AutoCell - Bluetooth



Digital Calibration Load Cells

with Bluetooth

Toledo Integrated Systems

Operations Manual

AutoCell - Bluetooth Operations Manual

Revision: 2

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GENERAL

The AutoCell with Bluetooth is a wireless calibration load cell. This AutoCell communicates with our Forceview app through Bluetooth. No additional instruments or cables are needed. It is powered by a rechargeable 9V lithium battery, which can provide 12 hours of operation per charge. The AutoCell is equipped with a digital display for easy and accurate force measurement.

The AutoCell can be used as a standalone calibration unit or with our ForceView app via Bluetooth. It is easy for anyone to place AutoCells into a press and get immediate tonnage readings for press calibration and testing.

PEAK AND TRACK MODES

The AutoCell can operate in either peak or track mode. The factory setting is for peak mode. In peak mode the AutoCell captures and displays the peak tonnage of a stroke. It automatically resets when the next load cycle occurs.

TRACK MODE INDICATOR

When the AutoCell is operated in track mode, the LED in the upper left corner of the display will turn on (See Figure 1).

START UP

The AutoCell can be started easily by pushing the "START" switch on the front panel (See Figure 1). All LED segments will light up and then change to read zero. The AutoCell is now ready to operate.

OPERATION TIME

Every time the "START" switch is pushed, the AutoCell turns on for 20 minutes. Operation time will be updated and another 20 minutes of operation time will be given when there is a load greater than 3% of the AutoCell's capacity. Therefore, the AutoCell will remain activated if there is at least one load cycle every 20 minutes.

AUTOMATIC SHUT OFF

The AutoCell will automatically shut itself off when no load greater than threshold has been detected for 20 minutes.

THRESHOLD

Threshold is the minimum load required before the AutoCell will start measurement. The threshold is set at 3% of the capacity.

LOW-BATTERY INDICATOR

When the display shows bAt.L, it means it is time to replace the battery.

TROUBLESHOOTING

If the AutoCell does not function properly, check the battery and connectors for good connections. Use compressed air to clean the circuit board of any foreign material. If this does not help, consult the factory.

IMPORTANT!
Never change the potentiometer setting, which has been precisely trimmed and sealed for accurate measurement.

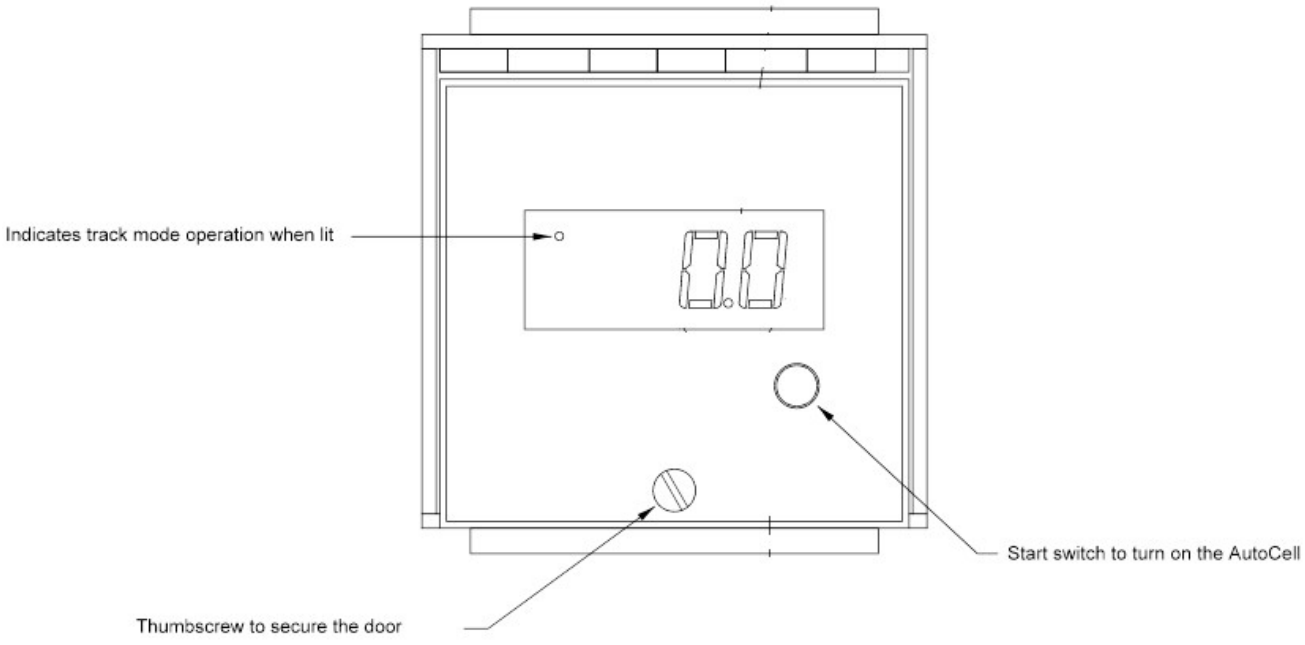


Figure 1

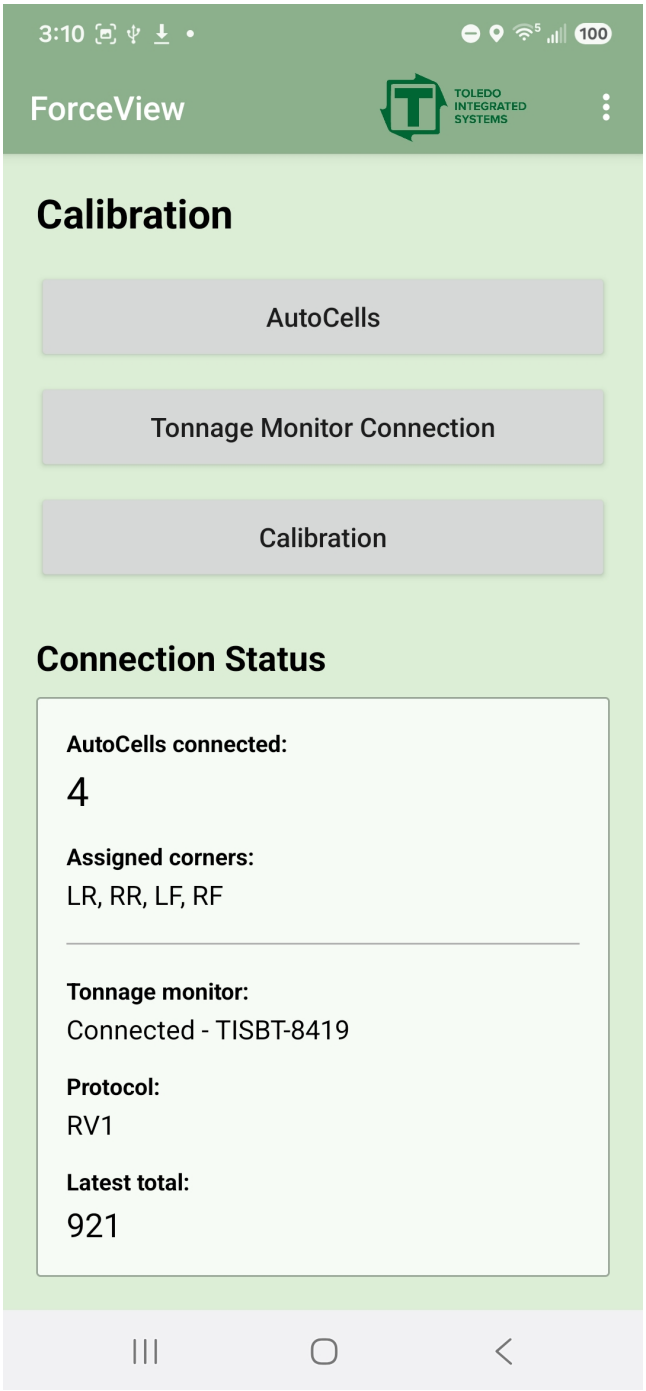
FORCEVIEW APP

The AutoCell together with the Forceview App can generate calibration reports automatically right on-site. Calibration data is sent to the app through Bluetooth wireless technology. The app intuitively guides the user completing the calibration and creates a linearity chart and calibration report in PDF and Excel formats. Forceview app currently in Android smart phone version and Windows laptop version.

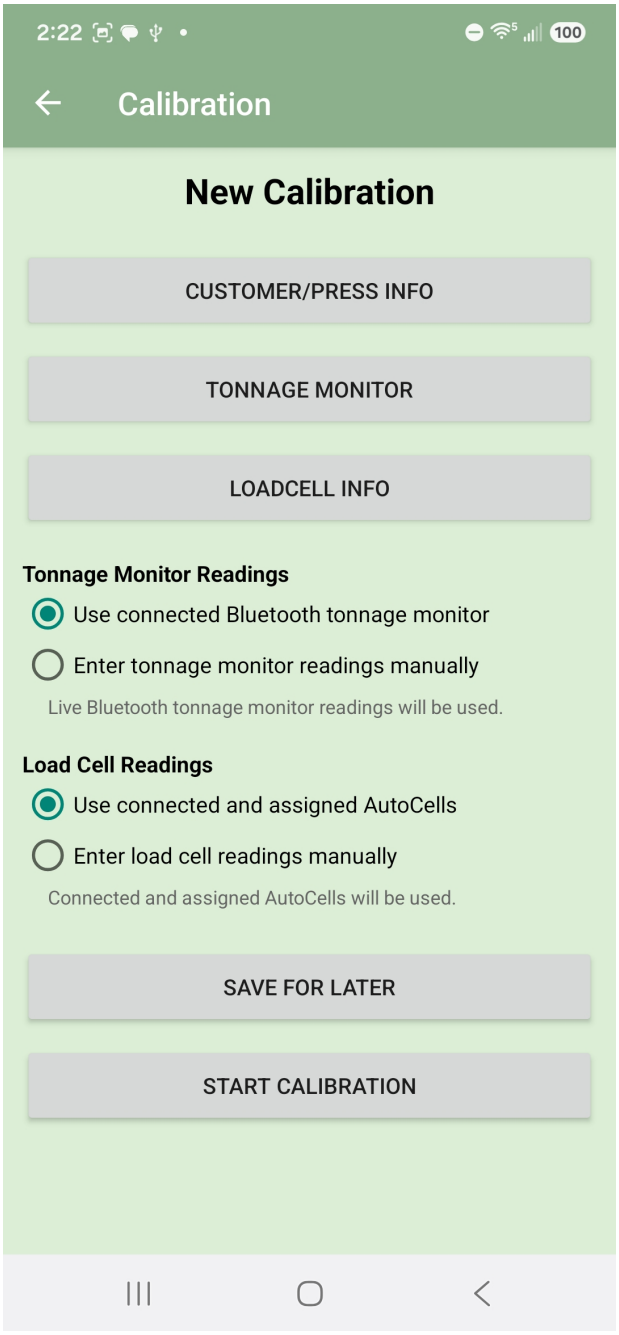


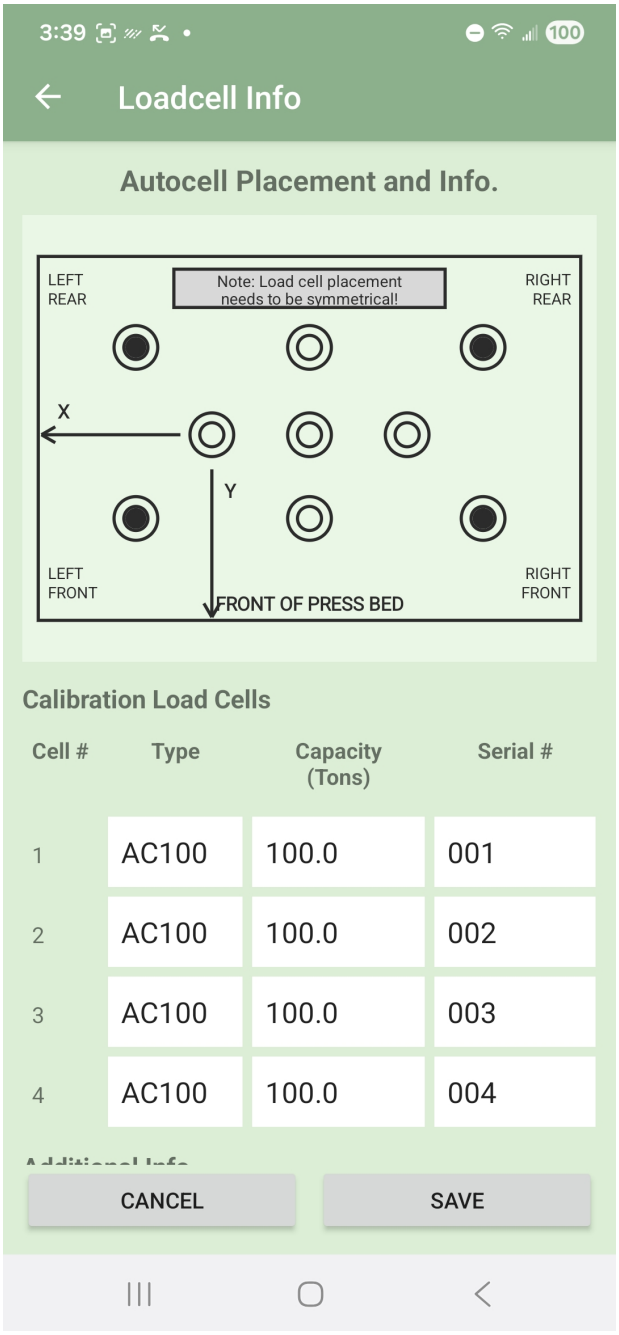
CALIBRATION PROCEDURES - ANDRIOD APP

Step 1: Start at the HOME page.
Make connection with the Autocells.
Make connection with the tonnage monitor if applicable.
Select CALIBRATION to start a new calibration.

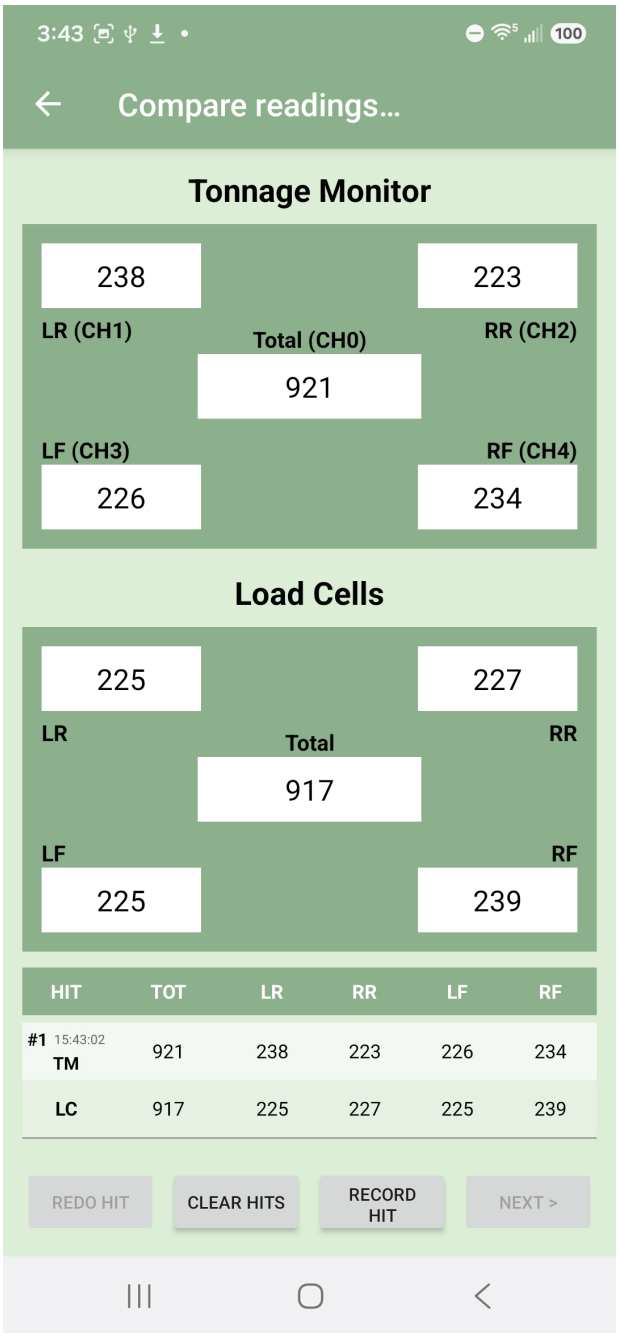


Step 2: Enter customer and press info.
Enter tonnage monitor info.
Enter loadcell info.
Select START CALIBRATION to begin calibration.

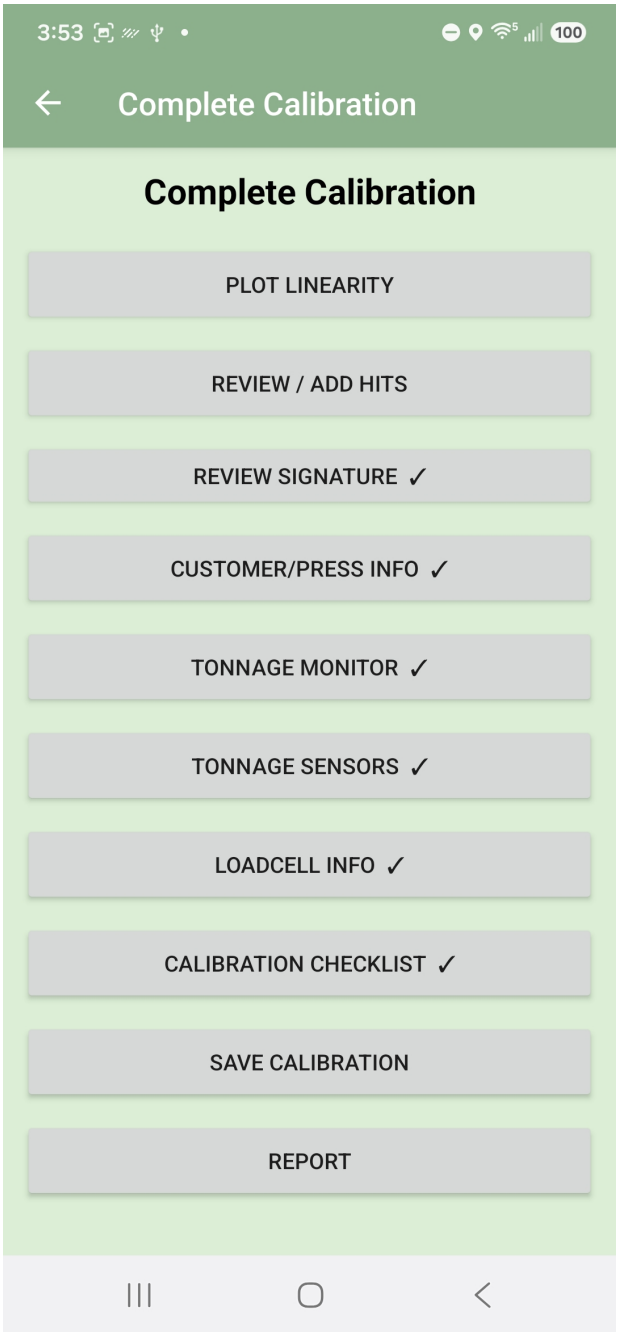


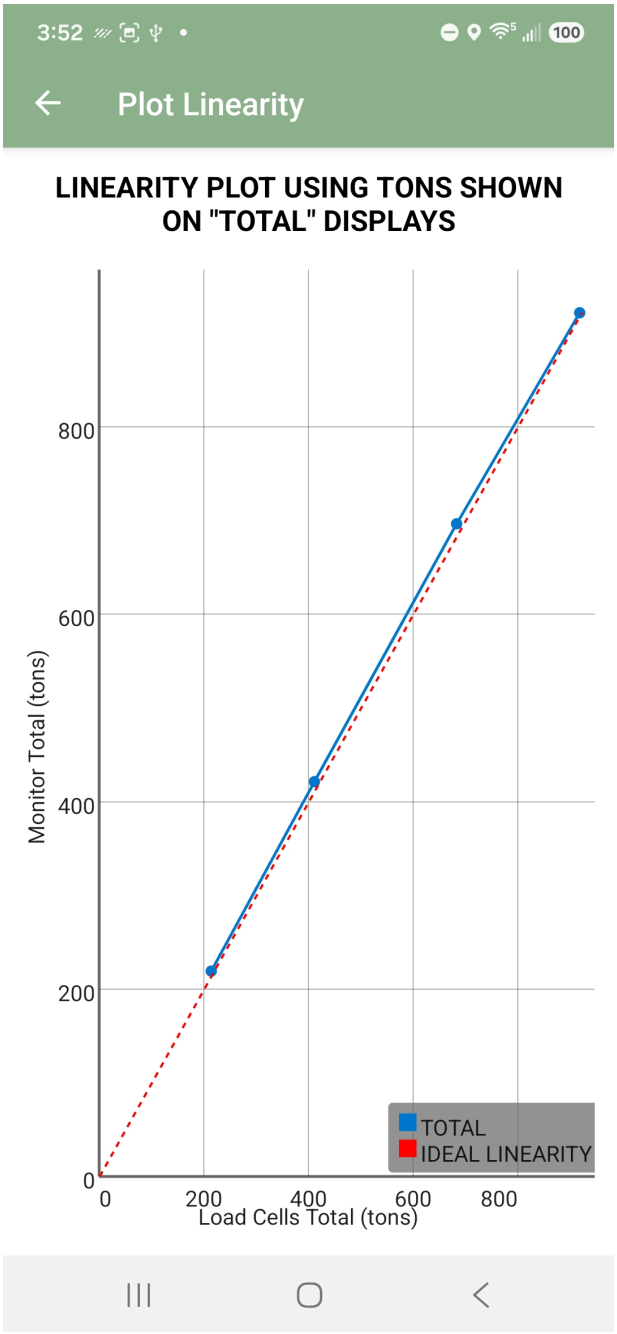


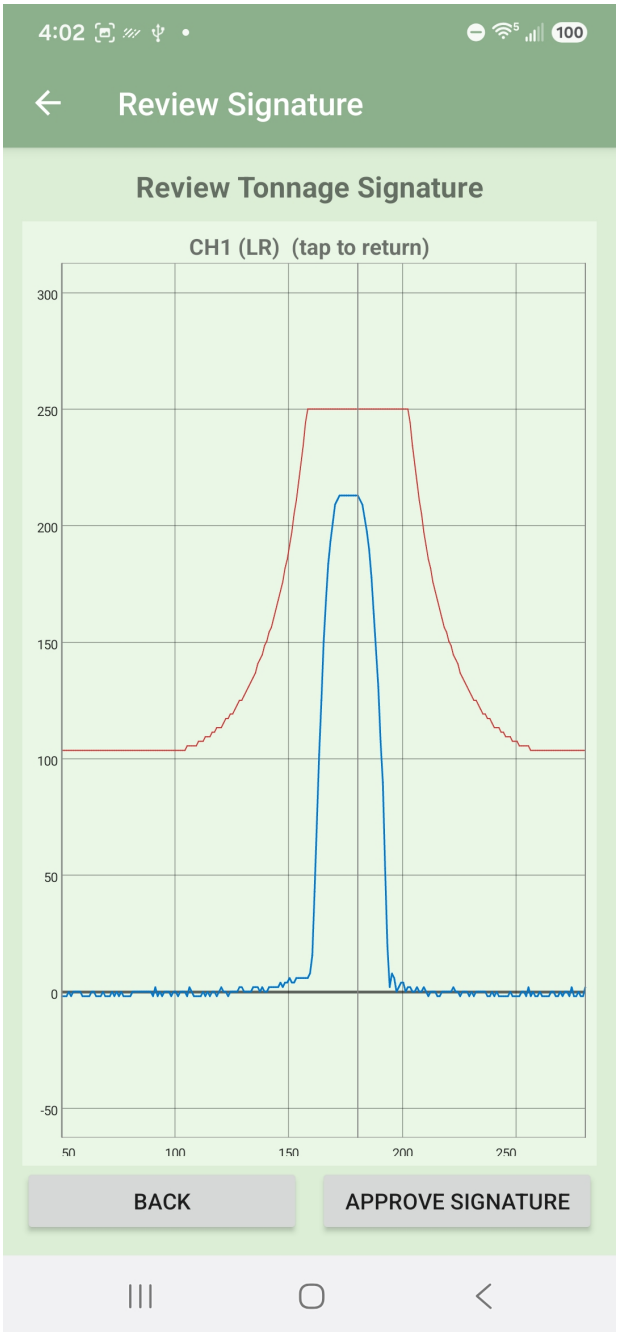
Step 3: Perform calibration at 100% of capacity.
Perform linear check at 80%, 60%, 40% and 20% of capacity.



Step 4: Complete the calibration by completing each task in the checklist.

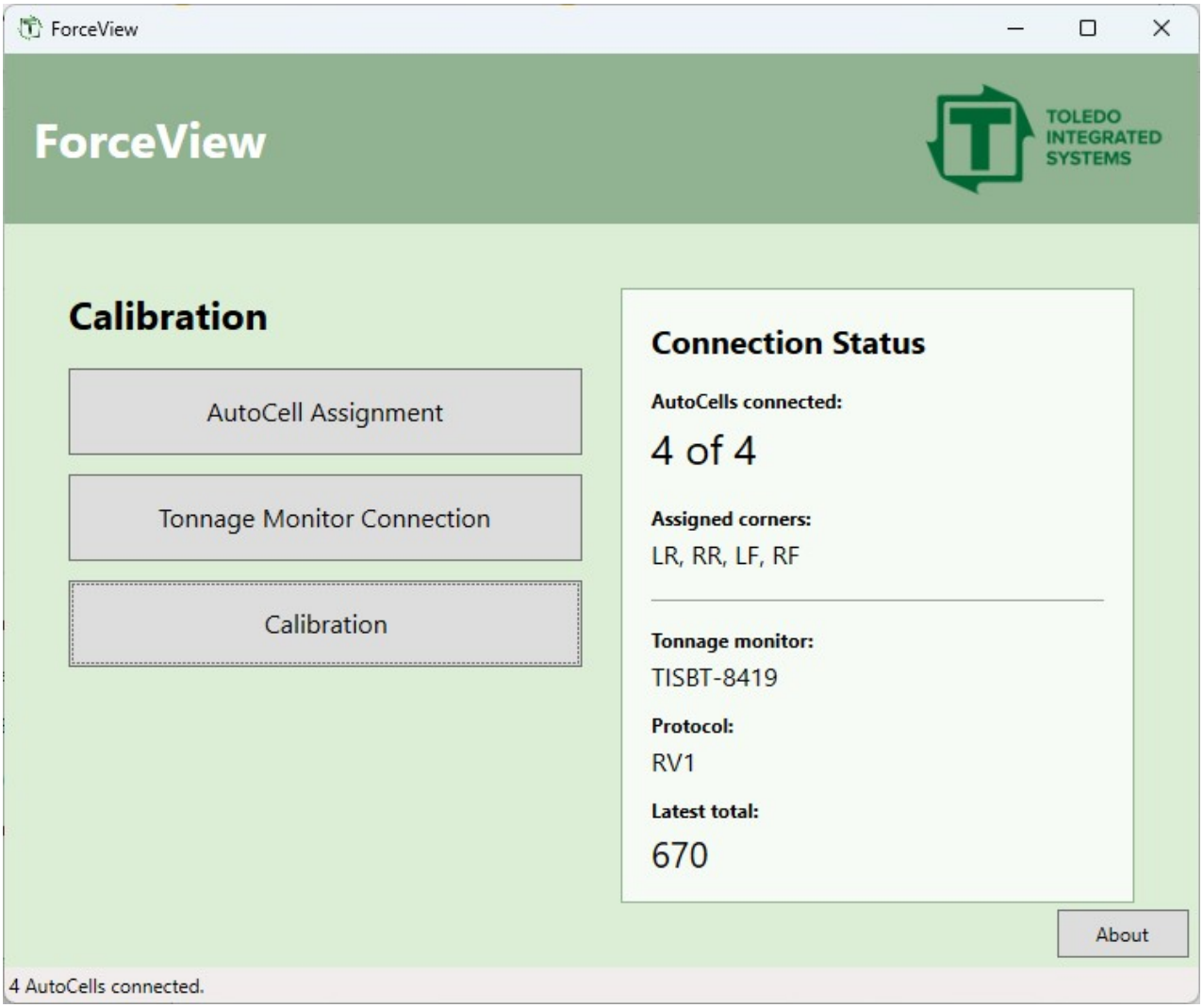


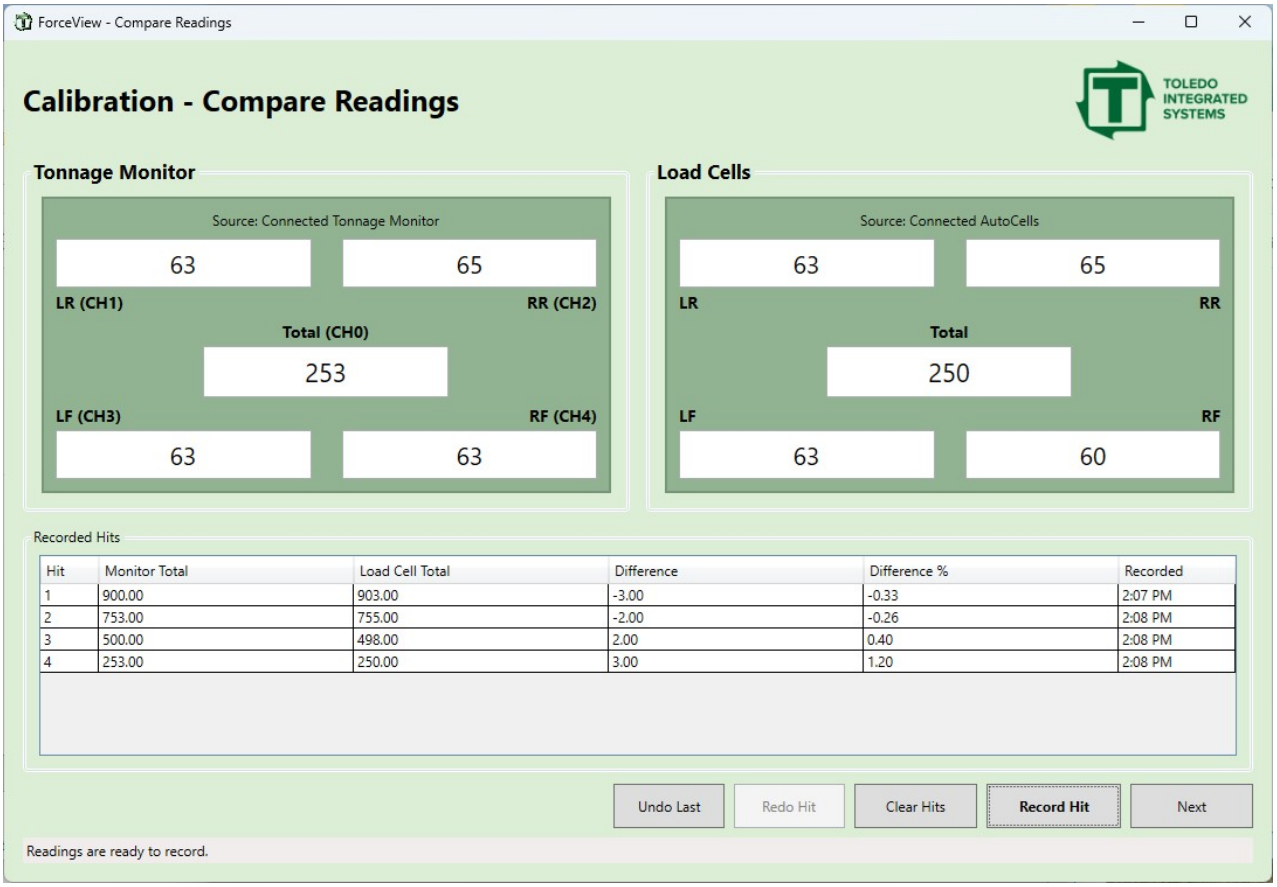


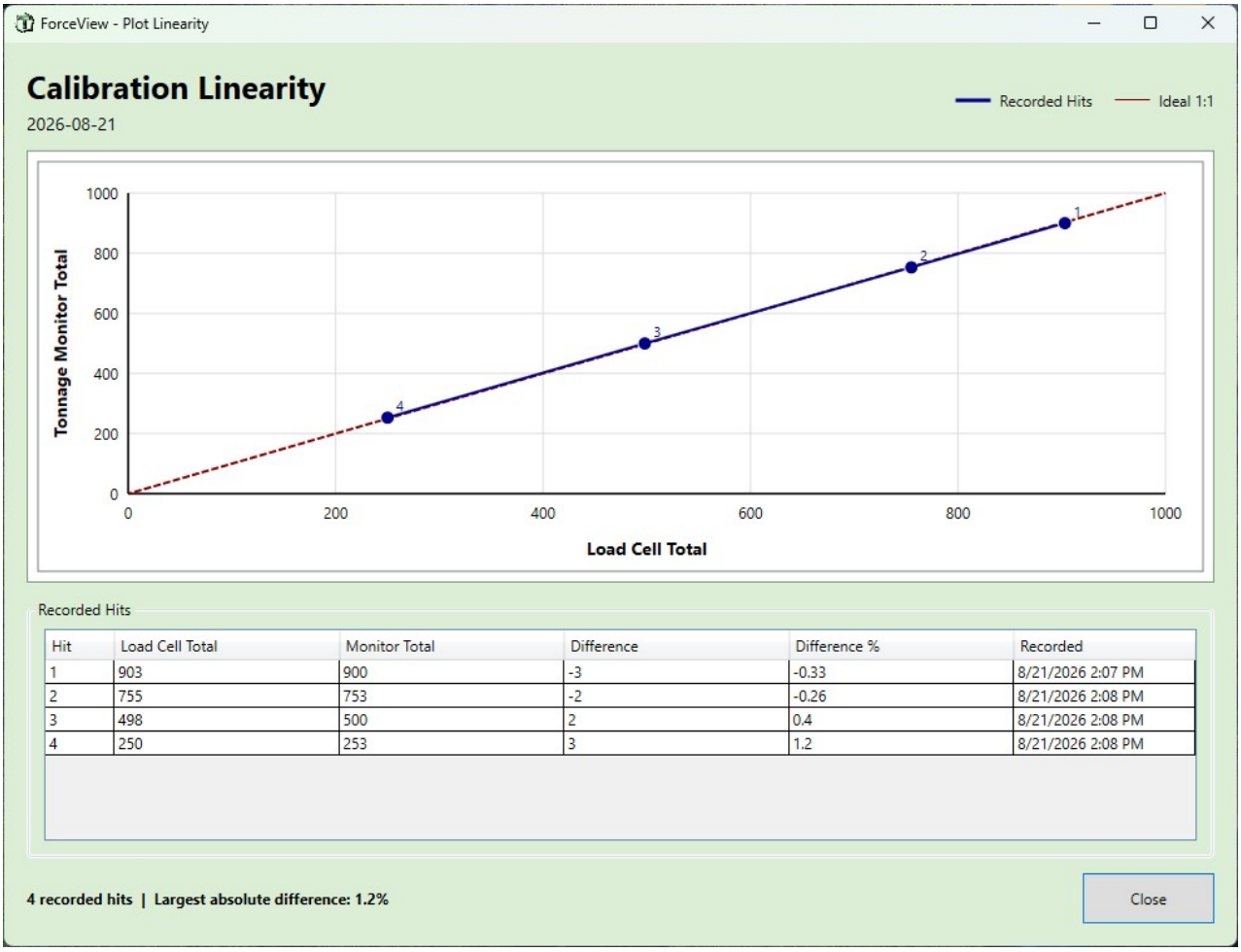

4:02
100
Review Signature
Review Tonnage Signature
CH1 (LR) (tap to return)
300
250
200
150
100
50
0
-50
50
100
150
200
250
BACK
APPROVE SIGNATURE

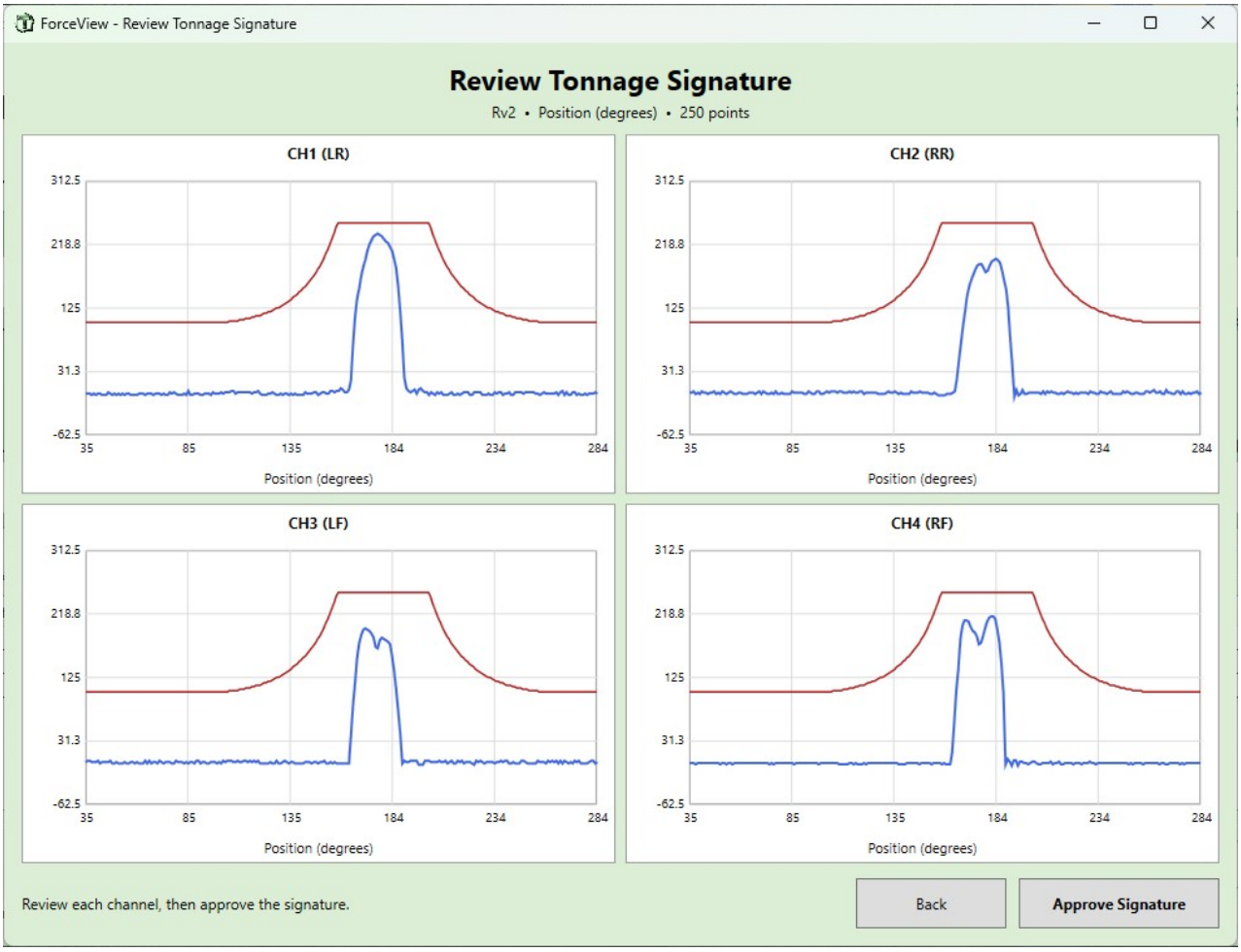
WINDOWS APP

Forceview, both the Windows and Android versions, carry out similar schemes throughout the calibration. The followings present some of the equivalent screens in the Windows App.




ForceView - Compare Readings
Calibration - Compare Readings
TOLEDO INTEGRATED SYSTEMS
Tonnage Monitor
Source: Connected Tonnage Monitor
63
65
LR (CH1)
RR (CH2)
Total (CH0)
253
LF (CH3)
RF (CH4)
63
63
Load Cells
Source: Connected AutoCells
63
65
LR
RR
Total
250
LF
RF
63
60
Recorded Hits
Hit | Monitor Total | Load Cell Total | Difference | Difference % | Recorded
1 | 900.00 | 903.00 | -3.00 | -0.33 | 2:07 PM
2 | 753.00 | 755.00 | -2.00 | -0.26 | 2:08 PM
3 | 500.00 | 498.00 | 2.00 | 0.40 | 2:08 PM
4 | 253.00 | 250.00 | 3.00 | 1.20 | 2:08 PM
Undo Last
Redo Hit
Clear Hits
Record Hit
Next
Readings are ready to record.


ForceView - Plot Linearity
Calibration Linearity
2026-08-21
Recorded Hits
Ideal 1:1
Tonnage Monitor Total
Load Cell Total
0
200
400
600
800
1000
1
2
3
4
Recorded Hits
Hit | Load Cell Total | Monitor Total | Difference | Difference % | Recorded
1 | 903 | 900 | -3 | -0.33 | 8/21/2026 2:07 PM
2 | 755 | 753 | -2 | -0.26 | 8/21/2026 2:08 PM
3 | 498 | 500 | 2 | 0.4 | 8/21/2026 2:08 PM
4 | 250 | 253 | 3 | 1.2 | 8/21/2026 2:08 PM
4 recorded hits | Largest absolute difference: 1.2%
Close


ForceView - Review Tonnage Signature
Review Tonnage Signature
Rv2 • Position (degrees) • 250 points
CH1 (LR)
CH2 (RR)
CH3 (LF)
CH4 (RF)
312.5
218.8
125
31.3
-62.5
35
85
135
184
234
284
Position (degrees)
Review each channel, then approve the signature.
Back
Approve Signature

AC-50 SPECIFICATIONS

Capacity:	50 tons
Threshold setting:	Reading begins at 3% of capacity (1.5 ton)
Resolution:	0.1 ton
Inaccuracy:	+/-0.5 % of Full Scale (F.S.)
Non-linearity:	+/-0.3% F.S.
Non-repeatability:	+/-0.l% F.S.
Temperature Range:	32 DEG. F. to 158 DEG. F. (0 DEG. C. to 70 DEG. C.)
Temperature Effect on F.S. output: on no-load output:	 +/-0.001% F.S./DEG. F. No effect (has auto- zero balance circuit)
Overload:	150% of capacity (75 tons)
Sampling rate:	Three measurements per second
Operation mode:	Peak or Track
Strokes per minute:	Single stroke device. Automatic reset on each stroke
Power:	Standard 9V alkaline battery Approx. 30 hours of continuous use Has low battery indicator
Tons Display:	3 1/2 digit LED (0.56" high)
Loading surface-.	3 inches diameter
Dimensions:	5.25"L x 5.21"W. Height ground in matching sets to 4.0000" +/- 0.0002".
Weight:	9 lb.

AC-100 SPECIFICATIONS

Capacity:	100 tons
Threshold setting:	Reading begins at 3% of capacity (3 ton)
Resolution:	0.1 ton
Inaccuracy:	+/-0.5 % of Full Scale (F.S.)
Non-linearity:	+/-0.3% F.S.
Non-repeatability:	+/-0.l% F.S.
Temperature Range:	32 DEG. F. to 158 DEG. F. (0 DEG. C. to 70 DEG. C.)
Temperature Effect on F.S. output: on no-load output:	 +/-0.001% F.S./DEG. F. No effect (has auto- zero balance circuit)
Overload:	150% of capacity (150 tons)
Sampling rate:	Three measurements per second
Operation mode:	Peak or Track
Strokes per minute:	Single stroke device. Automatic reset on each stroke
Power:	Standard 9V alkaline battery Approx. 30 hours of continuous use Has low battery indicator
Tons Display:	3 1/2 digit LED (0.56" high)
Loading surface-.	3 inches diameter
Dimensions:	5.25"L x 5.21"W. Height ground in matching sets to 4.0000" +/- 0.0002".
Weight:	9 lb.

AC-250 SPECIFICATIONS

Capacity:	250 tons
Threshold setting:	Reading begins at 3% of capacity (7.5 tons)
Resolution:	1 ton
Inaccuracy:	+/-0.5 % of Full Scale (F.S.)
Non-linearity:	+/-0.3% F.S.
Non-repeatability:	+/-0.l% F.S.
Temperature Range:	32 DEG. F. to 158 DEG. F. (0 DEG. C. to 70 DEG. C.)
Temperature Effect on F.S. output: on no-load output:	 +/-0.001% F.S./DEG. F. No effect (has auto- zero balance circuit)
Overload:	150% of capacity (375 tons)
Sampling rate:	Three measurements per second
Operation mode:	Peak or Track
Strokes per minute:	Single stroke device. Automatic reset on each stroke
Power:	Standard 9V alkaline battery Approx. 30 hours of continuous use Has low battery indicator
Tons Display:	3 1/2 digit LED (0.56" high)
Loading surface-.	4.93 inches diameter
Dimensions:	7.19"L x 7.75"W. Height ground in matching sets to 5.0000" +/- 0.0002".
Weight:	26 lb.

AC-500 SPECIFICATIONS

Capacity:	500 tons
Threshold setting:	Reading begins at 3% of capacity (15 tons)
Resolution:	1 ton
Inaccuracy:	+/-0.5 % of Full Scale (F.S.)
Non-linearity:	+/-0.3% F.S.
Non-repeatability:	+/-0.l% F.S.
Temperature Range:	32 DEG. F. to 158 DEG. F. (0 DEG. C. to 70 DEG. C.)
Temperature Effect on F.S. output: on no-load output:	 +/-0.001% F.S./DEG. F. No effect (has auto- zero balance circuit)
Overload:	150% of capacity (750 tons)
Sampling rate:	Three measurements per second
Operation mode:	Peak or Track
Strokes per minute:	Single stroke device. Automatic reset on each stroke
Power:	Standard 9V alkaline battery Approx. 30 hours of continuous use Has low battery indicator
Tons Display:	3 1/2 digit LED (0.56" high)
Loading surface-.	6.93 inches diameter
Dimensions:	9"L x 7.4"W. Height ground in matching sets to 7.0000" +/- 0.0005".
Weight:	70 lb.

AC-750 SPECIFICATIONS

Capacity:	750 tons
Threshold setting:	Reading begins at 3% of capacity (22.5 tons)
Resolution:	1 ton
Inaccuracy:	+/-0.5 % of Full Scale (F.S.)
Non-linearity:	+/-0.3% F.S.
Non-repeatability:	+/-0.l% F.S.
Temperature Range:	32 DEG. F. to 158 DEG. F. (0 DEG. C. to 70 DEG. C.)
Temperature Effect on F.S. output: on no-load output:	 +/-0.001% F.S./DEG. F. No effect (has auto- zero balance circuit)
Overload:	150% of capacity (1125 tons)
Sampling rate:	Three measurements per second
Operation mode:	Peak or Track
Strokes per minute:	Single stroke device. Automatic reset on each stroke
Power:	Standard 9V alkaline battery Approx. 30 hours of continuous use Has low battery indicator
Tons Display:	3 1/2 digit LED (0.56" high)
Loading surface-.	6.93 inches diameter
Dimensions:	9"L x 7.4"W. Height ground in matching sets to 7.0000" +/- 0.0005".
Weight:	80 lb.

AC-1000 SPECIFICATIONS

Capacity:	1000 tons
Threshold setting:	Reading begins at 3% of capacity (30 tons)
Resolution:	1 ton
Inaccuracy:	+/-0.5 % of Full Scale (F.S.)
Non-linearity:	+/-0.3% F.S.
Non-repeatability:	+/-0.l% F.S.
Temperature Range:	32 DEG. F. to 158 DEG. F. (0 DEG. C. to 70 DEG. C.)
Temperature Effect on F.S. output: on no-load output:	 +/-0.001% F.S./DEG. F. No effect (has auto- zero balance circuit)
Overload:	150% of capacity (1500 tons)
Sampling rate:	Three measurements per second
Operation mode:	Peak or Track
Strokes per minute:	Single stroke device. Automatic reset on each stroke
Power:	Standard 9V alkaline battery Approx. 30 hours of continuous use Has low battery indicator
Tons Display:	3 1/2 digit LED (0.56" high)
Loading surface-.	9.00 inches diameter
Dimensions:	11.3"L x 9.72"W. Height ground in matching sets to 9.0000" +/- 0.0005".
Weight:	150 lb.

AC-2K SPECIFICATIONS

Capacity:	2,000 pounds
Threshold setting:	Reading begins at 3% of capacity (60 lbs)
Resolution:	1 lbs
Inaccuracy:	+/-0.1 % of Full Scale (F.S.)
Non-linearity:	+/-0.05% F.S.
Non-repeatability:	+/-0.l% F.S.
Temperature Range:	32 DEG. F. to 158 DEG. F. (0 DEG. C. to 70 DEG. C.)
Temperature Effect on F.S. output: on no-load output:	 +/-0.001% F.S./DEG. F. No effect (has auto- zero balance circuit)
Overload:	150% of capacity (3,000 lbs)
Sampling rate:	Three measurements per second
Operation mode:	Peak or Track
Strokes per minute:	Single stroke device. Automatic reset on each stroke
Power:	Standard 9V alkaline battery Approx. 30 hours of continuous use Has low battery indicator
Tons Display:	3 1/2 digit LED (0.56" high)
Loading surface-.	3 inches diameter
Dimensions:	5.25"L x 5.21"W. Height ground in matching sets to 4.0000" +/- 0.0005".
Weight:	8 lb.

AC-10K SPECIFICATIONS

Capacity:	10,000 pounds
Threshold setting:	Reading begins at 3% of capacity (300 lbs)
Resolution:	10 lbs
Inaccuracy:	+/-0.5 % of Full Scale (F.S.)
Non-linearity:	+/-0.3% F.S.
Non-repeatability:	+/-0.l% F.S.
Temperature Range:	32 DEG. F. to 158 DEG. F. (0 DEG. C. to 70 DEG. C.)
Temperature Effect on F.S. output: on no-load output:	 +/-0.001% F.S./DEG. F. No effect (has auto- zero balance circuit)
Overload:	150% of capacity (15,000 lbs)
Sampling rate:	Three measurements per second
Operation mode:	Peak or Track
Strokes per minute:	Single stroke device. Automatic reset on each stroke
Power:	Standard 9V alkaline battery Approx. 30 hours of continuous use Has low battery indicator
Tons Display:	3 1/2 digit LED (0.56" high)
Loading surface-.	3 inches diameter
Dimensions:	5.25"L x 5.21"W. Height ground in matching sets to 4.0000" +/- 0.0005".
Weight:	9 lb.