

Exchange Rate Indicating Board + Moving Sign

Operation Instruction

➤ Safety Information:

ALL VOLTAGES greater than 42 Volts are potentially dangerous.

NEVER tamper with any aspect of the machine whilst mains power is applied or connected.

Do not insert or disconnect the mains plug with wet hands as you risk receiving an electric shock. Do not damage, crush, make changes, modify or tamper with the electric power cord. Avoid combined use of a single electrical outlet, or by putting more than one load on an outlet.

If WATER or other foreign matter should enter the machine, switch OFF the power immediately, disconnect the mains plug from the outlet and contact your service representative. Failure to comply could result in a possible fire, or receiving an electric shock.

Ensure this equipment is fixed firmly on the wall, and please check it periodically.

➤ General Information:

Before you operate the machine, please read this manual carefully. Do not operate the machine until you understand the contents of this document.

Should you have any doubts, please contact your local distributor, or sales agent, for further advice.

➤ Installation:

There are two hooks on the top of the Rear Frame for installing, the distance of the two hooks is 190 mm, please drill two 6 mm holes, then insert the expanding tube into the holes, then fix two screws into the tube. Hang the two hooks on the two screws.

➤ Backup feature:

When power break, the clock backup battery can keep the interior clock working and save the exchange rate in the memory for 30 days, to ensure it can display the correct time, date and previous exchange rate when the power is switch on next time.

➤ Operation:

Connect the power supply with the Power Cord and turn on the Power Switch, the Power Socket and Power Switch are located on the top of the Rear Frame, the display for the date and time will show "00-00" and "00:00", the display for Exchange rate will show "88888", then you can set the date, time and exchange rate according to following steps:

➤ **CHAPTER 1 : Setting of Exchange Rate**

1. By hand (Note: without this function if the board with Adjusting the Brightness and Auto ON /OFF)

There are three keys located on the top Rear Frame,  key. "+" key and "-" key, press " " key to enter into the setting mode, the display of the Date will be displayed only, then you can

change the value of this display by pressing “+” & “-“ key to achieve your desired value, press “+” key to increase the value and press “-“ key to decrease the value. Then press “▽” key, the next display (for Month) will be displayed only for setting, you can change its value as last step, By pressing “▽” key each time, the display will skip to the next window. After the last exchange rate setting, press “▽” key or without pressing any key for 5 seconds, the Board will return to the normal display mode.

2. By Remote Controller:

The remote controller is the option part, you can set the value of each display by remote controller as following steps:

Press the “CAP” key three times, the window of TIME displays as following:



Then you can press” ← → **PREW NEXT** ” to select the display which you desire to amend , by pressing the numeric key “0” to “9”,you can input your desired number. The “C” key is for clearing the display to be zero, the “D” key is for inputting the decimal point. Pressing the **ESC** key to exit the setting mode.

3. By PC Communication:

- 1) Connect the Indicating Board (RS232 Interface Socket) and the Computer (COM 1 or 2 port) with the Communication Cable provided.
- 2) To copy all files from the disc to a new folder created in your computer.
- 3) Make all files non-read-only.
- 4) Execute the file “START ” in that folder to start the program of communicating.
- 5) Click the “Enter”, the display will show:

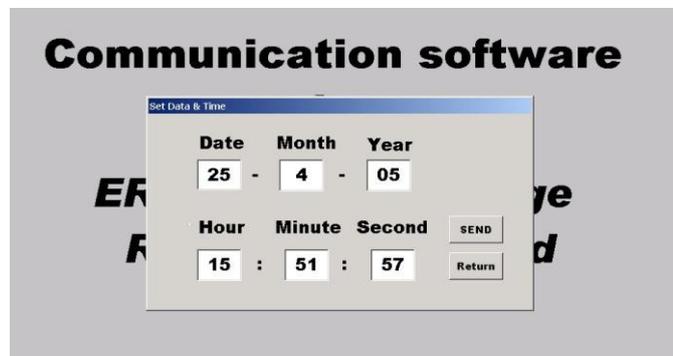


- 6) Click “Set up Comm. Port” to select port.
- 7) Then select the ”Update the exchange rate”, the display will show:



8) Firstly, click “Modify” then you can input the value to overwrite the previous data, then click the “Send Data” button, the PC will send the data you inputted to update the values shown on the Exchange Rate Indicating Board.

If you want to set the date and time, which will show as same as your computer automatically, you just click “SEND” , the display will show:



➤ **Adjusting the Brightness , Auto ON /OFF and Blink function by REMOTE CONTROLLER (Option)**

1. Adjusting the brightness of the LED:(Moving Sign can not be adjusted)

First press CAP key three time. Then Press the “L” key, the Date Display will show as the right diagram:



The “L- -“ indicates the brightness of the LED in the automatic adjusting mode, the board will adjust the brightness according to the environment light brightness.

Press “L” key, the Date Display will show following codes which indicate the various fixed brightness as follows:

| | |
|------|--------------------|
| Code | Brightness |
| L-1 | Lowest brightness |
| L-2 | Lower brightness |
| L-3 | Higher brightness |
| L-4 | Highest brightness |

You can select your desired brightness by pressing the “L” key. After about 10 seconds without

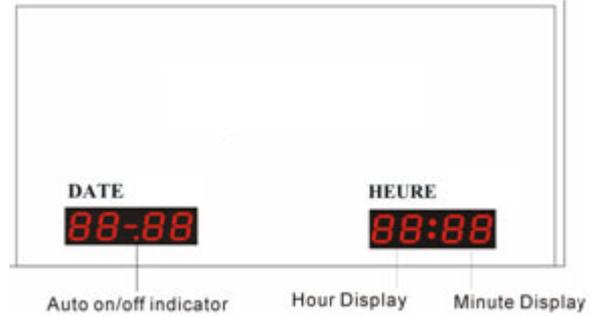
any key function or by pressing the red key, the board will exit from the brightness setting mode.

2. Auto on & off function:

A. Set up for exchange rate

First synchronize the time with the computer through RS232 software.

Press CAP key three times, then press the "O" key, the red dot at the right upper corner of the dash sign of Date Display will be light as the right diagram, it indicates the board will automatically switch on and switch off at your desired time:



Your desired switch on time and switch off time can be set as following steps:

Press the "S" key, the Time Display and Date Display will show as the right diagram, Then you can input your desired switch on **hours** by pressing the numeric keys.



Press the "S" key again, the display will show as the right diagram, Then you can input your desired switch on **minutes** by pressing the numeric keys.



Press the "S" key again, the display will show as the right diagram, Then you can input your desired switch off hours by pressing the numeric keys.



Press the "S" key again, the display will show as the right diagram, Then you can input your desired switch off minutes by pressing the numeric keys.



Press the "S" key to exit from the Auto on/off setting mode.

B. Set up for Moving Sign:

First synchronize the time with the computer through RS232 software.

Press "PROG" key---input passward "000"---press "ENT" key,on Moving screen display "RUN" or "OPEN:??" --- input any number --- press ENT key --- Press "TIME" key, on Moving screen display "SET TIME"--- press "NEXT" key until "OFF TIME" diplayed on Moving screen --- press ENT key, on Moving screen display"00:00:00"---select time by "←→" key --- input off time's data by "PREV" and "NEXT" key --- press ENT key.

After OFF TIME is set up, press TIME key again, on Moving screen display "SET TIME "--- press "NEXT" key until "ON TIME" diplayed on Moving screen --- press ENT key, on Moving screen display"00:00:00" --- select time by "←→" key --- input on time's data by "PREV" and "NEXT" key---press ENT key.

When the above is completed, press RUN key , the above data is memorized.

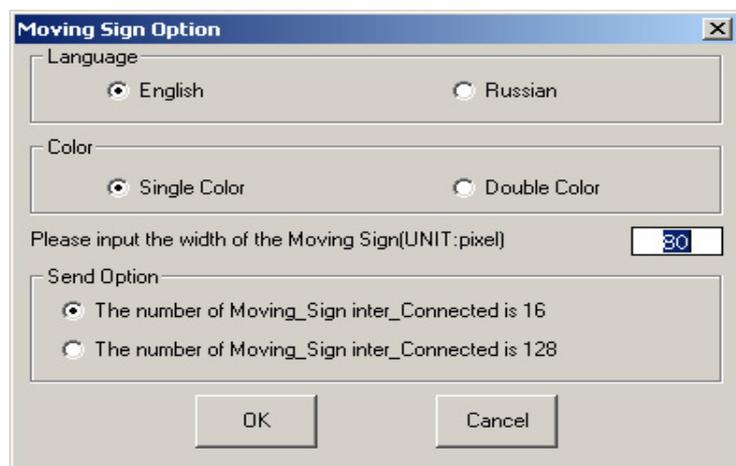
3. Setting Blink function:

Press CAP key three times, select the row which you want to make it blink by pressing the key "←" and "→", then press "F" key to confirm, press "F" key again to cancel the blinking function. (You can also set the blinking function by RS232 software in PC.)

■ CHAPTER 2 : Setting of Moving(Optional)

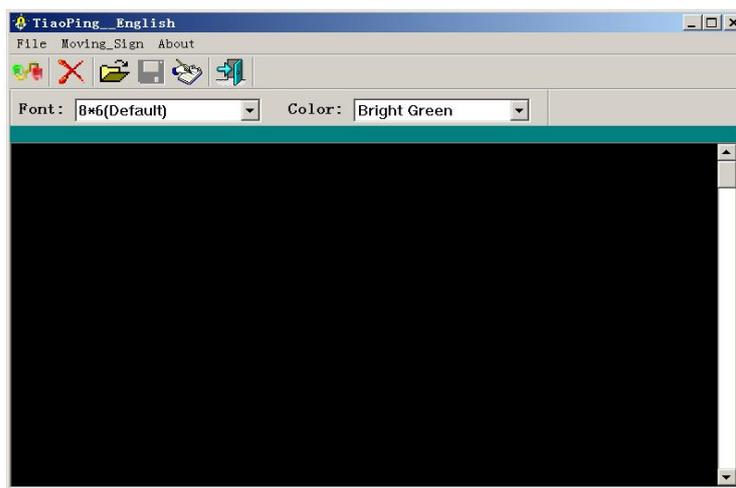
1. BY COMPUTER.

Connect the Indicating Board (RS232 Interface Socket) and the Computer (COM 1 or 2 port) with the Communication Cable provided, create a new folder "THK1 RS232" in your PC, then copy all files in the folder "THK1 RS232" of the disc to that folder, and make all files non-read-only. Then execute the file "THK1C.exe" in that folder to start the program of communicating, the window will show as follows:



Then click "ok", the window

Shows as follows:



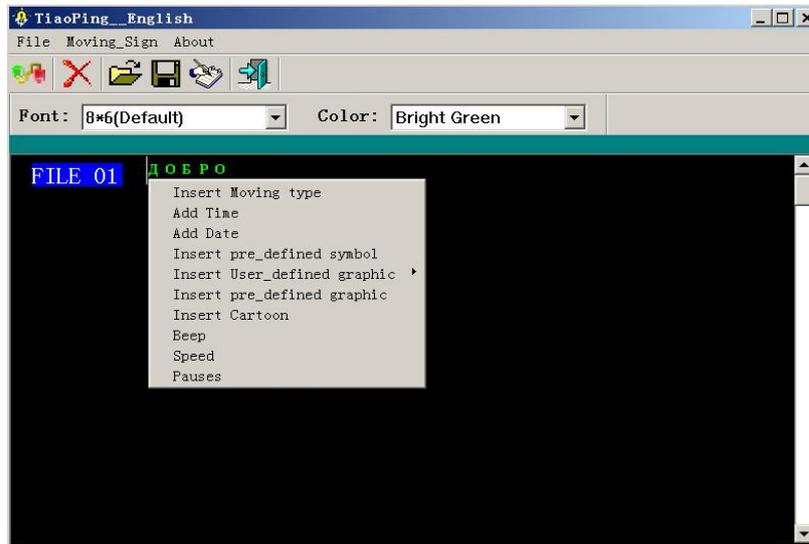
➤ Programming the normal file from file 00 to file 99

When you input the first character, the “FILE 01” in blue background will be appeared at the left side, after complete the message of first screen, for example: welcome, if you want to edit the next screen, you can press <ENTER> key to end the first screen and then start the next screen .

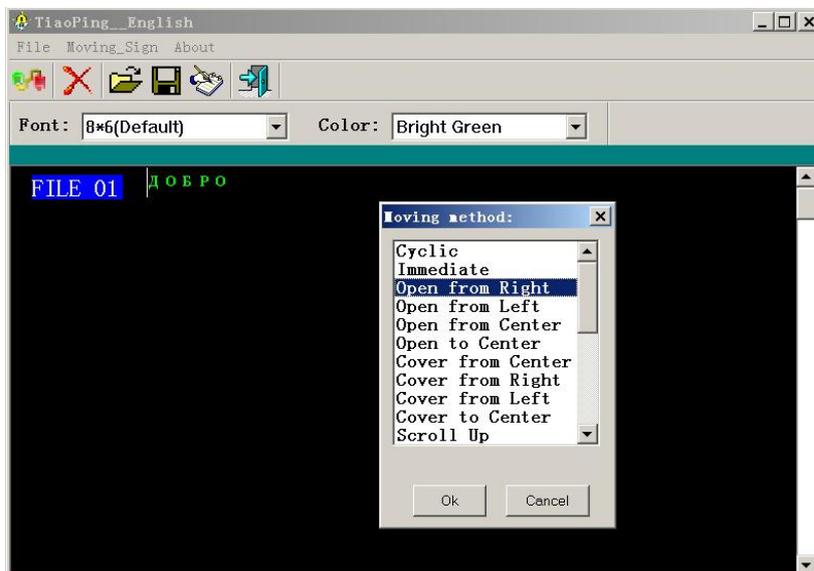
After you complete editing the file 01, you can click “save” icon  or use the “save” command in the manual of “file” to save this message as a file in you computer for future using. If you want to send this message to the THK-1, click the “send” icon or use the  “send” command in the manual of “Moving_sign” to send the message to the THK-1. The display of THK-1 will show the same as file 01. The moving method, speed, pause time are set as default value.

➤ Change the moving method & speed

If you want to change the moving method, speed of this message, move the cursor to the front of the message, then press the right button of the mouse, the window will show a manual as follows:



Click the “Insert Moving type”, the window will show a manual as follows:



then you can select your desired moving method of this message behind it and click the “OK” button, the function is same as the description in the Chapter 2. If you click the “speed” , the speed manual will be shown, you can select as the moving method.

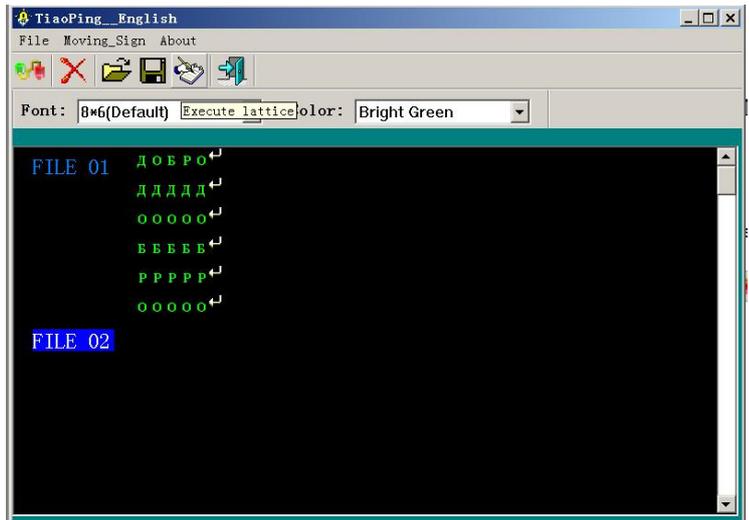
➤ Change the pause time

If you want to change the pause time of this message, move the cursor to the end of this message, then press the right button of the mouse, the window will show same manual as above, then, you can click the “pause” in the manual to select your desired pause time as selecting the moving method.

➤ Insert the option function in the message

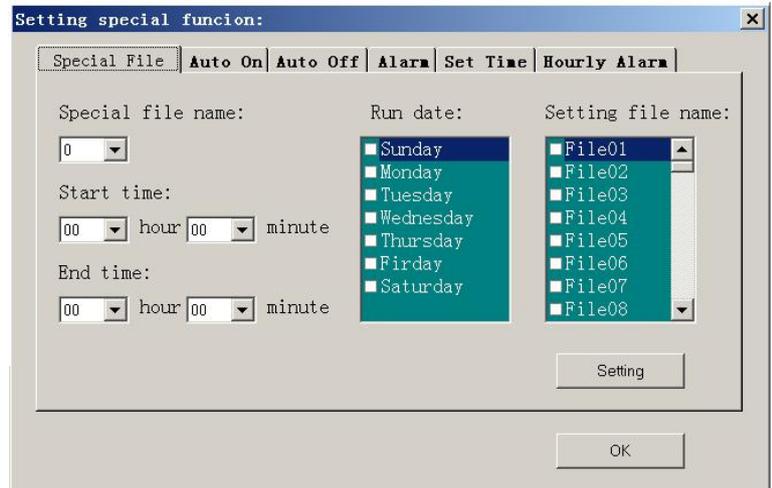
If you want to insert the beep, symbol, graphics, phrases, date and time and week between any messages, move the cursor to your desired position, then press the right button of the mouse, select the relative command in the manual to insert them. Their functions are same as the description in Chapter 2.

If you want to continue to edit the next file, hold pressing the <Ctrl> key and press the <Enter> key, the “FILE 02” in blue background will be appeared at left side of next line below “FILE 01”, (as following diagram), you can edit the message in file 02 same as the steps of “file 01”.



➤ Programming the sequence file

Use the “Special Function” command in the manual of “Moving_sign” to open the window of “Setting special function”, the window will show as follows:



you can select the sequence (special) file name in “Special file name”, there are ten file name can be selected from 0 to 9, they are same as the files from “S0” to “S9” as the description in Chapter 2. Select the start time, end time, run date and the normal file names for this sequence file, then press <Setting> button to send this sequence file to the THK-1.

If you want to run the sequence file manually, please don't click any date on the “Run date:”

If you want to set the Automatic start time, Automatic off time, Alarm, current time and Hourly alarm, you can click the relative page on above window and click the “setting” button to send to the THK-1.

2. BY REMOTE CONTROLLER.

➤ Key Function:

There are two functions on most of keys, the first function printed in yellow will be achieved by just pressing it.

The second function printed in Grey can be achieved by holding the “ALT” key and press the function key at same time.

First function key:

- <ESC> key In edit Program Mode, press this key to return to the upper manual.
- <PROG> key By pressing this key, THK-1 will enter the Edit Program Mode.
- <CPW> key In Edit Program Mode, press this key to enter into the password setting mode.
- <RUN> key In edit program mode, press this key to save and run the current message.
In display mode, press this key to select your desired file for display.
- <MET> key In Edit Program Mode, press this key to select the 25-display method.
- <TIME> key In Edit Program Mode, press this key to enter into the time setting mode.
- <CLR> key In Edit Program Mode, press this key to enter into the Erase option mode.
- <ENT> key Accept the selected option.
- <0> to <9> key Numeric key for inputting the number.
- <A> to <Я> key Russian Character key for inputting the message.
- <CAP> key In Edit Program Mode, press this key to toggle between Capital letter and lower case character.
- <ALT> key Keep pressing this key to activate the second alternative key function (printed on the keyboard in grey)

Second alternative key function:

- <SYM> key In Edit Program Mode, press this key to insert the 30 built-in symbol, use <PREV> and <NEXT> key to select the different symbol.)
- key This function is not available for this model. It is fixed font to be 5 X 8.
- <COL> key This function is not available for this model.
- <ON/OFF> key In display mode, to turn on or off the THK-1.
- <PAU> key In Edit Program mode, press this key to insert the code for pause time, use <PREV> and <NEXT> key to select the different pause time.
- <SPE> key In Edit Program Mode, press this key to set the display moving speed of the message, use <PREV> and <NEXT> key to select the different moving speed.

| | |
|----------------|--|
| <GRA> key | In Edit Program Mode, press this key to insert the graphic option. |
| <PHR> key | In Edit Program Mode, press this key to select a programmed animation in the message, use <PREV> and <NEXT> key to select from ANIM 1 to ANIM 8. |
| <BEEP> key | In Edit Program Mode, press this key to select beep sound in the message, use <PREV> and <NEXT> key to select from beep1 to beep3. |
| <+> to <:> key | To input the special characters in editing the message. The function of following special characters are not available: <@>, <^>, <(>, < >, < >, <[>, <]>, <{>, <}>, <'>, <'>, <">, <:>. |
| <INS> key | In Edit Program Mode, press this key to shift between the insert mode and the cover mode. |
| </N DEL> key | Delete the character in editing the message. |
| <M> key | Exit the Edit program mode without saving the setting. |
| <Y> key | Save the setting when exit the Edit program mode. |
| <←> key | In Edit Program Mode, press this key to move the cursor to left. |
| <→> key | In Edit Program Mode, press this key to move the cursor to right. |
| <NEXT> key | In Edit Program Mode, press this key to select option forward. |
| <PREV> key | In Edit Program Mode, press this key to select option backward. |
| <SPA> key | In Edit Program Mode, press this key to input a space in the message. |

➤ Turn on or off by Remote Controller

In normal Display mode, the THK-1 can be turn on or off by pressing both the “ALT” key and the Red “RUN” Key at the same time.

➤ Enter into the Edit mode and exit

In the Display mode, by pressing “PROG” key, THK-1 will enter into the Edit mode; In Edit mode, by pressing “RUN” key, THK-1 will return to the Display mode.

➤ Edit the simple message

The THK-1 stores up to 100 messages in numbered data files. These files are numbered from 00 to 99. There is not any limitation for each file, but the message of total files can not exceed 7000 characters. Every file can have several screens. Normally, every screen is not longer than 11 characters. If the display message is longer than one page (11 characters), whatever the display method programmed, the display method will be reset to [OPEN←]. (Open from the right).

Please edit the message according to following steps:

Press “PROG” key to enter into the Edit Program mode, display will show “PASSWD::***”, the password protection was in use when the unit left the factory, the default password is “000”, input <0>, <0>, <0>, press <ENT> key to confirm, the display will show “OPEN::??” to prompt user to input the file number by pressing the numeric key from <0> to <9>, the file number can be from “01” to “99”. File “00” is factory built and is read only.

After input the file number, press the <ENT> key to confirm, the display will show “[CYCLIC]”, then you can input the message by pressing the character key. For example, input <F>, <I>, <N>, <E>, Then press the <RUN> key, the display will show “SAVE?(Y/N)”, press <Y> (=

<O>) to save the programming and exit the Edit program mode, the display return the Display mode, and the display show "FINE", the display method and other setting are in the default setting as follows:

| | |
|----------------|----------------------------|
| Display Method | Cyclic |
| Moving Speed | Fastest |
| Pause Time | Shortest (About 2 seconds) |

If you want to display several screens in this file, you can end this screen by press <ENT> key, the second display method code "[CYCLIC]" will follow the first screen, then you can input the message in second screen, and you can edit next screens as the same way.

Please Note: Here are some important things that you learned from this first exercise:

- An audible beep is heard when the unit accepts programming input from the Remote Controller, to assure you that the button you pressed has been received and understood.
- The programming of a message can be as simple or as complex as you desire, you can set what you want your message to say and how best to display it. In the above example the message was only one words, but you could have typed a complete set of instructions.
- If you made mistakes while typing, you correct them by pressing the DEL key until you have removed the mistake(s) and re-entered in the message correctly.
- You have the option at the end of your programming to save your message. If you only need to display a message for a single instance, simply select N to not save your message as numbered data file. Your message will still be displayed, but the next time you open up the numbered data file (in this case, file number 01) the message would not exist.
- It always begins the editing of a new message with the default method of display as [CYCLIC], which stands for cycle through all method possibilities at random.
- You can follow the above procedures to enter some more messages, as long as the total file numbers not excess 99 and the total length of characters not excess 7000.
- In Edit Program mode, the cursor is always located at the right end of the display without any display.
- The display method, moving speed, pause time can be selected by user according to following paragraphs.

➤ Change the moving method

In Edit program mode, when the display show "[CYCLIC]" or other display method code, you can select the following display method by pressing <PREV> or <NEXT> key (<ALT> + <O> or <Y>):

| Description | Displayed code |
|--------------------|----------------|
| Cyclic all methods | [CYCLIC] |
| Immediate | [IMMED] |
| Open from Right | [OPEN←] |
| Open from Left | [OPEN→] |
| Open from center | [OPEN<-->] |
| Open to Center | [OPEN-><-] |
| Cover from Center | [COVER<-->] |
| Cover from Right | [COVER←] |

| | |
|---------------------|-------------|
| Cover to Left | [COVER→] |
| Cover to Center | [COVER-><-] |
| Scroll Up | [SCROLL ↑] |
| Scroll Down | [SCROLL ↓] |
| Interlace to Center | [INTER-><-] |
| Interlace Cover | [INCOVER] |
| Cover Up | [COVER ↑] |
| Cover Down | [COVER ↓] |
| Scan Line | [SCANLN] |
| Explode | [EXPLODE] |
| Pac Man | [PACMAN] |
| Fall & Stack | [FALL] |
| Shoot | [SHOOT] |
| Flash | [FLASH] |
| Random | [RANDOM] |
| Slide in | [SLIDE IN] |

***Remark: If the display message is longer than one page (11 characters), whatever the display method programmed, the display method will be reset to [OPEN←].

After you decide the display method, you can input the message.

➤ Change the moving speed

Move the cursor at the beginning of the message, then press the <SPE> key to insert the speed code, the display will show “[SPEED 1]”, ”SPEED 1” indicates the fastest speed, “SPEED 8” indicates the lowest speed, user can select the desired moving speed by pressing <NEXT> and <PREV> key.

➤ Change the pause time

Move the cursor to the end of the message, press <PAU> key to insert the code for pause time, the display will show “PAUSE 1”, there are 8 levels of pause time user can select, from [PAUSE 1] to [PAUSE 8], the actual pause time is about 2 seconds, 3 seconds, 4 seconds, 6 seconds, 10 seconds, 20seconds, 30seconds, 60seconds. By pressing <NEXT> or <PREV> key to select the desired pause time.

➤ Insert the option function in the message

When you edit the message, following options can be inserted in the message:

✧ Insert Symbol

To get a symbol for display between any messages, move the cursor to the position which you want to insert the symbol, then press <SYM> key, the first symbol “[-><-]” will follow the message you just inputted, then you can use <PREV> and <NEXT> key to select your desired symbol. There are thirty graphic symbols such as phone, car, sunglasses, etc. you can choose.

✧ Insert graphic

To get a graphic for display between any messages, move the cursor to the position which you want to insert the graphic, then press <GRA> key, the display will show “GET GRAPH”, then press <ENT> key, the display will show “[GRAPH A]”, you can use <PREV> and <NEXT> key to select the graphics from GRAPH A to GRAPH H as follows:

| | | |
|----------------------|------------------|-------|
| GRAPHICS | Editable by user | [GHA] |
| | | [GHB] |
| | | [GHC] |
| | | [GHD] |
| | | [GHE] |
| | | [GHF] |
| | | [GHG] |
| | | [GHH] |
| Non-editable by user | City | [GHI] |
| | Car | [GHJ] |
| | Vessel | [GHK] |
| | Tel | [GHL] |
| | Nature | [GHM] |
| | Ship | [GHN] |
| | Swim | [GHO] |
| | Cat | [GHP] |

REMARK: “MAKE GRAPH” “EDIT GRAPH” is available in the setting manual, but its functions is not available for this model.

✧ Insert phrases

To get a phrase for display between any messages, move the cursor to the position which you want to insert the phrase, press <PHR> key, the display will show “[ANIM 1]”, there are 8 phrase can be selected as follows:

| | | |
|--------|---------------------|----------|
| PHRASE | MERRY X`MAS | [ANIM 1] |
| | HAPPY NEW YEAR | [ANIM 2] |
| | 4TH JULY | [ANIM 3] |
| | HAPPY EASTER | [ANIM 4] |
| | HAPPY HALLOWEEN | [ANIM 5] |
| | DON`T DRINK & DRIVE | [ANIM 6] |
| | NO SMOKING | [ANIM 7] |
| | WELCOME | [ANIM 8] |

you can use <PREV> and <NEXT> key to select your desired phrase.

✧ Insert the audio beep

To get beep sound between any messages, move the cursor to the position that you want to insert the phrase, press <BEEP> key, the display will show “[BEEP 1]”, there are 3 kinds of sound can be selected:

| | |
|--------|---------|
| BEEP 1 | 3 beeps |
| BEEP 2 | 2 beeps |
| BEEP 3 | 1 beep |

✧ Insert the current time and date

In the Edit Program Mode, Press <TIME> key, the display will show "SET TIME", then use the <PREV> and <NEXT> key to select the following options:

- | | |
|----------------|---|
| (a) SET TIME | Set the current time. The time format is "week hour:minute" |
| (b) SET WEEK | Set the current weekday |
| (c) SET DATE | Set the current date. The date format is "month-day-year" |
| (d) ALARM | Set alarm times and interval. |
| (e) HOUR ALARM | Set the hourly alarm On / Off. |
| (f) ADD TIME | Add time screen in display message. |
| (g) ADD DATE | Add date screen in display message. |
| (h) ADD Week | Add week screen in the display message. |
| (i) OFF TIME | Set the Automatic turn off time. |
| (j) ON TIME | Set the Automatic turn on time. |
| (k) ADD TEMP | Not available for this model. |

After enter into each setting mode, you can use <←> or <→> key to move the cursor position, and use <NEXT> or <PREV> key to change value, press the <ENT> key to confirm your setting and exit that setting mode, display will return to the previous Edit Program mode.

Please Note: You only can set the timer functions while in the EDIT program mode of operation.

When you select the Alarm option, the display will show "E:: 000O::000.

Where XXX is a number from 000 to 255.

The number follow the "E::" is the total times of the alarm to be activated, and the number follow the "O::" is the time interval of each activation.

Example-

E::258O::015 - this means that the time alarm will sound and display the time after every 15 minutes, and there will be 258 times of alarm after your setting.

➤ Delete message file

In some circumstance, user may like to erase some of the message, After enter the Edit Mode, user can press the key "CLR" to cycle through the different functions by pressing the <PREV> or <NEXT> key.

Listed below are the Erase functions and there usages:

- | | |
|-----------------|--|
| (a) DEL ALL | Clear all messages. |
| (b) DEL MSG | Clear the current message. |
| (c) DEL FILES?? | Delete the specified file (01 to 99) or sequence file (S0 to S9) |
| (d) DEL ON/OFF | Delete the Auto ON/ OFF timer function. |
| (e) DEL ALARM | Disable the alarm function |

➤ Running a saved message

Normally, the sign will display the message which is the latest edit/modified, but there is an option

Three different audible beep sounds can be added anywhere within the message

The ability for your message to pause for up to eight seconds

The ability to automatically power on or turn off the display

The ability to display multiple message files in a defined sequence

The ability to display the current date and time within your message

Power supply: 220V AC, +/- 10% 50Hz

Time format: 24 Hour or 12 Hour

Dimension: 820(L) X 150(H) X 52(D)mm

Net weight: 2.5 Kgs

Install type: Wall style

➤ Accessories

| | |
|--------------------------|-------|
| Power Cord | 1 pc |
| Remote Controller | 1 pc |
| Communication Cable | 1 pc |
| Floppy Disc (PC program) | 1 pc |
| User's Guide | 1 pc |
| 6 mm Expanding tube | 2 pcs |
| Screw | 2 pcs |

*** In the interests of our ongoing policy of continual product improvement, specifications are subject to change without prior notice. ***