

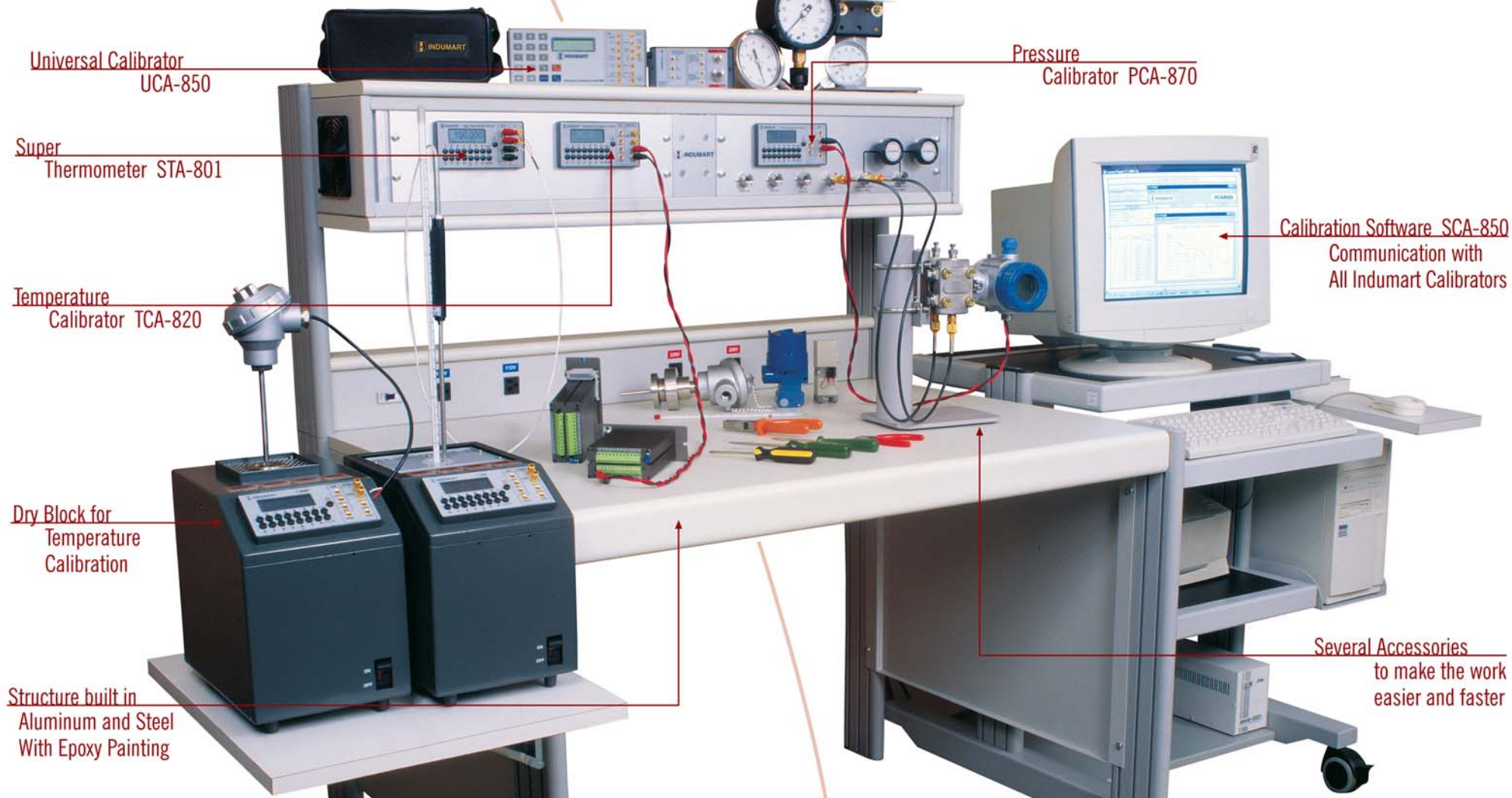
The Highest Level in Calibration Station

Computer-Aided Calibration Unit Concept



Top in Modern Metrology

Solutions for:
◆ Pressure ◆ Temperature ◆ Electrical Signals



Universal Calibrator
UCA-850

Pressure
Calibrator PCA-870

Super
Thermometer STA-801

Calibration Software SCA-850
Communication with
All Indumart Calibrators

Temperature
Calibrator TCA-820

Dry Block for
Temperature
Calibration

Several Accessories
to make the work
easier and faster

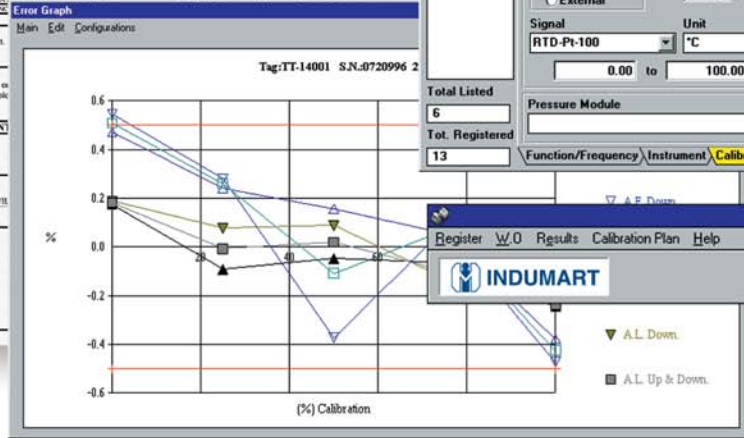
Structure built in
Aluminum and Steel
With Epoxy Painting

CALIBRATION REPORT		Page: 1																																																																																																																								
COMPANY: _____ INSTRUMENT: Transmitter SERIAL No.: 0720996 FUNCTION: Tank Temperature TAG: TT-14001 CALIBRATION FREQUENCY: 12 months AREA: Utility																																																																																																																										
TECHNICAL INFORMATION INSTRUMENT: PRESTYS MODEL: TC-2090 INPUT: RTD-Pt-100 OUTPUT: Voltage ACCURACY: ± 0.50% of Span																																																																																																																										
OPERATION CONDITION DOCUMENTS CALIBRATION: 0.00 to 100.00 (°C) TOLERANCE: ± 0.50% of Span PROCEDURE: P-1401																																																																																																																										
CALIBRATION AND ADJUST <table border="1"> <thead> <tr> <th>Calibration</th> <th>Reference</th> <th>AS FOUND</th> <th>Line</th> <th>Reading 1</th> <th>Reading 2</th> <th>SLIGHT</th> <th>Error</th> <th>Deviation</th> <th>Uncertainty</th> </tr> <tr> <th>(°C)</th> <th>(°C)</th> <th>(°C)</th> <th>(°C)</th> <th>(°C)</th> <th>(°C)</th> <th>(°C)</th> <th>(°C)</th> <th>(°C)</th> <th>(°C)</th> </tr> </thead> <tbody> <tr> <td>0.00</td> <td>0.000</td> <td>0.000</td> <td>0.00</td> <td>1.0000</td> <td>1.0000</td> <td>1.0000</td> <td>0.0000</td> <td>0.0000</td> <td>0.0017</td> </tr> <tr> <td>25.00</td> <td>2.000</td> <td>2.000</td> <td>0.24</td> <td>2.5000</td> <td>2.5012</td> <td>2.5010</td> <td>0.0010</td> <td>-0.0001</td> <td>0.0025</td> </tr> <tr> <td>50.00</td> <td>4.000</td> <td>4.000</td> <td>0.50</td> <td>4.0000</td> <td>4.0042</td> <td>4.0040</td> <td>0.0040</td> <td>-0.0040</td> <td>0.0052</td> </tr> <tr> <td>75.00</td> <td>6.000</td> <td>6.000</td> <td>0.86</td> <td>6.0000</td> <td>6.0077</td> <td>6.0075</td> <td>0.0075</td> <td>-0.0075</td> <td>0.0077</td> </tr> <tr> <td>100.00</td> <td>8.000</td> <td>8.000</td> <td>1.30</td> <td>8.0000</td> <td>8.0056</td> <td>8.0054</td> <td>0.0054</td> <td>-0.0054</td> <td>0.0076</td> </tr> <tr> <td>100.00</td> <td>8.000</td> <td>8.000</td> <td>-0.27</td> <td>8.0000</td> <td>7.9973</td> <td>7.9972</td> <td>-0.0028</td> <td>-0.0028</td> <td>0.0108</td> </tr> <tr> <td>75.00</td> <td>6.000</td> <td>6.000</td> <td>0.88</td> <td>6.0000</td> <td>6.0086</td> <td>6.0085</td> <td>0.0085</td> <td>-0.0085</td> <td>0.0107</td> </tr> <tr> <td>50.00</td> <td>4.000</td> <td>4.000</td> <td>-0.37</td> <td>4.0000</td> <td>3.9977</td> <td>3.9977</td> <td>-0.0023</td> <td>-0.0023</td> <td>0.0100</td> </tr> <tr> <td>25.00</td> <td>2.000</td> <td>2.000</td> <td>0.28</td> <td>2.0000</td> <td>2.0017</td> <td>2.0016</td> <td>0.0016</td> <td>-0.0016</td> <td>0.0107</td> </tr> <tr> <td>0.00</td> <td>0.000</td> <td>0.000</td> <td>0.28</td> <td>0.0000</td> <td>0.0017</td> <td>0.0016</td> <td>0.0016</td> <td>0.0016</td> <td>0.0107</td> </tr> </tbody> </table>			Calibration	Reference	AS FOUND	Line	Reading 1	Reading 2	SLIGHT	Error	Deviation	Uncertainty	(°C)	(°C)	(°C)	(°C)	(°C)	(°C)	(°C)	(°C)	(°C)	(°C)	0.00	0.000	0.000	0.00	1.0000	1.0000	1.0000	0.0000	0.0000	0.0017	25.00	2.000	2.000	0.24	2.5000	2.5012	2.5010	0.0010	-0.0001	0.0025	50.00	4.000	4.000	0.50	4.0000	4.0042	4.0040	0.0040	-0.0040	0.0052	75.00	6.000	6.000	0.86	6.0000	6.0077	6.0075	0.0075	-0.0075	0.0077	100.00	8.000	8.000	1.30	8.0000	8.0056	8.0054	0.0054	-0.0054	0.0076	100.00	8.000	8.000	-0.27	8.0000	7.9973	7.9972	-0.0028	-0.0028	0.0108	75.00	6.000	6.000	0.88	6.0000	6.0086	6.0085	0.0085	-0.0085	0.0107	50.00	4.000	4.000	-0.37	4.0000	3.9977	3.9977	-0.0023	-0.0023	0.0100	25.00	2.000	2.000	0.28	2.0000	2.0017	2.0016	0.0016	-0.0016	0.0107	0.00	0.000	0.000	0.28	0.0000	0.0017	0.0016	0.0016	0.0016	0.0107
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CALIBRATION CONDITIONS Location: _____ Max. Dev: 0.2179 Model: UC-504 Ser. Num.: P-0001 Cert. _____ Total Uncertainty of Standards: 0.0000 V COMMENTS: AS FOUND - Only one calibration point is ex AS LEFT - All calibration points within tol																																																																																																																										
MAIN Preventive 000-Instrument on normal conditions 2/5/996 Date																																																																																																																										

Tags		Serial Number	New
TT-14001	TT-14001	0690996	Cancel
LI-10000	Area		Delete
LI-10010	Utility		Close
PI-14001			
TE-14002			
TT-14001			

Calibration 1		Reference
<input checked="" type="radio"/> Enable	<input type="radio"/> Disable	Reading
Output	Output Voltage	<input checked="" type="radio"/> Presys Calib.
<input checked="" type="radio"/> Presys Calib.	0.00 (V)	<input type="radio"/> External
<input type="radio"/> External		Signal
Signal	Unit	Voltage
RTD-Pt-100	°C	1.0000 to 5.0000
0.00 to 100.00		

Total Listed	Pressure Module	Ref. Temp. Table
6		ITS-90 (°C)
Tot. Registered		<input checked="" type="checkbox"/> Save Amb. Temperature
13		



Register		W/O	Results	Calibration Plan	Help

Calibration Software

SCA-850

SCA-850 Calibration Software was developed to automatize and manage instrument calibration processes together with INDUMART calibrators:

- Allows the registration of instruments and sensors, calibration standards and factory areas and also the choice of engineering units and signal type to be used in calibrations.
- Brings more efficiency to the organization of calibrations through work order concepts.
- Prints calibration reports and certificates, as well as error graphics and calibration history.
- Sends and receives calibrator information by means of serial communication.
- Runs in Windows™ and it is easily operated.

SCA-850 makes possible the Documenting Calibration System accomplishment by means of information shared with INDUMART calibrators, allowing data handling through report and certificate issues, automatic management of tasks, registration of process instruments and sensors, organization and storage of data for an overall coverage of quality procedure requirements, specially those related to ISO 9000. SCA-850 allows the specification of work orders with calibration strategies of several instruments to be calibrated. Through its instructions, the calibrators perform the correct sequence for the calibration of all points and, when it is necessary, organize the data input to be provided by the operator. In the field, the calibrators have sufficient autonomy to inform the operator of the measures already carried out and the deviations found during the calibration process.



Universal Calibrator UCA-850

- Measures and generates mA, mV, volts, Ohms, RTD, TC and Hz signals.
- Runs input and output operations simultaneously.
- Compact, portable, operates with batteries (rechargeable batteries, charger, carrying case included).

Pressure Calibration Center PCC-5070

- Complete set for pressure calibration, including calibrator, regulator valves, multi-way valve and connection block, assembled in a handy high resistant plastic box.



Temperature Calibrator TCA-820

- Measures and generates mV, TC, Ohms and RTD, besides measuring mA.
- Special function for transmitters calibration. It converts mA reading into the transmitter temperature input range.

Pressure Calibrator PCA-870

- Ranges from 10" H₂O to 3000 psi of gage or absolute pressure, including vacuum and differential pressure between any pair of sensors.
 - Up to 4 pressure sensors.
 - Accuracy of 0.05% of reading.



Dry Blocks for Temperature Calibration

- T-25N model generates temperatures from -25°C to +125°C, models T-350P and T-650P generate from ambient temperature to 350°C and 650°C.
- Accuracy up to ±0.1°C, 0.01°C resolution.
- Accomplish fully automatic calibrations with or without the use of a computer.



Loop Calibrator LCA-860

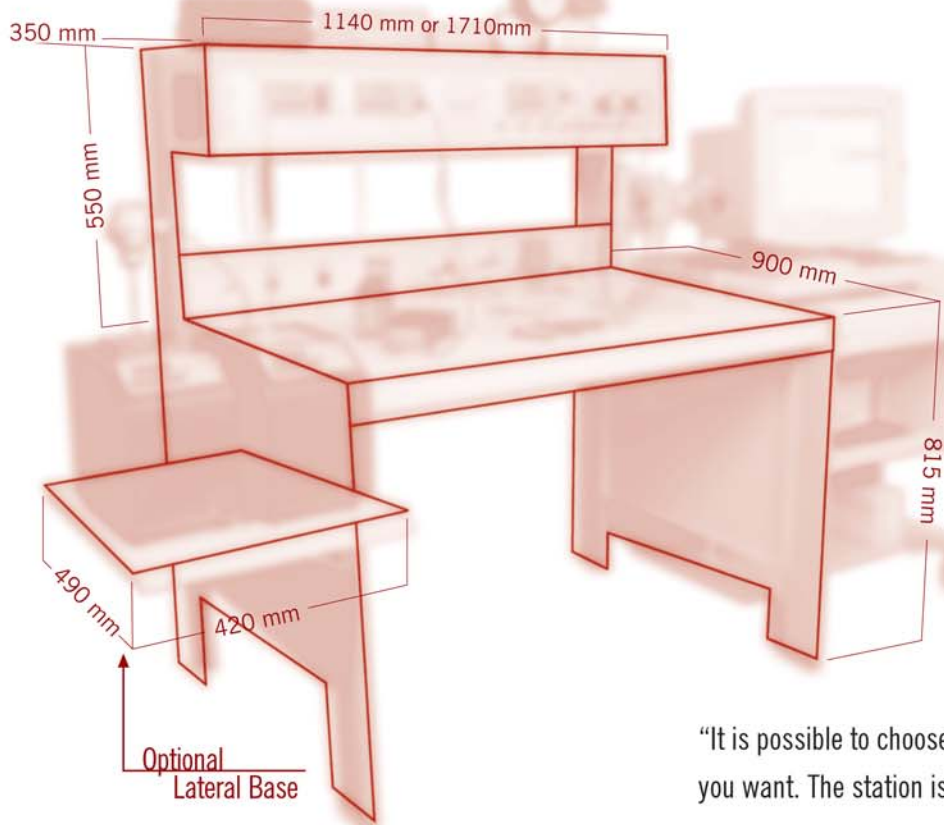
- Measures and generates standard linear signals for current and voltage loops.
- Special function for transmitter calibration. It converts any input signal into any output signal.



Super Thermometer STA-810

- Standard thermometer, 0.001°C resolution.
 - Uses standard platinum resistance or thermocouple as temperature sensor.
 - Accepts CVD, IPTS-68 and ITS-90 coefficients.

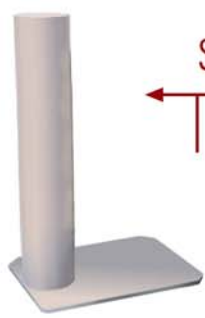




Dimensions and Configurations

“It is possible to choose any available calibrator and to place it anywhere you want. The station is made to meet the customer needs”.

Available Accessories



Support for Transmitters or Converters in General

- Made of base and 2-inch tube includes holders and assembly board.



Manifold for Gages

- Makes easy the handling of gages and pressure-switches.
- Several types of connections available.



Tubes and Connections

- Developed to eliminate the use of tools and sealing tape, thus amazingly speeding the work.
- Long life, accepts up to 6000 psi.



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