

PCE-TG 250 / Manual



TECHNICAL DATA

DISPLAY	128X64 PIXEL LCD WITH BACK LIGHT
MEASUREMENT RANGE	
- STANDARD	1.0 mm TO 250 mm IN STEEL DEPENDING OF THE PROBE
- THROUGH COATING	4 mm – 18 mm
TOLERANCE	+/-0.02 mm IN STEEL
DISPLAY RESOLUTION	0.01 mm (Less than 100.0 mm) 0.1 mm (over 100 mm)
BUILT-IN STANDARD BLOCK	4.00 mm
VELOCITY RANGE	1000-9999 m/s
POWER	2 EA. 1.2 V AA BATTERY
OUTSIDE DIMENSION	149X73X32 mm
WEIGHT	350 g

FEATURES:

AUTOMATIC SELF CALIBRATION
COUPLANT INDICATOR
AUTOMATIC POWER OFF DEVICE
HIGH-LOW LIMIT ALARM
LCD BRIGHTNESS ADJUST
THROUGH COATING CAPABILITY
THROUGH COATING MEASUREMENT
500 DATA READING STORAGE WITH DIFFERENT 5 MEMORY FILES
LOW BATTERY INDICATOR


INTRODUCTION OF THE GAUGE



OPERATING PROCEDURE


STANDARD MODE:

1. INSTRUMENT AND PROBE

PLUG THE PROBE TO THE THICKNESS GAUGE CONNECOTR. PRESS  KEY, HEAR BI-BI SOUND THEN LCD DISPLAY TURN ON AND DISPLAY THE LAST SET VERLOCITY. DISPLAY AS FOLLOWING



THICKNESS GAUGE SYSTEM SETTING SYSTEM SETUP

PRESS GAUGE  KEY TURN ON THE GAUGE, LCD WILL DISPLAY





PRESS MENU KEY 2 TIME. THEN PRESS ENTER KEY , DISPLAY FOLLOWING

System	Setup
Function	Setup
Outside	alarm
[enter] to	select
↓to down	

PRESSS ENTER KEY  AGAIN, DISPLAY FOLLOWING SCREEN

Units	METRICS	(CAN PRESS  SELECT INCH OR METRICS UNIT)
Resolution	HIGH	(HIGH=HIGH RESOLUTION DISPLAY 0.01 mm)
Min Capture	ON	(CAPTURE MIN MEASUREMENT THICKNESS)
2-Point CAL	OFF	(OFF=SINGLE POINT AND ON=2-POINT CAL)
LANGUAGE	ENGLISH	
↓to down		

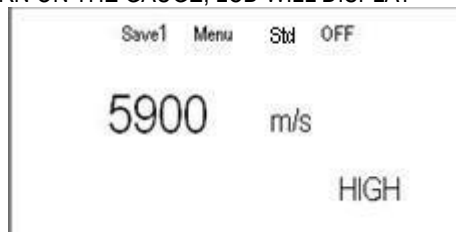
USE   KEY MOVE HIGH-LIGHT CURSOR UP AND DOWN. USE ENTER KEY TO CHANGE THE SETTING

AFTER SETTING COMPLETED, PRESS MENU KEY 2 TIMES BACK TO THE MEASUREMENT FUNCTION



FUNCTION SETUP

PRESS GAUGE  KEY TURN ON THE GAUGE, LCD WILL DISPLAY



PRESS  ENTER 2-TIMES, PRESS  ENTRY KEY, USE  KEY MOVE HIGH LIGHT

CURSOR TO **FUNCTION SETTING**, PRESS  THEN USE  KEY MOVE HIGH-LIGHT CURSOR DOWN TO THE FOLLOWING DISPLAY

Erase file
Erase all data
Erase cal data
[ENTER] to select

UP AND DOWN LIMIT ALARM SETTING

PRESS GAUGE  KEY TURN ON THE GAUGE, LCD WILL DISPLAY



PRESS MENU KEY 2 TIME. PRESS   KEY UNTIL HIGH-LIGHT CURSOR MOVE TO THE OUTSIDE ALARM, THEN PRESS ENTER KEY, DISPLAY FOLLOWING

USE   KEY TO ADJUST THE LOW LIMIT THICKNESS,



THEN PRESS ENTER TO SET HIGH LIMIT THICKNESS



AFTER SETTING, PRESS MENU 2-TIMES BACK TO THE MEASUREMENT FUNCTION. WHEN THICKNESS MEASUREMENT OVER THE RANGE 0.10 mm – 200.0 mm, THE THICKNESS GAUGE BEGINS TO ALARM.



2. VELOCITY SETTING

IF USER ALREADY KNOWS THE MATERIAL VELOCITY. USER CAN USE MANUAL ADJUST THE VELOCITY FROM REFERENCE CHART. THE GAUGE CAN STORE 5 DIFFERENT MATERIAL VELOCITY

IF THE DISPLAY VELOCITY IS NOT REQUIRED, THEN PRESS VEL  KEY SELECT THE VELOCITY

FROM MEMORY, THEN PRESS ENTER  KEY.


IF THE 5 STORED VEL ARE NOT THE TEST MATERIAL VEL. THEN USE

  KEY ADJUST THE VEL DISPLAY UNTIL MEET REQUIRED VEL. THEN USER CAN PRESS ENTER KEY STORE THIS VEL FOR MEASUREMENT THE SAME MATERIAL NEXT TIME


IF THE VEL IS UNKNOWN, USE THE TOOL MEASUREMENT THE TEST SPECIMEN THICKNESS. PUT

PROBE ON THE SPECIMEN. USE   KEY ADJUST THE THICKNESS DISPLAY SAME AS TOOL MEASUREMENT.

PRESS VEL TO GET DISPLAY OF SPECIMEN VEL AND STORE THE VEL TO THE MEMORY.

PRESS VEL  KEY ENTER VEL SETTING



PRESS VEL  KEY AGAIN TO SELECT THE 2ND STORED VEL



USE   KEY ADJUST THE VEL DISPLAY UNTIL MEET REQUIRED VEL



3. INSTRUMENT CALIBRATION

IT'S NECESSARY TO CALIBRATE WHEN CHANGE THE PROBE OR TURN ON THE INSTRUMENT. DURING THE OPERATING, OPERATOR NEEDED FREQUENCY RETURN BACK AND CALIBRATION AGAIN.

SINGLE POINT CALIBRATION

SET THE VEL TO 5900 m/s, PUT SOME COUPLANT TO THE GAUGE SIDE BLOCK. PRESS THE




PROBE TO THE BLOCK, WAIT UNTIL COUPLANT INDICATOR NOT FLASH. PRESS CAL KEY, THE DISPLAY WILL SHOW 4.00 mm.



TWO POINT CALIBRATION

TO GET MORE PRECISION MEASUREMENT, TWO POINT CALIBRATION IS NECESSARY

GET A STEP BLOCK (AT LEAST TWO DIFFERENT THICKNESS AND COVER THE MEASUREMENT RANGE.

PRESS MENU TWO TIME UNTIL CURSOR TO THE MENU PRESS ENTER  ENTER THE SYSTEM SETTING MENU AS FOLLOWING

System	Setup
Function	Setup
Outside alarm	
[enter] to select	
↓to down	

PRESS  TO System Setup, then press  key



PRESS  KEY UNTIL DISPLY HIGH LIGHT AS FOLLOWING


Resolution: HIGH
Min Captyre: OFF
2-Point CAL: OFF


[enter] to select
↑TO UP ↓to down

PRESS ENTER  KEY CHNANGE THE 2-POINT CAL: OFF INTO ON


Resolution: HIGH
Min Captyre: OFF
2-Point CAL: ON

[enter] to select
↑TO UP ↓to down



PRESS MANUAL BACK , THEN PRESS  KEY AGAIN TO THE DISPLAY SCREEN.

PUT COUNPLAT ON THIN BLOCK, MOVE THE PROBE ON THE THIN BLOCK. PRESS  CAL KEY, DISPLAY SHOWTHE THIN BLOCK THICKNESS.



USE   KEY TO ADJUST THE THIN THICKNESS DISPLAY UNTIL MEET BLCOK THICKNESS VALUE. THEN PRESS CAL KEY AGAIN. DISPLAY



USE   KEY TO ADJUST THE THICK THICKNESS DISPLAY UNTIL MEET BLOCOK THICKNESS VALUE. THEN PRESS CAL KEY AGAIN. COMPLETE THE 2-PINT CALIBRATION SETUP.

4. THICKNESS MEASUREMENT

AFTER CALIBRATE AND SETUP THE THICKNESS GAUEG, PUT SOME COUPLANT ON THE TEST SPECIMEN. MOVE AND PRESS THE PROBE ON THE SPECIMEN, LCD NOW DISPLAY THE ACTUAL THICKNESS MEASUREMENT READING.



WHEN PROBE AND TEST SPECIMEN COUPLANT IS GOOD, THE DISPLAY WILL SHOW COUPLANT GOOD INDICATOR. WHEN LIFT-OFF THE PROBE THE THICKNESS DISPLAY NO CHANGE BUT COUPLANT INDICTOR DISAPPEAR.

5. LOW BATTERY INDICATOR

WHEN THICKNESS GAUGE POWER WAS NOT ENOUGH, THE LOW BATTERY INDICATOR WILL DISPLAY ON THE LEFT BOTTOM ON DISPLAY LCD.



6. TURN POWER OFF THE THICKNESS GAUGE

UM-2D HAVE 2 WAYS TO TURN OFF THE POWER.

6.1 AUTO TURN OFF

- IF THE THICKNESS GAUGE WAIT 3 MIN NOT MEASUREMENT, THE THICKNESS GAUGE WILL TURN-OFF AUTOMATICALLY

6.2 MANUAL TURN OFF


- PRESS MENU UNTIL HIGH LIGHT TO OFF INDICATOR, PRESS  KEY TO TURN OFF THE THICKNESS GAUGE

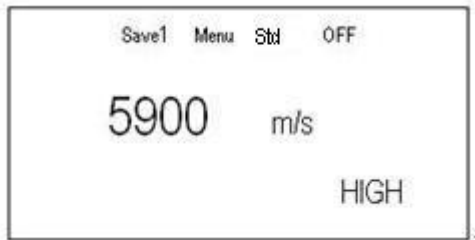
7. THICKNESS DATA STORAGE AND RECALL


7.1 THICKNESS DATA STORAGE


THE THICKNESS DATA CAN BE STORGED WITH 5 DIFFERENT FILE NAME. EACH FILE NAME CAN

STORGED 100 READING.

PRESS  KEY, MOVE DISPLAY LCD HIGH LIGHT CUSOR TO SAVE1.

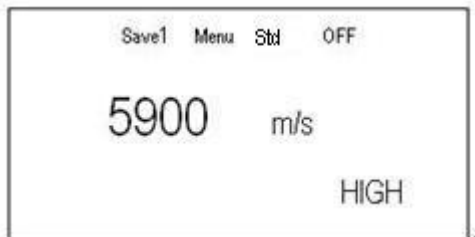



PRESS  KEY CAN SELECT SAVE1, SAVE2,SAVE3, SAVE4, SAVE 5 FILE NAME


PUT PROBE ON THE SPECIMEN GET READING1, PRESS  KEY. THE LEFT BOTTOM SIDE WILL SHOW MEMORY, THIS MEAN, THE READING 1 ALREADY STORGED IN THE FILE 1. CONTINOUS TO DO THE STORGAGE OF READING 2.3.4.....

7.2 THCINESS DATA RECALL

PRESS  KEY, MOVE DISPLAY LCD HIGH LIGHT CUSOR TO SAVE1.





PRESS  KEY CAN SELECT SAVE1, SAVE2,SAVE3, SAVE4, SAVE 5 FILE NAME

PRESS  KEY. THE LCD DISPLAY



No.001 IS THE FILE NAME

Total: 005 MEANS FILE NAME No 1 HAVE 5 STORAGE DATA, USE   KEY TO CHANGE THE POINT READING


DELIETE

DELIEETE THE SINGLE POINT READING

ENTER THE RECALL CONDITION

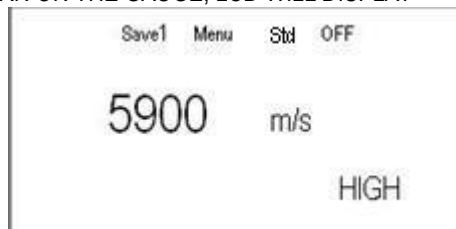


USE   KEY TO CHANGE THE POINT READING, SELECT THE POINT WANT TO DELIETE.


PRESS  KEY, DELIETE THIS POINT.

DELIETE THE WHOLE FILE

PRESS GAUGE  KEY TURN ON THE GAUGE, LCD WILL DISPLAY



PRESS  ENTER 2-TIMES, PRESS  ENTRY KEY, USE  KEY MOVE HIGH LIGHT

CURSOR TO **FUNCTION SETTING**, PRESS  THEN USE  KEY MOVE HIGH-LIGHT CURSOR DOWN TO THE FOLLOWING SCREEN.

Erase file

Erase all data

Erase cal data

[ENTER] to select

PRESS , THE SCREEN DISPLAY



Press [ENTER]
To confirm

Press [MENU]
to cacle

AFTER PRESS  KEY, IT WILL SHOW ERASE FILE 1

8. BACK LIGHT

INSTRUMENT OFFER LCD BACK-LIGHT DEVICE FOR DARK AREA READING.

PRESS  KEY TURN ON THE LCD BACK LIGHT. PRESS AGAIN  KEY CAN TURN OFF THE BACK LIGHT

THROUGH COATING MODE

UM-2D CAN MEASUREMENT THE THICKNESS WITHOUT MOVE THE COATING.

PRESS  KEY TURN ON THE GAUGE.

PRESS  KEY MOVE THE HIGH LIGHT CURSOR TO Std. PRESS  KEY TO CHANGE INTO Coat. NOW THE GAUGE UNDER THOUGH COATING MEASUREMENT MODE



PUT A SHIM ON THE 4 mm CALIBRATION BLOCK. PUT COUPLANT AND PROBE. PRESS THE  KEY, CALIBRATED THE GAUGE DISPLAY TO 4.00 mm



THE REST OPERATING PROCEDURE ARE SAME AS THE STD MODE.