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LimitMax Hardware Guide

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PHYSICAL DIMENSIONS

LimitMax processing unit (din rail mounted) 40mm (w) x 112mm (d)

ELECTRICAL SPECIFICATIONS

Parameter	Description	Min	Typ	Max	Units
V_{in}	Supply voltage	32		240	VAC/DC
I_{in}	Supply current		40	60	mA
V_{limit}	Output relays voltage rating			60	VAC
I_{limit}	Output relays current rating	0.5		2	A
S_{resp}	Load cell sensitivity	0.5		2	mV/V
V_{xcite}	Load cell excitation		5		V
R_{cell}	Load cell resistance	350			Ohms

WIRING.

Install the LimitMax unit in the location that minimizes cable run lengths to the load cells. When using strain gauge load cells we recommend that cable runs be kept shorter than 3m. Where longer runs are required, 4-20mA load cells (or a strain gauge to 4-20mA converter) should be used.

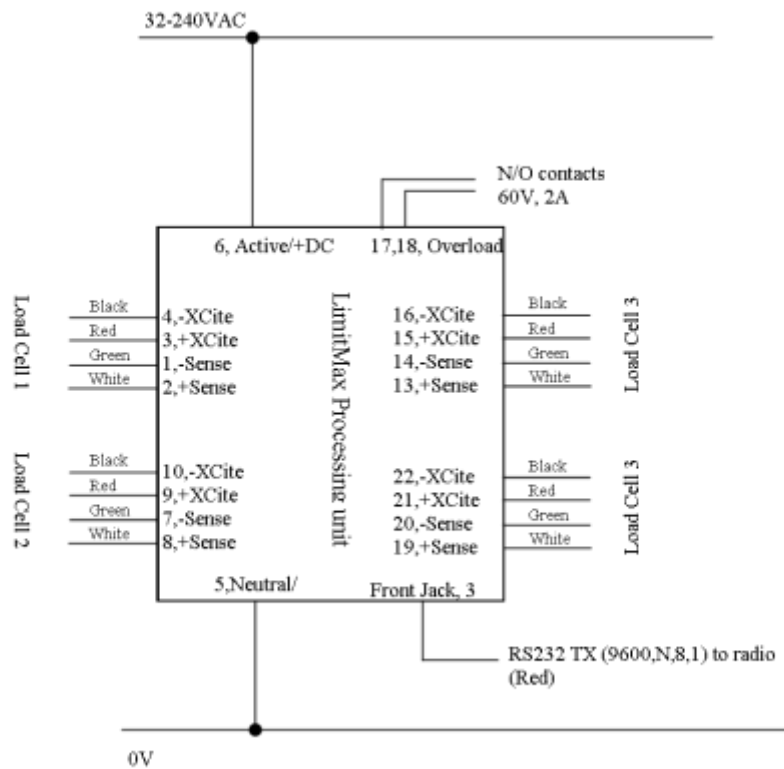
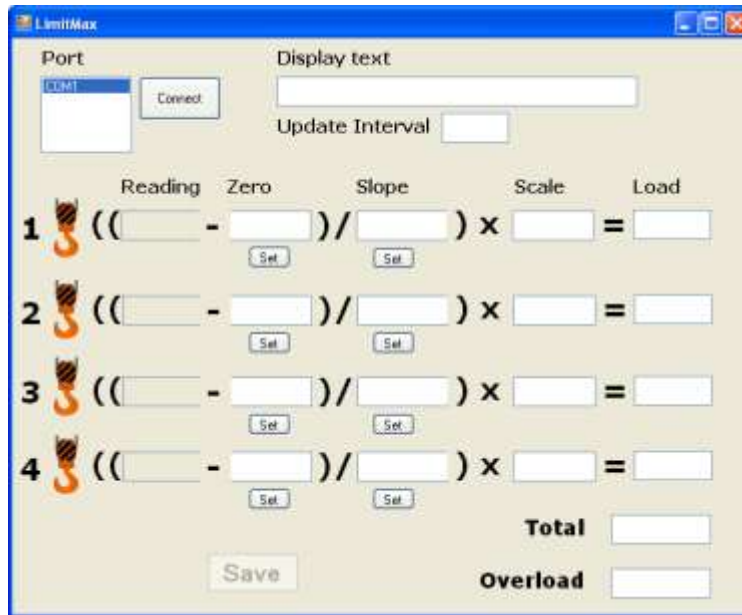


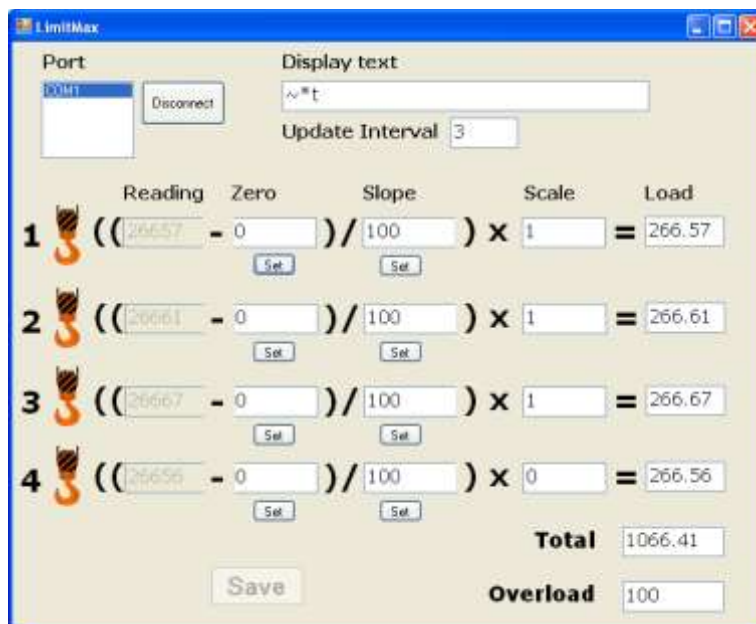
Figure 1 LimitMax wiring diagram

CALIBRATION.

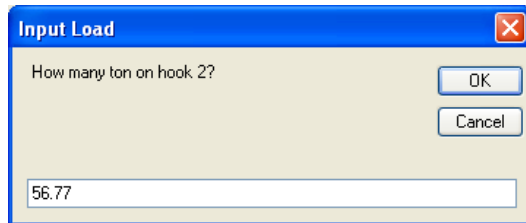
1. Download and install LimitMax Setup from <http://www.liftlog.com.au>.
2. Connect the LimitMax to the PC or laptop using the LimitMax PC cable.
3. Run the LimitMax Setup application.



4. Select the connected serial port and click the <Connect Button>. The screen will now populate with the values stored in the LimitMax.



5. Configure the zero's, slopes and slopes of each input channel either by keying in the values or using the <Set> buttons. <Set> under a zero field copies the current raw reading into the zero.<Set> under a Slope field will prompt you for the current value.



6. Set the scales. If the load applied to a particular cell is mechanically scaled then enter these scales now. You can set a scale of zero for channels that are unused.
7. Set the Overload in tons (nb overload resolution is 0.1t
8. Set the update interval in seconds.
9. The display text is the string that is sent to the radio receiver or PLC every <Update Interval> seconds. When sent by the LimitMax, the * character will be replaced by the current load and a <CR> added to the end. Eg "Load:*t"
10. Click <Save> to write the configuration to the LimitMax (this will take several seconds).

Click <Disconnect> to close the connection and plug the LimitMax back into the radio or PLC. After a delay of approximately 10 seconds, the LimitMax will begin transmitting data.