

## HOISTMAN'S TOUCH SCREEN PANEL AMS4A044



### GENERAL DESCRIPTION

This panel is used to acquire and display depth and tension data from a wireline logging winch unit. The panel provides the operator a means to set and make adjustments to the data as necessary. Depth is displayed from data provided from an encoder mounted on a measuring device. The tension data is provided by a load pin and is also passed through to the acquisition system. The panel will operate with the Kerr AM5K Dual Wheel Measuring Device for both open hole and cased hole services.

The system consists of two main components, the real time acquisition board and the PC. The acquisition board provides power to and processes the signals from the encoders, load pin, and magnetic mark detector. This board operates independent from the PC and is instantly on when power is applied. It also is connected to displays for depth and tension. This allows depth and tension to be displayed immediately on power up and always be displayed regardless of the PC status.

The PC uses an Intel based high speed processor running MS Windows XP embedded. The PC includes a color touch screen for operator input and command entry. The PC is Ethernet ready for connection to the internet for remote display and control.

## HARDWARE FEATURES

### Power Input

- 12 - 24 VDC
- 120 – 240 VAC 50/60 HZ
- Internal UPS with 2 hour battery

### Internal PC board

- Intel based personal computer board
- 1 gb solid state media device
- Embedded windows XP operating system
- Three USB ports (2 front, 1 rear)
- 1 RS232 port
- RJ 45 Ethernet port
- USB Mouse / Keyboard included

### Color Display

- TFT LCD
- Backlit
- 400 NITS Sunlight readable

### Touch Screen Interface (replaces current key pad)

- 5 wire resistive
- USB interface

### Real Time Acquisition board

- BenchMark proprietary design
- 8051 Microprocessor based
- Provides power to encoders, mag mark detector, and load cell
- Processes encoder quadrature, mag mark signal, and load cell
- Runs independent of PC board
- Connected to digital displays for real time display of depth and tension

### Overtension Relay Contact Closure output

### Analog output interface

- Encoder quadrature output
- 0 – 10vdc tension output
- 4-20ma tension output

### Dual Intercom system included

## USER INTERFACE FEATURES

Total Tension numeric graphic  
Incremental or Differential tension meter graphic  
Meter reset button graphic (touch screen control)

Over\_tension Warnings and Shutdown settings for both Differential and  
Total Tension readings (touch screen activated)  
Numeric graphic display of Last Mark Depth  
Magnetic Mark or CCL depth table display

MMD or CCL selection button (touch screen control)

Mark Detection Window (touch screen control)  
Mark Spacing Window (touch screen control)  
Magnetic Mark Automatic Correction (touch screen control)

CCL depth numeric graphic  
CCL meter graphic  
CCL depth offset setting (touch screen control)

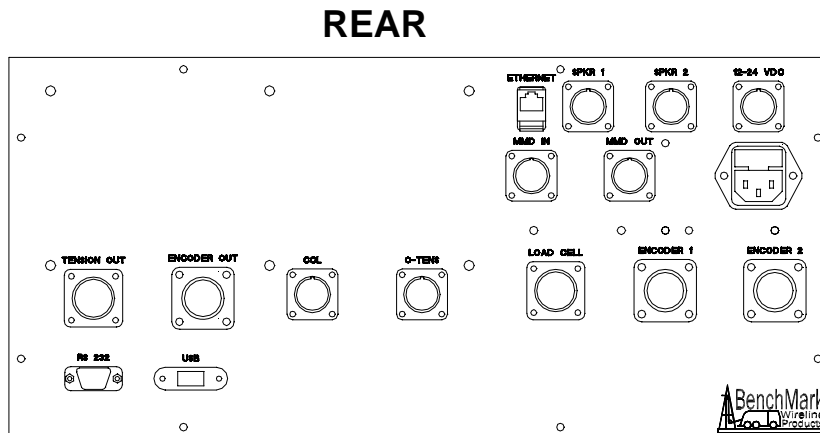
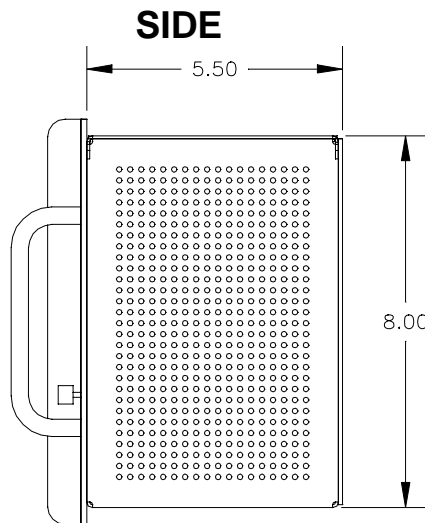
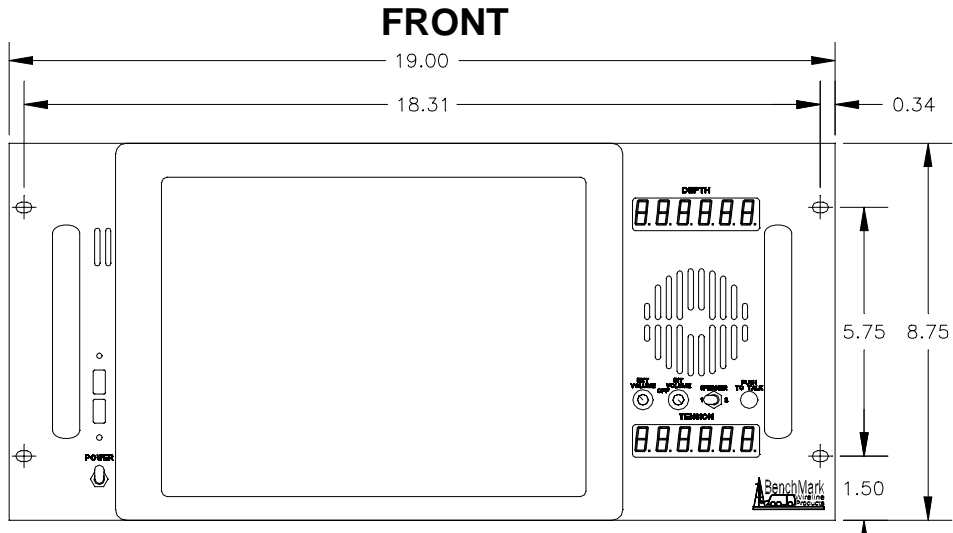
Tension Calibration Setup Window (touch screen control)

Encoder Resolution Settings (PPR value set by touch screen control)

Single / Dual Encoder Selection: (touch screen control)  
Encoder 1, Encoder 2, or Both

Both (reads both encoders every 10 msec and takes value from the  
one that moved the furthest since the previous reading.

## SPECIFICATIONS



**WEIGHT:**            13 LBS            5.92 KG

**POWER REQUIREMENTS:**

INPUT VOLTAGE:            12 VDC OR 115 VAC 60 HZ

INPUT CURRENT:            4 AMPS STARTUP SURGE

3 AMPS NORMAL OPERATION

**OPERATING TEMPERATURE**

Min    Max

14    149 degrees F

-10    65 degrees C

**STORAGE TEMPERATURE**

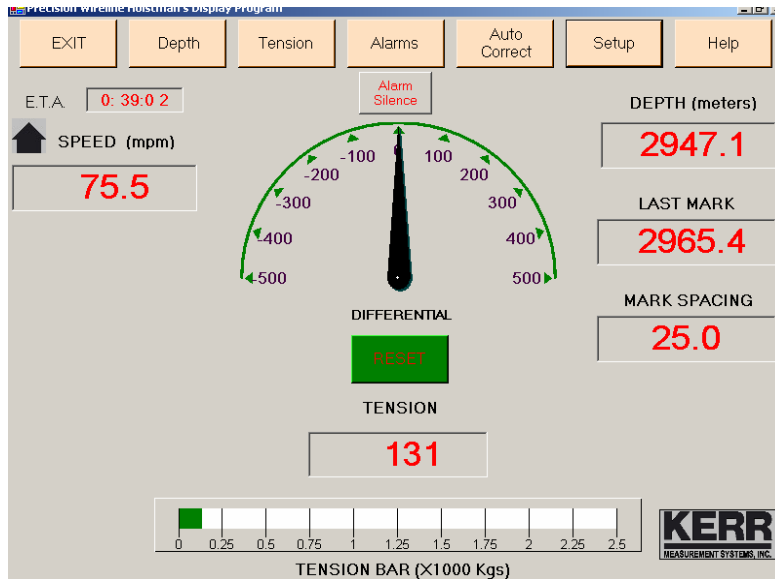
Min    Max

-22    158 degrees F

-30    70 degrees C

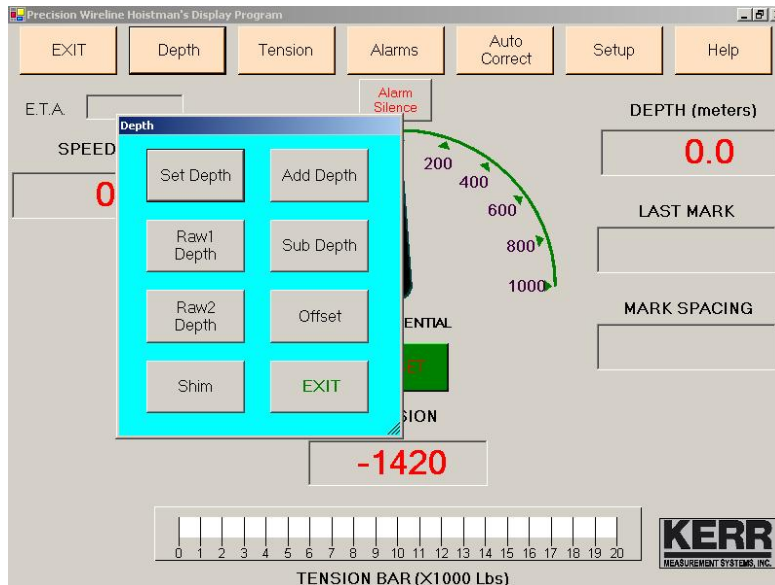
## MAIN SCREEN

When the system first boots up, the main screen will appear.

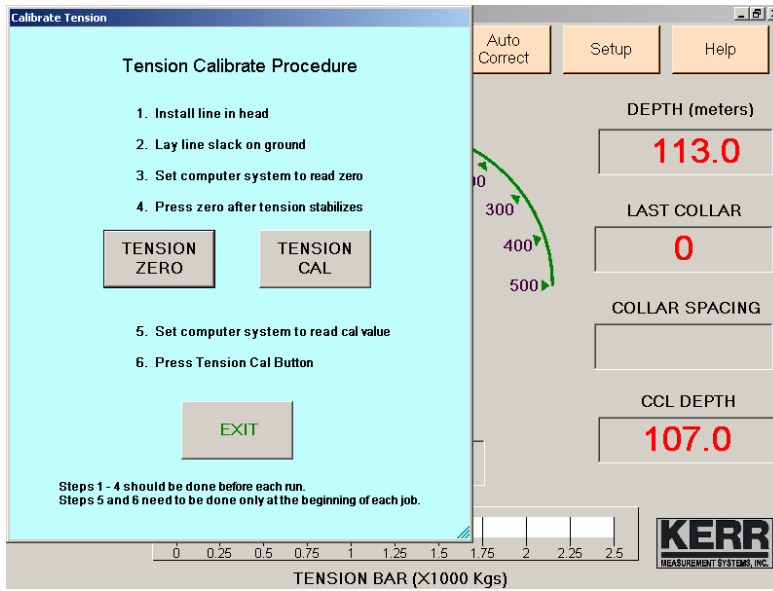


Most of the commands are accessed through the buttons across the top of the screen.

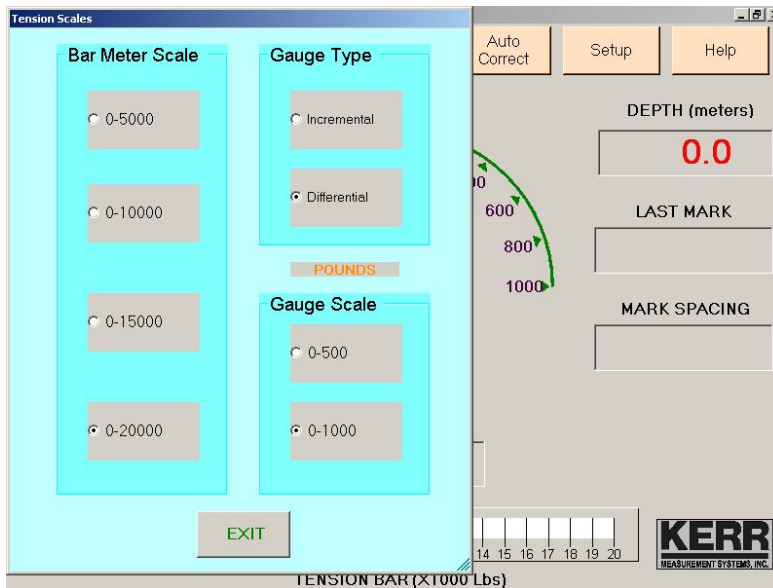
## DEPTH SCREEN



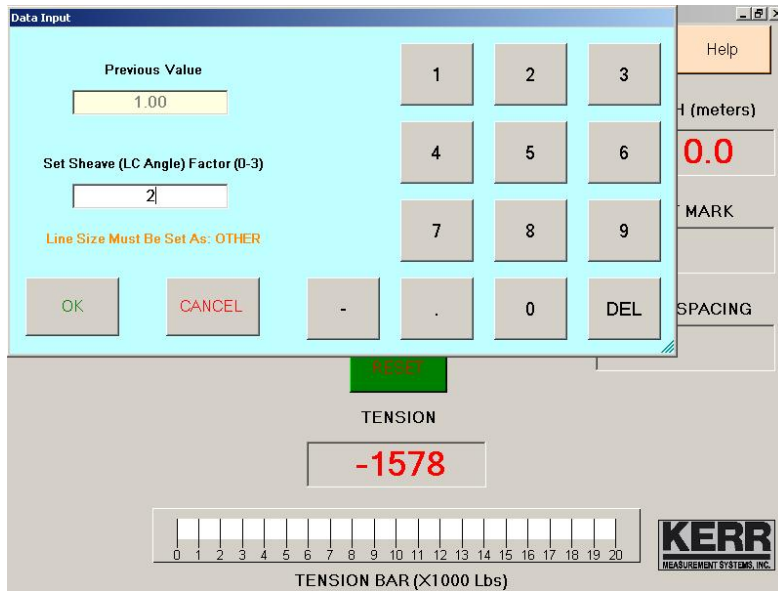
## TENSION SCREEN



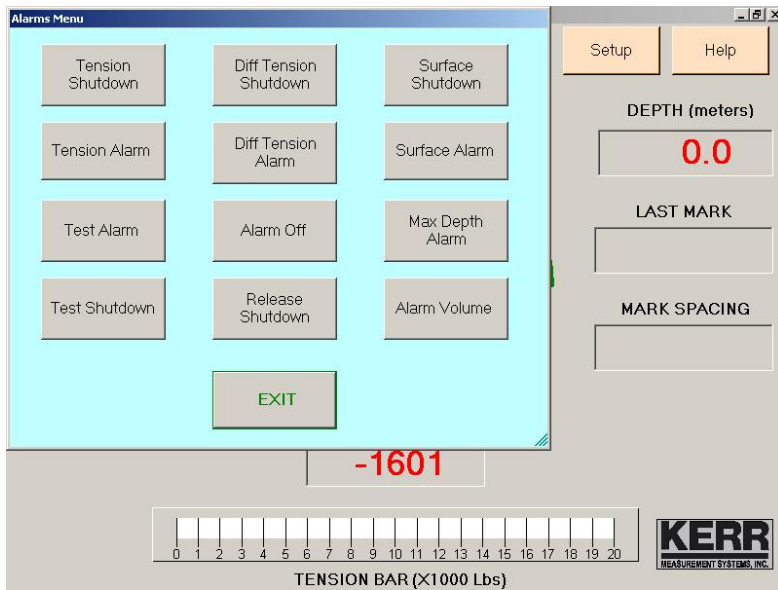
## TENSION SCALE SCREEN



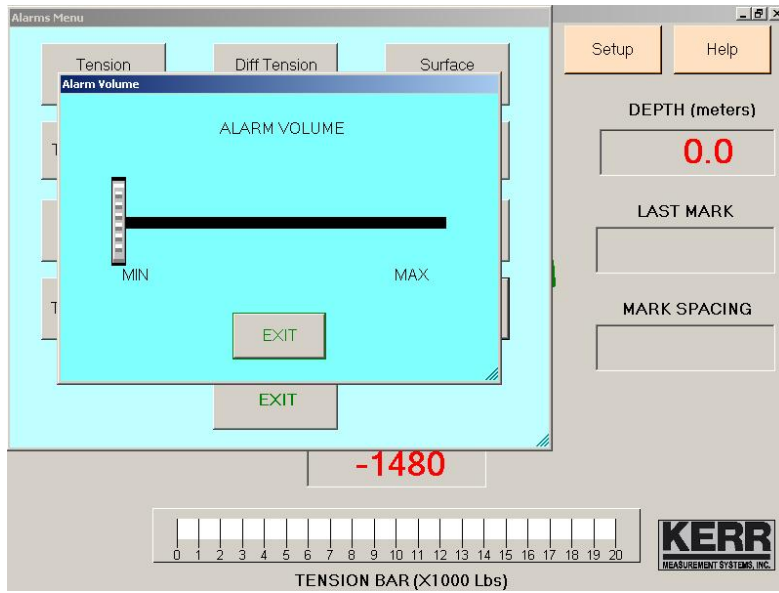
## TENSION LOADCELL ANGLE SCREEN



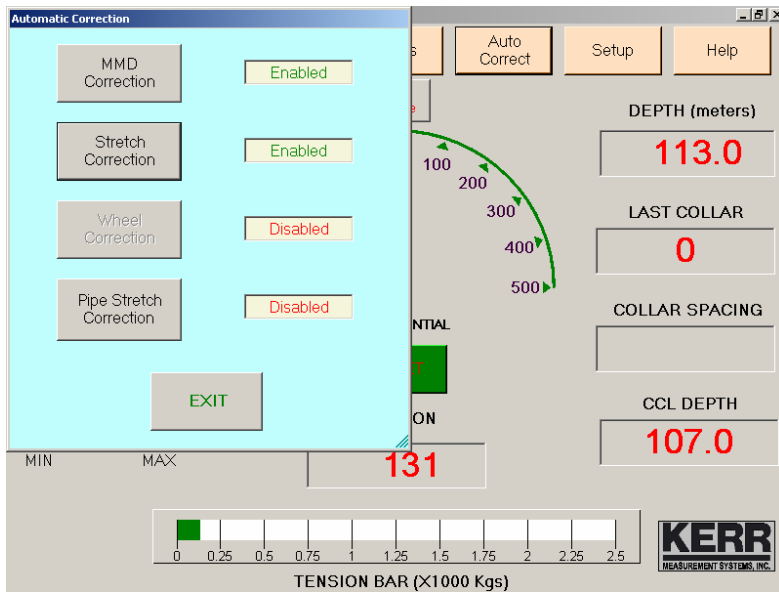
## ALARM SCREEN



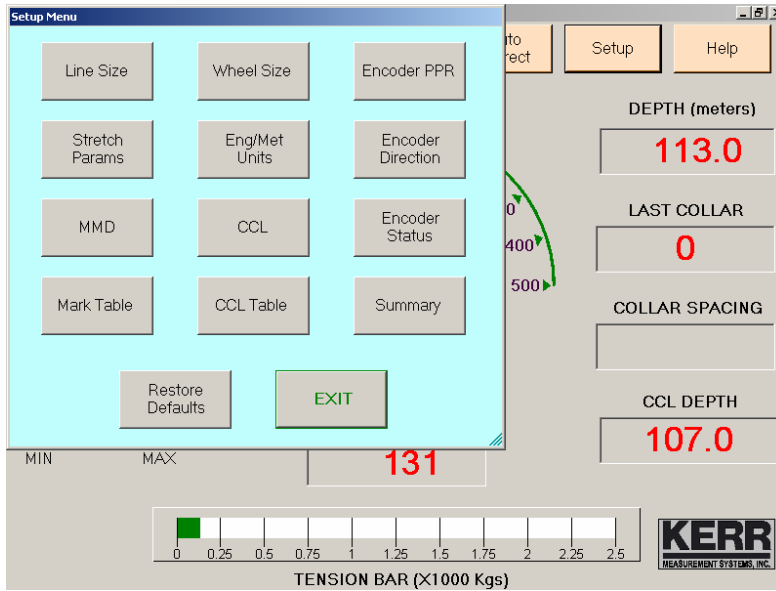
## ALARM VOLUME SCREEN



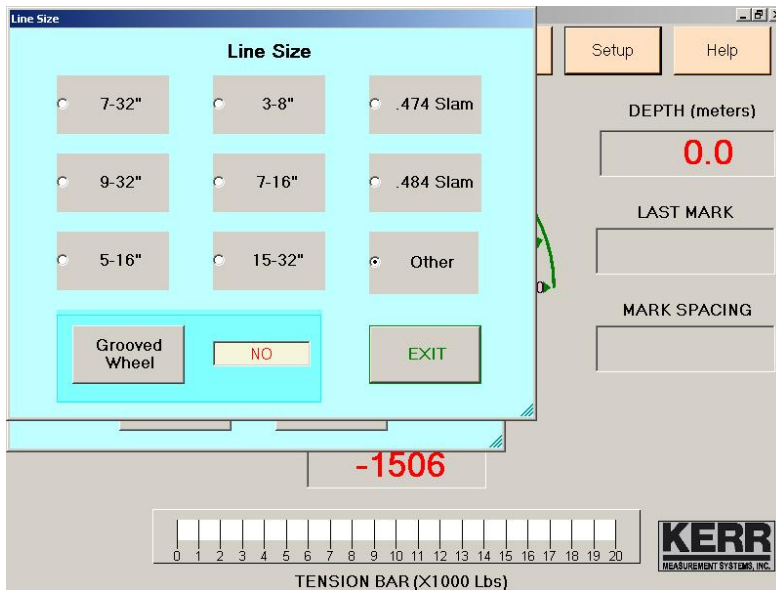
## AUTO CORRECT SCREEN



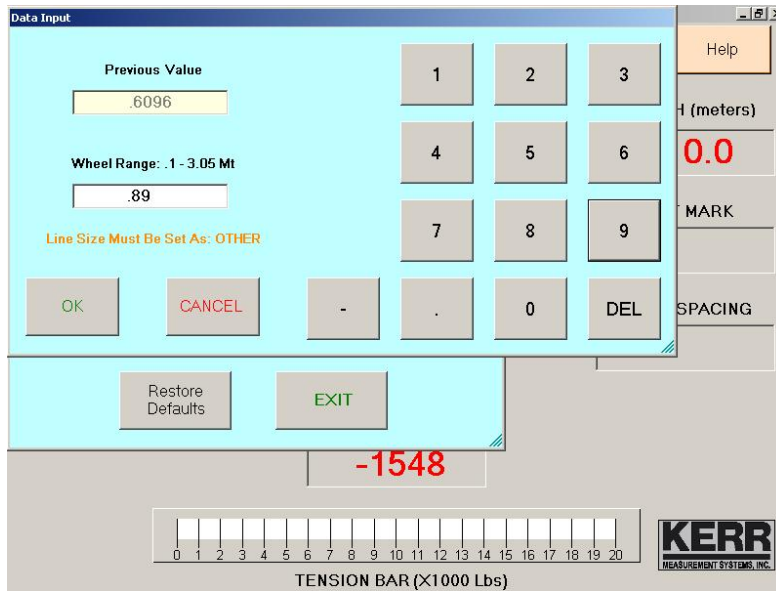
## SETUP SCREEN



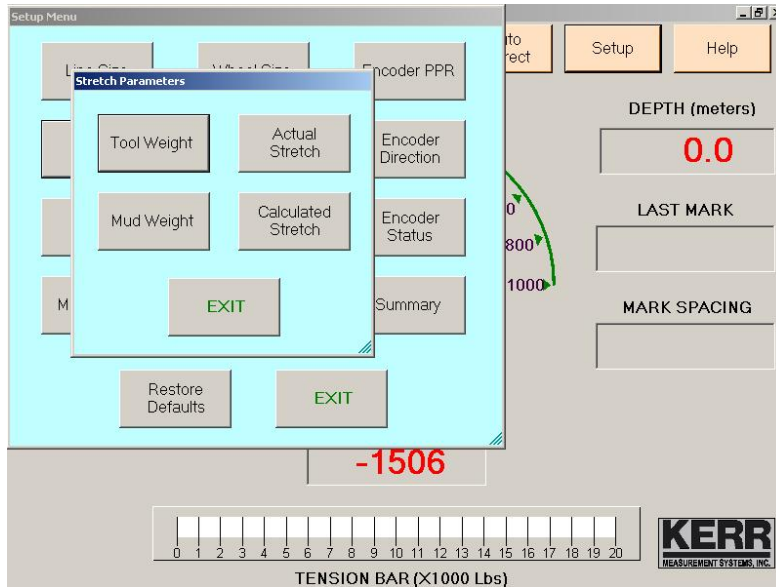
## LINE SIZE SETUP SCREEN



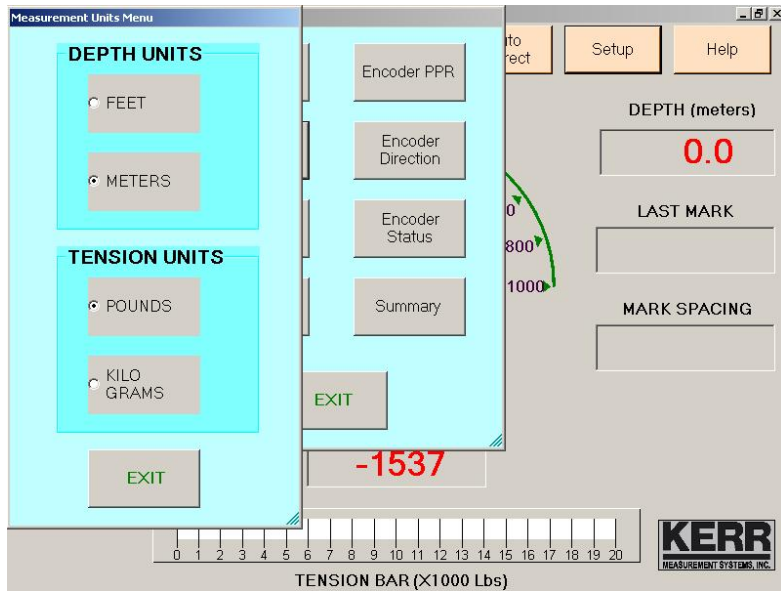
## WHEEL SIZE SETUP SCREEN



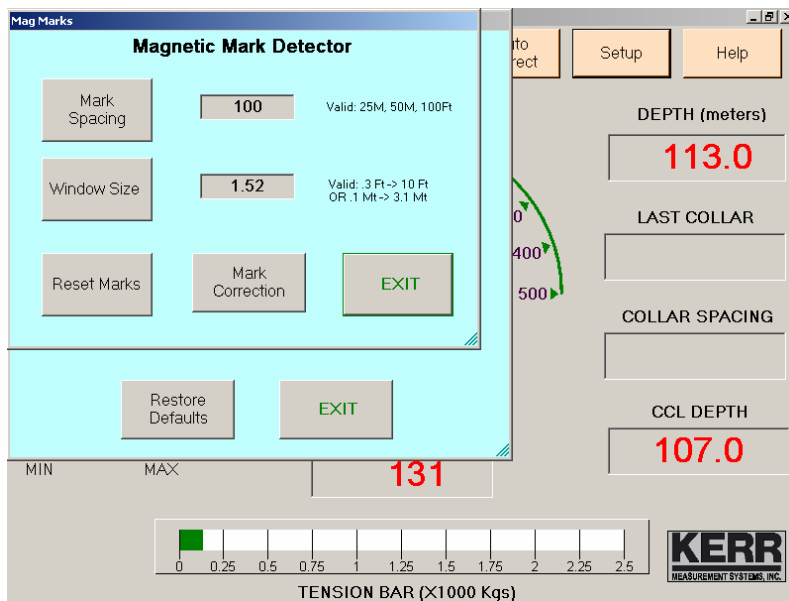
## STRETCH PARAMETERS SCREEN



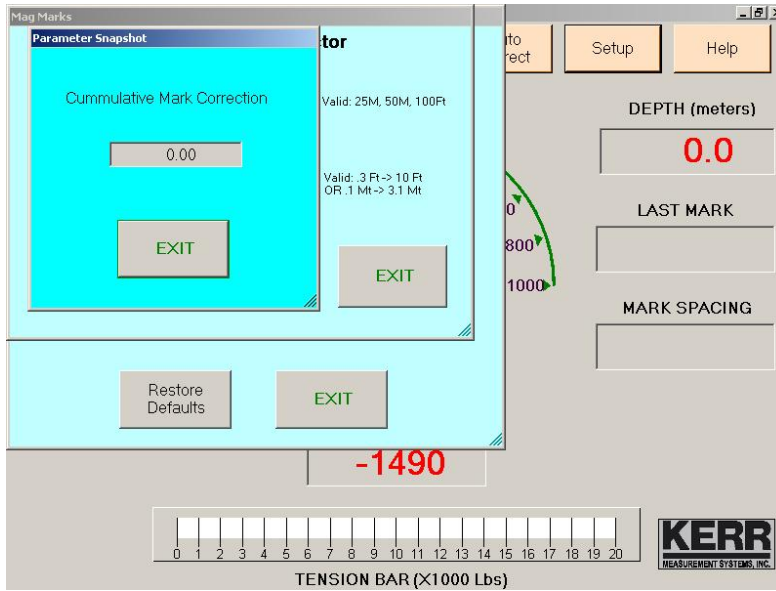
## ENGLISH / METRIC UNITS SCREEN



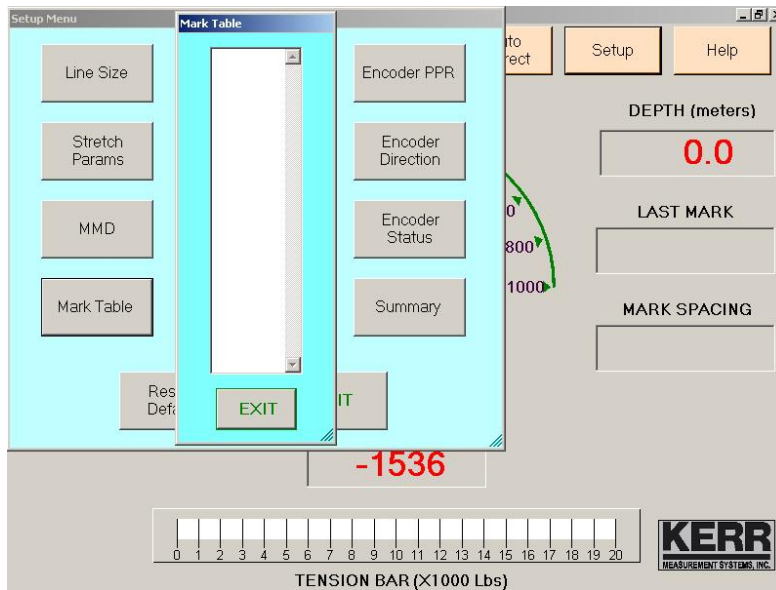
## MMD SETUP SCREEN



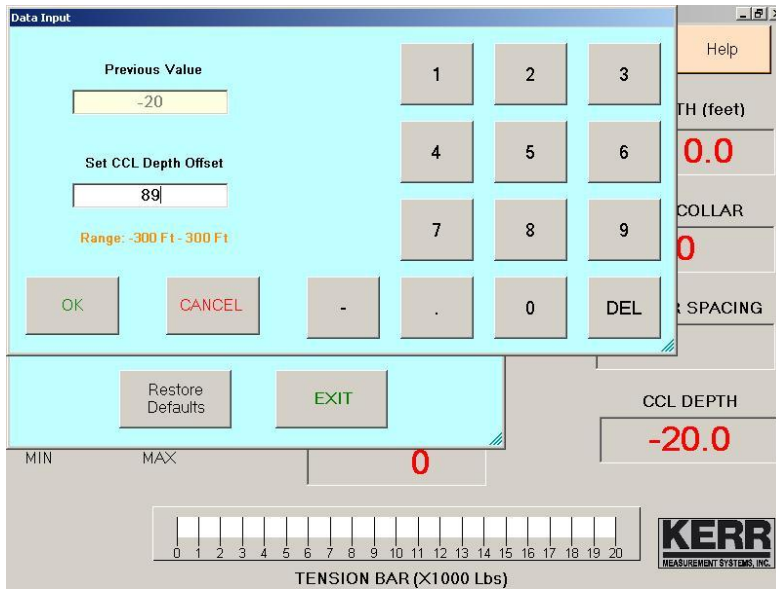
## CUMMULATIVE MARK CORRECTION SCREEN



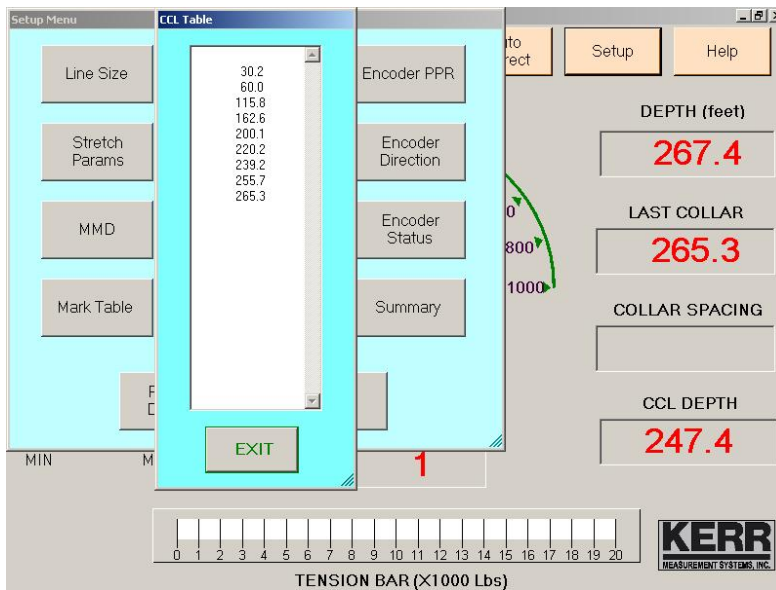
## MARK TABLE SCREEN



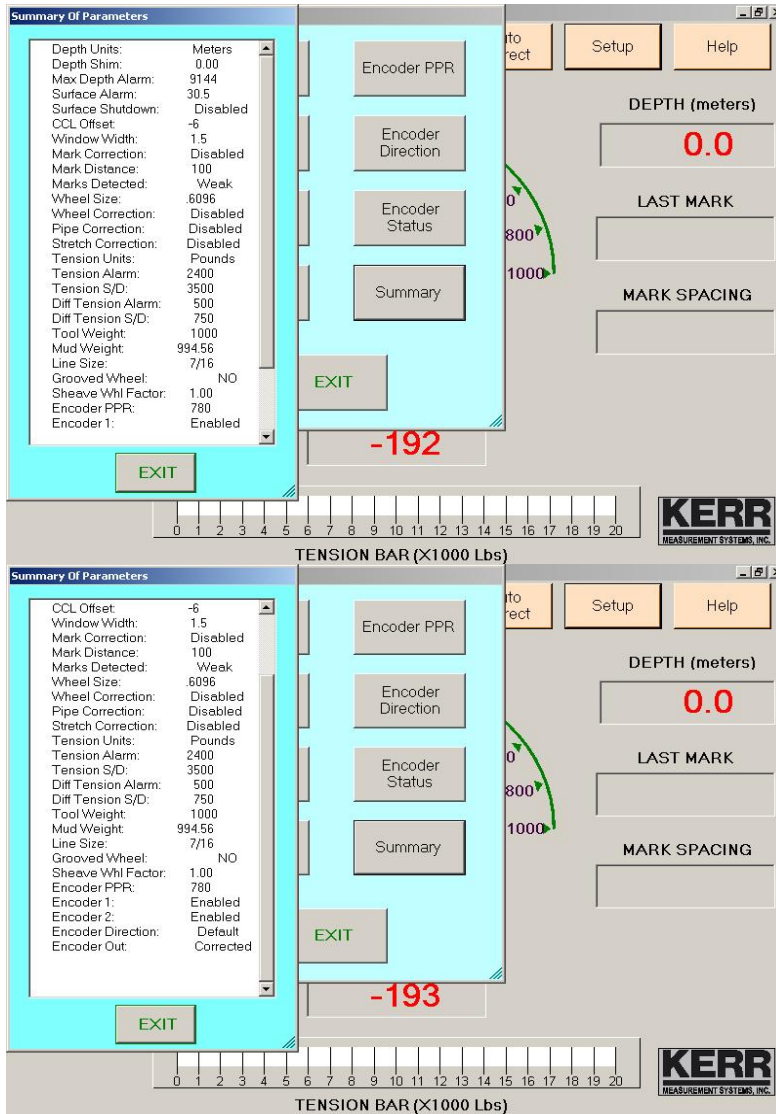
## CCL SELECTION SCREEN



## CCL TABLE SCREEN



## SUMMARY SCREENS



**Summary of Parameters**

Depth Units:	Meters
Depth Shim:	0.00
Max Depth Alarm:	9144
Surface Alarm:	30.5
Surface Shutdown:	Disabled
CCL Offset:	-6
Window Width:	1.5
Mark Correction:	Disabled
Mark Distance:	100
Marks Detected:	Weak
Wheel Size:	6096
Wheel Correction:	Disabled
Pipe Correction:	Disabled
Stretch Correction:	Disabled
Tension Units:	Pounds
Tension Alarm:	2400
Tension S/D:	3500
Diff Tension Alarm:	500
Diff Tension S/D:	750
Tool Weight:	1000
Mud Weight:	994.56
Line Size:	7/16
Grooved Wheel:	NO
Sheave Whl Factor:	1.00
Encoder PPR:	760
Encoder 1:	Enabled

Encoder PPR  
Encoder Direction  
Encoder Status  
Summary  
EXIT

to rect Setup Help

DEPTH (meters)  
**0.0**

LAST MARK

MARK SPACING

0 800 1000

**-192**

TENSION BAR (X1000 Lbs)

**KERR**  
MEASUREMENT SYSTEMS, INC.

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**Summary of Parameters**

CCL Offset:	-6
Window Width:	1.5
Mark Correction:	Disabled
Mark Distance:	100
Marks Detected:	Weak
Wheel Size:	6096
Wheel Correction:	Disabled
Pipe Correction:	Disabled
Stretch Correction:	Disabled
Tension Units:	Pounds
Tension Alarm:	2400
Tension S/D:	3500
Diff Tension Alarm:	500
Diff Tension S/D:	750
Tool Weight:	1000
Mud Weight:	994.56
Line Size:	7/16
Grooved Wheel:	NO
Sheave Whl Factor:	1.00
Encoder PPR:	760
Encoder 1:	Enabled
Encoder 2:	Enabled
Encoder Direction:	Default
Encoder Out:	Corrected

Encoder PPR  
Encoder Direction  
Encoder Status  
Summary  
EXIT

to rect Setup Help

DEPTH (meters)  
**0.0**

LAST MARK

MARK SPACING

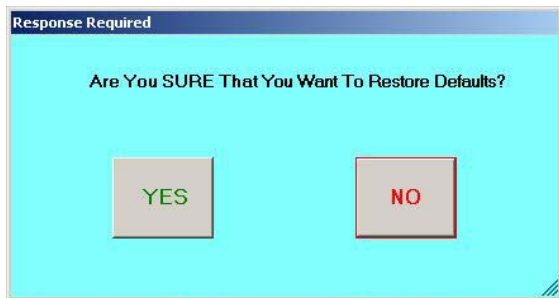
0 800 1000

**-193**

TENSION BAR (X1000 Lbs)

**KERR**  
MEASUREMENT SYSTEMS, INC.

## RESTORE DEFAULTS SCREEN



**Response Required**

Are You SURE That You Want To Restore Defaults?

YES NO