

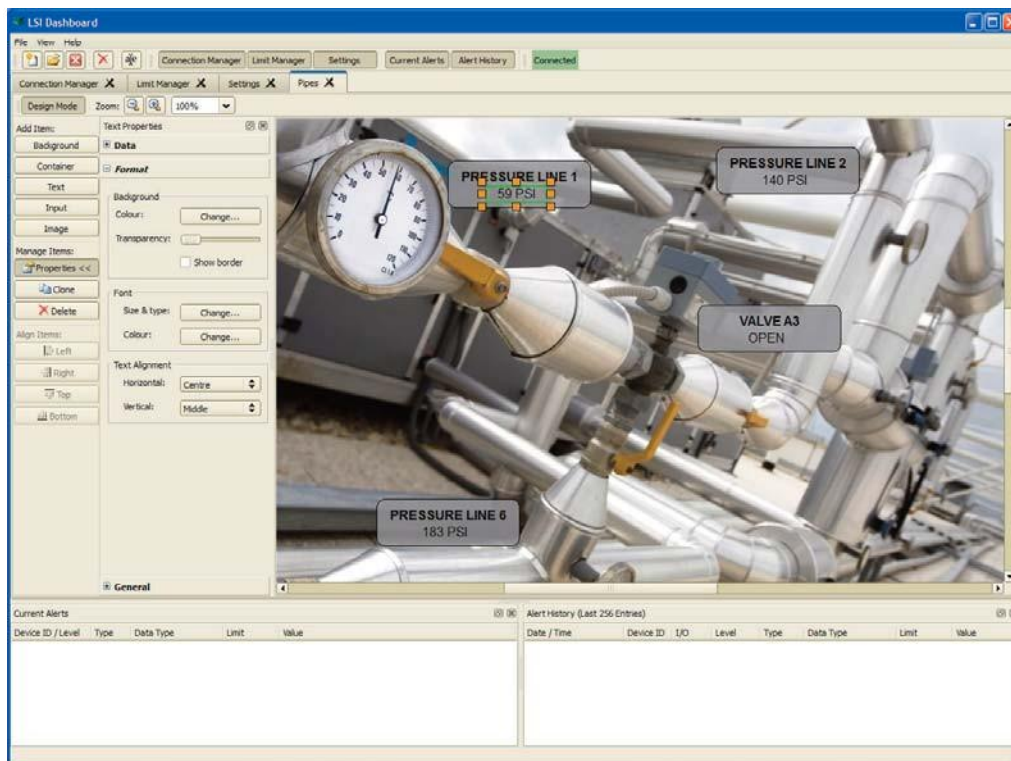


Load Systems International

WIRELESS TECHNOLOGY & CRANE INSTRUMENTATION  
***DIVISIONS***

# LSI Dashboard GT500

## INSTALLER AND USER'S MANUAL



**WARNING!** The GS wireless receiver system is designed to aid in the collection of information and is in no way a substitute for safe operating practice.

**WARNING!** Carefully read and understand this manual before proceeding.





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WARRANTY - 2009/02/16**

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# 1. INTRODUCTION

## General Definition of the LSI Dashboard Application

The **LSI Dashboard** application is a tool that displays **LSI** sensor information on a computer screen. **LSI Wireless Gateways** can be configured to send data from wireless **LSI** sensors to a personal computer via a USB connection. **LSI Dashboard** shows the data on screen on a customizable graphic display, called a board.

## PC Installation

### 1.2a System Requirements

Windows 2000, XP, Vista(23/64bit) or Windows 7 (32/64bit).

### 1.2b LSI Dashboard and USB Driver Installation

**IMPORTANT!** Do not install LSI Dashboard in a remote network folder. The database used to store the application settings requires fast hard drive access. Installation of the application in a remote network folder may lead to slower response time in design mode.

Before starting installation, make sure that no **LSI Gateway** is connected to the computer.

1. Download the installation file from [www.loadsystems.com/dashboard](http://www.loadsystems.com/dashboard).
2. Install the file and follow the steps from the installation wizard.

When transferring the files, the installation wizard will automatically execute the USB driver installation; a Windows warning will recommend to stop the installation, ignore this warning and select **Continue Anyway** (*Windows XP*) or **Install this driver anyway** (*Windows Vista, Windows 7*).

### 1.2c LSI Gateway Connection

**Windows Vista / Windows 7:**

1. Connect the **LSI Gateway** to the computer; the device will automatically be installed.

**Windows XP:**

1. Connect the **LSI Gateway** to the computer; **Found New Hardware Wizard** will appear.
2. If Windows asks to connect to Windows Update to search for software, select **No, not this time** and then click **Next**.
3. Select **Install the software automatically**, then click **Next** to continue.
4. A Windows warning indicating that the driver has not been tested will recommend to stop the installation, ignore this warning and select **Continue Anyway**.
5. When the installation wizard has finished installing the software, click **Finish** to close the wizard.

When the installation is completed, the **Device Manager** will appear as shown below;

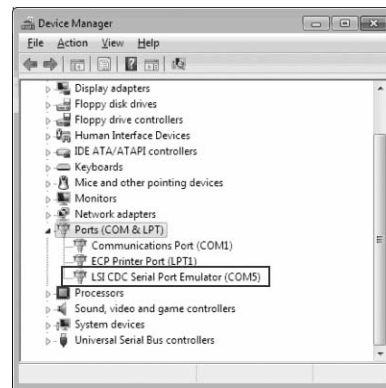


Figure: Device Manager, Windows Vista / Windows 7

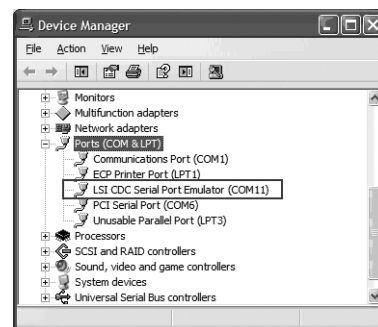


Figure: Device Manager, Windows XP

**WARNING!** The system must be installed in compliance with **LSI** instructions and using **LSI** supplied components only. Failure to install all parts, or replacing parts or components with parts or components not supplied by **LSI**, may lead to system failure, serious injury or death.

## 2. OPERATION

### Licences

In order to use **LSI Dashboard** properly, a valid licence must be purchased; contact **LSI** for details. The application can be explored with the free 30-day demo licence; however connection to a **LSI Gateway** is not possible with the demo licence.

### Getting Started

**IMPORTANT!** Ensure that **LSI WM Configurator** is closed when using **LSI Dashboard**.

When **LSI Dashboard** starts for the first time, the user can enter the licence number provided by **LSI** or start the 30-day demo. At anytime, the user can view information about the licence or update the licence in the Help menu > Licence.

### User Interface

The menus correspond to the tool bar buttons. The **BOARD MANAGEMENT** tool bar corresponds to the **File** menu and the **WINDOW MANAGEMENT** tool bar corresponds to the **View** menu.

#### 2.3a Board Management toolbar:



Figure: Board Management toolbar

1. Add a new board.
2. Open an existing board. Note that only the unopened boards are visible in the open window.
3. Close a board without deleting it.
4. Delete a board and all its content permanently.
5. Rename the current board.

#### 2.3b Window Management toolbar:

Toggle the visibility of the different windows.

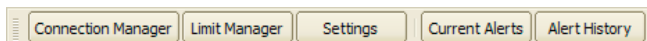


Figure: Window Management toolbar

#### c Connection Status toolbar

**Connected** indicates the system is connected to at least one **LSI Gateway**.

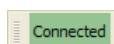


Figure: Connection Status toolbar

### Connection Manager

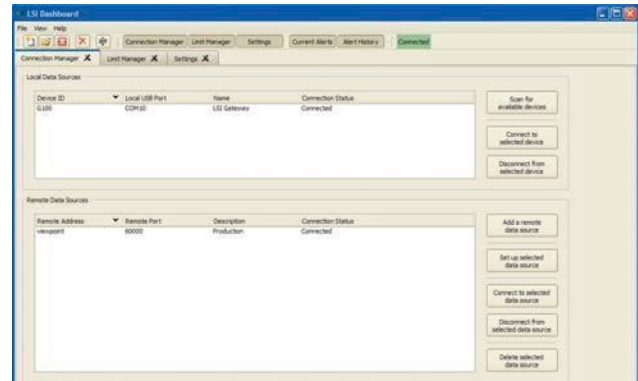


Figure: Connection Manager

Use the **Connection Manager** to manage connections to the available data sources. There are two types of data source: local and remote. A local data source is a device (normally an **LSI Gateway**) that is connected to the host computer. A remote data source is another **LSI Internet Data Hub** instance running on a remote computer. The data can be transferred over a local area network (LAN) or over the Internet. When opened **LSI Dashboard** scans for available local data sources and then attempts to connect to any detected local data sources and to all configured remote data sources. **LSI Dashboard** will periodically try to re-connect to a data source with which the connection has been lost. If **LSI Dashboard** is unable to connect to any data source, a message prompts the user to connect an **LSI Gateway**, or to cancel.

#### 2.4a Local Data Source

Click **Scan for available devices** at any time to detect and connect to any available local data sources.

Use **Connect to selected device** and **Disconnect from selected device** to connect to, or disconnect from, a selected local data source.

#### b Remote Data Source

Click **Add a remote data source** to add and connect to a new remote data source.

Use **Set up selected data source** to modify the address, the port and the description of the selected data source.

Click **Connect to selected data source** and **Disconnect from selected data source** to connect to, or disconnect from, the selected remote data source.

Click **Delete selected data source** to delete the selected remote data source.

## Limit Manager

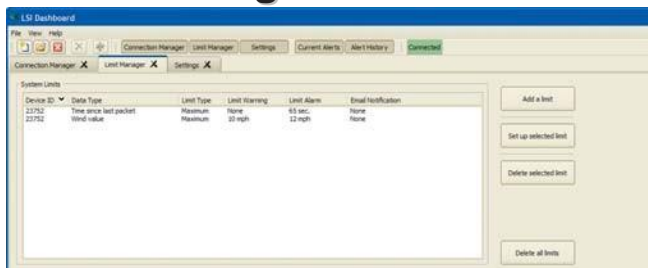


Figure: Limit Manager

Use the Limit Manager to define the system limits that will generate alerts.

A limit has two possible alert states: warning and alarm. A limit can have a warning value, an alarm value, or both.

There are three types of limit: minimum, maximum and different.

When an alert state is reached an email notification, or SMS message if supported by the cell phone provider, can be sent to one or more recipients.

When a new limit is added to a board, **LSI Dashboard** automatically creates a time-out limit for the device id if one does not already exist. The time-out limit is the time (in seconds) permitted between communications received from the device id.

All modifications to the limit list are saved and applied immediately.

To add a limit, click **Add a limit**.

The current unit symbol corresponding to the selected data type is displayed at the right of the **limit warning** and **limit alarm** fields.

Check **Send an email/SMS notification on limit status change** to send a notification email if an alert state is reached.

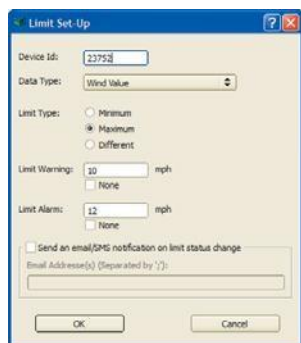


Figure: Add a limit

## Settings

**System Units:** Select the desired system units. There are three types of units: general, wind speed indication and temperature indication.

**Data Logging:** Log received data to files in the specified log folder. Specify the data to log with the data selection check boxes. The sensor information includes all status and diagnostic data sent by sensors; the alert history includes all warnings and alarms.

**Email Notification:** Enable/disable the email notification engine for the whole application. Set the **From** address that will be displayed in the notification email. Specify the address of the outgoing server (SMTP) and the port. The server address can be either a computer name or an IP address. If the SMTP server requires authentication, check **Server requires authentication** and enter the login and password.

**Automatic Timeout Limit:** When enabled a time-out limit will be added as follows:

1. When adding a new limit in the limit manager
2. When adding an input item in a board

Specify the default time-out value in seconds. Most **LSI** sensors transmit at least once every 60 seconds.

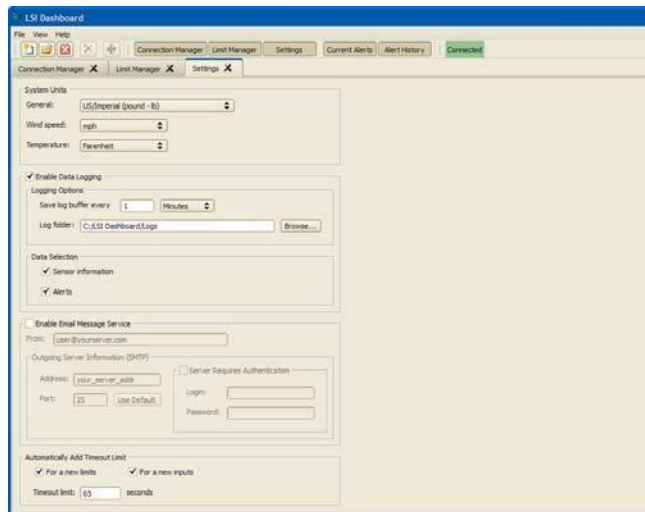


Figure: Settings

## Alerts

The alert windows are always visible.

The Current Alerts window displays current warnings and alarms grouped by device id. Warnings are shown in orange and alarms in red.

The Alert History window shows the alerts in reverse chronological order (the most recent entry on top).

There are three types of history entry: in, out and out/in.

- In (orange - warning, red - alarm): The limit has enter an alert state.
- Out (green): The limit has exit the alert state.
- Out/In (brown): The limit has exit an alert state to enter another alert state (warning to alarm or alarm to warning).

## Board

A board is a graphical view that can be used to display items and information. Each board includes a design mode toggle button and a zoom tool.

### Viewing Mode:

Scroll with the scroll bars or click and drag to move over the board. Zoom with the zoom buttons or the mouse wheel.

### Design Mode:

Add, modify, move and delete items. To select items on the board click and drag with a mouse.

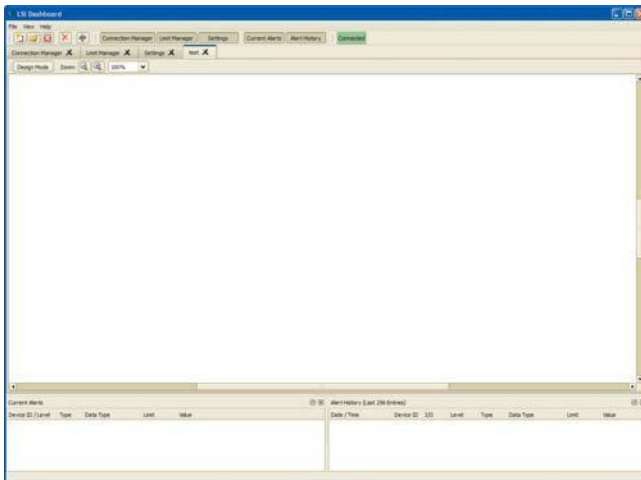


Figure: Board (empty)

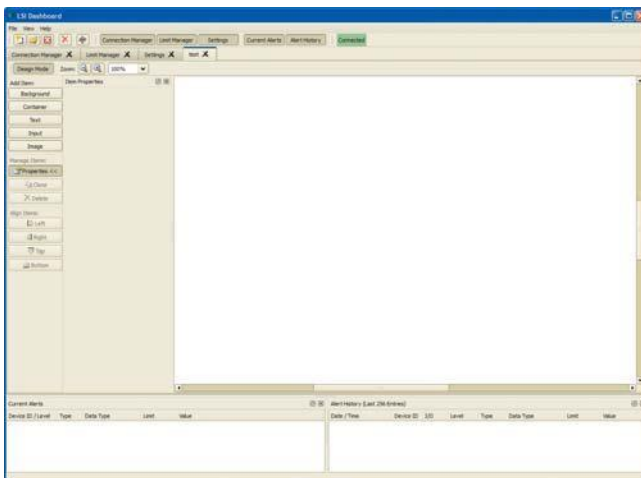


Figure: Design mode toolbar

## Items:

Click to select an item from the Add Item tool bar and then click on the board to add the item selected to the board. To select an item on the board, click on it with the mouse. To resize an item, click down on one of the six orange squares around the selected item and drag. To move an item, click down on it and drag it.

When an item is selected adjustable properties are accessible in the Item Properties panel.

## Background item:

A background item will display a picture selected by the user through the browsing file dialog. The supported image formats are JPEG, BMP, PNG, GIF and TIFF. The picture can be of any size. A background cannot be grouped in a container item and is always ordered below other items.

## Container item:

A container item serves to group other items; it cannot display any text, data or image by itself. Items grouped in a container (children) move with the container (parent). An item with no parent automatically becomes a child of a container when it touches, or is touched by, the container. To separate an child item from its parent container, select the item and move it away from the container. A container cannot become the child or parent of another container.

## Text item:

A text item displays a text entered by the user on one line.

## Input item:

An input item is used to display a dynamic value from an *LSI* sensor. Input items function in one of two modes: basic and advanced. By default new input items appear in basic mode.

### Basic Mode:

In basic mode, an input item displays only a single dynamic value and unit of measure. Both the data source id and the dynamic value to display must be specified. Click **Switch to advanced input** to change the input item to advanced mode.



## Advanced mode:

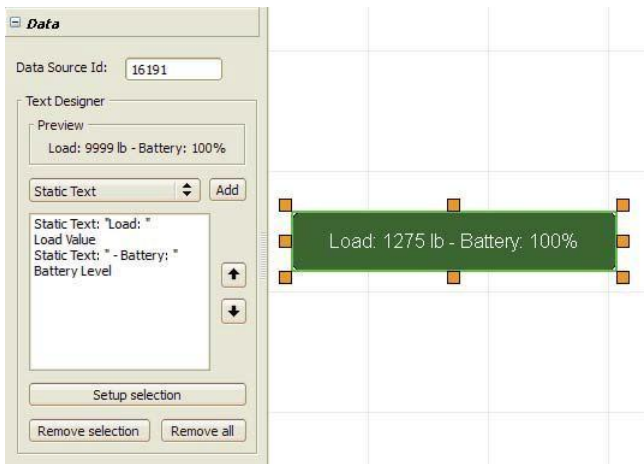


Figure: Input item, advanced mode

Use the advanced mode input item to display one or more dynamic values from a single data source id and descriptive text as required.

Build an ordered list of the elements to be displayed by the item. Select an element from the drop down list and then click **Add** to add the element to the bottom of the list. Select an element in the list and then use the up and down arrows to change the position of the element. The item will string all the elements together and display them on a single line.

*Tip: to display data in a column or table format, create an input item for each row and position the items vertically.*

Select an element and then click **Setup selection** to specify how a dynamic value is displayed or to edit a static text element.

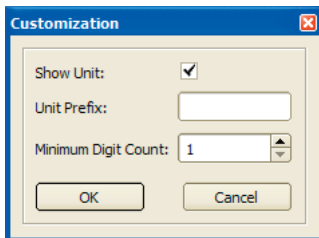


Figure: Setup selection

## Event text:

- When no communication has been received from the data source id, a dynamic value will show **NoRx**.
- When an input is configured to show a dynamic value that is not available from the data source id, **N/A** will be displayed. E.g.: an input

configured to show an angle value from a load sensor data source id.

When a limit is set on a dynamic value and that limit is in an alert state, the corresponding value flashes repeatedly to warn the user.



Figure: On-screen alert notification

## Image item:

An image item is used to display a picture. Unlike a background item, an image item can be captured by a container and is always ordered on top of other items.

## Manage Items:

The properties button toggles the item properties panel visibility.

The clone button clones all the selected items.

The delete button deletes all the selected items.

## Align Items:

The **Left** button aligns the left edge of each selected item to that which is most left.

The **Right** button aligns the right edge of each selected item to that which is most right.

The **Top** button aligns the top edge of each selected item to that which is topmost.

The **Bottom** button aligns the bottom edge of each selected item to that which is lowest.

### 3. **LSI PRODUCT LIMITED WARRANTY - 2009/02/16**

#### **Limited Warranty**

**LOAD SYSTEMS INTERNATIONAL INC.** (hereafter "**LSI**") warrants its products (the "Products"), for a period of twenty four (24) consecutive months after delivery of such Products to the user (as evidenced on a **LSI** document) (the "Warranty Period"), when installed and used in accordance with specifications described in **LSI** Installer and User's Manual, as amended from time to time, **LSI** technical materials and any related writings published by **LSI** with respect with such Products and any industry standards, will be free from defects in materials and workmanship. During the Warranty Period, **LSI** or its designated service representative shall repair, or at its option, replace any Product that is confirmed to be defective by **LSI**, in its sole discretion, in accordance with the Limited Warranty Services Procedures described below.

#### **Warranty Services Procedures**

In order to benefit of this-mentioned Limited Warranty coverages and benefits, the purchaser must notify **LSI**'s customer service or **LSI**'s authorized distributor or representative originally responsible for the sale of the Products within 10 days of the occurrence of a suspected defect in materials or workmanship, prior to the expiry of the Limited Warranty Period in order to obtain a Return Authorization Number. A proof of purchase of the Product, such as an invoice or a receipt certifying the validity of the Warranty, must be presented in order to obtain Limited Warranty coverage. In any event, even if a Return Authorization Number is provided to purchaser, **LSI** reserves the right to inspect the damaged Product or part before the final decision of repairing or replacing the defective Product or part.

The Product or part shall be returned to **LSI** or its designated service representative, accompanied by the Return Authorization Number with prepaid shipping charges. The purchaser must insure the shipment or accept the risk of loss or damage during the shipment. Purchaser shall also pay any tariff or duty applicable to the return of defective part or Product. **LSI** will, at its option, repair or replace the Product or part returned to **LSI** or to its designated service representative. **LSI** owns all parts or Products replaced, repaired or removed from a repaired Product. If **LSI** repairs a Product, the Product

Warranty coverage Period is not extended and the Limited Warranty shall expire as if uninterrupted upon the occurrence of the 24th month from shipping from **LSI**. If **LSI** replaces a Product, the replaced Product is warranted for the remainder of the original term or sixty consecutive (60) days, whichever is longer.

**LSI** reserves the right to require from you the user or owner of the Products, prior to determining if the Limited Warranty coverage is applicable, that **LSI** receive the data logging equipment used with the Products and that **LSI** be authorized to retrieve all information from such data logging equipment in order to, among others, ensure that the written instructions and applicable standards, including safety margins, were respected and not exceeded during Product use. Failure by you the owner or user of the Product to supply such information shall be deemed a material default of the terms and conditions of this Limited Warranty and shall be irrevocably construed as evidence that the Product was misused or abused. Consequently **LSI** shall irrevocably be relieved of any obligations to compensate you the user or owner of the Product for any and all damages resulting from Product failures when data logging equipment, and access to its content, cannot be freely and readily provided, unhampered, to **LSI**.

**LSI will pay ground freight transportation costs of replacement or repaired parts or Products to the destination in Canada and the continental United States of America (the "Territory"). LSI will not pay any transportation costs of replacement or repaired parts to destination outside of the Territory. Shipping and handling costs to locations outside the Territory shall be the responsibility and borne by Purchaser or Owner of the Product prior to any shipment by LSI. (Contact LSI to get a Return Authorization Number and the address to ship parts).**

#### **Exclusion of Other Warranties**

THE ABOVE WARRANTY IS THE SOLE WARRANTY APPLICABLE AND THERE ARE NO EXPRESS, LEGAL OR IMPLIED WARRANTIES OR CONDITIONS IN RELATION TO ANY PRODUCTS INCLUDING ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, NON-INFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE AND THOSE OTHERWISE ARISING BY STATUTE OR OTHERWISE IN LAW OR FROM A COURSE OF

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## Exclusion

This Limited Warranty does not cover and shall not apply to:

- Any Product that is misused or abused, including being altered, modified or repaired not in accordance to **LSI** written instructions or authorizations and any use not in compliance with **LSI's** instructions and/or industry standards and practices;
- Any incidental costs or expense, such as shipping charges to **LSI** or an designated service representative as well as the technician out-of-pocket expenses including traveling, lodging and meal expenses, if any;
- The damages caused during the transport or the moving of the Products;
- Damages caused by accidents, abuse, misuse, a force majeure (described as events outside a **LSI's** or any Product user's control, including war, riot, strikes, embargoes) or external cause;
- Any cost, damage or expenses for field labor or any other expenses related to or arising from the replacement of defective parts.
- Products used for pile-driving, wire rope activated clamshell or dragline applications. If purchaser uses the Products for pile-driving, wire rope activated clamshell or dragline application, the limited warranty will be deemed to have been violated for abuse.
- Any costs associated with providing **LSI** with data logging equipment.

## Limitation of Liability

To the maximum extent permitted by applicable law, in no event will **LSI** be liable to the purchaser or any third party for any indirect, special, consequential, incidental or exemplary damages whatsoever, including but not limited to loss or revenue or profit, lost or damaged data, business interruption or any other pecuniary loss whether based in contract, tort or

other causes of action, even if **LSI** has been advised of the possibility of such damages. In any event, the total liability of **LSI** arising from any cause of action or claim whatsoever, whether (1) in contract, (2) in tort (including negligence, whether sole, joint, contributory, concurrent or otherwise, but not including intentional, reckless or wanton tort), (3) under strict liability, (4) under any environmental or antipollution law or regulation, (5) connected with any toxic or hazardous substance or constituent, (6) arising out of any representation or instruction, or under any warranty, (7) or otherwise, arising out of, connected with, or resulting from the design, manufacture, sale, resale, delivery, repair, replacement or use of Products or the furnishing of any service shall in no event exceed the price allocable to and paid to **LSI** for the individual unit of Products or service or part thereof which gives rise to the cause of action or claim.

SOME STATES OR JURISDICTIONS DO NOT ALLOW THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

## Recommended Practices

**LSI** recommends careful consideration of the following factors when specifying and installing the Products. Before installing a Product, the Installation, Operation, and Maintenance instructions provided with the unit must be read and understood and complied with.

## Choice of law

This Limited Warranty shall be governed by and construed in accordance with the laws of : 1. For Products sold in Canada: the Province of Quebec or, For Products sold in the USA: the State of Florida, without giving effect to principles of conflicts of law. You agree that the exclusive venue for any disputes arising under this Agreement shall be the state and federal courts located in Orlando, Florida.

### 3.7a Entire Agreement

This document contains the entire agreement of the parties regarding the subject matter of the Product and supersedes all previous communications, representations, understandings and agreements, either oral or written, between you and **LSI**.