

Note: Jan 29, 2009

This manual is applied to the model of M500N-7 series

Note: Specifications are subject to change without notice

1: General Information

You can operate the sign in two ways:

By using a hand-held remote control

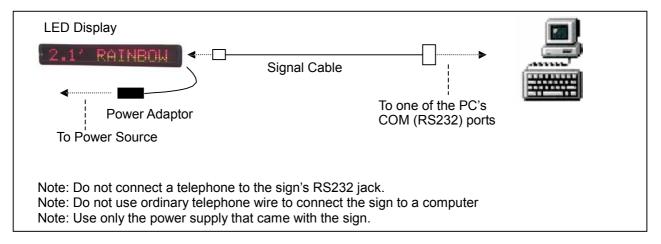
By using personal computer

1.1: Using a remote control to operate your sign

A remote control is a hand-held keyboard used to operate the sign. This manual shows you how to program messages on your sign using a remote control.

1.2: Using a computer to operate your sign

To do this, you'll need special connectors and computer software as following shown:



1.3: Attaching your sign to a surface

Your sign can be mounted to a wall.

Note: This sign is intended for indoor use only. Note:

Do not mount or attach the power supply to anything.

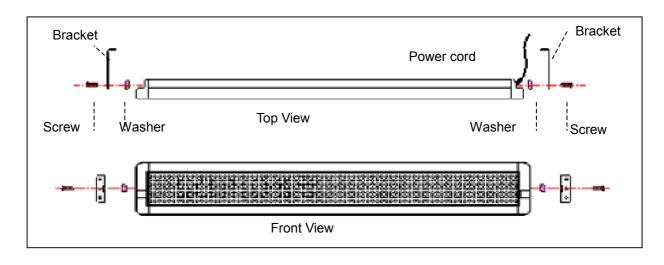
Do not let the power supply hang loose.

Place the power supply on a flat surface where no chemicals or liquid, such as water, will contact it.

Plug the power supply into an easily accessible electrical outlet

Wall mount

- 1. Attach the mounting brackets to the wall or surface.
- 2. Attach the sign to mounting brackets using hardware as shown below.
- 3. Plug the power cord into the sign and into an outlet.



2: Basic Sign Operation

2.1: Turning a sign on and off

When you plug in the sign's power supply, the sign starts up automatically. On the other hands, in order to turn the sign off, you can unplug the power supply or use the remote control.

2.2: System requirement

The computer must be Pentium 200 or above, 32M memories, 2M or above display memory, 100M empty hard disk. The computer must be installed window 95 or above version. The display mode is designed for 800x600, 16-bit or 24-bit colors.

2.3: Software operation

Messaging Software allows you to send messages to your sign using a computer. Please follow the steps to activate your software:

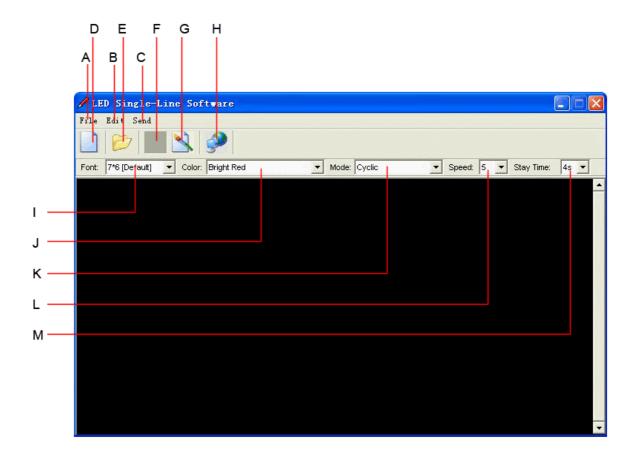
Turn on your computer and start Windows 98/2000/XP. Insert the software CD disk into CD-ROM, or you can copy the software into your PC for the easy operation.

Double click the *i*con to activate the programming software, this is what should appear on your computer screen:

| | Sign Setup | × |
|--------|--|--|
| _ | Sign Dimension Height (Pixels) Width (Pixels) Please Choice The | Country: West Europe |
| | 0 1 | |
| Letter | Name | Description |
| | | If your sign is tricolor (Red Green & Ambe |

| 1 | Color | If your sign is tricolor (Red, Green & Amber), please select | | | | |
|---|------------------|---|--|--|--|--|
| 2 | Text Size /pixel | The length of message sign, unit in pixel. | | | | |
| | | The default setting is 80 | | | | |
| 3 | Country option | For new countries, select following choice for the operations | | | | |

Click **OK** to enter into the main screen as follows;

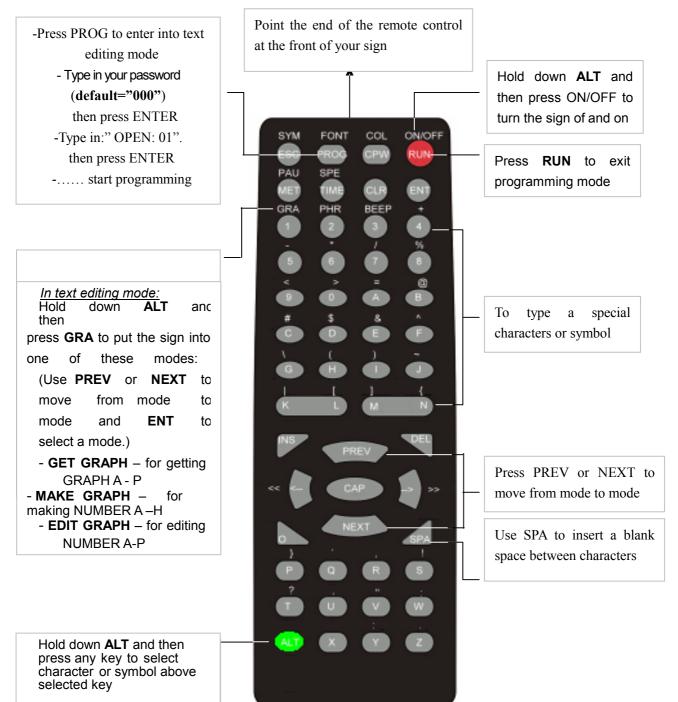


Overview of screen layout

| Letter | Name | Sub-menu | Description | | |
|--------|--|--------------------|--|--|--|
| | | Clear | Clear all the contents in text edit area | | |
| | | Open | Open the old files (*.sdv) | | |
| А | File | Save | Save the file of the current text edit area for later uisn g | | |
| | | Save as | Save the file of the current text edit area as a new file | | |
| | | Exit | Exit the messaging software | | |
| | | Send | Send Edit Area's Content: Update the sign with the new messages in the text edit area Send Disk File:Update the sign with stored *.sdv file | | |
| _ | Moving_ | Execution | Create custom 7x80 (height x width) pixels graphics | | |
| В | Sign | lattice | Note: up to 8 custom graphics can be created by users | | |
| | orgn | Special | Allow you to schedule, to on/off, to alarm, to adjust time of your | | |
| | | function | sign automatically | | |
| | | Moving_Sign option | Models' selection | | |
| | | Test | Send a testing signal to the sign | | |
| С | Send | | Update the sign with the new messages in the text edit area | | |
| D | New Clear all the contents in the text edit area | | | | |
| E | Open Open an old file (*.sdv) | | | | |
| F | Save Save the file of the current text edit area (*.sdv) for later using | | | | |
| G | Graphic ec | lit | Create custom 7x80 (height x width) pixels graphics | | |
| Ŭ | Graphic edit | | Note: up to 8 custom graphics can be created | | |

| Н | Font | 7 different kind of fonts |
|---|----------------|---|
| I | Color | 16 different kind of color combinations |
| J | Text edit area | Type messages here |

2.4: Remote control operation



| Item | Key | Description |
|------|--------|---|
| 1 | ON/OFF | Power On / Off. If there is no file in 01 to 99 , it will run file 00 .If there is file in 01 to 99 , it will display the last saved file. |
| 2 | PROG | Enter the Edit Program Mode. Select 01 to 99 to enter message. |

| | | Use for edit or reset password | |
|---|-----|--|--|
| 3 | CPW | Use PREV and NEXT to select (a) to (d)(a) UNUSE PASS Turn off password security.(b) USE PASS Turn on password security(c) RES PASS Reset to factory default password " 000 ".(d) CHANGE PASS Change to new password (see Appendix | |
| 4 | MET | To select the display modes, totally up to 24 different mode.Note: Press PREV and NEXT to select (1) to (24) methods. See Appendix A. | |

| 5 | PREV | Select option backward. | | |
|----|------|--|--|--|
| 6 | NEXT | Select option forward. | | |
| 7 | CAP | Toggle between Capital letter and lower case character. | | |
| 8 | TIME | To select time option | n. See Appendix B. | |
| 9 | | Select the display s | peed of the message. (Use PREV and NEXT to select different | |
| | SPE | speeds.) | | |
| 10 | FONT | Select the font size of | f the display message. (Use PREV and NEXT to select different fo r | |
| | | zes.) | | |
| 11 | COL | | he display message. (Use PREV and NEXT to select different | |
| 10 | | colors of the display r | | |
| 12 | SYM | | nbols. (Use PREV and NEXT to select different symbols.) | |
| 13 | CLR | Erase option. | | |
| | | Select graphic option | n. (Use PREV and NEXT to select the following options:) | |
| | | (a)GET GRAPH | Place the graphic in the message. Use PREV and NEXT to | |
| 14 | CRA | | select GRAPH A to GRAPH P . | |
| 14 | GRA | (b) MAKE GRAPH | Create new graphics in location NUMBER A to NUMBER H | |
| | | (c)EDIT GRAPH | Edit GRAPH A to GRAPH P and store in one of the location of | |
| | | | NUMBER A to NUMBER H. | |
| 15 | <= | Moving the message | and command to the right. | |
| 16 | >= | Moving the message and command to the left. | | |
| 17 | | Note: | | |
| | | IF YOU WANT TO DELETE MESSAGE OR COMMAND IN THE EDIT PROGRAM | | |
| | | | E ABOVE KEYS TO MOVE THAT MESSAGE OR COMMAND TO | |
| | | THE LEFT-MOST PO | OSITION AND PRESS DEL . | |
| | ALT | | | |
| | | | INSERT MESSAGE OR COMMAND IN THE EDIT PROGRAM | |
| | | | | |
| | | THE LEFT-MOST POSITION AND (1)PRESS INS TO INSERT.(2)TYPE IN YOUR MESSAGE OR PRESS COMMAND KEY,IT WILL INSERT AUTOMATICALLY.(3)PRESS INS AGAIN TO OVERWRITE. | | |
| | | | | |
| 18 | | Generate a pause within the programmed message. (Use PREV and NEXT to select | | |
| - | PAU | PAUSE 1 to PAUSE 8) | | |
| 19 | | Select a programmed animation in the message. (Use PREV and NEXT to select | | |
| | PHR | ANIM 1 to ANIM 8) | | |
| 20 | BEEP | Select beep sound in | n the message. (Use PREV and NEXT to select BEEP 1 to BEEP | |

| | | 3) |
|----|-----|--|
| 21 | ENT | Accept the selected option. |
| 22 | ESC | Return to the upper manual in the edit program mode. |
| 23 | INS | Refer to 15 and 16 |
| 24 | DEL | Refer to 15 ad 16 |
| 25 | SPA | Insert space in message. |

| 26 | RUN | | | (1) In edit program mode, press RUN to save and run the current message. (2) In display mode, press RUN and enter 01 to 99 to select other messages for display. |
|----|-------------|---|-------------|---|
| 27 | S | | | Programming a sequence file. Please refer to Section 3.5: Programming a |
| | | | | sequence file. |
| 28 | F J Z | G | H L P | Crusor direction pointer . K toggles cursor on /off Note: The direction pointer only works in graphic edit mode |

3: Beginning Messaging

3.1: Example 1- A simple message in seven easy steps

The sign can store up to 100 messages in numbered data files. These files are numbered from **00** to **99**. File 00 is a default message and for read only.

A Simple Programming Example –

Note:

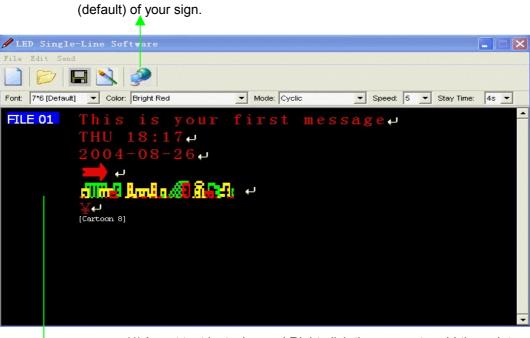
Underline denotes words or numbers to type, xxxx denotes key names. To correct a mistake, press the **DEL** key to remove it.

User can toggle the capital letter and small letter by pressing the key **CAP**, and use the **ALT** key to display symbol on keypad. Default Password: "**000**"

| Step | Keys to press | Explanation | Display |
|------|---------------|-----------------------------|--------------|
| 1. | PRO | Begin the edit program mode | PASSWORD:*** |
| 2. | 000 | Default Password "000" | PASSWORD:*** |
| 3. | ENT | Enter into editina mode | OPEN: ?? |

| 4. | 01 ENT | The first two digit file number (01-99) are allowed for naming message files [CYCLIC] is the default method of display code which means to cycle through at random | [CYCLIC] |
|----|---------------------|---|--------------------------------|
| 5. | WELCOME VISITORS | Type the text you wish to display in you message | WELCOME VISITORS |
| 6. | RU | End the edit program mode | SAVE? (Y/N) |
| 7. | Y | Save the message as data file number 01 | Message begins to be displayed |

3.2: Example 2- Insert text, time, date, symbol, graphic, character or carton 3.2.1: Software operation



(2) Click it to send the messages into the FILE01

(1) Insert text by typing and Right click the mouse to add time, date, symbol, graphic, character and carton respectively.

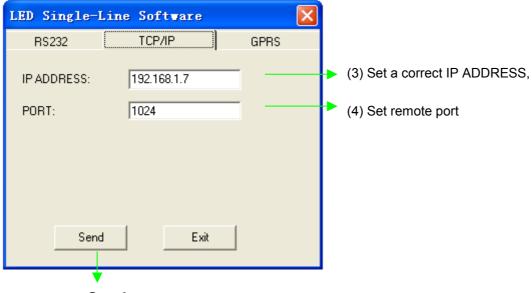
Note: The default front and color are **7X 6** and **Bright Red**, respectively.

i. Transport though RS232

| LED Single-Line Software | |
|---|---|
| RS232 TCP/IP GPRS | |
| COMPORT BAUDRATE | (3) Select a suitable COMPORT and BAUDRATE, |
| С СОМ2 С 19200 | |
| Please input the address of Moving-Sign that will receive message(Default address is '128'): | |
| Send Exit | (4) Input the value (default = 128) |

(5) Click **Send** to start the transmission. The sign will display the new message

ii. Transport though TCP/IP



(5) Click **Send** to start the transmission. The sign will display the new message

iii. Transport though GPRS

| LED Single-L | ine Software | | |
|--------------|------------------|------|---|
| RS232 | TCP/IP | GPRS | |
| IP ADDRESS: | 61.156.25.220 | | (3) Set a correct IP ADDRES |
| PORT: | 3000 | | (4) Set remote port |
| NUMBER: | 020FCF7A74000253 | | (5) Set GPRS NUMBER |
| | | | |
| | | | |
| Send | Exit | | |

(6) Click **Send** to start the transmission. The sign will display the new message

Note: The display mode is **Cyclic** in the example

Note: If the display message is longer than one page of LED screen whatever the display method used, the display method will be **[OPEN ←]**

3.2.2: Remote Control Operation

| Step | Keys to press | Explanation | Display | |
|------|-------------------------------|--|-------------------------------|--|
| 1 | PROG | Begin the edit program mode | PASSWORD:*** | |
| 2 | 000 | Default Password "000" | PASSWORD:*** | |
| 3 | ENT | Enter into editing mode | OPEN:?? | |
| 4 | 01 ENT | The first two digit file number (01-99)are allowed for naming message files[CYCLIC] Is the default method of display code which means to cycle through at random | [CYCLIC] | |
| 5 | CPW ENT | To disable password function **Note: Suppose the password function was disabled in the rest of this manual. | [UNUSE PASS] | |
| 6 | This is your first message | Type the text you wish to display in your message | This is your first message | |
| 7 | Time | Enter into time function mode | SET TIME | |
| 8 | PREV PREV PREV PREV ENT | Insert time to display your message | ADD TIME | |
| 9 | Time | Enter into time function mode | SET TIME | |

| 10 | PREV PREV PREV ENT | Insert date to display your message | ADD DATE |
|----|-----------------------|-------------------------------------|----------|
| 11 | SYM | Enter into symbol mode | [-><-] |
| 12 | PREVor NEXT ENT | Specified graphic function mode | [→] |

Here are some important things that you learned from this first example:

- An audible beep is heard when the unit accepts programming input from the remote. This can assure you that the signal from remote has been received and understood.
- * The default color for messages is Bright Red and the default font size is 7*6.
- * You have the option to save your message at the end of your programming.
- * The sign always begins with the default method of display as **[CYCLIC]**, which stands for cycle through all color and method possibilities at random.
- In order to use international characters in your messages, you should first key in the corresponding equivalent English character and then use the NEXT and PREV buttons to scroll through the international characters, i.e. (Key in "\$" and press the NEXT button you will see the "¢" character appears). For the international characters which do not have corresponding English character, please key in a SPACE and then use the NEXT and PREV buttons to scroll through the list of available characters. See Appendix D for the more information.

3.3: Example 3- Create / Delete messages into different file names

You can create / delete messages into different FILE No. by using keyboard or hand-held remote control.

3.3.1: Software operation



- To create different file names such as FILE 02, FILE 03 and so on , you can press CTRL + ENTER key.
 *Note: totally, users can create files from 01 to 99.
- * If you make mistakes while typing, you can correct them by pressing **DEL** key until you have removed the mistake(s) and re-entered in the message properly.

3.3.2: Remote Control Operation

To create and edit message used by remote control, you should follow the below steps. If there is a previously stored message under that file number, the display will show **[OLDFIL] [CYCLIC]**, or may not be **[CYCLIC]** depending on actual content.

| Step | Keys to press | Explanation | Display | |
|--------|---|---|--------------------------------|--|
| 1. | 1. PROG Begin the edit program mode OPEN : ?? | | | |
| 2. | <u>01 ENT</u> | This is the file number for the previously stored message file. | OLDFIL [CYCLIC] | |
| You th | You then can edit or create new message | | | |
| 3. | RUN | End the edit program mode | SAVE ? (Y/N) | |
| 4. | Y | There is a need to re-save the data file | Message begins to be displayed | |

In some circumstance, user may like to erase some of the message; the sign has such an option for user to do so. After enter the Edit Mode, user can press the key $\overline{\text{CLR}}$ and cycling through the difference functions by pressing the $\overline{\text{PREV}}$ or $\overline{\text{NEXT}}$ key.

Listed below is the Erase functions and their usages:

- DEL ALL Clear all message files
- DEL FILE ?? Delete the specified file
- DEL MSG Delete the message of the current opening file
- DEL ON/OFF Disable the Auto Turn on /Turn off timer function
- DEL ALARM Disable the alarm function

3.4: Example 4- Adjustment of methods, fonts and colors

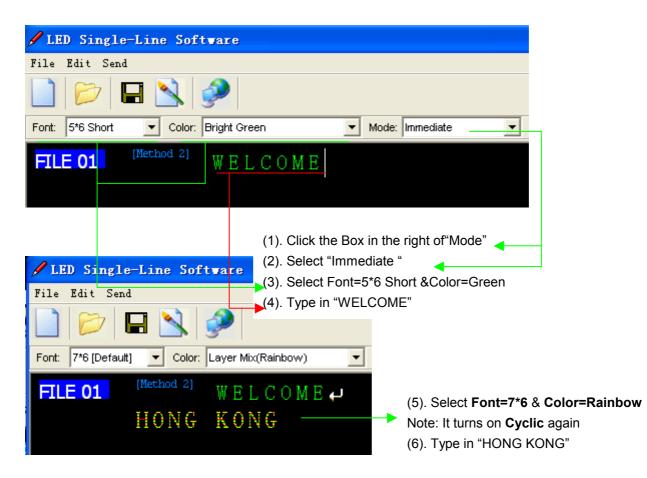
Method: Type of moving options which are displayed on a sign, see Appendix A.

Fonts: Style of fonts which are displayed on a sign, see Appendix A too.

Colors: Your sign can display up to 16 different colors, e.g. Red, Green, Yellow, etc. – plus 8 $\,$

special color combinations. To determine what colors are available on your sign, see Appendix B.

3. 4. 1: Software operation



3.4.2:Remote Control Operation

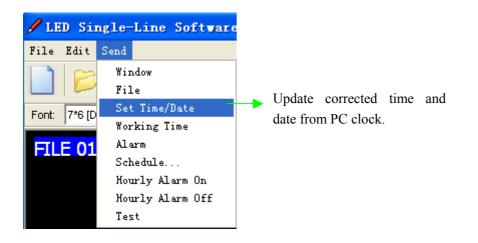
User can make method, font or color adjustment of the message. After enter the Edit Mode as 3.2.2, user should firstly press \rightarrow or \leftarrow key so as to enter into method, font or color can be chosen to display at the message.

| Step | Keys to press | Explanation | Display |
|------|----------------------|--|--------------------------------|
| 1. | PROG | Begin the edit program mode | OPEN:? |
| 2. | <u>01</u> ENT | This is the file number to assign to this new message file | [CYCLIC] |
| 3. | MET PREV or NEXT | Assign the method of display to an Immediate | [IMMED] |
| 4. | COL PREV or NEXT | Assign the color Green | GRE |
| 5. | FONT PREV or NEXT | Assign the font =5*6 Short | [5×6] |
| 6. | WELCOME | Enters in message text | WELCOME |
| 7. | RUN | Exit out of edit message mode | SAVE? (Y/N) |
| 8. | Y | Save the data file as 01 | Message begins to be displayed |

4:Advanced Messaging

4.1 : Example 6-Setting time or date

4.1.1 : Software operation



4.1.2: Remote control operation

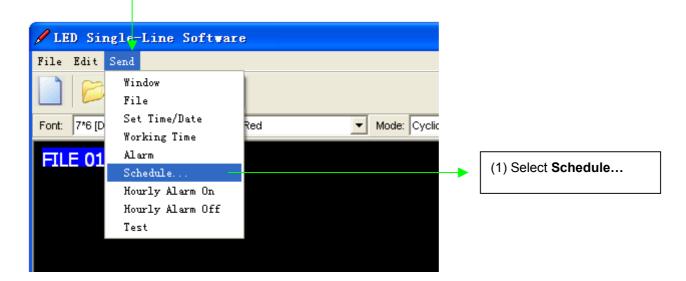
User can set time or date of the message used by hand-held remote control.

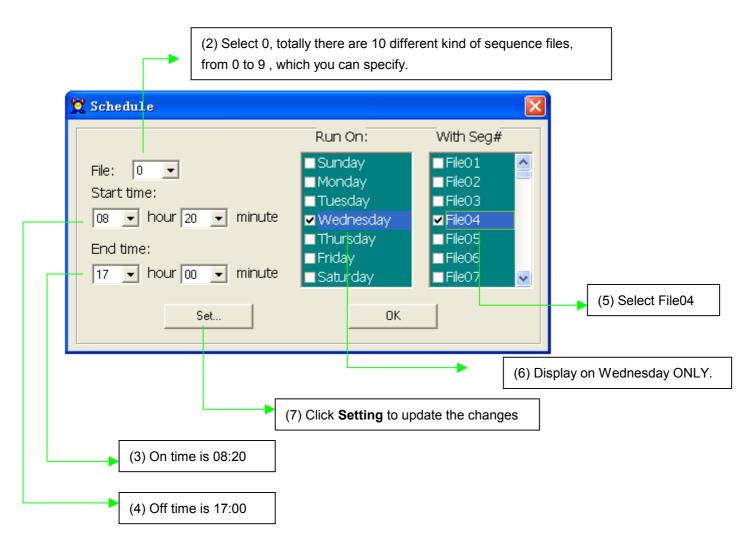
4.2: Example 7- Programming filename messages in sequence

4.2.1: Software operation

In this example, it leverages the power of sequencing to achieve desired results. We'll display messages by their files' names (**FILE01**, **FILE03**) in certain order, and disappear at times you specified.

* Note: Displaying messages in time order will work only as long as the sign has power. When your sign loses power, its internal clock becomes inaccurate and must be reset again. (See 4.1.1)





4.2.2: Remote control operation

Sequence files have special names that begin with the letter "S" followed by a single digit number (S0-S9). As such, there are only ten sequence files, which can be stored and retrieved by the sign. Let's say that as the owner of a restaurant named Box Car Express. You have daily specials that appeal to the lunch crowd at noon. You have already created the following files:

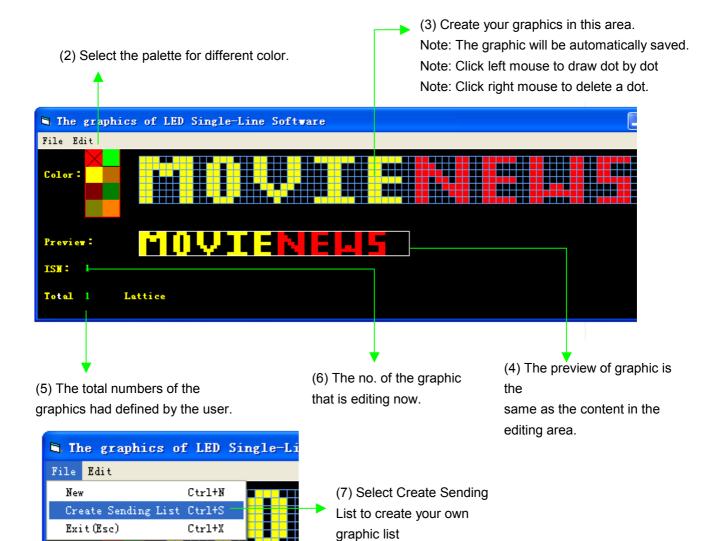
4.3: Example 8- Creating your own custom graphics & logo

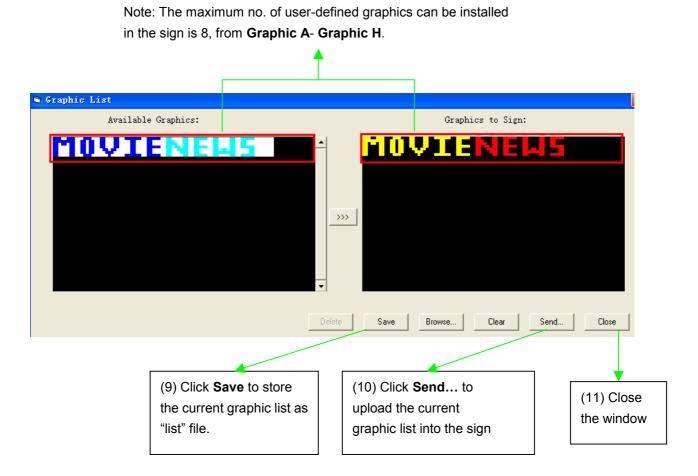
4.3.1: Software operation

| 🖋 LED Single-Line Software | | | |
|---|--|--|--|
| File Edit Send | | | |
| | | | |
| Font: 7*6 [Default] ▼ Color: Bright Red ▼ | | | |
| | | | |

(1) Click Lattice icon to edit your graphic or logo.

Note: The maximum no. of user-defined graphics can be installed in the sign is 8, from graphic A – graphic H.

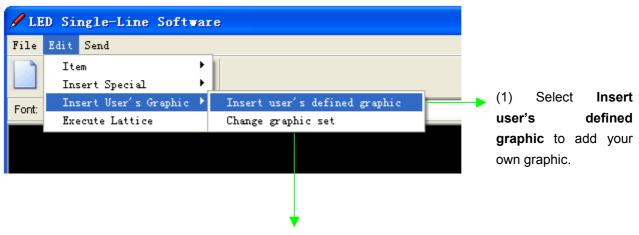




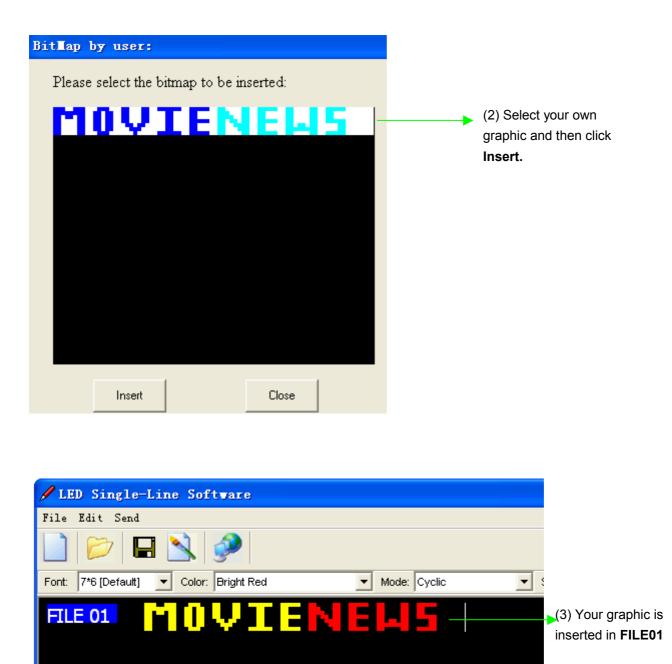
(8) Double click the graphic to add into the current graphic list

4.3.2: Remote control operation

4.4: Example 9- Displaying your own custom graphics & logo 4.4.1: Software operation



Note: Change graphic set is not applicable in this manual.

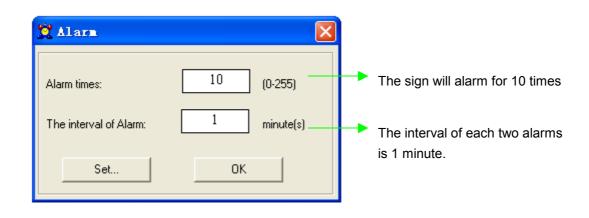


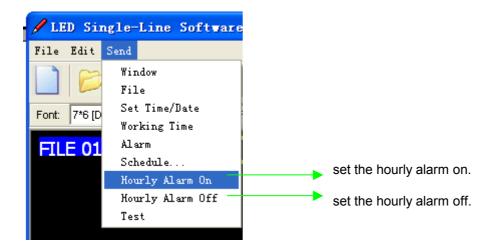
4.4.2: Remote control operation

In order to get a graphic for displaying between any messages, user should firstly enter the Edit mode at the desired location, press **GRA** and cycle through the functions and press **ENT** when the display shown "**GET GRAPH**". All preset graphics will cycle through with the key **PREV** or **NEXT** pressed. Press **ENT** for the right one.

5: Other Timer Options

5.1: Software operation





| 🕱 Working Time | × | |
|---|---|--|
| Set Auto On: 08 < Hour 00 < Minute Auto off: 18 < Hour Set | | To power on the sign at 08:00 automatically To power off the sign at 18:30 automatically. |

Note that: You may only set the timer functions while running your message sign.