément aux lois et restrictions locales.

Dieses Gerät nicht mit dem Hausmüll entsorgt.

Dispositivo no puede ser desechado junto con los residuos domésticos

Dispositivo non può essere smaltito nei rifiuti domestici.

FCC / IC CLASS A DIGITAL DEVICE EMC VERIFICATION STATEMENT

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules and Canadian ICES-003/NMB-003 regulation. 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 manual, 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 his own expense.

CALIFORNIA PROPOSITION 65 - MANDATORY STATEMENT

WARNING: This product includes a sealed lead-acid battery which contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.



Adam Equipment products have been tested with, and are always supplied with mains power adaptors which meet all legal requirements for the intended country or region of operation, including electrical safety, interference and energy efficiency. As we often update adaptor products to meet changing legislation it is not possible to refer to the exact model in this manual. Please contact us if you need specifications or safety information for your particular item. Do not attempt to connect or use an adaptor not supplied by us.

ADAM EQUIPMENT is an ISO 9001:2008 certified global company with more than 40 years' experience in the production and sale of electronic weighing equipment.

Adam products are predominantly designed for the Laboratory, Educational, Health and Fitness, Retail and Industrial Segments. The product range can be described as follows:

- Analytical and Precision Laboratory Balances
- Compact and Portable Balances
- High Capacity Balances
- Moisture analysers / balances
- Mechanical Scales
- Counting Scales
- Digital Weighing/Check-weighing Scales
- High performance Platform Scales
- Crane scales
- Mechanical and Digital Electronic Health and Fitness Scales
- Retail Scales for Price computing

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All information contained within this publication is to the best of our knowledge timely, complete and accurate when issued. However, we are not responsible for misinterpretations which may result from the reading of this material.