VW34RA [Galign] PC tool User Guide

Date: 2020-10-18

Applicable model

Galign is designed for VW34RA model.

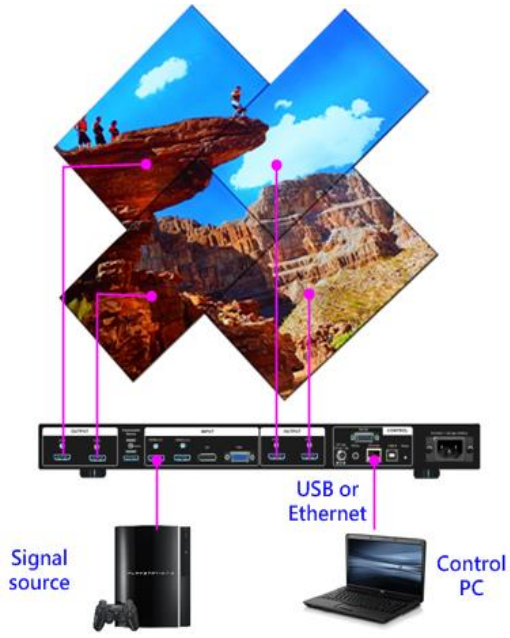
Related Tutorial video

Please check below YouTube video to know how to determine the coordinates for each LCD. The video is for G403 but the major process is the same. https://youtu.be/iQDZkFbzfGs

PC tool download and decompress

1. Please download VW34RA [Galign] PC tool from website at [Support]→ [PC Tool]
2. This PC tool is .exe file and may be blocked by Anti-virus tool. Please remove this barrier.

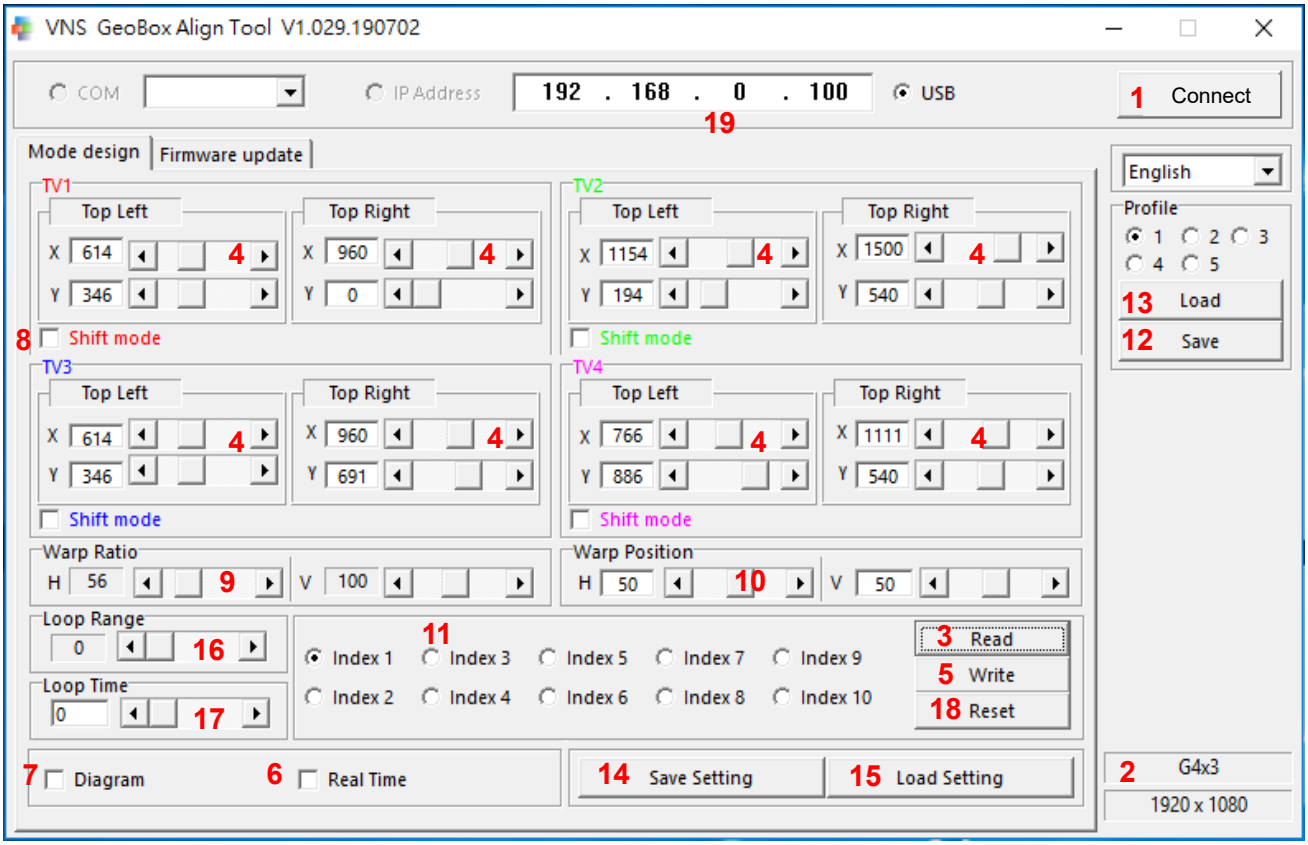
System Connection



1. Please connect USB type B cable or Ethernet cable/WiFi Router between PC and VW34RA.
2. After click [Connect] button, user shall see Model # and [1920x1080] resolution at Bottom Right corner in Galign window.
3. To input coordinates in each TV (output) directly or select Preset Mode from OSD for further editing.
4. User can use Galign without connecting with VW34RA. After key-in all required settings, user can save it in PC and upload to VW34RA after connection.

If no PC for Galign PC tool operation, user can still use remote controller to execute coordinate key-in, position fine-tune, aspect ratio and position adjustment...etc.

[Galign] PC tool operation procedures



The item # corresponds with the RED # in Galign operation window.

(1) [Connect]:

- After select type of connection, click [Connect] to connect Galign with VW34RA. Default connection type is [USB].
- After open [Galign], all the parameters will be reset to default value. User can load previous setting by [Load Setting] (15) from PC or [Read] (3) function from video wall or Preset Mode.

(2) After connection, user will see model # and output resolution. Default output resolution is 1080p.

(3) [Read]:

- Functions: a. Read back parameters from video wall setting. b. Read back parameters from Preset Mode which is selected by remote controller. C. Read back parameters from display Mode (11).
- After user selects Preset Mode from OSD through remote controller, when user clicks [Read], Galign will read back the parameters of Preset Mode and save to Index #1 (default Index # is 1). If user selects other Index # and implement [Read] command, it may not read back Preset Mode parameters.
- After Read back parameters, user can select another Index # and use [Write] (5) command to save to other Index #. User can do further editing for Preset Mode and create customized display mode.
- If user saves the setting into display Index (11), user can select the display Index and click [Read] to read back the setting. The video wall will stay the same until [Write] command is executed.

(4) Location for Key-in or editing the coordinates of Top Left corner and Top Right corner for TV1-TV4. The coordinates can be captured from Preset Mode, video wall picture or project plan files. If user checks

[Diagram] (7), user will see the adjusting result in the Diagram but not in the Video wall before executes [Write] (5) command. User can also CHECK [Real Time] (6) to see the result real time in the video wall.

(5) [Write]

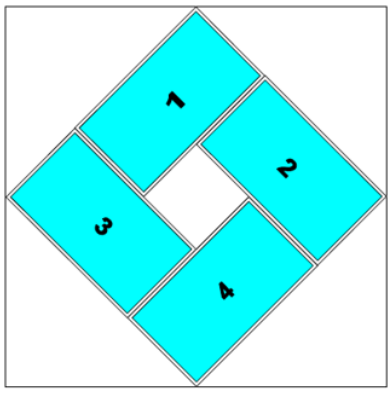
- After finish all settings in Galign, the image is still controlled by PC. User needs to use [Write] command to upload all parameters into VW34RA.
- User needs to disable [Real Time] function before execute [Write] command.
- User can save up to 10 different display Indexes. Please select [Index #], then click [Write] to save Galign parameters. The settings can be saved into any display Index # and can be duplicated.
- It only saves the image settings showed in Galign but not includes input ports, color, PIP setting, EDID…which will be saved in Profile Index.
- If user wants to show specific Mode settings, please select Index #, click [Read] to read the parameters, then click [Write] button to upload the settings to video wall and see the final result. User can use remote controller Mode hotkey (#1~#4) to show the setting directly.

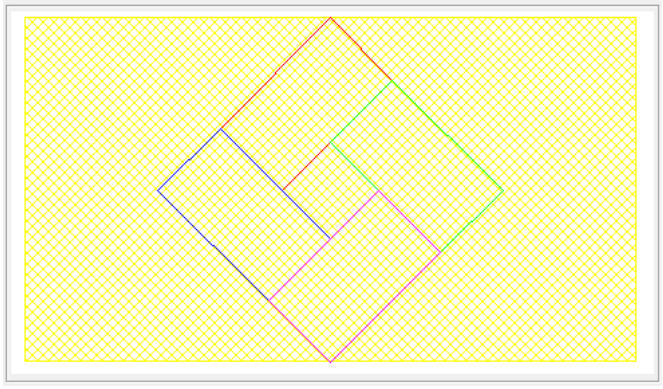
(6) [Real Time]:

- When user executes editing preset mode or creates new custom display mode, please check [Read Time] so that user can see the image change while changing parameters.
- [Real Time] mode shall be disable when user wants to key-in coordinate data or [Write] the result to VW34R

A. (7) [Diagram]:

- If user check [Diagram], there will be a diagram showed up near Galign window.
- This diagram will update real time while user changes the coordinate values in coordinates. The [Warp Ratio] and [Warp Position] changes will not be showed in the diagram.
- Below left diagram presets mode selected by OSD and the right diagram is showed in Galign. Please note that the color in each LCD is corresponding the output channel (TV1-TV4) in Galign window.





(8) [Shift Mode]:

- After check [Shift Mode], user can change [Top Left] X&Y value to shift image position in H&V directions for each TV without changing the image size and angle. Each channel is independent.
- While executing [shift] function, X&Y values must be also in the range 0-1920 for X direction and 0-1080 for Y direction.

(9) [Warp Ratio]:

- [Warp Ratio] will apply to all channels at the same time to enlarge or shrink complete video wall image in H&V direction from a range 25% to 200%.
- All Preset Mode will show entire source content. If the video wall in not 16:9 aspect ratio, [Warp Ratio] has been applied to Preset Mode to show entire image in the video wall.
- User can change [Warp Ratio] to change cropping area or change aspect ratio.
- The result will not be showed in [Diagram].

(10) [Warp Position]:

- When the video wall has applied [Warp Ratio], user can shift complete video wall image position by [Warp Position].
- The adjusting range for [Warp Position] is followed the percentage in [Warp Ratio]. If user didn't adjust [Warp Ratio] (value is 100), then no [Warp Position] adjustment is allowed.

(11) [Index #]:

- Index # is the location to save parameters created in Galign. It doesn't include other settings that is not inside Galign, such as input selection, PIP or EDID setting.
- User saves up to 10 Indexes and executes seamless looping playback to show special effect for the video wall.
- [Write] command is to save Galign settings into display Mode.
- When user click Index #, then click [Write], it will erase original setting and replace with new parameters in each TV. If user click [Read], then click [Write], it will upload the settings in that Index # to the video wall and user will see the final result.

(12) Profile [Save]:

- After select Profile index # (1-5), user can save the final settings to VW34RA together with other settings from Remote controller, such as input source, PIP/POP, video wall settings, color, EDID...
- Please select one Index #, then click [Save] to save the setting. The result is the same as Profile Save executing from remote controller.
- All channels will be saved at the same time. Maximum 5 Profile Indexes can be saved and recalled.

(13) Profile [Load]:

- User can load back Profile settings and execute further editing.

(14) [Save Setting] in PC:

- User can save Galign settings in PC as a backup or copy to other VW34RA through [Save Setting]. (15) [Load Setting] from PC:
- User can load Galign settings from [Save Setting] command and execute further editing.

(16) [Loop Range]:

- [Loop Range] is to select display Index # for looping playback.
- It will start from Index #1. If user selects [5], it means the system will execute looping playback for Index #1 to #5.
- The display Modes for looping playback shall be continuous. User needs to arrange the sequence of

the display Modes in advance.

(17) : [Loop Time]:

- [Loop Time] is to set the time interval from one display Mode to next display Mode in looping playback. If user wants to display specific display Mode with double time, user can save the same setting in the next display Mode and put it into Loop Range.

(18) [Reset]:

- [Reset] is to reset selected display Mode to default value and let VW34RA to show source image on each LCD. [Reset] only resets selected Index and the data in other Indexes will not be reset.
- User can select one display Mode without saving data and click [Reset] button to reset complete video wall to default status.
- User can also use [Reset] hotkey on the bottom of remote controller for system reset. This reset function will erase the data in all Indexes. Here is the process:
  --Reset All: [Reset]→ click [Right direction key]→ Enter.
  --Reset [Video wall setting]: Reset→ click [Left direction key]→ Enter.

(19) IP address setting:

- User can execute IP address setting from remote controller OSD menu, Web Gui or Galign.
- If multiple units are used at the same time and setup by Ethernet, user can set different IP address for each unit so that user can use one PC to control all units at the same time.

(20) [Firmware update]:

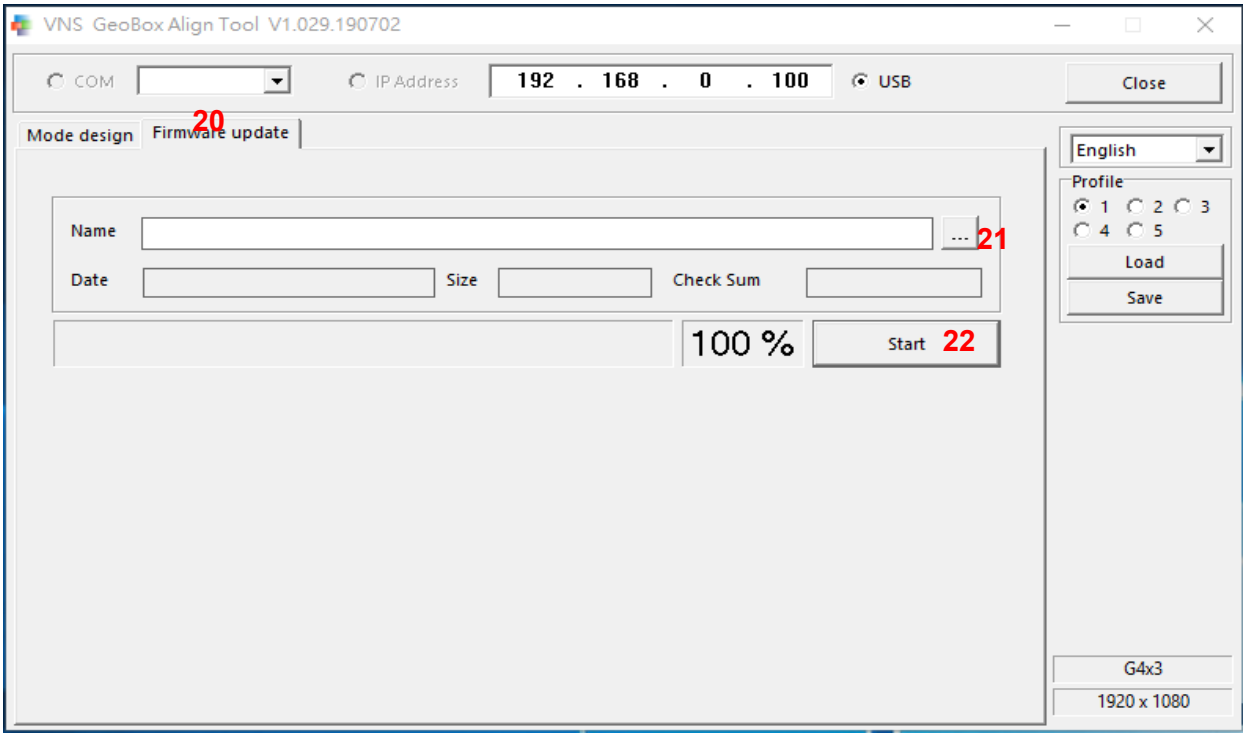
- User can update both Firmware and MCU Code through this function.
- No update sequence between Firmware and MCU code.
- The system will recognize the type of the software and install to the system automatically.

(21) Browser the file for code update

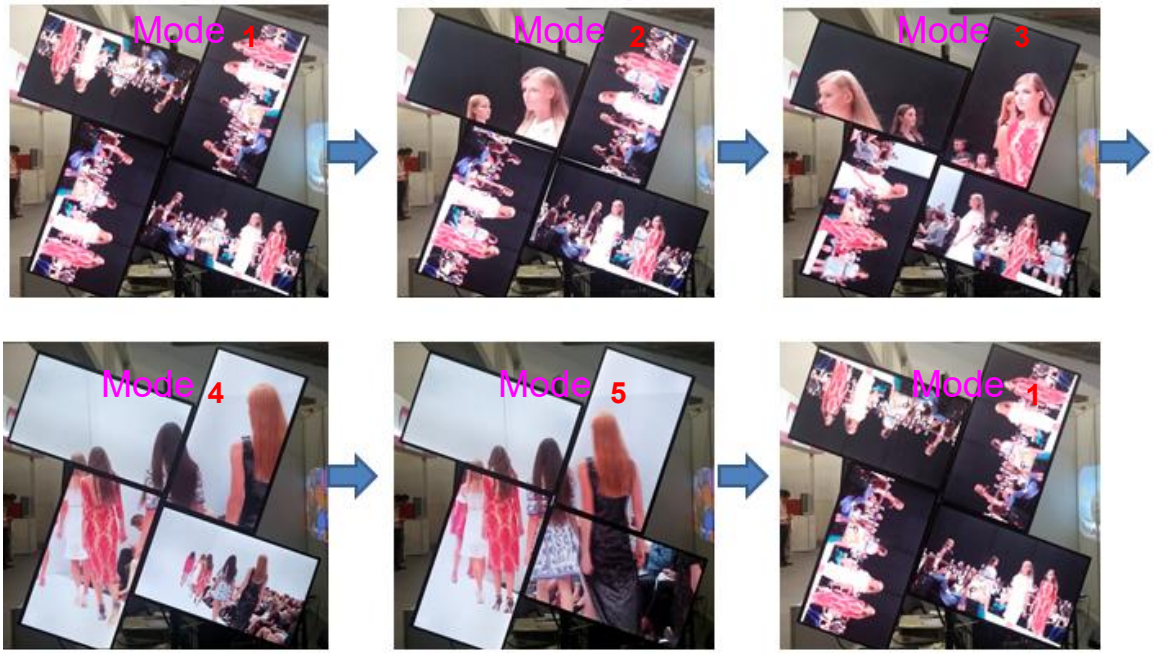
- If the file is compressed, please decompress to .bin file for execution.

(22) [Start]: After press [Star] key, the system will start to update the code. It may stop for some time in some stage. It is normal. Please wait till see [OK] message, the re-boot the system to check the result.

PS. After finish code update, please insert small pin into RESET hole of back panel for 5 seconds to reset the system again. It will remove all previous settings into default value, including all settings in display Modes and Profile Indexes. If user doesn't like to remove old settings, this process can be neglected and if user finds abnormal conditions, user can reset through OSD menu and it will keep the settings saved in Profile Indexes but will clean display Mode settings (Index #1-Index #10)



Example for looping playback settings:



Please check YouTube Video at: https://youtu.be/4Gc0KcuX27g?t=21

LCD Installation: 4 LCD can be installed at any directions.

Looping Range: 5 (5 Indexes), Looping Time: 1 second

Mode settings:

- Index 1: factory default settings, 4 independent images with the same content at different direction
- Index 2: to put TV1 into 1/4 of the [All in One] image

- Index 3: to put TV1 & TV2 into 2/4 of the [All in One] image
- Index 4: to put TV1 &TV2 & TV3 into 3/4 of the [All in One] image
- Index 5: to combine TV1, TV2, TV3 and TV4 into one complete [All in One] image

Procedures to create Index 1-Index 5:

1. To set coordinates for TV-TV4 to become one complete image.
2. To save the same settings into Index 2- Index 5
   - Select Index 2 and click [Write] command.
   - Select Index 3 and click [Write] command.
   - Select Index 4 and click [Write] command.
   - Select Index 5 and click [Write] command.
3. To modify the settings for each Index
   - Select [Index 1] and click [Reset] to reset Index 1 to show source image in all TV.
   - Modify Index 2 to keep TV1 setting and reset all the rest to default setting
   - Modify Index 3 to keep TV1 & TV2 setting and reset all the rest to default setting
   - Modify Index 4 to keep TV1, TV2 and TV3 setting and reset TV4 to default setting
4. To set Looping playback
   - Set [Loop Range] =5 (looping from Index 1 to Index 5)
   - Set [Loop Time] =1 (for 1 second interval)
5. Save to PC through [Save Setting] as back up.
6. Save to Profile Index 1 & 5 (Profile 5 as Backup)
7. Power Off/On again to confirm the final settings.
8. If user wants to show Index # 5 [All-in-One] image with double time, user needs to have the same settings in Index # 5 and Index # 6. Please [Read] Index # 5 settings and select Index # 6 to save it through [Write] command. After set [Loop Range] = 6 (Looping time is the same without changing), user will see double time in Index # 5 image.
9. User can also highlight or pop up specific region of the image in different looping Indexes. It will show more attractive video wall to audiences.

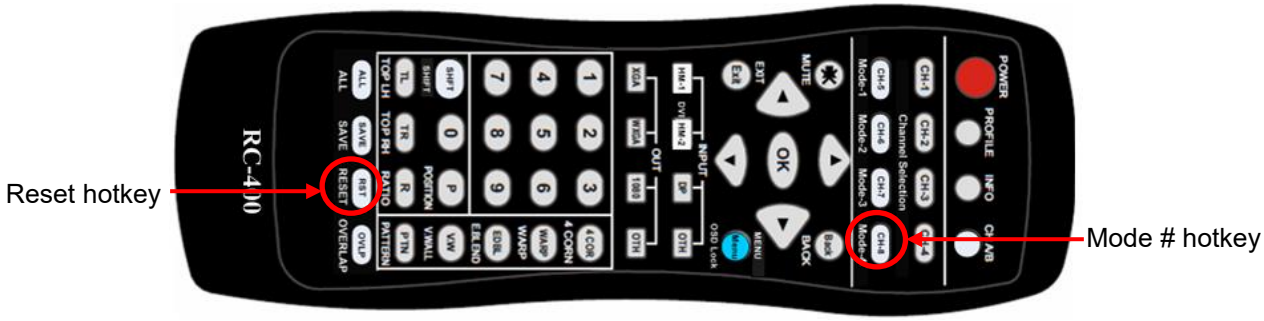
Important notice:

1. How to see complete image for system operation

   User may not see OSD menu for system operation, user can take actions as below.

   - Click any display Mode hotkey button without saved settings (such as Mode-4) on remote controller. User will see full VW34RA OSD or signal source image in each TV so that user can execute further operation.
   - Select one display Mode that doesn't store any settings and click [Read] (3) and [Reset] (18) button in Galign to reset video wall.
   - Another way is to use [Reset] key in remote controller:

- Click [Reset]→ RH direction key→ [Reset All]
- Click [Reset]→ LH direction key→ [Rest Video Wall]
- This process will reset all settings in all display Indexes (#1~#10)



2. How to load Profile settings:
   User can use Remote controller [Profile] + Number key to recall Profile setting in RC-700 controller. User can also recall Profile setting through Web Gui or Galign PC tool.
3. Protect LCD from burn-in mark:
   a、 To finish the video wall settings first.
   b、 Based on the same settings, user can do slightly change in [Warp Ratio] or [Warp Position] with only few pixels and save into different Index #.
   c、 User can also change the coordinates with few pixels change in H&V directions. Then save different setting into different Index.
   d、 Looping playback with these Index settings at some time interval for LCD protection.
4. Procedures for image position fine-tune
   a、 Please download Video Wall test pattern from website at [Support]→ [Test pattern]
   b、 To display the test pattern with full screen to the video wall.
   c、 If some misalignment can be seen, then position fine-tune is required.
   d、 To align the image center area first, then spread to outside area.
   e、 PC tool [Galign] is the most convenient tool for position fine tune. Please apply [Shift Mode] to align the image position without change image size and angle in each TV.
   f、 To check [Real Time] button in [Galign] PC tool so that user can click the slide bar to change image position. User can use [Shift] key to do horizontal and vertical image position adjustment for each TV. If rotation angle and image size is required, user can use [Top Left] & [Top Right] buttons to align it. [Ratio] menu can change complete video wall aspect ratio. [Position] menu allows user to shift the image position in complete video wall after Ratio adjustment. Please note that the coordinate shall be in the range of 0-1920 in X and 0-1080 in Y. User can adjust Ratio to get full screen display.
   g、 If user changes both Top Left and Top Right “X” coordinate (horizontal) to one direction at the same time, user can see the image shift in horizontal direction. User can use [Shift] or Galign [Shift Mode] function in remote control to execute this function.
   h、 If user changes both Top Left and Top Right “Y” coordinate (vertical) to one direction at the same

time, user can see the image shift in vertical direction.

i、 If the pattern grid size in adjacent TV is different, user need to decide which grid size should be applied. User can measure the grid size in different TV to decide which one should be enlarged or shrunk.

j、 If user enlarges the coordinate distance between Top Left and Top Right corners in one TV, it will capture more image pixels and the grid size of the image will be shrunk. If coordinates distance is reduced, the image will be ZOOM In and enlarged the grid size.

k、 User can adjust both H&V coordinates to rotate the image.

5. If user requires special display mode with non-16:9 LCD, it should be done in the factory with additional charges. We can create any type of display into any kind of panels based on user's request.

Use remote controller to fine-tune image position



Profile Load hotkey
Output port selection (TV1~TV4)
Display Mode (#1~#4)
OSD operation buttons

1. *Select manual display Mode location—Mode #1~ Mode #4*
2. *Select output port—TV1-TV4 (LCD1-LCD4)*
3. *Click [Shift] to do image H&V position adjustment in each LCD*
4. *Click Top LH and Top RH to shift image size and display angles.*
5. *Click [R] to adjust entire video wall aspect ratio if necessary*
6. *Click [P] to adjust entire video wall display position if necessary*
7. *User can select Top LH/Top RH keys first, then select Mode or TV1-TV4 to key-in coordinates. No special sequence is required.*

Video wall Main menu for multiple unit cascade application
Entire video wall position adjustment
To adjust image position at H&V without changing image size
Entire video wall aspect ratio adjustment
Top Right coordinate menu
Reset Hotkey
Top Left coordinate menu