

# LED Display Installation Manual

**LH015IFH\*\*\* (P1.5)**

**LH020IFH\*\*\* (P2.0)**

**LH025IFH\*\*\* (P2.5)**

**SBB-SNOWH3U**

- 1. Product Information and Precautions for Installation**
- 2. Preparation for Cabinet Installation**
- 3. Frame Installation**
- 4. Cabinet + Frame Installation**
- 5. SBOX Connection**
- 6. Settings and How to Use**
- 7. Issue and Solution**
- 8. Cable Connection**
- 9. Seam Adjustment**

# 1. Product Information and Precautions for Installation

## • Frame Kit Composition ( Refer to Page 8 )

Frame Kit	Composition	Note
CY-LFH15FWA	6*3(18 Set)	FHD Installation for P1.5 Standard
CY-LFH20FWA	8*4(32 Set)	FHD Installation for P2.0 Standard
CY-LFH25FWA	10*5(50 Set)	FHD Installation for P2.5 Standard

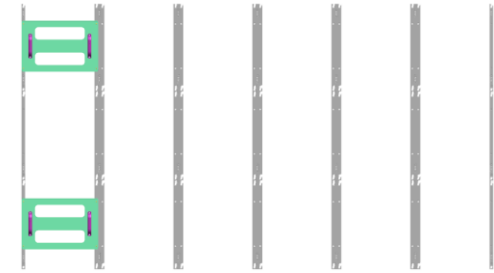


Fig.1 (6\*3)

## • Cabinet Product Information ( Fig2.)

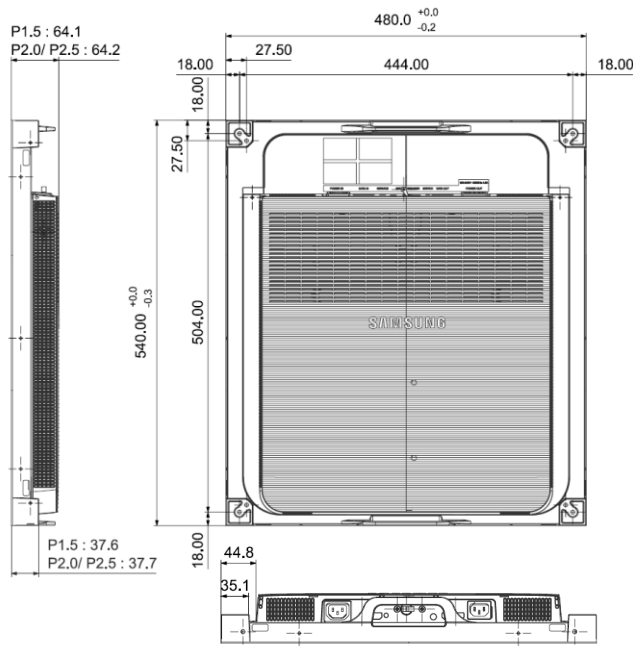


Fig.2

## • SBB-SNOWH3F/U (S-Box, I/G)

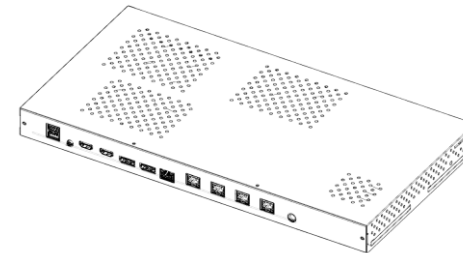


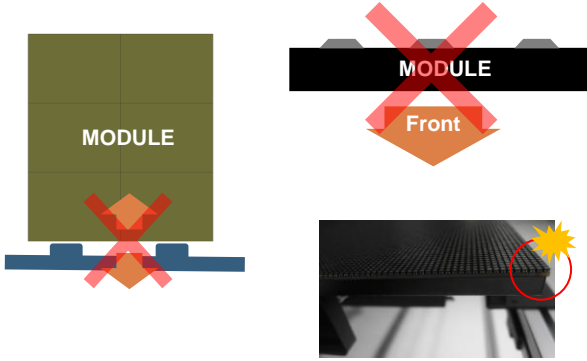
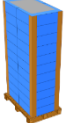

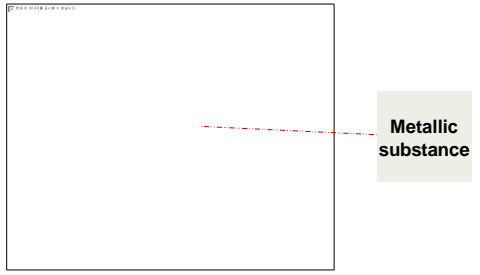

Fig.3 S-Box



Fig.4 I/G  
(Interface Gender)

# 1. Product Information and Precautions for Installation

## • Precautions for Installation (LED damage)

Image	Precautions
	<p><b>[ Beware of Outside Impact, Fall]</b></p> <ul style="list-style-type: none"> <li>▶ Beware not to cause any impact on the LED screen or drop the product on the floor after the protection gets taken off for installation.</li> <li>▶ Beware not to fall the back side of the product on the floor or to put on a vibrating material.</li> <li>▶ Beware not to have the corner area of LED module be damaged due to the contact with the outside.</li> <li>▶ Beware not to put the LED side headed downwards to the floor after the protection gets taken off for installation.</li> <li>▶ Beware not to put more than 12 layers.</li> </ul> 
	<p><b>[Beware of LED Damage due to Static Electricity]</b></p> <ul style="list-style-type: none"> <li>▶ Beware not to touch LED screen with bare hands without putting gloves on.</li> </ul>
	<p><b>[Beware of LED Damage due to Metallic Substances]</b></p> <ul style="list-style-type: none"> <li>▶ Beware not to have metallic substances pulled in to the surface due to the magnetic force on the front side of the LED.</li> <li>▶ If any metallic substances get drawn in on the surface, please disassemble the module and then remove the pollutants by using a magnet.</li> </ul>  <p>Magnet attached where metallic substances are attached.</p>

# 1. Product Information and Precautions for Installation

Samsung Electronics

## • Preparations for Installation



**10.0mm Wrench**



**Electric Driver**



**(-) (+) Driver**



**LED MODULE JIG**  
(model name: CY-LJFNAS)



**Service JIG**  
(BH81-00001A)



**Holder Magnet Tool**



**Plier**



**Antistatic Glove**

# 2. Preparation for Cabinet Installation

## • Preparations Before Installation

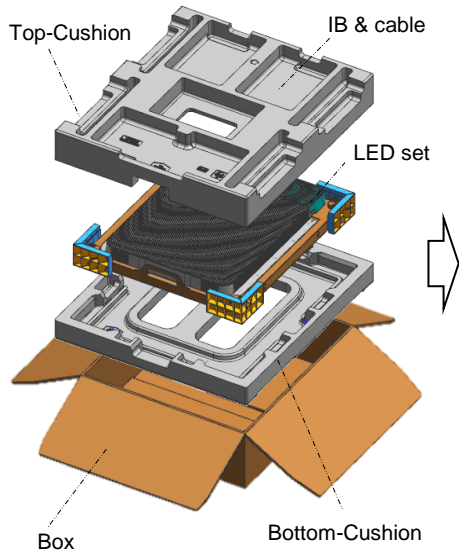


Fig.1 Box Opening



Fig. 2 Handle

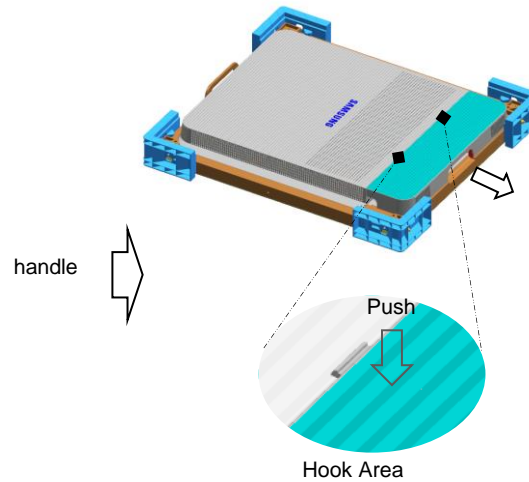


Fig.3 Cover Connector Removal

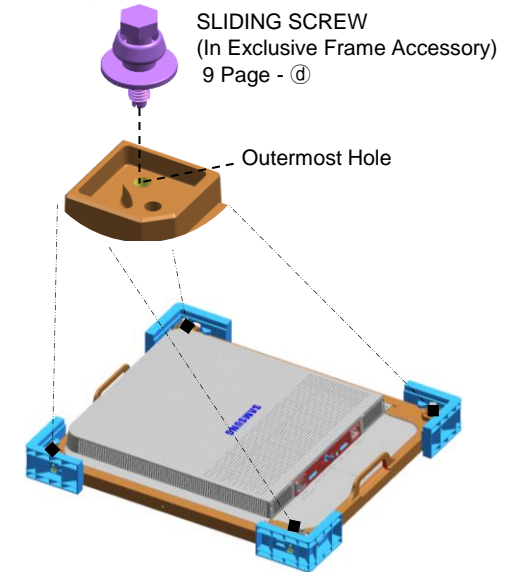


Fig.4 Bolt Assembly

- ① Remove the Box tape at the upper area and then open up the box. (Fig.1)
- ② Remove the Top-Cushion and hold the handle inside PE-Bag and pull out the set then remove PE bag. (Fig.2)
- ③ Press the hook area and then bend backwards to separate the Cover-Connector. (Fig.3)
- ④ Assemble four(4) Sliding Screw for installation at the hole located at the outermost part of the Corner. (Fig.4)

## 2. Preparation for Cabinet Installation

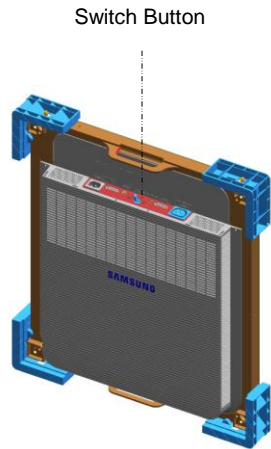


Fig.5 Check the Screen

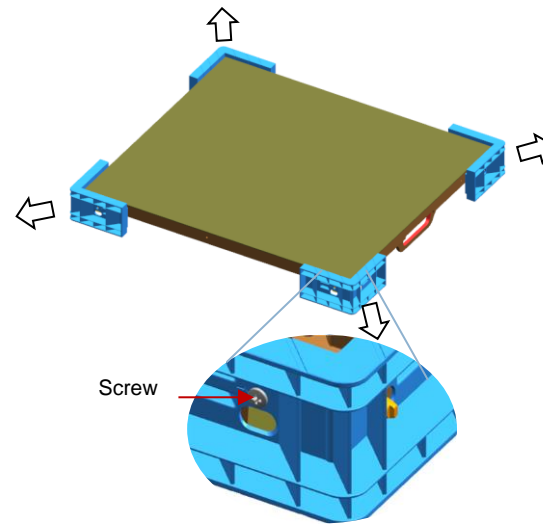


Fig.6 Cover Corner Removal

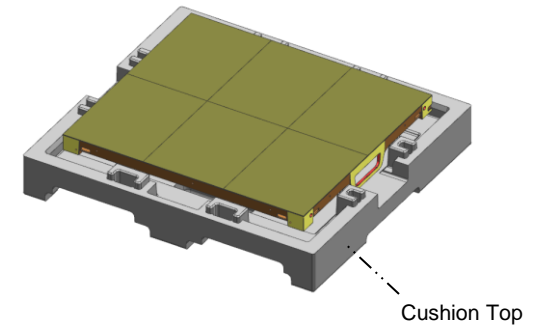


Fig.7 Cabinet Storage

⑤ Check whether there is any abnormality on the screen by connecting the power cable.(Fig.5)

※ Press the 'Switch' button for five(5) seconds after applying the electricity.

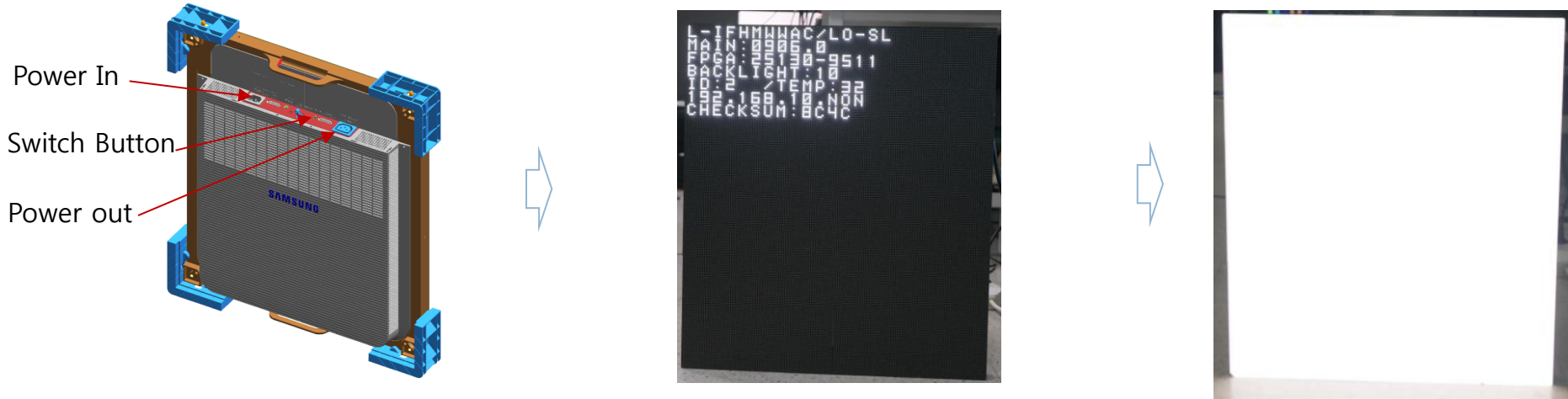
If the information screen comes out, press the Switch button to switch the screens on W/Pattern and check the screens.

⑥ Unfasten the screws (total of four[4]) on the Cover Corner area to separate those screws. (Fig.6)

⑦ Put the Cabinet on the Cushion Top so that the LED screen will head upwards. (Fig.7)

## 2. Preparation for Cabinet Installation

### ◆ Reference : Process of Screen check



### ◇ Connect Power Cable to SET.

Use internal pattern to check dead pixel or any damage with screen

#### ※ Internal white pattern :

- Turn on Power
- Push Source button 5 seconds and release,
- Wait for display, push one more times. (color rotation : White → Blue → Red → Green)
- Push button for 5 seconds again to exit factory OSD



# 2. Preparation for Cabinet Installation

⑧ Attach the PET Sheet and assemble Cover PCB for the Cabinet that is located at the exterior.

- ※ PET Sheet & Cover PCB should be at the boundary of whole screen. **(Blue area at the exterior of Fig.1)**
- ※ Attach PET Sheet as shown below.(Fig.3), The areas where there is no tape should guide the LED module.
- ※ Assemble the Cover PCB as shown below.(Fig.4)

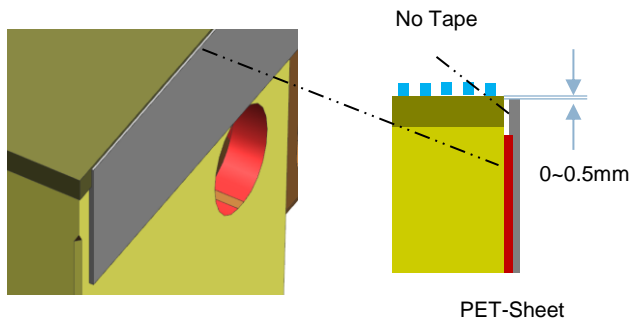


Fig.3

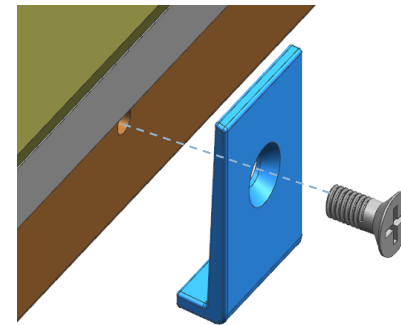


Fig.4

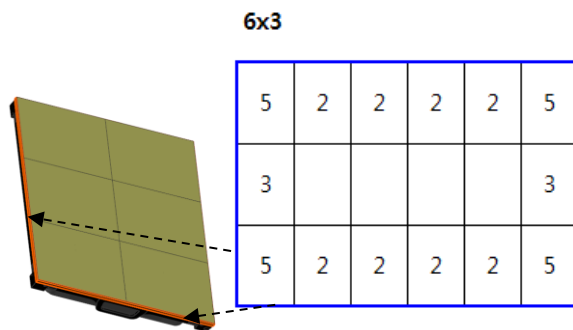


Fig.1 Attach point of Sheet PET

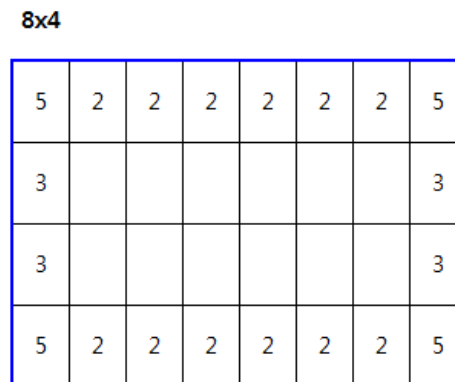


Fig.1 Sheet PET/ Cover PCB

10x5

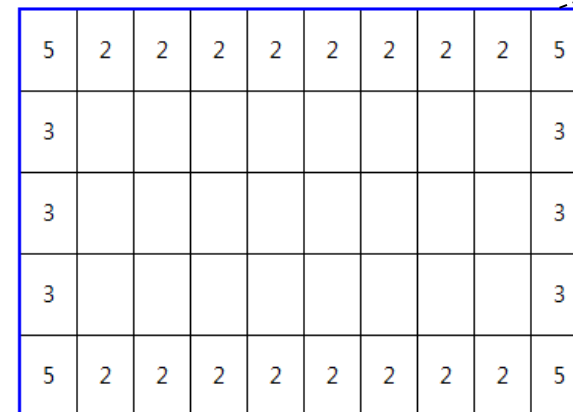
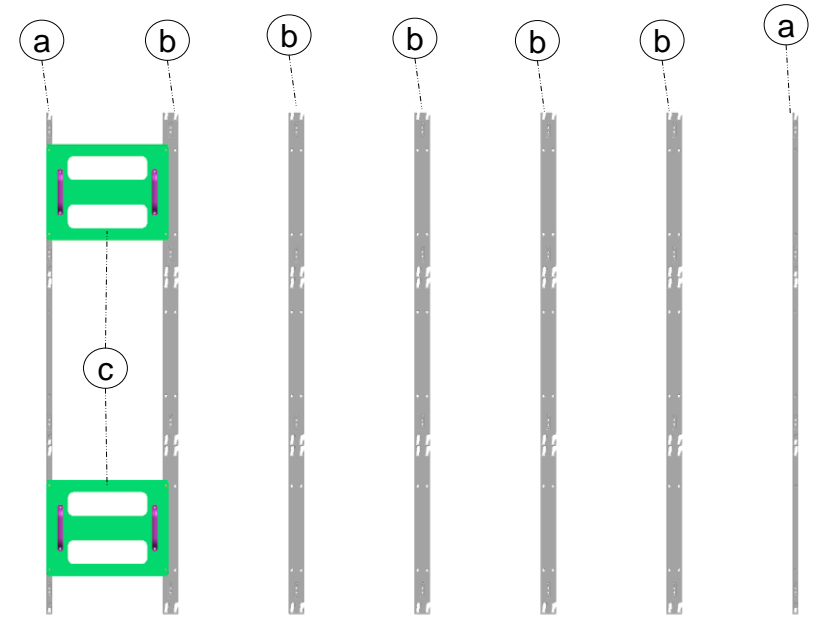


Fig.1 Attach point of Sheet PET

# 3. Frame Installation

## • Frame Kit Composition

No.	Item	CY-LFH15FWA	CY-LFH20FWA	CY-LFH25FWA
		6X3	8X4	10X5
		Units	Units	Units
Ⓐ	ASSY BRACKET SIDE	2	2	2
Ⓑ	ASSY BRACKET CENTER	6	8	10
Ⓒ	ASSY BRACKET JIG	2	2	2
Ⓓ	ASSY SLIDING SCREW	76	132	204
Ⓔ	ASSY ANCHOR SCREW	32	50	72
Ⓕ	MANUAL-INSTALL	1	1	1
Size of the Installation Screen(mm)		2880X1620	3840X2160	4800X2700



# 3. Frame Installation

① Put the ㉓ Bracket Side the end of the left side and then fasten the screws to install. (Fig.3)

※ After fastening one(1) screw, use the device for vertical positioning to set up straight vertical alignment. Then fasten up the remaining holes. (Refer to Page 11 for the Precautions for fixing the Screws)

Order of Fastening the Screws (No. 1 → No. 2 → No. 3 → No. 4). (Fig.1)

㉓ Bracket Side is located at 7mm of the end line of the screen. (Fig.4)

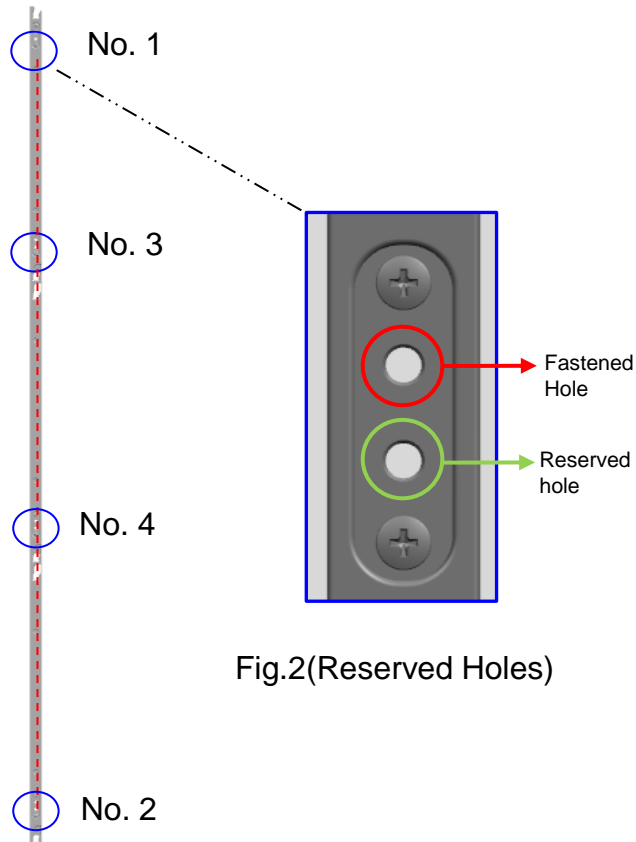


Fig.2(Reserved Holes)

Fig.1 (Order of Work)

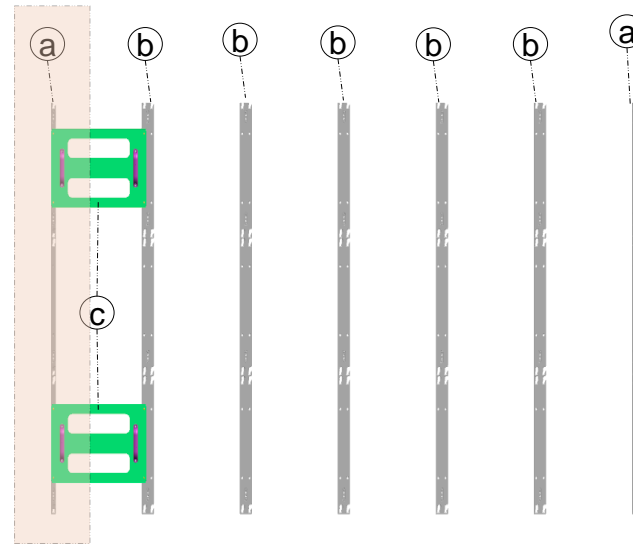


Fig.3 (Location of Components)

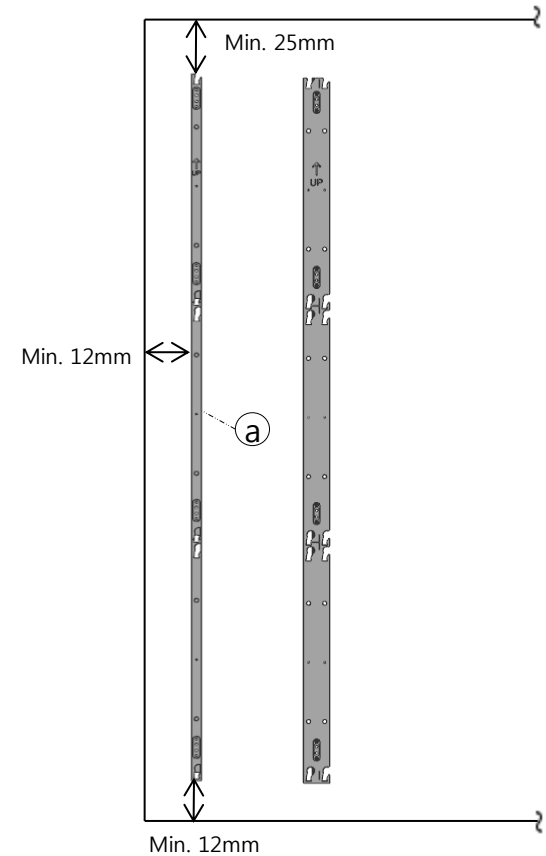


Fig.4 (Distance between Screen and Bracket side)

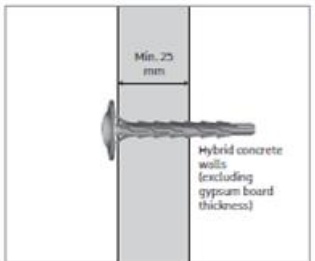
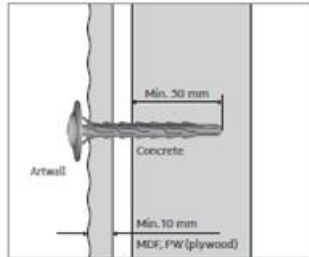
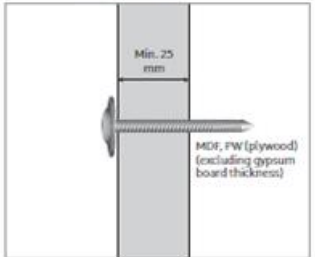
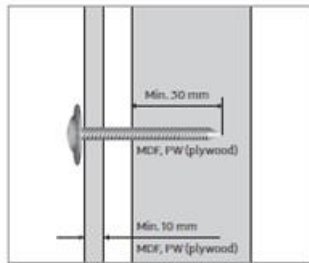
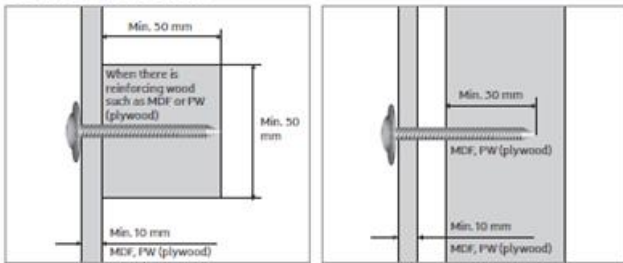
# 3. Frame Installation

## ※ Precautions for Fastening the Screws

### Standard Installation Requirements by Wall Type

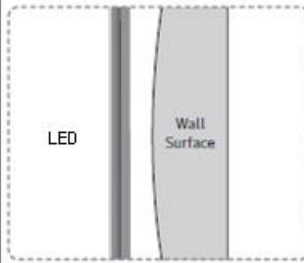
⚠ Check the wall type before installing.

- Can only be mounted on a concrete or interior wall of sufficient thickness. See the diagrams below.



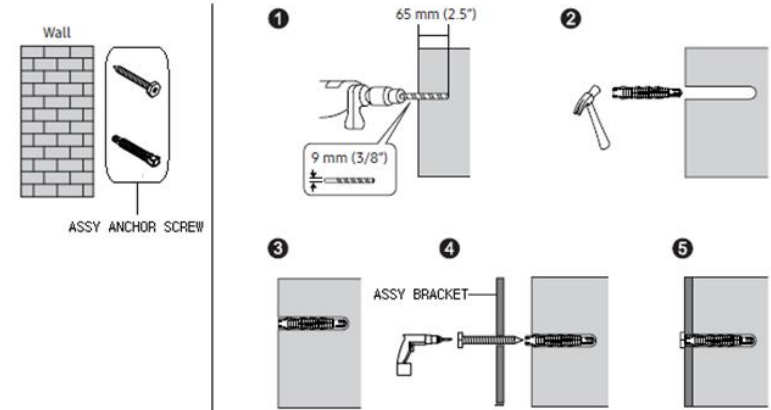
• **Note**  
MDF = Medium Density Fiberboard  
PW = Plywood

- First, check the status of the wall (type, thickness, flatness).

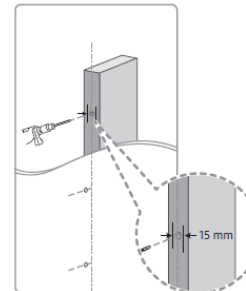
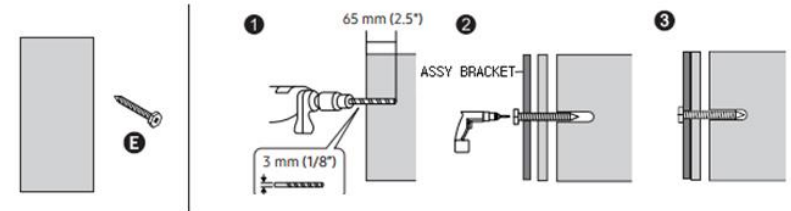


If the wall surface is not completely flat, gaps may form after installation.

### ① Walls made of thick enough concrete



### ② Walls made of gypsum board with wood studs or MDF



### Installation Requirements

- Be sure to check the location of wooden studs in the wall before installing screws.
- Minimum wood stud size: 51 x 102 mm (2 x 4 in) Make holes (3 mm) first before installing screws.
- Holes for screws must be made at the center of studs.
- Wood may split when attaching the TV if holes are not made.
- A standard stud distance of 16" is supported. (24" is not supported)

⚠ Samsung is not responsible for problems that arise when the installation guide is not followed.

# 3. Frame Installation

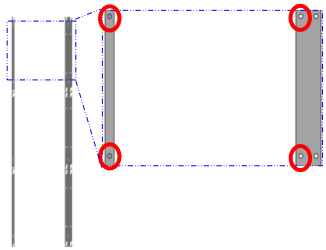


Fig1. Check the Hole

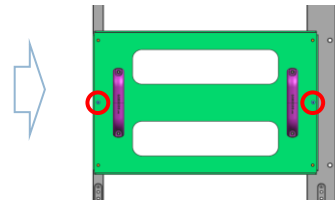


Fig2. Fix the Jig (Screw)

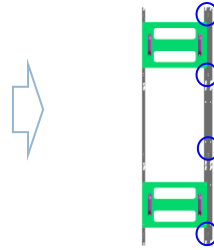


Fig3. Fasten the Screw

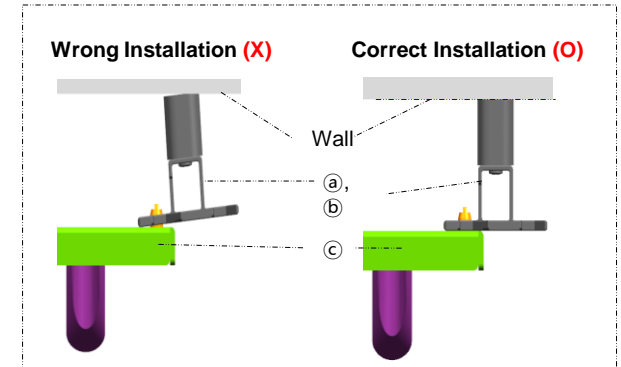


Fig4. Maintain the Parallel Frame

## ② Install ② Bracket Center.

- ※ First, check the Hole to fix the ③ JIG. [Fig.1]
- ※ Second, Mount the ③ JIG inside the Bracket Hole and fasten up two(2) Screws [Fig.2]
- ※ Third, fasten the ② Bracket Center using Screws. [Fig.3]
- ※ Warning. ①, ② and ③ sides should be attached, and the three(3) sides of Wall/Frame side/Jig side should be parallel.[Fig.4]

## ③ Install in the same way (from left to right)

- ※ The farthest right side (the last side) should be installed using ① Bracket Side.

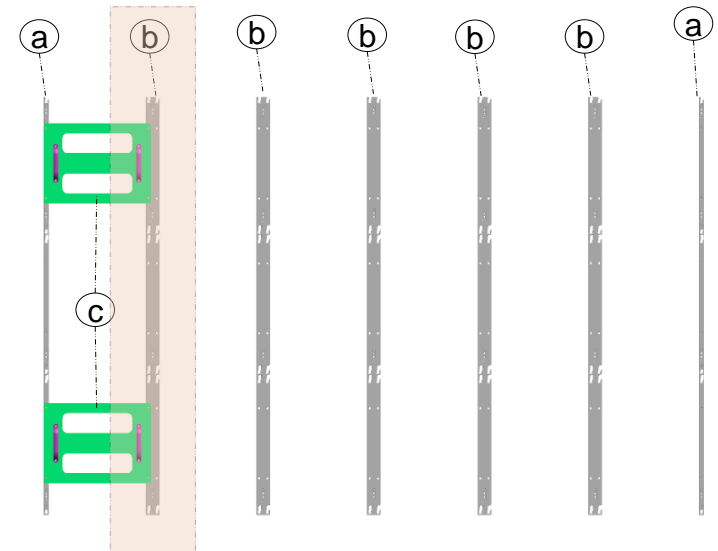


Fig.5 (Location of Components )

# 4. Cabinet + Frame Installation

## • Fix I/G Location

① Install I/G first on the back side of the Cabinet of each Type. (Fig.1)

※ Location to Install: Locate the I/G at the point 35~40mm below, which is the standard for carving at the right side of the frame, and then fasten the screws.(Fig.2)

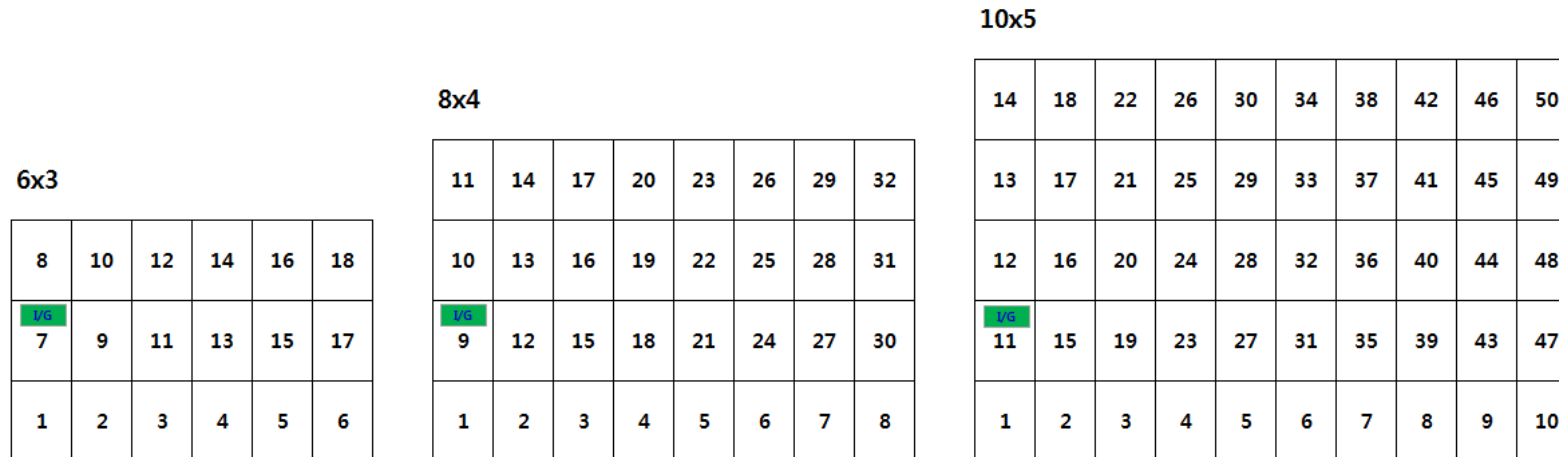


Fig1. Location to Fix the I/G and Order of Installing the Cabinet

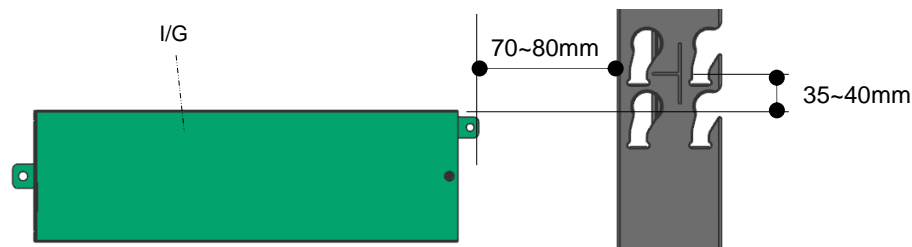


Fig2. Location to Fix I/G

# 4. Cabinet + Frame Installation

② Adjust the Corners of the Cabinet to each of the cravings to be closer to the Frame.

- ※ Order of Cabinet Installation (13 Page Fig. 1)
- ※ Check whether all the four(4) bolts are put into the frame. (Fig.1)

③ Press the upper side of the Frame and assemble so that it slides towards downward diagonal direction (Fig.2)

④ From the layers above the second floor, insert the Service Jig between each Cabinet, remove the Service Jig, slowly lower the Cabinet. (Fig.3)

- ※ Beware not to have the Service Jig touch the LED Module.
- ※ Check whether the gap between each module widens, whether the size of the pitch differs every time of installation.

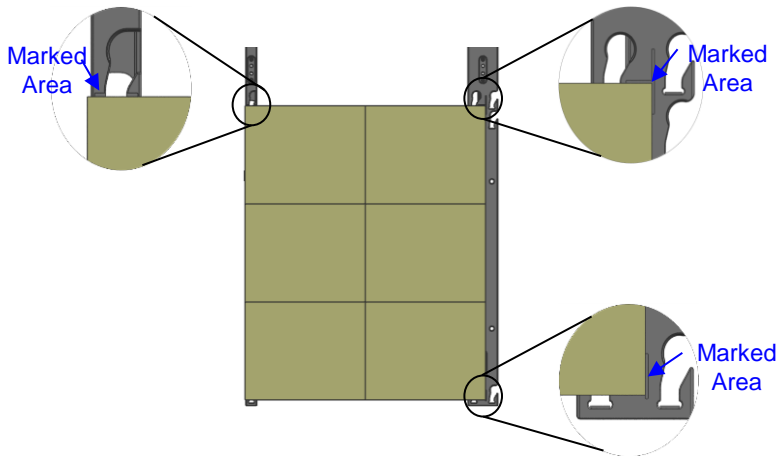


Fig.1

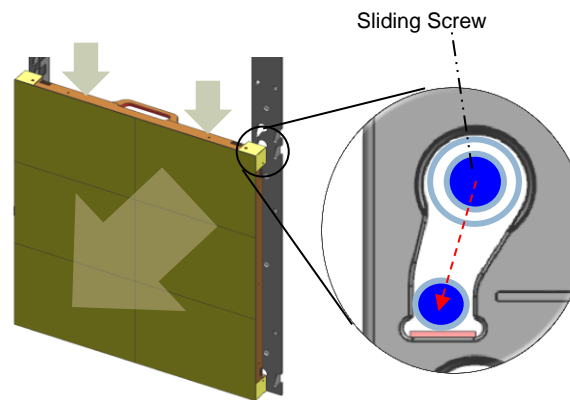


Fig.2

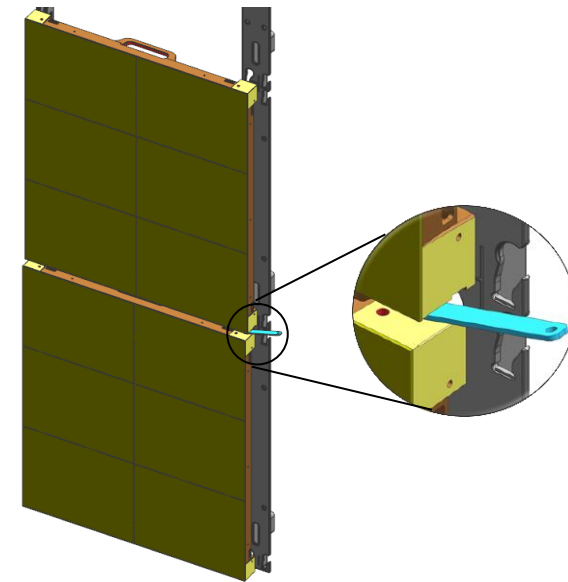


Fig.3

- To prevent unexpected removing IG box, the Protection Bracket should be attached on left / right side of the display (Fig.1)
  - \* In case of pocket installation, do not need to attach the protection.
  - \* Keep free space on Top and Bottom for ventilation

## Recommended specification for Protection Bracket

- ① Material: Aluminum or steel, thickness 1.0mm~2.0mm, black coating.
- ② Dimension: Width 49mm, Length 1610,8mm / 2150,5mm / 2690,2mm (same with Frame, Fig.2)
- ③ Screw hole position: interval 200mm, first screw has distance 90mm to bottom line (Fig.3)
- ④ Screw: M4\*0.7mm , length 6mm.

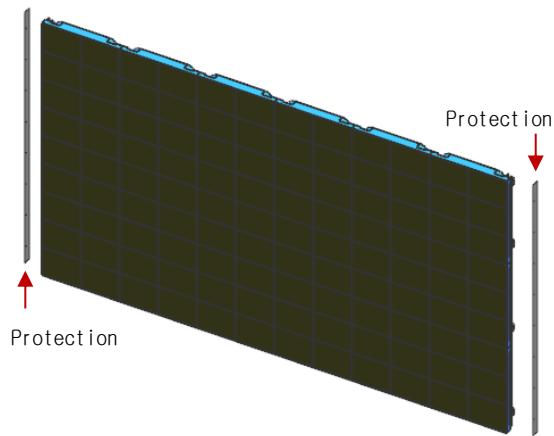


Fig.1 Protection

	CY-LFH15	CY-LFH20	CY-LFH25
Width (mm)	49.0	49.0	49.0
Length (mm)	1,610.8	2,150.5	2,690.2

Fig.2 Protection dimension

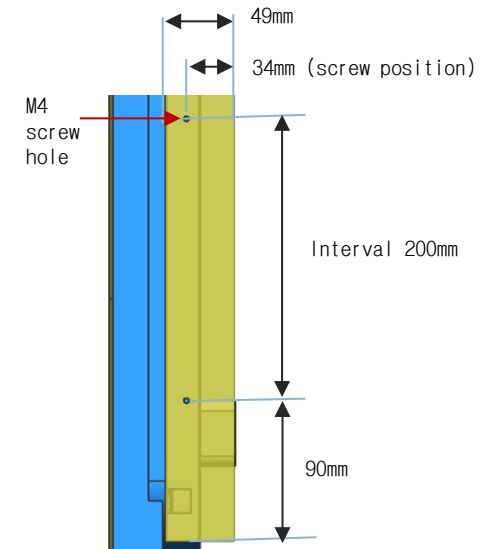
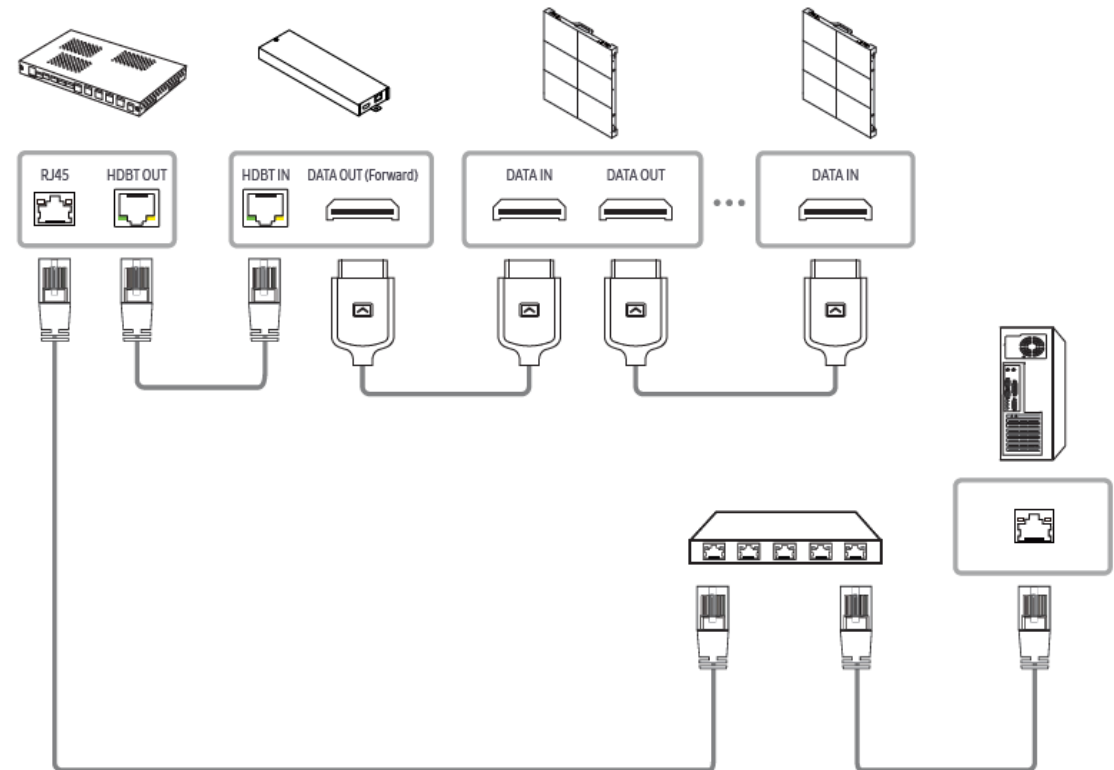


Fig.3 Screw location



# 5. S-BOX Connection

- ① Input the video signal to the S-BOX. (Input terminal : HDMI, DP)
- ② Check the signal input from SOURCE STATUS.(RED : HDMI1 , GREEN : HDMI2, Blue : DISPLAY PORT)
- ③ Connect from the HDBT OUT port of S-BOX to HDBT IN port of Interface Gender using LAN cable.
- ④ Connect from DATA OUT port of Interface Gender to DATA IN port of the first cabinet using OCM Cable.

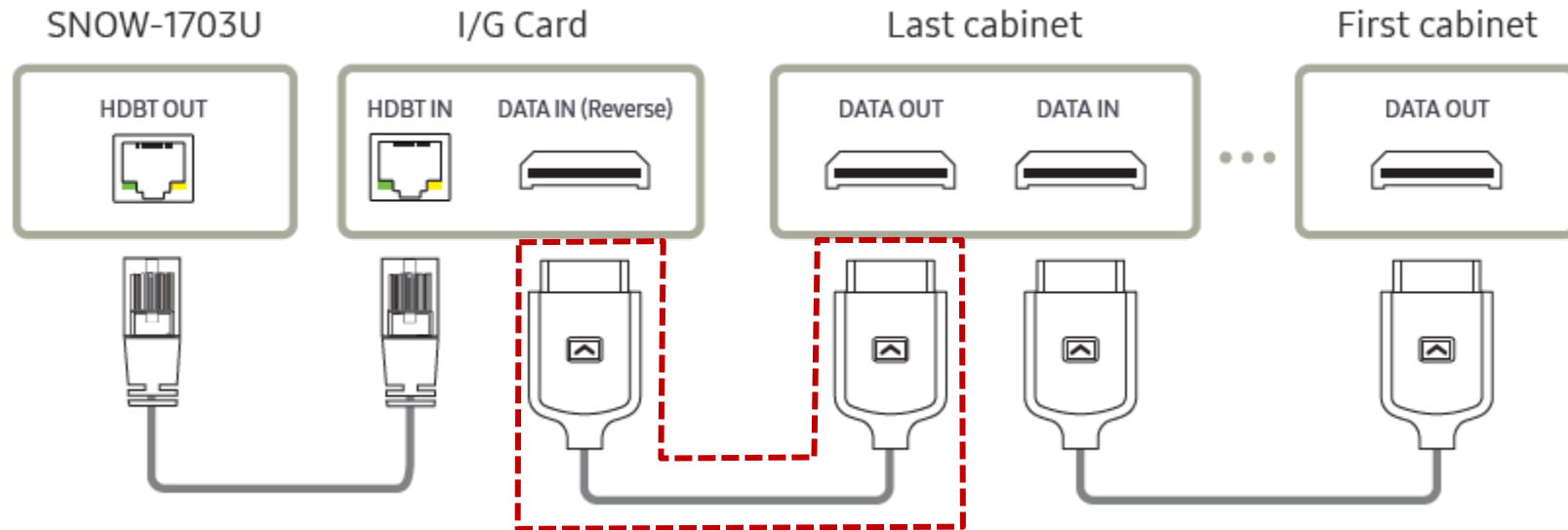


- For HDBT signal stability, use the cable above CAT6 SFTP level. ( Length 15m~100m )
- Do not use "comb" or "pinstripe" cable.

# 5. S-BOX Connection (Redundancy)

① If Redundant Spec should be used,

Connect from DATA IN port of Interface Gender to DATA OUT port of the last cabinet by using OCM Cable.



- For HDBT signal stability, use the cable above CAT6 SFTP level. ( Length 15m~100m )
- Do not use "comb" or "pinstripe" cable.

# 6. Settings and How to Use

## 6-1 Control Program for PCs

### LSM(LED Signage Manager)

- LSM Download Path : GSBN - SLM - Display solution download -> "LED SIGNAGE MANAGER" or "LSM"  
- GSBN : <http://v3.samsunggsbn.com/ep>

SLM  
Display Solution Download Center

Hide Search Options ^

Category: VD  
Title: LED SIGNAGE MANAGER  
Level 1: -- Select --  
Level 3: -- Select --  
Post Date: ~  
Contents:  
Level 2: -- Select --  
Display Order: descending Total Download

Reset Search

List Generate

No	Category Name	Title	Level 1	Level 2	Level 3	Attached file	Total Download	Registered By	Registered On
1074	VD	LED Signage Manager (A-LEDMGDSP-1002.02)	LFD	Software		2	128	Kim 김석범 Seokb	28.04.2016
1292	VD	LED Signage Manager (A-LEDMGDSP-1003.03)	LFD	Software		2	93	Kim 김석범 Seokb	29.07.2016
1739	VD	LED Signage Manager (A-LEDMGDSP-1004.02)	LFD	Software		2	55	Kim 김석범 Seokb	09.12.2016
1589	VD	[User Manual] LED Signage Manager user manual	LFD	Manuals		2	49	Kim 김석범 Seokb	09.11.2016
1047	VD	LED Signage Manager (A-LEDMGDSP-1001.08)	LFD	Software		2	34	Kim 김석범 Seokb	01.04.2016
1984	VD	LED Signage Manager (A-LEDMGDSP1005.00)	LFD	Software		2	10	Kim 김석범 Seokb	14.03.2017

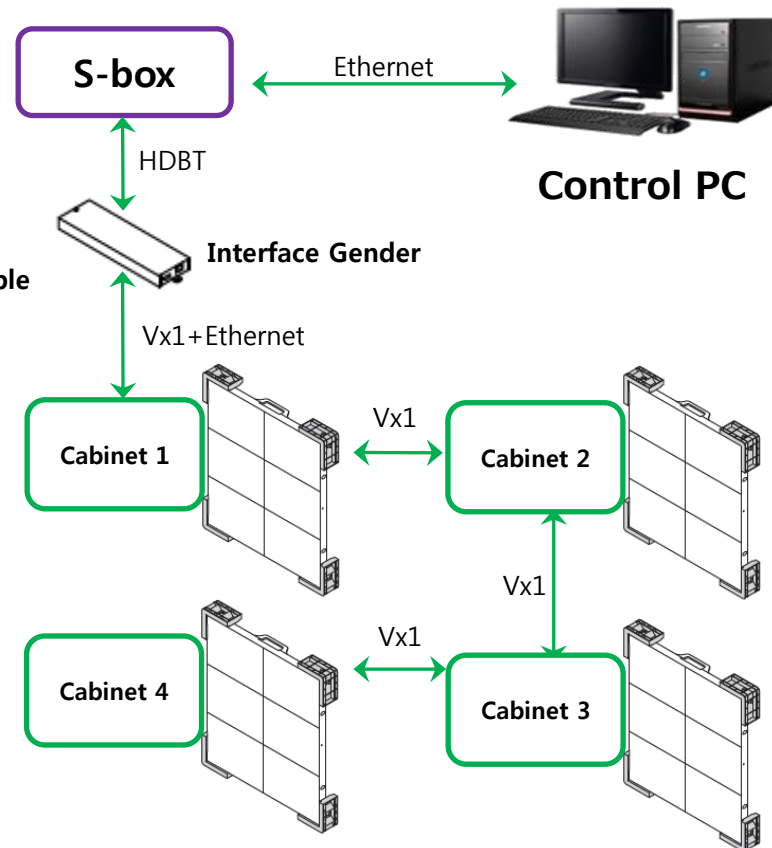
# 6. Settings and How to Use

## 6-1 Control Program for PCs

### LSM(LED Signage Manager)

- Software that adjusts the LED Cabinet Layout in Remote

1. PC and S-box should be connected through Ethernet connection.
2. S-box is connected to Interface Gender using HDB-T Lan Cable
3. Interface Gender is connected to the first LED Cabinet using OCM cable
4. LED cabinets are connected in daisy chain method using OCM cable.

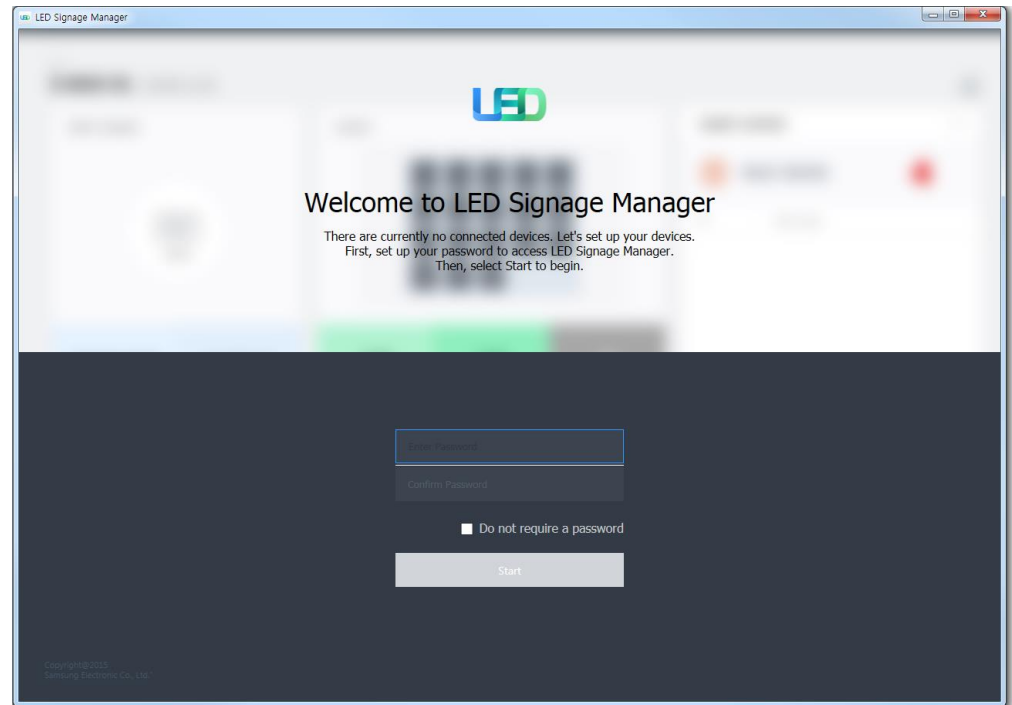


## 6-1 Control Program for PCs

### LED Signage Manager

#### Start- Login Page

1. If the LSM gets operated for the first time, the page to set the password will appear.
2. To set the password, users have to input the same password two times and then click the "Start" button.
3. If the user does not want to use a password, then please select "Don't use password" option. Then, password input would no longer be required whenever the LSM gets operated.

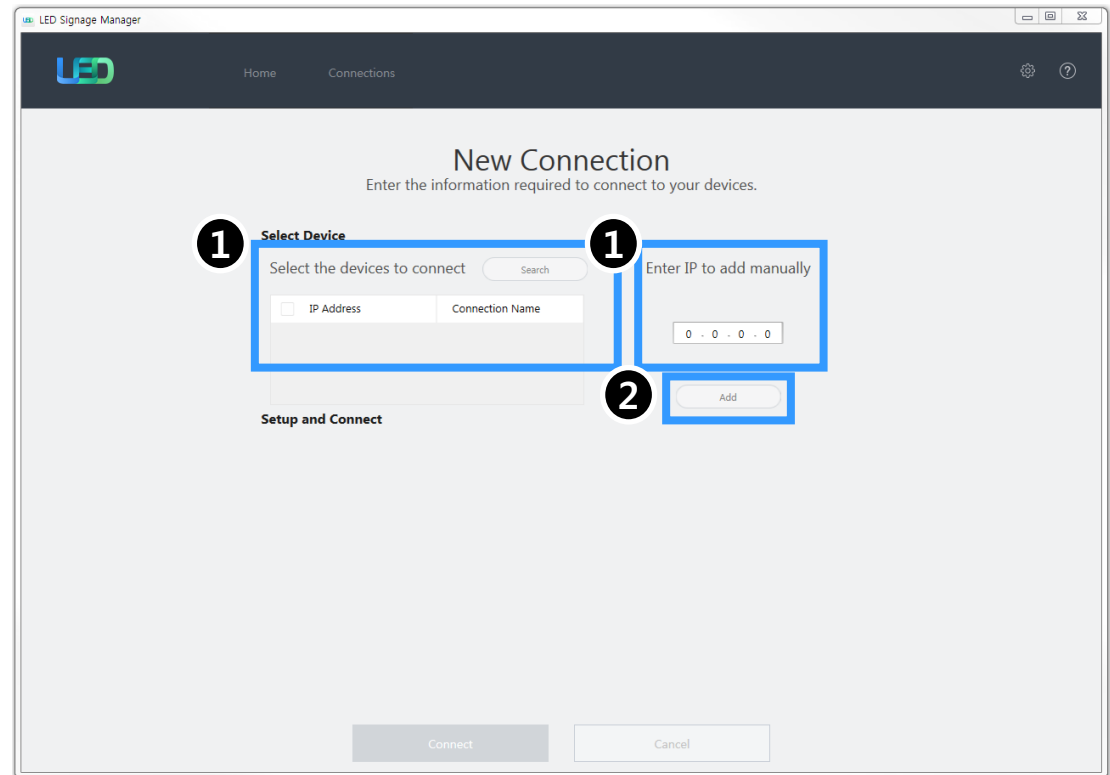


## 6-1 Control Program for PCs

### LSM(LED Signage Manager)

#### New Connection

1. To add connection information, you can either use Search function or input the IP address by yourself. If you click on the Search button, the IP addresses available on S-BOX in the same network will appear. If you know the IP address of the S-BOX, then you can input the address by yourself.
2. If you click Add button, the relevant connection information will be added on Setup and Connect.
3. Users can select the Model Type of S-Box. There are three(3) Model Types (Without Cabinet IP / With Cabinet IP(FHD) / With Cabinet IP(UHD)).



# 6. Settings and How to Use

## 6-1 Control Program for PCs

### LSM(LED Signage Manager)

#### New Connection-Connect

1. When you are using the previous version of S-BOX, select "Without Cabinet IP" option.
2. If you are using UHD S-BOX, select "With Cabinet IP (UHD)" option. You should designate the IP Address of the LED Cabinet by each port. Set the number of units connected, and then click "Connect".
3. If you are using FHD S-BOX, select "With Cabinet IP (FHD)". Set the IP Address and the number of units connected in LED Cabinet, and then click "Connect".

※ If you have already set the IP on the Cabinet, check "Connect with existing settings" option.

※ For the case of UHD, if you are going to use only some of the four(4) ports, input the IP Address only for that particular Group relevant with your use.

**Setup and Connect**

S-Box 192.168.1.1 Enter the number of cabinets. 🗑️

Model Type: Without Cabinet IP ▾  Connect with existing settings

Cabinets: 1  Assign IDs and Positions Automatically

**Setup and Connect**

S-Box 192.168.1.1 Enter the IP Address of each group. 🗑️

Model Type: With Cabinet IP (UHD) ▾  Connect with existing settings

Group 1	IP Address: 0 . 0 . 0 . 0	Cabinets: 1	<input checked="" type="checkbox"/> Assign IDs and Positions Automatically
Group 2	IP Address: 0 . 0 . 0 . 0	Cabinets: 1	<input checked="" type="checkbox"/> Assign IDs and Positions Automatically
Group 3	IP Address: 0 . 0 . 0 . 0	Cabinets: 1	<input checked="" type="checkbox"/> Assign IDs and Positions Automatically
Group 4	IP Address: 0 . 0 . 0 . 0	Cabinets: 1	<input checked="" type="checkbox"/> Assign IDs and Positions Automatically

※ Different setting from S-box IP

※ Same S-box IP

**Setup and Connect**

S-Box 192.168.1.1 Enter the number of cabinets of each group. 🗑️

Model Type: With Cabinet IP (FHD) ▾  Connect with existing settings

Group 1 IP Address: 0 . 0 . 0 . 0 Cabinets: 1  Assign IDs and Positions Automatically

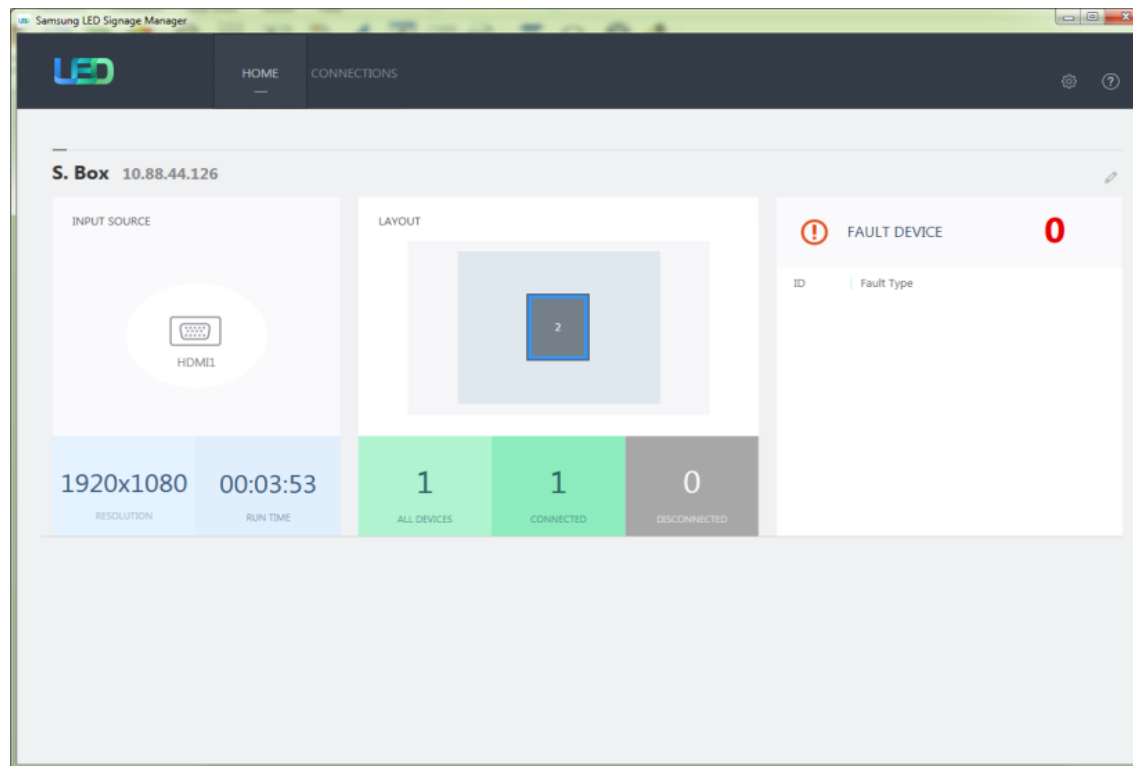
# 6. Settings and How to Use

## 6-1 Control Program for PCs

### LSM(LED Signage Manager)

- Main Window-Home Window

1. Home Screen : Information of the connected device, input source, cabinet composition, and error device are shown.





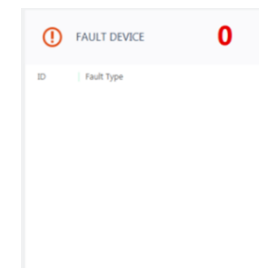
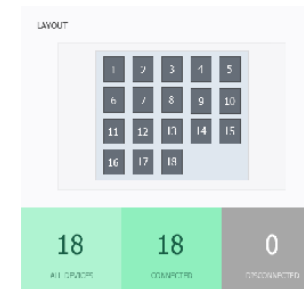
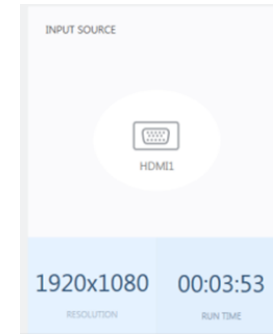
# 6. Settings and How to Use

## 6-1 Control Program for PCs

### LSM(LED Signage Manager)

- **Main Window-Home Window**

1. **Input source:** Input source, resolution, connection time of S-BOX are shown.
  
2. **Cabinet Layout :** Layout, number of units, number of connections and number of disconnections in all LED cabinets are shown.
  
3. **Faulty device:** ID of the LED cabinet in error status and the content of the error are shown.



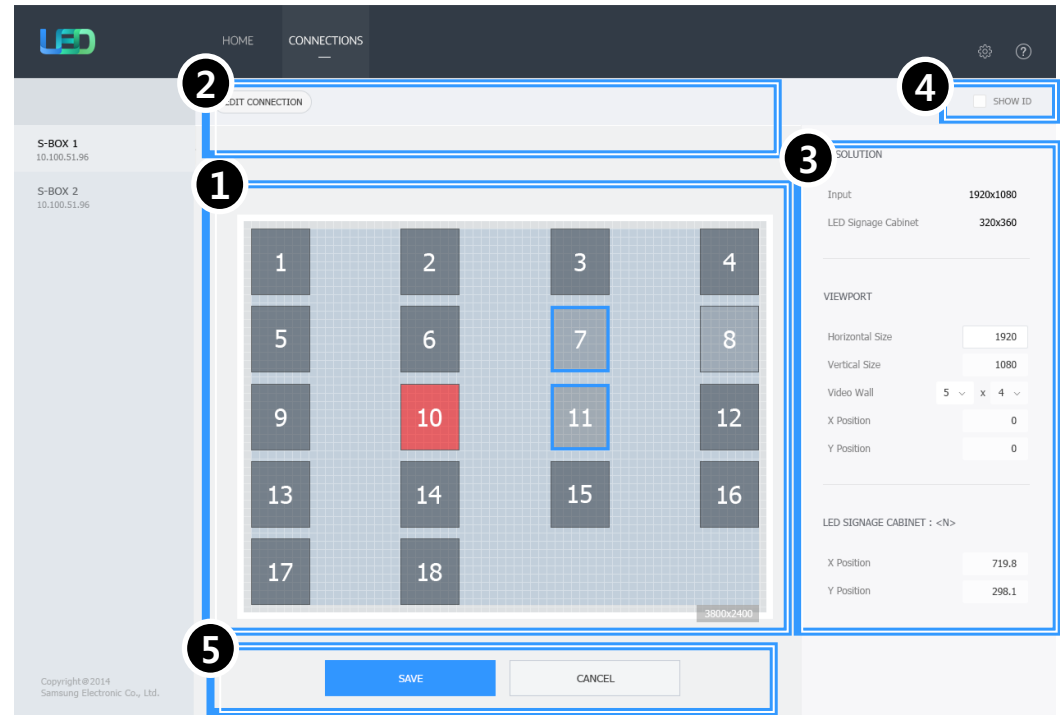
# 6. Settings and How to Use

## 6-1 Control Program for PCs

### LSM(LED Signage Manager)

#### Main Window-Edit Connection Layout Window

1. **Connection layout:** The location and the layout of each LED cabinet are adjusted in the output source area of the S-BOX.
2. **Feature View:** Edit button to modify the connection information and LED cabinet automatic alignment function, etc. are provided.
3. **Device Information/Setting View:** The LED cabinet information is shown for in three different categories below:
  - (i) **Resolution:** Resolution information of the input source
  - (ii) **View Port:** Width/Length size, Video wall matrix, x/y coordinate settings
  - (iii) **LED Signage Cabinet:** x, y location of LED cabinet
4. **Show ID:** IDs of each will be shown in all connected LED cabinets when this option is selected.
5. **Save/Apply and Cancel**



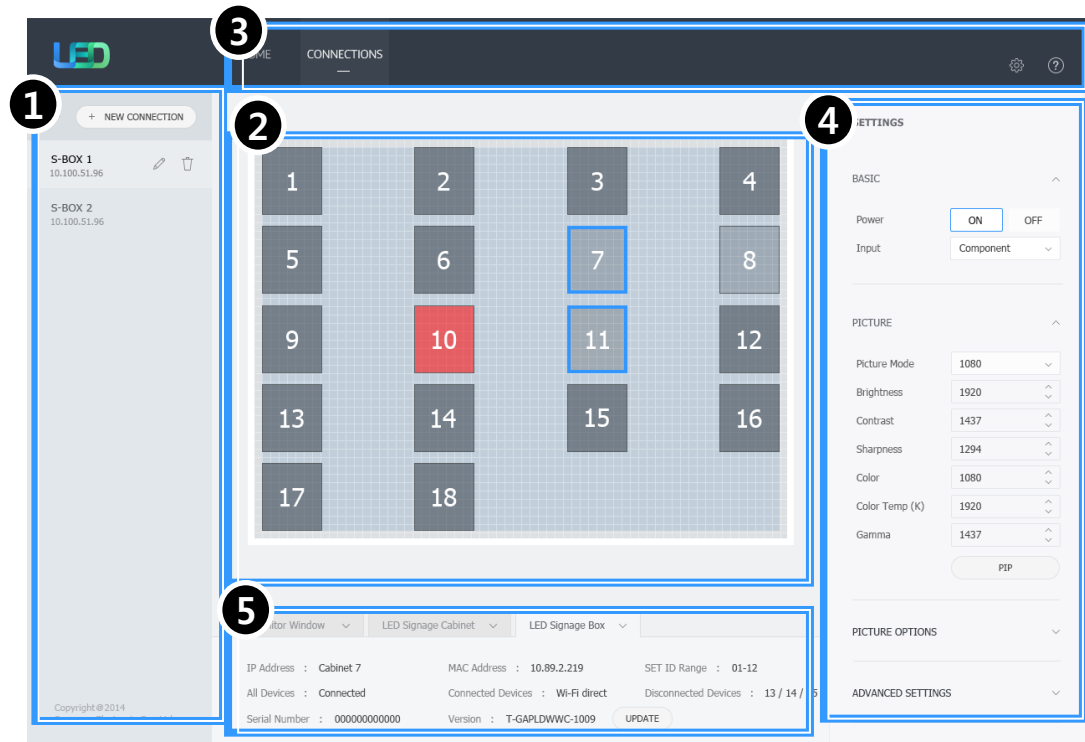
# 6. Settings and How to Use

## 6-1 Control Program for PCs

### LSM(LED Signage Manager)

#### Main Window-Connection Window

1. Device connection list view:  
Check S-BOX composition, modify and delete S-BOX connection, show by each LED Cabinet Group
2. Connection layout (View Port):  
Check the location and layout of each LED cabinet
3. Category View:  
Home / Connections tab and settings
4. Device Information/Setting View:  
Change S-BOX settings (screen settings, etc.)
5. Sub Information View: Displays:  
Monitoring log, S-BOX and LED cabinet information



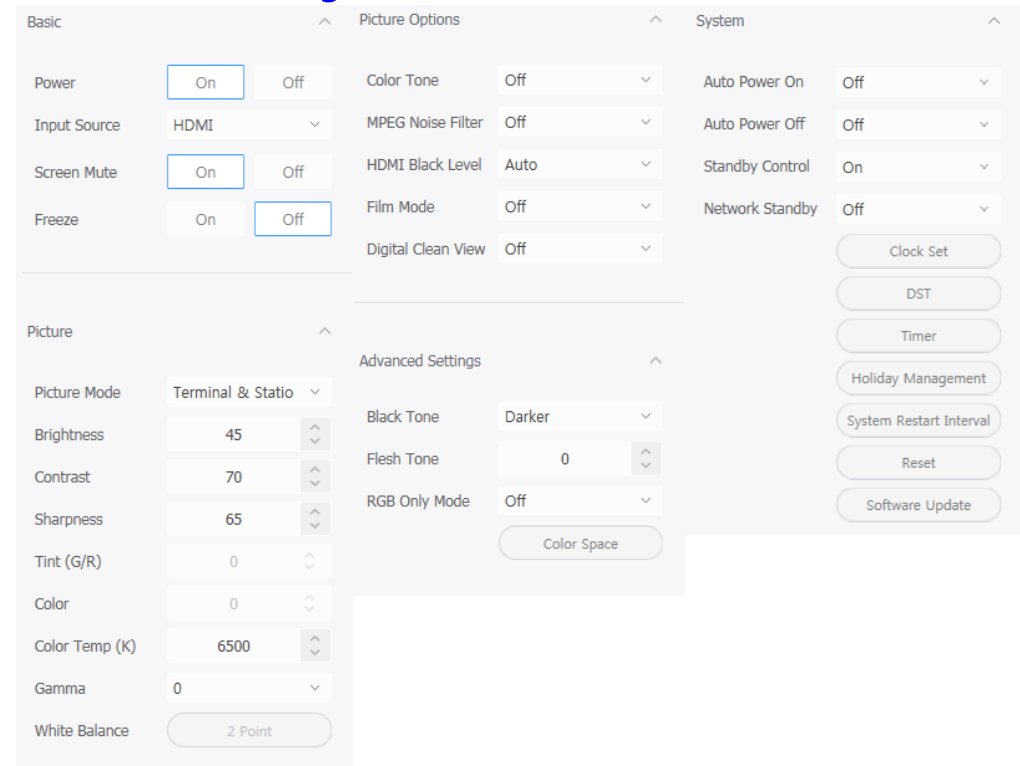
# 6. Settings and How to Use

## 6-1 Control Program for PCs

### LSM(LED Signage Manager)

#### Main Window-Connection Window - Device Information/Setting View

- 1. Basic :**
  - . Power On/Off, Change input source, Screen Mute / Freeze
- 2. Picture**
  - . Change Picture Mode, Brightness / Contrast / Sharpness, Color, Tint(G/R), Color Temp(K), Gamma, White Balance adjustment
- 3. Picture Options**
  - . Color Tone, HDMI Black Level, Film Mode, etc.
- 4. Advanced Settings**
  - . Adjust Black Tone, Flesh Tone, Color Space, etc.
- 5. System**
  - . Auto Power On/Off, Standby Control Clock, Timer, System Restart Interval Software Update function



# 6. Settings and How to Use

## 6-1 Control Program for PCs

### LSM(LED Signage Manager)

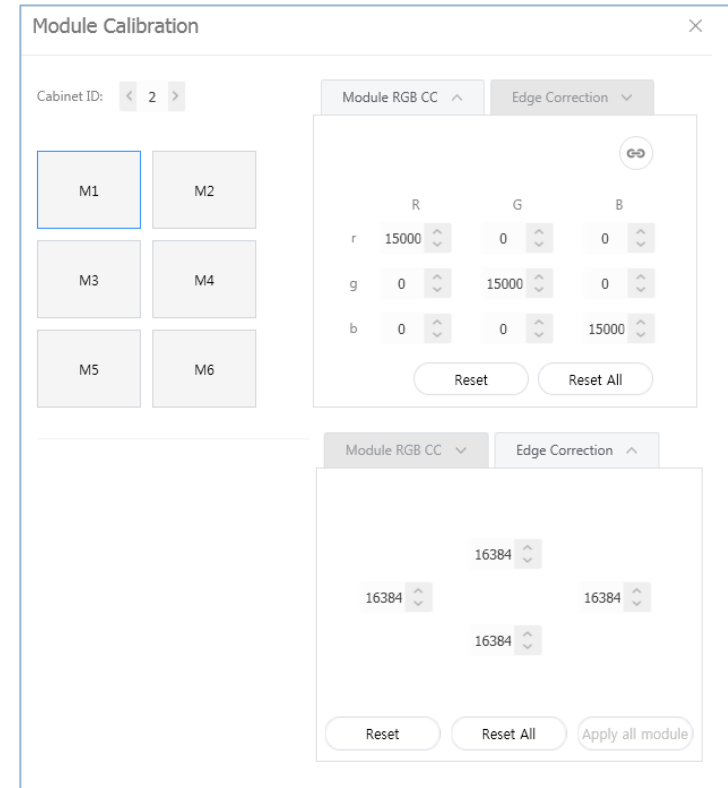
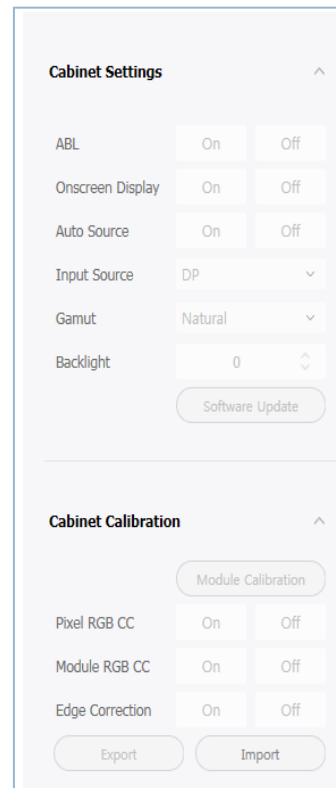
#### Main Window-Connection Window - Device Information/Setting View

##### 6. Cabinet Settings

- . ABL, Gamut, Backlight
- . Software Update function (FPGA, Calibration data, etc.)

##### 7. Cabinet Calibration

- . RGB CC Calibration of each Module
- . Edge Correction of each Module
- . CC On/Off and Edge On/Off
- . Batch Upload/Download of module calibration data available through Import / Export



# 6. Settings and How to Use

## 6-1 Control Program for PCs

### LSM(LED Signage Manager)

#### Main Window-Connection Window - Sub Information View

- 1. Monitor Window:**  
Checking MDC communication log and connected device information available, able to be extracted via file
- 2. LED Signage Cabinet:**  
IC information and Power information of LED cabinet
- 3. LED Signage Box:**  
IP address, MAC address, ID range of LED cabinet, number of LED cabinet (all/connected/not connected), serial number, version information

The image displays three screenshots of the LSM (LED Signage Manager) software interface, illustrating the 'Sub Information View' for different components.

**Top Screenshot: Monitor Window - LED Signage Cabinet**  
This view shows a log of communications. The 'Communications' checkbox is checked, and the 'MDC Commands' checkbox is unchecked. The log contains the following entries:  
[26/06/2015 10.11.42] S. Box(10.88.44.126): Failed to connect.  
[26/06/2015 10.11.42] Connection cancelled.  
[26/06/2015 10.19.51] S. Box(10.88.44.126): ID 2: Power Status - FPGA OK, STM ERROR, PW Detector ERROR, 13V OK, 5V OK, 3.3V ERROR, 1.8V ERROR, 1.2V OK  
[26/06/2015 10.19.51] S. Box(10.88.44.126): ID 2: Temperature - 0(°C)

**Middle Screenshot: Monitor Window - LED Signage Cabinet**  
This view displays the IC and Power information for the LED cabinet. The data is as follows:

IC		Power	
FPGA	: Available	5W	: Available
STM32	: Not Available	3.3W	: Available
Power Detect IC	: Available	1.8W	: Available
		1.2W	: Available

**Bottom Screenshot: Monitor Window - LED Signage Box**  
This view displays the device information for the LED signage box. The data is as follows:

IP Address	: 10.88.44.126	MAC Address	: 90:F1:AA:72:EF:BE	SET ID Range	: 2-19
All Devices	: 1	Connected Devices	: 1	Disconnected Devices	: 0
Serial Number	:	Version	: T-GFSLDWWC-1025.2	[UPDATE]	

# 6. Settings and How to Use

## 6-1 Control Program for PCs

### LSM(LED Signage Manager)

- **Main Window-Preference**

1. **Options**  
number of times the command retried  
interval of checking error status  
alarm temperature warnings
2. **Support**  
program language  
Log data management  
notify device error through Mail  
Password settings option
3. **About Software**  
the current version of LSM and update  
function

The screenshot shows the 'Preferences' window for the LSM control program. It is divided into three main sections: Options, Support, and About Software.

- Options:** Contains settings for Command Retry Count (1), Error Status Interval (30 min), Temperature Alert (checked at 65 °C), and Auto Brightness (Off). There are 'Edit' buttons for Brightness Sensor, Multiple Display ABL, and Location.
- Support:** Contains settings for Language (English), Advance Log Management (checked, Keep log data for 1 day), and Use Password (unchecked). It includes buttons for Log Backup, Delete Log, Change Password, and Mail Server.
- About Software:** Shows the Current Version (A-LEDMGDP-1004.03) and Auto Update (unchecked) with a 'Check for Updates' button. It also has a 'View details' button for the Open Source License.

At the bottom, a disclaimer states: 'This program is protected by copyright laws and international treaties. Unauthorized reproduction or distribution of this program, or any portion thereof, may result in serious civil and criminal penalties.'

# 7. Issue and Solution

## Problem Case 1

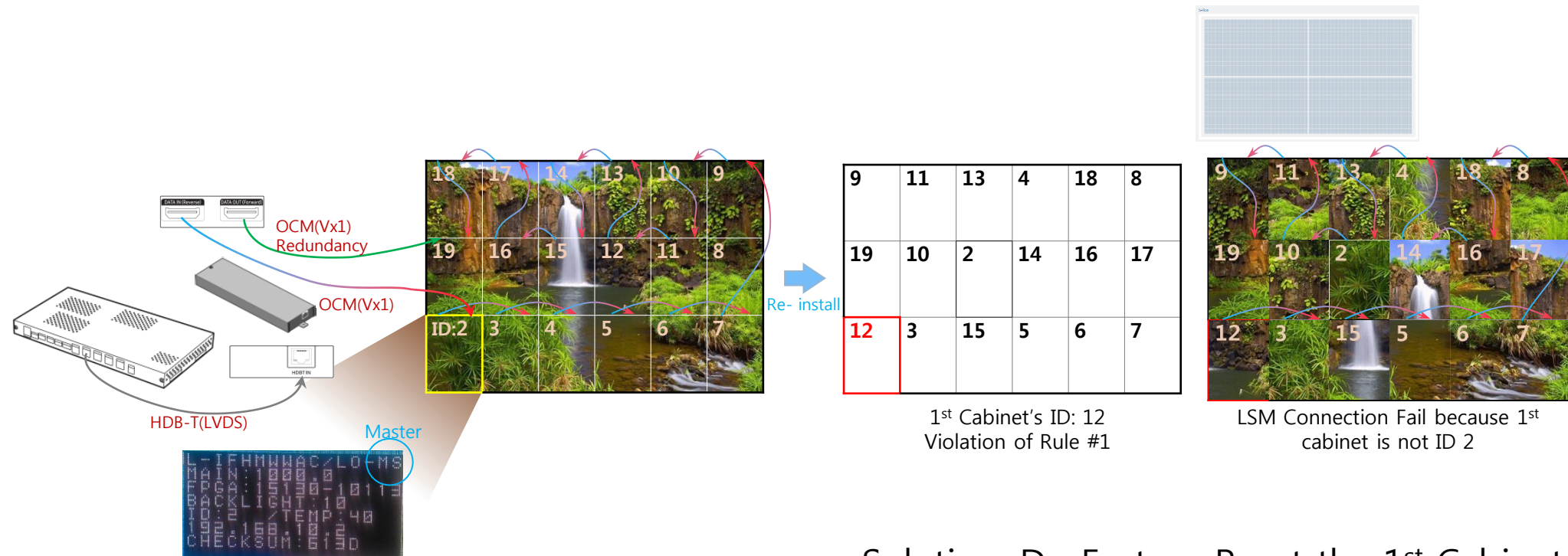
**Rule 1: The 1<sup>st</sup> Cabinet from I/G board must be ID #2 for the LSM Setup**

Rule 2: The 1<sup>st</sup> Cabinet from I/G board must be set as Master. The 2<sup>nd</sup> Master cabinet is not allowed for the LSM connection.

Situation: After changing Main board or Cabinet, If the original Master cabinet is move the other place,

LSM configuration will be fail because of violation of rule 1.

during the LSM setup it cause a network fail because the 1<sup>st</sup> cabinet is not ID #2.



Solution: Do Factory Reset the 1<sup>st</sup> Cabinet



# 7. Issue and Solution

## Problem Case 1

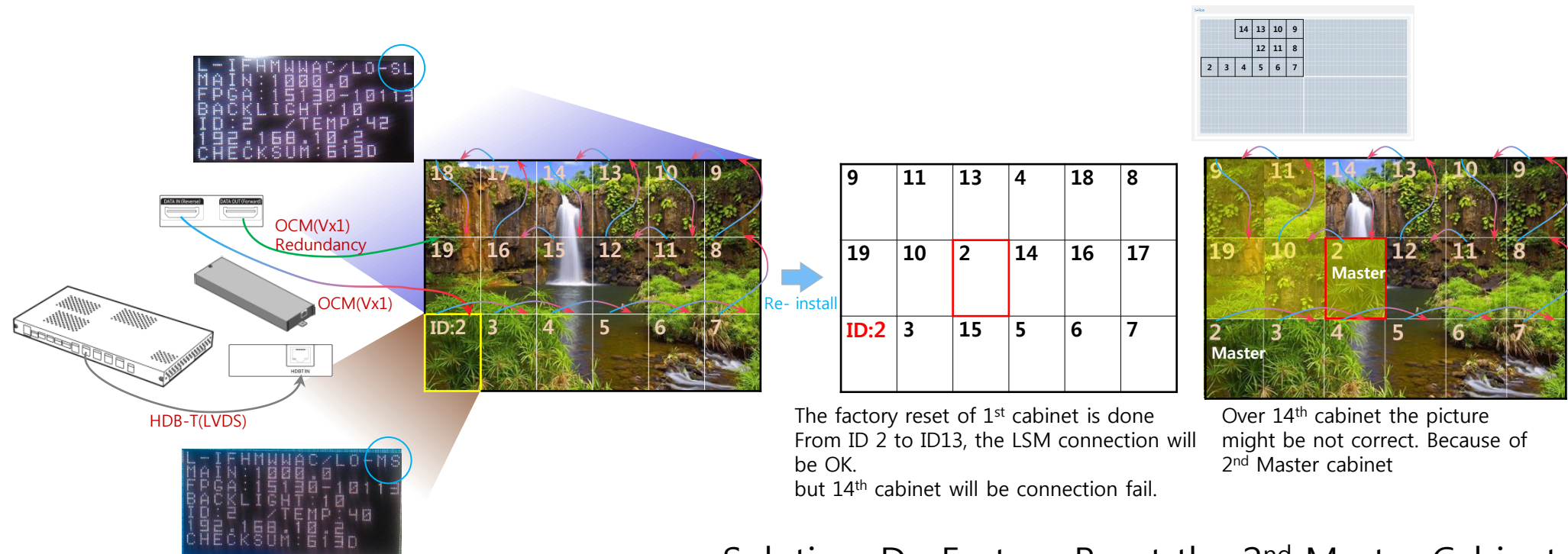
Rule 1: The 1<sup>st</sup> Cabinet from I/G board must be ID #2 for the LSM Setup

**Rule 2: The 1<sup>st</sup> Cabinet from I/G board must be set as Master. The 2<sup>nd</sup> Master cabinet is not allowed for the LSM connection.**

Situation: After changing Main board or Cabinet, If the original Master cabinet is move to slave cabinet area.

Although the 1<sup>st</sup> cabinet is set as a Master after doing factory reset, LSM configuration will be still fail

because of violation of rule 2. LSM setup can be start, but can't be complete because of the 2<sup>nd</sup> Master cabinet.



Solution: Do Factory Reset the 2<sup>nd</sup> Master Cabinet

# 7. Issue and Solution

## How to do Factory Reset

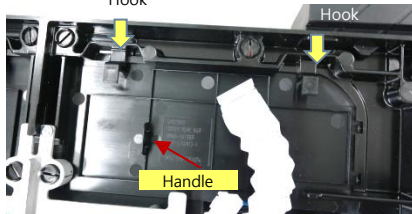
After checking cable connection order, the cabinet which is not display the proper picture position will be Wrong positioned Master cabinet. In this case, Do factory reset to change to slave cabinet . Refer the below guide to do factory reset in front side and backside.

The 1<sup>st</sup> cabinet is not ID number 2. Because all cabinets connection are failed.



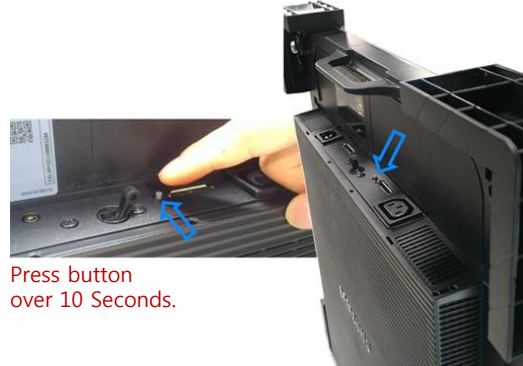
The 14<sup>th</sup> cabinet which is displaying the not proper picture position might be wrong positioned Master cabinet.

Hook



Press hook unlock cover

### Factory Reset in back side

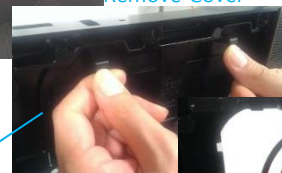


Remove module in the front



### Factory Reset in front side

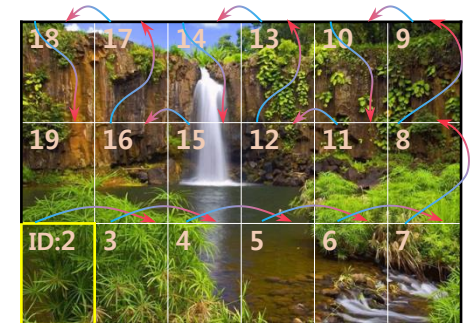
Remove Cover



Do Factory Reset



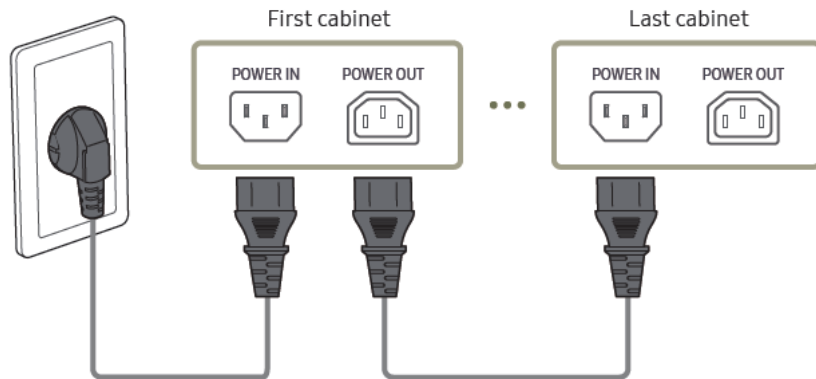
Set LSM again.



# 8. Cable/Power Connection

## 8-1 Cable Connection


- If using 110V, you can connect at most three IF015H/IF020H devices. To use IF025H devices with the same voltage, connecting a maximum of four devices is recommended.
- If using 220V, you can connect at most 4 IF015H/IF020H/IF025H devices.
- Exceeding the recommended maximum number of devices can cause the circuit breaker of the product to trigger due to overload
- The Label info which is attached behind product shows rated power of cabinet and rated current of outlet.



**SAMSUNG** Color Display Unit  
Type No.: LH015IFHS

Model / MODELE NO / Modelo.: IF015H  
Model Code : LH015IFHSAS/ZA


USA/CANADA : AC100-240V~50/60Hz 6.0A  
MEXICO : 100-240V~50/60Hz 600W 6.0A  
Consumo de energía en operación(Wh) : n/a  
Consumo de energía en modo de espera(Wh) : n/a  
OUTLET : 4.0A



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.


CAN ICES-3 (A) / NMB-3 (A)  
MFD./FABRIQUE: APRIL 2017  
MADE IN KOREA(SEC)  
FABRIQUE AU CORÉE(SEC)  
HECHO EN COREA(SEC)

S/N / Serie No :\*\*\*\*\*Z



**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN

**WARNING :** TO PREVENT FIRE OR SHOCK HAZARD  
DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE  
**AVIS :** RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR



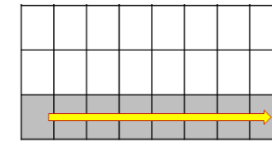
Version No : XXXX

# 8. Cable/Power Connection

## 8-2. The caution for Cabinet installation and Cable connection(Full Front)

- 1) The set installation order Must be Left -> Right direction. Because The structure of Wall mount hole for cabinet installation is downward diagonal direction.

→ The set installation order and The cable connection order are different.



- 2) After installing cabinets one line is complete, make sure the connection is OK by connecting OCM/Power cable. Then, Install next line.



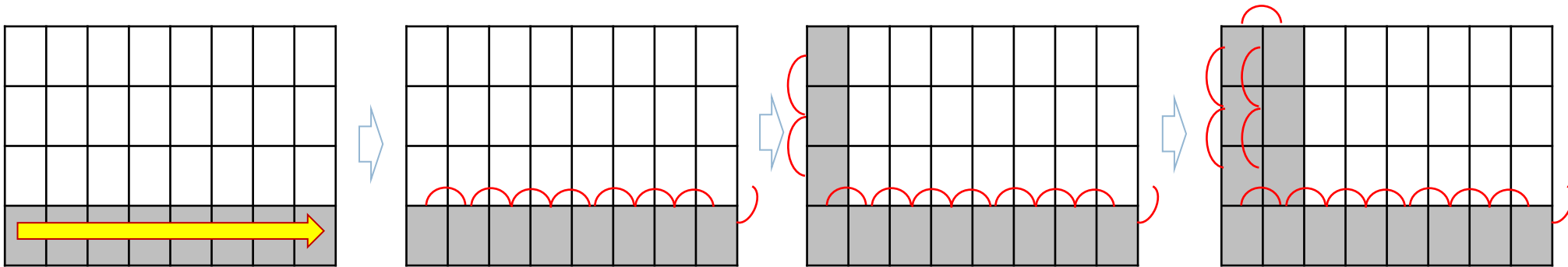
- 3) In case of connecting OCM cable upward, Connect OCM cable to Lower set first.

- 4) The two output of Interface gender should be connected to First cabinet and Last cabinet each  
→ Interface Gender should be installed at Left-Center side of LED wall (refer to page13)  
(Within 2~4M compared to first and last cabinet for connecting OCM cable)

# 8. Cable/Power Connection

## 8-3 The direction for Cabinet installation

- 1) Installation of First row cabinet starts at the bottom of Left-end.
- 2) After installing cabinets one line is complete, make sure the connection is OK by connecting OCM/Power cable. Then, Install next line.
- 3) From Second row, it starts from bottom to top.



1) 1<sup>st</sup> row :  
Install set form Left-end

Check Gap between module  
inside cabinet

2) Connect  
Power/Signal Cables

3) 2<sup>nd</sup> row :  
Bottom to top

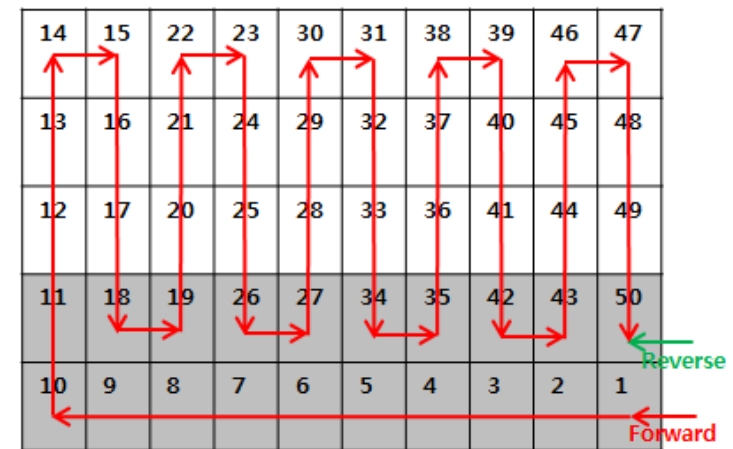
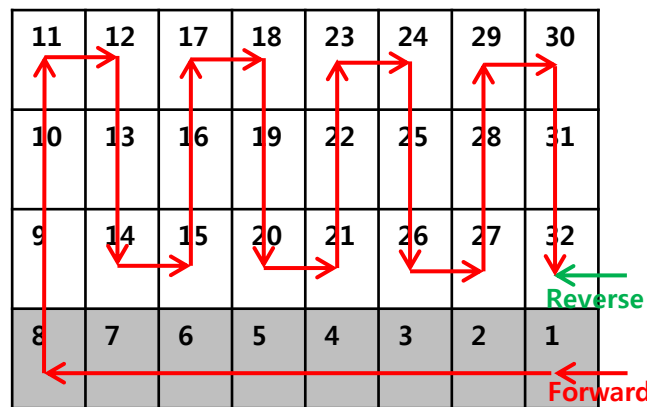
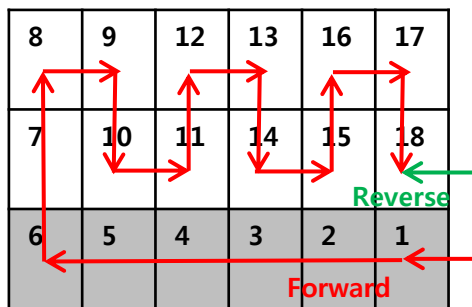
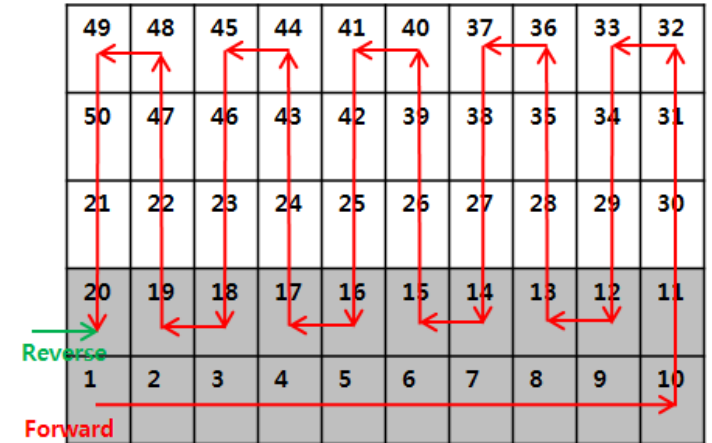
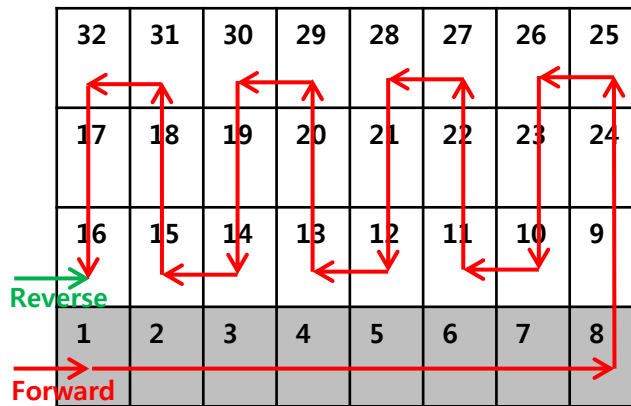
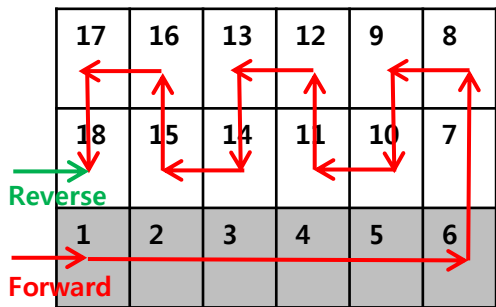
Check Gap between cabinets and  
whether installed in a straight direction.

4) Same way

# 8. Cable Connection

## 8-4 Cable Connection : Data flow standard

◎ Connect OCM cable Forward direction



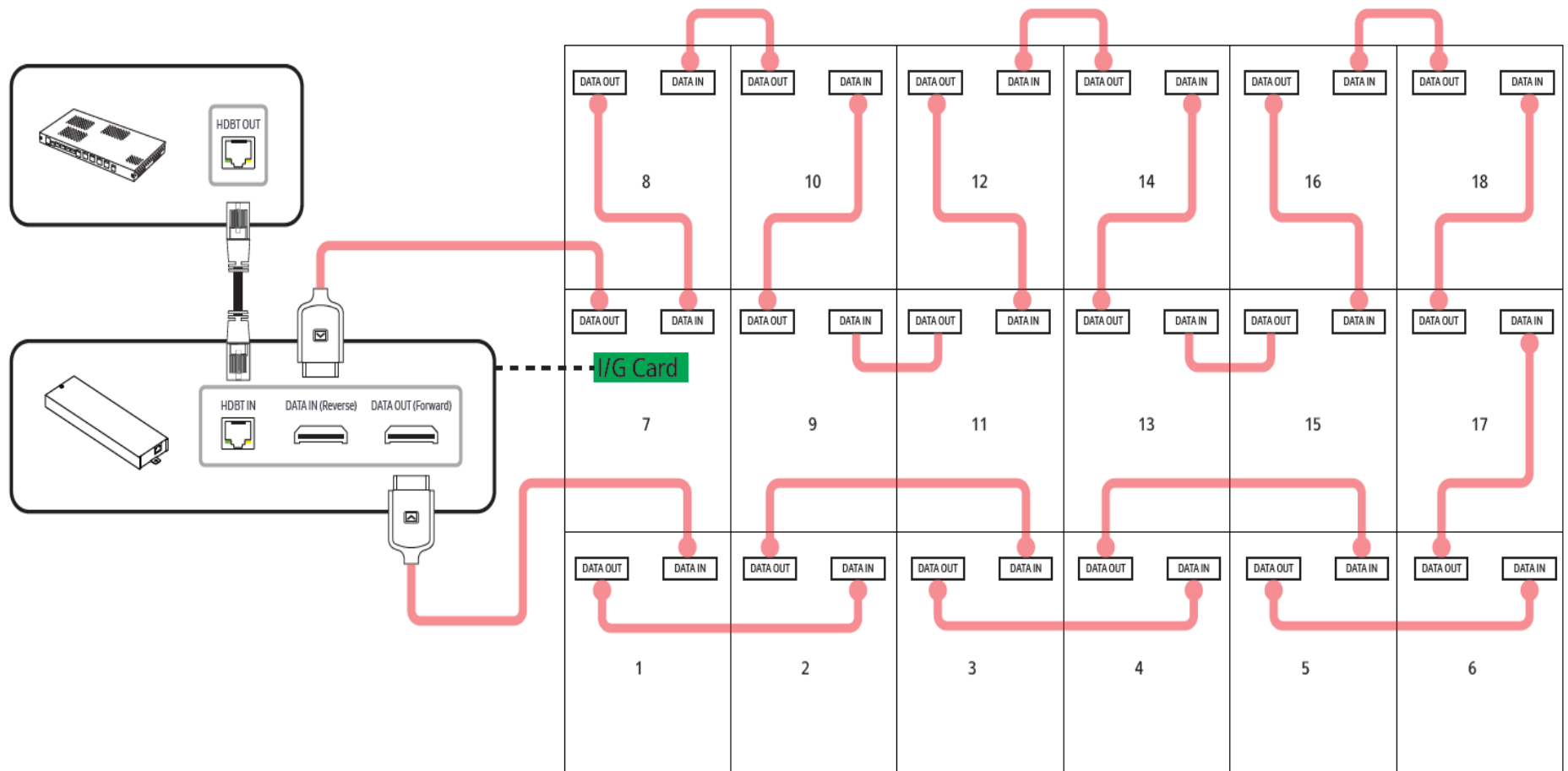
P1.5 FHD

P2.0 FHD

P2.5 FHD

## 8-5 Cable Connection : OCM cable installation standard

- © Whenever one number of cabinet gets installed, connect necessary cable for each.  
P1.5 FHD

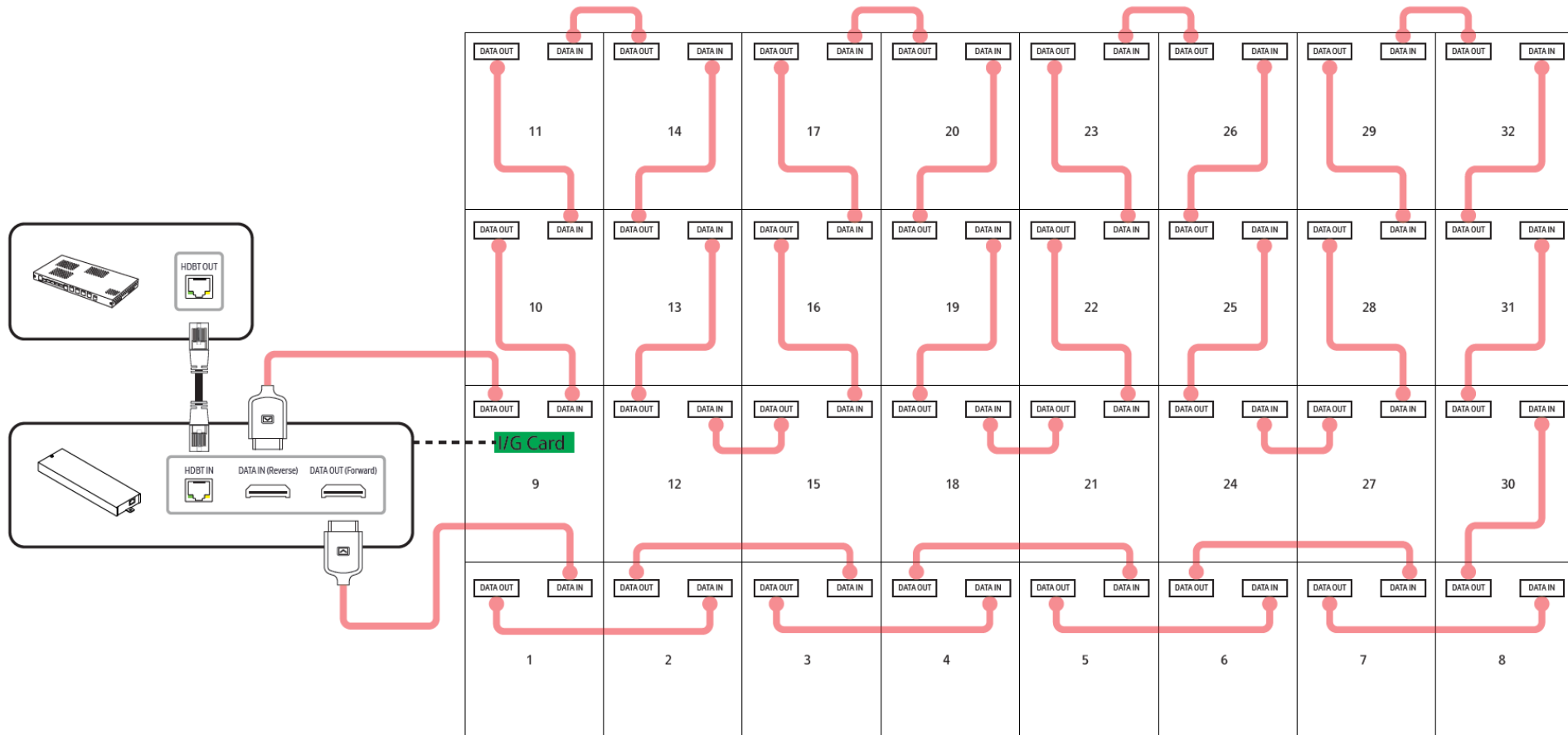


# 8. Cable Connection

## 8-5 Cable Connection : OCM cable installation standard

© Whenever one number of cabinet gets installed, connect necessary cable for each.

P2.0 FHD

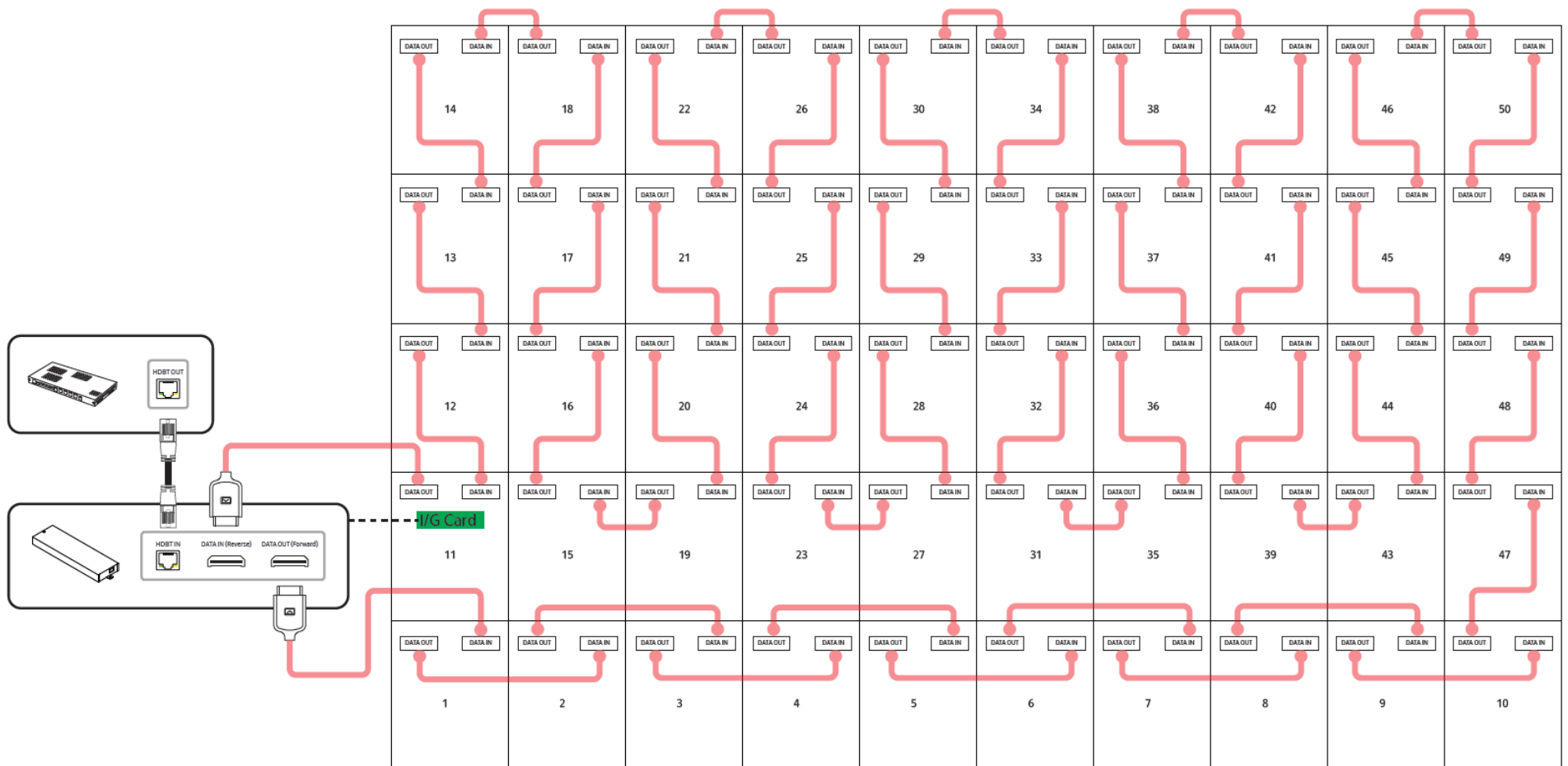




# 8. Cable Connection

## 8-5 Cable Connection : OCM cable installation standard

- © Whenever one number of cabinet gets installed, connect necessary cable for each.  
P2.5 FHD



# 9. Seam Adjustment

## • Check and Adjust Seam

- ① Check whether there is any Black Line between the cabinets in White Screen. (Fig.1)
- ② Check whether gap, differences occur between each module. (Fig.2)
  - ※ Gap: appears as a black line in every direction.
  - ※ Difference: A bright white line occurs in one direction whereas a black line occurs in the opposite direction.
- ③ If gap occurs, use module with hand from the outermost corner.
- ④ If differences occur, disassemble low LED module, and spin the Holder-Magnet using tools to adjust the height.

※ If the Tool spins 0.5 rotation first, and then spins 36 degrees later, the module height will be moved by 0.1mm. (Fig.3)

Black line occurs in white screen

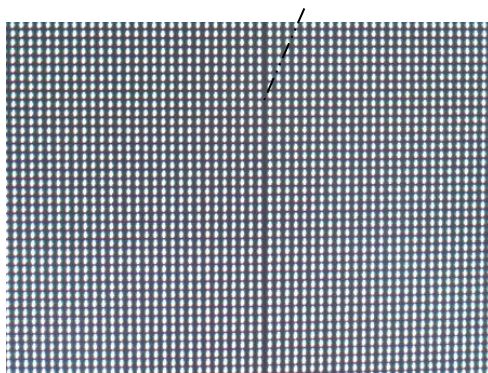


Fig.1 Black line

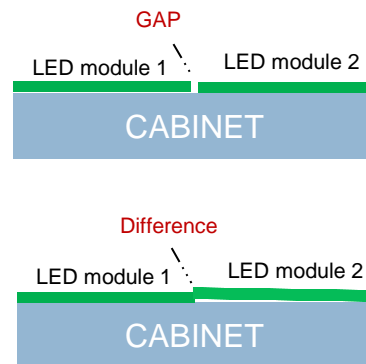


Fig.2 Gap/Difference between Modules

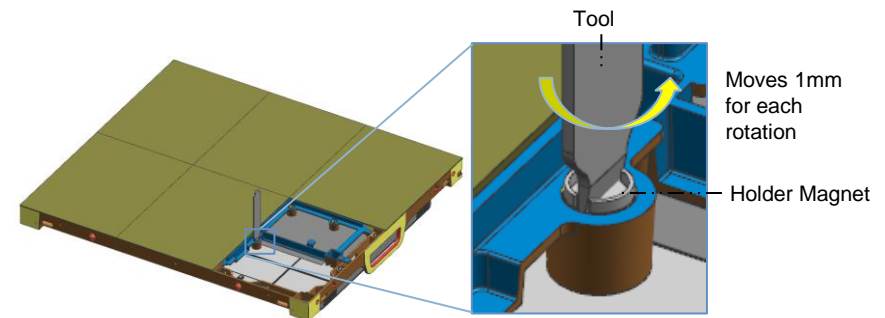
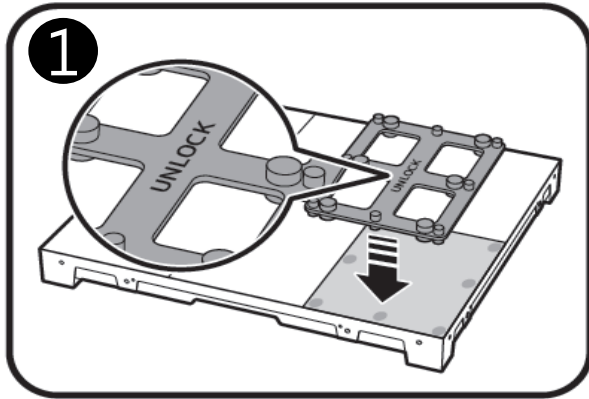


Fig.3 How to adjust Difference

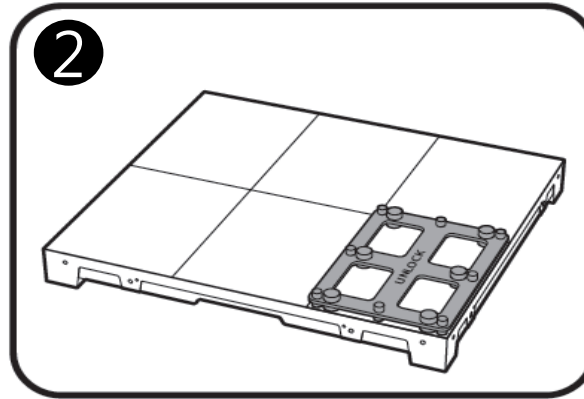
# 9. Seam Adjustment

## • Module Disassembly/Assembly

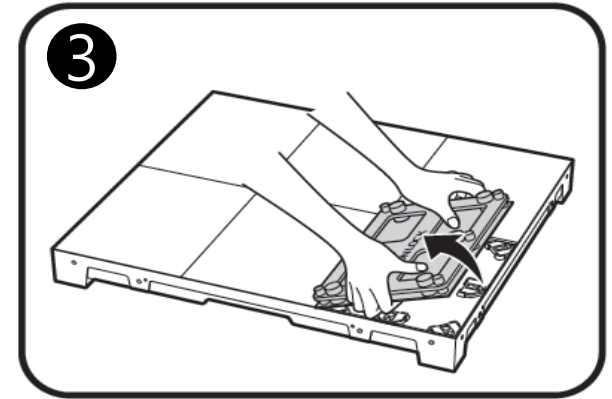
Have the Unlock mark head upwards.



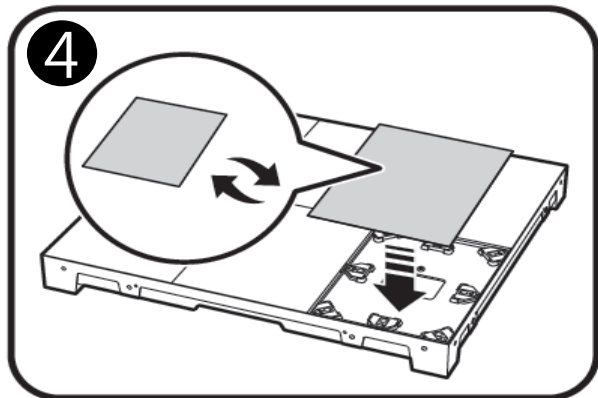
Place to LED module.



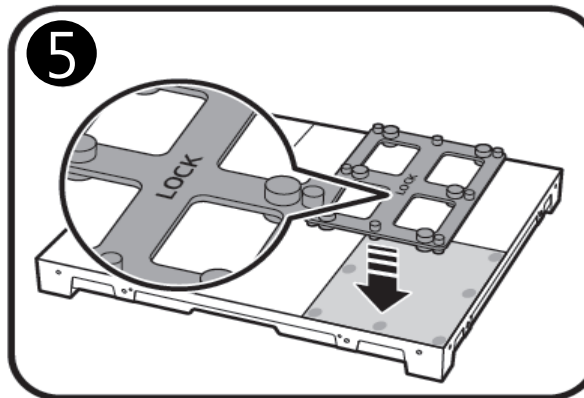
Separate the JIG and module at the same time.



Put the replaced module up on the cabinet.



Have the Lock mark head upwards.



Lock after placing on LED module.

