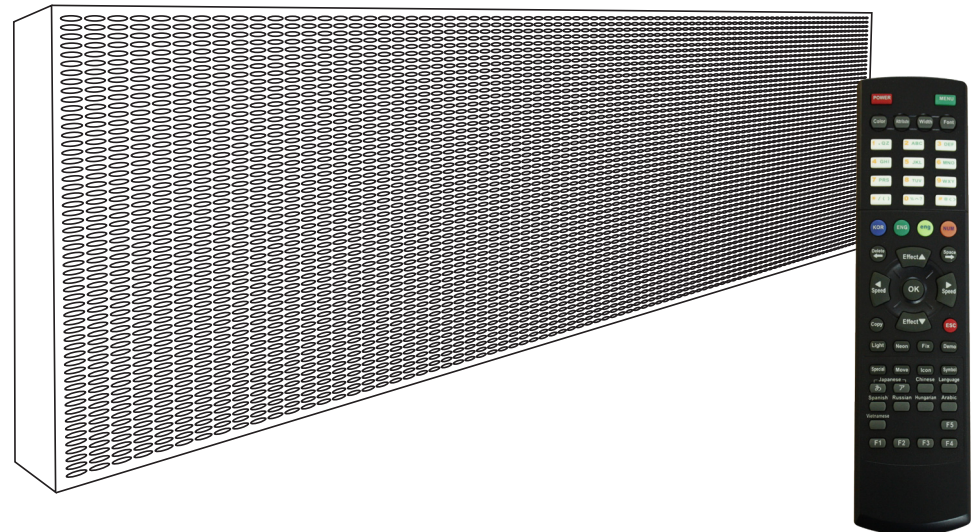


Single & Tri Color REMOTE CONTROL LED SIGN

USER MANUAL



Remote Control Button Functions



Wireless Remote Control (AAA 1.5V x2)

- 1 **Power On / Off**
- 2 **Menu Button**
- 3 **Change Font Color**
- 4 **Apply Effect on Letter**
- 5 **Change Font Width**
- 6 **Change Font Type**
- 7 **Number Pad**
- 8 **Input Korean**
- 9 **Input English Capital Letter**
- 10 **Input English Small Letter**
- 11 **Input Numbers**
- 12 **Delete Character**
- 13 **Input Space**
- 14 **Adjust Speed of Effect - Slower**
- 15 **Adjust Speed of Effect - Faster**
- 16 **Effect and Menu Scroll Key**
- 17 **Effect and Menu Scroll Key**
- 18 **OK / Confirm Button**
- 19 **Copy Function**
- 20 **To Cancel or Go Back**
- 21 **Not Supported**
- 22 **Add Neon Effect**
- 23 **Adjust Word Size to Fit Board**
- 24 **Demonstration Mode**
- 25 **Input Special Character**
- 26 **Input Animation**
- 27 **Input Icon**
- 28 **Input Symbol**
- 29 **Input Hirakana**
- 30 **Input Katakana**
- 31 **Input Chinese (Not Supported)**
- 32 **Not Supported**
- 33 **Input Spanish**
- 34 **Input Russian**
- 35 **Input Hungarian**
- 36 **Input Arabic**
- 37 **Input Vietnamese**

- 1) [Power]
- 2) [Menu]
- 3) [Color] button to change the color of each character.
- 4) [Attribute] button to add an individual effect to each character.
- 5) [Width] button to change the width of each character.
(May not be available in Dual Messages)
- 6) [Font] button to change the font of each character.
(May not be available in Dual Messages)
- 7) **Number / Letter entry Buttons**
- 8) [KOR] button to input entry into Korean characters
- 9) [ENG] button to input entry into Capital letters
- 10) [eng] button to input entry into lower case letters
- 11) [NUM] button to input entry into numbers instead of letters
- 12) [Delete] button to delete character
- 13) [Space] button to input a Space
- 14) [◀ Speed] button to slow down the speed of the Effect
- 15) [▶ Speed] button to speed up the speed of the Effect
- 16) [▲ Effect] button to change the style of the Effect
- 17) [▼ Effect] button to change the style of the Effect
- 18) [OK] button to confirm a selection
- 19) [Copy] button to copy a character or effect
- 20) [Esc] Press once to cancel current selection. Press again to go back to previous selection
- 21) [Light] button not supported at this time
- 22) [Neon] button to add Neon effects. Press the UP & Down buttons to scroll through the available effect options.
Press the [Neon] button again to toggle the effect on or off
- 23) [Fix] button to stretch or shrink the lettering size to fit into full screen at one time.
Use this feature when your words are long and run off the screen or short and you want to fill the screen. May not work for extra long entries, instead of entering long entries enter a new message in Add Contents or Insert Contents. Each "Add Contents" message will run one after another in order of sequence created.
- 24) [Demo] button to show Demo display contents and Testing Led Sign Board
- 25) [Special] button to insert a Special character. Use the Arrow buttons to select.
- 26) [Move] button to insert a flashing picture or letter. Use the arrow buttons to select.
- 27) [Icon] button to insert an Icon character. Use the Arrow buttons to select.
- 28) [Symbol] button to insert Symbol characters: !"#\$%&'()*+,-./:;<=>?[_`{|} etc...
Use the Arrow buttons to select symbol.
- 29 - 37) [Spanish], [Japanese], [Russian], [Hungarian], [Arabic], [Vietnamese] buttons to insert a character in that respective language for the button used.
Use the arrow buttons to select.
Press the button again to scroll through the available effects.
- * [F3] button to input special Headline messages. Use Arrow buttons to select.
- * [F1], [F2], [F4], [F5], [Language] buttons are not supported at this time.

1: Add Contents - Create New message content

- | | | |
|----------------------|------------------|-----------------------------------|
| [1] Add Message | [5] Add Video | [9] Add D-time |
| [2] Add Dual Message | [6] Display Date | [10] Add Temperature (Optional) |
| [3] Add Image | [7] Display Time | [11] Add Humidity (Not Supported) |
| [4] Add Picture | [8] Add D-day | [12] Add Event (Not Supported) |

2: Modify Contents - Select an existing message to modify

- [1] Select Content

3: Insert Contents - Insert new content before an existing message

- | | | |
|----------------------------|---------------------|-------------------------------|
| [1] Sentence Insertion | [5] Video Insertion | [9] D-time Insertion |
| [2] Dual Message Insertion | [6] Display Date | [10] Temperature (Optional) |
| [3] Image Insertion | [7] Display Time | [11] Humidity (Not Supported) |
| [4] Picture Insertion | [8] D-day Insertion | |

4: Index Contents - Enable & Disable existing content to be shown

- [1] Select Content

5: Delete Contents - Delete existing message content

- [1] Delete Option [2] Delete All

6: Stop Watch - Enable stop watch feature

- [1] Increment Mode [2] Decrement Mode

7: Password - Prevents unauthorized changes to the sign

- [1] Enter Password

8: Set Time - Set current Time/Date and Timer On/Off

- [1] Set Time [2] Set Date [3] Set Timer ON [4] Set Timer OFF

9: Setting up - Additional display settings

- [1] Reservation [2] Sound [3] Direction [4] Password [4] Brightness

10: CDMA / 11: TPEG News - Not supported

12: Manager - Not for customer's use

1: Add Contents - Create New message content

- | | | |
|-----------------|------------------|-----------------------------------|
| [1] Add 1 Line | [5] Add Image | [9] Add Temperature (Optional) |
| [2] Add 2 Line | [6] Display Date | [10] Add Humidity (Not Supported) |
| [3] Add Title | [7] Add D-day | [11] Add Event (Not Supported) |
| [4] Add Picture | [8] Add D-time | |

2: Modify Contents - Select an existing message to modify

- [1] Select Content

3: Insert Contents - Insert new content before an existing message

- | | | |
|----------------------------|---------------------|-------------------------------|
| [1] Sentence Insertion | [5] Video Insertion | [9] D-time Insertion |
| [2] Dual Message Insertion | [6] Display Date | [10] Temperature (Optional) |
| [3] Image Insertion | [7] Display Time | [11] Humidity (Not Supported) |
| [4] Picture Insertion | [8] D-day Insertion | |

4: Index Contents - Enable & Disable existing content to be shown

- [1] Select Content

5: Delete Contents - Delete existing message content

- [1] Delete Option [2] Delete All

6: Stop Watch - Enable stop watch feature

- [1] Increment Mode [2] Decrement Mode

7: Password - Prevents unauthorized changes to the sign

- [1] Enter Password

8: Set Time - Set current Time/Date and Timer On/Off

- [1] Set Time [2] Set Date [3] Set Timer ON [4] Set Timer OFF

9: Setting up - Additional display settings

- [1] Delete Option [2] Delete All

10: CDMA / 11: TPEG News - Not supported

12: Manager - Not for customer's use

Effects Table

• For all effect types, once an effect is chosen:

- a) Press the Left or Right arrows to increase or decrease effect speed
- b) Press the Up or Down arrows to select between available effects direction

◆ **Insertion Effects - Normal** – Effect used on your text at the beginning of the display. (When your message will fit within the width of your sign and is visible at one time)

- 1) Automatic – Random Effects (default)
- 2) Drama – Curtain Effects in multiple forms
- 3) Scroll – Scroll up/down/left/right
- 4) Gathering – Merge lines left/right, up/down, and diagonal
- 5) Hurricane – Rotation Effect from different directions
- 6) Tornado – Twisting Effect from different directions
- 7) Lens – Expands and contracts letters in multiple directions
- 8) To Appear – Displays different letters in multiple forms
- 9) By Color – Combines and separates colors individually or in groups
- 10) Beam – Laser Beam Effects from multiple directions
- 11) Wave – Wave Effect from multiple directions
- 12) No Effect – No Effect given

◆ **Insertion Effects – When Message is too long –**

Effect used on your text at the beginning of the display. (When your message exceeds the width of your sign and is not visible at one time then the best way to display your whole message is to select [2] **To Pass**, once you select this option, you will not be asked to input any further effects such as **Preservation Effect** or **Release Effect** for this message. If you select any other Insertion effect then your whole message will not be displayed all at once and will only show what can fit inside the sign one moment at a time.

TIP: If your message is only a few characters too long, try pressing the [Fix] button – it will shrink the font to fit in one screen.)

- 1) Automatic – Random Effects (default)
- 2) To Pass - Passes from Left to Right
- 3) Drama – Curtain Effects in multiple forms

- 4) Scroll – Scroll up/down/left/right
- 5) Gathering – Merge lines left/right/up/down/diagonal
- 6) Hurricane – Rotation Effect from different directions
- 7) Tornado – Twisting Effect from different directions
- 8) Lens – Expands and contracts letters in multiple directions
- 9) To Appear – Displays different letters in multiple forms
- 10) By Color – Combines and separates colors individually or in groups
- 11) Beam – Laser Beam Effects from multiple directions
- 12) No Effect – No Effect given
- 13) Wave - Wave Effect From multiple directions

◆ **Preservation Effects** – Effect used on your text while it is holding on the display.

- 1) Drama – Curtain Effects
- 2) Reverse – Inverse Color Effect
- 3) To Shake – Letters/Characters Shake Effect
- 4) Hurricane – Rotation Effect from different directions
- 5) Tornado – Twisting Effects from different directions
- 6) Lens – Expands and Contracts letters in multiple directions
- 7) Pause – No Effect given

◆ **Release Effects** – Effect used on your text while it is leaving the display.

- 1) Drama – Curtain Effects in multiple forms
- 2) Scroll – Scroll up/down/left/right
- 3) Hurricane – Rotation Effect from different directions
- 4) Tornado – Twisting Effect from different directions
- 5) Dividing - Divides words from different directions
- 6) Lens – Expands and contracts letters in multiple directions
- 7) Erasing - Erases content from different directions
- 8) By Color – Combines and separates colors individually or in group
- 9) No Effect - No Effect given

Tips & Button Functions

• At any time during programming press the **[ESC]** button to cancel the current selection and go back to the previous step. This is very useful to experiment with the variety of different effects available. For example, select Drama for the insertion effect, scroll through the Up & Down arrow buttons to see the available options, then to try a different effect with the same text press **[ESC]** once to return to the effects selection. Press Up or Down arrow button to try a different effect.

At any time during the entry of text messages when in:

- (1) **ADD CONTENT** > add message,
- (2) **MODIFY CONTENT** > edit message,
- (3) **INSERT CONTENT** > sentence insertion

You can press the following buttons:

- 1) **[Color]** button to change the color of each character.
- 2) **[Attribute]** button to add an individual effect to each character.
- 3) **[Width]** button to change the width of each character.
(May not be available in Dual Messages)
- 4) **[Font]** button to change the font of each character.
(May not be available in Dual Messages)
- 5) **[KOR]** button to input entry into Korean characters
- 6) **[ENG]** button to input entry into Capital letters
- 7) **[eng]** button to input entry into lower case letters
- 8) **[NUM]** button to input entry into numbers instead of letters
- 9) **[Delete]** button to delete character
- 10) **[Space]** button to input a Space / Gap

11) **[Copy]** button to copy a character or effect

12) **[Light]** button not supported.

13) **[Neon]** button to add Neon effects.

Press the UP & Down buttons to scroll through the available effect options.

Press the **[NEON]** button again to switch the effect on or off

14) **[Fix]** button to stretch or shrink the character size to fit into full screen at one time.

Use this feature when your words are too long and run off the screen or short and you want to fill the screen. May not work for extra long entries, instead of entering long entries enter a new message in Add Contents or Insert Contents. Each "Add Contents" message will run one after another in order of sequence created.

15) **[Demo]** button to show demo display contents and testing LED sign board.

16) **[Esc]** Press once to cancel current selection. Press again to go back to previous selection

17) **[Special]** button to insert a Special character. Use the Arrow buttons to select.

18) **[Move]** button to insert a moving picture or character. Use the arrow buttons to select.

19) **[Icon]** button to insert an Icon character. Use the Arrow buttons to select.

20) **[Symbol]** button to insert Symbol characters: !"#\$%&'()*+,-./:;<=>?[_ `{}` etc...

Use the Arrow buttons to select symbol.

21) **[Spanish]**, **[Japanese]**, **[Russian]**, **[Hungarian]**, **[Arabic]**, **[Vietnamese]**

buttons to insert a character in that respective language for the button used.

Use the arrow buttons to select. Press the button again to scroll through the available effects.

22) **[F3]** button to input special headline messages. Use arrow buttons to select.

23) **[F1]**, **[F2]**, **[F4]**, **[F5]**, **[Language]** buttons are not supported.

1) How to input message

- Press the [MENU] button
- Select option (1) **Add Contents**
- Select option (1) **Add Message**
- Type in desired message with number pad
- When finished press the [OK] button
- Now you must choose an **Insertion Effect**
*(see effect table for options)
This is the effect used at the beginning of the message.
- You can change the direction or style of the effect by using the Up & Down arrow keys
- You can change the speed of the input effect by using Left & Right arrow keys.
- Once you have chosen desired input effect and desired speed press [OK] button.
- Now it will ask you for a **Preservation Effect**.* (See Effect table for options.)
This is what your message will be doing while it is fixed on the board.
- Once you have chosen desired Preservation Effect, desired direction and speed press the [OK] button
- You will now be asked to select a hold time duration in seconds. Input the number of seconds you would like the preservation effect to hold your message.
- Press [OK] button
- Now it will ask you for **Release Effect**. This is how the message will exit the board.
- Once you have chosen desired Release Effect and desired speed press the [OK] button
- You are done

2) How to input a 2 line message

- Press the [MENU] button
- Select option (1) **Add Contents**
- Select option (2) **Add Dual Message**
- Type in desired message for top line with number pad
- When finished press [Down Arrow] button
- Type in desired message for bottom line with number pad
- When finished press [OK] button
- Now you must choose an Insertion Effect
- You can also change the speed of the input effect by using left & right arrow keys
- You can change the direction or style of the effect by using the Up & Down arrow keys

- Once you have chosen desired input effect with desired speed and direction press [OK] button
- Now it will ask you for a Preservation Effect. This is what your message will be doing while it is fixed on the board
- Once you have chosen desired input effect and desired speed press [OK] button
- You will now be asked to select a hold time duration in seconds. Input the number of seconds you would like the preservation effect to hold your message.
- Press the [OK] button
- Now it will ask you for a Release Effect. This is how the message will exit the board
- Once you have chosen desired Release Effect with desired speed and direction press the [OK] button
- You are done

3) How to insert preloaded pictures, Images or video

- Press the [MENU] button
- Press the down arrow button until you find
- **Option (3) Add Image**
- **Option (4) Add Picture**
- **Option (5) Add Video**
- Press [OK] button
- Use the Up & Down Arrow buttons to scroll through available images, pictures, or videos
- Once you have found a desired image, picture, or video press [OK] button
- You are done

4) How to Display Date

- Press [MENU] button
- Select option (1) **Add Contents**
- Press [OK] button
- Using the down Arrow button scroll down to option (6) **Display Date**
- Press [OK] button
- Change date to current date
- Press [OK] button
- Now you will have to choose an input effect , select desired input effect
- Press [OK] button
- You are done

5) How to Display Time

- Press [MENU] button
- Select option (1) **Add Contents**
- Press [OK] button
- Using the down Arrow button scroll down to option (7) **Display time**
- Press [OK] button
- Change time to current time
- Press [OK] button
- Now you will have to choose an input effect, select desired input effect
- Press [OK] button
- You are done

6) How to add Countdown Days

- Press [MENU]
- Select option (1) **Add Content**
- Use down arrow button scroll down until you reach option (8) **Add D-day**
- Press [OK] button
- Select Date year/month/day
- Press [OK] button
- Input reason for countdown

** Whatever you input will appear before the words: "D-100" For Example if you input: "New Years Day" then your sign will display "New Years Day D-100", D-100 represents the days remaining in the countdown and will change as each day approaches closer to the Dday*

- Press [OK] two times to store
- You are done

7) How to add Countdown Time

- Press [MENU]
- Select option (1) **Add Content**
- Press [OK] button
- Use down arrow button to scroll down until you find option (9) **Add D-Time**
- Press [OK] button
- Select time for countdown deadline (the current time must already be set for this to work properly)
- Press [OK] button
- Input reason for countdown.

** Whatever you input will appear before the words: "It is before __ hours and __ minutes" For Example if you input: "Special Sale" then your sign will display "Special Sale It is before __ hours and __ minutes"*

- Press [OK] button
- You are done

8) How to adjust brightness

- Press [MENU] use down arrow button to scroll down until you reach option (9) **Setting up**
- Press [OK] button
- Use down arrow button to scroll down until you find option (5) **Brightness**
- You must input a brightness for daytime (We recommend setting the brightness level during daytime to 10)
- Press [OK] button
- You must input brightness for night time (We recommend setting brightness levels between 4-7 during night)
- Press [OK] button
- You must input a start time for the reduced brightness to begin at night time (4-6pm depending on daylight savings)
- Press [OK] button
- You must input a end time for the reduced brightness to End and the Increased brightness to begin
- Press [OK] button
- You are done

9) How to change Horizontal / Vertical Orientation

- Press [MENU] use down arrow button to scroll down until you reach option (9) **Setting up**
- Press [OK] button
- Use down arrow button to scroll down until you find option (3) **Direction**

Warning: If you press [OK] button at this point it will change direction from "Horz"= Horizontal, to "Vert" = Vertical. Then all the words of the menu will be switched to vertical orientation. Once it is in vertical navigating the menu will need to be done using the left and right arrows instead of the up and down arrows. To switch back to horizontal orientation repeat these steps.

Warning#2 : Changing orientation will permanently delete all content from memory

- Once desired direction is set on the display then press [ESC] or [Menu] button
- You are done

10) How to turn off beeping noise

- Press **[MENU]** use down arrow button scroll down until you reach option **(9) Setting up**
- Press **[OK]** button
- Use down arrow button to scroll down until you find option **(2) Sound**
- Press **[OK]** button to turn sound on or off, X = off, O=on
- Once desired X or O is selected press **[ESC]** or **[Menu]** button
- You are done

11) How to set password

- Press **[MENU]** use down arrow button to scroll down until you reach option **(7) Password**
- Input desired password
- Confirm password
- Press **[ESC]** or **[Menu]** button
- You are done

12) How to turn password On/Off

- Press **[MENU]** use down arrow button to scroll down until you reach option **(9) Setting up**
- Press **[OK]** button
- Use down arrow button to scroll down until you find option **(4) Password**
- Press **[OK]** button to turn on or off X=off, O=on
- Once desired X or O is selected press **[ESC]** or **[Menu]** button
- You are done

13) How to set time

- Press **[MENU]** use down arrow button to scroll down until you reach option **(8) Set time**
- Press **[OK]** button
- Use down arrow button to scroll down until you find option **(1) Set Time**
- Press **[OK]** button
- Input the current time
- Press **[OK]** button
- You are done

14) How to set date

- Press **[MENU]** use down arrow button to scroll down until you reach option **(8) Set time**
- Press **[OK]** button
- Use down arrow button to scroll down until you find option **(2) Set Date**
- Press **[OK]** button
- Input the current date
- Press **[OK]** button
- You are done

15) How to set sign to turn on automatically

- Press **[MENU]** use down arrow button to scroll down until you reach option **(8) Set time**
- Press **[OK]** button
- Use down arrow button to scroll down until you find option **(3) Set timer on**
- Press **[OK]** button
- Input desired time for the sign to turn on
- Press **[OK]** button
- You are done

16) How to set sign to turn off automatically

- Press **[MENU]** use down arrow button to scroll down until you reach option **(8) Set time**
- Press **[OK]** button
- Use down arrow button to scroll down until you find option **(4) Set timer off**
- Press **[OK]** button
- Input desired time for the sign to turn off
- Press **[OK]** button
- You are done

17) How to Enable/Disable the timer function

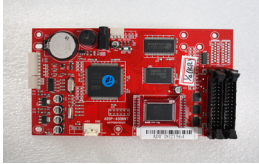
- Press **[MENU]** use down arrow button scroll down until you reach option **(9) Setting up**
- Press **[OK]** button
- Use down arrow button to scroll down until you find option **(1) Reservation**
- Press **[OK]** button to turn sound on or off, X = off, O=on
- Once desired X or O is selected press **[ESC]** button or **[Menu]** button
- You are done

Trouble Shooting Guide

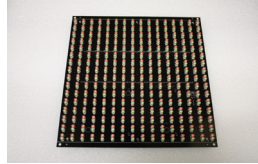
Notes : Power must be unplugged before performing any trouble shooting or checking parts and as a precaution wear gloves when handling any parts.

*See how to remove the back cover safely before performing any trouble shooting.

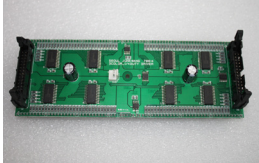
Glossary Terms



1) Main Controller:
The red or blue color printed circuit board which is the main controlling component.



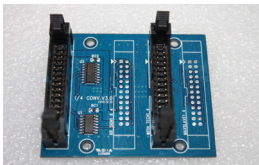
2) LED Module:
The large square tile printed circuit board that has all the LED lamps embedded on it.



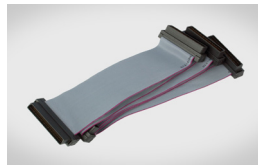
3) Driver Board:
The small rectangular printed circuit board that is embedded on the back of each LED Module. The ribbon cables are plugged into this unit and go from one unit to the next.



4) Power Supply:
The silver box that the 110v power cable is attached to. This unit supplies all power to the components in the sign.



5) Buffer Board:
The small blue printed circuit board that is a midway point that transitions the ribbon cable flow from the main controller to the first driver board



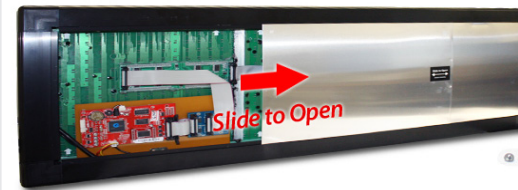
6) Ribbon Cable:
The flat cables that send data from the main controller, to the buffer board, to the driver boards.



7) Receiving Sensor

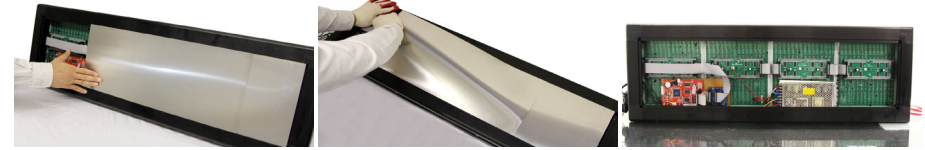


8) Temperature Sensor



How to open the aluminum back cover?

- 1) Unscrew the center screw.
- 2) Slide either side of the back cover to one side.
- 3) You may need to remove the back cover completely to see all the components.



1. When the LED sign does not power on

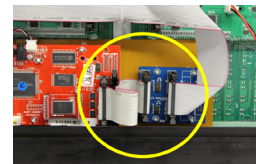
- 1) Check if the power cable is plugged in the outlet.
- 2) Unplug the LED sign from electrical outlet, leave the LED sign unplugged for at least 10 seconds, plug the LED sign back into the electrical outlet. If the sign still does not power on continue trouble shooting.
- 3) Slide open the back cover before proceeding to next troubleshooting steps



- 4) Check the internal power supply to see if the green power indicator light is on.



- 5) Check the power wire plugs on the driver boards and main controller to see if they are fully seated and securely plugged in.



- 6) Check the ribbon cables coming off the main controller and the buffer board to see if they are fully seated and securely plugged in. Try removing and reseating the ribbon cables several times to get good contact on all pins and create a complete connection.

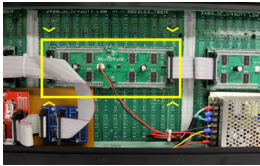
2. When the remote control is not working



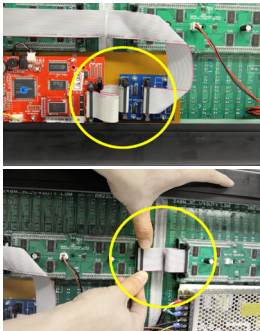
- 1) Make sure that the receiving sensor on the sign is facing you while you are programming the sign.
- 2) Check if the batteries are in the remote control and that they have sufficient power. When in doubt use new batteries.

3. When part of the sign is not showing properly

- 1) Slide open the back cover



- 2) Check the driver board that is embedded on the back of the LED Module that is not showing properly. Check to see if it is not fully seated, during shipping these can become dislodged and may need to be pressed back in completely.



- 3) Check all ribbon cable connections on the main controller, buffer board, and driver boards. Check to see if any of them are not fully seated, during shipping these can become dislodged and may need to be pressed back in completely. If this does not help, try removing and reseating the ribbon cables several times to get good contact on all pins and create a complete connection.

* If you need further assistance please contact our technical support department.