

KDDP55B160K - Fresh Air Intake Kit with T-pipe for use with BYCQ125B-W1

Installation Manual

**Caution** After thoroughly reading these "Safety precautions", properly perform the installation.

- For the installation parts, accessory parts and specified components must always be used. If the specified components are not used, the kit may fall or an air leak may occur.
- After the completion of installation, perform a test run to check that no abnormality is present.

**Recommendations**

- This product can be mounted to a ceiling mounted cassette-type air conditioner <Round flow>.
- At the time of mounting, also refer to the installation manual for the indoor unit and to the one for the decoration panel.
- When mounting the duct fan, be sure to use the wiring modification adaptor [KRP1C63] to interlock with the indoor unit fan.
- For the intake wind volume, 10% or less of the indoor unit wind volume of "H" is recommended.
- When the intake wind volume becomes excessive, operation noise may become louder or the intake temperature detection of the indoor unit may be affected.
- Be sure to mount the supplied sensor assembly.
- <For the duct used for field connection, those in the table below are recommended.>

Parts content		Check the following parts. (Shaded part <span style="background-color: #cccccc; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> is included in a different package.)											
Name	① Suction chamber	② Connecting chamber (left)	③ Connecting chamber (right)	④ Corner air outlet sealing material	⑤ Corner air outlet tape for fixing the sealing material	⑥ Mounting screw	⑦ Sensor assembly	⑧ Clamp	⑨ Mounting screw (for sensor)	⑩ T joint	⑪ Flexible duct	⑫ Sealing pad	⑬ Insulator mat
Shape													
Number of pieces	1	1	1	2	2	4	1	2	1	1	2	4	1
	1	1	1	2	2	4	1	2	1	1	2	4	1

①, ② and ③ are only used in combination with round flow type.

**1 Selection of Installation Location and Establishment of Inspection Opening**

(1) Refer to the figure below to select the installation location. Unit (mm)

Decoration panel	Indoor unit	Δ (mm)
BYCP125K-W1	SkyAir FCO50-71LUV1, FCO50-71KVEA, FCO271KVEA, FCO271KVLTL	306
	VRV FXPQ25-80PVE	
BYCP125K-WS	SkyAir FCO100-140LUV1, FCO100-140KVEA, FCO100-140KVLTL, FCO125140KAVLT	348
	VRV FXPQ100/125PVE	
	SkyAir FCO30-48LUV2S	

(2) Establish an inspection opening.

\*1. Install the suspension bracket for the T joint section. Because of the load from T joint, etc., a gap may be created in between the indoor unit and suction chamber.

\*2. Establish an inspection opening (≥450 or more). Establish an inspection opening to either side.

**2 Mounting of Sensor Assemblies and Suction Chamber**

\* When the indoor unit main body is already installed, perform the following operations, complying with precautions below.

- Shut off power supply before performing operation.
- Remove the decoration panel from the indoor unit main body. (For details, refer to the installation manual attached to the decoration panel.)

**Round flow**

**<Mounting of sensor assembly>**

- According to the installation manual attached to the indoor unit main body, remove the el. compo. box lid.
- Using the supplied screws, tighten the sensor assembly together with the bell mouth to the indoor unit main body. (Mount without pinching the float switch lead wire.)
- Remove the connector (X16A) of the existing sensor from the printed circuit board of the indoor unit main body.
- Connect the lead wire of the mounted sensor assembly to the connector (X16A) on the printed circuit board of the indoor unit main body as shown in the figure below.
- As shown in the figure below, fix the lead wire using the supplied clamp.
- After all the wiring is completed, fit the el. compo. box lid, according to the installation manual attached to the main body.
- Making sure that the el. compo. box lid is covered with the partition plate (14), tighten these together using the screws on the cover. (Hook the partition plate tab onto the cover.)

**<Mounting of suction chamber>**

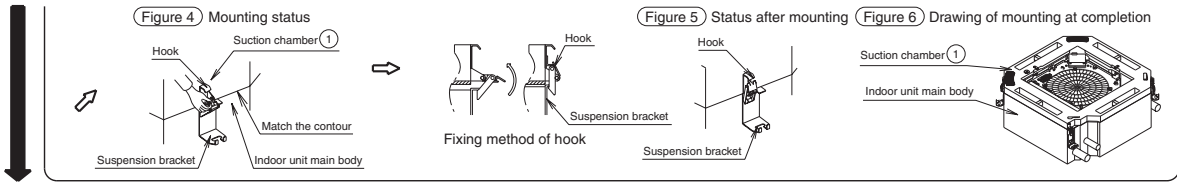
\* Figure shows an example where the indoor unit main body is newly installed.

- Stick the corner air outlet tape for fixing the sealing material (5) to the corner air outlet sealing material (4), then stick it to the air outlet of the indoor unit main body. (2 positions) (Figure 1) (Figure 2)
- Mount the suction chamber (1) to the indoor unit main body using the hook (4 positions). (Figure 3) to (Figure 5)

For the fixing method of the hook, refer to (Figure 4), then mount at 4 positions.

\* Mount so that the contours of the indoor unit main body and suction chamber match. (Figure 4) (Figure 6)

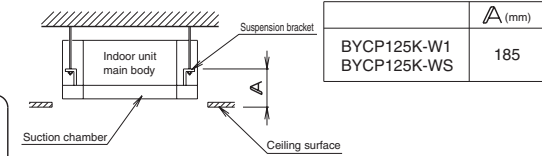
JC: 3K022728B



JC: 3K022728B

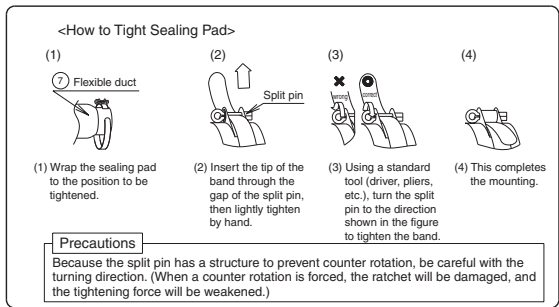
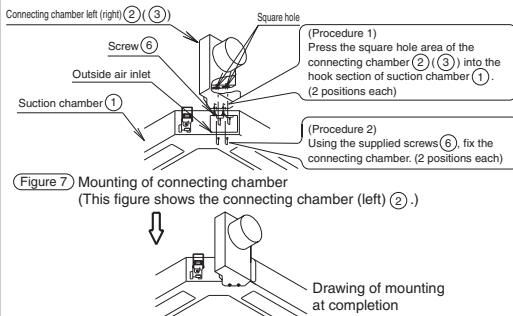
**3** Installation of Indoor Unit Main Body and Suction Chamber

- Install the indoor unit main body and suction chamber. At the time of installation, perform the engineering work according to the installation manual attached to the indoor unit main body. (For the installation height, refer to the figure to the right.)
- When mounting the suction chamber to the existing indoor unit main body, change the installation height of the indoor unit main body to height  $A$  in the figure to the right.



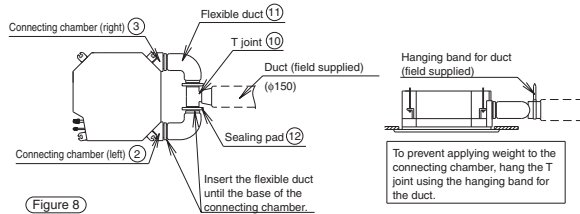
**4** Mounting of Connecting Chamber and Connection of Flexible Duct

- Mount the connecting chamber. (1 piece each for left and right, a total of 2 pieces) (Figure 7)
- (1) Press the square hole area of the connecting chamber (2) (3) into the hook section of the suction chamber (1). (2 positions)
  - (2) Using the supplied screws (6), fix the connecting chamber. (2 positions)

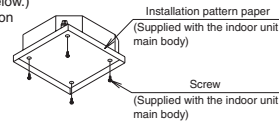


In case of KDDP55B160K

- (3) Connect the connecting chamber and T joint. (Figure 8)
- Mount the flexible duct (11) with the sealing pad (12).



- (4) Mount the supplied installation pattern paper to the indoor unit by using screws to cure the indoor unit. (Refer to the installation manual of the indoor unit main body.) (Refer to the figure below.) (Mounting of installation pattern paper)



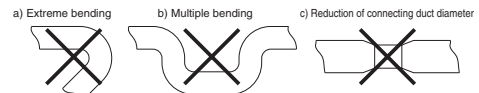
- Complete all the refrigerant and drain piping works for the indoor unit main body.

**5** Duct Connection <<Duct: Nominal diameter  $\phi 150$ >>

- (1) Connect the duct to the duct connection area.
- (2) Wrap the connection area with vinyl tape, etc., (field supply) to prevent an air leak.

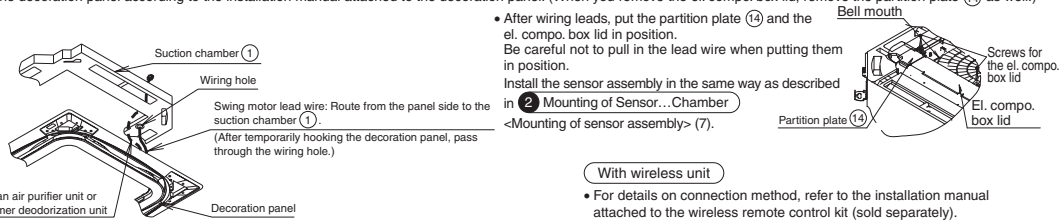
**Precautions**

- For the duct, be sure to apply the insulation treatment to prevent condensation.
- Do not perform duct manipulations described in the figure to the right.
- Beware that, in accordance with the local law, there may be cases where the use of a nonflammable duct is compulsory.
- When a duct goes through fire protection areas including a fire proof structure, beware that, in accordance with the local law, it may be required to establish a damper or to build a structure that is not detrimental to fire protection.
- When penetrating a wooden construction wall with a metal duct, apply electrical insulation to the duct and wall.
- Mount the outside duct so that it has a downslope toward the outside, and prevent rainwater from leaking in with a hood, etc. (Gradient of 1/100 to 1/50)
- To prevent the intrusion of small animals, such as birds, and bugs, be sure to attach a netting to sections open to outside air.
- To protect the heat exchanger of the indoor unit, be sure to attach an air filter to sections open to outside air.



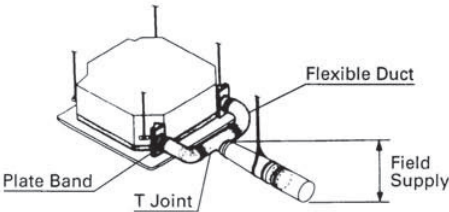
**6** Mounting of Decoration Panel and Suction Chamber

- After temporarily hooking the decoration panel, pass the swing motor lead wire, which is coming out from the decoration panel, through the wiring hole of the suction chamber. <Round flow> 1 swing motor lead wire
- However, when used in combination with the air purifier unit or streamer deodorization unit, perform wiring without routing through the wiring hole.
- Mount the decoration panel according to the installation manual attached to the decoration panel. (When you remove the el. compo. box lid, remove the partition plate (14) as well.)



JC: 3K022964A

KDDP55B160K (with T joint, without fan)



Labels in diagram: Flexible Duct, Plate Band, T Joint, Field Supply

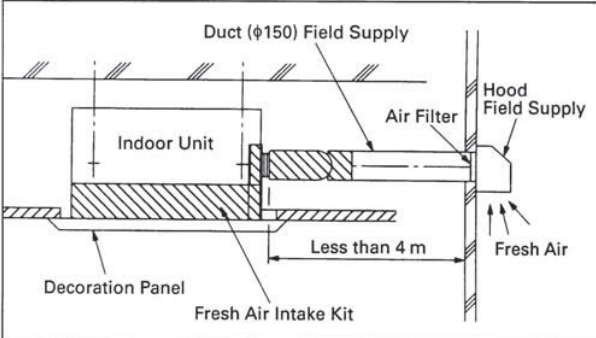
**Note:**

- As the principle, the duct fan is unnecessary for 4 meters or less. When needing enough fresh air taking-in, use Kit with Duct Fan of optional, which is shown in the following.
- The other part of Fresh air intake kit (Duct, T Joint, Air Filter, Hood, etc) is field supplied.
- It isn't possible to do simultaneous use with wireless remote controller.

**• Specifications**

Item	Model	KDDP55B160K
Method of fresh air intake		Fresh air intake by the indoor unit fan
Size of connecting duct		φ150

**• Example of Installation**



Labels in diagram: Duct (φ150) Field Supply, Air Filter, Hood Field Supply, Indoor Unit, Decoration Panel, Fresh Air Intake Kit, Fresh Air, Less than 4 m