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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. Most of this manual shows you how to program messages on your sign using a remote control.

A Remote control needs two AAA batteries to operate.

1.2: 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.



Front View

1.3: Technical specifications

Weight (without power supply	1.3 kg
or keyboard):	
Height:	9.7 cm
Length:	66.2 cm
Depth:	3.4 cm
Power:	5 VDC at 4 A
	The display should be operated in an environment where the temperature is between 0 and 45 , and the humidity
	(non-condensing) does not exceed 95%.

2: BASIC SIGN OPERATIONS

2.1: Turning a sign on and off

When you plug in the sign's power supply, the sign starts up automatically, and unplugging the power supply turns the sign off.

However, instead of unplugging a sign, there is another way, Remote Control, to turn the sign off.

2.2: Introduction to remote control



Item	Кеу	Description	Description	
1	ON/OFF		If there is no file in 01 to 99 , it will run file 00 . 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 (a) UNUSE PAS (b) USE PASS (c) RES PASS (d) CHANGE PA	Turn on password security. Reset to factory default password " 000 ".	
4	MET		play modes, totally up to 24 different modes EV and NEXT to select (1) to (24) methods. See Appendix A.	
5	PREV	Select option ba	ckward.	
6	NEXT	Select option for	ward.	
7	CAP	Toggle between	Capital letter and lower case character.	
8	TIME	To select time op	otion. See Appendix B.	
9	SPE	Select the displa different speed.)	ay speed of the message. (Use PREV and NEXT to select the	
10	FONT	Select the font s the different font	size of the display message. (Use PREV and NEXT to select size.)	
11	COL	Select the color of the display message. (Use PREV and NEXT to select the different color of the display message.)		
12	SYM	Select 30 built-in symbols. (Use PREV and NEXT to select the different symbol.)		
13	CLR	Erase option.		
14	GRA	Select graphic o	ption. (Use PREV and NEXT to select the following options :)	
		(a) GET GRAPH	Place the graphic in the message. Use PREV and NEXT to select GRAPH A to GRAPH P	
		(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 .	
		Note: Please ref	er to 28. Cursor direction pointer to make and edit graphic.	
15	<=	Moving the message and command to the right.		
16	=>	Moving the message and command to the left.		
		Note: IF YOU WANT TO DELETE MESSAGE OR COMMAND IN THE EDIT PROGRAM MODE. PLEASE USE ABOVE KEYS TO MOVE THAT MESSAGE OR COMMAND TO THE LEFT-MOST POSITION AND PRESS DEL .		
		IF YOU WANT TO INSERT MESSAGE OR COMMAND IN THE EDIT PROGRAM MODE. PLEASE USE ABOVE KEYS TO MOVE THAT MESSAGE OR COMMAND TO 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.		

17	ALT	Use the alternative symbol in the keyboard.
18	PAU	Generate a pause within the programmed message. (Use PREV and NEXT to select PAUSE 1 to PAUSE 8)
19	PHR	Select a programmed animation in the message. (Use PREV and NEXT to select ANIM 1 to ANIM 8)
20	BEEP	Select beep sound in the message. (Use PREV and NEXT to select BEEP 1 to BEEP 3)
21	ENT	Accepts 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 and 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 message for display.
27	S	Programming a sequence file. Please refer to Section 3.5: Programming a sequence file.
28	F G H J K L N O P	Cursor direction pointer. K toggles cursor on /off Note: The direction point only works in graphic edit mode

3: BEGINNING TEXT 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.	PROG	Begin the edit program mode	PASSWORD:***	
2.	<u>o o o</u>	Default Password " 000 "	PASSWORD:***	
3.	ENT	Enter into editing mode	OPEN: ??	
4.	<u>01</u> 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		
5.	WELCOME	Type the text you wish to display in you		
^{3.} <u>VISITORS</u> message		message	VISITORS	
6.	. RUN End the edit program mode		SAVE? (Y/N)	
7.	Y	Save the message as data file number 01	Message begins to be displayed	

You have just created your first message! 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. This is one additional way besides viewing the unit 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 decide what you want your message to say and how best to display it. In the above example the message was only two 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.
- The default color for messages is Bright Red. A list of all color possibilities can be found in Appendix C.
- You have the option at the end of your programming to save your message.
- The sign always begins the editing of a new message with the default method of display as **[CYCLIC]**, which stands for cycle through all color and 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**.

3.2: Example 2- Running a saved message

Normally, the sign will display the message which is the latest modified, but there is an option that user can choose any message to display at any time.

A Run Message File Example -

Step	Keys to press	Explanation	Display
1.	RUN	Run a saved message	RUN : ??
2.	<u>02</u> ENT	Select file 02	Message begins to be displayed

3.3: Example 3- Recalling a saved message for edit

To recall a previously saved message, you again begin by pressing the **PROG** key, and then input the two-digit number and press the **ENT** key (Suppose the password protection is disabled through out this manual). 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.

A Simple Message File Recall Example -

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 (see previous OLDFIL example)			
3. RUN End the edit program mode		End the edit program mode	SAVE ? (Y/N)
4.	N	There is no need to re-save the data file	Message begins to be displayed

Every time you want to recall a previously saved message, follow the 4 steps listed above, substituting in the appropriate file number.

3.4: Deleting a message file

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 **CLR** and cycling through the difference functions by pressing the **PREV** or **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

4: ADVANCED TEXT MESSAGING

4.1: Example 4- A more intricate example

Once you have successfully programmed your first message, you find that using the remote to program your sign is extremely easy. Adding spectacular color, animation and varying the shape of the letters is also easy to perform. And while it takes a little more time to tackle more intricate messages, they add sparkle and increase readability.

Because the sign can display 16 different colors, and has various options selecting the method by which your messages appear on the sign, you can create extremely complex messages. There is no single method or pattern that you should start each message with - be creative in your approach to displaying your message and experiment with different color combinations, different methods for having the message appearing (scroll from left to right versus immediately appearing, etc.).

A More Complex Programming Example -

We want to program in a message that is eye-catching and appealing to shoppers about our new Sporting Goods Department. Our message is simple: VISIT OUR NEW SPORTING GOODS DEPARTMENT TODAY. We'll use color and variety to bring to life the message and attract some new sporting goods buyers.

Step	Keys to press	Explanation	Display
1.	PROG	Begin the edit program mode	OPEN : ??
2.	02 ENT	This is the file number to assign to this new message file	[CYCLIC]
3.	NEXT NEXT NEXT NEXT	Assign the method of display to an Open From Center	[OPEN <>]
4.	COL NEXT NEXT NEXT	Assign the color Bright Orange	[ORA]
5.	VISIT OUR NEW	Enters in message text	VISIT OUR NEW
6.	COL NEXT NEXT NEXT NEXT NEXT NEXT NEXT NEXT	Assign a rainbow color to test	[MIX]
7.	MET NEXT NEXT NEXT NEXT NEXT NEXT NEXT	Change display method to cover old text from Right	[COVER⊷]
8.	SPORTING GOODS	Enter message text	SPORTING GOODS DEPARTMENT
9.	PAU NEXT	Pause for 2 second delay at end of message before re-displaying it	[PAUSE 2]
10.	RUN	Exit out of edit message mode	SAVE ? (Y/N)
11.	Y	Save the data file as 02	Message begins to be displayed

That's a pretty fancy message and still only eleven steps! The beauty of the sign is that there is an unlimited number design for your messages, just by changing the colors, methods of display, and the character sizes and shapes. You must decide what works best with your wall colors, room lighting etc.

Note: The message "SPORTING GOODS DEPARTMENT" is more than one screen; the only display method is slide in from the right. User may try to shorten this message and try for other display method.

Refer to Appendix A to learn more about the functionality of the sign and how best to use your sign to gain maximum benefits!

4.2: Example 5- Programming a sequence file

The sign has the option of displaying many files sequentially. You first create a sequence files with the file numbers of the messages you want to display. The following example leverages the power of sequencing to achieve desired results.

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.

A Simple Sequence Example -

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:

File	Message
Number	
10	Welcome to the Box Car
	Express
11	Today's special is
12	2-Pc. Chicken Meal with
	Mashed Potatoes and Gravy.
13	Our drink Special is
14	Diet Coke.

You may want to display the above messages from 10:00 am to 1:00 pm, Monday to Friday. In order to display the entire message, your sequence file would contain the line: **10 11 12 13 14**

Step	Keys to press	Explanation	Display
1.	PROG	Begin the edit message mode	OPEN : ??
2.	S	For sequential file	[S0]
3.	<u>1</u> ENT	Enter sequential file number	DAY 0 1 2 3 4 5 6
4.	→	Move right	1 high lighted
5.	NEXT / PREV	Toggle for ON/OFF	1 in green with red background
6.		Repeat step 4 & 5 for 2、3、4、5 until all 1、2、3、4、5 in green color	
7.	<u>s</u>	Set start time	START 00:00
8.	NEXT / PREV	Change the start timer	The digit in green will be changed
9.	← →	Use the arrow key for proper digit	
10.		Repeat steps 8 & 9 until display shown 10:00	
11.	<u>s</u>	Set stop time	END 23:59
12.		Repeat 8 & 9 until display shown 13:00	
13.	ENT	Confirm the time setting	S1

14.	10 11 17 17 18 14	This is the sequence of file numbers to display, separated by a space.	
15.	RUN	End the edit program mode	SAVE ? (Y/N)
16.	<u>Y</u>	Save the sequence file as S1	Message begins to be displayed

The real advantage of sequencing files is the ability to change only one segment of a long message! If you decide to change the meal special but not the drink special, you need only edit file number 12.

In essence, sequencing saves your time from having to edit long messages when only minor changes are needed.

Please be remained that once there is any sequence file and the time setting is valid, the sign will display the preset message starts from sequence file **S0** through **S9**.

4.3: Example 6- Password protection

Password protection is built into the sign. In order to program a message or turn off the display with moving sign in password protect mode, you must key in the correct password. You are required to enter the edit mode when you want to change password, reset password or disable password security.

Step	Keys to press	Explanation	Display
1.	PROG	Enter Edit mode	OPEN : ??
2.	<u>00</u> ENT	Enter file 00	OLDFIL [CYCLIC]
3.	Press → while the ALT is being hold	Fast shift	
4.	Repeat step 3	A few times until you reach to the end of the file, this is to make sure you will not modify the content of the file while doing password change	
5.	CPW	Enter password mode	UNUSE PASS
6.	NEXT		USE PASS
7.	NEXT		RES PASS
8.	NEXT	Change password	CHANGE: ***
9.	AAA ENT	Change the password to AAA	AGAIN: ***
10.		Confirm the password	You have changed the password to AAA .

Steps to change the password

Note: Meaning of display

- UNUSE PASS Turn off password security
- USE PASS Turn on password security
- RES PASS Reset to factory default password "000"
- CHANGE PASS Change to new password

If for any reason the password is lost or forgotten, you must access the DIP switch in the back of the sign unit (not the remote control) and move Switch 8 to ON and then follow the "Steps to change password" from step 1 to step 7. In step 7, press enter. Thus the factory default password will be in effect (**000**). You may disable the password protection feature by leaving Switch 8 in the ON position.

4.4: Using the international character set

Using international characters in your messages is easy with the sign. As you program your message, key in the corresponding English equivalent for the character and use the **NEXT** and **PREV** buttons to scroll through the international characters that correspond to the English character (i. e. key in "\$" and use the **NEXT** button until the "£" character appears if you want to display a number in British pound currency). If there is no corresponding English character first enter, 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.

4.5: Getting a graphic for display

To get a graphic for display between any messages, the user should enter the Edit mode of the proper file, at the desired location, press **GRA**. User can 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.

4.6: Editing the user defined graphics

Inside the edit mode, user can make a new graphic or edit a user-defined graphic in the memory **[GRAPHIC A]** to **[GRAPHIC H]**. User can press the key **GRA** for choosing the appropriate function. After select the memory location, the display will show the user defined graphic (when enter the **EDIT GRAPH** function), or show a blank display only with a dot of cursor (when enter the **MAKE GRAPH** function). Edit the graph, user can use the direction keys (same key pad as **F**, **G**, **H**, **J**, **L**, **N**, **O**, **P**)

F	G	Η
J	Κ	L
Ν	0	Ρ

to move the cursor onto the position and user can change the dot color by pressing $\[PREV]$ or $\[NEXT]$ key. If user want to draw a line, he can press the dot keys (same key pad as $\[K]$) and make a line through the cursor position. To turn off this draw line function by press the dot key again.

APPENDIX A: ADDITIONAL PROGRAMMING TIPS

The following functions require that you move through the list of possibilities and make a selection. Use **NEXT** and **PREV** keys to move through the list of choices.

Function Code	Definition	Possibilities	Control
oouc		Cyclic	[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 †]
METHOD	Diaples (Option	Scroll Down	[SCROLL ↓]
METHOD	Display Option	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	
COLOR	Alters the color of text	See Appendix C	
		5×6 Short	[5×6]
		5×11 Short & Wide	[5×11]
	Changes the shape and size of characters Change the scrolling speed of the display	7×6 (Default)	[7×6]
FONT		7×11 Wide	[7×11]
		7×9	[7×9]
		7×17 Extra Wide	[7×17]
		Small Fonts	[7 × 17] [Small]
		Speed 1 (Fastest)	[SPEED 1]
		Speed 2	[SPEED 2]
		Speed 2	[SPEED 3]
		Speed 4	[SPEED 4]
SPEED		Speed 5	[SPEED 5]
		Speed 6	[SPEED 6]
		Speed 7	[SPEED 7]
		Speed 8 (Slowest)	[SPEED 8]
GRAPHICS	1		[GRAPH A]
			[GRAPH B]
Editable b			[GRAPH C]
	Editable by usor		[GRAPH D]
	Editable by user		[GRAPH E]
			[GRAPH F]
			[GRAPH G]
			[GRAPH H]
	Non-editable by user	City	[GRAPH I]
		Car	[GRAPH J]
		Vessel	[GRAPH K]

		Tel	
			[GRAPH L]
		Nature	[GRAPH M]
		Ship	[GRAPH N]
		Swim	[GRAPH O]
		Cat	[GRAPH P]
		MERRY X`MAS	[ANIM 1]
		HAPPY NEW YEAR	[ANIM 2]
		4 TH JULY	[ANIM 3]
PHRASE	Generate an animated	HAPPY EASTER	[ANIM 4]
PRRASE	pre-programmed display	HAPPY HALLOWEEN	[ANIM 5]
		DON`T DRINK & DRIVE	[ANIM 6]
		NO SMOKING	[ANIM 7]
		WELCOME	[ANIM 8]
		Pauses for 2 second delay	[PAUSE 1]
		Pauses for 3 second delay	[PAUSE 2]
		Pauses for 4 second delay	[PAUSE 3]
PAUSE	Generate a pause within	Pauses for 6 second delay	[PAUSE 4]
FAUSE	the programmed message	Pauses for 10 second delay	[PAUSE 5]
		Pauses for 20 second delay	[PAUSE 6]
		Pauses for 30 second delay	[PAUSE 7]
		Pauses for 60 second delay	[PAUSE 8]

APPENDIX B: TIMER OPTIONS

Note that you may only set the timer functions while in the EDIT program mode of operation.

To select the timer function while in edit mode at the end of a message is fine, press the **TIME** key. Press the **NEXT** and **PREV** keys to cycle through the timer functions and press the **ENT** key to make your selection

To input times, press the Left and Right Arrow Keys to move through the digits and use the **NEXT** or **PREV** keys to increment or decrement the values for the digits.

Function	Description
SET TIME	Adjust the Real Time Clock
SET DATE	Adjust the Date
ALARM HOUR	Set alarm times and interval
ALARM	Set the hourly alarm On/Off
12H MODE	If selected, the time will be displayed in 12-hour format (Note: while programming, always enter the time in 24-hour format)
24H MODE	If selected, the time will be displayed in 24-hour format
ADD TIME	Add a time display screen in the data file
ADD DATE	Add a date display screen in the data file
OFF TIME	Tums off at the programmed time of day
ON TIME	Tums on at the programmed time of day

Additional Tips On Alarm Setting-

When you select the Alarm option, the sign will indicate *C: XXXM: XXX*. Where **XXX** is a number from **000** to **255**.

 ${f C}$ is the total times of the alarm to be activated, and ${f M}$ is the time interval between two activations.

Example-

C: 123M: 001 - this means that there will be 123 times of alarm signal, and the time interval between each alarm signals will be 1 minute.

APPENDIX C: LISTING OF COLOR

Color Name	Display Code
Red	[RED]
Bright Red	[RED] *
Orange	[ORA]
Bright Orange	[ORA] *
Yellow	[YEL]
Bright Yellow	[YEL] *
Green	[GRE]
Bright Green	[GRE] *
Layer Mix (Rainbow)	[MIX]
Bright Layer Mix (Rainbow)	[MIX] *
Vertical Mix	[MIX]
Saw Tooth Mix	[MIX]
Green on Red	[MIX]
Red on Green	[MIX]
Orange on Red	[MIX]
Yellow on Green	[MIX]

* The color of the dots will not change, except the brightness

APPENDIX D: LISTING OF INTERNATIONAL CHARACTERS

English Character	International Characters
A	ÄÅÆ
С	ÇĆ
E	ÉŖ
Ν	Ñ
0	ÖÓ
S	Ś
U	Ü
Z	ŻŹ
а	âäàåæá ªªªª
С	Ç
e	éêëè 🖁
i	ΪÎÌÍ
n	n ń
0	ÔÖÒÓ º
t	4
u	üûùú
у	Ϋ́
Space	αβΓπΣσμτΦθΩ ∞ δφ
?	i
\$	¢£¥Pt <i>f</i> €

APPENDIX E: LISTING OF SYMBOL CHARACTERS

Note: The actual symbol appear in brackets ("[]") during the programming mode

Sunny	Cloudy	Rainy	Clock
Phone	Glasses	Faucet	Rocket
Alien	Key	Sweater	Helicopter
Car	Tank	House	Teapot
Trees	Duck	Motorcycle	Bike
Crown	Hearts	Right Arrow	Left Arrow
Lower Left Arrow	Upper Left Arrow	Mug	Chair
Shoe	Martini Glass		

TROUBLE SHOOTING

No display	 -Check if the power socket located at the back of the sign is connected. -Check if the AC power plug is plugged into the wall outlet. -Check if the main power of the AC outlet is normal. -Check if the auto on/auto off time setting is correct.
Not response to remote control	 -Check if the batteries of the remote control still have enough energy. If user is not sure, please replace all the batteries. -Check if the batteries of the remote control are placed at right polarity. Please follow the markings in the battery compartment. -Check if there is anything between the remote and the sign blocking the remote signal.
No display but response to the remote control	 -Check if the auto on/auto off time setting is correct. -Check if the data in the files are valid. -If you are not sure, you can enter the edit mode and press CLR key of the remote control, select DEL ALL to erase all data, this will reset the sign to display the default demo messages.
If the above procedures do	o not work, please contact your dealer.