

SPECIFICATIONS

MAIN FUNCTION

Calendar	Year 1994 to 2089 (Automatically adjusted to leap year)
Clock accuracy	Monthly accuracy ± 15 seconds (at ordinary temperatures)
Display	Digital LCD with 7 segments Date, Hour, Minute and day of the week indication
Daylight saving time	Auto
Comment print	7 lines (RCVD[ReCeIveD] / SENT / IN / CFMD[ConFirMeD] / OUT / FILED / PAID)
DIP switch	16 poles
Memory Backup	3 year memory backup by lithium battery.

PRINT FUNCTION

Print method	Impact Dot Matrix - 9pins 3-way Card activated automatic, manual or semi- automatic
Print position/ direction	Adjustable trigger trip Right/Left print by DIP switch
No. of printable character:	Maximum 15 figures (excluding space) Numbering : Up to 6 figures
Hour & minute format	12 or 24-hours format, regular minute, 1/10, 1/100 or 5/100 of a hour.
Multiple copies	Original + 4 (Maximum thickness 3mm or less)
Ribbon cassette	Carry-on cassette type fabric ink ribbon

OTHER SPECIFICATIONS

Power supply	110 VAC : for Korea 220-240 VAC : for Asia
Power consumption	110 VAC20 VA max.while printing4 VA while idling0.2 A max.while printing 220-240 VAC20 VA max.while printing4 VA while idling0.1A max.while printing
Temperature	Operating -5 °C - +45°C
Humidity	Operating 20% - 80%RH (No condensation)
Dimensions	6 27/32" X 6 3/16" X 8 3/16" (174mm(W) X 157mm(D) X 208mm(H))
Weight	Approximately 5.5lb.(2.5 Kg)

OPTION

Ribbon cassette	Cat No. #TP-1051 N (Black ink) Cat No. #TP-1051 NG (Green ink) Cat No. #TP-1051 NR (Red ink) Cat No. #TP-1004
Operation battery	Available of 200 print or 72 hours during no electricity.

In case of power failure

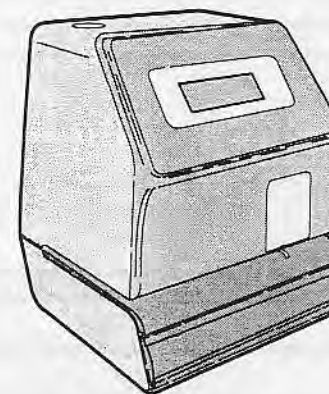
Even if a power failure has occurred, the optional built-in battery backs up to 72 hours(roughly three days), provided that the battery cells are fully charged.

No printing battery capacity

The display is flashing when detecting the low battery capacity. Please stop printing until AC power supply is resumed.

If you still keep printing, the time recorder will hang up. When hung up, you have to press the RESET switch on the control panel by using a pair of tweezers. In this case, the calendar clock is cleared.

USER'S MANUAL



TIME RECORDER

QS-100 / TP-10

INTRODUCTION & FEATURES

INTRODUCTION:

Thank you for your purchasing a Quartz Time Recorder. We are confident this time recorder will give you full satisfaction. Items such as the time and date are preset at the factory. After plugging in the AC power the recorder may be used immediately. However, we recommend reading this manual before you start using your time recorder.

FEATURES:

Main applications : Payroll/job cost recorder, time stamp or numbering machine.

- The Quartz Time clock
- Dot-Matrix printer
- Perpetual calendar
- Automatic daylight saving time
- 3-way print activation
 - Automatic
 - Manual
 - Semi-automatic
- Adjustable print position
- Prints in 8 language
- Prints numbers/date
- 12 or 24-hour format.
- Regular minute, 1/10, 1/60, 1/100 or 5/100 of an hour.
- Digital LCD display (Date, Hour, Minute, Day of the Week indication).
- Rigid enclosure, wall or desk top mount.
- Print selection by 16 polar DIP switches.

Caution:

Do not use in places:

- Subject to high humidity and dust.
- Exposed to strong or continuous vibrations.
- Exposed to direct sunlight.
- The temperature range in which all functions of the Time Recorder will operate correctly is from -5°C to 45°C. Be sure therefore to place and use your time recorder only in locations in which this temperature range is not exceeded. Take care also not to subject your time recorder to any sudden, sharp temperature variations.

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1. The details of this User's Manual are subject to change even without previous notification.
2. This User's Manual has been prepared with the utmost care to cover all aspects of the time recorder's use.
3. Be sure to use your Time Recorder after you have fully understood the hardware and software specifications and limits.
4. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, mechanical, photocopying, recording or otherwise.

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SEIKO Precision Inc.

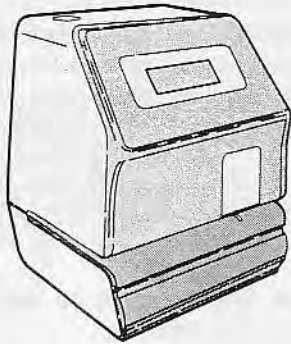
BEFORE USING YOUR TIME RECORDER

Package Contents

Unpack the Time Recorder and check its contents to ensure that the time recorder unit and all accessories as shown below are included.

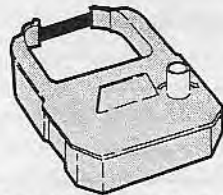
Attached Accessories

•Time recorder



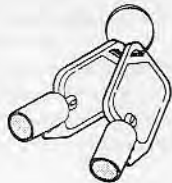
•Ribbon cassette

..... 1 pc.



• The ribbon cassette is installed at the factory.

•Keys 2 pcs.



•Wall-mount fittings

Screw 4 pcs.

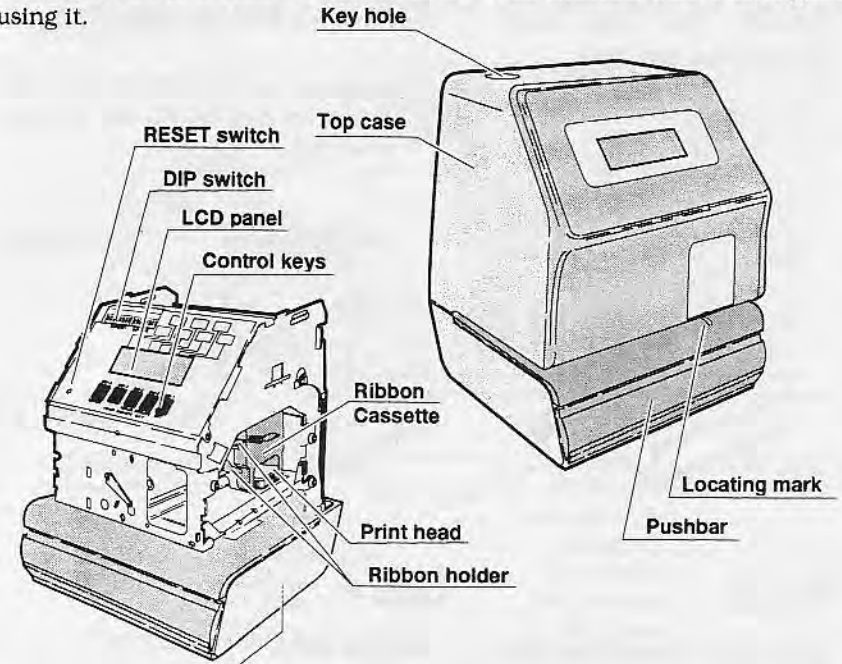
Seet 1 sheet



CONFIGURATION

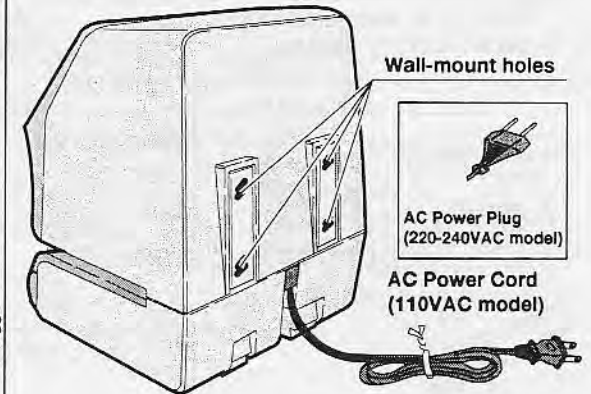
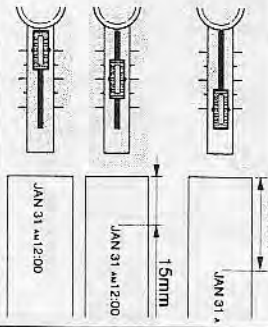
Location of name

It is important to become familiar with the Time Recorder before setting it up and using it.



Print position adjuster

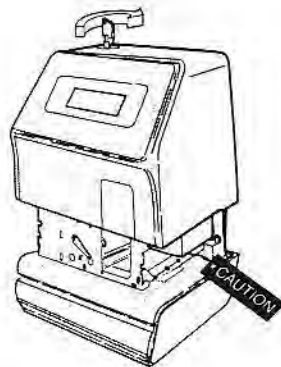
The print position from the card edge is adjustable by pressing and sliding the print position button on outside bottom.



QUICK EASY SETUP

Step 1

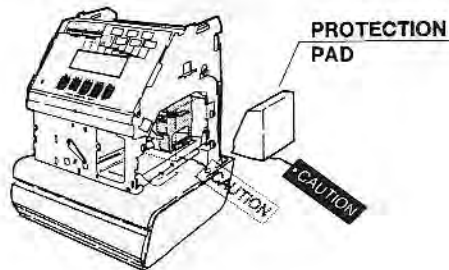
Unlock the key and remove the top case.



Step 2

Remove the PROTECTION PAD.

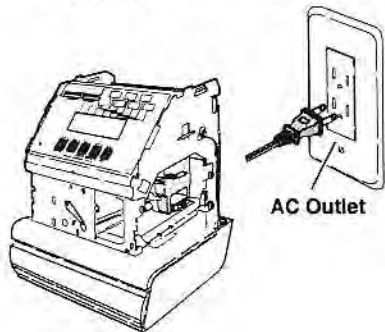
⚠ Remove the PROTECTION PAD before you plug the AC cord into the AC outlet.



Step 3

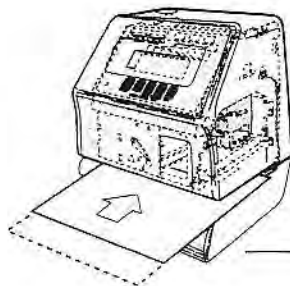
Plug the AC cord into the AC outlet.

When plugged in the LCD panel indicate the current time. It is now ready to be adjusted if necessary.



Step 4

Insert a card.

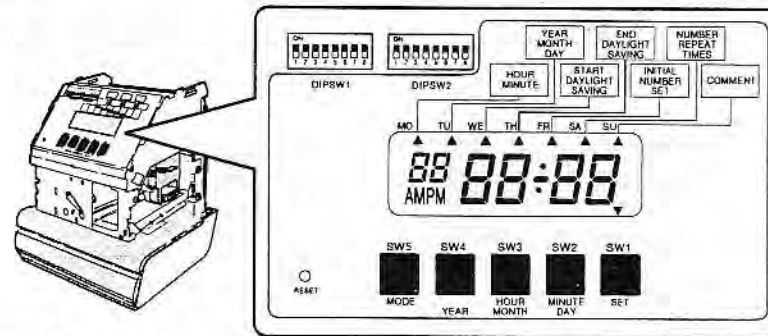


JAN 31 AM12:00

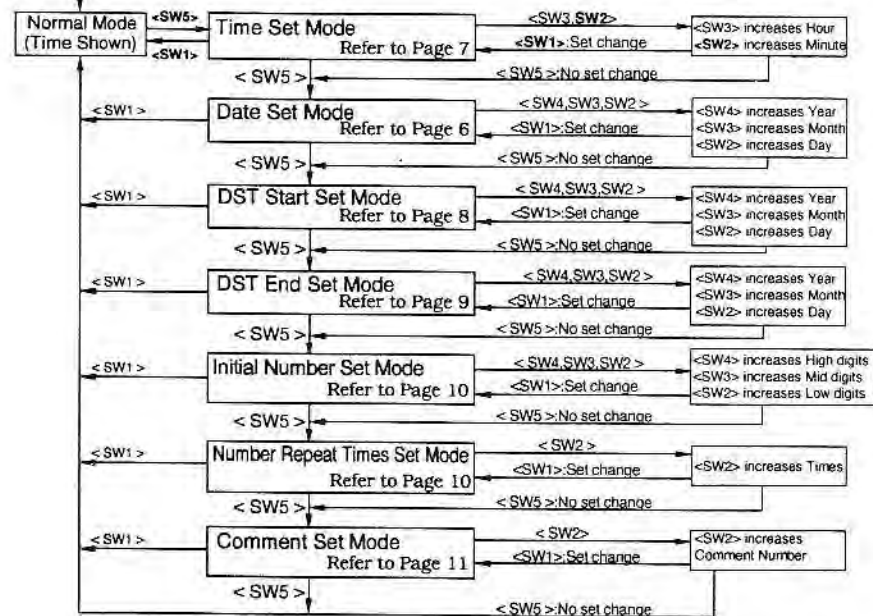
Print example

SETTING THE SEQUENCE

To enter one of the set modes below, applying power and removing the Top Case enables you to press the 5 tactile switches, SW5 to SW1. < > indicates pressing a tactile switch. Pressing longer will realize faster increments.



Always Start Here !



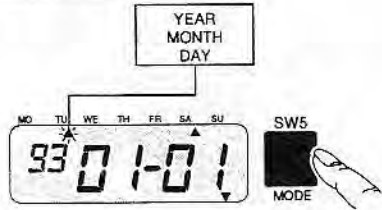
Notes : <SW5> indicates pressing the function key SW5.
DST: Daylight Saving Time

Example:

In case you want to advance the current time by 2 minutes, press SW5, SW2, SW2, SW1, and SW1 again to return to the current time as shown in bold characters above.

SETTING THE DATE

Step 1



Press the [SW5 : MODE] key twice, the "YEAR / MONTH / DAY" arrow flashes.

Step 2

Example : Set to 8th August, 1994



Press the [SW4 : YEAR] key until the correct year appears. Keeping the SW4 pressed, advances the hour automatically. Longer pressing speeds advancement.

Step 3



Press the [SW3 : HOUR / MONTH] key until the correct month appears.

Step 4



Press the [SW2: MINUTE / DAY] key until the correct day appears. Keeping the SW2 pressed, advances the day automatically. Longer pressing speeds advancement.

Step 5



Press the [SW1: SET] key after checking the desired year, month and day on the LCD.

Step 6



Press the [SW1: SET] key again.

SETTING THE TIME

After the date, set the present time in the following sequence.

Step 1



Press the [SW5 : MODE] key once, the "HOUR MINUTE" arrow flashes.

Step 2

Example : Set to Morning 10:08 AM.



Press the [SW3 : HOUR / MONTH] key until the correct hour appears. The seconds are automatically reset to 00. Keeping the SW3 pressed, advances the hour automatically.

Step 3



Press the [SW2: MINUTE / DAY] key until the correct minute appears. Keeping the SW2 pressed, advances the minute automatically. Longer pressing speeds advancement.

Step 4



Press the [SW1: SET] key after checking the desired time appears on the LCD. The seconds are 00. Press [SET] accordingly to a time signal. The unit is now set to correct time.

Step 5



Press the [SW1: SET] key again.

SETTING THE STARTING DAYLIGHT SAVING TIME

When the daylight saving time is set, one hour will be automatically added to the day advance time on the starting date and, similarly, one hour will be automatically subtracted on the ending date of the daylight saving time.

Step 1



Press the [SW5: MODE] key three times, the "START / DAYLIGHT / SAVING" arrow flashes.

Example :

Starting from Second of April, 1995

Step 2



Press the [SW4 : YEAR] key until the correct year appears.

Keeping the SW4 pressed, advances the year automatically. Longer pressing speeds advancement.

Step 3



Press the [SW3 : HOUR / MONTH] key until the correct month appears.

Step 4



Press the [SW2: MINUTE / DAY] key until the correct day appears.

Keeping the SW2 pressed, advances the day automatically. Longer pressing speeds advancement.

Step 5



Press the [SW1: SET] key after checking the desired year, month and day on the LCD.

Step 6



Press the [SW1: SET] key again.

⚠ If you do not use the daylight saving time function, set the month value to 00.

SETTING THE ENDING DAYLIGHT SAVING TIME

Step 1



Press the [SW5:MODE] key four times, the "END / DAYLIGHT / SAVING" arrow flashes.

Example :

End on 29th of October, 1995

Step 2



Press the [SW4 : YEAR] key until the correct year appears.

Keeping the SW4 pressed, advances the year automatically. Longer pressing speeds advancement.

Step 3



Press the [SW3 : HOUR / MONTH] key until the correct month appears.

Step 4



Press the [SW2: MINUTE / DAY] key until the correct day appears. Keeping the SW2 pressed, advances the day automatically. Longer pressing speeds advancement.

Step 5



Press the [SW1: SET] key after checking the desired year, month and day on the LCD.

Step 6

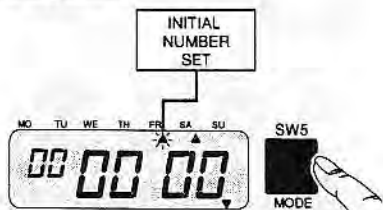


Press the [SW1: SET] key again.

INITIAL NUMBER & REPEAT TIMES SETTING

INITIAL NUMBER SET

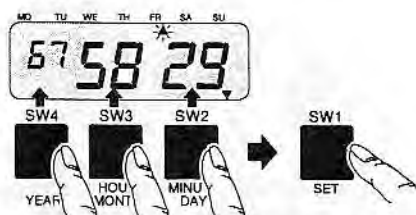
Step 1



Press the [SW5 : MODE] key five times, the "INITIAL NUMBER SET" arrow flashes.

Example :
Setting initial number to 675829.

Step 2



Press the SW2, 3 or 4 key until the correct number appears.

Longer pressing speeds advancement.

Press the [SW1: SET] key after checking the desired number on the LCD.

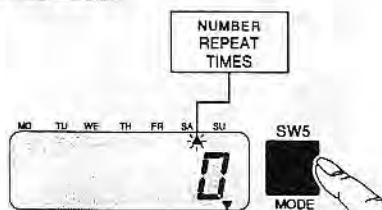
Step 3



Press the [SW1: SET] key again.

NUMBER REPEAT TIMES SET

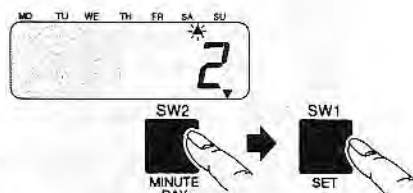
Step 1



Press the [SW5:MODE] key six times, the "NUMBER REPEAT TIMES" arrow flashes.

Example :
Setting 2 times repeat.
The repeat times can be set to 0 to 9.

Step 2



Press the [SW2 : MINUTE / DAY] key until the correct number appears.

The repeat times can be selected 0 to 9.

Press the [SW1: SET] key after checking the desired number on the LCD.

Step 3

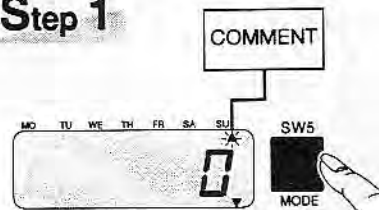


Press the [SW1: SET] key again.

COMMENT SETTING & WALL MOUNTING

COMMENT SETTING

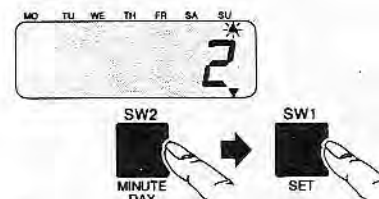
Step 1



Press the [SW5 : MODE] key seven times, the "COMMENT" arrow flashes.

Example :
Setting the comment to SENT.

Step 2



Press the SW2 key until the correct number appears.

No.	1	2	3	4	5	6	7
Comment	RCVD	SENT	IN	OUT	CMFD	FILED	PAID

•The comment will change according to country selection by DIP switch 2-6, 7 and 8.

Press the [SW1: SET] key after checking the desired number on the LCD.

Step 3



Press the [SW1: SET] key again.

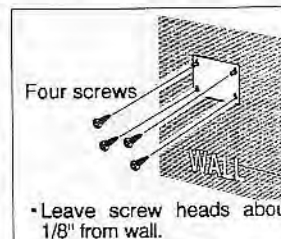
WALL MOUNTING

Step 1

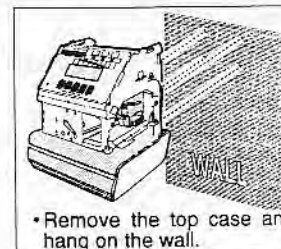
- 1 Select wall area near AC outlet.
- 2 Measure 48inches (122cm) from the floor.
- 3 Mount the Time Recorder on wood or surface which can support weight (dry wall will not support unit).



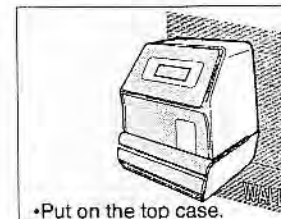
Step 2



Step 3



Step 4



PRINT FORMAT SETTING

DIP SWITCH SETTING

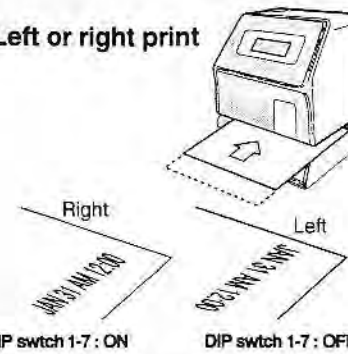
DIPSW1								DIPSW2								PRINT EXAMPLE	MEANING
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 31 AM12:00	Mon, Day, Hour, Min
●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	'94 JAN 31 AM12:00	Year, Mon, Day, Hour, Min
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	31 JAN '94 AM12:00	Day, Mon, Year, Hour, Min
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 31 '94 AM12:00	Mon, Day, Year, Hour, Min
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 31 '94 AM12:00	Mon, Day, Year, Hour, Min
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	31 AM12:00	Day, Hour, Min
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	SU 31 AM12:00	DOW, Day, Hour, Min
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	000000 31 AM12:00	Num, Day, Hour, Min
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	000 JAN 31 AM12:00	Num, Mon, Day, Hour, Min
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	000000 JAN 31 '94	Num, Mon, Day, Year
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	000000 31 JAN '94	Num, Day, Mon, Year
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	000000 '94 JAN 31	Num, Year, Mon, Day
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 31 '94 000000	Mon, Day, Year, Num
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	31 JAN '94 000000	Day, Mon, Year, Num
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	'94 JAN 31 000000	Year, Mon, Day, Num
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	RCVD JAN 31 '94	Com, Mon, Day, Year
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	RCVD 31 JAN '94	Com, Day, Mon, Year
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	RCVD '94 JAN 31	Com, Year, Mon, Day
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 31 '94 RCVD	Mon, Day, Year, Com
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	31 JAN '94 RCVD	Day, Mon, Year, Com
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	'94 JAN 31 RCVD	Year, Mon, Day, Com
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	RCVD 31 AM12:00	Com, Day, Hour, Min
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 31 AM12:00	Flush Left Print
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	00:21WV 1E NVF	Flush Right Print
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		Print by Card
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		Print by Pushbar
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		Print by Card & Pushbar
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 31 AM12:40	60 min./Hour
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 31 AM12:67	100 min./Hour
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 31 AM12:65	20 min./Hour
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 31 AM12:6	10 min./Hour
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 1 PM 3:00	Zero Disabled
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 01 PM 03:00	Zero Enabled
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 31 PM 3:00	AM/PM
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 31 15:00	24 Hours
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 31 AM12:00	English
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	ENE 31 AM12:00	Spanish
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 31 AM12:00	German
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 31 AM12:00	French
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	GEN 31 AM12:00	Italian
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	JAN 31 AM12:00	Portuguese
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	I 31 AM12:00	Roman
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1 31 AM12:00	Japanese

○: OFF ●: ON

Mon: Month DOW: Day Of Week Com: Comment
Min: Minute Num: Sequential Number (Refer to page 10).

PRINT METHOD SETTING

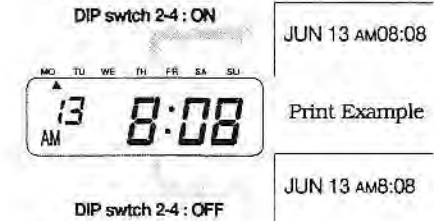
① Left or right print



The DIP switch 1-7 is used to select whether to print flush right or flush left on the card.

④ Leading 0

Leading 0 for hours less than 12 may be shown (enable) or suppressed (disable) on print.



② Print switch

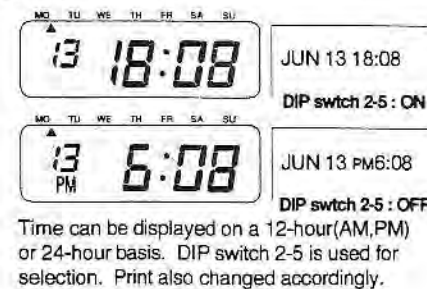
Automatic print
Inserting the card automatically initiates printing.

Semi-automatic print DIP switch 2-1: ON
Only with the card inserted, pressing the pushbar starts printing.

Manual print DIP switch 1-8: ON
Even with no card, pressing the pushbar starts printing.

The DIP switch 1-8 and 2-1 are used to select the said three methods.

③ Type of an hour



Time can be displayed on a 12-hour(AM,PM) or 24-hour basis. DIP switch 2-5 is used for selection. Print also changed accordingly.

⑤ Type of an hour

Minute is printed in a unit which is obtained by dividing an hour by 60, 100, 20 or 10. DIP switches 2-2 and 2-3 are used for selection.

Print contents	Print Example
To divide an hour by 60: 0, 1, 2, ..., 58, 59, 0, 1, 2, ...	JAN 1 AM12:40
To divide an hour by 100: 0, 1, 2, ..., 98, 99, 0, 1, 2, ...	JAN 1 AM12.67
To divide an hour by 20: 0, 5, 10, ..., 90, 95, 0, 5, 10, ...	JAN 1 AM12.65
To divide an hour by 10: 0, 1, 2, ..., 8, 9, 0, 1, 2, ...	JAN 1 AM12.6

REPLACING RIBBON CASSETTE

- Carefully slide the exposed ribbon under the print head.
- Push cassette with the projection into the ribbon cassette holder until snapped into place.
- Turn the ribbon feed knob clockwise until the ribbon is taut.

