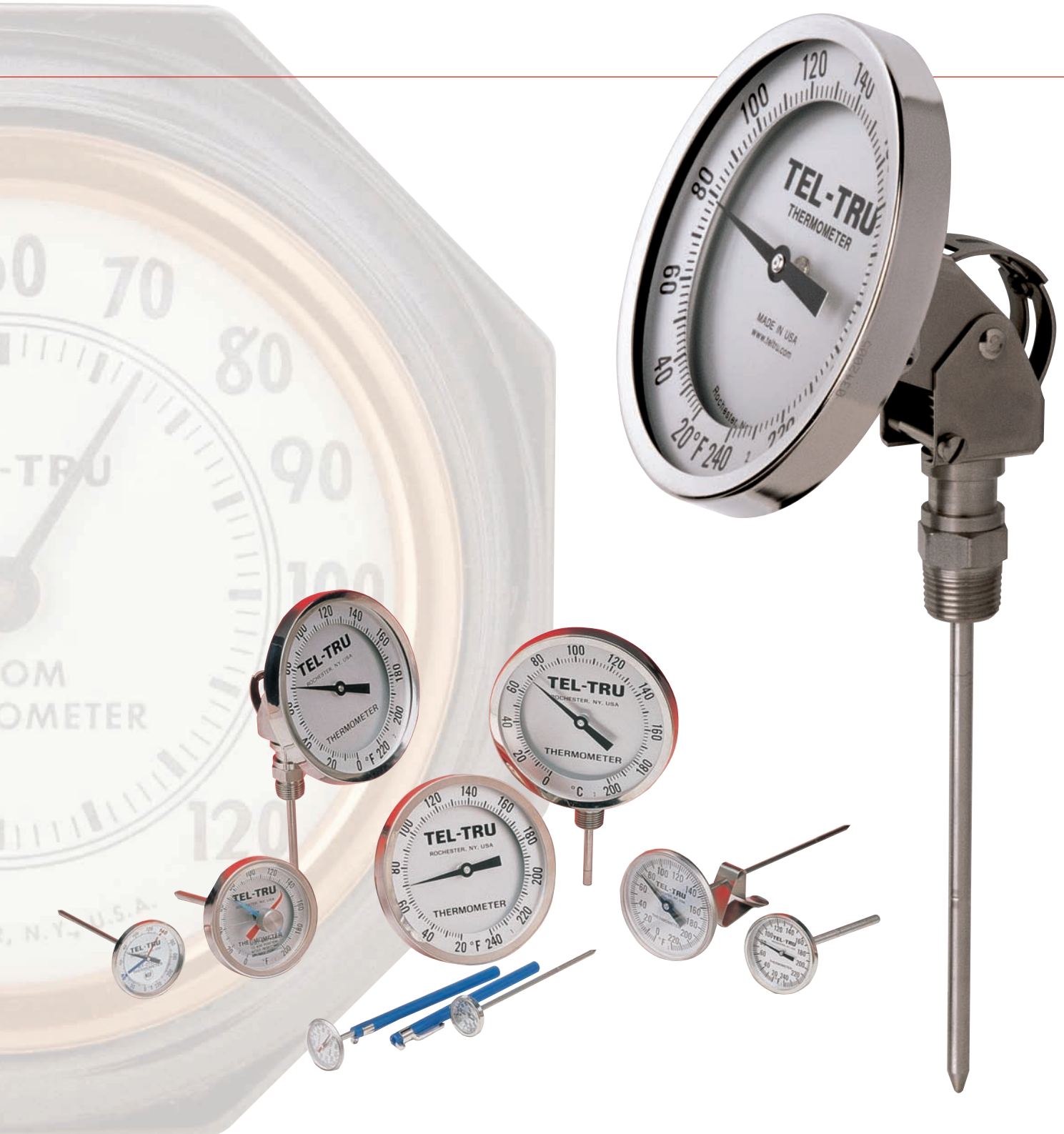




TEL-TRU MANUFACTURING COMPANY BIMETAL THERMOMETERS



Temperature + Pressure

Since
1916

www.teltru.com



Tel-Tru Manufacturing Company

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► **RECOMMENDATIONS FOR CHECKING THE CALIBRATION OF BIMETAL THERMOMETERS:**

Use of a **MASTER THERMOMETER**, at least as accurate as a bimetal thermometer, is recommended for making comparisons. For best results, use a **precision ASTM** type mercury-in-glass thermometer certified directly traceable to NIST.

Immersion of the bimetal thermometer stem into the medium must be at least up to the groove on the stem to **assure that the entire bimetal coil is immersed**.

- In some short stem Tel-Tru industrial thermometers the groove may be hidden by the threaded connection; the entire stem and thread should be immersed in this case.

CALIBRATION TEST EQUIPMENT CONSIDERATIONS:

Check the stability and accuracy specifications of this instrumentation, and cross-check the read-outs with NIST traceable mercury in glass thermometers. Make certain the test instrument is stabilized at the reading point as initial insertion of thermometer stem into bath/dry block can sometimes have a short-term affect on test device stability.

- Take reading of Bimetal Thermometer when the pointer has stabilized and stopped moving. Typical immersion time may vary from approximately 1 to 3 minutes depending on type of thermometer, temperature point and calibration test equipment used.

Use of a laboratory grade **CONSTANT TEMPERATURE BATH**, with **agitation** to provide uniform temperature throughout, is recommended.

- Controls and read-out (if provided) should be properly calibrated and at least as accurate as the bimetal thermometer being tested.
- Confirm upper and lower limits of bath operating range as accuracy and stability may not be as consistent at those points.

If using a **DRY BLOCK** calibration device consider:

- The hole into which thermometer is inserted should allow for minimal air space around stem.
- The temperature profile of the “hole” may affect the reading of the tested bimetal thermometer— if the heat source is only at the bottom of hole or is not uniform over the length of the bimetal coil. This is compounded with short stem thermometers.

Tel-Tru Check-Set® Temperature Calibrators are recommended for verification of thermometer accuracy in food safety and food service **HACCP** (Hazardous Analysis Critical Control Points) programs.

★ Please call, fax or e-mail Tel-Tru if you have any questions, require review of process or need assistance. ★

► **EIGHT YEAR WARRANTY**

There is no better guarantee of quality bimetallic dial thermometers than the name Tel-Tru Manufacturing Company. And now, no guarantee lasts longer. Tel-Tru models AA375R, AA475R, AA575R, BC350R, BC450R, BC550R, GT300R, GT400R, and GT500R carry an EIGHT YEAR guarantee. It's simple! If the thermometer covered fails and you have not misused your Tel-Tru Thermometer, simply call us at 1-800-232-5335. We warrant certain designated instruments (AA375R, AA475R, AA575R, BC350R, BC450R, BC550R, GT300R, GT400R, and GT500R) manufactured and sold by us to be free from defects in material and workmanship under normal use and service. This warranty shall be null and void if the thermometer is exposed or subjected to: (1) corrosive chemicals, either environmentally or through manufacturing processes; (2) temperatures in excess of the rated over-temperature limit; or (3) any application which subjects the thermometer to excessive vibration or causes violation of the stem or case enclosure. Our obligation under this warranty shall be limited to the repair or exchange of any thermometer which shall be returned to our factory, transportation charges prepaid, within eight (8) years of the date of purchase, and which our examination shall disclose to be defective due to workmanship or material. This warranty is expressly in lieu of all other warranties expressed or implied (including any warranty of merchantability and fitness for a particular purpose), and of all other obligations or liabilities on our part for damages, including but not limited to consequential damages, arising out of the use or misuse of this thermometer, and we neither assume, or authorize any other person to assume for use, any other liability in connection with the sale of this thermometer or any part thereof. Warranty on all other models is one year under the same conditions as noted above.

How to Order

► HOW TO ORDER:

EXAMPLE

MODEL CODE	STEM LENGTH	RANGE
3410	04	59

- 1) Model Code _____
- 2) Connection Size and Thread Type _____
- 3) Stem Length _____
- 4) Temperature Range _____
- 5) *State Options and Accessories When Required – See Standard Features and Options Table*

► MODEL CODES, CONNECTIONS SIZE AND THREAD TYPE

.250" Diameter Stems– Industrial					
Dial Size	Model	NPT	Lens	Con. Loc.	CODE
2" (51mm)	LN250	1/4"	Glass	Back	3110
	LN250R	1/4"	Glass	Back	3210
3" (80mm)	GT300	1/2"	Glass	Back	3310
	GT300R	1/2"	Glass	Back	3410
	MX325R	1/2"	Glass	Back	3610
	MM325R	1/2"	Glass	Back	5010
	BC350R	1/2"	Glass	Bottom	3910
	AA375R	1/2"	Glass	Adjustable	4110
4" (100mm)	GT400	1/2"	Glass	Back	4510
	GT400R	1/2"	Glass	Back	4810
	BC450R	1/2"	Glass	Bottom	4610
	AA475R	1/2"	Glass	Adjustable	4710
5" (128mm)	GT500	1/2"	Glass	Back	3710
	GT500R	1/2"	Glass	Back	3810
	MX525R	1/2"	Glass	Back	5310
	MM525R	1/2"	Glass	Back	5410
	BC550R	1/2"	Glass	Bottom	4010
	AA575R	1/2"	Glass	Adjustable	4210

.150" Diameter Stems– Industrial					
Dial Size	Model	NPT	Lens	Con. Loc.	CODE
1 3/4" (44mm)	GT200	1/8"	Glass	Back	1910
	GT200	1/4"	Glass	Back	2010
2" (51mm)	GT225	1/8"	Glass	Back	4910
	GT225	1/4"	Glass	Back	491A

.150" Diameter Stems– Pocket/Laboratory					
Dial Size	Model	NPT	Lens	Con. Loc.	CODE
1" (25mm)	PT50R	N/A	Plycrb.	Back	1210
	PT50	N/A	Plycrb.	Back	1110
	AD10R	N/A	Plycrb.	Back	1219
1 3/8" (36mm)	AD44R	N/A	Plycrb.	Back	4419
1 3/4" (44mm)	MT39	N/A	Glass	Back	1310
	MT39R	N/A	Glass	Back	1410
	GT100R	N/A	Glass	Back	1610
2" (51mm)	LT225R	N/A	Glass	Back	2310
	LT225	N/A	Glass	Back	2210
3" (80mm)	LT325R	N/A	Glass	Back	2410

► STEM LENGTHS

Stem Lengths	Code
-2 1/2" (63mm)	02
4" (100mm)	04
* 5" (128mm)	05
6" (152mm)	06
* 8" (203mm)	08
9" (229mm)	09
12" (305mm)	12
15" (381mm)	15
18" (457mm)	18
24" (610mm)	24

* Laboratory and test thermometers .150" only

► STANDARD TEMPERATURE RANGES

Fahrenheit	Code
-100/100	51
-50/120	52
-40/160	53
0/140	54
0/180	55
0/200	50
0/220	56
0/250	67
0/300	57
0/500	58
20/240	59
25/125	60
50/250	61
50/300	62
50/400	63
50/500	64
50/550	68
100/800	44
150/750	65
200/1000	66

Celsius	Code
-75/175	87
-70/70	EA
-50/100	71
-50/25	72
-50/50	73
-40/70	84
-20/120	86
-10/110	74
0/50	75
0/60	95
0/80	EI
0/100	76
0/150	77
0/200	78
0/250	79
0/300	80
0/400	81
0/450	90
100/400	82
100/550	83

DUAL RANGES

Fahrenheit	Celsius	Code
-100/100	-75/40	01
-40/160	-40/70	02
0/140	-18/60	13
0/180	-18/82	03
0/220	-10/100	04
0/250	-20/120	14
20/240	-10/110	05
25/125	0/50	06
50/300	10/150	07
50/400	0/200	08
50/500	0/250	09
150/750	50/400	10
200/1000	100/550	11

Availability of temperature ranges varies by model. Dial size must be 1-3/8" or larger.