

Installation Manual for Grille for Front Discharge (for 1-Way Cassette Type)

Model	DG-56SW1
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NOTE:

The applicable indoor unit may be different depending on the product series. Refer to the product catalog for applicable indoor unit models.

IMPORTANT NOTICE:

- Johnson Controls pursues a policy of continuous improvement in design and performance of products. We reserve the right to vary specifications without notice.
- No part of this manual may be reproduced without Johnson Controls' written permission.
- Keep this manual for future reference.
- Johnson Controls cannot anticipate every possible circumstance that might involve a potential hazard.
- This kit is designed for a combination of Johnson Control air conditioners. Do not use this kit by itself or in combination with other companies' air conditioners.
- Perform a test run after installation to check for abnormalities.
- Signal words are used to identify levels of hazard seriousness. Definitions for identifying hazard levels are provided below with their respective signal words.

▲ DANGER

: Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

▲ WARNING

: Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

▲ CAUTION

: Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

NOTICE

: Indicates information considered important, but not hazard-related (e.g. messages relating to property damage).

NOTE

: Indicates an useful information for operation and/or maintenance.

- It is assumed that this grille will be installed and serviced by English speaking people. If this is not the case, the customer should add safety, caution and operating signs in the native language.
- If you have any questions, contact your distributor or contractor.
- Perform a test run whether there is an abnormality or not after the installation work is completed. The usage and the maintenance should be explained to a user according to the "Installation and Maintenance Manual" for the indoor unit. Forward this information to the building owner and request that they maintain all the equipment manuals.
- This manual gives a common description and information for this grille for front discharge, as well as for other models, which you may operate.
- DO NOT install the unit in the following places. It causes failure to the unit in many cases.
 - * Places where oil (including machinery oil) mist and steam drifts.
 - * Places where sulfide gas coalesces, such as hot springs.
 - * Places where inflammable gas can generate or flow.
 - * Places where air contains high salt contents, such as coastal regions.
 - * Regions where the air quality is of high acidity or alkalinity.

⚠ WARNING

Perform correctly installation work as instructed in this installation manual.
If the installation is not completed correctly, there can be air leakage resulting in condensation, damage or even injury if the grille for front discharge falls.







⚠ CAUTION

- Install the grille for front discharge and flexible duct in a compartment handling air for circulation through a duct supplying only one room.
- Do not apply an excessive force to the grille for front discharge. Otherwise, the louver mechanism will be damaged.
- Pay careful attention not to scratch the coating on the surface of the grille for front discharge when transporting and handling. (Especially, pay careful attention to the flocking parts such as a frame of the grille for front discharge and side of the louver.)

1. Before Installation

- (1) Check that all the following accessories are packed with the unit before installation.

Unit: inch (mm)

No.	Name	Sketch	Qty.	Location and Purpose	
			DG-56SW1		
①	Grille for Front Discharge		1	For Front Discharge	
②	Flexible Duct		1	Connecting to Indoor Unit	
③	Screw (M4)		6	Fixing Duct to Indoor Unit	
④	Adjustment Equipment		1	To Adjust Louver Angle	
⑤	Insulation	A	 3/32T x 2-3/4 x 25-23/32 (2T x 70 x 653)	2	Seal Material for Flexible Duct
		C	 3/32T x 2-3/4 x 3-1/32 (2T x 70 x 77)	2	

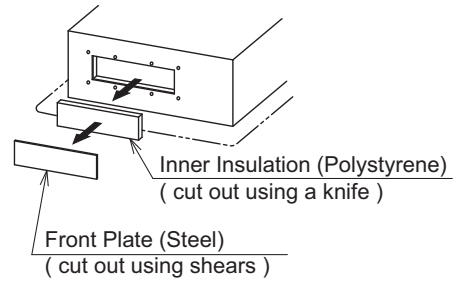
NOTE:

In an instance of dedicated front flow (1-way), an optional part, the “Air Outlet Shutter Plate” (PIS-56LS) is required.

- (2) Cut out the front plate and insulation from the side plate of the indoor unit.

< Procedure >

- 1 Cut out the front plate (Steel) of the indoor unit along with the score lines using shears.
- 2 Cut out the inner insulation (Polystyrene) along with the square hole using a knife.



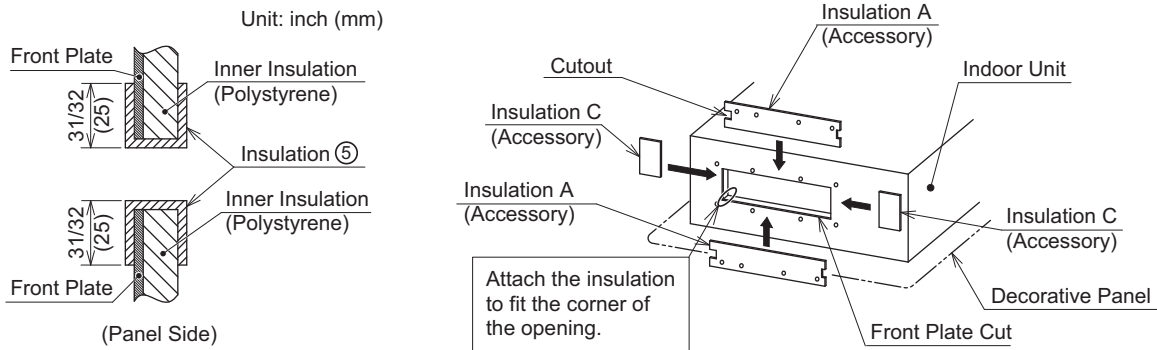
NOTES:

1. Remove burr after the cutting work. (Do not let swarf enter inside the indoor unit.)
2. Remove swarf after cutting off the insulation (Polystyrene).
3. Do not insert the knife more than 1-1/2 in. (30mm) into the insulation (Polystyrene). Otherwise, the drain pan and the heat exchanger may be damaged.

- (3) Attach the insulation A and C to cover the entire gap between the side plate and the insulation (Polystyrene). Attach the insulation A to the upper and lower part of the opening, and the insulation C to the left and right of the opening. Be careful not to cover the screw hole at the indoor unit side when attaching.

CAUTION

Perform this work correctly. Otherwise, condensation may occur when cold air enters a gap between the side plate and the insulation (Polystyrene).



CAUTION

Attach insulations to seal a clearance between the front plane and the inner insulation (Polystyrene).

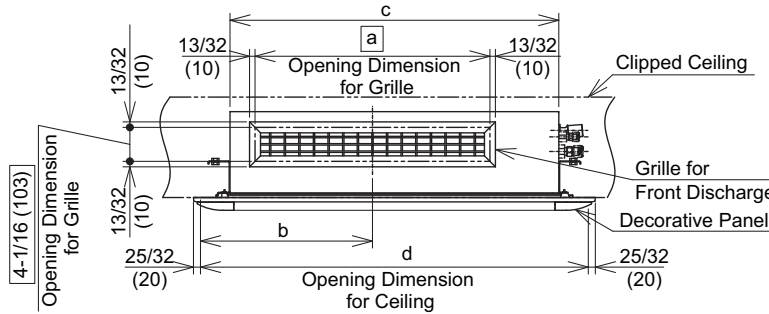
2. Installation

- (1) Install the grille for front discharge according to the figure below.

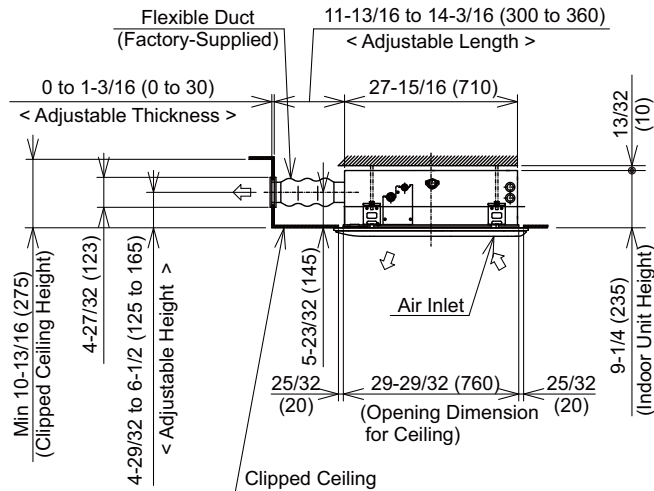
Unit: inch (mm)

Dimension	a	b	c	d
Model				
DG-56SW1	25-23/32 (653)	18-1/2 (470)	35-7/16 (900)	41-23/32 (1060)

Front View



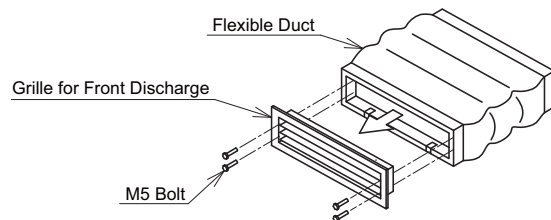
Right Side View



NOTES:

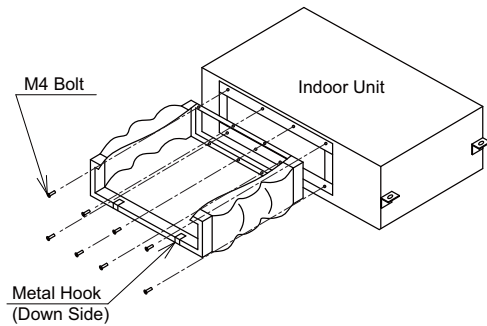
1. When installing the grille for front discharge to the unit, be careful it doesn't touch the metallic equipment which is for the ceiling installation.
2. Refer to the "Installation Manual" for the decorative panel for the installation details.
3. Be certain to use the factory-supplied duct. A field-supplied duct is not available.
4. Pay attention not to scratch the panel surface when installing and removing the grille for front discharge.
(Especially pay careful attention not to scratch frame of the grille for front discharge and the side louver with insulation.)

- (2) Remove four M5 bolts and separate the grille for front discharge and the flexible duct.



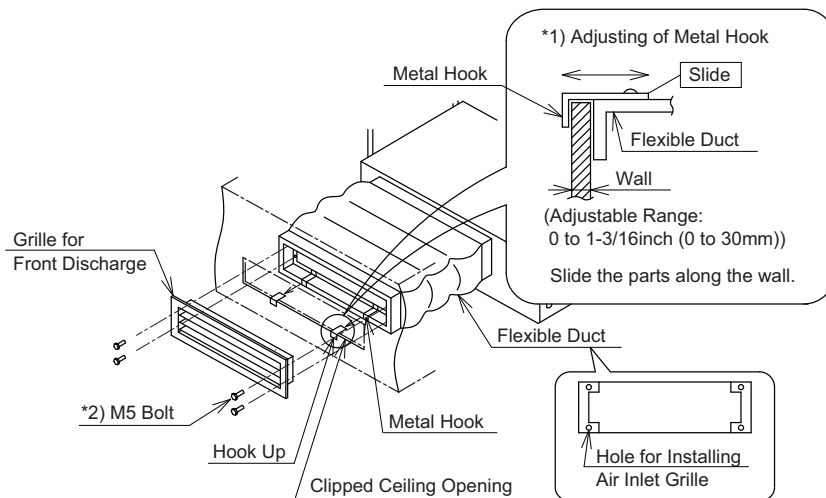
(3) Mount the grille for front discharge and the flexible duct according to the following procedures.

1 Mount the flexible duct to the indoor unit with M4 screws (DG-56SW1: 6).



2 Hook the metal hook of the flexible duct to the under surface of the clipped ceiling opening.

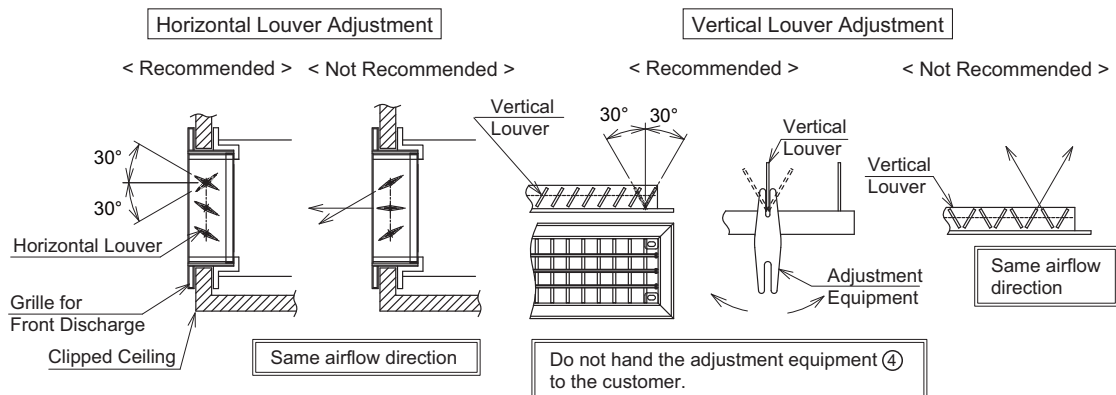
- 1 Adjust the size according to the wall thickness.
- 2 Attach the grille for front discharge to the flexible duct.
- 3 Secure the flexible duct with four M5 bolts. (As for details of adjusting the metal hook, refer to *1) in the figure below.)



*2) No gap should exist between the clipped ceiling opening and the grille for front discharge. Otherwise, air leakage can cause condensation. If there is still a gap after attaching the grille for front discharge to the flexible duct, tighten firmly with four M5 bolts until no gap exists.

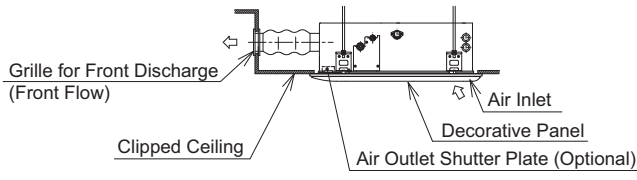
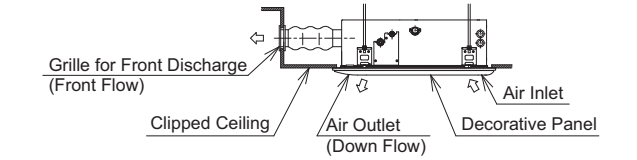
(4) Adjustment of four airflow directions as shown in the figure below.

- 1 Adjust the horizontal louver using your hands and make the louver angle within $\pm 30^\circ$ from the initial position. Otherwise, it will allow condensation to drip from the air outlet grille.
- 2 When adjusting the vertical louver, use the factory-supplied adjustment ④ and make the louver angle within $\pm 30^\circ$ from the initial position.



3. Optional Setting

It is possible to discharge air from both front and down airflow by combining with the grille for front discharge.

Type	Item	Figure	Function	Caution
1-Way (Front Flow)	Grille for Front Discharge (Front Flow)		Standard	Be certain to use the air outlet shutter plate to close the air outlet of the indoor unit.
2-Way (Front Flow + Down Flow)	Grille for Front Discharge (Front Flow)		High 1	Air Volume Ratio: Front Flow 5, Down Flow 5 (Fixed)

CAUTION

- When the requirement is to increase the airflow volume for a down flow depending on the installing conditions or environment of the room, close the openings of the grille for front discharge using the vertical louvers to let more airflow for the down flow.
- When an antibacterial air filter is used with the grille for front discharge, select “Speed-up 1” for 1-way, “Speed-up 2” for 2-way. The specified flow volume is secured.

* Refer to the “Installation Manual” for the wired controller for details.

Liquid Crystal Display
(LCD)
of Wired Controller
(CIW01)

Setting of “High Speed 1”

Function Selection:01-03

Item	Setting	
C2	--	04
C3	00	/
C4	00	
C5	01	23
C6	00	

◀ Sel. ▶ Adj. OK Entr Back Rtrn

“High Speed Mode” High Speed 1: 01
High Speed 2: 02

< Setting from Controller and Airflow Volume during Setting High Speed Mode >

Airflow Volume Setting from Wired Controller	High 2	High	Med	Low	
High Speed Mode	Standard	HH2	Hi	Me	Lo
	High Speed 1	HH2	HH1	Hi	Me
	High Speed 2	HH2	HH2	HH1	Hi

“High 2” does not change the airflow volume even if the high speed mode is set.

NOTES:

- 1 “High 2” does not change the airflow volume even if the high speed mode is set.
2. When setting “High Speed 1”, the airflow volume is increased one level compared with the airflow volume of the standard mode. In an instance of “High Speed 2”, the airflow volume is increased two levels.
3. When setting “High Speed 2”, the airflow volume of “High 2” and “High” will be equal.
4. When the high speed mode or “High 2” is set, the sound level may increase during the indoor unit’s operation.