

TOSHIBA

Carrier

FRESH-AIR INLET BOX FOR AIR CONDITIONER (SPLIT TYPE)

Installation Manual

Fresh-Air Inlet Box
(for 4-way Air Discharge Cassette Type)

Model name:

Fresh-air inlet box

TCB-GB1602UUL

Installation Manual Fresh-air inlet box	1	English
Manuel d'installation Boîte d'entrée d'air frais	7	Français

Thank you for purchasing the “Fresh-air inlet box” of TOSHIBA/Carrier Air Conditioner. Before starting the installation work, please read this manual carefully and install the product properly.

PRECAUTIONS FOR SAFETY

- Before installing the product, please read the “**PRECAUTIONS FOR SAFETY**” carefully to perform the proper installation.
- Be sure to keep the instructions described in the precautions for safety, since the descriptions include the important information for safety. The indication and the meaning of the symbols are as below.

**WARNING**

This sign denotes that serious injury may result from improper use.

**CAUTION**

This sign denotes that the bodily injury*1 or damage*2 to property may result from improper use.

*1 Bodily injury indicates injury, burns, electric shock, and other injuries which do not require hospitalization or long-term treatment as an outpatient.

*2 Physical damage indicates the damage relating to the property, material.

CAUTION ON INSTALLATION

**WARNING**

Use TOSHIBA/Carrier products for the parts sold separately.

Use the products specified by TOSHIBA/Carrier for the parts sold separately, such as the fresh-air chamber, ceiling panel, etc.

The use of the products other than specified may cause the water leakage, electric shock, fire, etc.

**CAUTION**

Turn off the earth leakage breaker when installing the fresh-air inlet box.

Be sure to attach the fresh-air inlet box to the fresh-air chamber.










Insufficient installation may cause the water leakage, electric shock, etc.

1 APPLICABLE MODELS

Indoor unit	RAV-SP**0UT-UL
Fresh-air chamber	TCB-GFC1602UUL

2 ACCESSORIES

(The following parts are included.)

No.	Name	Shape	Q'ty	No.	Name	Shape	Q'ty	No.	Name	Shape	Q'ty	Remark
(1)	Outside air introduction port		1	(4)	Mounting screws 0.16" x 0.4" (4 x 10 mm)		16	(7)	Wind shield		1	–
(2)	Outside air introduction port fixing metal part		1	(5)	Heat insulating material A		2	(8)	Installation manual		1	This manual
(3)	Duct flange Ø3.9" (100 mm)		1	(6)	Heat insulating material B		2	(9)	Wire		1	

3 INSTALLING THE FRESH-AIR INLET BOX

⚠ CAUTION

The Fresh-air inlet box should be installed after installing the indoor unit. Further attention is required since the Fresh-air inlet box is attached to the Fresh-air chamber. Applying the shock to the side of the Fresh-air chamber may damage the product.

Wear safety globes to carry out these works. Do not attempt with bare hands.

1 Install the indoor unit on ceiling. Connect the system interconnection wire and remote control wire.

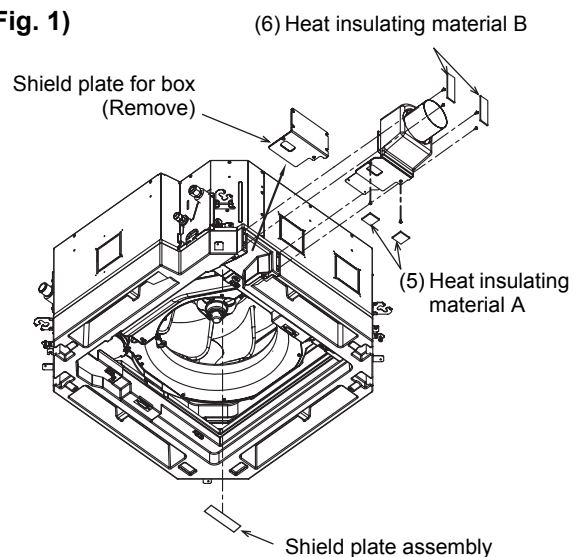
- Refer to the installation manual of the indoor unit for the details.
- Connect the (9) wire, if a duct fan (locally procured) is installed.

2 Attach the Fresh-air chamber to the indoor unit. (Fig. 1)

For the details, refer to the Fresh-air chamber installation manual.

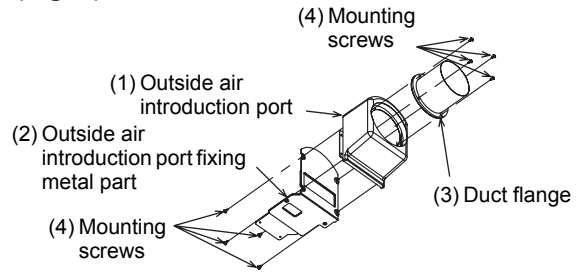
3 Remove the shield plate for box from the Fresh-air chamber. (Fig. 1)

4 Remove the shield plate assembly from the Fresh-air chamber. (This part will be attached back later.) (Fig. 1)

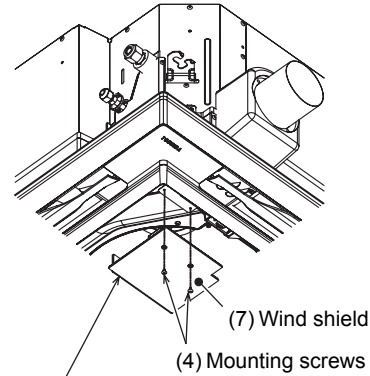


- 5** Attach the duct flange (3) and the outside air introduction port fixing metal (2) to the outside air introduction port (1) and fix with 8 mounting screws (4). (Fig. 2)
- 6** Fix the Fresh-air inlet box set in step 4 to the Fresh-air chamber with 6 mounting screws (4) (Side: 4 screws, bottom: 2 screws).
- 7** Attach the heat insulation material A (5) and B (6) to the mounting screws portions. (Fig. 1)
- 8** Install the Ceiling panel (sold separately).
For the details, refer to the Fresh-air chamber installation manual.
- 9** Lay the wires for the louver motor wiring connector.
- 10** Attach back the shield plate assembly (removed in 3-4) as it was installed.
- 11** Fix the wind shield (7) to the position where the suction grille is removed as shown in the Fig.3 with 2 mounting screws (4).
If the wind shield is not fixed, it is impossible to control the room temperature. This may cause improper operation.

(Fig. 2)



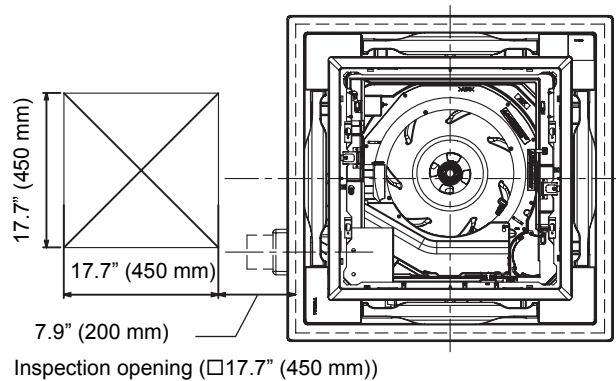
(Fig. 3)



After installing the panel, fix the wind shield (7) with the mounting screws (4).

CAUTION

Be sure to provide the opening for inspection on the Fresh-air inlet box side. (The outside air introduction port is removed when servicing.)



4 CONFIRMING THE INSTALLATION

After the installation completes, perform the test run to confirm that no abnormality is found. For your future reference, please keep the installation manual on your side.

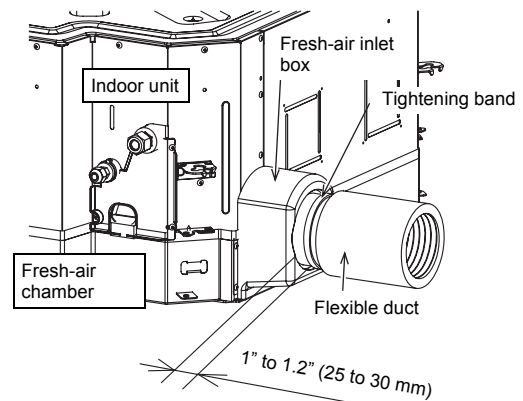
■ Duct connection and installation

CAUTION

- The outside air should be processed by the heat exchanger, etc.
(The outside air temperature range after processing: 54°F to 86°F (12°C to 30°C))
- Be sure to install the return duct.
- The duct fan for the outside air introduction shall require the interlock wiring.
- The sound insulation chamber shall be required to prevent from occurring the operating sound.
- The connection duct is not supplied with the product. Please procure $\varnothing 3.9"$ (100 mm) flexible duct on the market.

1 Mounting the connection duct

Set the flexible duct to the external side of the flange circle and fix it by using a band at 1" to 1.2" (25 to 30 mm) position from the edge of the flexible duct.

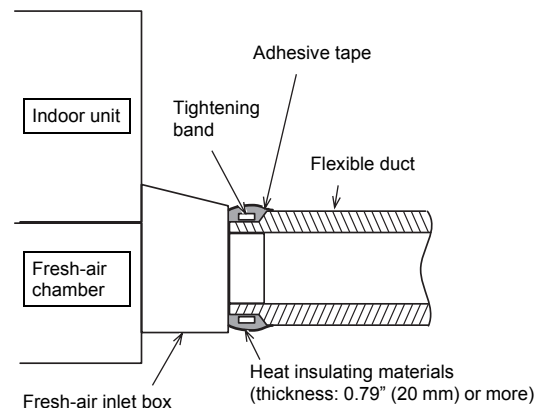


2 Sealing the connection port

- Wrap the tightening band with the heat insulating materials of 0.79" (20 mm) thickness or more.
- Apply the adhesive tape around the heat insulating materials of the connection port to prevent the heat insulating materials from peeling off.

CAUTION

- Seal the connection port without any clearance to prevent from dew condensation.
- Keep the thermal insulation around the duct and the connection port.
(If the thermal insulation is not applied, the dew condensation may occur due to the temperature difference between the outside air and the air staying in the ceiling.)

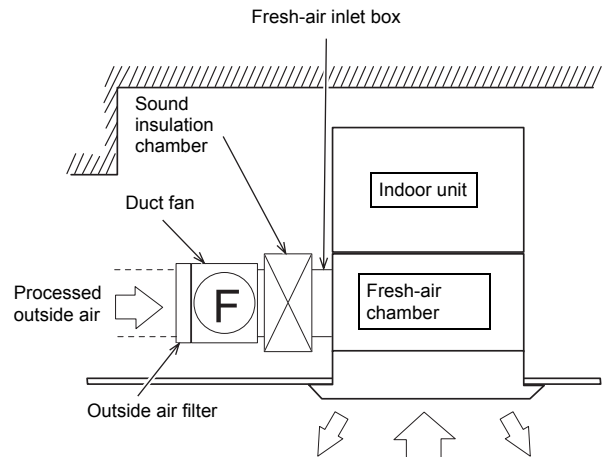


3 Installing the duct

- Perform the indentation ventilation on the Fresh-air inlet box using the duct fan shown in the right figure.

CAUTION

- Confirm the processed outside air should be ranged from 54°F to 86°F (12 to 30°C).
- Confirm the sound insulation chamber is installed.

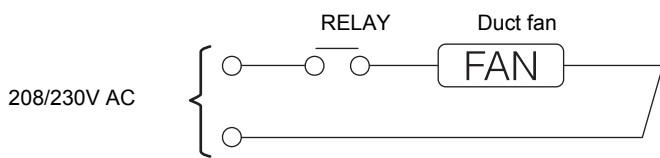
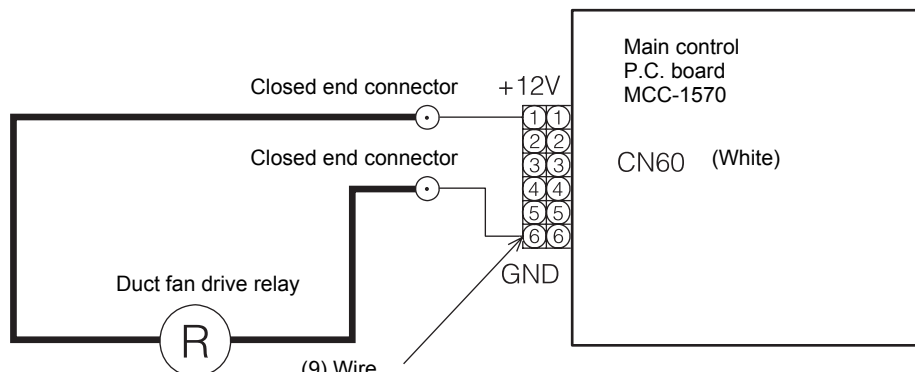
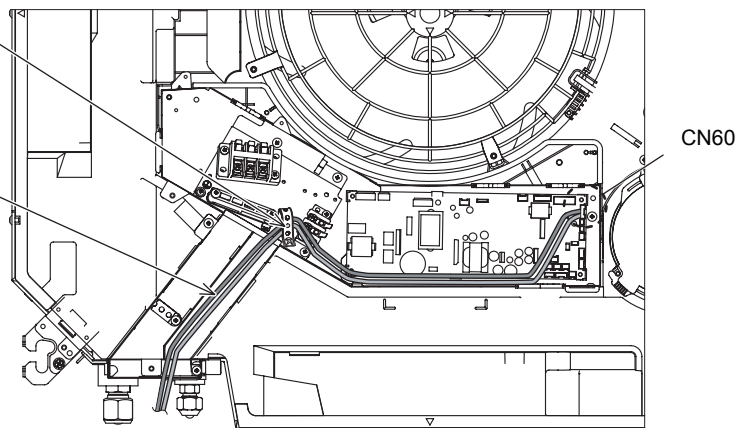


4 Duct fan wiring

- The interlock wiring should be applied between the duct fan and the indoor unit ventilator. Insert the connector to CN60 on the main P.C. board of the indoor unit and connect the duct fan driving relay (DC12V). The thick line (———) shows the connection circuit.
- After installing the duct, perform the test run to confirm whether the duct fan and the ventilation of the indoor unit work starting or stopping at the same timing. (For the test run, following to the instructions described on the indoor unit installation manual.)

Tighten the clamp with the (9) wire and the remote control wire.

Draw the (9) wire in the same way as remote controller wire. Pull out an end of the wire from the indoor unit frame.



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