

Color Expert LED_Mobile installation Manual

2020.03.09

Calibration Possible model

- The Wall Pro (P0.84 / P1.68 / P1.26) / Luxury
- IFJ
- IFH (only less than 2.5 pitch)

Mobile calibration progression sequence

- 1) PREPARATION check & CONFIGURATION
- 2) Application Installation & Execution
- 3) S-box connection
- 4) Calibration Type Selection
- 5) Reference Cabinet / Module Selection
- 6) Target Cabinet / Module Selection
- 7) Smart phone positioning
(Position the LED screen in the red guide line
on Smart phone display)
- 8) Calibration mode Selection
- 9) Calibration Execution

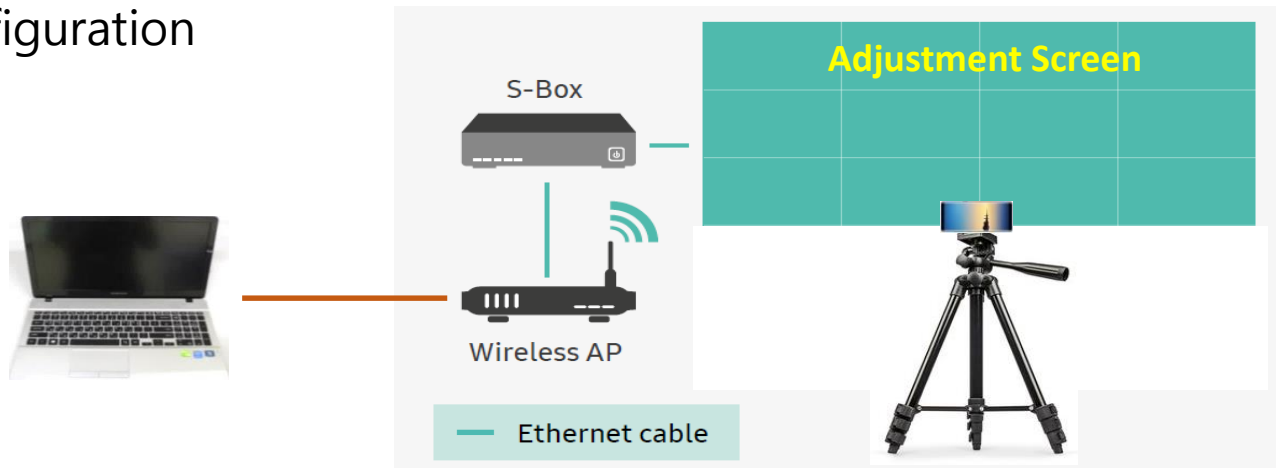
1. PREPARATION & CONFIGURATION

1) Preparation

- ① Smart phone (Galaxy S8, S8+, Note8, S9, S9+, Note9 / Android OS 7.0 or higher)
- ② Color Expert App.
([displaysolutions.Samsung.com](https://displaysolutions.samsung.com) : Downloadable from download center)
- ③ Note PC / ④ Wireless AP / ⑤ Ethernet Cable / ⑥ Tripod

In case of The wall Lux, Prepare a wireless AP (same IP network with M-Box) or "USB C type to LAN" converter
(For direct connection between smartphone and M-Box)
(Reason) The M-Box uses a fixed IP (192.168.176.50) / IP cannot be changed according to customer network

2) Configuration

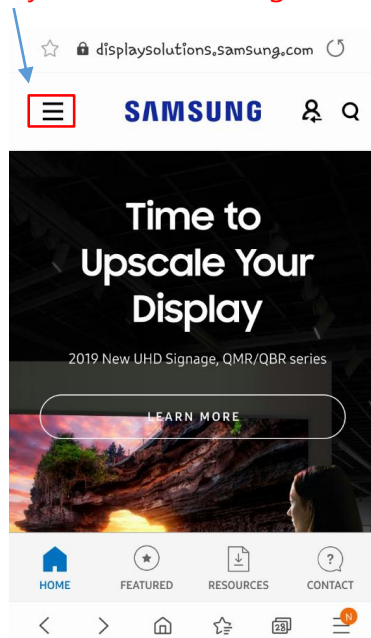


- Smart phone, S-Box, and notebook should be connected to the same local area network.
- All LED cabinets must be composed of normal layouts through LSM.
- Module RGB CC setting of all cabinets is set to " ON " (Using LSM menu)
- Secure enough distance so that all LED screens are displayed on the Smart phone screen
(5 meters or more based on Wall P0.84 4K)

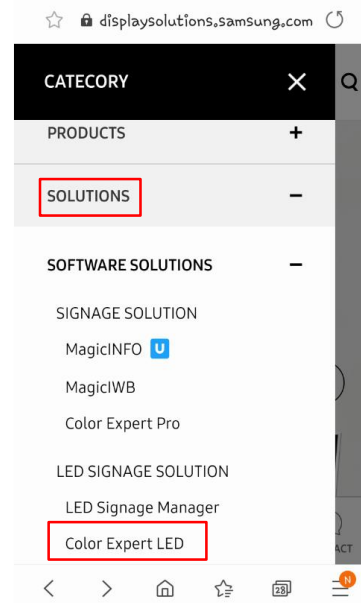
2. Application Installation & Execution (Smartphone usage)

- Download the APK file from the download center in displaysolutions.samsung.com, save it to your smartphone, and install it. (Need to create an account when first connecting)

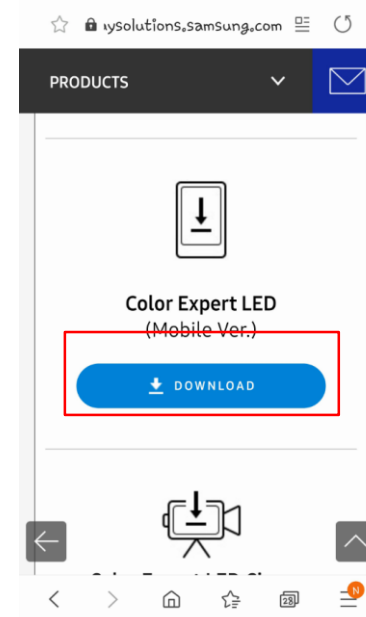
① Touch the image below After connecting to displaysolutions.samsung.com



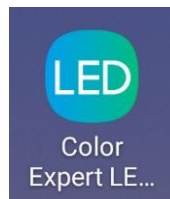
② Select the item below



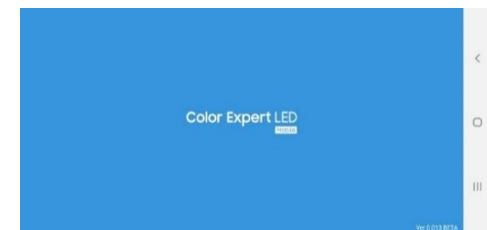
③ Scroll down the screen and run the download



- When the app is installed normally, the following icon is created



- Initial screen after app execution

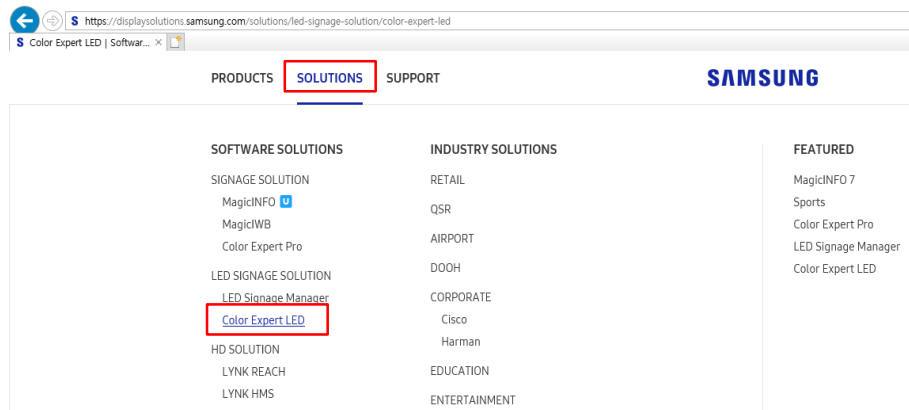


Application installation using PC

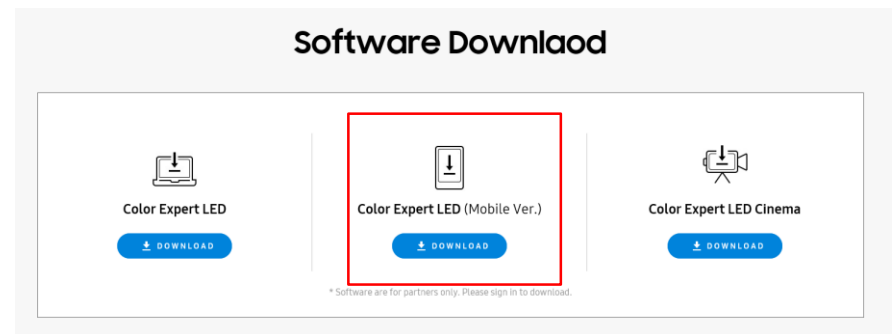
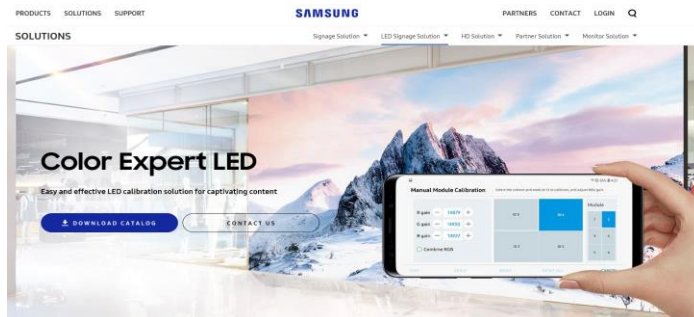
- Download the APK file from the download center in displaysolutions.samsung.com, save it on your smartphone, and click the APK file to install it.
(Need to create an account when first connecting)

[When installing App using PC]

" SOLUTIONS – Color Expert LED " Click



On the screen below, scroll down and click " Download " of " Color Expert LED (Mobile Ver.) "



3. S-box connection

① Enter S-BOX IP in the IP address input box and click the ADD button at the bottom.

8:14

Manual Input

Manually enter the IP address of the device.

IP address

192.168.176.50

☐ IPv6

1 2 3 ✕
4 5 6 완료
7 8 9 .
0 ,

8:15

Manual Input

Manually enter the IP address of the device.

IP address

192.168.176.50

☐ IPv6

ADD

② When connected to the S-box successfully, check if the IP address & number of cabinets connected is normal for each group and click CONNECT.

8:25

Connection Setup

Tap CONNECT to connect devices on the list. Select a device from the list to open the details settings.

[LED S/Box] Samsung LSN Series
IP address 192.168.176.7

Enter the number of cabinets

Model Type With Cabinet IP(UHD)

☒ Connect with existing settings

group1

IP address 192.168.176.101

Number of cabinets 8

☒ Connect with existing settings

MANUAL INPUT CONNECT

4. Calibration Type Selection

3:40

Select Calibration Type

Select a calibration type before starting a calibration.

☒ Module Calibration

Calibrate the module in the cabinet.

☐ Cabinet Calibration

Calibrate the cabinets partially or entirely.

PREVIOUS . . . NEXT

Module Calibration





: Select if calibration is required per module

Cabinet Calibration

: Select if calibration is required per Cabinet
(If there is only one cabinet, it can not be selected.)

The next calibration operation is the same as the module and cable.

5-1 Reference Cabinet/Module & Target Selection

8:26    

Select Module

Select the reference and target modules for calibration.

Reference

Target

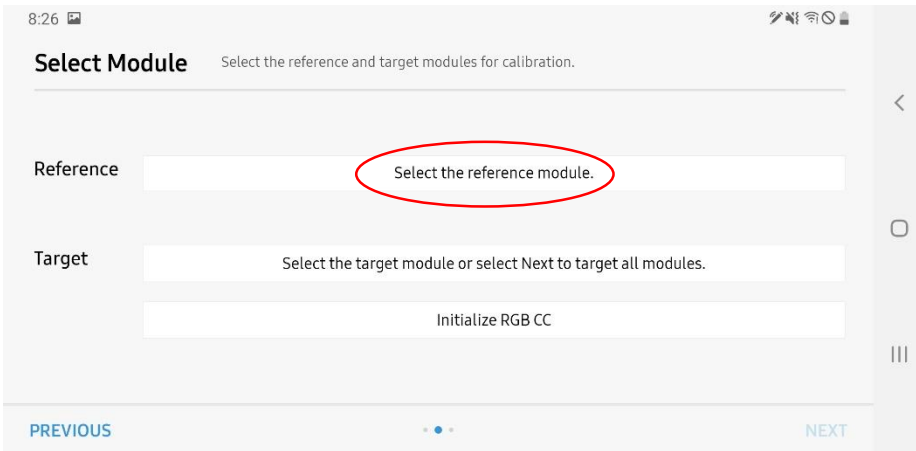
PREVIOUS ... NEXT

Select module that is calibration Reference (orange color)
When selecting multiple modules, the reference value is set to the average value of the module.

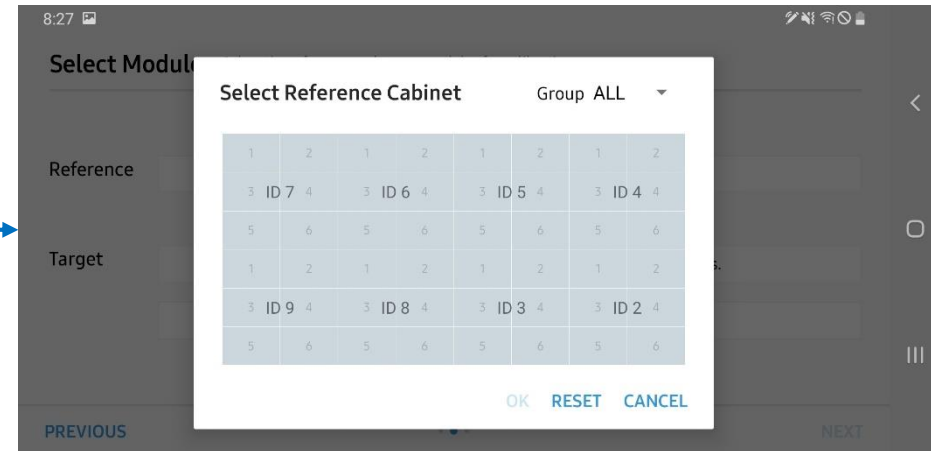
Select module that is calibration Target (blue color)
Only the selected module is calibrated.
If none is selected, all modules except the reference module are targeted

Select both Reference and Target and click NEXT.

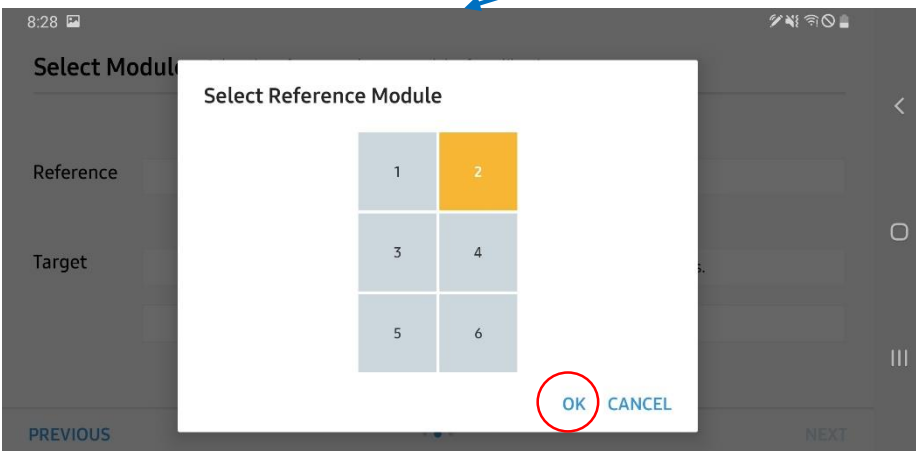
1. Reference selection detail screen



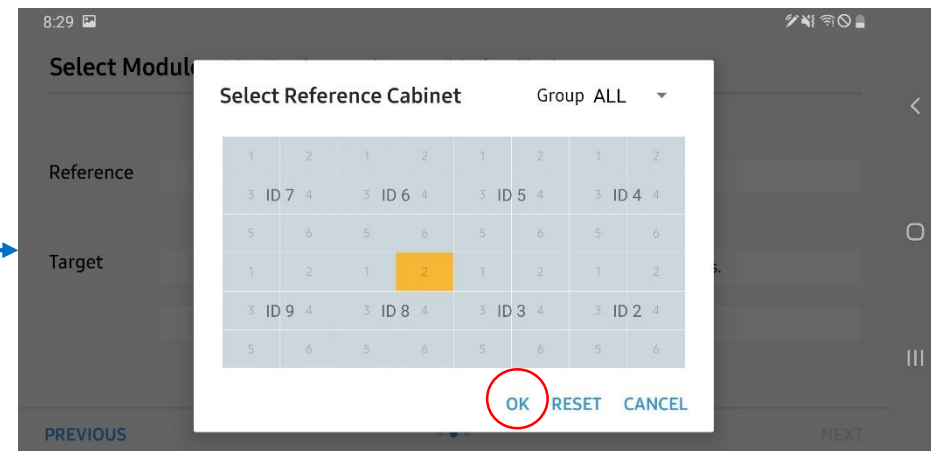
" Select the reference module " Click



Select a cabinet ID from the entire screen (e.g. click ID 8)



Select the Reference module and click OK.



After checking the location of the Reference module on the entire screen, click OK to complete the selection.

2. Target selection detail screen

8:29

Select Module Select the reference and target modules for calibration.

The location of the selected Reference module is displayed

Reference Cabinet ID 8 | Module 2

Target Select the target module or select Next to target all modules

Initialize RGB CC

PREVIOUS NEXT

" Select the target module or select Next to target all modules " Click

8:30

Select Module

Select Target Cabinet Group ALL

1	2	1	2	1	2	1	2
3 ID 7 4	3 ID 6 4	3 ID 5 4	3 ID 4 4				
5	6	5	6	5	6	5	6
1	2	1	2	1	2	1	2
3 ID 9 4	3 ID 8 4	3 ID 3 4	3 ID 2 4				
5	6	5	6	5	6	5	6

OK RESET CANCEL

PREVIOUS NEXT

Select a cabinet ID from the entire screen (e.g. click ID 8)

8:30

Select Module

Select Target Module

1	2
3	4
5	6

OK CANCEL

PREVIOUS NEXT

Select the Target module and click OK.

8:31

Select Module

Select Target Cabinet Group ALL

1	2	1	2	1	2	1	2
3 ID 7 4	3 ID 6 4	3 ID 5 4	3 ID 4 4				
5	6	5	6	5	6	5	6
1	2	1	2	1	2	1	2
3 ID 9 4	3 ID 8 4	3 ID 3 4	3 ID 2 4				
5	6	5	6	5	6	5	6

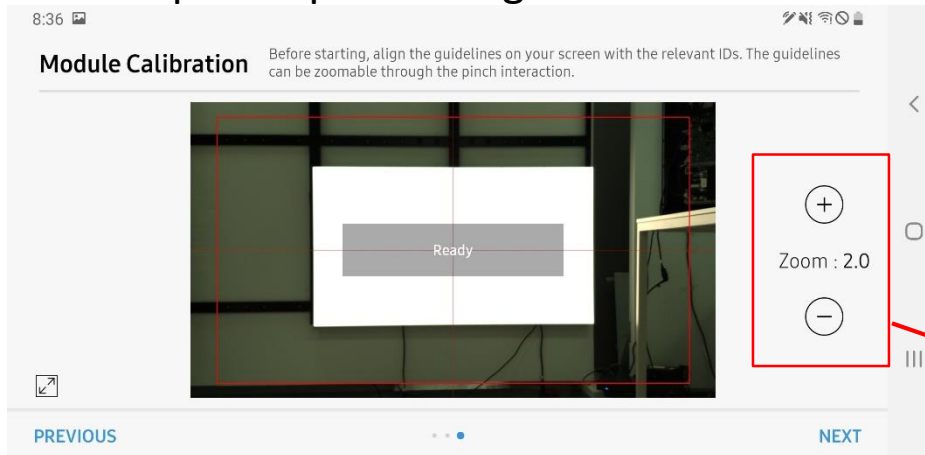
OK RESET CANCEL

PREVIOUS NEXT

After checking the location of the Target module on the entire screen, click OK to complete the selection.

5-2. Calibration (Smart phone positioning & Calibration mode Selection)

Smart phone positioning



Current progress status Text display (Ready)

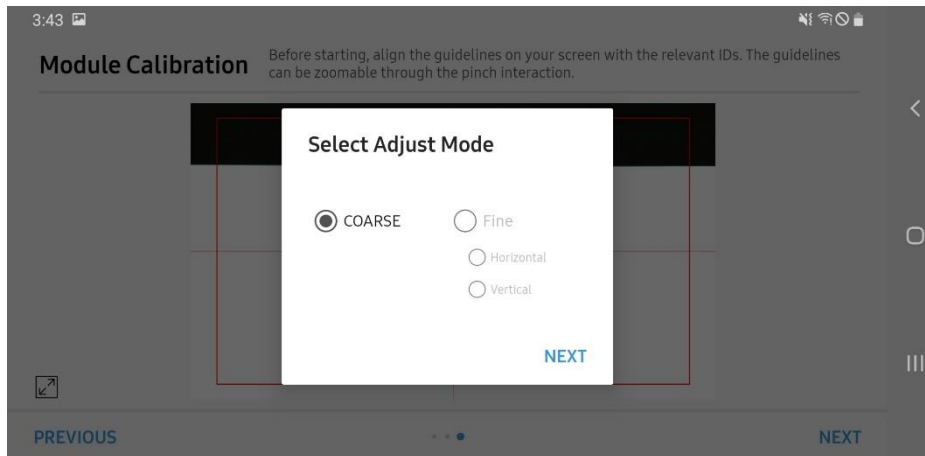
Position the screen in the red guide line

Smart phone should not move afterwards

Click on the NEXT button.

Zoom adjustment if SITE place is narrow and the entire LED screen does not appear on the Smart phone screen
(Can be adjusted in units of 0.1)

Calibration mode Selection



Calibration mode 선택

- COARSE

: calibration by module

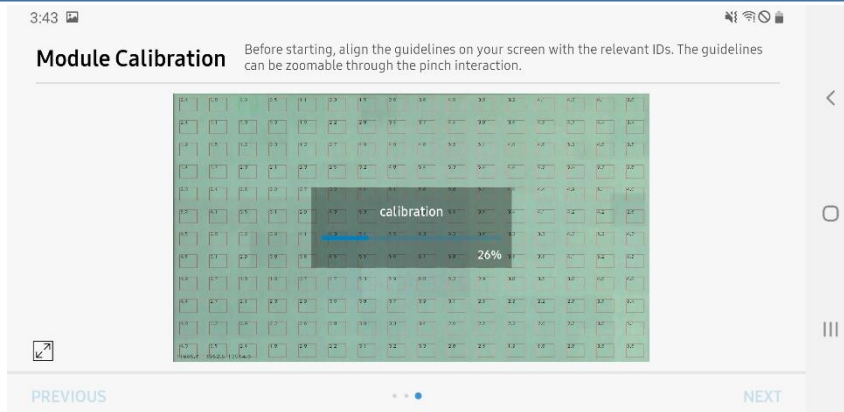
- Fine

: Precisely calibration by dividing one module into three blocks

When separating into three blocks, you can select
horizontal / vertical

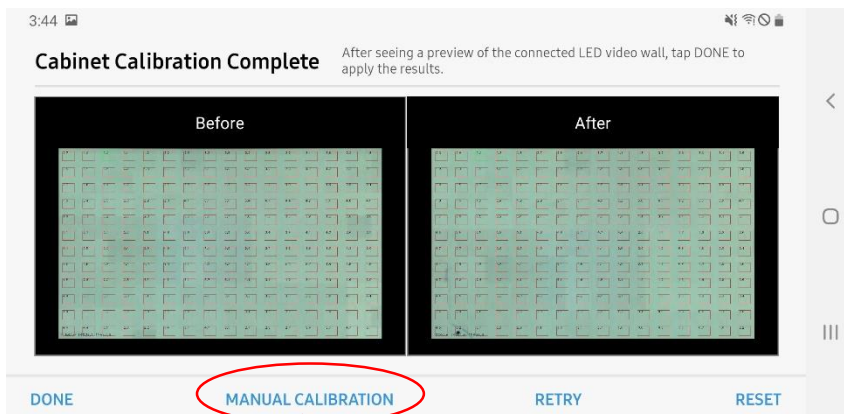
Usually, after selecting COARSE and proceeding with Calibration,
When precision correction is required, select Fine to proceed with
calibration once more.

5-3. Calibration execution



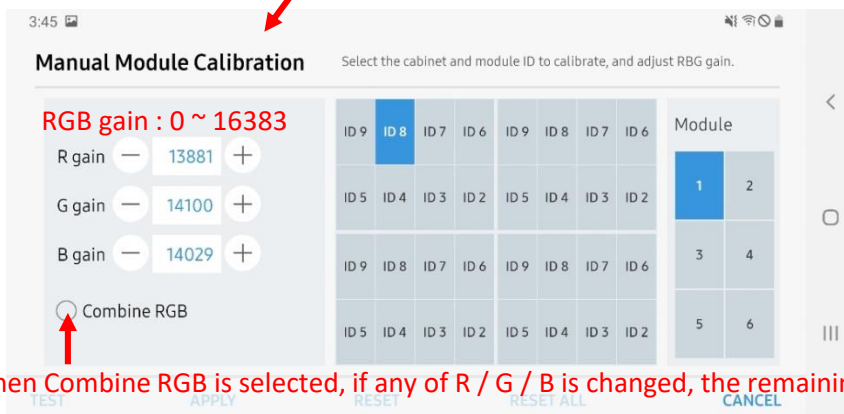
Calibration in progress screen

The cell phone cannot be moved.
Keep the illuminance state around the screen
as it is



Calibration completed screen

- DONE : Apply calibration data and move to “All Done “
- MANUAL CALIBRATION : Manually perform additional calibration (R / G / B gain value change by Manual)
- RETRY : Applied Calibration data & move to Previous step (Position screen in red guide line)
- RESET : Reset & not applied the data of calibration & Move to “ All done “



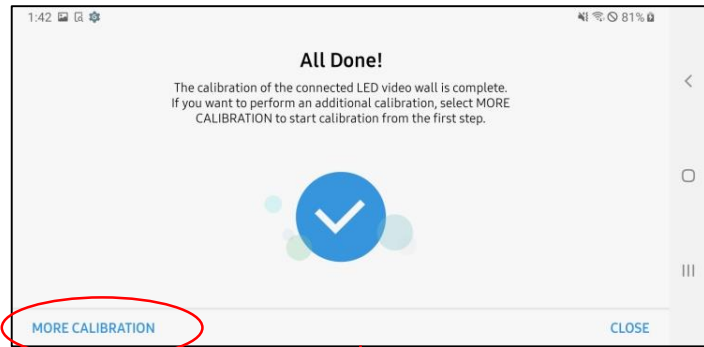
MANUAL CALIBRATION Menu

- TEST : Input value is applied to the Screen.
- APPLY : Input value is applied & move to previous page
- RESET : Selected screen's changed value is resetted.
- RESET ALL : Every changed value is resetted
- CANCEL : Every changed value is resetted & move to previous page

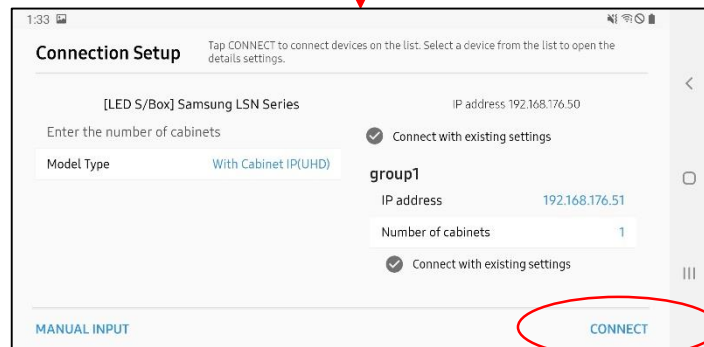
When Combine RGB is selected, if any of R / G / B is changed, the remaining gain is applied to the same increase or decrease.

5-4 After calibration progress, Ref. Module change & additional correction

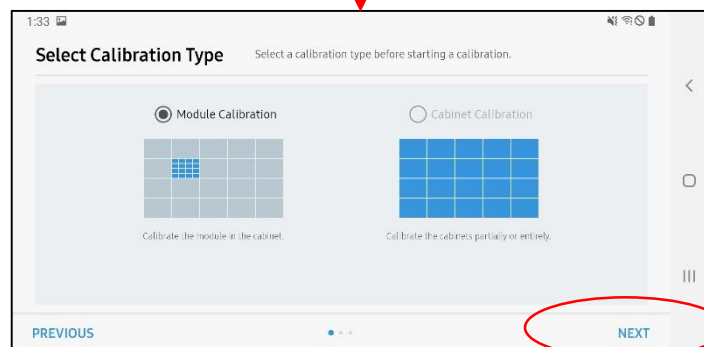
[1]



[2]

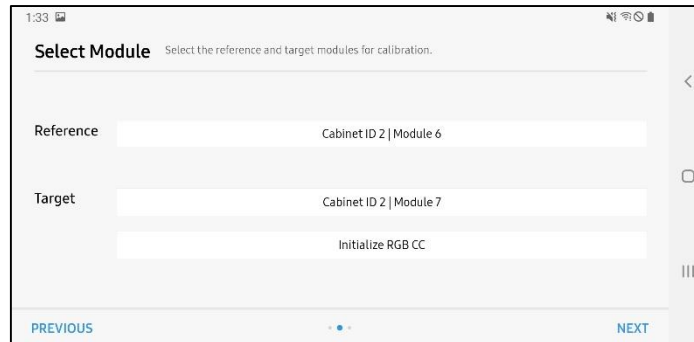


[3]

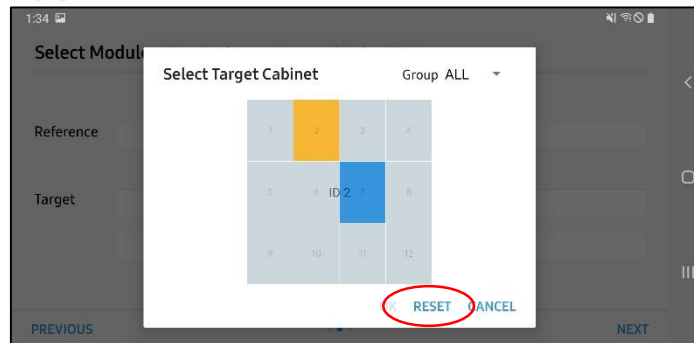


- [1] Select ' More Calibration ' on Calibration Completion Screen
- [2] ' connect ' click on ' Connection Setup ' Screen
- [3] Select Calibration type (Module or Cabinet)
- [4] **For ref. change, it is necessary to reset the selected target module or cabinet. (Ref. And Target should not be the same)**
- [5] Change Ref. Module after Reset Target Module / Cabinet
→ After that, proceed with calibration the same as before

[4]

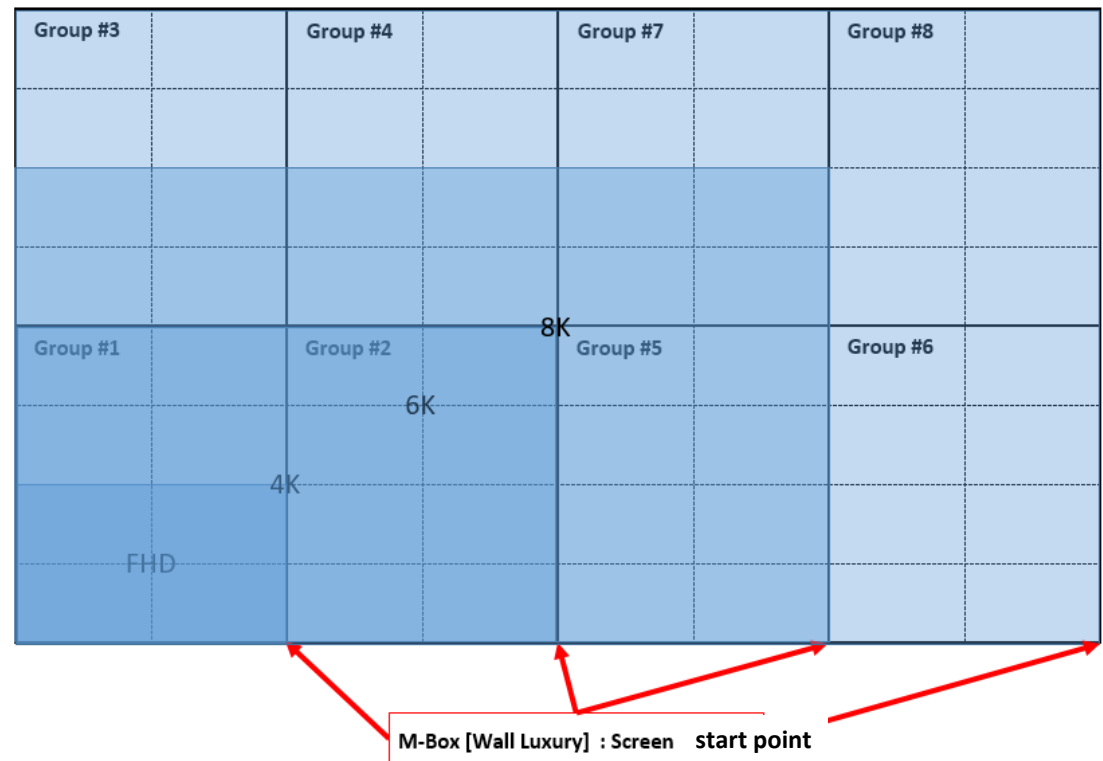
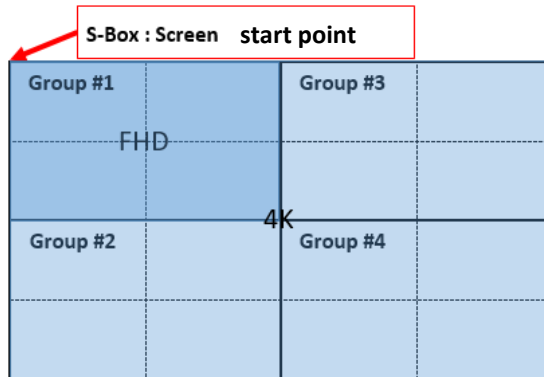


[5]



Note when Configuring Screen layout

- For Mobile Cal., Layout configuration needs to be configured based on the output video start point
 - Ref. Module is not selected when connecting in the previous number Group skip state.



COARSE / FINE mode function comparison

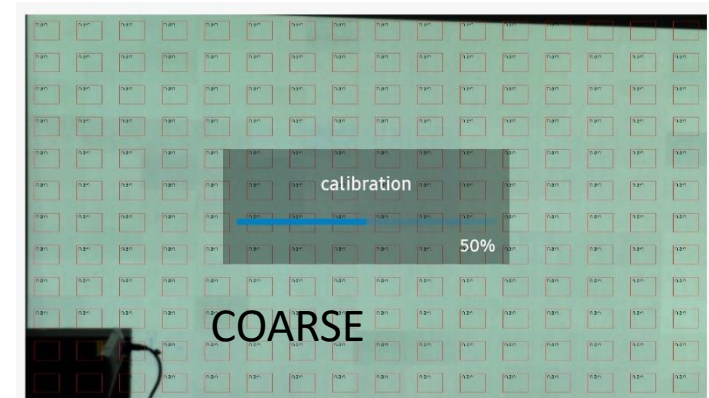
- COARSE mode

Module selected as target

To match the reference module value

Work to match color in 1: 1 form

One module is the same as the average value



- Fine mode

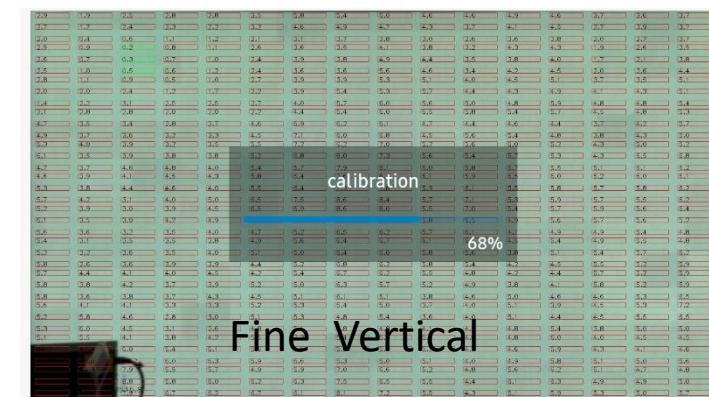
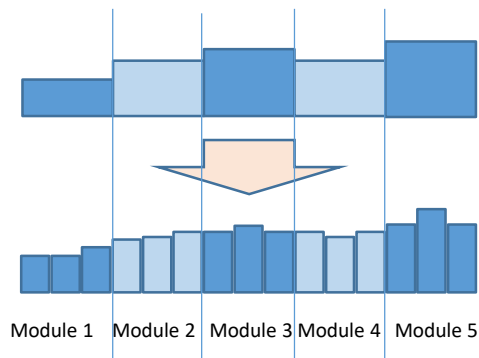
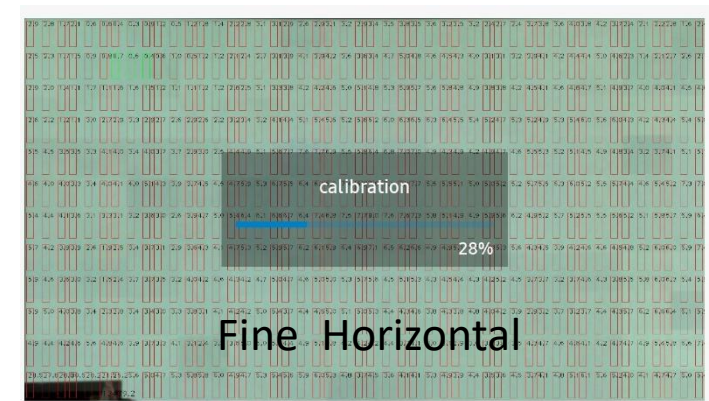
In the case of the interface surface of the module,

the color values of each module are noticeable

even if there is a slight difference,

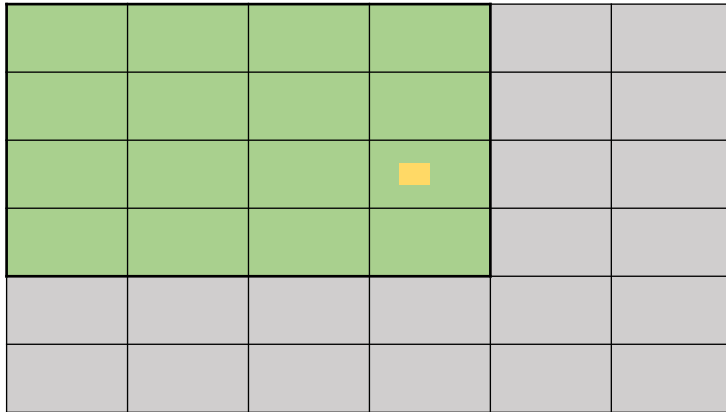
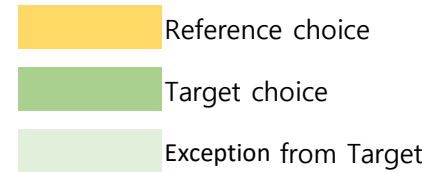
so each module is divided into three horizontal (or vertical) blocks

and the color difference of the interface is smothered.

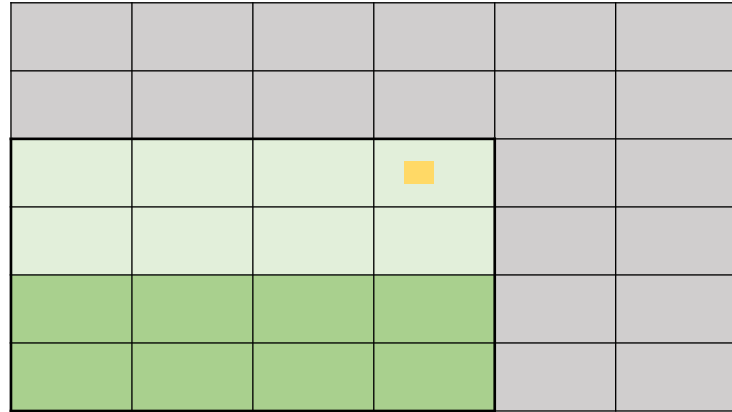


6K Screen calibration

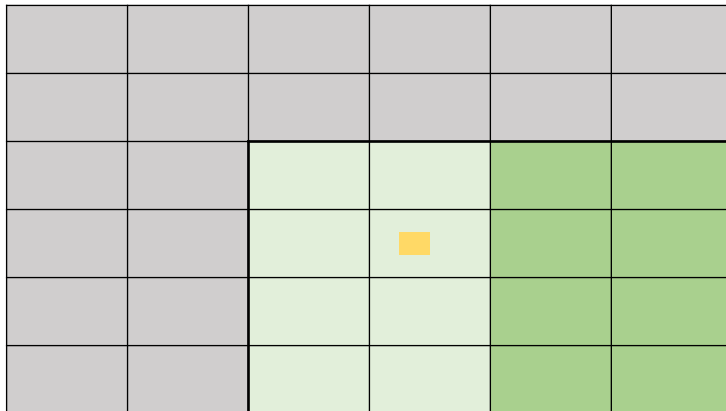
Color Expert program supports only one S-box, so if 4 S-boxes are applied like 6K screen, 4 calibration work is required.



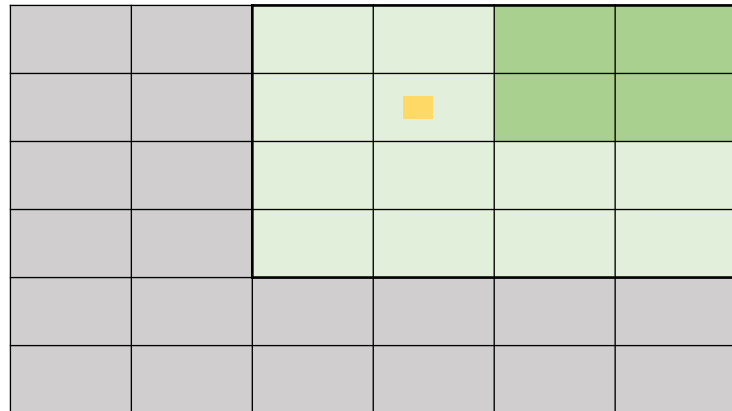
Primary Calibration



Secondary Calibration



Third Calibration



4th Calibration