

# AMANO®

## TCX-22

Electronic Time Clock

Operation Manual



ENGLISH • ESPAÑOL

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## **Proprietary Notice**

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We recommend that this document be read in its entirety before any attempt is made to operate the equipment.

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## Specifications

### Power Requirements:

For Clock Input: AC16.5V, 60Hz, 0.6A (Max.)

For AC Adapter: AC100V  $\pm$  10%, 50/60Hz

AC120V  $\pm$  10%, 60Hz

AC230V  $\pm$  10%, 50/60Hz

### Battery:

12V Sealed Rechargeable Lead-Acid Battery

NP1.2-12 12V 1.2Ah

Ambient Temperature: -10°C to 45°C (14°F to 113°F)

Ambient Humidity: 10% to 90% (non-condensing)

### Dimensions:

6 7/8" (175 mm) wide x 8 1/4" (210 mm) high x

6 1/4" (159 mm) deep

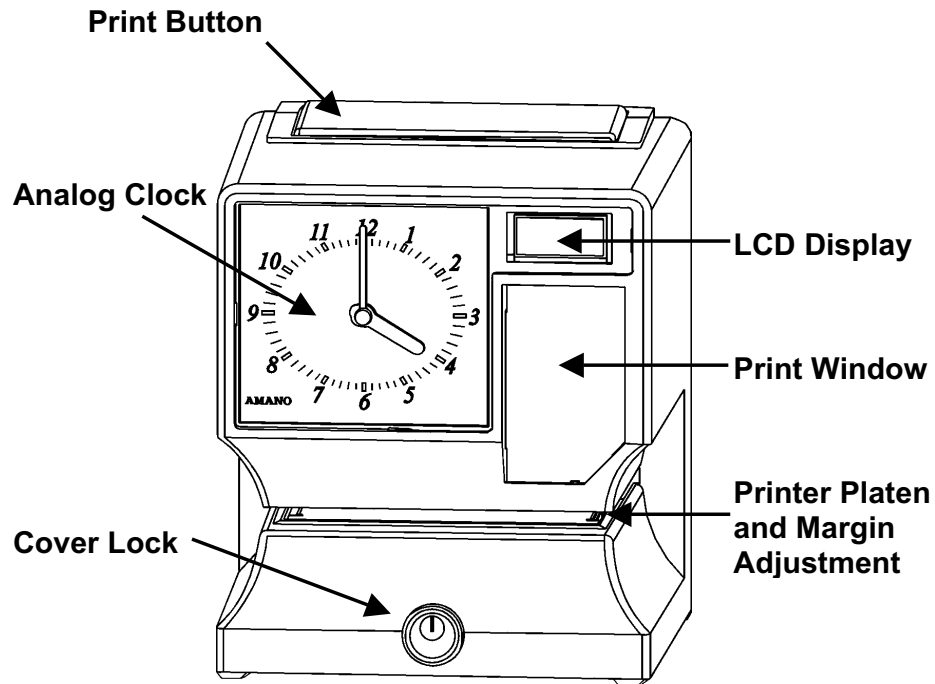
### Weight:

Approximately 5.9 Kg (13 lbs.)

### Environment:

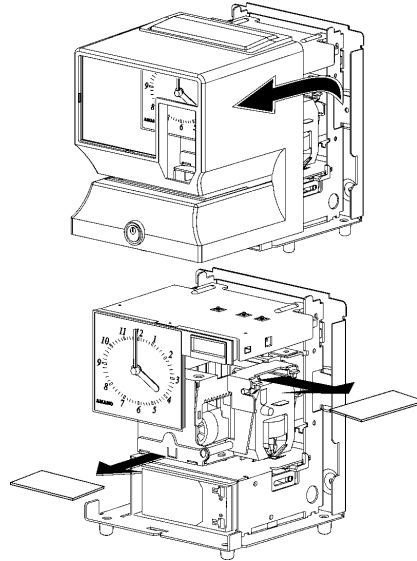
Indoor use only; dust-free environment. Keep out of direct sunlight.

## External View

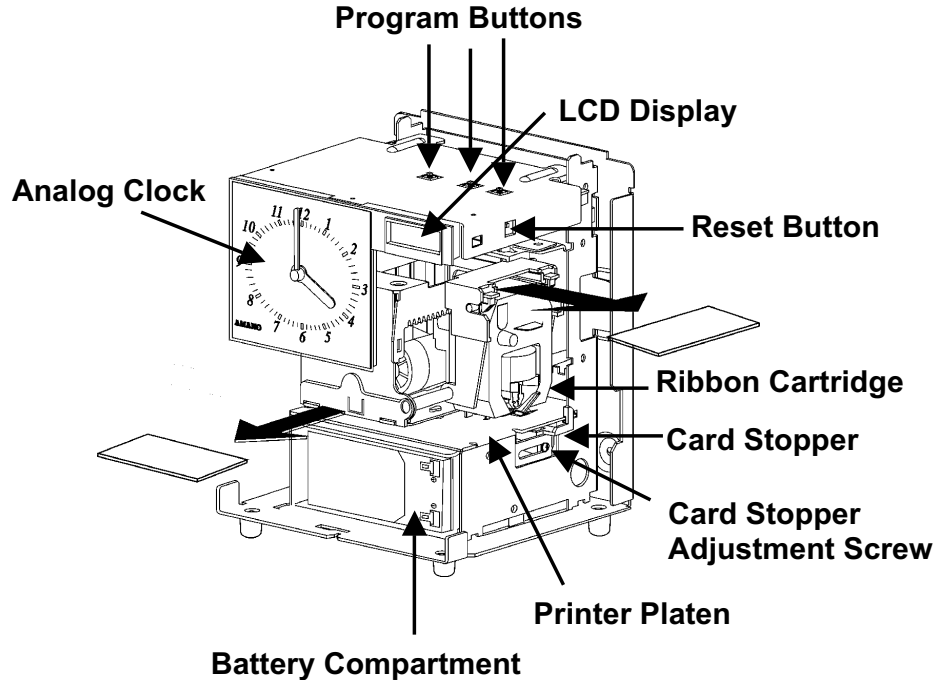


### Removing the Cover & Packing Material

1. Turn the key clockwise to unlock the cover.
2. Lift the cover up, then pull towards you to remove it.
3. Lift the printer block and remove the spacer.
4. Remove the spacer between the Ribbon Cartridge and the Printer Carriage Tab.
5. Reinstall the cover of your unit.



### Internal View

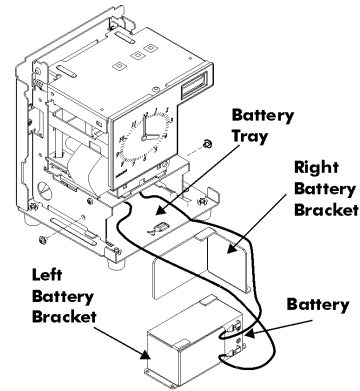


## Power Options

The TCX-22 can be powered by either an AC Adapter or a 12 volt Sealed Rechargeable battery. The Battery Power Switch on the base enables you to turn the Battery Power ON or OFF. The battery is equipped to maintain normal operations for 1 week and/or 5000 prints in the event of an A/C power failure.

### Installing the 12 Volt Battery

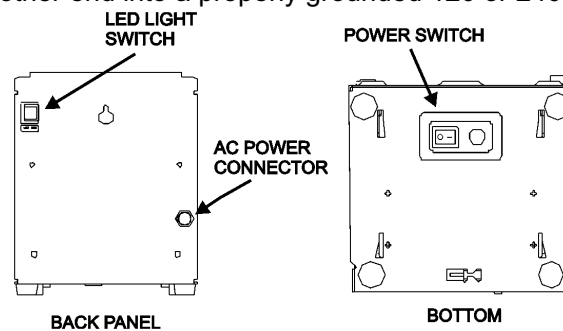
1. Remove the AC Adapter if equipped and remove the cover.
2. Lay the unit down clock face up
3. Remove left battery bracket screws
4. Pull out the left battery bracket.
5. Carefully insert the battery with the positive and negative clips facing outwards and to the right.
6. Install the left battery bracket
7. Observing polarity, attach the "Red" Positive female wire harness to the "Red" (+) Positive male connector on the Battery.
8. Attach the "Black" Negative female harness wire to the "Black" (-) Negative connector located on the battery.
9. Set the Battery Power to the "Connected" position.



**Note:** Recharge the battery at least every two weeks or every 5000 prints. The minimum charging time should be 12 hours and the switch should be turned off when the unit is not in use.

### Connecting the AC Adapter

1. Set the Battery Power Switch to the OFF position.
2. Verify that the AC outlet voltage falls in the range of 100-240 Volts AC. Verify that the cord and plug are appropriate for your AC source.
3. Plug the connector end of the AC Adapter into the Power Connector and the other end into a properly grounded 120 or 240 Volt outlet.



## Make a Test Print

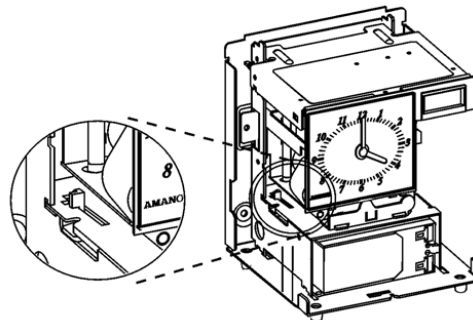
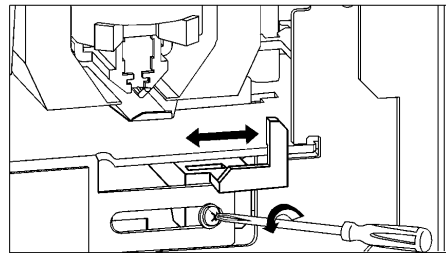
1. Make sure that there is power to the TCX-22 (Refer to Page 3).
2. Insert a piece of paper or time card into the TCX-22. The clock will automatically print YEAR, MONTH, DATE and TIME with AM or PM.

1998 JAN 1 AM12:00

3. If the imprint is satisfactory, the TCX-22 is ready for use.
4. If you wish to change the time and/or print style on the TCX-22, enter into Program Mode for various print styles. The next page gives instructions on programming the TCX-22 to fit your needs.

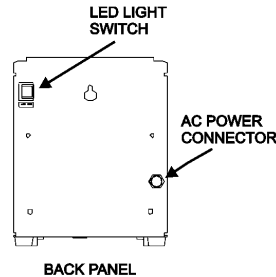
## Adjusting the Margin

1. Unlock and remove the cover.
2. Locate the Card Stopper Adjustment Screw on the right side of the clock, below the printer platen.
3. Position a piece of paper or time card as desired.
4. Loosen the screw to move the Card Stopper forward or back. Tighten the screw as needed. (See top illustration.) The print margin can be adjusted to a maximum of 7/8" (22 mm).



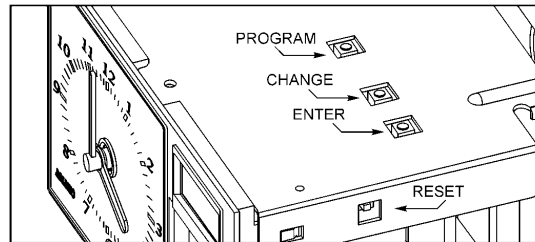
## Illuminated Print Option

The TCX-22 is equipped with a feature that allows the print area to illuminate. The switch is located on the back panel. When connected to an AC adapter the unit will stay illuminated. When used with a battery, it illuminates for about 20 minutes every time the LED switch is pressed.



## Program Mode Guide

Unlock and remove the cover. Locate the **PROGRAM**, **CHANGE** and **ENTER** buttons on top of the clock.



The **PROGRAM** button is used to enter and exit the Program Mode. Press the PROGRAM button at any time to exit the Program Mode. If a program step is in the process of being changed when this button is pushed, the new information will not be saved.

The **CHANGE** button is used to change the information on the display. When you are reviewing the main programming menu, use the CHANGE button to advance to the next programming step. When you are revising a programming step, use the CHANGE button to change the blinking information.


The **ENTER** button is used to accept the information shown on the display and save it in memory.

The **RESET** button is located on the right side of the clock. Pressing this button will clear any jams or errors.

## Entering the Program Mode


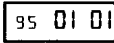
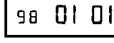
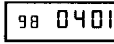
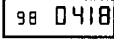
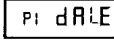
1. Unlock and remove the cover.

| Menu Code | Menu  | Function  |
|-----------|-------|---|
| P1        | dRtE  | Sets the date                                       |
| P2        | Cloc  | Sets the clock time                                 |
| P3        | dLSt  | Disable/Enable Daylight Saving Time                 |
| P4        | Prnt  | Sets the print style using Quick Print Set-Up Codes |
| P5        | Other | Accesses Other Options Menu                         |

2. Press and hold the PROGRAM button to access the Main Programming Menu. The Main Programming Menu consists of the Following
3. When P1 dRtE flashes in the display, release the PROGRAM button. To move to the next menu item, press the CHANGE button. 

**Note:** If no other button is pressed after five minutes, the clock will return to the Normal Mode and the clock hands will reset.

## Setting the Year, Month and Date

1. When the display flashes P1 dRtE, press the ENTER button. 
2. Press the CHANGE button until the correct year appears, then press the ENTER button. 
3. Press the CHANGE button until the correct month appears, then press the ENTER button. 
4. Press the CHANGE button until the correct date appears, then press the ENTER button. 
5. When the display flashes the correct year, month and date, press the ENTER button. 
6. When the display flashes P1 dRtE, press the CHANGE button to move to Setting the Clock Time. 



## Setting the Clock Time

**Note:** Use a 24 hour and 60 minute format when setting the time. For example, 2:00 PM = 14:00.

1. When the display flashes P2 CLoc, press the ENTER button. P2 CLoc
2. Press the CHANGE button until the correct hour appears, then press the ENTER button. 12:00
3. Press the CHANGE button until the correct minute appears, then press the ENTER button. 14:00
4. When the display flashes the correct time, press the ENTER button. 14:00
5. When the display flashes P2 CLoc, press the CHANGE button to move to the Daylight Saving Time On/Off Setting. P2 CLoc

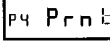
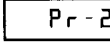
## Disabling/Enabling Daylight Saving Time (DST)

**Note:** When this setting is set to ON, the clock's time will automatically change for DST. When this setting is set to OFF, the clock's time will not change for DST. The dates to begin and end DST are set in the Other Options Menu (See Page 14).


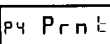
1. When the display flashes P3 dLSt, press the ENTER button. P3 dLSt
2. Press the CHANGE button to alternate between On and Off. on
3. When the display flashes the correct setting, press the ENTER button. oFF
4. When the display flashes P3 dLSt, press the CHANGE button to move to the Quick Set-Up Code setting. P3 dLSt

## The Quick Set-Up Code Setting

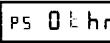
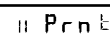
**Note:** If you do not wish to use one of the Quick Set-Up Code settings, you may set an alternate style on the following page.

- When the display flashes P4Prnt, press the ENTER button. 
- The display will flash the current setting. Press the CHANGE button to scroll through each of the Quick Set-Up Code Settings. 

| Code | Print Style                                | Print Direction  |
|------|--|------------------|
| Pr-1 | Day, 24Hr., 100th/Hr                       | Right Side Print |
| Pr-2 | Day, 12Hr., 60th/Hr.                       | Right Side Print |
| Pr-3 | Month, Date, 24Hr., 100th/Hr.              | Right Side Print |
| Pr-4 | Month, Date, 12Hr., 60th/Hr.               | Right Side Print |
| Pr-5 | 2 Digit Year, Month, Date, 12Hr., 60th/Hr. | Right Side Print |
| Pr-6 | 4 Digit Year, Month, Date, 12Hr., 60th/Hr. | Right Side Print |
| Pr-7 | 4 Digit Year, Month, Date, 24Hr., 60th/Hr. | Right Side Print |

- When the display flashes the correct setting, press the ENTER button. 
- When the display flashes P4Prnt, press the CHANGE button to move to the Other Options menu. 

### Accessing the Other Options Menu

- When the display flashes P5Othr, press the ENTER button. 
- The display will flash the first programming step in the Other Options sub-menu. Press the CHANGE button to advance through the menu selections. 

| Menu Code | Menu | Function  |
|-----------|------|---|
| 11        | Prnt | Set Print Style using Sumbol or Print Style Codes   |
| 12        | LANG | Sets the Language of the print out                  |
| 13        | Prdr | Sets the Print Direction (left or right hand)       |
| 14        | APrt | Disable, enable, or configure the Auto print option |
| 15        | ZEr0 | Diable/enable Leading Zero in print out             |
| 16        | bdLt | Set the date that Daylight Saving Time begins       |
| 17        | EdLt | Set the date that Daylight Saving Time ends         |
| 18        | diAG | Accesses the Diagnostic Rountine                    |

## Setting Up Alternate Print Styles

**Note:** If you do not wish to use one of the Quick Set-Up Code settings, you may select from the Alternate Print Style sub-menu.

1. When the display flashes `!!Prnt`, press the ENTER button. `!! Prnt`
2. Press the CHANGE button to move from Code setting to Symbol setting. If you select Code, you must enter a Print Style Code from Table 1 on the next page. If you select Symbol, you can “build” a custom Print Style using Tables 2 and 3 on pages 10 and 11. `Pr CODE`  
`Pr SYBL`
3. When the display flashes the correct setting, press the ENTER button.

## Selecting a Print Code

**Note:** Refer to Table 1 on the next page for Print Style Codes.

1. When the display flashes `PrCODE`, press the ENTER button. `Pr CODE`
2. Press the CHANGE button until the desired number appears in the first position. Press the ENTER button. `00 00`
3. Press the CHANGE button until the desired number appears in the second position. Press the ENTER button. `60 00`
4. Press the CHANGE button until the desired number appears in the third position. Press the ENTER button. `65 00`
5. Press the CHANGE button until the desired number appears in the fourth position. Press the ENTER button. `65 70`
6. When the display flashes all four correct numbers, press the ENTER button. `65 70`
7. When the display flashes `!!Prnt`, press the CHANGE button to move to the Language Setting. `!! Prnt`

**Table 1: Print style Codes for the Program Mode**

| Code | Print Style                  | Print Direction     |
|------|------------------------------|---------------------|
| 6510 | DAY, 12H, 60th               | Right Side Printing |
| 6210 | DAY, 24H, 10th               | Right Side Printing |
| 6810 | DAY, 24H, 100th              | Right Side Printing |
| 6520 | DATE, 12H, 60th              | Right Side Printing |
| 6620 | DATE, 24H, 60th              | Right Side Printing |
| 6820 | DATE, 24H, 100th             | Right Side Printing |
| 6540 | DATE, MONTH, 12H, 60th       | Right Side Printing |
| 6640 | DATE, MONTH, 24H, 60th       | Right Side Printing |
| 6840 | DATE, MONTH, 24H, 100th      | Right Side Printing |
| 6680 | DATE, MONTH, YEAR, 24H, 60th | Right Side Printing |
| 6071 | YEAR, MONTH, DATE, RCV'D     | Right Side Printing |
| 6072 | YEAR, MONTH, DATE, SENT      | Right Side Printing |
| 6073 | YEAR, MONTH, DATE, FAX'D     | Right Side Printing |
| 6074 | YEAR, MONTH, DATE, VOID      | Right Side Printing |
| 6075 | YEAR, MONTH, DATE, PAID      | Right Side Printing |
| 6076 | YEAR, MONTH, DATE, CFM'D     | Right Side Printing |
| 6077 | YEAR, MONTH, DATE, APR'D     | Right Side Printing |
| 6078 | YEAR, MONTH, DATE, CMPL'D    | Right Side Printing |
| 6079 | YEAR, MONTH, DATE, ORIGN     | Right Side Printing |
| 6070 | YEAR, MONTH, DATE, FILE      | Right Side Printing |
| 5510 | DAY, 12H, 60th               | Left Side Printing  |
| 5210 | DAY, 24H, 10th               | Left Side Printing  |
| 5810 | DAY, 24H, 100th              | Left Side Printing  |
| 5520 | DATE, 12H, 60th              | Left Side Printing  |
| 5620 | DATE, 24H, 60th              | Left Side Printing  |
| 5820 | DATE, 24H, 100th             | Left Side Printing  |
| 5540 | DATE, MONTH, 12H, 60th       | Left Side Printing  |
| 5640 | DATE, MONTH, 24H, 60th       | Left Side Printing  |
| 5840 | DATE, MONTH, 24H, 100th      | Left Side Printing  |
| 5680 | DATE, MONTH, YEAR, 24H, 60th | Left Side Printing  |
| 5071 | YEAR, MONTH, DATE, RCV'D     | Left Side Printing  |
| 5072 | YEAR, MONTH, DATE, SENT      | Left Side Printing  |
| 5073 | YEAR, MONTH, DATE, FAX'D     | Left Side Printing  |
| 5074 | YEAR, MONTH, DATE, VOID      | Left Side Printing  |
| 5075 | YEAR, MONTH, DATE, PAID      | Left Side Printing  |
| 5076 | YEAR, MONTH, DATE, CFM'D     | Left Side Printing  |
| 5077 | YEAR, MONTH, DATE, APR'D     | Left Side Printing  |
| 5078 | YEAR, MONTH, DATE, CMPL'D    | Left Side Printing  |
| 5079 | YEAR, MONTH, DATE, ORIGN     | Left Side Printing  |
| 5070 | YEAR, MONTH, DATE, FILE      | Left Side Printing  |

*If you cannot locate the desired print style from the above list, refer to the instructions on the next page for programming the print style using symbols.*

### Customizing a Print Style Using Character Symbols

**Note:** The maximum displacement (print length) of the print head is 152 dots or 35 mm (1.4"). When viewed on the LCD display, this value becomes a percentage, where the maximum allowable value is 99%. To determine if your desired symbol will print, add the lengths of each character used from the table. The total should be less than 150 dots or 99%. Please refer to Tables 2 and 3 representing the print styles, number of dots or line lengths.

1. When the display flashes Pr SYbL, press the ENTER button. Pr SYbL
2. Press the CHANGE button until the character symbol you want to print appears, then press the ENTER button. YERr
3. A **1** symbol will appear in the display to designate the first Symbol Code has been assigned. **1** YERr
4. Continue to assign codes until you have finished.
5. Press the CHANGE button until the En code flashes, then press the ENTER button. **02** SY-0
6. When the display flashes **11** Prnt, press the CHANGE button to move to the Language Setting. **02** 11 Prnt

**Table 2: Custom Print Style Samples**

| Print Style                   | Example          | Code to Enter                           | Length |
|-------------------------------|------------------|---|--------|
| DAY,12Hr,60th/Hr              | FRI PM 1:45      | dAY SPCE 1260th                         | 82     |
| DAY,24Hr,60th/Hr              | FRI 13:45        | dAY SPCE 2460th                         | 68     |
| DAY,24Hr,10th/Hr              | FRI 13.7         | dAY SPCE 24 10th                        | 58     |
| DAY,24Hr,100th/Hr             | FRI 13.75        | dAY SPCE 24 100th                       | 68     |
| DATE,12Hr,60th/Hr             | 13 PM 1:45       | dArE SPCE 1260th                        | 82     |
| DATE,24Hr,60th/Hr             | 13 13:45         | dArE SPCE 2460th                        | 68     |
| DATE,24Hr,10th/Hr             | 13 13.7          | dArE SPCE 24 10th                       | 58     |
| DATE,24Hr,100th/Hr            | 13 13.75         | dArE SPCE 24 100th                      | 68     |
| MONTH,DATE,12Hr,60th/Hr       | APR13 PM 1:45    | month SPCE dArE SPCE 1260th             | 115    |
| MONTH,DATE,24Hr,60th/Hr       | APR13 13:45      | month SPCE dArE SPCE 2460th             | 101    |
| MONTH,DATE,24Hr,10th/Hr       | APR13 13.7       | month SPCE dArE SPCE 24 10th            | 91     |
| MONTH,DATE,24Hr,100th/Hr      | APR13 13.75      | month SPCE dArE SPCE 24 100th           | 101    |
| YEAR,MONTH,DATE,12Hr,60th/Hr  | 95 APR13 PM 1:45 | YERr SPCE month SPCE dArE SPCE 1260th   | 143    |
| YEAR,MONTH,DATE,24Hr,60th/Hr  | 95 APR13 13:45   | YERr SPCE month SPCE dArE SPCE 2460th   | 129    |
| YEAR,MONTH,DATE,24Hr,10th/Hr  | 95 APR13 13.7    | YERr SPCE month SPCE dArE SPCE 24 10th  | 119    |
| YEAR,MONTH,DATE,24Hr,100th/Hr | 95 APR13 13.75   | YERr SPCE month SPCE dArE SPCE 24 100th | 129    |
| YEAR,MONTH,DATE,SYMBOL1       | 95 APR13 RCV'D   | YERr SPCE month SPCE dArE SPCE SY- 1    | 127    |
| YEAR,MONTH,DATE,SYMBOL2       | 95 APR13 SENT    | YERr SPCE month SPCE dArE SPCE SY-2     | 124    |
| YEAR,MONTH, DATE,SYMBOL3      | 95 APR13 FAX'D   | YERr SPCE month SPCE dArE SPCE SY-3     | 127    |
| YEAR,MONTH, DATE,SYMBOL4      | 95 APR13 PAID    | YERr SPCE month SPCE dArE SPCE SY-4     | 124    |

**Table 3: Symbol Codes and Lengths**

| Code     | Character                     | Length    |
|----------|-------------------------------|-----------|
| 2dYERr   | 2 Digit Year                  | 25=16.45% |
| nnonh    | Month                         | 30=19.74% |
| dRtE     | Date                          | 20=13.16% |
| dRY      | Day                           | 20=13.16% |
| JLRN     | Julian Date                   | 30=19.74% |
| 12 10th  | 12 Hr & 10 <sup>th</sup> /Hr  | 49=32.24% |
| 12 20th  | 12 Hr & 20 <sup>th</sup> /Hr  | 59=38.82% |
| 12 60th  | 12 Hr & 60 <sup>th</sup> /Hr  | 59=38.82% |
| 12 100th | 12 Hr & 100 <sup>th</sup> /Hr | 59=38.82% |
| 24 10th  | 24 Hr & 10 <sup>th</sup> /Hr  | 35=23.03% |
| 24 20th  | 24 Hr & 20 <sup>th</sup> /Hr  | 45=29.61% |
| 24 60th  | 24 Hr & 60 <sup>th</sup> /Hr  | 45=29.61% |
| 24 100th | 24 Hr & 100 <sup>th</sup> /Hr | 5=29.61%  |
| SLSh     | Slash ( / )                   | 10=6.58%  |
| dRSh     | Dash ( - )                    | 07=4.61%  |
| SPCE     | Space ( )                     | 03=1.97%  |
| 4dYERr   | 4 Digit Year                  | 28=14.00% |
| SY-1     | RCV'D                         | 43=28.29% |
| SY-2     | SENT                          | 40=26.32% |
| SY-3     | FAX'D                         | 43=28.29% |
| SY-4     | VOID                          | 40=26.32% |
| SY-5     | PAID                          | 40=26.32% |
| SY-6C    | FM'D                          | 43=28.29% |
| SY-7     | APR'D                         | 43=28.29% |
| SY-8     | CMPL'D                        | 53=34.87% |
| SY-9     | ORIGN                         | 50=32.89% |
| SY-10    | FILE                          | 40=26.32% |
| En       | End of File                   | -         |
| Rd       | Add a Character               | -         |
| dL       | Delete a Character            | -         |

**Setting the Language**

- When the display flashes 12 LRn9, press the ENTER button.
- Press the CHANGE button until the correct language appears, then press the ENTER button.
- When the display flashes 12 LRn9, press the CHANGE button to move to the Print Direction. Please refer to the table below for Language selections.

12 LRn9

L1 En9

12 LRn9

| English | Spanish | French | Portuguese |
|---------|---------|--------|------------|
| L1En9   | L2SPn   | L3FRn  | L4PT9      |

## Setting the Print Direction

1. When the display flashes 13 Pr dr, press the ENTER button.
2. Press the CHANGE button until the correct direction appears, r 9ht for Right Side Printing, or LEft for Left Side Printing, then press the ENTER button.
3. When the display flashes 13 Pr dr, press the CHANGE button to move to the Auto Print Setting.

13 Pr dr

r 9ht

13 Pr dr

## Setting the Auto Print

1. When the display flashes 14 AP r t, press the ENTER button.
2. Press the CHANGE button until the correct printing mode appears, then press the ENTER button.

14 AP r t

on P

**Auto Print** (on P): Will automatically print a single print when media is inserted.

**Manual Print** (OFF): Requires you to use the PRINT button when printing.

**Precision Print** (on P.5): Enables you to print multiple or consecutive prints when holding down the PRINT button.

3. When the display flashes 14 AP r t, press the CHANGE button to move to the Leading Zero Setting.

14 AP r t

## Setting the Leading Zero On or Off

**Note:** The Leading Zero appears on the print out before single digit times and dates (For example DEC. 06, 08:00)

1. When the display flashes 15 ZEr 0, press the ENTER button.
2. When the display flashes OFF or on, press the CHANGE button to toggle between off and on. Press the ENTER button to select.
3. When the display flashes 15 ZEr 0, press the CHANGE button to move to the Begin Daylight Saving Time setting.

15 ZEr 0

OFF

15 ZEr 0

## Begin Daylight Saving Time

Note: DST is enabled and disabled in the Main Programming Menu. This function defines the start date of DST. You only need to program it once. Once set, it will automatically adjust year after year.

1. When the display flashes 16 b d L L, press the ENTER button. 16 b d L L
2. Press the CHANGE button until the correct year appears, then press the ENTER button. 90 0401
3. Press the CHANGE button until the correct month appears, then press the ENTER button. 98 0401
4. Press the CHANGE button until the correct date appears, then press the ENTER button. 98 0401
5. When the display flashes the correct year, month and date, press the ENTER button. 98 0402
6. When the display flashes 16 b d L L, press the CHANGE button to move to the End Daylight Saving Time Setting. 16 b d L L

## End Daylight Saving Time

**Note:** DST is enabled and disabled in the Main Programming Menu. This function defines the end date of DST. You only need to program it once. Once set, it will automatically adjust year after year.

1. When the display flashes 17 E d L L, press the ENTER button. 17 E d L L
2. Press the CHANGE button until the correct year appears, then press the ENTER button. 90 1028
3. Press the CHANGE button until the correct month appears, then press the ENTER button. 98 1028
4. Press the CHANGE button until the correct date appears, then press the ENTER button. 98 1028
5. When the display flashes the correct year, month and date, press the ENTER button. 98 1029
6. When the display flashes 17 E d L L, press the CHANGE button to move to the Diagnostics Mode. 17 E d L L



## The Diagnostic Routine

The Diagnostic Routine checks the LCD segments, the number of prints, and clears the memory (Print Style, Language, Leading Zero Suppress, Clock and Calendar, Right/Left Print and Daylight Saving Time features).

- When the display flashes **18 d1R9**, press the ENTER button. The Diagnostic Routine consists of the following:

**18 d1R9**

| Menu Code | Menu  | Function                                    |
|-----------|-------|---|
| d1        | LCd   | Tests the segments of the LCD               |
| d2        | nPrnt | Displays total number of print outs         |
| d3        | CLr   | Clears memory and restores default settings |

- When the display flashes **d1 LCd** (LCD segments check), press the ENTER button.
- When all of the LCD segments are turned on, press the ENTER button to advance to the next step.
- When the display flashes **d2 nPrnt** (total number of prints), press the ENTER button.
- The number of prints counted will be displayed. Press the ENTER, then CHANGE button to advance to the next step.
- When the display flashes **d3 CLr** (memory clear), press the ENTER button.
- To clear the memory and reset the defaults, press the CHANGE button until the 3 appears, then press the ENTER button. Press the CHANGE button until the 2 appears, then press the ENTER button.
- When the display flashes **32**, press the ENTER button.

**d1 LCd**

**d2 nPrnt**

**00**

**d3 CLr**

**30**

**32**

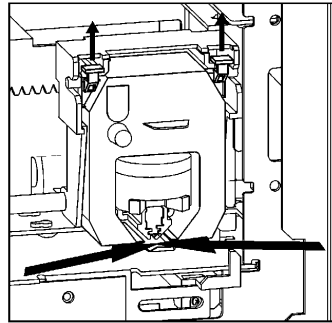
## Exit Program Mode

Press and hold the PROGRAM button until the display shows the current date. The clock hands will reset to the current time.

## Replacing the Ribbon

### To Remove:

1. Remove the cover.
2. Pull the two white release tabs upward and remove the ribbon cassette.



### To Insert:

1. If the print mechanism is down and a piece of paper cannot be inserted, press the RESET button to move the carriage up. This will make the ribbon installation easier.
2. Insert the ribbon cassette. **Be sure to mount the ribbon between the printer head and ribbon guide as arrows illustrate.**
3. Turn the knob on the cassette clockwise one turn to take up any slack in the ribbon.
4. Replace the cover and check the print quality to confirm that you have installed the ribbon correctly.

## Error Messages

| Error Code | Cause                             |
|------------|-----------------------------------|
| E1PrE      | Home sensor, motor carriage stuck |
| E2PrE      | Time sensor, carriage stuck       |
| E3PrE      | Home sensor                       |
| E4PrE      | Carriage stuck                    |
| ErE        | General print error               |
| dLlE       | Daylight Saving Time Program      |

For error messages E1 through E4, turn off the power before checking to see that the carriage is not stuck or jammed. Also, check to see that the ribbon cables are in good condition. After clearing any jams, restore the power and press the RESET button. Contact your Amano Cincinnati representative for assistance.

The dLlE error message signifies that an attempt was made to get into the Program mode during the Daylight Saving changeover one-hour lockout. Wait one hour and you will be able to program the clock.



