

# DEPTH CALIBRATION PROCEDURE: COMBI AND COMBI HI-RESOLUTION GAGES

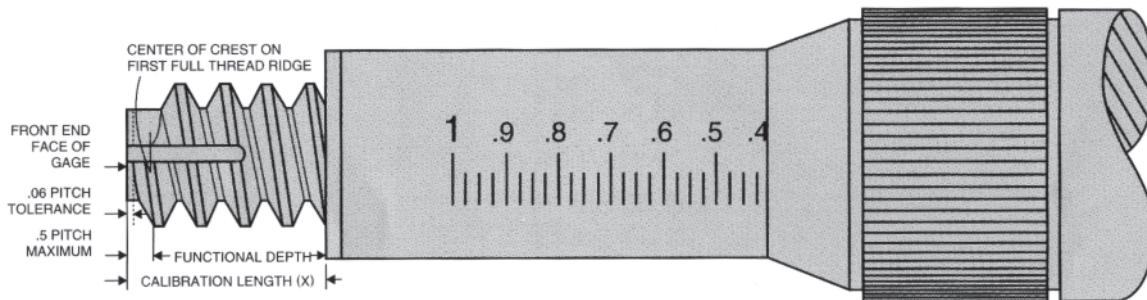
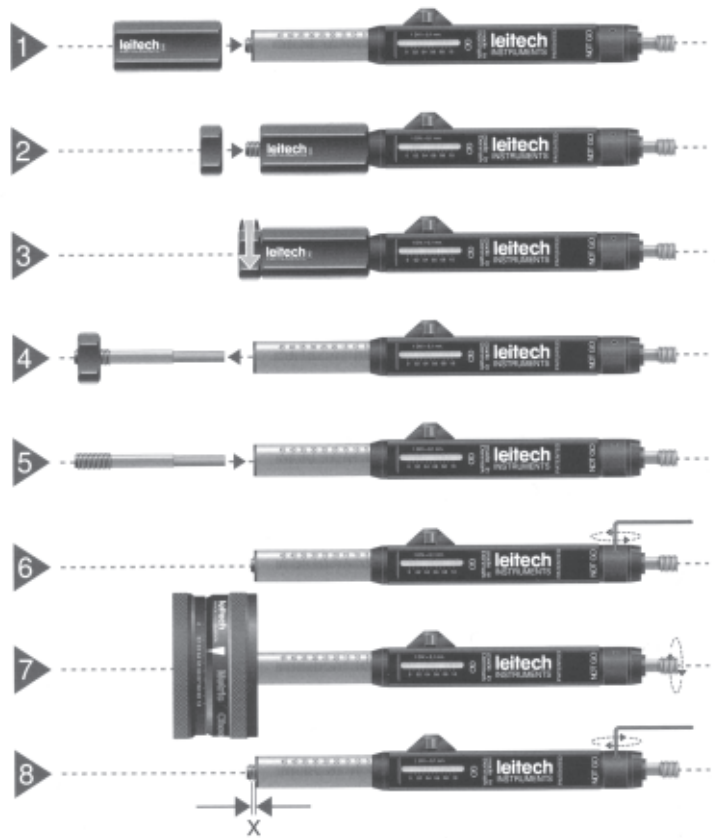
leitech COMBI gage members are made to a special taperlock design, and are easily changed with **COMBI Member Removal Sleeves**, a **COMBI Calibration Master**, and a nut of the correct size (*available from customer inventories*).

1. Slide the **Member Removal Sleeve** over the gage member to be replaced. (Green/GO & Red/NOT GO)
2. Thread the nut (supplied by the user) on to the gage member.
3. Tighten the nut against the **Member Removal Sleeve**.
4. Wrench the gage member from the handle.
5. Insert the new gage member. Tap against a soft surface to seat the gage member into the handle.
6. Loosen the two locking screws on the handle with an allen wrench.
7. Dial the pitch on the **Calibration Master**. Place the GO end of the gage into the appropriate size hole. Grasp and turn the NOT GO member and line up the **COMBI** gage measuring scale at the .400" (inch) or 10.00 mm (metric) line.

(As an alternative, assemble a gage block stack corresponding to the calibration length (X) in the chart below. In this procedure, the face of the measuring sleeve should rest on the block stack and the face of the GO member should rest on a reference plane.)

8. Re-tighten the locking screws finger tight. The **COMBI** gage is now set at the correct calibration length (X) for accurate functional thread depth measurement.

**Note:** The measuring sleeve is set a few threads back from the face of the GO member to permit easier entry into the product thread.



INCH		METRIC	
PITCH	CALIBRATION LENGTH (X)	PITCH	CALIBRATION LENGTH (X)
64	.408 in.	0,00 mm	10,00 mm
56	.409 in.	0,20 mm	10,10 mm
48	.410 in.	0,30 mm	10,15 mm
44	.411 in.	0,40 mm	10,20 mm
40	.412 in.	0,45 mm	10,22 mm
36	.414 in.	0,50 mm	10,25 mm
32	.416 in.	0,60 mm	10,30 mm
28	.418 in.	0,70 mm	10,35 mm
24	.421 in.	0,75 mm	10,38 mm
20	.425 in.	0,80 mm	10,40 mm
18	.428 in.	0,90 mm	10,45 mm
16	.431 in.	1,00 mm	10,50 mm
14	.436 in.	1,25 mm	10,62 mm
13	.438 in.	1,50 mm	10,75 mm
12	.442 in.	1,75 mm	10,88 mm
11	.445 in.	2,00 mm	11,00 mm
10	.450 in.	2,50 mm	11,25 mm
9	.456 in.	3,00 mm	11,50 mm
8	.463 in.		

Values from the table are calculated by the formula:

$$\text{Inch calibration length (X)} = .400 \text{ in.} + \left[ .50 \times \frac{1}{\text{pitch}} \right]$$

$$\text{Metric calibration length (X)} = 10,0 \text{ mm.} + [.50 \times \text{pitch}]$$

This method will provide conformance to FED-STD-H28, Sec.6A. The crest of the first full thread of all Leitech GO thread members is held to a 0.5 pitch, plus 0 minus .06 pitch tolerance from the front face of the thread member.