TOSHIBA **INSTALLATION MANUAL**

Carrier

To Personnel Charged in Installation Work and Service

Wireless remote controller kit

Model: **TCB-AX32-UL**

- Thank you for purchasing Wireless remote controller kit TOSHIBA Carrier packaged air conditioner.
- Read this manual carefully for correct installation of the wireless remote controller kit before starting work.
- After the installation is completed, execute a test run to check for normal operation and explain how to use and maintain the wireless remote controller kit to the customer according to the Owner's Manual.

Ask the customer to keep this manual with the Owner's Manual.

Observe the safety precautions described in the Owner's Manual of the wireless remote controller kit, Installation Manual and Owner's Manual of the indoor unit.

Accessory Parts

No.	Part Name	Q'ty
1	Signal receiving unit (provided 7.87" (200 mm) control wire)	1
2	Mounting bracket	1
3	Screws ϕ0.16" × 1" (M4 x 25 mm)	2
4	Screws ϕ0.16" × 1.57" (M4 × 40 mm)	2
5	Wood screws	2
6	Spacer	4
7	Wire joints	2

No.	Part Name	Q'ty
8	Cable tie	1
9	Pattern template 3.7" × 2" (95 mm × 51 mm)	1
10	Remote controller	1
11	Remote controller holder	1
12	Screw for remote controller holder ϕ0.16" × 0.63" (M4 × 16 mm)	2
13	Installation Manual	1
14	Owner's Manual	1

Installation Location of Signal Receiving Unit

- Do not install in a location where the air contains oil mist, such as in a kitchen or factory.
- Do not install next to a window, or in any other location directly exposed to sunlight and outside air.
- Do not install nearby devices which can be expected to produce electrical noise, such as elevators, automatic doors, and industrial sewing machines.
- If the Signal receiving unit is installed near a rapid-start type or inverter-type fluorescent lamp (a lamp which does not include a glow lamp), it may not be possible to receive the wireless remote controller signal in some cases. In order to prevent interference from fluorescent lamps, leave a minimum of 78.7" (2 m) between the Signal receiving unit and the fluorescent lamps, and install the Signal receiving unit in a location where it can receive the wireless remote controller signal when the fluorescent lamps are lit.

How to Install the Signal Receiving Unit

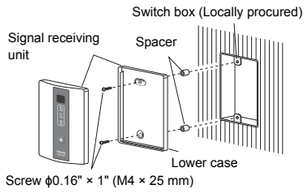
To prevent electric shocks, embed the wires in the wall and do not expose them. When installing wires on the wall, be sure to cover them with insulating materials.

Note:

- To avoid malfunction of the remote controller, do not assemble or run remote control wiring together with the power cables, and do not enclose them in the same metal conduit.
- When the power unit induces electrical noise, it is recommended that a noise filter or the like be installed.

Installing into the switch box

1. Insert a flathead screwdriver or similar tool into the groove, and remove the lower case. (Fig. 1)
2. Fix the lower case with ϕ0.16" × 1" (M4 × 25 mm) screws provided. Do not overly tighten, and use the provided spacers. If the Signal receiving unit does not fit in the wall, cut spacers to adjust the clearance.



3. Connect the Signal receiving unit wiring (2-core control wire) with the wires extended from the indoor unit. (Fig. 2)
   (Refer to the Wiring of the Signal Receiving Unit.)
   Be sure to determine the correct terminal numbers on the indoor unit when wiring the Signal receiving unit. The Signal receiving unit will be damaged if high voltage (such as AC 208/230 V) is applied.
4. Reattach the upper case.

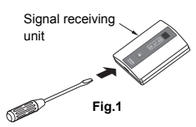


Fig.1

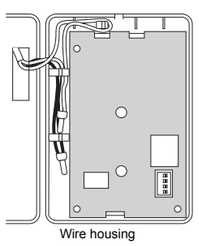


Fig.2

Mounting on the ceiling

1. Cut a section out of the ceiling along the provided paper pattern 3.7" × 2" (95 × 51 mm).
2. Pass the wire through the provided mounting bracket and insert the bracket into the installation hole. (Fig. 3)

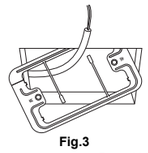


Fig.3

3. Use bracket parts (A) and (B) to securely grip the ceiling material. (Fig. 4)
4. Connect the Signal receiving unit control wire (2-core) to the control wire from the indoor unit. (Refer to "Wiring of the Signal Receiving Unit".) Check the terminal number on the indoor unit before wiring the Signal receiving unit and be sure to wire correctly. (The unit will be damaged if high voltage, such as AC 208/230 V, is applied.)
5. Insert a slotted screwdriver into the opening at the bottom of the remote controller. Remove the lower case from the signal receiving unit.
6. Adjust the provided spacers so that they are several millimeters larger than the thickness of the ceiling material. Pass the 2 supplied screws ϕ0.16" × 1.57" (M4 × 40 mm) through the spacers and tighten them enough to hold the Signal receiving unit in place.
7. Return parts (A) and (B) through the gap between the ceiling and Signal receiving unit so that they are contained in the openings. Then tighten the screws. Do not tighten the screws excessively. This may result in damage or deformation of the case.
   Tighten to the point where the Signal receiving unit can be moved slightly by hand. (Fig. 5)
8. Firmly attach the signal receiving unit to the lower case.

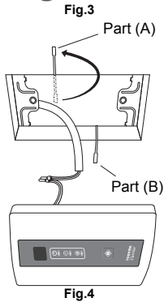


Fig.4

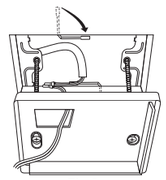
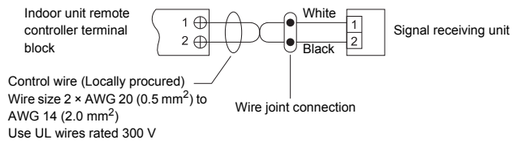


Fig.5

Wiring of the Signal Receiving Unit

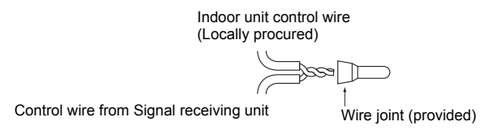
Wiring

<Wiring diagram>



<Wire joint>

1. Strip the insulation to approximately 0.55" (14 mm) from the ends of the wires to be connected.
2. Twist together the 2 wires and create a crimp connection at the wire joint.
3. If a special crimping tool is not used, or if the connection is soldered, insulate the wires using insulation tape.



Multiple Remote Controller Installation

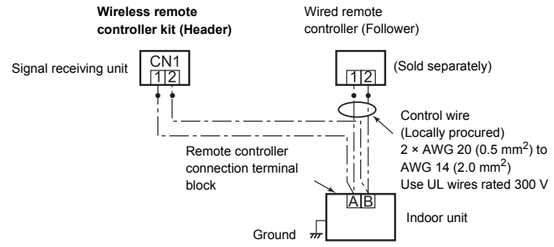
The control by two remote controllers is enabled by installing the wireless remote controller with the wired remote controller for an indoor unit.
(Max. 2 remote controllers of wireless or wired are insatiable.)
"2-remote controllers" controlling means that one or multiple units are operated by the multiple remote controllers.

Note:

1. Upon confirmation of the terminal numbers of the indoor unit, connect the control wire without miswiring. (If applied AC 208/230 V, damage the unit.)
2. The multiple wireless remote controller kits cannot concurrently be used for an indoor unit.
3. When installing simultaneously the wireless remote controller with the wired remote controller, set one of them as the follower remote controller.
   - To use wired remote controller or Lite-vision plus remote controller as a follower, settings must be changed. For the details, refer to the installation manual of each controller.
   - To use the wireless remote controller as a follower, set bit 4 (Follower side) of DIP switch SW30 on the signal receiving unit P.C. board to ON.

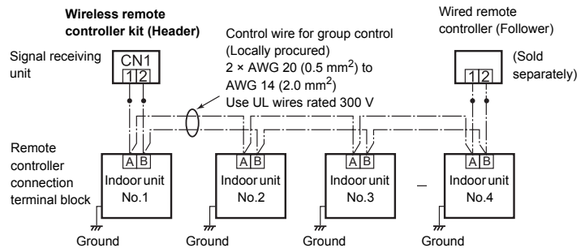
2-remote controllers

The indoor unit is operated if either wireless or wired remote controller is set as header or follower remote controller.
(Total wire length: Within 1312'4" (400 m))



Group control

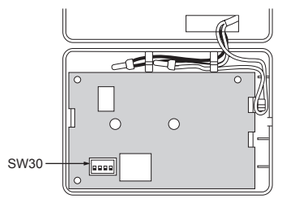
Header and follower remote controllers are operable even if they are installed to any indoor unit.
(Total wire length: Within 656'2" (200 m))



Remote controller address (A-B selection) setting

- When two or more signal receiving units are installed in a room, a unique address can be set for each signal receiving unit to prevent interference.
- Address (A-B selection) must be changed on both signal receiving unit and wireless remote controller.
- For the details of address change (A-B selection) on wireless remote controller, refer to the owner's manual.

Turn off the indoor unit power supply. Turn on the bit 3 of DIP switch SW30 on the signal receiving unit P.C. board.
The setting change is shown below.



DIP switch [SW30]

4	ON=follower	OFF=header
3	ON=B	OFF=A
2	Not used	
1	Not used	

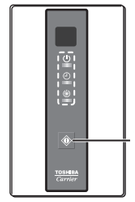
Test run (Forced cooling operation)

Requirement:

- Finish the forced cooling operation in a short time because it applies excessive strength to the air conditioner.

How to perform forced cooling operation

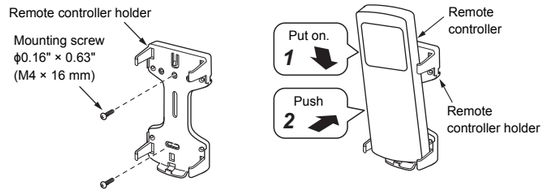
1. When TEMPORARY button is pushed for 10 seconds or more, "Pi!" sound is heard and the operation changes to a forced cooling operation. After approx. 3 minutes, a cooling operation starts forcedly.
   Check cool air starts blowing. If the operation does not start, check wiring again.
2. To stop a test operation, push TEMPORARY button once again (Approx. 1 second).
   - Check wiring / piping of the indoor and outdoor units in forced cooling operation.



How to handle the remote controller

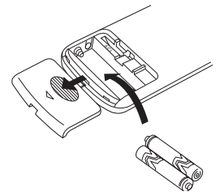
In case using remote controller mounting to the wall, etc.

Check a signal is received correctly by pushing ⏻ button at the position to be fixed.



- **Loading Batteries**

1. Remove the battery cover.
2. Insert 2 new batteries (R03 [AAA]) following the (+) and (-) positions.



Self-diagnosis function and measures

- The following table shows a few examples. For details of indoor unit errors, refer to the Installation Manual of the indoor unit.

LED	Possible cause	Measures
These LEDs do not light or blink even if the remote controller is operated.	- Power is not turned on. - Incorrect connection between signal receiving unit and indoor unit	Check connections and reconnect wires correctly, if necessary.
	Loose connection between signal receiving unit and indoor unit	
	Incorrect or loose connection between indoor unit and outdoor unit	
	The protective device of the outdoor unit is activated.	Check the outdoor unit.
	The protective device of the indoor unit is activated.	Check the indoor unit.

LEDs on the signal receiving unit ●: OFF ☼: Blinking (at intervals of 0.5 seconds)
LED color ⏻: Green ◴: Green ◉: Orange

Explanation to the customer

- After the installation work has been completed, execute a test run to check for normal operation and then hand the customer the Owner's Manual and Installation Manual of the wireless remote controller kit.
- Explain how to use and maintain the wireless remote controller kit to the customer according to the Owner's Manual of the wireless remote controller kit.