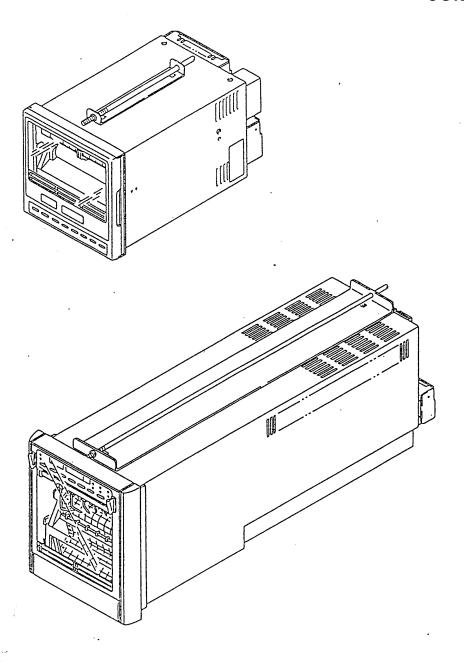
Service Manual

μR – T μR – F

# DATA SETTING MANUAL

COMFIDENTIAL



Technical Support Dept.





This is a confidential manual, and published only for use to recorver the setting values when they were initialized.

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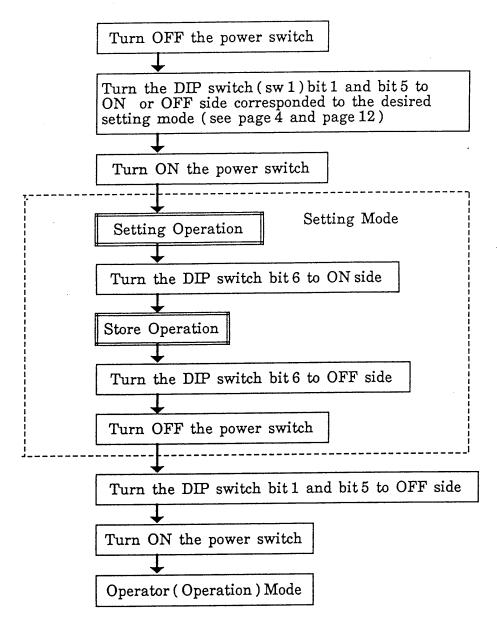
## 1. Setting Modes and Their Setting Possible Items

O:Setting Possible △:Partially Possible Mode of the µR-F recorder Mode of the µR-F recorder · Setting Item Operator | Set Maker | YOKOGAWA2 | Operation | Set Maker | YOKOGAWA2 | Recording ON/OFF  $\circ$ 0 Selection 0  $\bigcirc$ Display Mode Selection 0 0 Program List Print-Out Chart Feed ON/OFF 0 0 Selection 0 0 DATE/TIME Setting 0 0 Chart Feed Speed Setting 0 Δ  $\bigcirc$ Δ RANGE/SPAN Setting 0 0 0 0 Scaling Value Setting  $\circ$ 0 Unit Setting 0 0 0 0 DELTA Recording Setting SKIP Setting (when some 0 0 0  $\circ$ chamels are used) 0 0 Alarm Setting 0 0 Tag Setting 0 Zone Setting 0 Partial Setting Message Print-Out Setting 0 0 (Option) 0 0 Print Mode Setting 0 0 Model Setting Thermal Unit Slection 0 0 (°C/°F) 0 0 RJC Selection (ON / OFF) 0 0 Remote Controls Selection Zone Recording Selection Δ (ON /OFF) Partial Recording Selection Δ (ON /OFF) Manual Print-Out Selection 0 (ON /OFF) Relay Contact Condition 0 0 Selection (drived/non drived)

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# 2. Setting Procedure Flow Chart

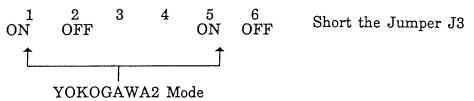
Use the fllowing procedure to set items.



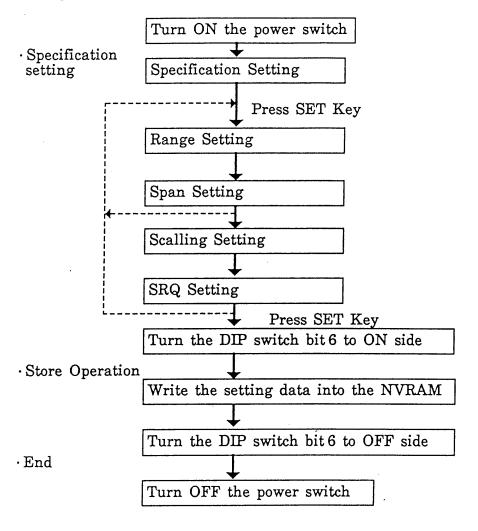
CAUTION!! Turn the DIP switch bit 6 to ON side after the power switch has turned ON and prior to the store operation. Also, turn the DIP switch bit 6 to OFF sides after the store operation has finished and prior to the power switch should be turned OFF.

### 3. YOKOGAWA 2 Mode

- (1) How to enter the YOKOGAWA2 Mode
- (1) Turn the DIP switch (sw1) bit 1 and bit 5 to ON side as following.



- 2) Turn ON the Power switch
- (2) Setting Procedure Flowchart.



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- CAUTION!! Turn the DIP switch bit 6 to ON side after the power switch has turned ON and prior to the store operation. Also, turn the DIP switch bit 6 to OFF side after the store operation and prior to the power switch should be turned OFF.
- (3) Specification Setting
- (1) Press the SET key to call up Specification setting panel. (See page 6)
- ②Pressing the key to locate the cursor (flashing position) to the desired column.
- 3) Press the key to set the desired data.
- 4) Press the ENT key to store the data.

Specification setting for µR-T recorder

	6	0	1		С	0	0	0	
/	1	2	3		4		6	7	

1: Model setting

01: 1-pen Model (Model 4261,4271) (Model 4262,4272)

02: 2-pen Model 03: 3-pen Model (Model 4263,4273)

06: 6-point printing Model

(Model 4266,4276) 12: 12-point printing Model (Model 4277)

2: Thermal Unit Selection

0: °C 1: °F

3: RJC Selection

0: OFF 1: ON

4: Remote Controls Selection

Select the code shown in the right table, corresponds to the setting array of the bit 1 to bit 4.

when each bits are set to 1, they mean;

bit c∞de	4	3	2	1
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
8	1	0	0	0
9	1	0	0	1
Α	1	0	1	0
C	1	1	0	0

bit 4: Recording can be started or stopped (by external contact signal) bit 3: The chart feed speed is changed from the 1st set speed to the

2nd set speed.

bit 2: List printing is excuted.

bit 1: Message Printing is excuted.

5: Zone Recording Selection (µR180T)

0: OFF 1 : ON

6: Partial Recording Selection

 $(\mu R180T)$ 

0:OFF 1: ON

7: Relay Contact Condition Selection

0: drive

1: non drive

Specification setting for µR-F recorder

4	0	1	2	3	0	0	

REM1 REM2

1: Model setting

01: 1-pen Model (Model 4351) 02: 2-pen Model (Model 4352) 03: 3-pen Model (Model 4353) 04: 4-pen Model (Model 4354)

2: Thermal Unit Selection

0 : °C 1 : °F

3: RJC Selection

0: OFF 1: ON

4: Remote Controls Selection \*

0: Do not use the remote controls.

1: Recording can be started or stopped.

2: The chart feed speed is changed from the 1st set speed to the 2nd set speed.

3: List printing is excuted.

4: Message Printing is excuted.

5: Manual Printing selection 0: OFF

1: ON

6: Relay Contact Condition Selection

0: drived

1: non drived

Ж

As for setting of the remote controls selection, don't care the column locations. When two remote control functions are setted, the smaller code number function is linked to the remote terminal 1, and it is displayed in the left side column as REM 1.

If you shouldn't use the remote controls, set the column to 00 here. If you should use only one remote control, you must set the same code in two columns or set remainder column to 0. In this case, selected remote control function is linked to the remote terminal 1.

- (4) Measurment and Recording Setting
- 1) Press the SET key to call up the Range Code Setting panel. (See page 9)
- 2) Pressing the key to locates the cursor (flashing position) to the
- (3) Press the key to set the desired data. (See page 9)
- 4) Press the ENT key to store the CH No. and it's mode and range code.
- (5) Display advances to the Left-end Data Setting panel.
- 6) Press the and key to set the left-end data.
- (7) Press the ENT key to store the data.
- (8) Display advances to the Right-end Data Setting panel.
- (9) As in the same method described in the step 6 and 7, set the right-end data.
- Range Code Setting ranel. (step 1) Measurement and Recording Setting has completed per one channel, and you would change the CH No. and repeat if necessary. If the range code is either of the 3× or 4×, it advances to the Left -end Scale Setting panel. (step 1)
- (1) Locate the cursor (flashing position) on the F position, and then press the key to move the decimal point.
- (2) As in the same method described in the step (6) and (7), set the left-end scale data.
- (3) It advances to the "Right-end Scale Setting" panel.
- (14) As in the same method described in the step (6) and (7), set the right-end scale data.
- (5) Measurement and Recording Setting has completed per one channel, and you would change the CH No. and repeat if necessary.

1		A		2	0
CH No.		MODE		RAN COD	
·		·		1X : TC 2X : RTI	Voltage  Output  Outpu
			3	BASE C	HANNEL
		A: NOR d: DEL —: SKI	TA		
1  -		1	0	0	0
		LEFT-	END D	ATA	
1  -	0	1	0	0	0
		RIGHT	'-END I	DATA	
1 <b>—</b> .		0	0	0	0
		LEFT-	END SO	CALE	
1	1	0	0	0	0
	·	RIGHT	r-END S	SCALE	

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# Table RANGE CODE

Input Type	Range Code	Measuring Range
	00	-20.00 to 20.00 mV
DC	01	-200.00 to 200.00 mV
	02	-2.000 to 2.000 V
200	30	-20.00 to 20.00 mV
DC	31	-200.0 to 200.0 m V
(linear scaling)	32	-2.000 to 2.000 V
200	40	20.00 to 20.00 mV
DC	41	-2000.0 to 200.0 mV
(square root scaling)	42	-2.000 to 2.000 V
	10	Type R 0 to 1760°C 32 to 3200°F
	11	Type S 0 to 1760°C 32 to 3200°F
	12	Type B 400 to 1820°C 752 to 3308°F
	13	Type K -200 to 1370°C -328 to 2498°F
	14	Type E -200 to 800° C -328 to 1472° F
TC	15	Type J -200 to 1100°C -328 to 2012°F
	16	Type T -200 to 400° C -328 to 752° F
	17	Type N 0 to 1300°C 32 to 2372°F
	18	Type W 0 to 2315°C 32 to 4200°F
	19	Type L -200 to 900° C -328 to 1652° F
	1A	Type U —200 to 400° C —328 to 752° F
	03	-6.000 to 6.000 V
DC	04	−20.00 to 20.00 V
	05	-50.00 to 50.00 V
D.C	33	-6.000 to 6.000 V
,,, DC	34	-20.00 to 20.00 V
(linear scaling)	35	-50.00 to 50.00 V
DC	43	-6.000 to 6.000 V
	44	−20.00 to 20.00 V
(square root scaling)	45	-50.00 to 50.00 V
	20	Pt100Ω (JIS) -200 to 550°C -328 to 1022°F
RTD	21	Pt100Ω (DIN) -200 to 550°C -328 to 1022°F

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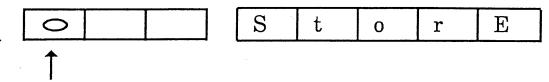
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- (5) Wright the setting data into the NVRAM.
  - 1 Press the SET key to call up the Store panel.
  - 2 Press the ENT key to write the setting data into the NVRAM.

# STORE (NVRAM)



When the write action has completed, the flashing state changes to continuous light up.

(If the DIP switch bit 6 has setted to OFF side in this case, setting data has not written into the NVRAM, though the display behaves as it were written into the NVRAM)

CAUTION!! Turn the DIP switch bit 6 to OFF side before the power switch should be turned OFF.

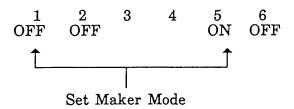
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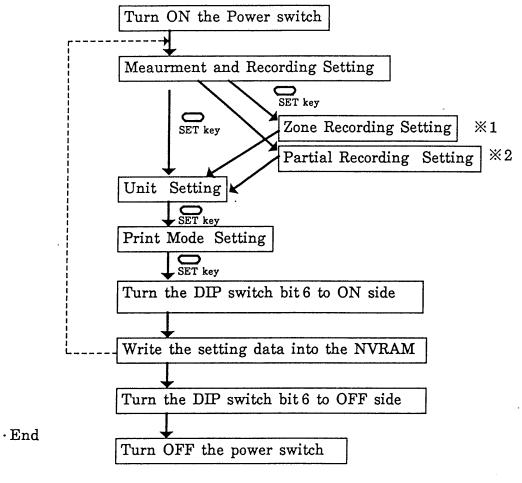
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#### 4.Set Maker Mode

- (1) How to enter the set maker mode.
  - 1 Turn the DIP switch (sw1) bit 1 to OFF side and bit 5 to ON side as following.



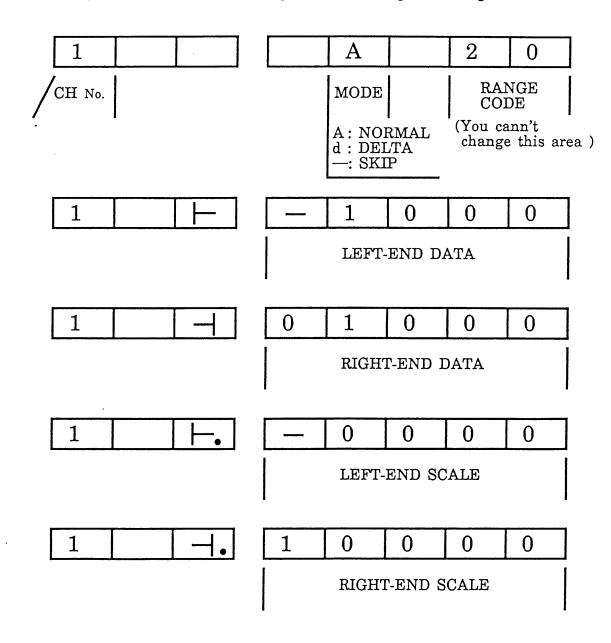
- 2 Turn ON the Power switch
- (2) Setting Procedure Flowchart.



\*1, \*2 It's advances when zone recording and partial recording were selected in the specification setting panel.

CAUTION!! Turn the DIP switch bit 6 to ON side after the power switch has turned ON and prior to the store operation. Also, turn the DIP switch bit 6 to OFF side after the store operation and pirior to the power switch should be turned OFF.

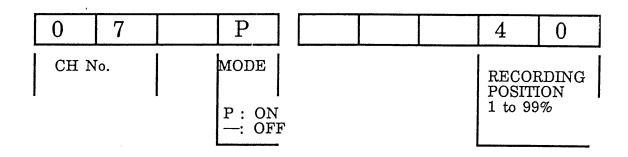
(3) Measurment and Recording Setting.
Setting method is equal to the YOKOGAWA 2 Mode.
But, in the Set Maker Mode, you cann't change the Range Code.



(4) Zone Recording Setting

0	1	-		0	1	0
CH N	o.			LEF	r of zo	NE
0	1			1	7	0
				RIGH	IT OF Z	ONE

(5) Partial Recording Setting.



0	7	P	0	1	5	0	0
				SETTI	NG VAL	VE	

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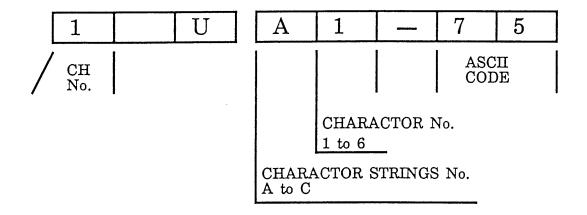
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#### (6) Unit Setting

- 1 Press the SET key to call up the Unit Setting panel.
- 2 Pressing the key to locates the cursor (flashing position) to the desired column.
- 3 Press the key to set the desired data.
- 4 Press the ENT key to store the 1-st charactor.
- 5 Set and store the remain 5 characters with same method.



Note) You can set maximum 3 units in the µR 100 T recorder. It corresponds to the character strings A to C. If the unit, which you want to set, was already set in the other channel, you should only set the same character strings No, and need not set the character No., and ASCII Code.

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#### Table ASCII CODE

b	2	3	4	5	6	7
0		0	0	P	1	p
		200	Α	Q	e	q
2	-	2	₿	R	Ь	r
3	#	3	С	S	С	s
4	Ş	4	D	T	d	τ
5	%	5	ш	U	e	น
6	&	6	F	V	f	٧
7	•	7	G	W	8	₩
8	(	8 ·	Н	X	h	×
9	)	9	1	Y	i	Y
Α	+	:	J	Z	j	z
В	+	;	K		k	•
С	,	<	L_	4	- [	Ω
D		=	М	1	m	μ_
Ε	•	>-	7	$\nabla$	n	
F	/	?	0		0	U

### (7) Print Mode Setting

- 1 Press the SET key to call up the Print Mode Setting panel.
- 2 Pressing the key to locates the cursor (flashing position) on the Alarm Print-out select position or the Periodic Print-out select position.
- 3 Press the key to select the print mode.
- 4 Press the ENT key to store the data.

P	r	t	A	1		r	0	
				ALARM PRINTOUT  0: OFF  1: ON			PERIODIC PRINT-OUT 0: OFF 1: ON	

- (8) Write the setting data into the NVRAM

  The writing method is equal to YOKOGAWA 2 Mode. (see page.11)
- CAUTION!! Turn the DIP switch bit 6 to OFF side before the power switch should be turned OFF.

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