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PLEASE READ BEFORE STARTING

This manual contains three overall sections:

- **IR Remote Section**
  Programming your new sign using the included IR Remote Keyboard

- **Software Section**
  Programming your new sign using the included Software

- **Quick Reference Section**
  Corresponding Codes for IR Remote Keyboard

- **Help Section**
  Most commonly asked questions, troubleshooting, contacting technical support

The step-by-step process of explanation will help you accomplish a few examples before starting on your own.

ACCESSORIES SUPPLIED

Accessories, supplied with the product are:
- USB cable incorporating a USB to UART bridge
- RS232 cable
- Power supply, output 12Vdc/2.5A or output 12Vac/2.5A
- Software disc

KEY FEATURES

COLORS AND FONT SIZES
By combining colors (RED/BLACK for single color sign, RED/BLACK/YELLOW/GREEN for tri-color sign) and different font sizes, the LED display will allow you to advertise and capture your customers attention like never before.

VISUAL TEXT EFFECTS AND GRAPHICS
With such functions as cycling, scroll-up, scroll down, and overlap, advertising has never been so much fun! powerful graphics editor can create your own to make your messages stand out!

DEPENDABILITY AND DURABILITY
All of our signs are manufactured under strict quality controls for years of problem free operation. The aluminum casing minimizes interference and assures reliability wherever it is installed.

LARGE MEMORY AND MESSAGE STORAGE
The led display system is equipped with 32K of memory with the capability to retain your programmed information for up to 30 days when not used.
* Internal back-up battery.

SCHEDULE DISPLAY FUNCTION
To display different message with different time/date. One touch easy operation press one key to display date and time or pre-loading message.

Led display system Software for use with Windows 98 and higher
Please see the Software Section, for all the features!
1. Mount the brackets onto the chosen wall location. Use the mounting screws included with the display to fasten the brackets onto the sign.

2. There are two wires from the power adapter. First connect the two-prong end to any AC wall outlet. Second, connect the single prong end to the display via the location on the end cap.

3. As soon as you connect the single prong end to the sign, the sign should automatically light up and start displaying the "demo" message that is a preprogrammed message showing all the features of the display. Note: If your sign does not turn "ON", please turn to the user manual Help Section on page 27.

4. Surge protectors are recommended if you are in an area where power outages are frequent.
Command Keys
Keys located in the yellow area

Character Keys
Keys outside the yellow area
  Upper Case Keys (26) A-Z
  Lower Case Keys (26) a-z
  Numeric (10) 0-9
  Symbols (29) !: ...
  European (60) Å

Please refer to page 7-8 for instructions on displaying European characters

NOTE:
IR keyboard must be pointed at the built-in infra-red sensor located on the top left hand corner of the sign.
Optimum operating distance should be around 5' to 30'.
DO NOT subject the remote keyboard to impact, water or excessive humidity.
The remote keyboard operates on two R6 (UM/SUM-3, AA) or AAA 1.5-volt batteries.
Batteries not included.

Inserting Batteries
IR REMOTE OPERATION INSTRUCTION DIAGRAM

START ON/OFF

TIME/DATE CANCEL ESC

Q-PROG PROG ENTER

INPUT MESSAGE
A...Z.
SHIFT (a..z, 0..9, !..)
EUROP-CHAR (A..Z)
FONT (4x7, 5x7, 6x7)
SPACE DEL

INPUT MESSAGE ENTER

SELECT PAGE EDIT CHANGE PAGE (A..Z) ENTER

ENTER SELECT DISPLAY TIME ENTER SELECT MOVING SPEED ENTER

SELECT SCHEDULE DISPLAY SELECT SCHEDULE (A..E) ENTER

SET START YEAR ENTER MONTH ENTER
... MINUTE ENTER

SET CLOSE YEAR ENTER MONTH
... MINUTE ENTER

INPUT DISPLAY PAGES (A..Z) ENTER

FUNCTION CLEAR ALL ENTER

SET ID SELECT ID ADDRESS NULL FF ENTER

SET BRIGHTNESS SELECT BRIGHTNESS A..D ENTER

SET CLOCK YEAR SELECT YEAR 00..99 ENTER

SET CLOCK MONTH SELECT MONTH 01..12 ENTER ESC

SET CLOCK DATE SELECT DATE 01..31 ENTER

SET CLOCK HOUR SELECT HOUR 00..23 ENTER

SET CLOCK MINUTE SELECT MINUTE 00..59 ENTER

RUN PAGE INPUT PAGE ABC...Z ENTER

** For 2 line display only.
IR SECTION
GETTING STARTED BY REMOTE CONTROL

PRESS **ON/OFF**
The sign will display on and off

PRESS **TIME/DATE|--|ESC** (OFF)
To display the time and date message only, press **ESC** to cancel time/date display function.

Programming a simple message with **Q-PROG**
Let’s practice how to program a simple message by following the steps below. Make sure your sign is currently running a message.

<table>
<thead>
<tr>
<th>Press</th>
<th>Display</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Q-PROG</strong></td>
<td>Stop the sign and wait for message input</td>
<td></td>
</tr>
<tr>
<td>2. <strong>HELLO</strong></td>
<td><strong>HELLO</strong></td>
<td>Key-in &quot;HELLO&quot; using the character keys</td>
</tr>
<tr>
<td>TIP: If you key-in a wrong character, press <strong>DEL</strong> to delete the last character entered.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. <strong>ENTRE</strong></td>
<td><strong>HELLO</strong> <strong>HELLO</strong></td>
<td>Runs the message you programmed</td>
</tr>
</tbody>
</table>

PROGRAMMING ALTERNATE CHARACTERS

Display lower-case Letters, numbers, and symbols using the **SHIFT** key.

Please take notice of the INDICATION BLOCK, which appears on the left hand corner of the sign whenever the **SHIFT** key is pressed in the following steps.

1. Press **Q-PROG** to stop the sign and program a message
2. Press **A** to display the letter "A".
3. Press the **SHIFT** key once. Now press any one of the letter character keys on the IR Remote. character keys active (lower-case mode).
4. Press **SHIFT** again. Now press any one of the white number character keys on the IR Remote. white character keys active (numerical mode).
5. Press the **SHIFT** key again. Now press any one of the green symbols character keys on the IR Remote. green character keys active (symbols mode).
6. Press **SHIFT** again to return you to the upper-case mode. Press any letter key to verify that you are back in the upper-case mode.
NOTE: Upper-Case mode is the default selection when beginning to program. Once you press the \texttt{\textbf{SHIFT}} key, you are no longer in the upper-case mode. Follow steps 3 - 6 to toggle between modes.

7. Press \texttt{ENTER} to run your message.

Displaying European characters using the \texttt{EUROP-CHAR} key.

1. Press \texttt{Q-PROG} to stop the sign and program a message.
2. Press \texttt{A} to display the letter "A".
3. Now press the \texttt{EUROP-CHAR} key. As you will notice, the letter "A" has now changed its shape to the European letter. Continue to press the \texttt{EUROP-CHAR} key until you reach the European style "A" of your choice.

TIP: To revert back to the normal character, continue to press \texttt{EUROP-CHAR}.
Also, you can press any letter at any time to continue to type normal characters.

4. Following previous steps 2 and 3, try to display the European character for the letter "U".
5. Press \texttt{ENTER} to run your message.

\section*{Displaying European characters in lower-case using the and \texttt{SHIFT} \texttt{EUROP-CHAR} key.}

1. Press \texttt{Q-PROG} to stop the sign. Press and program a message.
2. Press the \texttt{SHIFT} key once to go into the lower-case mode. Remember, the \texttt{SHIFT} key toggles you from 4 different modes. Upper case, lower-case, numerical, and symbols mode.
3. Now press \texttt{C} to display the letter "C" in lower-case.
4. Now press the \texttt{EUROP-CHAR} key. As you will notice, the letter "c" has now changed its shape to the European.
5. While staying in the lower-case mode, try to display the European character for the letter "o".
6. Press \texttt{ENTER} to run your message.

NOTE: There are 60 European characters that you can choose from. Please refer to the Quick Reference Guide for the European Characters Table and corresponding letters.
ATTENTION GETTING FEATURES

Displaying pre-loading message or graphics page.
Let's say you had pre-loaded a message to page e and you wanted to display

<table>
<thead>
<tr>
<th>Press</th>
<th>Display</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. RUN-PAGE</td>
<td>STOP MODE</td>
<td>Stops the sign and wait page data</td>
</tr>
<tr>
<td>2. E</td>
<td>(PG: E)</td>
<td>Display PAGE E</td>
</tr>
<tr>
<td>3. ENTER</td>
<td></td>
<td>Runs your message</td>
</tr>
</tbody>
</table>

NOTE: There are 26 pages can pre-loading message that you can select to display from A To Z.

Link display pre-loading message

<table>
<thead>
<tr>
<th>Press</th>
<th>Display</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. RUN-PAGE</td>
<td>STOP MODE</td>
<td>STOP AND WAIT PAGE DATA</td>
</tr>
<tr>
<td>2. AB E</td>
<td>(PG: A,B,E)</td>
<td>DISPLAY PAGE A,B,E</td>
</tr>
<tr>
<td>3. ENTER</td>
<td></td>
<td>RUNS YOUR MESSAGE</td>
</tr>
</tbody>
</table>

ATTENTION GETTING FEATURES

Using the COLOR key to select a text color.

1. Press Q-PROG to stop the sign and program a message.
2. Press S U to display the letter.
3. Press the COLOR key, as you will notice "SU" have now changed to different color.
4. Now press COLOR key again to view the different text colors. Once you see the color you wish to use, Your color has now been selected. The color you select will stay active until another color is chosen.
5. Key in the word "SUCCESS".
6. Press ENTER to run your message.

NOTE: Please refer to the quick reference section for the color table.

Using the FONT key to select font sizes.

1. Press Q-PROG to stop the sign and program a message.
2. Press A B to display the letter.
3. Press the FONT key, as you will notice "AB" have now changed to different font.
4. Now press the FONT key again to view the different font sizes.
   Once you see the font size you which to use, Your font size has now been selected. The font you select will stay active until another font is chosen.
5. Key in the word "ABLE".
6. Press **ENTER** to run your message.

**NOTE**: There are many font sizes that you can select from. Please refer to the Quick Reference Section, for the Font Size Table.

**ADVANCED FEATURES**

**Adding special effects to your message using the PROG key.**

Now the real fun begins! Let's program a message using the effect

1. Press **PROG** to program a message.
2. Press **select page edit function.**
3. Press **to select PAGE A.** (Total 26 page can be selected from A..Z)
4. Press **to program PAGE A.** The sign will read: (PAG: A)
5. Press the **ENTER** to edit PAGE A
6. Key-in the word "COOL".
7. Press the **ENTER** The Sign will wait for effect input.
8. Now press the **keys to scroll through the various leading and display effect.**
9. Press **ENTER** when you confirm the effect selection.
10. Press **keys to scroll through the closing effect.**
11. Press **ENTER** when you confirm the effect selection.
12. Press **keys to select the display time.**
13. Press **ENTER** to confirm the display time.
14. press **keys to select leading and closing effect moving speed from "0..3".**
15. Press **ENTER** when you confirm.

**NOTE**: There are many effects that you can select from. Please refer to quick Reference Guide for the Effects Table and corresponding letters.

**Adding schedule display using the PROG key**

1. Press **PROG** to stop the display.
2. Press **to program schedule display.**
3. Press **to enter the schedule selection.**
4. Press **to select schedule, max 5 schedule can be set up from A to E.**
5. Press **ENTER** to confirm schedule selection.
6. Press **to select starting year field.**
7. Press **to edit the year.**
8. Press **ENTER** to confirm year input and go to start, month input.
9. Press **to select starting month field.**
10. Press **to edit the month.**
11. Press **ENTER** to confirm month input and goto start date input.
12. Press **to select starting date field.**
13. Press \[\uparrow\downarrow\] to edit the date.
14. Press \[\text{ENTER}\] to confirm date input and goto start hour input.
15. Press \[\leftarrow\rightarrow\] to select starting hour field.
16. Press \[\uparrow\downarrow\] to edit the hour.
17. Press \[\text{ENTER}\] to confirm hour input and goto start minute input.
18. Press \[\leftarrow\rightarrow\] to select starting minute field.
19. Press \[\uparrow\downarrow\] to edit the minute.
20. Press \[\text{ENTER}\] to confirm minute input and goto closing year input.
21. Repeat step 6 to 20 to complete the closing timer set up and you will see "+*".
22. Press characters key A,B,C...Z to input display page for the schedule.
   * Press \[\text{DEL}\] if input is wrong.
23. Press \[\text{ENTER}\] to confirm the schedule set up.
   * There are max 5 display schedule from A to E can be set. Please repeat step 1 to 23 to complete the next schedule setting.
   * If you want to cancel the schedule display, please refer "resetting system using the \[\text{FUNCT}\] key” procedure.

**ADVANCED FEATURES**

Displaying the time and date using the \[\text{TIME/DATE}\] key.
1. Press the \[\text{TIME/DATE}\] key to ENTER
   the date/time display mode, date & time will display alternatively for 3 second.

Cancel display the time and date using the \[\text{ESC}\] key.
1. Press \[\text{ESC}\] and wait 3 sec.
   the display will back to normal message display.

Running combined Pages using the \[\text{RUN_PAGE}\] key.
This feature allows you to link up to 26 pages together as one long message. Remember to have your messages programmed before setting this feature.
1. Press \[\text{RUN_PAGE}\] to stop the sign.
2. Press the \[\text{A to Z}\] key, to select the 'select run' pages, press ENTER to confirm
3. Key in the pages \[A B C\] to run the page link A and B and C.
4. Key in \[\text{ENTER}\] to run message.

Resetting system using the \[\text{FUNCT}\] key
* Any time you can press \[\text{ESC}\] to skip the set up process.
1. Press \[\text{FUNCT}\] to enter the set up function
2. Press \[\downarrow\] key select "clear all Y?"
3. Press \[\text{ENTER}\] key.
Setting id address using the **FUNCT** key
1. Press **FUNCT** to enter set up function
2. Press **↓↓↓** key to select "ADD00"
3. Press **⇒** to select the address field
4. Press **↑↓** to edit the address from 00 to ZZ
5. Press **ENTER** to confirm address set up.
6. Press **ESC** to return to normal display

*Address ID set up only for more than one display sign connect with one data cable. That the data can be separated send to the display from PC with ID address.

Setting brightness using the **FUNCT** key
1. Press **FUNCT** to enter set up function
2. Press **↓↓↓** to brightness set up function
3. Press **⇒** to select brightness field.
4. Press **↑↓** to edit brightness level from high to low "A..D".
5. Press **ENTER** to confirm brightness set up.
6. Press **ESC** to return to normal display

**ADVANCED FEATURES**

Setting system clock using the **FUNCT** key
1. Press **FUNCT** to enter set up function
2. Press **↓↓↓** to set up year data
3. Press **⇒** to select the year field.
4. Press **↑↓** to edit the year data.
5. Press **ENTER** to confirm year setting.
6. Press **↓** to set up month data.
7. Press **⇒** to select the month field.
8. Press **↑↓** to edit the month data.
9. Press **ENTER** to confirm month setting.
10. Press **↓** to set up date data.
11. Press **⇒** to select the date field.
12. Press **↑↓** to edit the date data.
13. Press **ENTER** to confirm date setting.
14. Press **↓** to set up hour data.
15. Press **⇒** to select the hour field.
16. Press **↑↓** to edit the hour setting.
17. Press **ENTER** to confirm hour setting.
18. Press **↓** to setup minute data.
19. Press **⇒** to select the minute field.
20. Press **↑↓** to edit the minute data.
21. Press **ENTER** to confirm minute setting.
22. Press **ESC** back to normal message display.
SOFTWARE SECTION

PC system required
Operating System: Win98/Win me/Win NT/Win 2000/Win XP
CPU: Intel Pentium 166 or above
RAM: 32M or above
Monitor: VGA or higher
Serial Output: RS232 port

Software installation instructions
Insert the LED Display System disk into your CD-ROM drive. That will auto-run and the first screen comes up. Click INSTALL to go installation. Choose READ ME to show you the required system. EXIT will quit the installation.

Click INSTALL to go ahead the installation and continue the Choose Next to continue, Click BROWSE to select the directory to install the program. The system preset is C:\Program Files\New sign.
Click NEXT to keep on installation
Choose NEXT to run the file installation to copy
the file to your PC hard disk. Choose CANCEL to quit installation
program or BACK to change the directory setting.

![Installation Screen]

After copying the file is complete, click on Finish.
Finish the installation, and shortcut icon for quick
start will be on the desktop screen. And simultaneously create
DIRECTORY in your PC program group.

![Desktop Screen]

If you want to uninstall the system, just double-click the unwise.exe at the Program Group\ New Sign.
Select Automatic and click NEXT. The program will automatically uninstall.

**SOFTWARE SCREEN**

- **Message Window:** Area where you can type and see the message that will be transmitted to the sign.
- **Character Count:** Displays the number of characters typed by the user.
- **Tool Bar:** Buttons that serve as shortcuts to execute commands.

**SET-UP**

**Connecting the cable**

1. Connect the Phone Clip end of the Phone Type Cable to the sign.
2. On the back of your computer, identify a COM PORT. If you have trouble locating a COM PORT on your computer, please reference your computer user manual or contact the manufacturer of your computer.
3. Connect the 9-Pin connector end to the COM PORT you will be using. If the 9-pin connector is not connected to the correct COM PORT, computer communication to your sign will not work.
**Toolbar**
- Opens a new Message Window.
- Opens an existing File.
- Saves the current message in the Message Window.
- Cut the highlighted selection and put it on the clipboard.
- Copy the highlighted selection and put it on the clipboard.
- Paste the contents of the clipboard.
- Sends the message in the Message Window to the sign.
- Sends the message through LAN.

**THE MENU BAR**

**File**
- New: opens a new window.
- Open: opens an existing file.
- Save: saves the file currently open.
- Set Comm: allows you to set the communication settings.
- Exit: exit the software program.

**Edit**
- Cut: Cut the highlighted selection and put it on the clipboard.
- Copy: Copy the highlighted selection and put it on the clipboard.
- Paste: Paste the contents of the clipboard onto the active document.
- Delete: Use this command to remove selected content from the Message Window.

**Commands**
- Leading: How the text will appear.
- Speed: Control the leading and closing moving speed.
- Display effect: How the text will display.
- Display time: How long the message display.
- Closing: How the text will disappear.
- Special: Insert the TIME, DATE, a "BEEP".
European
Default European characters table for select.

<table>
<thead>
<tr>
<th>€</th>
<th>U00</th>
<th>U01</th>
<th>U02</th>
<th>U03</th>
<th>U04</th>
<th>U05</th>
<th>U06</th>
<th>U07</th>
<th>U08</th>
<th>U09</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>U0A</td>
<td>U0B</td>
<td>U0C</td>
<td>U0D</td>
<td>U0E</td>
<td>U0F</td>
<td>U10</td>
<td>U11</td>
<td>U12</td>
<td>U13</td>
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<tr>
<td>a</td>
<td>U14</td>
<td>U15</td>
<td>U16</td>
<td>U17</td>
<td>U18</td>
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</tbody>
</table>

User Font Make

Select the char code where the character you will change, and then select font size. Click ] to add the item in the list box. Then select this item to draw the font. Repeat the process for the same character with different font size, example: U40-4x7, U40-5x7, U40-6x7.

Click Transfer|Transfer to Sign to update the user font of the sign.

Click File | Save Font on this window to save a file.

Recall Default Font
Use for recall the above default European characters font to the Sign and software.

The Menu Bar

Font
Select any one of font styles to be used in your message.

Colors Select any one of listed colors to use for your text.

Bmp Graphics
Edit Graphic... Edit and save your own graphic images, and then insert into the message window refer graphic edit section

Function
Send Message Send the current text in the Message Window to the LED Display Board. Before transferring, you should Select ID of Display Board (ID which you may set by "Set ID..." function). Simultaneously, Set which page you transfer to. There are 26 pages in all.
Run Page  : Run a specified page on the LED Display Board.
Link pages To Run  : Link some pages in order to Run more than one Page. For example, type in 'abc', the sign will display page A, page B, page C content consecutively.
Set ID  : Set ID of the Led Display Board.
Note: ID00 represents global call. If you have more than one sign, you may want to connect all the signs in a network, e.g. from ID01 to ID05 you can send message to any sign in the network by individual ID. To broadcast to all the signs, use ID 00.
Set Clock  : Set the Date and Time the Display Board system Clock.
Delete Page  : Delete a specified page information on the sign.
Set Brightness  : Set Display brightness, there are 4 levels of brightness.
Display by Schedule  : Schedule a message to be displayed. you may make some pages display from sometime to another time. max can set up to 5 Schedule items one time.
Delete page  : Delete some pages in the running messages.
Delete Schedule  : Delete some items in Schedule table.
Delete All  : Delete all messages in the LED Display Board. (Except system clock)

**CONFIGURE SOFTWARE**

1. Go to File and Set Communication

   ![Select Com Port](image)

   Select the Com Port

   **COM Port:**

   - COM1

   **OK**

2. Click on OK when your settings are complete.

**SENDING A MESSAGE**

The Send Message icon is used to transmit the message to the sign.

1. In the Message Window, type in a test message such as "Welcome to my message".
2. Click on the icon on the Toolbar to bring up the Message window.

   ![Send Message](image)

   **Enter the Sign ID Number**

   **Sign ID:**

   - ID01

   **Page:**

   - A

   **OK**

   **Select a page to send your message to.**

**You have pages A-Z available. Each page can be used to store a different message.**

3. Click on OK to send your message to the sign. If your sign did not receive your message, try sending the message again.
BMP GRAPHIC EDITOR

Use the Graphic Editor to edit or create graphics of your own. To open the Edit Graphic window, click on "bmp Graphics" on the menu bar, then click on "Edit Graphics".

Select Graphic window
Click on any one of the graphics from the Select Graphic list to view the graphic in the Graphic window.

BMP GRAPHIC EDITOR

Color window
Select any one color (RED/BLACK for single color sign, RED/BLACK/YELLOW/GREEN for tri-color sign) to edit an existing graphic or to create a graphic.

Edit graphic buttons
Functions of buttons are described below.

SAVE the current graphic displayed in the "Graphic" window. Graphic will be saved in the "Library".
DELETE a graphic from the "Library".
INSERT the current graphic in the "Graphic" window into your message.
Edit function

Editor tools box

- **Pen tool**: Click this tool, and move the mouse to Editor Area. Press and hold down the left button of your mouse, and move your mouse to free hand draw.

- **Brush tool**: Click this tool, and move the mouse to Editor Area. Press and hold down the left button of your mouse and move your mouse to get brushing function.

- **Line tool**: Click this tool. Move your cursor to select the starting point of the line. Then hold down the left button of your mouse, moving your mouse to the end point of the line. Then release mouse button.

- **Outline rectangle tool**: Click this tool. To select the starting point by moving your cursor and hold down the left button of your mouse. Then move at the end and release mouse button.

- **Rectangle tool**: Same operation step as outline rectangle tool.

- **Outline ellipse tool**: Same operation step as outline rectangle tool.

- **Ellipse tool**: Same operation step as outline rectangle tool.

- **Pointer tool**: Click this tool. Select the edit area by press and hold down the left button of your mouse. Then the select area be round by release your mouse button. Moving the round area by hold down the left button of your mouse until the position you want. Then release the mouse button. Right click to fix the position.

- **Polygon pointer tool**: Same operation step as pointer tool.

- **Erase tool**: Click this tool. Just press and hold down the left button of your mouse and move your mouse to erase the area you want.

- **Clear tool**: Click this tool and select the color. Then moving cursor to edit area left click your mouse. That the whole edit area will turn to that color. If you select black color, the whole edit area will be covered by black in color. Same as clear function.

- **Text tool**: Click this tool. Move cursor to the starting point you want to put the text. Left click your mouse and text input will bring up. That you can type in your words or use windows cut and Paste function to input text. Then select the fonts and fonts size. Click OK Button to finish the text input. Then move the object to the position you want and right click your mouse to fix it.
After clicking the Ok button in dialog box, move the rectangle area to proper position and right click the mouse to fix the information position.

**Clear function key:** Left click this button to clear the whole edit area.

**Bmp file function key:** Left click this button That can easily export the editing content to Bmp file, or import Bmp file edited by other program.
Display zoom in, zoom out function
The zoom size can be selected from 1 to 8. 1 is the smallest. You can zoom in or zoom out to affect your edit job as

Color selection function
Just easily to left click the color button to select the color you want. If you edit a triple color frame, then you have four color boxes to select as. If you edit a single color frame, then you can select either red or black color box as

LAN COMMUNICATION
How it works
The display is first connected to the Serial Communication Port of a computer in the LAN environment which we refer to as the Receiving Slave Computer (RSC). The computer that will actually be transmitting messages to the display is referred to as the Transmitting Master Computer (TMC). The TMC will have the display control software installed. It is not necessary to install the software on the RSC. The next step is to set-up a Generic/Text Only printer driver on the RSC and share it with the TMC. Once the set-up is done and a message created, a simple click on the button for “Send via Network” will bring up the “PRINT” dialog window. You then select the Generic/Text Only printer created and click on “OK” and your message is on its way.
RSC Printer Driver Set-Up
3. Click on "Next". Select "Local printer" and click on "Next" again.
4. Under "Manufacturers", search for "Generic". Select "Generic".
5. If prompted: "A driver is already installed for this printer", then select to "Keep existing driver" and click on "Next".
6. Select the Communications Port on the RSC the display will be connected to and click on "Next". For Example: If the display is connected to COM1, select "COM".

LAN COMMUNICATION
6. Under "Printer name", type in the name you want for the Display Printer Driver. This name must be 12 characters in length.
In the example below we used the initials "F.D." to represent "Front Desk". Select "No" to select the printer as the default printer and click on "Next".
7. Click on "Finish" to complete the set-up. If prompted for the Windows 95 CD or disk, insert CD or disk into the proper drive and click "OK".
8. Now select the printer you created. Go to "File" and click on "Properties".
9. Click on the "Details" tab then click on "Port Settings".
10. Make sure the settings below are set accordingly. Click on "OK" when done.

11. Click on the "Sharing" tab and click on "Shared As". In the "Share Name" box, type in the 12 character "Printer name" you used in step 6. If you want to "password protect" the use of the Display Printer Driver, type in a password in the "Password" box. Only the user with the password can access the "Printer Driver" to send a message to the display.

12. RSC Printer Driver set-up complete

**LAN COMMUNICATION**

**TMC Printer Driver Set-Up**
1. Click on "Start", "Settings", and "Printer". The "Printers" dialog window will appear.
3. Click on "Next". Select "Network printer" and click on "Next" again.
4. Select "No" to print from "MS-DOS-based programs". Click on "Browse".
5. Double-click on the name of the RSC on the network and select the Display Printer Driver created.
6. Click on "OK". Now click on "Next".
7. Under 'Printer name', type in the 12 character "Printer name" used in Step 6 of the RSC Printer driver set-up.
8. Select "No" to select the printer as the default printer and click on "Next".
9. Click on "Finish" to complete the set-up. If prompted for the Windows 95 CD or disk, insert CD or disk into the proper drive and click "OK".
10. **TMC Printer Driver set-up complete**

**SENDING A MESSAGE through the LAN**
1. Start the TruColorII Software program. Create your message.
2. Click on " " for "Send via Network". Input the "Sign ID Number" and "Page Number", Now click on "OK".
3. Select the Display Printer Driver from the Printer Name box and click on "OK". Message sent successfully!

**INTERNET E-MAIL COMMUNICATION**

**How it works**
The display is first connected to the serial Communication Port of the computer at the remote location which we refer to as the Receive Transmit Computer (RTC). The computer that will be transmitting the e-mail is referred to as the Transmitting Master Computer (TMC). Both the TMC and RTC will have the display control software installed. The user at the TMC will create a message using the provided software and save it. Once the message is saved, the user can start the software program used to send e-mail (such as Microsoft Exchange, outlook, Eudora Pro, Netscape Mail etc) and attach the saved message file to the e-mail message and send it. The recipient at the RTC is then notified that new mail has arrived. The user can then open at attachment and send the message to the sign.

- **Begin by installing the software program on the TMC and RTC.**
- **Configure the sign and software on the RTC.**
- **TMC instructions**
  1. Start the software program on the TMC and create a message, Now save it and exit the program.
2. Start the software program used to send e-mail and select to send a new message.
3. Type in the "TO" address.
4. Now click on the icon that will allow you to attach a file. Select the file you want to be displayed in the sign.
5. Your e-mail message should look similar to the following:

6. Now send the e-mail message.

**RTC** instructions
1. The recipient at the RTC should automatically be notified when new mail has arrived.
2. The recipient should open the message and see that the attached file is for the sign.
3. The recipient should run the newsign software and then open the message file.
4. Now just click on the icon on the toolbar to send the message to the sign. Your message is now being displayed.

**QUICK REFERENCE SECTION**

**Color Code Table**

OPTIONAL:
(A & D) for single color sign
(A to J) for tri color sign

To select a COLOR, press **COLOR** once,

<table>
<thead>
<tr>
<th>Letter</th>
<th>Foreground Color</th>
<th>Background Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>RED</td>
<td>BLACK</td>
</tr>
<tr>
<td>B</td>
<td>GREEN</td>
<td>BLACK</td>
</tr>
<tr>
<td>C</td>
<td>YELLOW</td>
<td>BLACK</td>
</tr>
<tr>
<td>D</td>
<td>BLACK</td>
<td>RED</td>
</tr>
<tr>
<td>E</td>
<td>BLACK</td>
<td>GREEN</td>
</tr>
<tr>
<td>F</td>
<td>BLACK</td>
<td>YELLOW</td>
</tr>
<tr>
<td>G</td>
<td>RED</td>
<td>GREEN</td>
</tr>
<tr>
<td>H</td>
<td>GREEN</td>
<td>RED</td>
</tr>
<tr>
<td>I</td>
<td>R/Y/G</td>
<td>BLACK</td>
</tr>
<tr>
<td>J</td>
<td>RANDOM</td>
<td>BLACK</td>
</tr>
</tbody>
</table>

**QUICK REFERENCE SECTION**

**Font size table**

To select a FONT SIZE, press **FONT** to toggle between the fonts listed below.
To display a EUROPEAN CHARACTER, press the Corresponding Letter, then press the `EUROP-CHAR` key until the European letter of your choice is reached. Once you see the European letter you which to use, press any other letter to continue to type your message.

### European Character Table

<table>
<thead>
<tr>
<th>Letter</th>
<th>Foreground Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Æ</td>
</tr>
<tr>
<td>B</td>
<td>ß</td>
</tr>
<tr>
<td>C</td>
<td>Ç</td>
</tr>
<tr>
<td>D</td>
<td>Ð</td>
</tr>
<tr>
<td>E</td>
<td>Ê</td>
</tr>
<tr>
<td>I</td>
<td>ï</td>
</tr>
<tr>
<td>N</td>
<td>Ñ</td>
</tr>
<tr>
<td>O</td>
<td>Ù</td>
</tr>
<tr>
<td>ò</td>
<td>Ù</td>
</tr>
<tr>
<td>Õ</td>
<td>Ù</td>
</tr>
<tr>
<td>Õ</td>
<td>Ù</td>
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<tr>
<td>Õ</td>
<td>Ù</td>
</tr>
<tr>
<td>Õ</td>
<td>Ù</td>
</tr>
<tr>
<td>Õ</td>
<td>Ù</td>
</tr>
</tbody>
</table>

### Letter in Upper "PPER CASE"

<table>
<thead>
<tr>
<th>Letter</th>
<th>Foreground Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Å</td>
</tr>
<tr>
<td>B</td>
<td>Å</td>
</tr>
<tr>
<td>C</td>
<td>Å</td>
</tr>
<tr>
<td>D</td>
<td>Å</td>
</tr>
<tr>
<td>E</td>
<td>Å</td>
</tr>
<tr>
<td>I</td>
<td>Å</td>
</tr>
<tr>
<td>N</td>
<td>Å</td>
</tr>
<tr>
<td>O</td>
<td>Å</td>
</tr>
<tr>
<td>ò</td>
<td>Å</td>
</tr>
<tr>
<td>Õ</td>
<td>Å</td>
</tr>
</tbody>
</table>

### Letter in Lower "OWER CASE"

<table>
<thead>
<tr>
<th>Letter</th>
<th>Foreground Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>å</td>
</tr>
<tr>
<td>c</td>
<td>ç</td>
</tr>
<tr>
<td>e</td>
<td>ê</td>
</tr>
<tr>
<td>i</td>
<td>ï</td>
</tr>
<tr>
<td>n</td>
<td>ñ</td>
</tr>
<tr>
<td>o</td>
<td>ò</td>
</tr>
<tr>
<td>ò</td>
<td>Ù</td>
</tr>
<tr>
<td>Õ</td>
<td>Ù</td>
</tr>
<tr>
<td>Õ</td>
<td>Ù</td>
</tr>
</tbody>
</table>

### Quick Reference Section

#### Special effects table

After you complete message editing, you can select the leading and closing effect by and key and confirm by enter key.

<table>
<thead>
<tr>
<th>Letter</th>
<th>Type</th>
<th>Effet</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>L, T</td>
<td>Immediate</td>
<td>Image will be immediately appeared</td>
</tr>
<tr>
<td>L</td>
<td>T</td>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>----</td>
<td>----</td>
<td>---------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>B</td>
<td>L, T</td>
<td>Xopen</td>
<td>Image will be shown from center and extend to 4 side</td>
</tr>
<tr>
<td>C</td>
<td>L, T</td>
<td>Curtain UP</td>
<td>Image will be shown one line by one line from bottom to top</td>
</tr>
<tr>
<td>D</td>
<td>L, T</td>
<td>Curtain Down</td>
<td>Image will be shown one line by one line from Top to Bottom</td>
</tr>
<tr>
<td>E</td>
<td>L, T</td>
<td>Scroll Left</td>
<td>Image will be scrolled from Right to Left</td>
</tr>
<tr>
<td>F</td>
<td>L, T</td>
<td>Scroll Right</td>
<td>Image will be scrolled from Right to Left</td>
</tr>
<tr>
<td>G</td>
<td>L, T</td>
<td>Vopen</td>
<td>Image will be shown from center to top and Bottom one line by one line</td>
</tr>
<tr>
<td>H</td>
<td>L, T</td>
<td>Vclose</td>
<td>Image will be shown from Top and Bottom to Center one line by one line</td>
</tr>
<tr>
<td>I</td>
<td>L, T</td>
<td>Scroll Up</td>
<td>Image will be scroll from Bottom to Top</td>
</tr>
<tr>
<td>J</td>
<td>L, T</td>
<td>Scroll Down</td>
<td>Image will be scrolled from Bottom to Top</td>
</tr>
<tr>
<td>K</td>
<td>L, T</td>
<td>Hold</td>
<td>Previous Screen will be kept</td>
</tr>
<tr>
<td>L</td>
<td>L</td>
<td>Snow</td>
<td>Pixels will be dropped down from top and stack up to build the image</td>
</tr>
<tr>
<td>M</td>
<td>L</td>
<td>Twinkle</td>
<td>A blank diagonal line will be scrolling on the image</td>
</tr>
<tr>
<td>N</td>
<td>L</td>
<td>Block Move</td>
<td>8 pixel width display block will be moved from right to left one by one</td>
</tr>
<tr>
<td>P</td>
<td>L</td>
<td>Random</td>
<td>Random Pixel will be appeared to build the image</td>
</tr>
<tr>
<td>Q</td>
<td>L</td>
<td>Pen writing</td>
<td>Hello World</td>
</tr>
<tr>
<td>R</td>
<td>L</td>
<td>Pen writing</td>
<td>Welcome</td>
</tr>
</tbody>
</table>

L = Leading commands - how the text will appear.
T = Closing commands - how the text will disappear.

**Display effect**

A    Normal
B    Blinking
C    Play song 1
D    Play song 2
E    Play song 3

**Moving speed**

3    Fast
2    Medium 1
1    Medium 2
0    Slow

**Bell duration**

A    Short
B    Medium 1
C    Medium 2
D    Long

**Display time**

0.5sec - 25 sec

**Date display format**

DD/MM/YY

**Time display format**

hh/mm
HELP SECTION - IR(Infrared Remote Keyboard)
Most Commonly Asked Questions

Can I run multiple pages when the SCHEDULE DISPLAY.
Yes, you can refer page 8-adding schedule setting.

HOW CAN I CONTROL MORE THAN ONE SIGN FROM A CENTRAL LOCATION?
Set the different ID address. software will allow you to control up to 255 signs
by setting.

How do I remove the demo message on the sign?
The demo message is permanently programmed onto the sign and is designed
to run automatically when there are no messages programmed by the user.
When you program a message onto a page, the demo message will no longer show.

How much text can I program onto each PAGE?
You can program up to 210 characters per page. there 26 pages text message
and 16 pages graphic can be programmed.

Will I lose my messages if I remove the power to the sign?
No, there is a built-in battery in the sign.

After I unplug my sign, I lose the current TIME and DATE setting. Why?
The battery on the cpu board is gone. you should replace with same
battery. The battery normally can keep 2 years.

How do I display lower-case letters?
Please refer to page 6 [SHIFT] key function.

I plugged the sign in but nothing comes ON?
Unplug the power to the sign and plug it in again.
Make sure the power adaptor plug is plugged into the sign and AC connect
firmly. Try using another wall outlet. Refer page 9 resetting system using the
[FUNCT] key.

HELP SECTION - SOFTWARE
Most Commonly Asked Questions

How do I turn my sign OFF and ON automatically everyday.
Please refer page 16 under the function control display by schedule.

Trouble Shooting
My sign does not show after setting schedule display.
Clear the schedule display and reset the system.
Refer page 16 resetting system using the [DELECT] all.
HELP SECTION - SOFTWARE

Troubleshooting

The software is not communicating with the sign?

Use the checklist below to verify your settings.

☐ I have found the ID setting of the sign and entered them into the software. Page 16.

☐ I am using the cable supplied by. Page 14.

NOTE: The cable may not be extended with any other cable. The cable must be one complete cable from the 9-Pin connector to the sign.

"OPEN COM ERROR".

If the error message is "OPEN COM ERROR", this means the Com Port you have selected is not available for your use or is being used by an internal device in your computer. A computer normally has 4 COM PORTS. Two external ports which are available to connect external devices to the computer and two internal ports which are available, in most cases, for computer use only. Please check the back of your computer to see if it is labeled COM1 or COM2. If not, please refer to your computer user’s manual or contact the computer manufacturer for more information.
1. INTRODUCTION
The USB-RS232 converter can convert a USB1.1 interface to a RS232 serial interface. It provides a simple solution for updating RS232 Interface Of peripheral products to USB interface.
Features:
- USB Specification 1.1 compliant
- Over baud rates 1Mbps
- Working with existing COM port applications
- Support Win98/2000/ME/XP

2. INSTALLING DRIVERS
The enclosed CD-ROM contains the Virtual COM Port Drivers for the Converter. You will find the drivers files are included in the directory \usb driver\WIN on the CD-ROM.

The following instructions refers to the Windows XP. On other Operating System, the installation steps are similar.

2.1) Virtual COM Port Driver Installation in Windows XP
- Insert the provided CD-ROM into the CD-ROM drive. Connect the USB cable between the host computer and the target device.
- Windows will open a "Found New Hardware Wizard" window. Press Next to continue.

Select "Install from a list or specific location(advanced)" and press Next.
Check "Include this location in the Search", and press Browse to locate the "slabw2k.inf" driver installation file. The file location is the "[CD-ROM Drive]\usb driver\win" directory. Once this location is selected press Next.

Press Finish to complete installing the USB Device drivers.

3. USB-RS232 CONVERTER SERIAL INTERFACE
After finishing the drivers installation, Click on Start/settings/control panel/system/device manage and you will see a USB port will appear as a COM port in the Device Manager.
USB-RS232 Converter will usually use the lowest available COM port for operation. For instance, if COM ports 1 to 3 are in use by other peripherals and applications, USB-RS232 Converter will use COM 4.

USB-RS232 Converter functions identically to a COM port from the reference point of both the host application and the serial device, and it can support serial device control requests defined in the Win32 Communications API.

When you connect the USB cable to the USB port, Windows will now detect USB device. Since you have already installed the device drives, all you need to do is check which COM port was created and tell your serial device’s software to use the corresponding port.

4. UPDATE THE MAPPED COM PORT
If USB-RS232 Converter is assigned to a high COM Port, e.g. COM8, however the application do not support it, you need to update the mapped port. In the Device Manager, double Click the entry “CP2101 USB to UART Bridge Controller(COM8)” under the category “Ports(COM & LPT)”.
Select the tab box “Port Settings”.

![Device Manager Screenshot](image-url)
Click the Advanced... button, and select a low COM port which the application support, e.g. COM2, and then Click OK button.

You will see the port mapped to COM2.