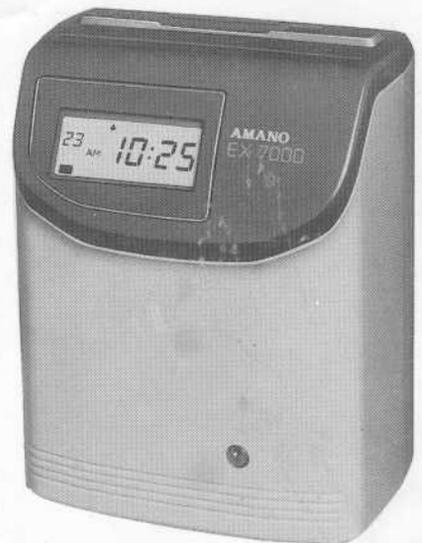


AMANO

ELECTRONIC TIME RECORDER

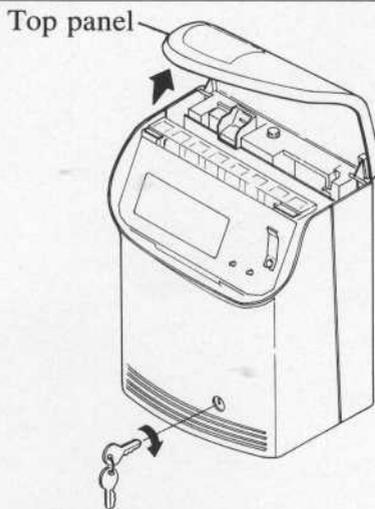
EX7500/7600 Series

OPERATION MANUAL
ENGLISH/SPANISH/FRENCH/GERMAN



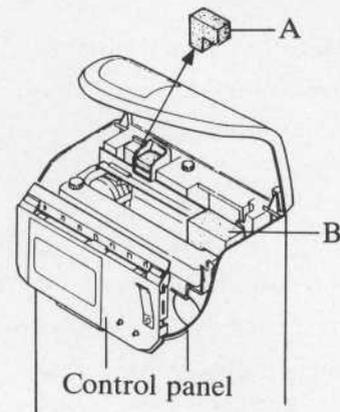
Before use

Opening the top panel



Unlock the top panel with the case key.

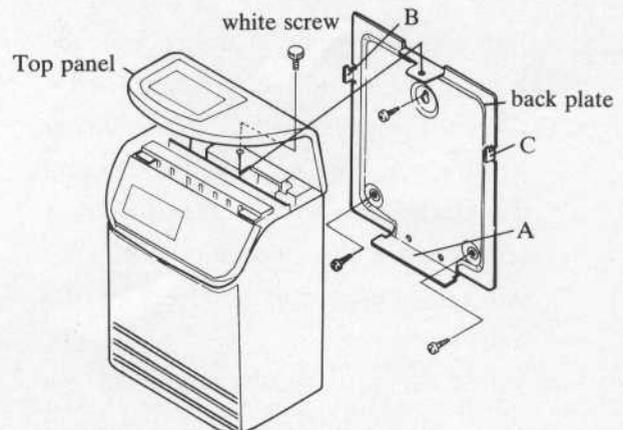
Removing Packing Material



Gently pull control panel toward you and remove shock absorbers A and B.

Wall - mounted installation

1. Open the top panel, remove the white screw (turn counterclockwise), slide the back plate downward and remove it.
2. Affix the back plate to the wall with three screws.
(See the diagram on the right.)
3. Put the bottom of the machine on A and let B and C fit into the slots in the side panels. Fasten to the back plate with the white screw.



Desktop installation

- Install the machine on a level surface.

Adjust the card pocket to card width

- Adjust the width of the card pocket to the card width unless it is $3\frac{3}{8}$ " (86mm)
(See page 3.)

Connection with time signal unit (EX7600 only)

- Before plugging the power cord into an AC outlet, connect the external time signal line to the time signal terminal of EX7600. (See page 26.)

Adjusting the width of the card pocket

The card pocket width is pre-set for $3\frac{3}{8}$ " (86mm).

However, it can be adjusted from $2\frac{5}{8}$ " ~ $4\frac{3}{16}$ " (66mm - 106mm)

1 Open the top panel with the case key. Remove the white screw. Push the back plate downward and remove it from the main unit.

2 To adjust the card pocket width, loosen screw (a), insert the card into the card pocket and adjust the width to the card width. Then tighten the screw.

3 For time cards wider than $3\frac{3}{8}$ " (86mm), remove screw (a). Next, remove the bottom plate (b). Slide the stopper (c) to the left, so that the right edge of the stopper pops at from the card receiver. Break off the right side at the perforated line. Reassemble and adjust the card pocket width.

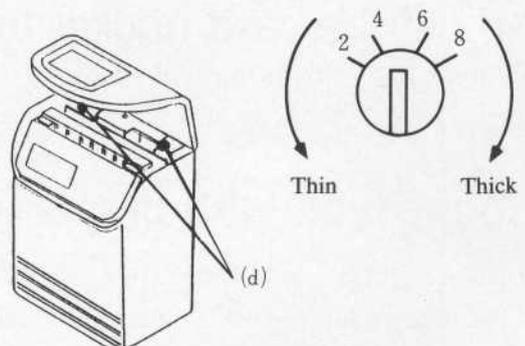
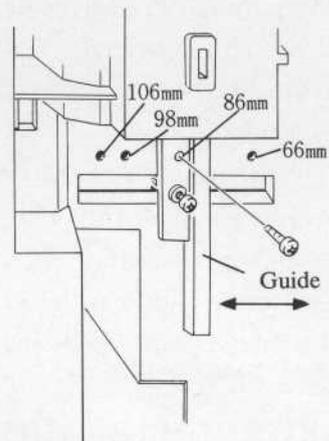
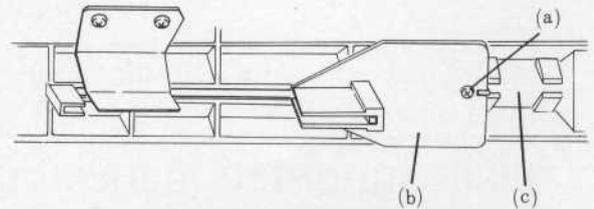
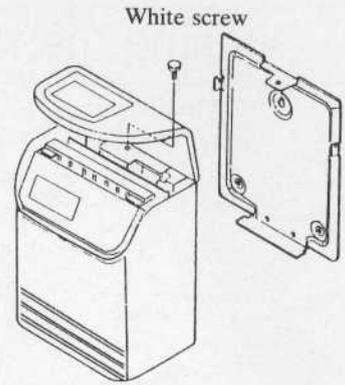
4 Adjust the card guide at the back of the unit body to the width of the card used.

☆ When the card width is 66, 98 or 106mm, remove the upper screw from the black guide and loosen the lower screw. Move the guide until the holes suit the card width, and replace the screws.

☆ When the card width is none of the above values, remove upper screw and loosen lower screw, adjust the guide to the card width and tighten the bottom screw.

5 For thick or folded cards, adjust the dials (d) to the thickness of the card (pre-set at 4).

(Normally this adjustment is not necessary.)



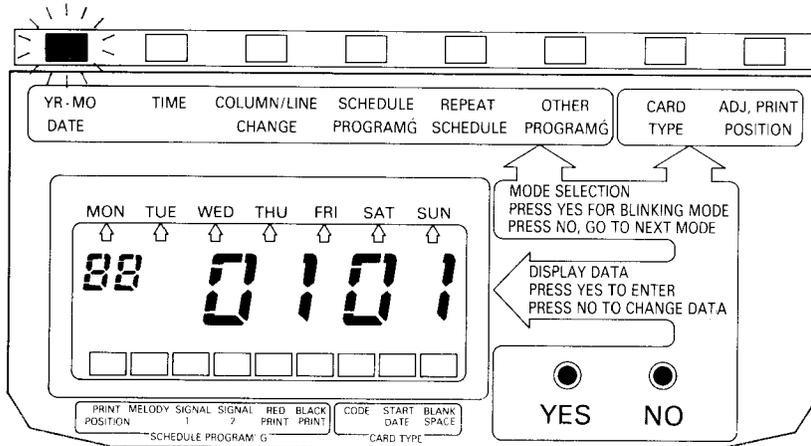
Programming.

Open the top panel.

★A red flashing light indicates the item to be set.

→Press “YES” to set the item indicated by the flashing light.

→To by-pass this item, press “NO” until the red flashing light moves to the desired item.



★When you select the item you want to program, press “YES” and the current programmed data will be displayed.

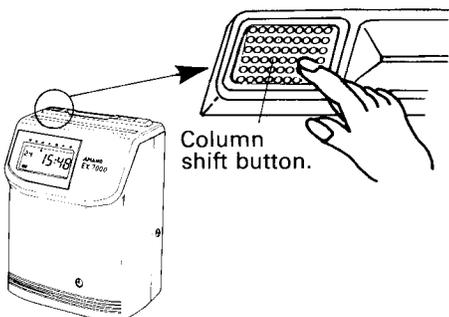
→Press “YES” if the current programmed data is correct.

→Press “NO” if it is incorrect. The figure will advance in increments of one. If you hold the “NO” button down, it will increment in 10’s. Press “YES” when you get the correct figure.

★When all digits of an item have been set, they will all start flashing. Press “YES” and the new data will be registered in memory and the red flashing light will automatically move to the next item.

Note : Enter time in the 0 - 23 hour format.

Selecting IN/OUT print position manually (except for vertical type cards)



Move print position manually to the desired position before inserting the time card.

(The column shift button can be disabled by program.)

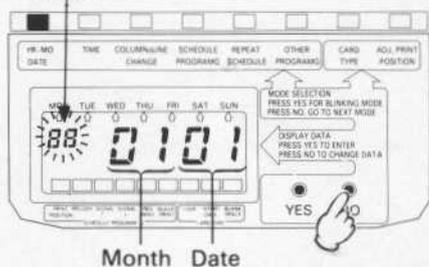
The column shift button cannot be used if you use a vertical type card (up/down - the - card type).

Setting the DATE & TIME

A Press "YES" when the red flashing light is at the "YR - MO DATE" position.

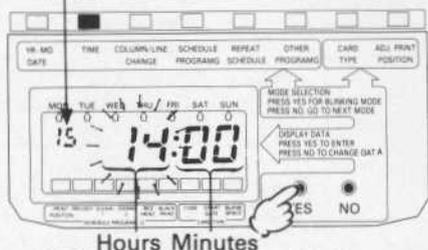
B Press "YES" when the red flashing light is at the "TIME" position.

A Year



Press "NO" until the current year is displayed. Then press "YES". The flashing moves to the center (month). Example: August 15, 1989

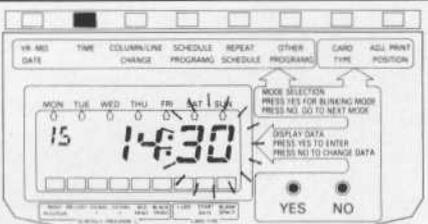
B Date



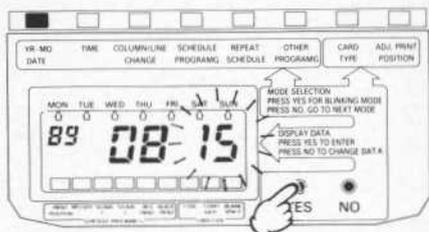
Press "NO" repeatedly until the current hour (0 - 23) is displayed. Then press "YES". The flashing moves to the right (minutes). Example: 2:30 p.m.



Press "NO" repeatedly until the current month is displayed. Then press "YES". The flashing moves to the right (day).



Press "NO" repeatedly until the displayed minute is one minute after the present minute. (If you keep pressing "NO", the 10's digit will advance at a higher speed.) Then press "YES". The hours and minutes will start flashing.



Press "NO" repeatedly until the current date appears on the display. Then press "YES". All data will begin to flash on/off. If the data is correct, press "YES". The red indicator will move to "TIME".



Once "YES" is pressed, the clock will start at "00" seconds. The red indicator will move to "COLUMN/LINE CHANGE".

How to set column/line change.

Press "YES" when the red flashing light indicates COLUMN/LINE CHANGE.

This is the time that the imprint position should change from one column / line to the next.



The column line change time is programmed the same way as TIME.

Example: 03:00

Press "YES", and the red flashing light moves to SCHEDULE PROGRAM'G'.

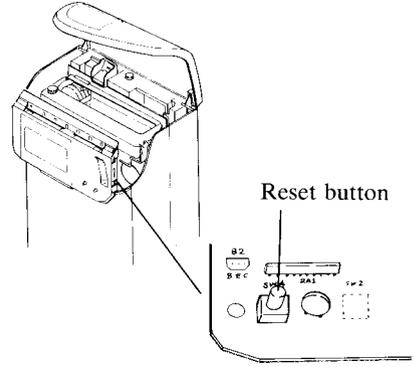
Press "NO" until the red indicator moves to "OTHER PROGRAM'G'".

Setting the card type

Select the appropriate card type from the list of card types on pages 12~17.
The card type is preset as follows.

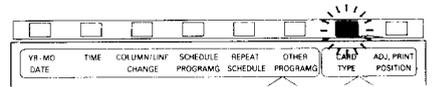
- NORTH AMERICA Card type No. 3 (weekly across)
- U. K. Card type No. 2 (")
- OTHERS Card type No. 7 (monthly across)

1 Press the reset button located behind the display when the red light is flashing at "OTHER PROGRAM' G".

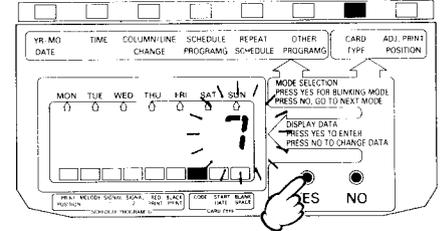


2 Press "YES" when the red light is flashing at "CARD TYPE".

3 Referring to the list of card types, continue pressing "NO" until the desired card type code is displayed and press "YES". The black cursor will move to the start date.



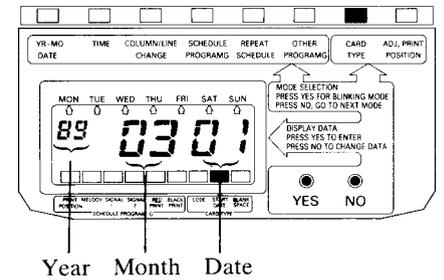
4 Set the start date.
Set pay period start date (year, month, and date). Regardless what the pay period is (weekly, bi-weekly, semi-monthly or monthly), the pay period start date must be programmed. This becomes the first day of the pay period.



TOTAL EARNING		TOTAL DEDUCTIONS		TOTAL		
BALANCE DUE						
WEEK	MORNING		AFTERNOON		OVERTIME	
	IN	OUT	IN	OUT	IN	OUT
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

Pay period start date. → (1)

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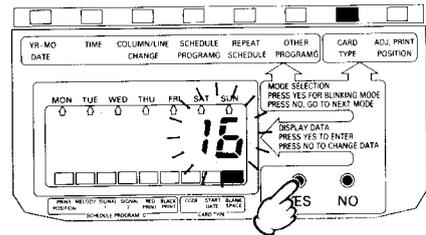
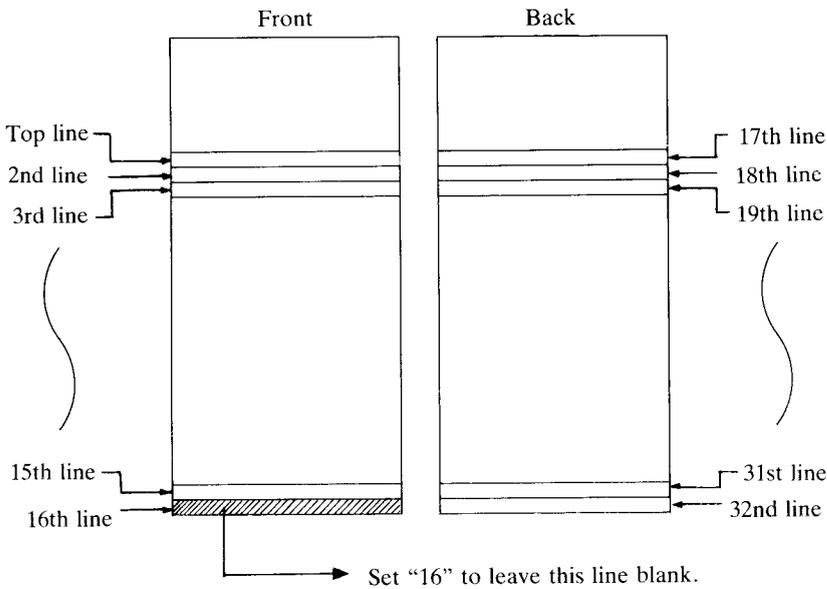


5 For a semi-monthly and monthly time cards, set blank line/column.

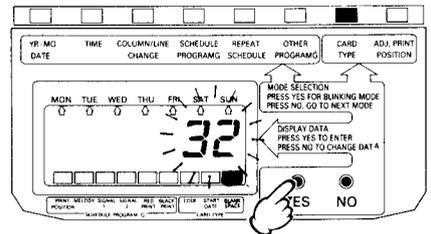
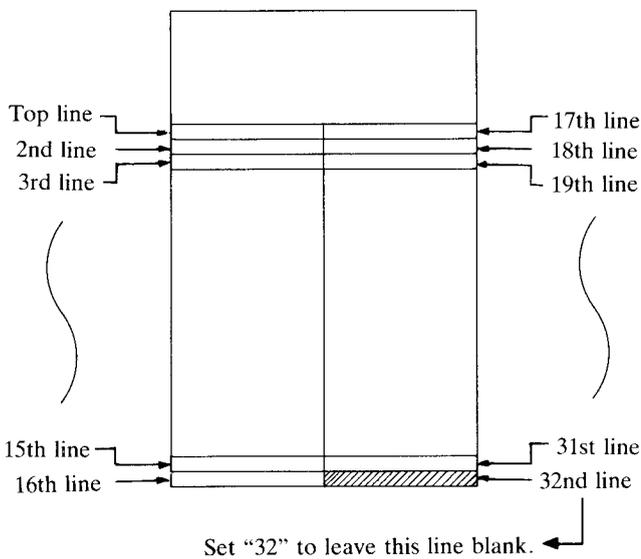
☆For weekly and 31 - lift monthly cards, skip this procedure by pressing “YES”.

Across - the - card type examples.

Card type code 7 (Monthly pay 15 / 16 lifts 2 sides)

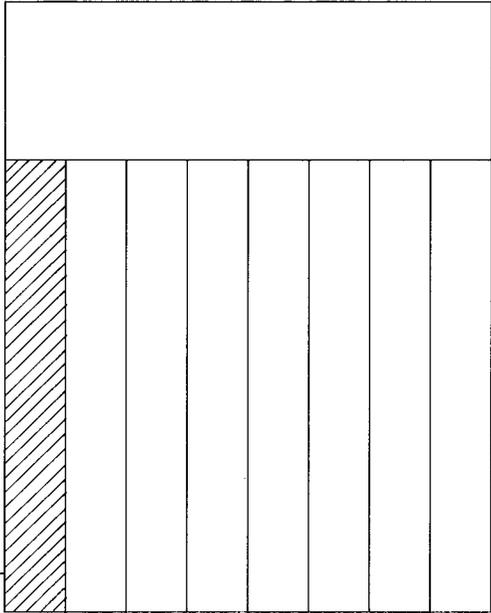


Card type code 8 (Monthly pay 15 / 16 lifts 1 side.)



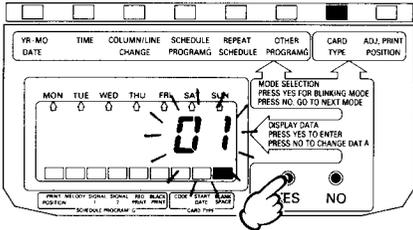
Down/Up - the - card type monthly examples

Card type code 14 (16 vertical spaces down / up the card, monthly)



- 1st 2nd ~~~~~ 7th 8th ← Front side of the 1st card
- 9th 10th ~~~~~ 15th 16th ← Back side //
- 17th 18th ~~~~~ 23rd 24th ← Front side of the 2nd card
- 25th 26th ~~~~~ 31st 32nd ← Back side //

→ Set "1" to leave this column of the 1st card blank.



6 Once the blank space is programmed, the red light indicator will move to "ADJ. PRINT POSITION".

- ① If the card format (line spacing and column spacing) of the selected card type code is correct, it is not necessary to set the card format.
- ② If the format of the selected card type varies from that of the card actually used, contact your local dealer.

The clock is already pre-programmed to automatically adjust the print position for the most commonly used cards.

Usually, the print position program will only need to be changed if you are using a custom designed time card.

The print position should be checked with a test card. Once the programming is complete — at this time press "NO" and go to schedule programming.

List of card types

Terminology

☆Example : Card type code 7

No.		PAY ENDING		, 19			
NAME							
	HOURS	RATE	AMOUNT		DEDUCTIONS		
R.T.					INCOME TAX		
O.T.					UNEMP. INS.		
					HOSP.		
					BONDS		
					MISC.		
TOTAL EARNINGS							
TOTAL DEDUCTIONS							
BALANCE DUE					TOTAL		
DATE	MORNING		AFTERNOON		OVERTIME		HRS.
	IN	OUT	IN	OUT	IN	OUT	
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
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SIGNATURE _____							
AMANO FORM A-701							

Column pitch

Side margin

Line pitch

Number of lines

Number of blocks

Line position

Number of columns

Card width

4		5		6	
14 lifts across the card bi-weekly				14 lifts across the card weekly	
86 mm (3 3/8")				NDI	
6 columns				82.5 mm	
14 lifts				4 columns	
12 mm (0.472")				7 × 2 lifts	
6 mm (0.236")		7 mm (0.276")		12 mm (0.472")	
7.5 mm (1st week) / 7.5 mm (2nd week)		7 mm (1st week) / 7 mm (2nd week)		6 mm × 2	
117 mm (1st week) / 74.35 mm (2nd week)		118 mm (1st week) / 68.5 mm (2nd week)		16 mm	
2 blocks				123 mm	
				1 block	

No. _____

NAME _____

PAY PERIOD ENDING _____

R.T. HOURS	RATE	AMOUNT	F. I. C. A.	NUMBER OF EXEMPTIONS
O.T. HOURS	RATE	AMOUNT	FED. W.T.	TOTAL EARNINGS
HOURS		AMOUNT	STATE W.T.	TOTAL DEDUCTIONS
			CITY W.T.	BALANCE DUE
			DI. S.A.B.	
			BONDS	

Days							
①							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
	IN	OUT	IN	OUT	IN	OUT	

TOTAL HOURS SHOWN IS CORRECT.

Form 85231 Signature _____

DAY	IN	OUT	IN	OUT		
A M						
P M						
A M						
P M						
A M						
P M						
A M						
P M						
A M						
P M						
A M						
P M						
A M						
P M						
TOTAL TIME						

Card type code	7	8	9
Card type	Monthly pay, 15/16 lifts, 2 sides Amano standard card	Monthly pay, 15/16 lifts, 1 sides	Monthly pay, 31 lifts
Card width (mm)	86 mm (3 3/8")		104 mm (4 1/4")
Number of columns	6 columns	3 columns	6 columns
Number of lines	16 lifts		31 lifts
Column pitch (mm)	12 mm (0.472")		12 mm (0.472")
Line pitch (mm)	6 mm (0.236")		4.53 mm (0.178")
Side margin (mm)	7 mm (Front) / 7mm (Back)	7 mm (Left) / 43 mm (Right)	8 mm
Line position (mm)	116 mm (Front) / 116 mm (Back)		162.8 mm
Number of blocks	1 block	2 blocks	1 block

Remarks

Set blank line

No blank line

Sample

⊙ : Pay period start date

DATE		M		MORNING		AFTERNOON		OVERTIME		HRS
DATE	IN	DATE	IN	IN	OUT	IN	OUT	IN	OUT	
16		⊙								
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										

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⊙			16		
2			17		
3			18		
4			19		
5			20		
6			21		
7			22		
8			23		
9			24		

N. _____

Nome _____

Mese di _____ 19__

gior.	entrata		uscita		registrazioni		ferie cong.	ore		
	1 tur.	entrata	uscita	extra	ordinaria	straord.		festive	notturne	
⊙										
2										
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28										
29										
30										
31										

Totale

Presenze gg	INAM gg	Eccedenze h
Massimale gg	Ferie gg	Ore postgravidanza
Ore permessi sind	Festività gg	Altre assenze

A31 1057027NA CROLOOPI TEL 4035537 4035897

Setting up a weekly schedule program

Fill in the program chart before inputting a schedule program.

Single Weekly Schedule

If there is only one schedule for the entire week, the program can be set once for Monday and then copied for the other days.

- 1) Program the entire schedule for Monday. Once the last entry is made, press “YES” when the display shows  .
- 2) The red indicator will move to “REPEAT SCHEDULE.” Press “YES” as the cursor flashes on/off under each day of the week. After Monday’s schedule is copied to all other days, the display will change to  .
- 3) Since the schedule is the same for the whole week, just press “NO” until the red indicator moves to “OTHER PROGRAMMING”.

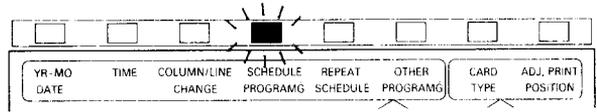
Multiple Weekly Schedules

- 1) Program the entire schedule for Monday. Once the last entry is made, press “YES” when the display shows  .
- 2) The red indicator light will move to “REPEAT SCHEDULE.” As the cursor appears under each day of the week, press “YES” to copy the schedule to that day, or “NO” to skip the day.
- 3) After a “YES/NO” selection is made for Sunday, the red indicator will move back to “SCHEDULE PROGRAMMING.”

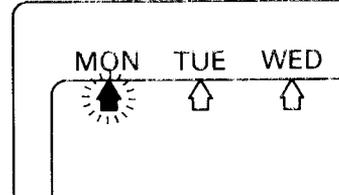
Press “NO” until the cursor is under the next day for a new weekly schedule. Repeat steps 1 to 3 until a schedule has been programmed for each day of the week. Then press “NO” until the red indicator light moves to “OTHER PROGRAMMING.”

Setting up a new program

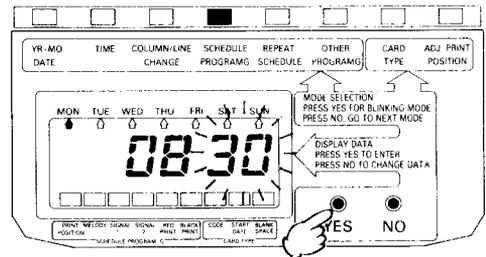
1 Press "YES" when the red flashing light points to "SCHEDULE PROGRAM'G."



2 Designate the day of the week. Designate Monday at first. Press "YES" when a flashing arrow points to "MON".

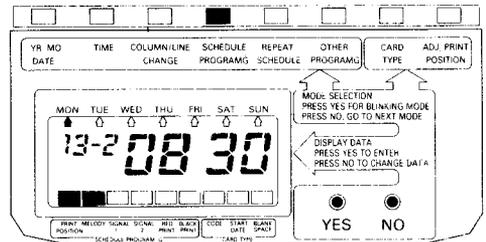


3 will appear. Press "NO", and designate the time in the same way as setting the clock.



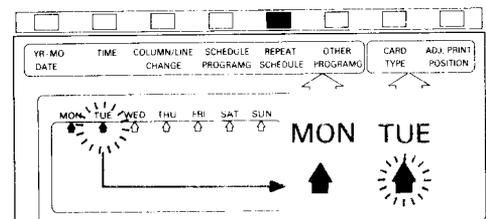
4 If time signal output, column shift, or print color change is to be done at the time designated in Step 3, set them. Press "YES" to select the flashing cursor item, otherwise press "NO".

Model	Column shift	Melody	Signal 1	Signal 2	Red/black print
EX7500	<input type="radio"/>				
EX7600	<input type="radio"/>				



5 Designate new time and repeat procedure 3~4. (When appears, press "NO".)

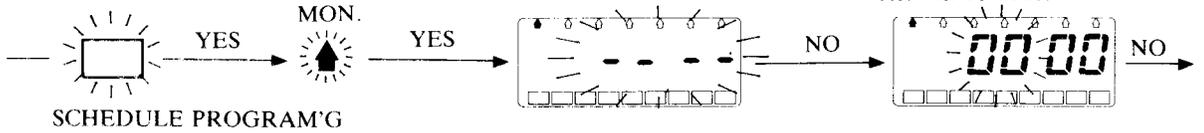
6 When programming of the designated day is completed, press "YES" when appears. If the program is the same for the other days of week, copy it with "REPEAT SCHEDULE"



Day	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.	
Time	Print position	Melody			Signal 1	Signal 2	Red printing starts	Black printing starts
8:00	1				○			
9:00	2	○			○			

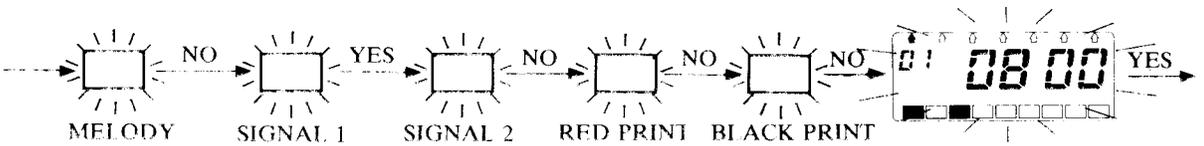
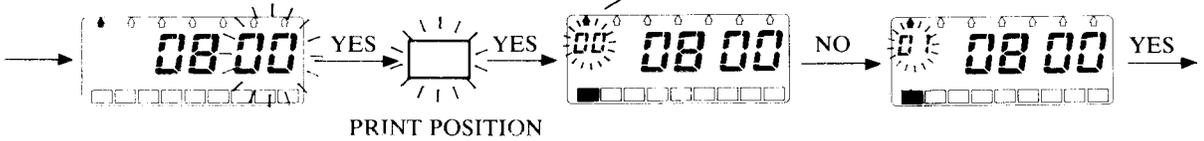
<Procedure>

Set the time print position shift, etc. will be done.

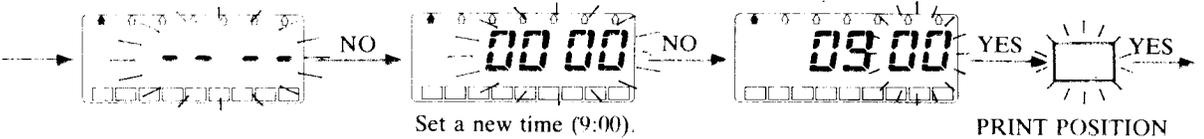


(in the same way as setting clock.)

Set the print position.



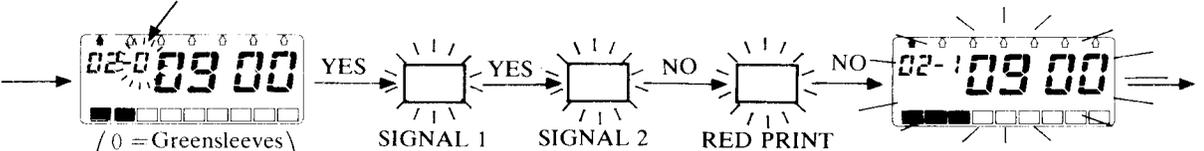
(in the same way as setting clock.)



Set the print position

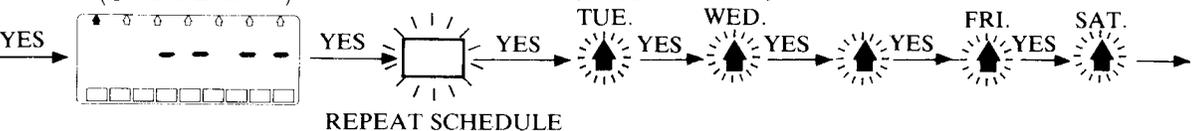


Select a tune



- 0 = Greensleeves
- 1 = Annie Laurie
- 2 = Romance
- 3 = For Elise

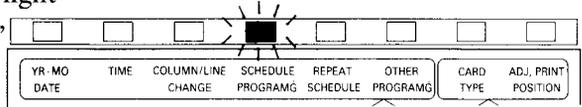
Select other days which have the same schedule as Monday.



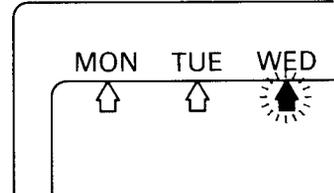
Input schedule for other days of week in the same way.

Changing the weekly program

1 Press "YES" when the red flashing light points to "SCHEDULE PROGRAM'G"

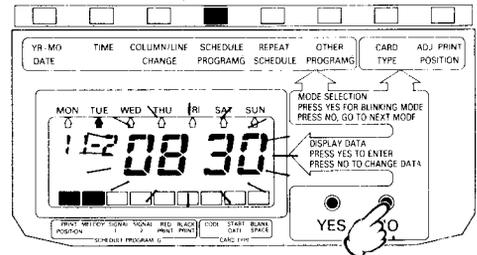


2 Press "NO" until the flashing arrow points to the desired day. Then press "YES".



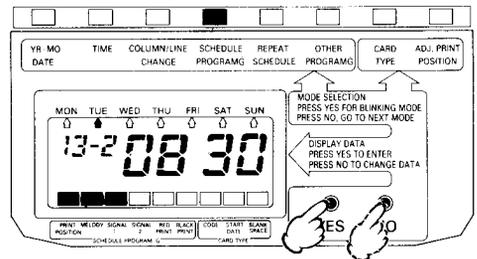
3 ☆To change some item, press "YES" until the time is displayed. Then press "NO".

☆To make an addition to the program, press "YES" until appears. Then press "NO" and set the desired time.



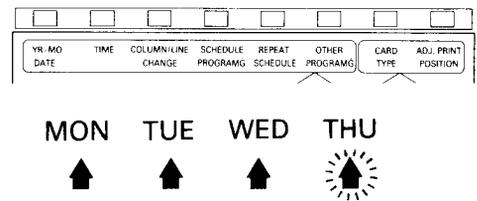
4 **[Modification]**
When hour or minute is blinking, press "YES". Input column shift, color change, etc. over again.

[Addition]
If signal output, column shift or print color change is to be done at the time designated in Step 3, set them.



5 Repeat 3 ~ 4 if further modification or addition is to be made.

6 When programming of the designated day is completed, press "YES" when is displayed. If the program is the same for the other days of week, copy it with "REPEAT SCHEDULE."

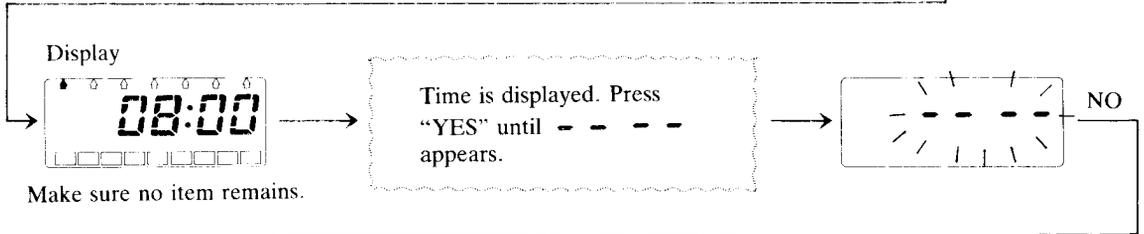


Day	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.	
Time	Print position	Melody 0 1 2 3			Signal 1	Signal 2	Red printing starts	Black printing starts
7:00								
8:00	2				①			
9:00		⊗						

☆To change print position shift from 8:00 to 7:00



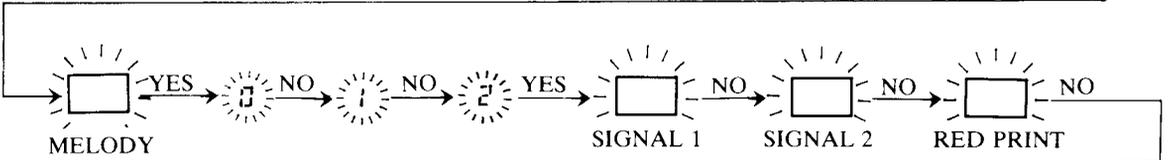
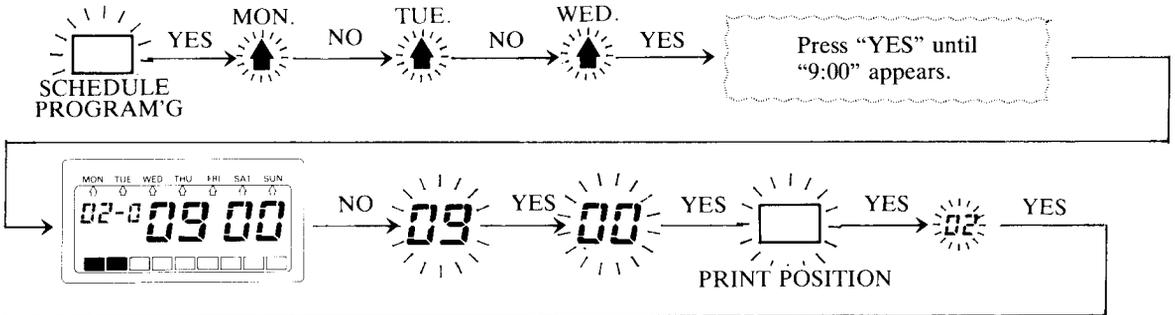
Flashing advances from PRINT POSITION to BLACK PRINT as you press "NO".



Make sure no item remains.

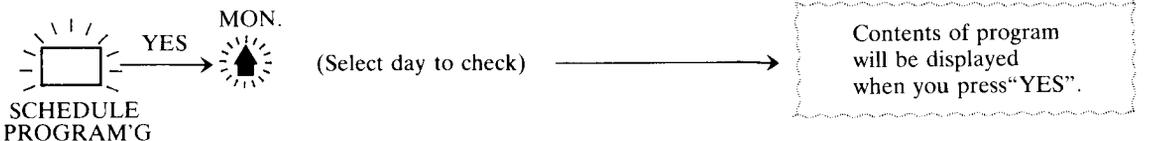
Set 7:00 by the procedure of setting weekly program.

☆To change melody to No. 2 only on Wednesdays



Same procedure as setting a new weekly program.

☆To check the weekly program



OTHER PROGRAMMING

Press "YES" when red flashing light indicates OTHER PROGRAM'G.

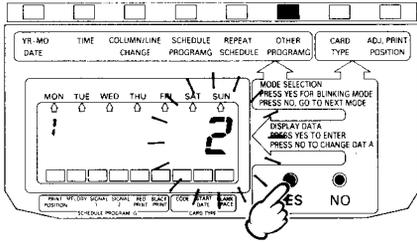
Time Display Selection

(1) To select clock hours for display :

CODE

1 = 0 - 23 houes

2 = AM/PM hours



Hour Imprint Selection (AM/PM hours or 24 hours)

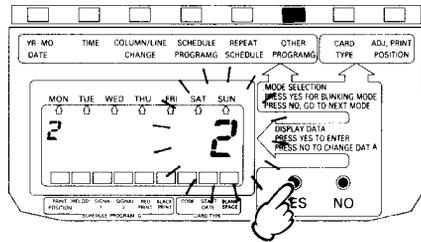
(2) To select imprint hours:

With this setting, afternoon hours are underlined.

CODE

1 = 0 - 23 hours

2 = 1 - 12, 1 - 12 hours



Changing the Imprint of Minutes.

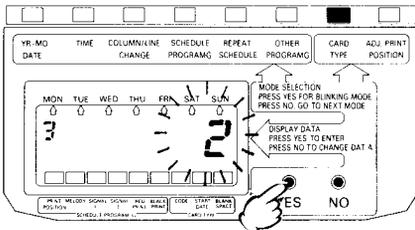
(3) To select minute hour imprint :

CODE

1 = Regular minutes (0 - 59)

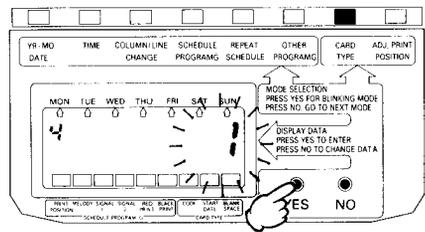
2 = 1 / 100th of hour

3 = 1 / 10th of hour



Changing from Date to Day of Week for Printout

(4) To change from date to day of week or day number for printout:



CODE

0=Date (01 - 31)

1=Day of week (English)

2=Day of week (Spanish)

3=Day of week (French)

CODE

4=Day of week (German)

5=Day of week (Italian)

6=Day number

7=No printing

Daylight Savings Time

※ If daylight savings time is not used, repeat pressing “YES” until small digit “7” appears and proceed to step (7).

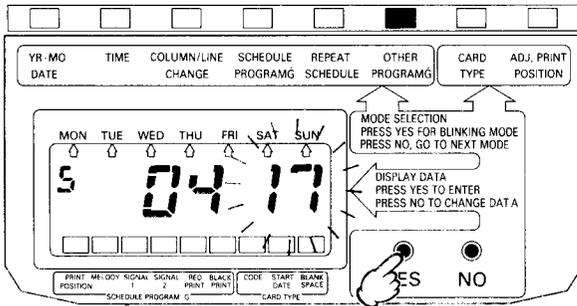
To use daylight savings time, set the month and date daylight savings time should start and end.
To stop using daylight savings time, set the starting and ending dates as the same day.

(5) Set the daylight savings time starting date

- - - - appears with small digit “5” appearing in the left corner. Press “NO” until the month appears and then press “YES”.

Press “NO” until the date appears and then press “YES”.

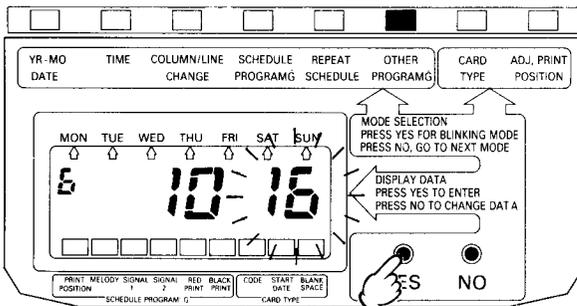
Example : April 17



(6) Set the daylight saving time ending date

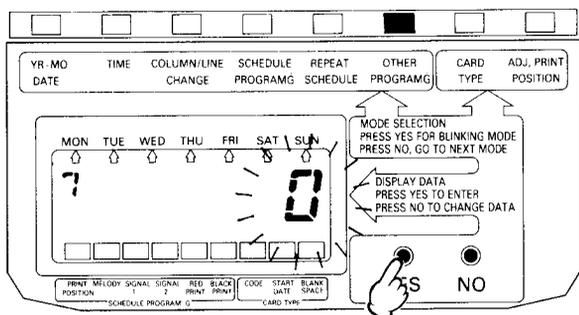
Set the month and date that daylight savings time ends in the same way as (5).

Example : October 16



Shifting Print Position

(7) Enabling/disabling column shift button



CODE

0 = Inactive

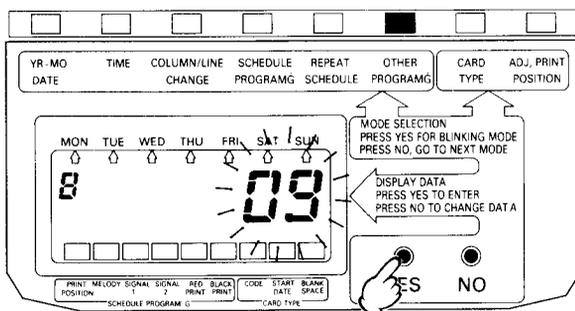
1 = Active

- The column shift button cannot be used if you use a vertical type card.

Print position (weekly program)	Column shift button	Print positioning
not programmed programmed "0"	active	Manual IN / OUT selection
programmed	active	Override automatic IN / OUT positioning with manual selection
programmed	inactive	Automatic IN / OUT positioning only

Signal Duration (EX7600 only)

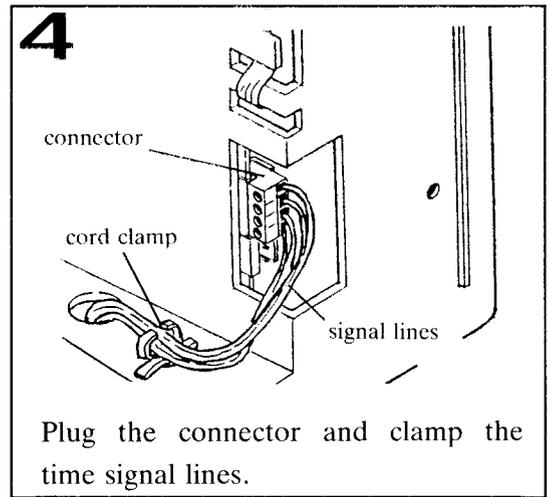
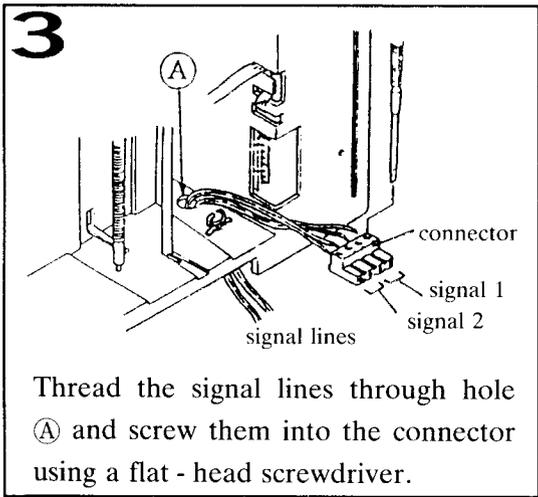
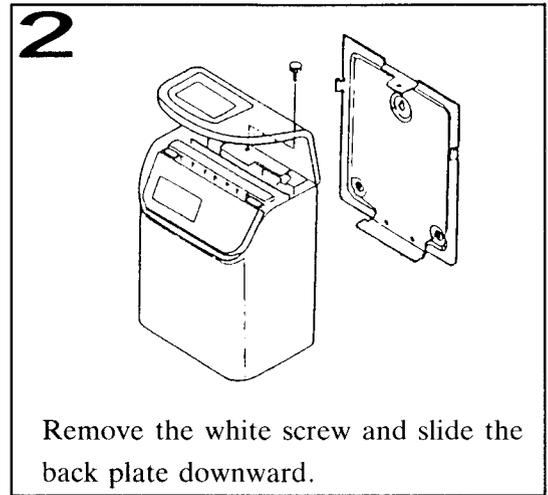
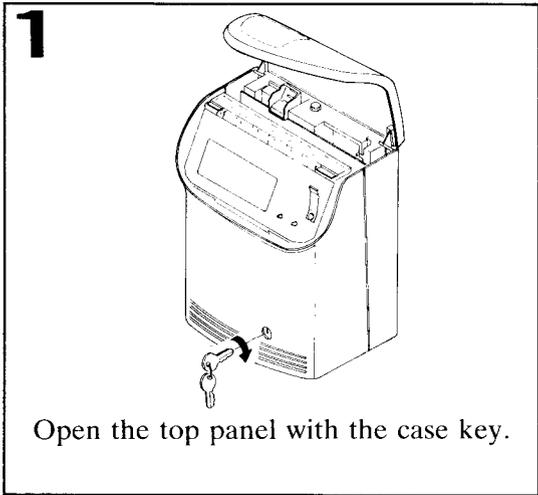
(8) To change the signal duration



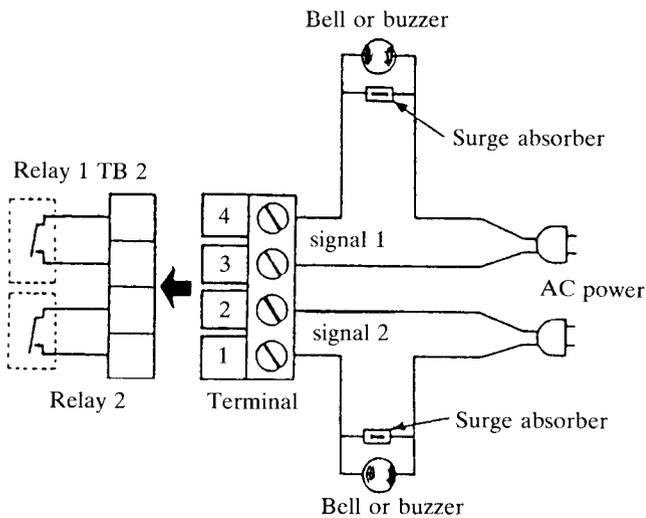
Initial value "05" appears with small digit "8" appearing in the left corner. Set the right - side number to the duration (max. 59 seconds) of signal and press "YES".

- When the duration is defined as "0", time signal will not be output.
- The signal duration is applied for both channel 1 (signal 1) and channel 2 (signal 2).

Connecting the external signal lines



Wiring diagram of signal lines

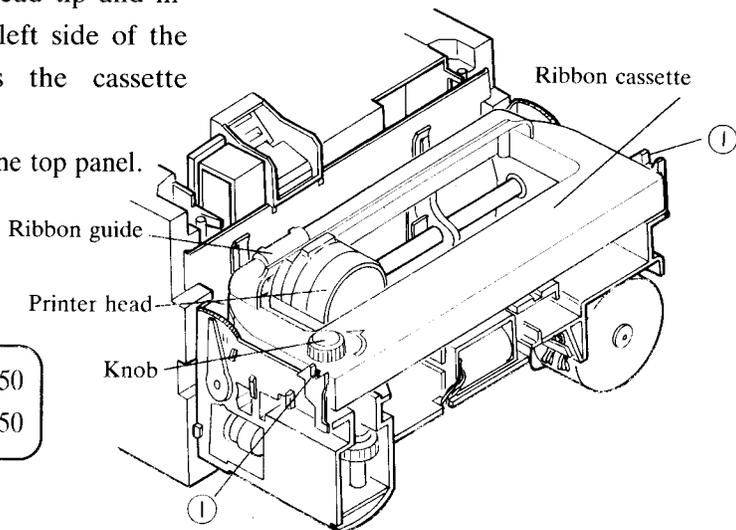


- Contact output : Dry contact output (make contact)
- Contact capacity
 - AC resistance load 250V, 1.0A or less
 - AC inductance load 250V, 0.5A or less
 - DC load 24V, 0.5A or less
- Signal circuits : 2 circuits
- Install surge absorbers on the signal unit side.

Replacing the ribbon cassette

When printing becomes too light, replace the ribbon cassette in the following manner.

- 1) Open the top panel and pull the control panel toward you.
- 2) Lift the ribbon cassette off the main unit.
- 3) Slide the printer head to the left end.
- 4) Slide the ribbon guide on the new ribbon cassette to the left end. Fit the projections on both sides of the ribbon cassette into notches ①. Fit the ribbon guide to the printer head tip and insert it. Turning the knob at the left side of the cassette counterclockwise, press the cassette downward.
- 5) Replace the control panel and close the top panel.

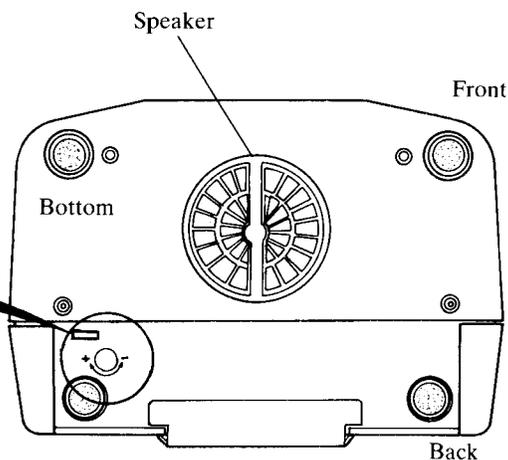
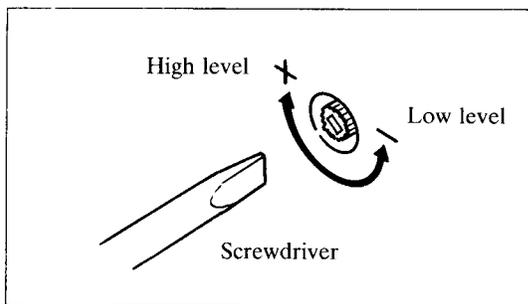


Ribbon

EX7500 (black ribbon)	C - 268050
EX7600 (two - color ribbon)	C - 267650

Adjusting the electronic melody. (Option for EX7600 only)

Turn the volume control located at the bottom of the case with a thin screwdriver and adjust it to an appropriate volume.



Options

■ Full - Power Reserve Unit

A “Full - Power Reserve Unit” is optionally available.

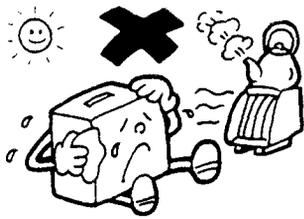
Entire function is maintained for 2 days or 500 punches during power failure.

■ Slave clock

The built - in clock receives time signals from a master clock. The input signal must be of 3, 6, 12, or 24 VDC, with a pulse width of 1~3 seconds.

Precautions

1. Avoid the following when installing the time recorder.



Direct sunlight and vicinity of heater



Wet places

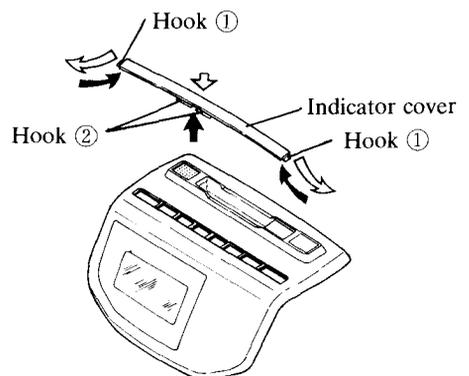


Places where there is much dust or vibrations

2. Use this unit within the ambient temperature range of $-10^{\circ}\text{C} \sim 45^{\circ}\text{C}$ with relative humidity of 10% ~90%.
3. Wipe lightly with a soft cloth soaked with water or neutral detergent.
Do not use thinner, benzine or insecticide.

Changing the indicator sheet

- 1) Open the top panel. From inside, push the indicator cover in the middle (in the direction of the arrows \rightarrow).
- 2) Set the indicator sheet.
- 3) Fit the hooks ① on both sides of the indicator cover in the top panel (in the direction of the arrows \Rightarrow). Push in the hooks ② in the middle of the indicator cover.



Weekly program chart

Weekly program
chart for EX7500

Weekly program chart for EX7600

Day	Mon. Tue. Wed. Thu. Fri. Sat. Sun.
Time	Print position
1	:
2	:
3	:
4	:
5	:
6	:
7	:
8	:
9	:
10	:
11	:
12	:
13	:
14	:
15	:
16	:
17	:
18	:
19	:
20	:
21	:
22	:
23	:
24	:
25	:
26	:
27	:
28	:
29	:
30	:
31	:
32	:

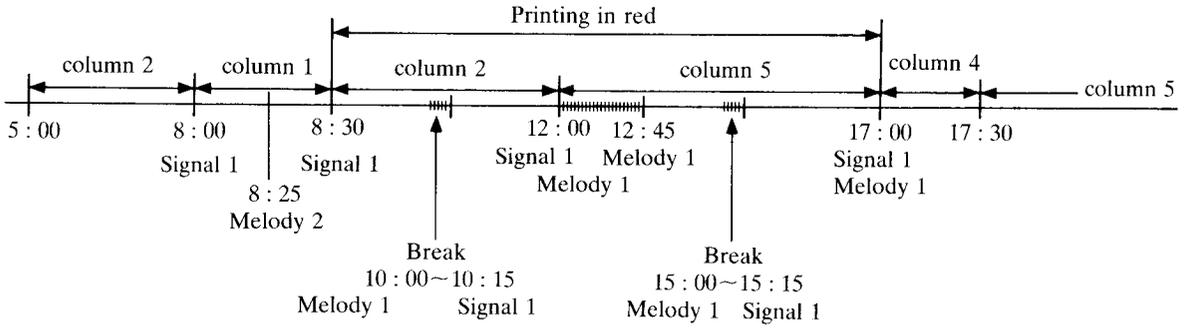
Day	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.	
Time	Print position	Melodies 0 1 2 3			Signal 1	Signal 2	Red printing starts	Black printing starts
1	:							
2	:							
3	:							
4	:							
5	:							
6	:							
7	:							
8	:							
9	:							
10	:							
11	:							
12	:							
13	:							
14	:							
15	:							
16	:							
17	:							
18	:							
19	:							
20	:							
21	:							
22	:							
23	:							
24	:							
25	:							
26	:							
27	:							
28	:							
29	:							
30	:							
31	:							
32	:							

※ Up to 32 steps can be programmed.

Melodies

0 = Greensleeves 2 = Romance
1 = Annie Laurie 3 = For Elise

Setting weekly program—example



Day	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.		
Time	Print position *	Melodies				Signal 1	Signal 2	Red printing starts	Black printing starts
		0	1	2	3				
5:00	2								
8:00	1					○			
8:25				○					
8:30	2					○	○		
10:00			○						
10:15						○			
12:00	5		○			○			
12:45			○						
15:15						○			
17:00	4							○	
17:30									

- 1) For “print position”, do not input a number larger than the number of columns / lines your time card has, although print column can be up to 8 and print line up to 22.
- 2) If you use 2 lines per day, column shift programming should be as follows :

Programmable column shift No.

No. of columns	Line	Column							
		1	2	3	4	5	6	7	8
3	1st	1	2	3					
	2nd	4	5	6					
4	1st	1	2	3	4				
	2nd	5	6	7	8				
6	1st	1	2	3	4	5	6		
	2nd	7	8	9	10	11	12		
8	1st	1	2	3	4	5	6	7	8
	2nd	9	10	11	12	13	14	15	16