SAMSUNG

User Manual

Frame KIT

VG-LFH15FWA VG-LFH20FWA VG-LFH25FWA

The color and the appearance may differ depending on the product, and the specifications are subject to change without prior notice to improve the performance.

Table of contents

Installing Frame KIT

Installing Frame KIT

Checking the Components

– Contact the vendor where you purchased the product if any components are missing.

– The pictures may look different from the actual components.

– One additional ASSY BRACKET CENTER is provided as spare.

* ASSY SLIDING SCREW is supplied as a component of the SAMSUNG LED Signage product.
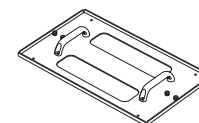
Components

ASSY BRACKET SIDE
(2 EA)

ASSY BRACKET MIDDLE
(VG-LFH15FWA: 4 EA /
VG-LFH20FWA: 6 EA /
VG-LFH25FWA: 8 EA)

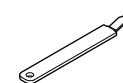ASSY BRACKET CENTER
(2 EA)

ASSY BRACKET JIG
(2 EA)

ASSY ANCHOR SCREW
(M5, L65)
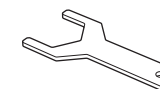(VG-LFH15FWA: 32 EA /
VG-LFH20FWA: 50 EA /
VG-LFH25FWA: 72 EA)

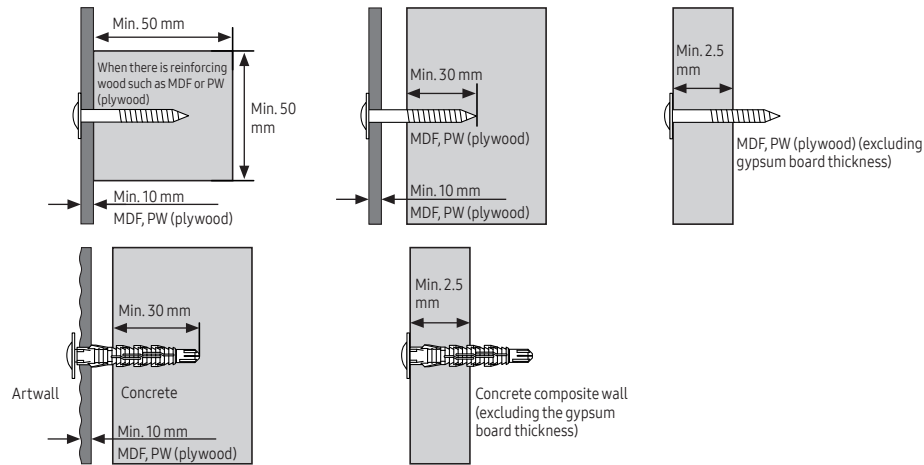*ASSY SLIDING SCREW

Service JIG

Frame KIT Installation Guide

Wrench

Checking the wall when screwing is used
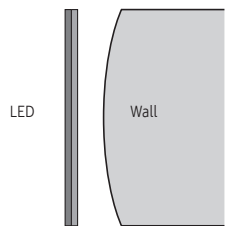
Standard Installation Requirements by Wall Type

⚠ Check the wall type before installing.

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

Min. 50 mm

When there is reinforcing wood such as MDF or PW (plywood)

Min. 50 mm

Min. 10 mm
MDF, PW (plywood)

Min. 30 mm

MDF, PW (plywood)

Min. 10 mm
MDF, PW (plywood)

Min. 2.5 mm

MDF, PW (plywood) (excluding gypsum board thickness)

Artwall

Min. 30 mm

Concrete

Min. 10 mm
MDF, PW (plywood)

Min. 2.5 mm

Concrete composite wall (excluding the gypsum board thickness)
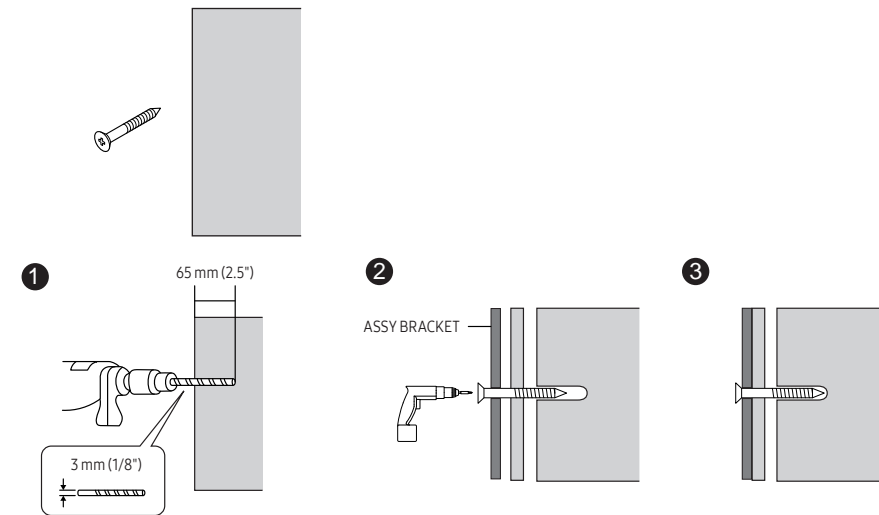
‒ MDF = Medium Density Fiberboard

PW = Plywood

- First, check the wall conditions (type, thickness, and floor plan).
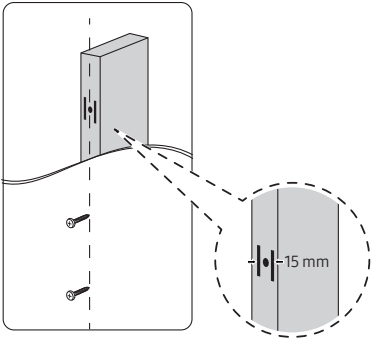 If the wall surface is not completely flat, gaps may form after installation.

LED

Wall

1. Walls made of thick enough concrete

Wall

ASSY ANCHOR SCREW

❶ 65 mm (2.5")

9 mm (3/8")

❷   ❸   ❹   ❺

ASSY BRACKET
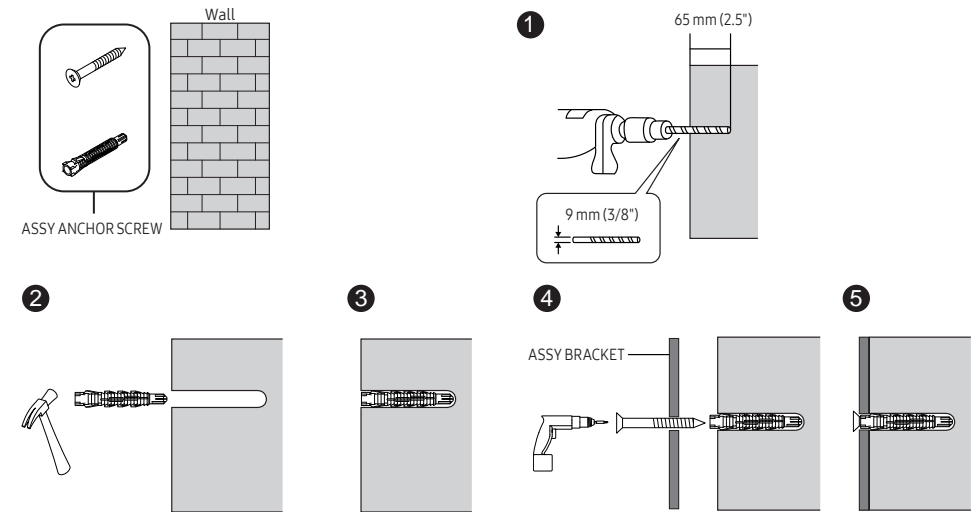
2. Walls made of gypsum board with wood studs or MDF

❶ 65 mm (2.5")

3 mm (1/8")

❷ ASSY BRACKET   ❸

Installation Requirements

- Be sure to check the location of wooden studs in the wall before installing screws.
- Minimum wood stud size: 51 × 102 mm (2 × 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.

15 mm

Installing Frame KIT

- The installation instructions are given based on the VG-LFH15FWA model. Apply them correctly according to your model.
- Check the product model as well as the enclosed user manual for each product and check that the wall allows mounting.
  - Be sure the wall is stable. If the wall is weak, reinforce it before installation.
  - If the wall is not cement, check with a specialist to determine whether the product may be installed on it.
  - Consult an expert installer if you do not have any background knowledge about the wall you want to install the product on.

- To maintain product performance and prevent malfunctions, do not install in the following locations.
  - Places where there is a risk of vibration or shock: The product may fall and be damaged.
  - Next to a sprinkler sensor: When the sensor detects any heat from the product, the sprinklers may get activated.
  - Near high-pressure cables: The product may get interfered by high-pressure cables. In this case, the screen may not display correctly.
  - Near heaters: The product may become overheated and malfunction.
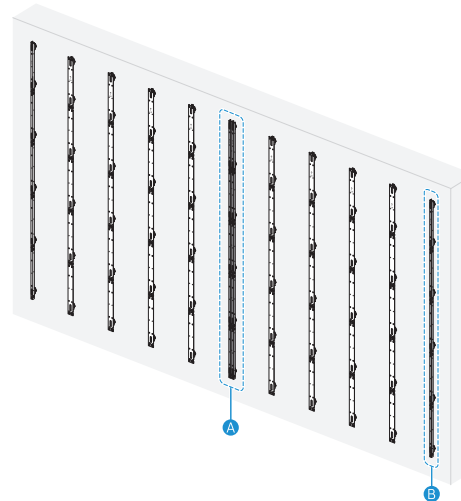
Basic installation examples by model

VG-LFH15FWA: 6 × 3
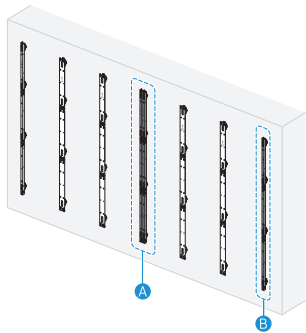
VG-LFH20FWA: 8 × 4
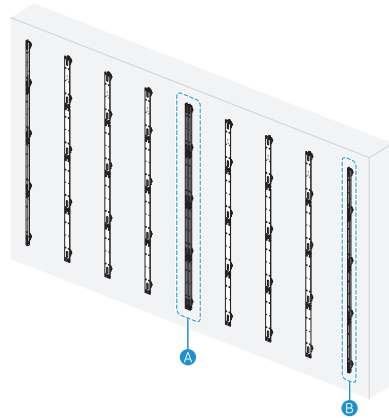
VG-LFH25FWA: 10 × 5

- Cabinet installation layout and screen size by Frame KIT model

Frame KIT model	Cabinet installation layout	Screen size (mm)
VG-LFH15FWA	6 × 3	2880 × 1620
VG-LFH20FWA	8 × 4	3840 × 2160
VG-LFH25FWA	10 × 5	4800 × 2700

  - When installing 2 or more Frame KITs to extend the cabinet installation layout, install them with Ⓐ ASSY BRACKET CENTER instead of Ⓑ ASSY BRACKET SIDE.
  When extending the cabinet installation layout, refer to the figures in **Basic installation examples by model**.

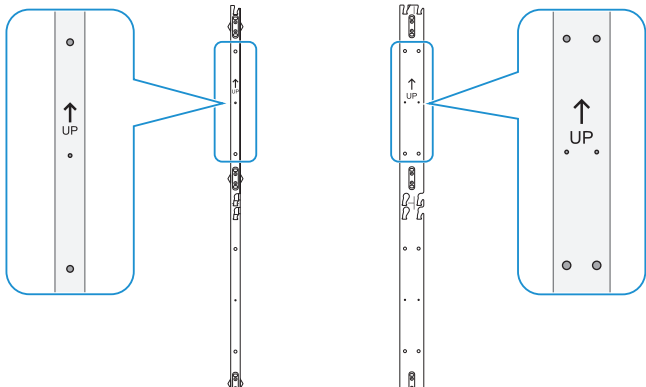1. Install ASSY BRACET SIDEs sequentially from the left.
    - Align each ASSY BRACET SIDE vertically using a vertical leveler, and then fasten ASSY ANCHOR SCREWs in order of 1 → 2 → 3.
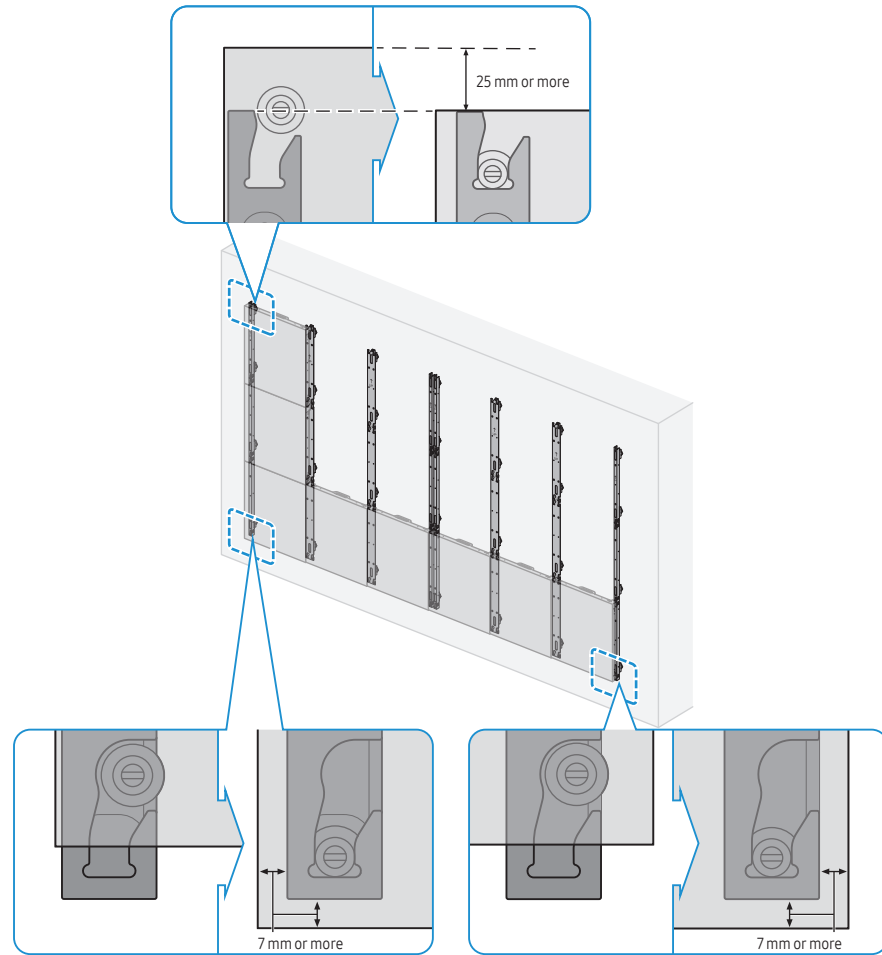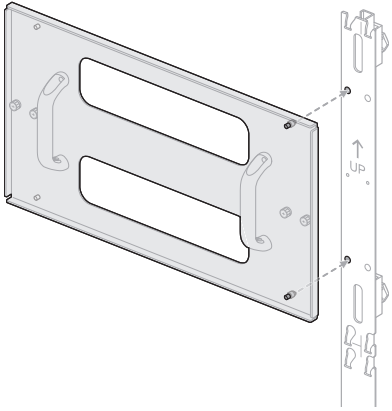

Fastening hole

Spare hole
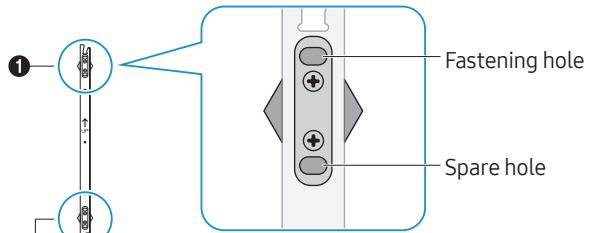
- Install ASSY BRACKET with the arrow pointing upward.

UP

UP

- Assemble the frame kit in a diagonal sliding direction. For ease of assembly, be sure to give a gap of over 7 mm.

25 mm or more

7 mm or more

7 mm or more

7

2. Insert ASSY BRACKET JIG into the ASSY BRACKET MIDDLE hole to which the JIG will be fixed.

3. Secure ASSY BRACKET JIG to the holes on ASSY BRACKET already installed, and then fasten the screws on ASSY BRACKET JIG.
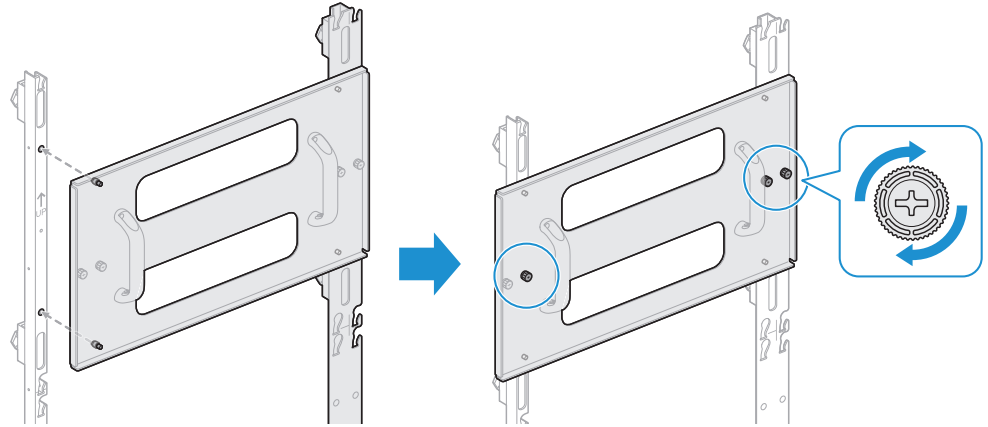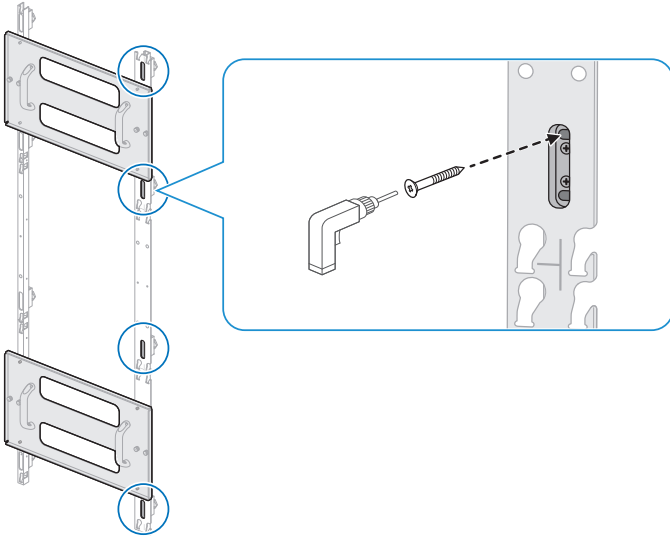

- Number of fastening screws on ASSY BRACKET JIG by ASSY BRACKET
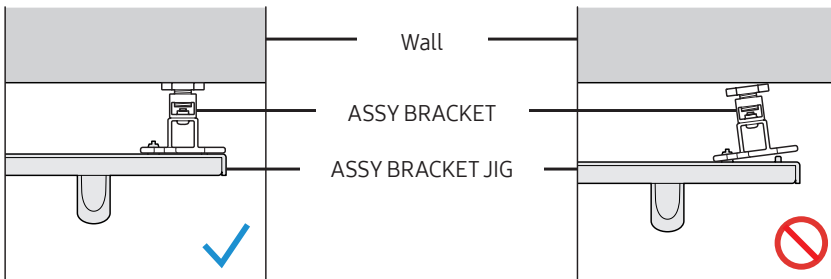
ASSY BRACKET SIDE	1 EA
ASSY BRACKET MIDDLE	2 EA
ASSY BRACKET CENTER	

4. Fasten the screws on ASSY BRACKET MIDDLEs according to the screw fastening order.

― When installing Frame KIT, keep ASSY BRACKET JIG and ASSY BRACKET parallel.

Wall

ASSY BRACKET

ASSY BRACKET JIG

**5.** Remove ASSY BRACKET JIG, and then install the remaining ASSY BRACKETs in the same way as Step 2.

- Install from left to right.
― Install ASSY BRACKET CENTER at the center of Frame KIT.
- When installing three or more ASSY BRACKETs, adjust their levels because they may be distorted by walls or structures.
― After installing three or more ASSY BRACKETs, place another ASSY BRACKET horizontally on them and measure if there is a height difference among them. If a height difference is found, adjust the Z-Bolt heights of ASSY BRACKETs to make them level with each other.
― For adjusting the heights, see **Adjusting the Frame Z-Bolt height** on page .

Positions for measuring level: Near each screw fastening part

Wall

Wall

Wall
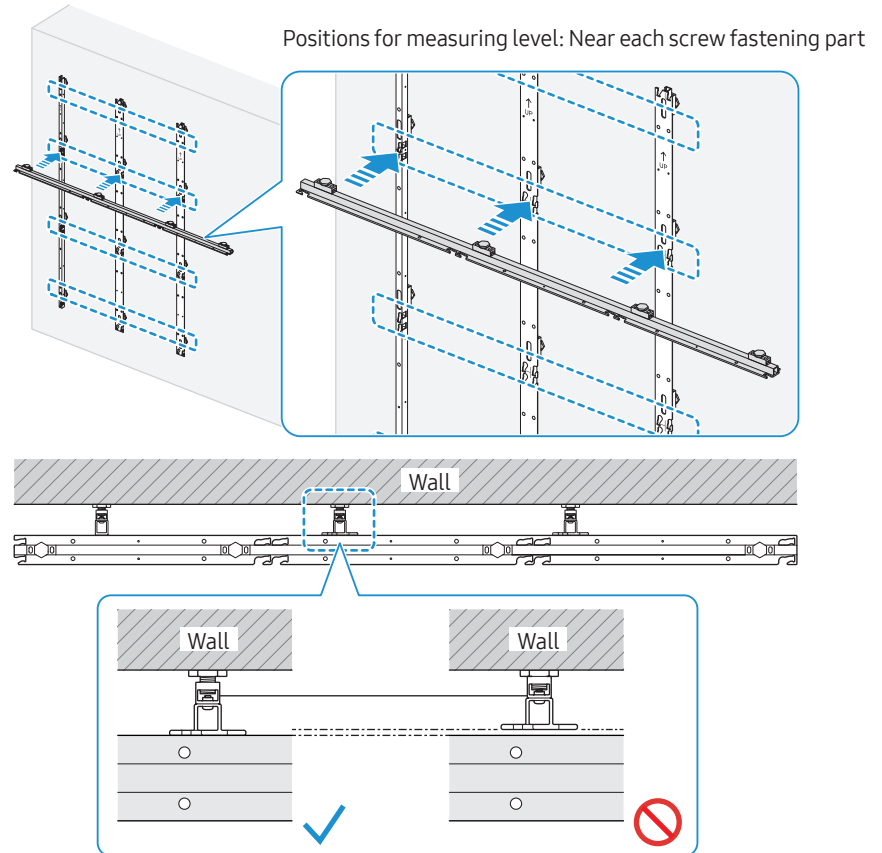
6. After installing ASSY BRACKET CENTER, install cabinets on the bottom line.
 – For information about installing cabinets, see Installing a cabinet onto Frame KIT on page .
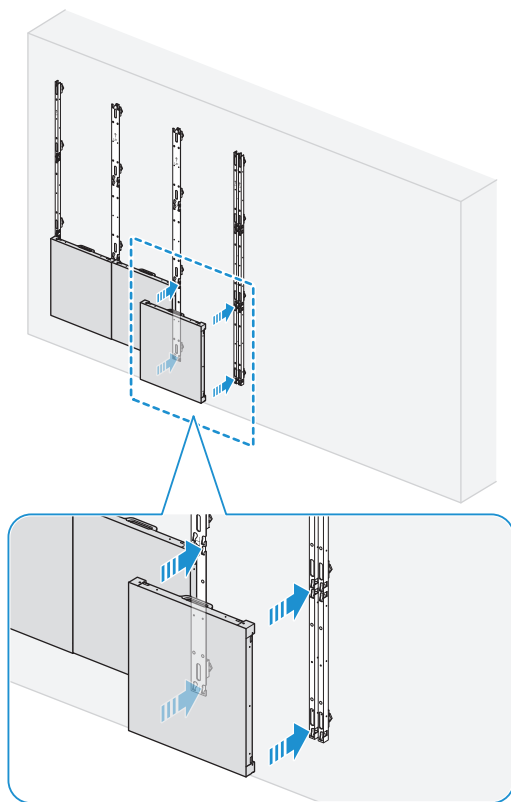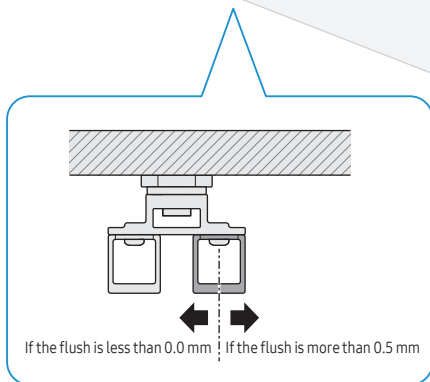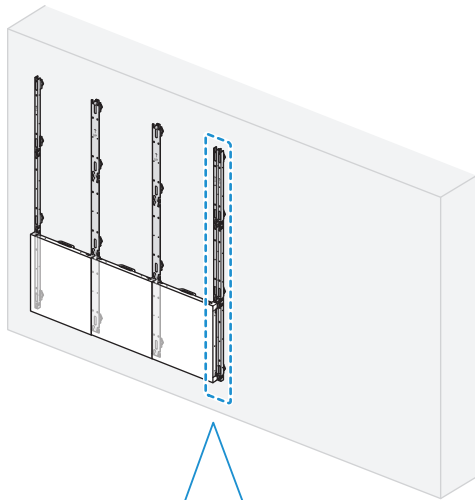

7. When the cabinet installation is finished, slide the LED modules toward the center and check the flushes between the cabinets and the LED modules at both ends.

Flush   Flush
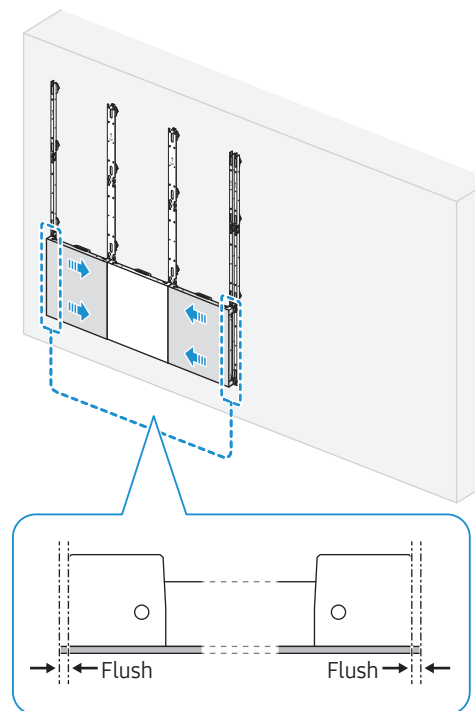
8. Make the left and right flushes equal, and then adjust the flushes according to the following criteria:
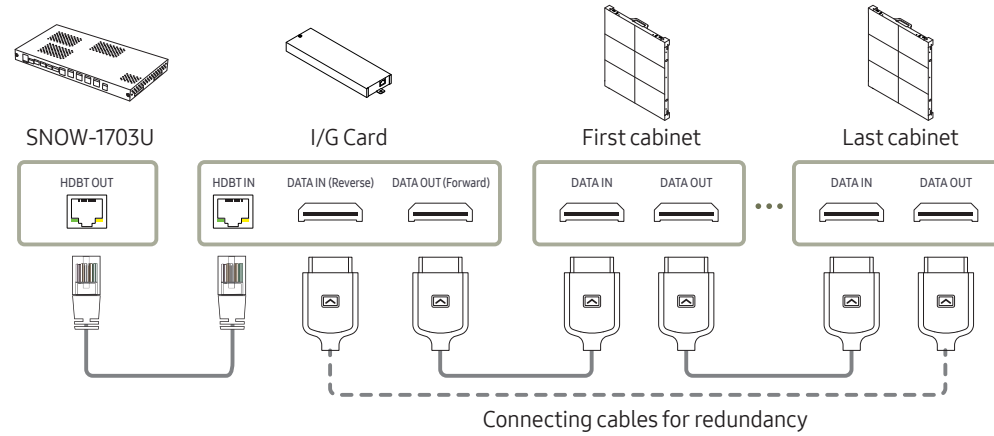- If the flush is more than 0.5 mm, move the Frame outward.
- If the flush is less than 0.0 mm, move the Frame inward.
- Adjust the flush each time you install a cabinet additionally. If the flush is 0.0 to 0.5 mm, you don't need to adjust.
    – Refer to **Adjusting the frame spacing and height** on page .

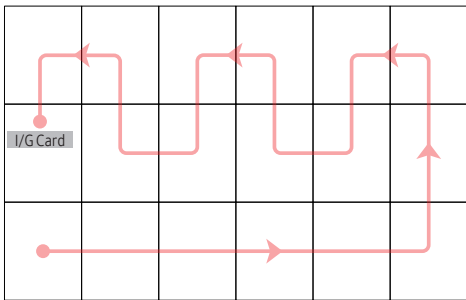If the flush is less than 0.0 mm ┊ If the flush is more than 0.5 mm

9. When the flush adjustment is finished, install the next ASSY BRACKET MIDDLE. For the installation method, refer to Step 2 and the following steps.
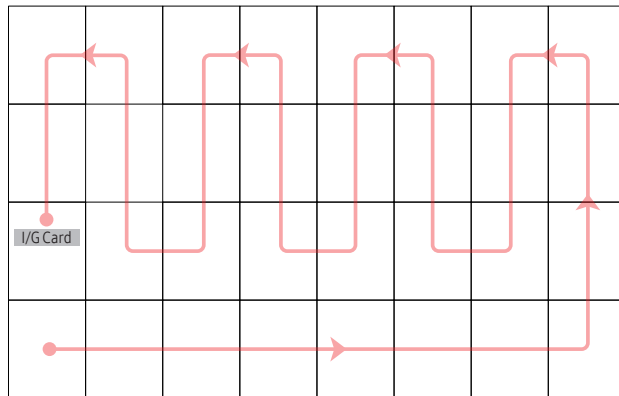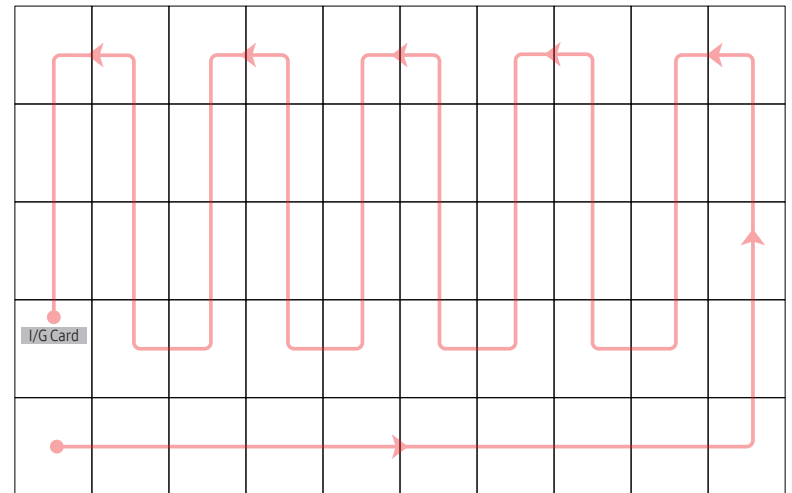- Finally, install ASSY BRACKET SIDE.

Cabinet data flow

SNOW-1703U | I/G Card | First cabinet | Last cabinet

HDBT OUT | HDBT IN | DATA IN (Reverse) | DATA OUT (Forward) | DATA IN | DATA OUT | ... | DATA IN | DATA OUT

Connecting cables for redundancy

VG-LFH15FWA: 6 × 3

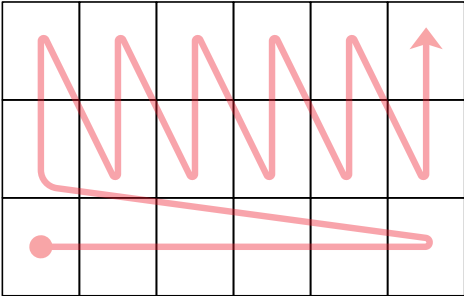I/G Card

VG-LFH20FWA: 8 × 4

I/G Card

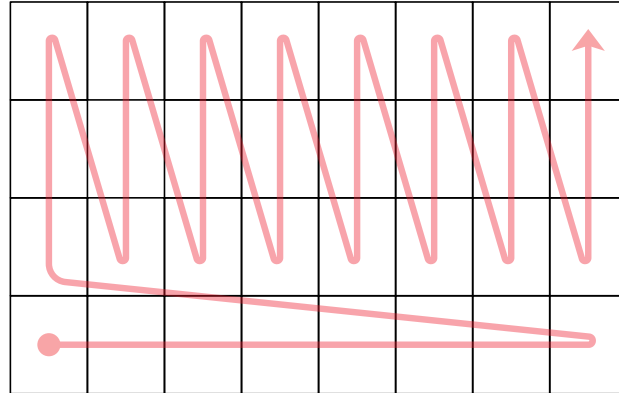VG-LFH25FWA: 10 × 5

I/G Card

Cabinet installation procedure

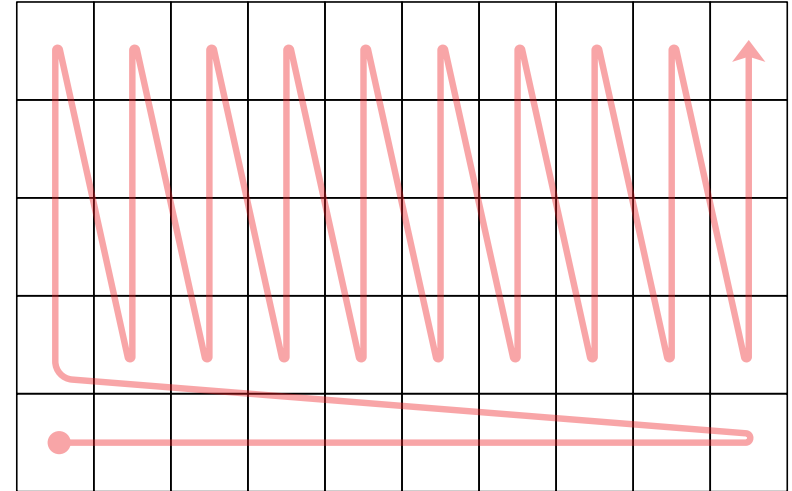‒ Each time you install a cabinet, you must also connect its cables.
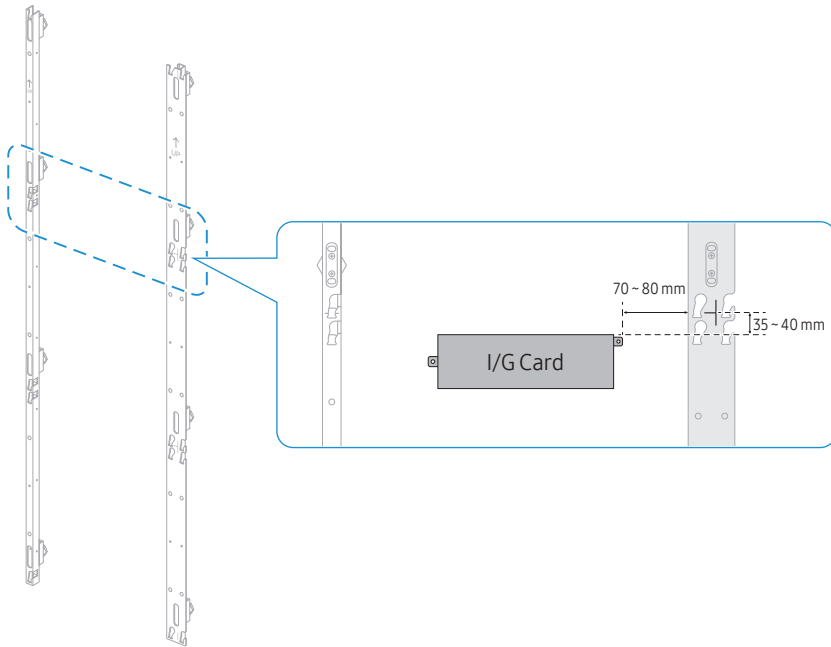
VG-LFH15FWA: 6 × 3

VG-LFH20FWA: 8 × 4

VG-LFH25FWA: 10 × 5

Installing a cabinet onto Frame KIT

1. Mount the I/G card at the specified position for each Frame KIT model.

   – Refer to **Cabinet data flow** on page .
   • Mounting position: Place the I/G card at a position 35 to 40 mm below the indication mark on the right frame, and then fasten the screws.

70 ~ 80 mm

35 ~ 40 mm

I/G Card

2. Align the corners of the cabinet with the indication marks on the frames, and then fit the cabinet and frames together.

   Make sure that all four Sliding Screws are inserted in their respective frames.

Indication mark   Indication mark

Indication mark
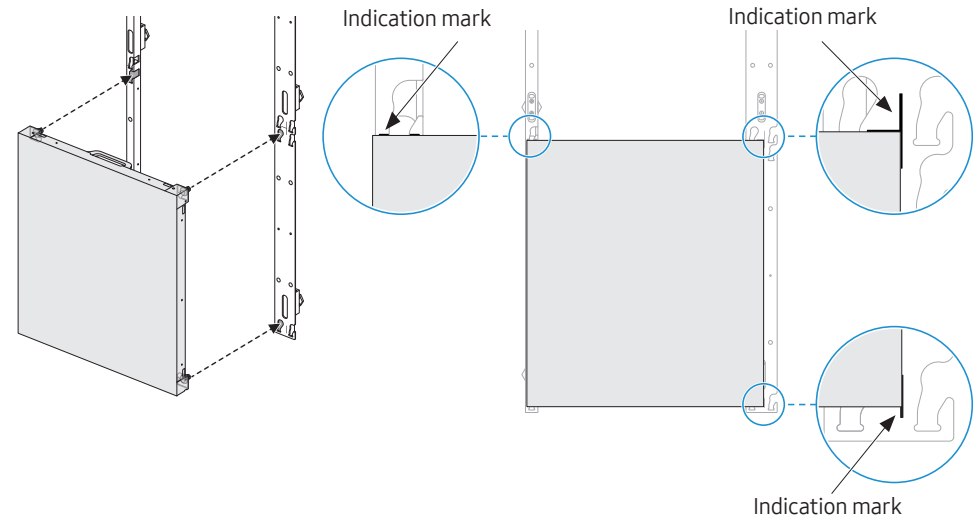
3. Press the top of the frame to slide it down diagonally until it is fastened by the Sliding Screw.

‒ If you are installing the frame on a non-flat wall, you can use a Z-Bolt to adjust the frame height.

Sliding Screw
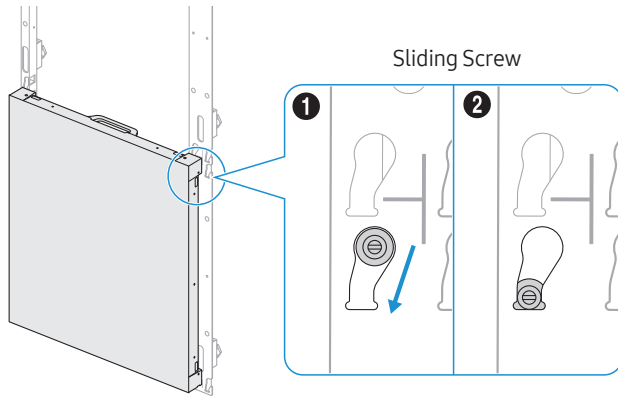
When assembling more than two rows, insert the Service JIG between the upper, and then lower cabinets and smoothly lower the upper cabinet. Then, remove the Service JIG, and then slowly lower the upper cabinet completely.

- Be careful that the Service JIG does not touch any LED module.
- During installation of each cabinet, make sure that there are none of widening between modules and pitch gap variations.

Service JIG
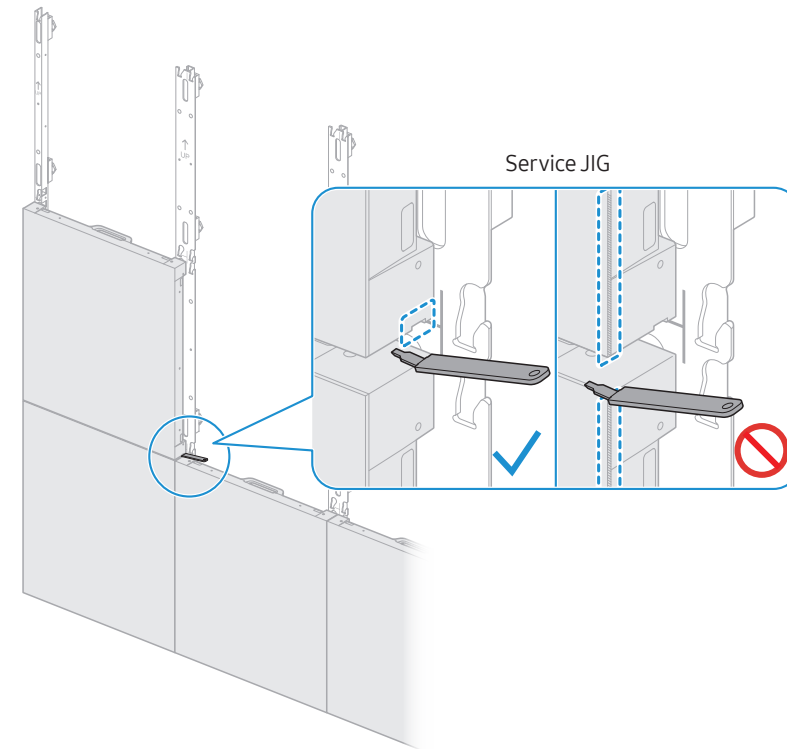
Adjusting the frame spacing and height

Adjusting the frame spacing

- If the frame spacings are not uniform, you can adjust them.
- If you need to move the frame left or right, you can fine-tune the right and left frame spacings up to ±2.0 mm without removing the frame from the wall.

1. To adjust the frame spacings, loosen the screw fastened to ASSY BRACKET.

2. Adjust the ASSY BRACKET spacing.

3. After adjusting the spacing, tighten the screws for fixing.
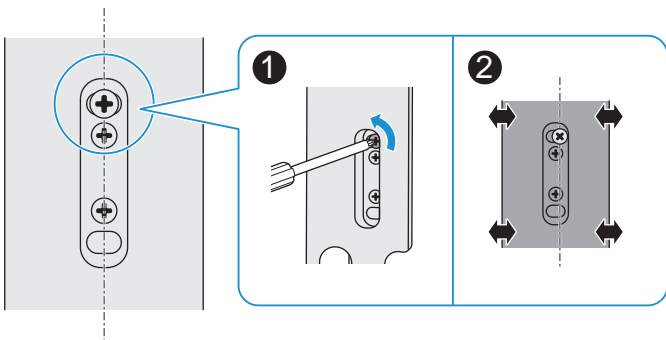
Adjusting the cabinet spacing

- You can fine tune the left and right positions of the cabinet up to ±1.0 mm.

1. To adjust the cabinet spacing, loosen the screws fastened to ASSY BRACKET CENTER.

2. Adjust the cabinet position with ASSY BRACKET CENTER.
   – Check all bracket spacings again with ASSY BRACKET JIG.

3. After adjusting the spacing, tighten the screws for fixing.
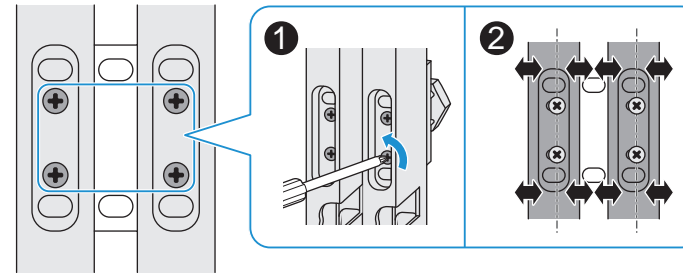
⚠ Caution: When fine-tuning the spacing, be sure to move ASSY BRACKET CENTER without tilting.
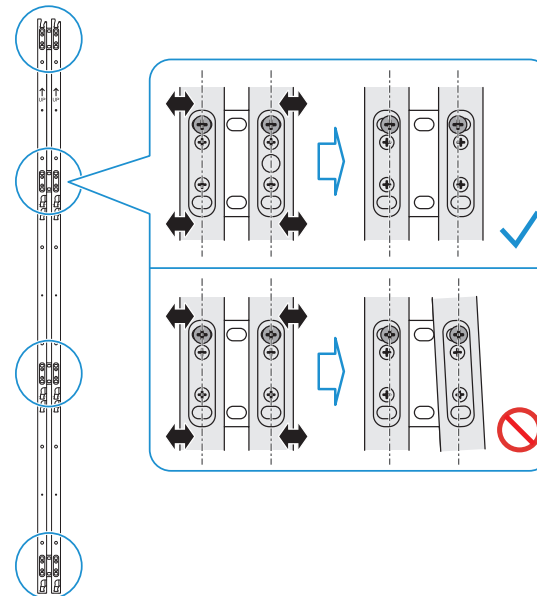
Adjusting the Frame Z-Bolt height

- If you are installing the frame on a non-flat wall, you can use a Z-Bolt to adjust the frame height.
- You can fine tune the Z-Bolt height of the frame up to ±3.0 mm.

Frame

Support

Washer
Z-Bolt

Wall

Wall
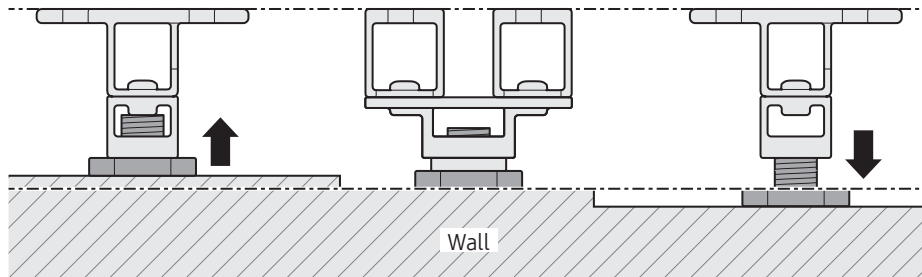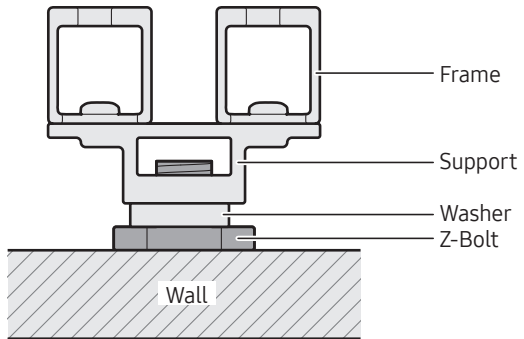
1. To adjust the Z-Bolt height of the frame, first remove the washer.

2. After removing the washer, use a wrench (28 mm) to adjust the Z-Bolt height.

- One Z-Bolt turn = Height ±1.5 mm

28 mm