

G-403 105 [GAlign] PC tool User Guide

Version: V 2.1, Date: 2017-July

Applicable models

GAlign is designed for G-403 and G-105 models.

Related Tutorial video

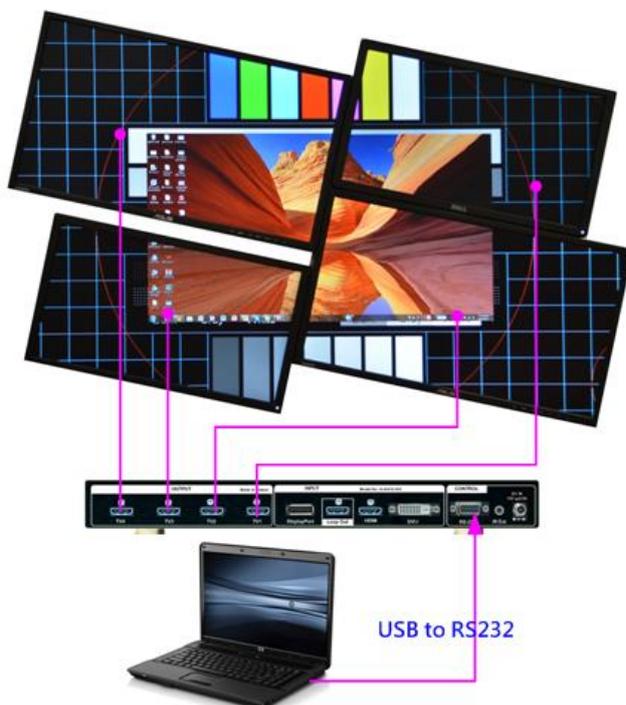
Please check below YouTube video to know how to determine the coordinates for each LCD.

<https://youtu.be/iQDZkFbzfGs?t=5>

PC tool download and decompress

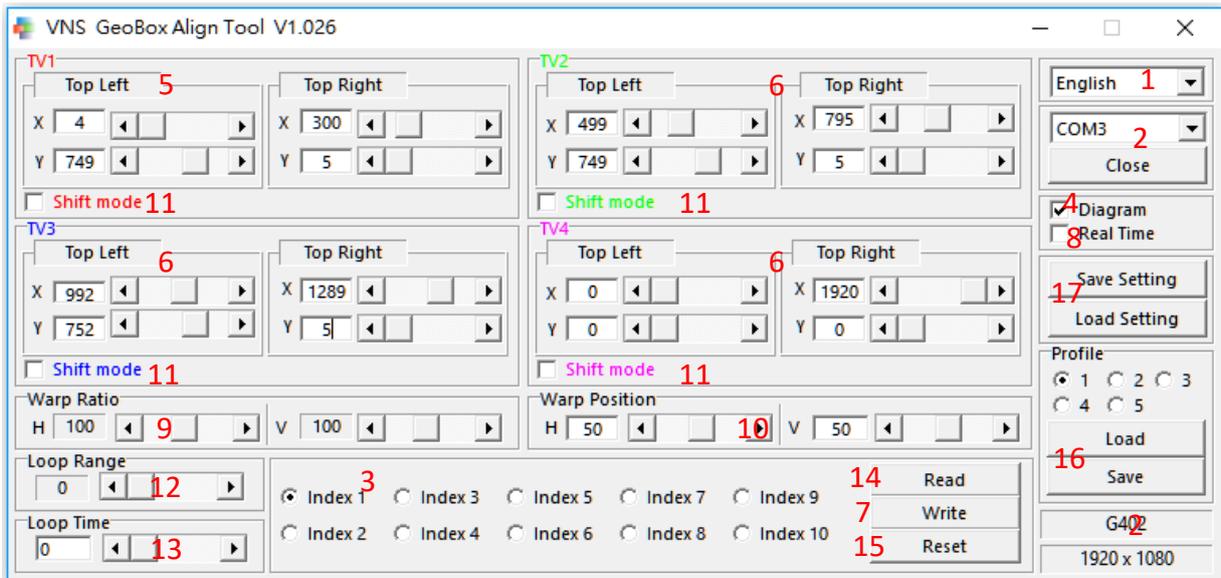
1. Please download [G-403-105 \[GAlign\] PC tool](#) from website.
2. After decompress the file, you can see below files:
 - ✓ GAlign V1.026.ex_
 - ✓ UI.INI
3. Please rename GAlign V1.026.ex_ into "GAlign V1.026.exe" and save it into the same file holder [GAlign] together with "UI.INI".
4. User can create different Language based on requirement. Please open UI.INI and add new string set into UI.INI and save this modification inside the same [GAlign] Directory. Then user can find a new language in the Pop-up menu.
5. Turn all Dip SW to OFF position so that the settings in [GAlign] will not be affected by Dip SW settings.
6. Open [GAlign.exe] file and user will see operation window.
7. This PC tool is .exe file and may be blocked by Anti-virus tool. Please remove this barrier.

System Connection

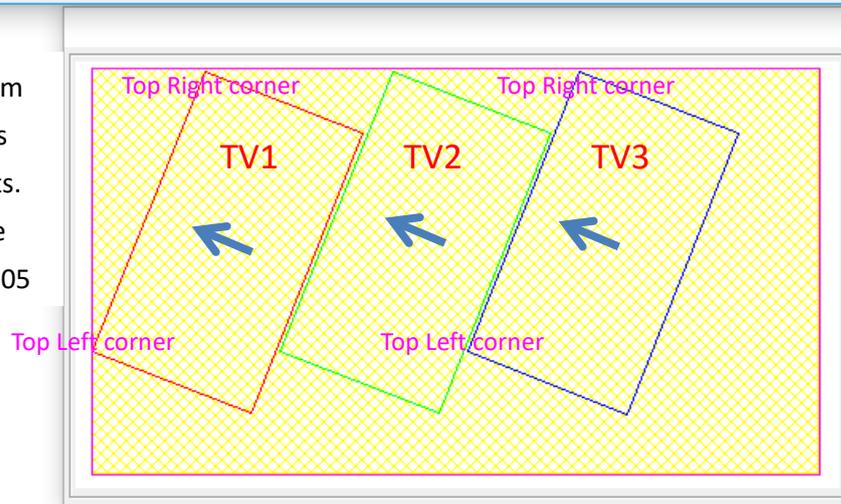


1. Please connect USB to RS232 cable between PC and GeoBox RS232 port.
2. Usually, PC system will automatically install driver for USB to RS232 cable
3. User can connect RS232 cable first, then open GAlign PC tool so that GAlign will auto-detect COM port.
4. After cable connection, user should see [Com #] next to [Connect] button. If not, please try different USB port, re-open GAlign or check USB to RS232 cable driver.
5. After click [Connect] button, user shall see [Model #] and [1920x1080] resolution at Bottom Right corner in GAlign window.

If no PC for GAlign PC tool operation, user can still use remote controller to do coordinate input , position fine-tune, aspect ratio and position adjustment...etc.



- Different diagram color represents TV1-TV4 outputs.
- Only TV1 can be activated in G-105



[GAlign] PC tool operation procedures

The item # corresponds with the RED No. in GAlign operation window.

- (1) : Open [GAlign.exe] file. Select Language. User should see [COM #].
- (2) : Click [Connect] to connect PC with GeoBox. User should see [1920x1080] & [model #] at the Bottom Right corner.
- (3) : Select [Index 1-10]. Index is the location to store your display settings. If user wants to execute Index settings, please select [Index #], [Read] out the settings, then click [Write] to execute the settings into GeoBox.
- (4) : Check [Diagram] will enable a diagram of the layout in each TV.
- (5) : Key-in the coordinates of Top Left corner and Top Right corner for TV1 which user captures from picture or layout plan files. When key-in coordinates, please close [Real Time](8) mode. Otherwise user can't key-in the data directly.
- (6) : Follow the same procedures to key-in coordinates for TV2-TV4. User will see the result in Diagram.
- (7) : Click [Write] button, it will save key-in data into [Index] and execute the settings to GeoBox. User will see the result in TV1. User needs to close [Real Time] (8) button before [Write].

- (8) : Check [Real Time] button to see real time image position adjustment. When user click the slide bar in each coordinate, user will see the image change in real time. [Real Time] mode shall be close when user wants to key-in coordinate data or [Write] the result to GeoBox.
- (9) : [Warp Ratio] is to adjust aspect ratio (image width and height) for the entire video wall image in horizontal and vertical directions.
- (10) : [Warp Position] is to adjust entire video wall image position in horizontal and vertical directions within the range of 1920x1080 coordinate system. If the image is fit to full 1920x1080, then no position can be shifted before [Warp Ratio] adjustment.
- (11) : [Shift Mode] is to align image position for each LCD at horizontal and vertical directions without change the size and angle of the image. It is convenient for image position fine tune. User can use slide bar in Top Left to implement this function. Please note that if the image has already reached the coordinate system edges, user can't shift the position anymore. For example in the diagram in the above, TV1 can only be shifted to LH at 4 pixel (Top Left X=4) and to Top at 5 pixels (Top Right Y=5). There will be big range in RH and Bottom directions. If user wants to keep more flexibility for final position fine-tune in TV1, user can set more pixels in Top Left corner [X] coordinate value and Top Right corner [Y] coordinate value at the beginning. After finish the settings, user can apply [Warp Ratio] and [Warp Position] to do further image aspect ratio and position adjustments to get what user needs.
- (12) : [Loop Range] is to select the Index quantity for looping playback. It will start from Index 1. If user selects [5], it means the system will execute looping playback for Index 1 up to Index 5. The Indexes for looping playback shall be continuous.
- (13) : [Loop Time] is to set the time interval from one index to the next index in looping playback. If user wants to display specific Index with double time, user can set the same setting in the next Index and put it into loop.
- (14) : [Read] is to read back display settings at the selected index. User needs to click [Write] button to implement the settings to GeoBox. User can select another Index, then click [Write] to save the same settings to other indexes.
- (15) : [Reset] is to reset selected Index to default value and implement default settings to GeoBox to show source image on that display.
- (16) : [Profile] is to save all GeoBox settings including GAlign settings, input source, PIP/POP, video wall settings, ratio, looping playback, color... Please select Profile # and click [Save] to store the setting and click [Load] to recall it at any time. Maximum up to 5 Profiles can be saved. The function is the same as remote controller [Profile] function.
- (17) : Save the settings inside PC as back up. The saved data include the coordinate value, [Warp Ratio], [Warp Position] and [Loop playback] settings. User can click [Load] to load back the setting saved in PC.
- (18) : User needs to turn off/on GeoBox again to confirm the final settings. Before this operation, user may see frame tear in the image.

Example for looping playback settings:



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

Description: 4 LCD installed at different directions.

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

Index 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 seconds interval)
5. Save to Profile 1 & 5 (Profile 5 as Backup)
6. Power Off/On again to confirm the final settings.

7. If user wants to show Index 5 [All-in-One] image with double time, please save [Index 5] settings into [Index 6], then set [Loop Range]= 6 (Looping time is the same without changing). User will see double time in [Index 5] image.
8. User can also highlight or pop up specific region of the image in different looping Indexes. It will show more attractive video to audiences.

Important notice:

1. System control by Preset mode (Dip SW):
 - a 、 If turn [Main Input] Dip SW to OFF (down) position, the system will show the result from remote controller or GAlign settings when power on.
 - b 、 If [Main Input] Dip SW selection is in ON position, the system will follow Dip SW settings after system Power ON. User needs to load Profile to see settings saved inside Profile Index.
2. User may not see OSD menu for system operation due to irregular video wall, user can take actions as below:

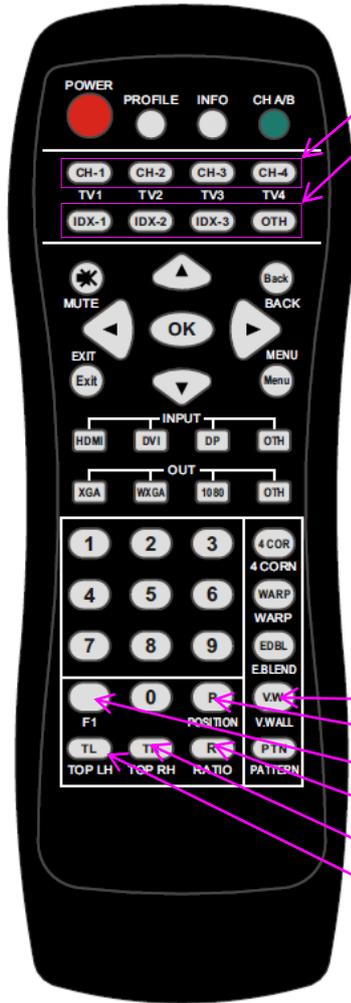


- a 、 If user can't see operation menu in signal source or OSD in GeoBox, please select any Index button without saved settings (such as Index OTH button) on the remote controller. User will see full GeoBox OSD or signal source image in each TV so that user can execute further operation.
- b 、 Another way is to Turn on Main Input Dip SW to select input source and turn down all Display Mode Dip SW. Then Power OFF/ON GeoBox, user will see full screen source image and GeoBox OSD in each TV for further operation. After finish operation, please turn off Main Input Dip SW and Power OFF/ON GeoBox again. User will see the final setting result from remote controller or PC Gwarp2 Tool.

3. How to load Profile settings:
User can use Remote controller [Profile] + Number key to recall Profile setting in RC-700 controller.
4. 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.
5. Procedures for image position fine-tune
- a 、 Please download Video Wall test pattern from website at www.vnstw.com
 - 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 and close [Diagram] function in [GAlign] PC tool so that user can click the slide bar to change image position. If RC-700 controller is used, user can click [Index #] & [TV #] directly and use [F1] key to do horizontal and vertical image position adjustment for each TV. If rotation angle and image size needs to be adjusted, 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 if the coordinate of the image is at (0, xx) or (xx, 0) location, the image can't be shifted to "negative" coordinate.
 - 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 [F1] or PC tool [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 image 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 into TV 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.
6. If user requires special display mode with non-16:9 LCD, then 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



Output port selection

Store location for manual setting display modes
(OTH will access Index 4-10)

1. Select manual display mode location—Index1~Index10
2. Select output port—TV1-TV4 (LCD1-LCD4)
3. Click [F1] 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 Index or TV1-TV4 to key-in coordinates. No special sequence is required.

Video wall Main menu

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

Top Left coordinate menu

RC-700 remote controller