

사용설명서

EDDY-CURRENT COATING THICKNESS TESTER

DX-100



SECHANG INSTRUMENTS

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1.

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1-1 (4) (5)

1-2 (6)

1-3 (7) (13)

1-5 (14)

1-6 (15) (20)

1-7

1-8

(1)

1-1

DERMESS	V-A 4.	1-3
model	DX-100	
'96YR., 01MD., 30DT., 13HR, 30M		
ELEC FINE INSTRUMENTS CO., LTD.		

5

(1) (3)

(2)

1-2

DERMESS	V-A 4.	1-3
model	DX-100	
'96YR., 01MD., 30DT., 13HR, 30M		
CHECK ROM, RAM, OSC, E1, E2, MAND OUT E.		

5

. 5

가

(3)

1-3

CHECK	OK	
'96YR., 01MD., 30DT., 13HR, 30M		

(4)

2-1

CH / S / UT / COAT / BASE / PROBE / VD / MM / C / NUB
1
2
ENTER NUMBER
Scrawling

2-1

ENTER/YES

(5)

A

CH / S / UT / COAT / BASE / PROBE / VD / MM / C / NUB
1
CH / TYPE / MN. STATS MAJ. / L LIMIT U VD / NUB
ENTER NUMBER

B

TUNING	/ YR	MD	DT
CALIBRATION	/ YR MD	DT	
S SCALE	-		um
AUTO DI	-		um
CO. NAME			
PARTS NBR			LOT NBR
DATE	/ YR	MD	DT
DATA			

2-2 [A]

, [B]

ENTER/YES

(6)

1: MEASURE	2: ITEM	3: CAL
4: COPY	5: TUNING	6: DATA INPUT
7: SIMPLE CAL	8: BASE CORRECT	9: PATTERN
SELECT NUMBER		

3-1

2 ENTER/YES

ITEM

ITEM

ERROR가

(7)

1: EDDY CURRENT (E)
2: ELECTROMAGNET (M)
3: NICKEL (N)
ENTER NUMBER OF SYSTEM
LAST:

4-1

ENTER/YES

4-1

(8)

4-2

1: mm	2: um	3: um	4:	5: ml
6: uIN				
ENTER THE NUMBER OF UNIT			LAST:	

4-2

ENTER/YES

ENTER/YES

(9)

4-3

1: Zn	2: Sn	3: Cu	4: Agl
5: Cr	6: Al	7: Ni	8: Cl
9: Fe	10: Mo	11: SnPb	12: NC
ENTER THE NUMBER OF COSY			LAST:

4-3

ENTER/YES

ENTER/YES

(10) ()

4-4

1: Cu	2: Fe	3: Al	4: Mg
5: Ti	6: An	7: BR	8: SUS
9: MoFe	10: NC	11: NF	
ENTER THE NUMBER OF BASE			LAST:

4-4 () ENTER/YES
ENTER/YES
()

(11)

4-5

1: MP	2: SP	3: RP	4: SM
5: SR	6: TSM	7: TP	8: uP
ENTER NUMBER OF PROBE		LAST:	

4-5 ENTER/YES
ENTER/YES

(12)

4-6

1: A	2: B	3: C	4: D
ENTER THE NUMBER OF PROBE		RANGE	LAST:

4-6 ENTER/YES
ENTER/YES

(13)

4-7

1: S	um	2: S	um
3: S	um		
A: PRINT OUT CAL. CURVE.		B: MAKE USER CURVE.	
SELECT ONE		LAST:	

4-7
ENTER/YES
ENTER/YES

(14)

5-1

CH	S	UT	COAT/BASE	PROBE	VD	MM	C	NUB
1	E	mi1	Zn / Fe	MP-D	MCP	S	0	
PLACE PROBE ON TUNING COPPER AND PRESS "ENTER".								

5-1

ENTER/YES

가

가

가

, LCD

PROBE ERROR

5-2

1: REPLACE PROBE
2: RETURN TO "HOME"
TUNING IS NOT AVAILABLE

5-2

5-3

5-3

6-2
ENTER/YES .
ENTER/YES .
. .
0 .

(17)

6-3

CH	S	UT	COAT/ BASE	PROBE	VD	MM	C	NUB
PLACE PROBE ON AND PRESS "ENTER".								

6-3 ENTER/YES
. 가 4 5 .
가 가 .

(18)

6-4

SCALE RANGE	-----	um
LAST	um	NEW um
WHAT IS THE MINIMUM VALUE OF THICKNESS STANDARD		

(16)

(19)

6-5

CH	S	UT	COAT/ BASE	PROBE	VD	MM	C	NUB
PLACE PROBE ON AND PRESS "ENTER".								

6-5 ENTER/YES
. 가 5 .
가 가 .

1 .

(20)

6-6

STANDARD CALIBRATION			
SCALE RANGE	-----	um	um
LAST	um	NEW	um
WHAT IS THE VALUE OF THICKNESS STANDARD ?			

6-6

STOP

2

(4), (5)

9

가

9

STOP

6-7

1: AUTO SETTING (MANUAL)
2: SAME AS LAST
3: SETTING
ENTER THE NUMBER

6-7

1

, 2

, 3

3

2

3-1

1: MEASURE	2: ITEM	3: CAL
4: COPY	5: TUNING	6: DATA INPUT
7: SIMPLE CAL	8: BASE CORRECT	9: PATTERN
SELECT NUMBER		

3-1

1

ENTER/YES

7-1

Co. NAME	LOT NO.
SAMPLE NO.	
CONFIRM ABOVE SETTING	

7-1 , CLEAR/NO

ENTER/YES

7-2

CH	S	UT	COAT/BASE	PROBE	VD	MM	C	NUB
USE DATA BANK ?								

7-2

ENTER/YES

CLEAR/NO

ENTER/YES

가

CLEAR/NO

가

/

7-3

CH	S	UT	COAT/BASE	PROBE	VD	MM	C	NUB
USE AUTO DATA INPUT MODE ?						Y : AUTO N : MANUAL		

7-3

ENTER/YES

, CLEAR/NO

, CLEAR/NO

ENTER/YES

가

가

CLEAR/NO

ENTER/YES

CLEAR/NO

7-4

CH	S	UT	COAT/ BASE	PROBE	VD	MM	C	NUB
		1	.33/ um		TC		R.B	
PLACE PROBE ON SAMPLE AND PRESS "ENTER".								

7-4

(1)

(2)

(2)

(2)

7-5

LED

(3)

7-5

CH	S	UT	COAT/ BASE	PROBE	VD	MM	C	NUB
		1	8.52/ um	8.52 um	TC		R.B	
PLACE PROBE ON SAMPLE AND PRESS "ENTER".								

7-5

7-4

가

ENTER/YES

CLEAR/NO

1)

7-4

2)

2.

가

Ⅲ

2-1 (1) (2)

2-2 (3) (7)

()

(1)

1

CH	S	UT	COAT/BASE	PROBE	VD	MM	C	NUB
/								
1 - ERROR							R.B	
PLACE PROBE ON SAMPLE AND PRESS "ENTER".								

1 SUB

(2)

III

2

1: TUNING	2: CALL
3: SIMPLE	4: PRINTER SET
5: STAT ITEM SETTING	6: STAT HEDA. PRINT OUT
SELECT NUMBER	

7: STAT LIMITS SET	8: INPUT RANGE SET
9: VALID DATA RANGE SET	10: CAL CURVE PRINT
11: M UNIT CHANGE	12: LOT NO
13: MEASUREMNET MDE	14: TIME ADJUST
15: PATTERN SETTING	

2 2 ENTER/YES

(3)

6-1

1: STANDARD.	2: PLURAL NEAL.
3: PLURAL MAX.	4: PLURAL MN.
5: DIVISIONAL MAX.	6: DIVISIONAL MN.
ENTER NUMBER OF CAL. TYPE	
LASE	

6-1

1 ENTER/YES

(5) 5 10

6-1

(

)

(4)

6-2

```
STANDARD CALIBRATION
SCALE RANGE : -----
LAST :          um      NEW      um

ENTER MN. THICK. OF STANDARD
```

6-2

ENTER/YES .
ENTER/YES .

0

(5)

6-3

```
CH  S  UT  COAT/BASE  PROBE      VD  MM  C  NUB

PLACE PROBE ON SPMPLE AND PRESS "ENTER".
```

6-3

ENTER/YES

. 가 4 5

가 가

(6)

6-4

```
STANDARD CALIBRATION
SCALE RANGE : -----
LAST :          um      NEW      um

ENTER MAX. THICK. OF STANDARD
```

6-4

ENTER/YES .
ENTER/YES .

(7)

6-5

CH S UT COAT/ BASE PROBE VD MM C NUB
/
PLACE PROBE ON SAMPLE PRESS "ENTER".

6-5

ENTER/YES

가 5
가 가
1

(8)

6-6

STANDARD CALIBRATION
SCALE RANGE : ----- um
LAST : 99999 um NEW um
ENTER THE VALUE OF THICKNESS STANDARD

6-6

STOP

2 (6), (7)
9 가 9 STOP

(9)

6-7

1: AUTO SETTING (MANUAL)
2: SAME AS LAST
3: SETTING
ENTER THE NUMBER

6-7

1, 2

, 3

3

2

3.

,

.

III

3-1 (1) (2)

3-1 (3) (4)

()

(1)

1

CH	S	UT	COAT/BASE	PROBE	VD	MM	C	NUB
/								
1 - ERROR						R.B		
PLACE PROBE ON SAMPLE AND PRESS "ENTER".								

1 SUB

(2)

III

2

1: TUNING	2: CALL
3: SIMPLE	4: PRINTER SET
5: STAT ITEM SETTING	6: STAT HEDA. PRINT OUT
SELECT NUMBER	

7: STAT LIMITS SET	8: INPUT RANGE SET
9: VALID DATA RANGE SET	10: CAL CURVE PRINT
11: M UNIT CHANGE	12: LOT NO
13: MEASUREMNET MODE	14: TIME ADJUST
15: PATTERN SETTING	

2

4 ENTER/YES

(3)

8-1

DERMESS				V-A 4.	1-3
	MODEL	DX-100			
	'96YR03MO	12DAY	09HR	30M.	
USE PRINIER ?					

8-1 . ENTER/YES ,
 CLEAR/NO .
 ENTER/YES : .
 CLEAR/NO : .

(4)

8-2

1: PRINT OUT 1 DATA PER LINE
 2: PRINT OUT 5 DATA PER LINE
 3: EXCEPT READINGS AND STAT INFO. LAST
 ENTER NUMBER OF PRINT OUT MODE

8-2 . ENTER/YES .

1 data per line

1	9.55	9.42	9.52	9.58	9.47	um
2	9.46	9.42	9.57	9.55	9.61	um
11	9.66	9.73	9.53	9.61	9.63	um
16	9.46					

5 data per line

1	9.65	um
2	10.2	um
3	3.72	um
3	--- DATA CANCEL ---	
3	9.61	um
4	9.57	um
5	9.57	um

4.

III

4-1 (1) (2)

4-1

()

(1)

1

CH	S	UT	COAT/BASE	PROBE	VD	MM	C	NUB
			/					
		1	-	ERROR			R.B	
PLACE PROBE ON SAMPLE AND PRESS "ENTER".								

1 SUB

(2)

III

2

1: TUNING	2: CALL
3: SIMPLE	4: PRINTER SET
5: STAT ITEM SETTING	6: STAT HEDA. PRINT OUT
SELECT NUMBER	
7: STAT LIMITS SET	8: INPUT RANGE SET
9: VALID DATA RANGE SET	10: CAL CURVE PRINT
11: M UNIT CHANGE	12: LOT NO
13: MEASUREMNET MODE	14: TIME ADJUST
15: PATTERN SETTING	

2 6 ENTER/YES

가

CH	S	UT	COAT/BASE	PROBE	VD	MM	C	NUB
3	E	um	Zn / Fe	MP-D	TC	MOP	U	0
CH	TYPE	MN.STAT	MAJ.L	LIMIT U	VD		NUB	
3	N	100	600	5.00 - 10.0		BSPH		0
TUNING		'96YR03MON15DAY						
CAL		'96YR03MON15DAY						
U SCALE		.000- 16.3UM						
CO.NAME								
SAMPLE NO.				LOT NO.				
M NUMBER		0						

가

가

3-1, 3-2

가 ,

5.

- III
- 5-1 (1) (2)
- 5-1 (3) (6)
- 5-4 (7) (8)
- 5-5 (9) (12)
- 5-6 (13) (14)
- 5-6 (15)

(1)

1

CH	S	UT	COAT/BASE	PROBE	VD	MM	C	NUB
/								
1 - ERROR							R.B	
PLACE PROBE ON SAMPLE AND PRESS "ENTER".								

1 SUB

(2)

III

2

1: TUNING	2: CALL
3: SIMPLE	4: PRINTER SET
5: STAT ITEM SETTING	6: STAT HEDA. PRINT OUT
SELECT NUMBER	

7: STAT LIMITS SET	8: INPUT RANGE SET
9: VALID DATA RANGE SET	10: CAL CURVE PRINT
11: M UNIT CHANGE	12: LOT NO
13: MEASUREMNET MDE	14: TIME ADJUST
15: PATTERN SETTING	

2 5 ENTER/YES

가 , (3)

가 9-1

9-1

1: DATA PROCESS AND DELETE MEASUREMENT DATA
2: DELETE DATA
3: MODIFY DATA PROCESS ITEM ONLY
ENTER THE NUMBER

1 ENTER/YES :

2 ENTER/YES :

3 ENTER/YES :

(3)

9-2

1: USE DATA BANK
2: DO NOT USE DATA BANK
LAST
SELECT NUMBER

9-2

ENTER/YES

ENTER/YES

1 ENTER/YES :

2 ENTER/YES :

2

(4)

9-3

1: N
2: N-1
3: DELETE STATISTICS ITEMS
SELECT NUMBER

9-3

ENTER/YES

1 ENTER/YES :

2 ENTER/YES :

3 ENTER/YES :

3

(5)

9-4

READINGS ■■■■■ BANK BAL ■■■■■
NEW
LAST
ENTER MAJ. STAT NUMBER

9-4 . ENTER/YES
. ENTER/YES .
ENTER/YES .
가 . 9-4 (1) . ERROR
. 9-4 (2) .

(6)

9-5

MAJ. STAT NO. [REDACTED]	NEW
LAST	
ENTER MAJ. STAT NUMBER	

9-5 . ENTER/YES
. ENTER/YES .
ENTER/YES .
가 . 9-5 (3) . ERROR

(7)

10-1

SCALE RANGE [REDACTED]	um
LAST	NEW um
ENTER THE UPPER LIMIT VALUE	

10-1 . ENTER/YES
. ENTER/YES .
ENTER/YES .
STOP .
STOP (9) . ERROR가
. 10-1(4) .

(8)

10-2

LOWER LIMIT VALUE [REDACTED]
SCALE RANGE [REDACTED] um
LAST NEW um
ENTER THE UPPER LIMIT VALUE

10-2 ENTER/YES
ENTER/YES
ENTER/YES
STOP
STOP (9)
10-2(4)
, 10-2 (5)

(9)

11-1

ENTER BOUNDARY OF DATA INPUT RANGE

11-1
ENTER/YES (10)
CLEAR/NO (13)
가

OUT OF ACTIVE DATA RANGE, INPUT IT?
ENTER/YES CLEAR/NO

(10)

11-2

LIMIT RANGE				
SCALE RANGE			um	
LAST		NEW		um
ENTER BOUNDARY OF DATA LOWER LIMIT VALUE				

11-2

ENTER/YES

ENTER/YES

ENTER/YES

STOP

STOP

(13)

ERROR

가

11-2 (6)

(11)

11-3

LIMIT RANGE				
SCALE RANGE			um	
LAST		NEW		um
ENTER BOUNDARY OF DATA UPPER LIMIT VALUE				

11-3

ENTER/YES

ENTER/YES

ENTER/YES

STOP

(12)

11-4

CONFIRM ACTIVE DATA RANGE				
			----- um	

11-4

ENTER/YES

CLEAR/NO
ERROR

(13)

8-1

DERMESS	V- A- 4.	1-3
MODEL	DX- 100	
'96YR 01MO 18DAY 09HR 30M.		
USE PRINTER ?		

8-1

ENTER/YES

CLEAR/NO

ENTER/YES

가

(14)

CLEAR/NO

(15)

(14)

8-2

1: PRINT OUT 1 DATA PER LINE	
2: PRINT OUT 5 DATA PER LINE	
3: EXCEPT READINGS AND STAT INFO.	LAST
ENTER NUMBER OF PRINT OUT MODE	

8-2

ENTER/YES

(15)

8-3

1: NO GRAPHS.	2: HISTOGRAM ONLY
3: M.N. (ni nor) MEAN GRAPH ONLY	
4: HISTOGRAM ONLY AND M.N. MEAN GRAPH	
SELECT NUMBER	LAST

8-3

ENTER/YES

6.

III	6-1 (1) (2)
I	6-2 (3)
III	6-2 (4)
	6-2 (5)
	6-3 (6)
	6-3 (7) (8)
	6-3 (9)
II	6-4 (10)

(1)

1

CH	S	UT	COAT/BASE	PROBE	VD	MM	C	NUB
/								
1 - ERROR							R.B	
PLACE PROBE ON SAMPLE AND PRESS "ENTER".								

1 SUB

(2)

III

2

1: TUNING	2: CALL
3: SIMPLE	4: PRINTER SET
5: STAT ITEM SETTING 6: STAT HEDA. PRINT OUT	
SELECT NUMBER	

7: STAT LIMITS SET	8: INPUT RANGE SET
9: VALID DATA RANGE SET	10: CAL CURVE PRINT
11: M UNIT CHANGE	12: LOT NO
13: MEASUREMNET MODE	14: TIME ADJUST
15: PATTERN SETTING	

2 13 ENTER/YES

(3)

I

12-1

1: STANDARD DATA INPUT (MCP)
2: MANUAL D.I. (MPE, MPA, MPI, MDA, MDI)
3: AUTO D.I. (ACP, APE, APA, API, ADA, ADI)
ENTER NBR. OF DI SYSTEM LAST

12-1
ENTER/YES

1 2

1 : 1

2 : (10) II .
3 :

(4) III

12-2

1: ONE POINT (ACP)	2: PLURAL MEAN (APE)
3: PLURAL MAX (APA)	4: PLURAL M.N. (API)
5: DIVISIONAL MAX. (ADA)	6: DIVISIONAL MAX. (ADI)
ENTER NUMBER OF DI SYSTEM	LAST

12-2

ENTER/YES

ENTER/YES

(5)

12-3

LIMIT RANGE	- - - - -	um
SCALE RANGE		um
LAST	um	NEW
ENTER BOUNDARY VALUE OF DATA INPUT RANGE		

12-2

ENTER/YES

ENTER/YES

(7)

(6)

(6)

11-1

ENTER BOUNDARY OF DATA INPUT RANGE

11-1

ENTER/YES

CLEAR/NO

CLEAR/NO

가

(7)

11-2

LIMIT RANGE	- - - - -	um	
SCALE RANGE	██████████ - - - - -	um	
LAST		um	NEW
ENTER BOUNDARY OF DATA LOWER LIMIT VALUE			

11-2

ENTER/YES

STOP

가

가

11-2 (2)

(8)

11-3

LIMIT RANGE	- - - - -	um	
SCALE RANGE	██████████ - - - - -	um	
LAST		um	NEW
ENTER BOUNDARY OF DATA UPPER LIMIT VALUE			

11-3

ENTER/YES

STOP

가

가

11-3 (3)

(9)

11-4

CONFIRM ACTIVE DATA RANGE	-----	um
---------------------------	-------	----

11-4

ENTER/YES

CLEAR/NO

ERROR

(10)

II

12-4

1: PLURAL MEAN (MPE) 2: PLURAL MAX (MPA)
3: PLURAL MN. (MPI) 4: DIVISIONAL MAX. (MDA)
5: DIVISIONAL MN. (MDI)
ENTER NUMBER OF DI SYSTEM LAST

12-4

ENTER/YES

ENTER/YES

7.

HOME	7-1 (1)
	7-1 (2)
	7-2 (3) (4)
I	7-2 (5)
II	7-3 (6)
	7-3 (7) (9)

(1)

1

CH	S	UT	COAT/BASE	PROBE	VD	MM	C	NUB
				/				
1 - ERROR				R.B				
PLACE PROBE ON SAMPLE AND PRESS "ENTER".								

1 HOME

(2)

가

13-1

CH	S	UT	COAT/BASE	PROBE	VD	MM	C	NUB
				/				
				R.B				
USE DATA BANK?								

13-1

ENTER/YES

(3)

CLEAR/NO

HOME

NO DATA

(3)

(3)

2-1

CH	S	UT	COAT / BASE	PROBE	VD	MM	C	NUB
1			/					
2			/					
ENTER		NUMBER						
(Scrawling)								

2-1

. 1 20

ENTER/YES

(4)

()

2-2

CH / S / UT / COAT / BASE / PROBE / VD / MM / C / NUB
 1
 CH / TYPE / MN. STATS MAJ. / L LIMIT U VD / NUB
 ENTER NUMBER

TUNING / YR MD DT
 CALIBRATION / YR MD DT
 S SCALE - um
 AUTO DI - um
 CO. NAME
 PARTS NBR LOT NBR
 DATE / YR MD DT
 DATA

2-2 [A]

, [B]

ENTER/YES

(5) I

3-1

1: MEASURE 2: ITEM 3: CAL
 4: COPY 5: TUNING 6: DATA INPUT
 7: SIMPLE CAL 8: BASE CORRECT 9: PATTERN
 SELECT NUMBER

3-1

1 ENTER/YES

(6) II

3-2

1: MEASUREMENT MODE 2: DATA ITEM INPUT 3: DATA
 4: DATA DELETE 5: TUNING 6: CALI
 7: SIMPLE CALI 8: MEASUREMENT 9: M UNIT CHANGE
 SELECT NUMBER

3-2

1 ENTER/YES (9)

(7) , ,

7-1

CO. NAME	
PARTS NBR	LOT NBR
YES OR NO	

7-1

ENTER/YES ,

CLEAR/NO .

(8)

7-2

CH	S	UT	COAT / BASE	PROBE	VD	MM	C	NBR
			/					
			/					
USING MEASUREMENT BANK								

(9)

7-2

ENTER/YES

CLEAR/NO .

(9)

7-3

CH	S	UT	COAT / BASE	PROBE	VD	MM	C	NBR
			/					
AUTOMATIC INPUT SETTING?							Y=AUTOMATIC	
							N=MANUAL	

7-3

ENTER/YES

가

CLEAR/NO

가 ,

ENTER/YES .

8. I II

 I (Zn/Fe - D) II

(1)

1

CH	S	UT	COAT/BASE	PROBE	VD	MM	C	NUB
3	E	um	Zn / Fe	MP-D	TC	MP	S	1
2						MP	S	0

ENTER NUMBER
(Scrawling)

HOME 1

2 ENTER/YES

(2)

2

CH	S	UT	COAT/BASE	PROBE	VD	MM	C	NUB	
2							MP	S 0	
CH	TYPE	MN.	STATS	MJ.	L	LIMT	U	VD	NUB

SELECTED THIS CHANNEL

2		0	0		.00	-	00
TUNING		/	YR		MD		DT
CALIBRATION	/		YR MD				DT
S SCALE			-				um
AUTO DI			-				um
CO. NAME							
PARTS NBR							LOT NBR
DATE			/	YR		MD	DT
DATA		0					

2 [A]

[B]

ENTER/YES

(3)

3

1: MEASUREMENT	2: DATA ITEM INPUT	3: DATA
4: DATA DELETE	5: TUNING	6: DATA INPUT
7: SIMPLE CALI	8: BASE CORRECT	9: PATTERN

SELECT NUMBER

(7)

4

1: CAL. ITEM COPY

2: STAT. ITEM COPY

3: CO. NAME COPY

4: CHANNEL COPY

ENTER NUMBER AND PRESS "STOP" AFTER COPY

가

4

. STOP

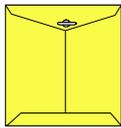
(3)

DERMESS
DX-100



1 : 1997 1 7
2 : 2000 10 20

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. ,
.



Elec Fine Instruments



121-220

364-38

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