

Model name:

BMS-IWF0320E

BMS-IWF0320IN (for India only)

Contents



Precautions for safety	3
Introduction	4
1 Installation	7
2 Power and signal line connections	9
3 Settings	11
3-1. Switch setting	11
3-2. LED	12
3-3. Wireless router setting	12
3-4. Application setting	12
3-5. Smartphone / Tablet setting	12
3-6. Factory default setting	13
4 Test run	13

Precautions for safety

The following instructions must be observed.

- Carefully read these "Precautions for Safety" before installation, and perform installation work safely.
- These precautions contain important information regarding safety.
- After installation work, carry out an operation trial to confirm that there are no problems, and explain to the customer how to operate and maintain the system. Ask the customer to keep this Installation Manual.

Expressions



 Warning	Text set off in this manner indicates that failure to adhere to the directions in the warning could result in serious bodily harm (*1) or loss of life if the product is handled improperly.
 Caution	Text set off in this manner indicates that failure to adhere to the directions in the caution could result in serious bodily injury (*2) or damage (*3) to property if the product is handled improperly.

*1: Serious bodily harm indicates loss of eyesight, injury, burns, electric shock, bone fracture, poisoning, and other injuries which leave aftereffect and require hospitalization or long-term treatment as an outpatient.

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

*3: Damage to property indicates damage extending to buildings, household effects, domestic livestock, and pets.

Graphic symbols

 Prohibited	"⊘" indicates prohibited items. The actual contents of the prohibition are indicated by a picture or text placed inside or next to the graphic symbol.
 Compulsory	"❗" indicates compulsory (mandatory) items. The actual contents of the obligation are indicated by a picture or text placed inside or next to the graphic symbol.

Warning



- **Installation and reinstallation should be performed by your dealer or a qualified electrician**
Attempting to carry out installation work on your own, and doing so incorrectly, may result in electric shock or fire.
- **Electrical work must be performed by a qualified electrician in accordance with this Installation Manual. The work must satisfy all local, national and international regulations**
Inappropriate work may result in electric shock or fire.
- **Be sure to turn off the power before starting work**
Failure to do so may result in electric shock.
- **Use only the power adapter supplied with this unit**
A power adapter other than that supplied with this unit may provide a different voltage and have different polarity (+) (-), which could lead to fire, explosion or generation of heat.



- **Do not modify the unit**
Doing so may result in excessive heat or fire.

Warning

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Introduction

■ Overview

The Smart device control interface is a product that allows you to monitor and control the air conditioner from your smartphone or tablet.

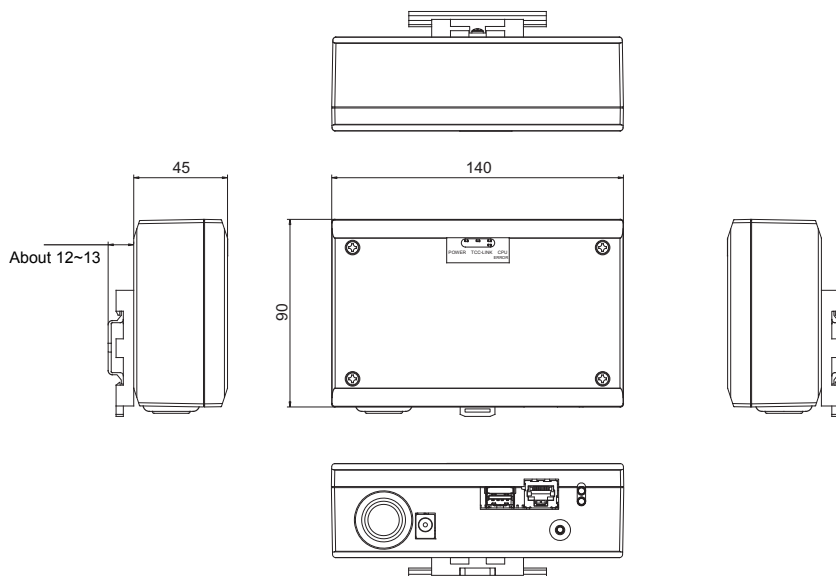
■ Included Items

Component	Q'ty	Remarks
Smart device control interface equipment	1	
Power adapter	1	BMS-IWF0320E only (model name: UI318-0526) (not include Power Cable)
Pin terminal	2	TCC-LINK caulked connectors
Mounting bracket (DIN rail)	1	Use screws to secure the unit in locations without DIN rails (walls, etc.)
Screws (M4 x 12)	2	For securing the DIN rails
Rubber feet	4	For levelling the unit
Screws (M3 x 8)	4	For securing the rubber feet to the unit
DVD-R	1	Manual
Installation Manual	1	This manual
Owner's Manual	1	
Tie-wrap	1	

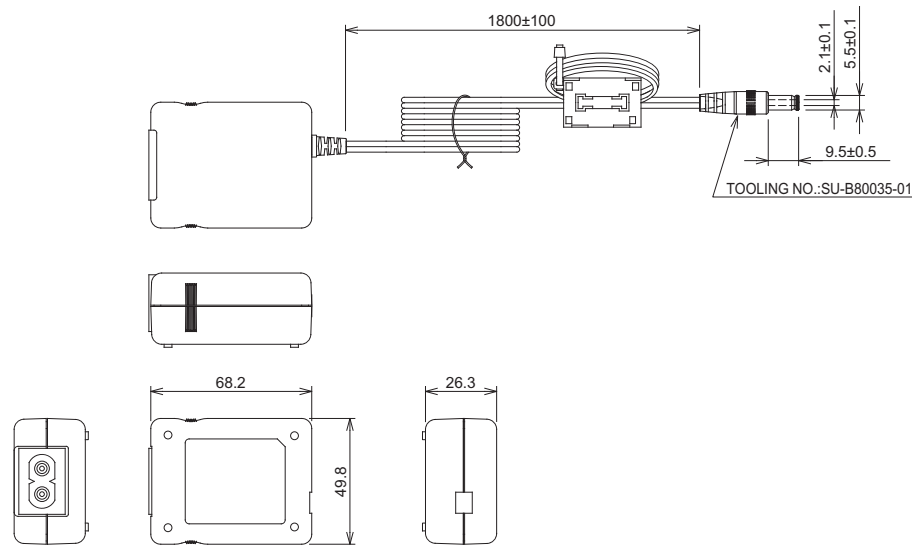
■ Specifications

Model name		BMS-IWF0320E	BMS-IWF0320IN
Power supply	Rated voltage	220-240 VAC 50/60 Hz	5 VDC
	Power consumption	3 W	3 W
Operating temperature range	0°C to 40°C, 10% to 80% RH (no condensation)		
Storage temperature range	-10°C to +60°C, 10% to 90% RH (no condensation)		
Dimensions	Width 140 mm x Height 90 mm x Depth 45 mm		
Mass	Smart device control interface 260 g Power adapter 140 g (BMS-IWF0320E only)		

■ External View (Smart device control interface equipment)



(Power adapter) (BMS-IWF0320E only)



REQUIREMENT

- Power cable is not supplied for the BMS-IWF0320E. Insert a two core power cord applicable to the standard of the country you use.
- Power adapter is not supplied for the BMS-IWF0320IN. Prepare power adapter that confirms to specification of BMS-IWF0320IN.

Specifications

- Output: DC 5 V \pm 5%
- Current: 2 A to 3 A
- DC Plug

2.1 mm \varnothing (inner diameter)

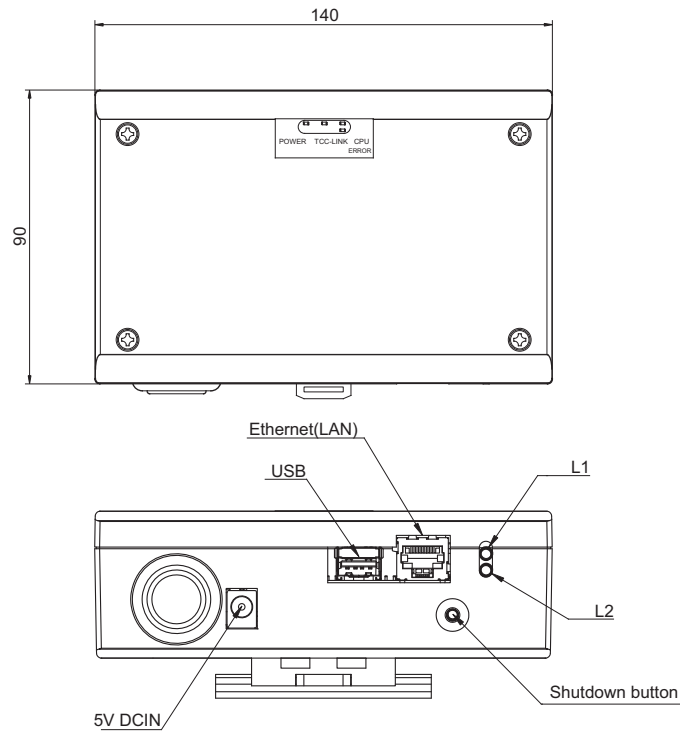
5.5 mm \varnothing (outer diameter)

9.5 mm (length)



- Use a power adapter that complies with BIS standards.
We also recommend that the power adapter complies with safety designs (EN60950), EMI standards (EN550022 and EN61000-3), and EMS standards (including EN550024 and EN61000-4).
- Supplying power other than 5 V may cause malfunctions.

■ Component Names



Name	Function
5V DCIN	Connect the power adapter
USB	(For service)
Ethernet (LAN)	Connect to the Building Management System
Shutdown button	Shutdown
L1	Power indicator
L2	Boot status indicator

1 Installation

REQUIREMENT

Do not install the unit in any of the following places.

- Humid or wet place
- Dusty place
- Place exposed to direct sunlight
- Place where there is a TV set or radio within one meter
- Place exposed to rain (outdoors, under eaves, etc.)

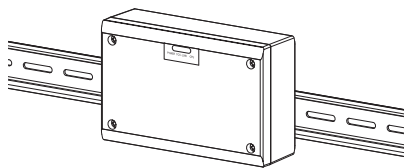
■ Smart device control interface Installation and Orientation

Install and orient the interface using the DIN rail to mount the unit or wall mount or surface mount it as shown below. Use the supplied mounting bracket to wall mount or surface mount the interface.

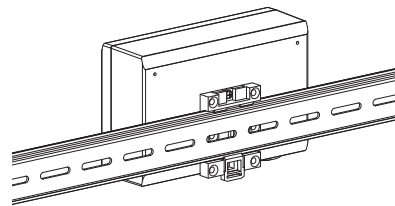
(1) DIN rail mount

Install the interface on DIN rails mounted on a switchboard or elsewhere.

Front view

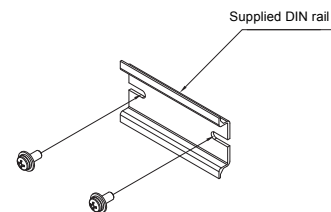


Back view

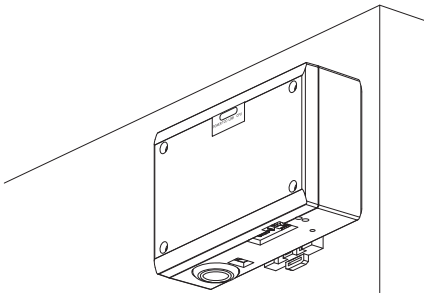


(2) Wall mount

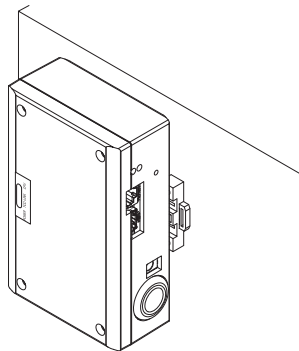
Use screws to attach the supplied DIN rails to a wall and install the interface on the DIN rail.



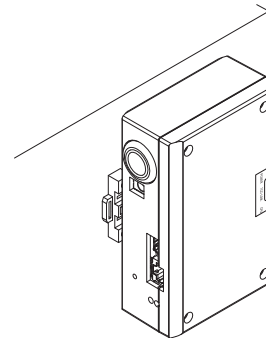
Wall mount A



Wall mount B

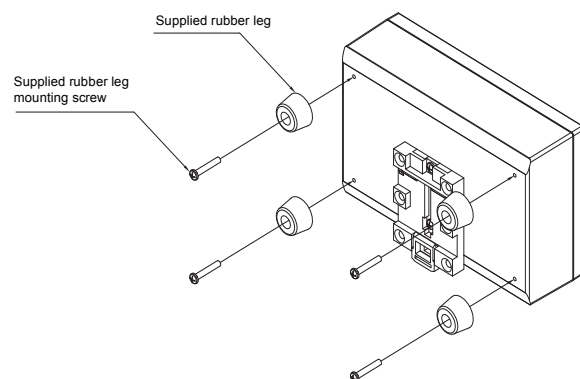
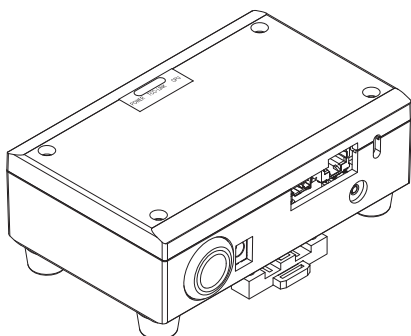


Wall mount C



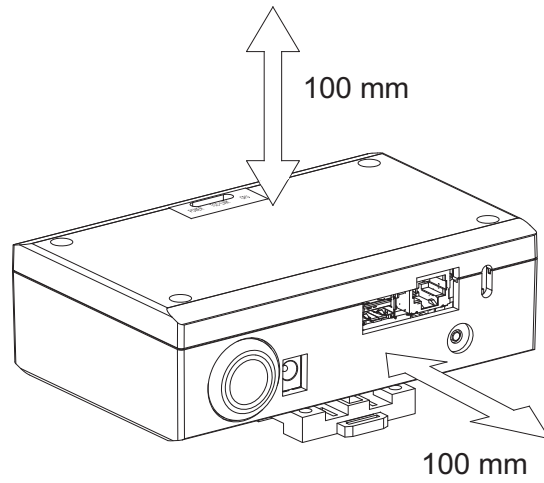
(3) Surface mount

Use screws to secure the supplied rubber legs to the interface before surface mounting it.



■ Installation Space and Maintenance Space

A side space for connecting through cable inlets and an upper space for maintenance must be reserved before installation. The other sides can be adjacent to surrounding objects.



2 Power and signal line connections

■ Cables

Use the following cable for signal line connections. (Procured locally)

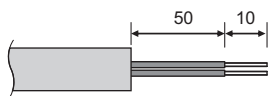
No.	Line	Description	
1	For TCC-LINK	Type	2-core shielded wires
		Wire size	1.25 mm ² , 1000 m max.
		Length	2.00 mm ² , 2000 m max. (total length including air conditioner wiring length)
2	For Ethernet [®]	Type	LAN cable (higher than Category 5, UTP) The appropriate use of straight cable/cross cable should be done depending on your system used
		Length	100 m max.

Ethernet[®] is a registered trademark of Xerox Co., Ltd.

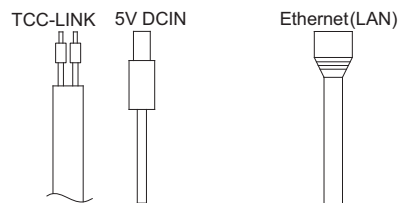
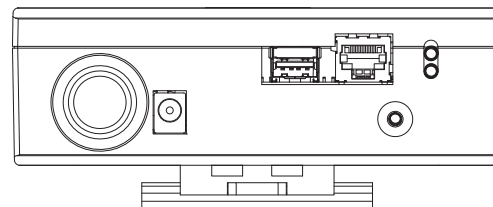
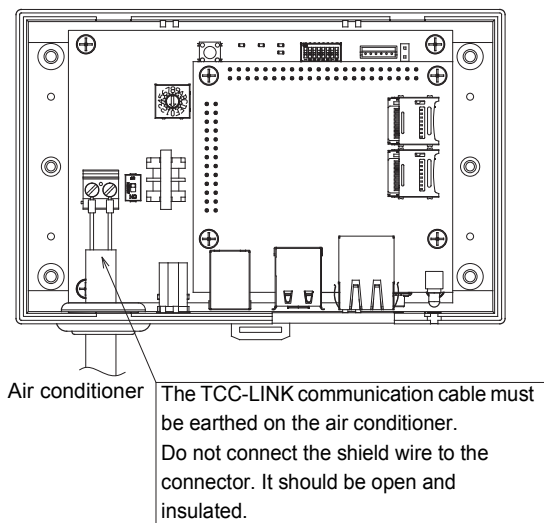
■ Cable Connections

Connect the cables to the specified connectors.

Length of stripped TCC-LINK communication cable



Connect the supplied pin terminal to the TCC-LINK communication cable as necessary.



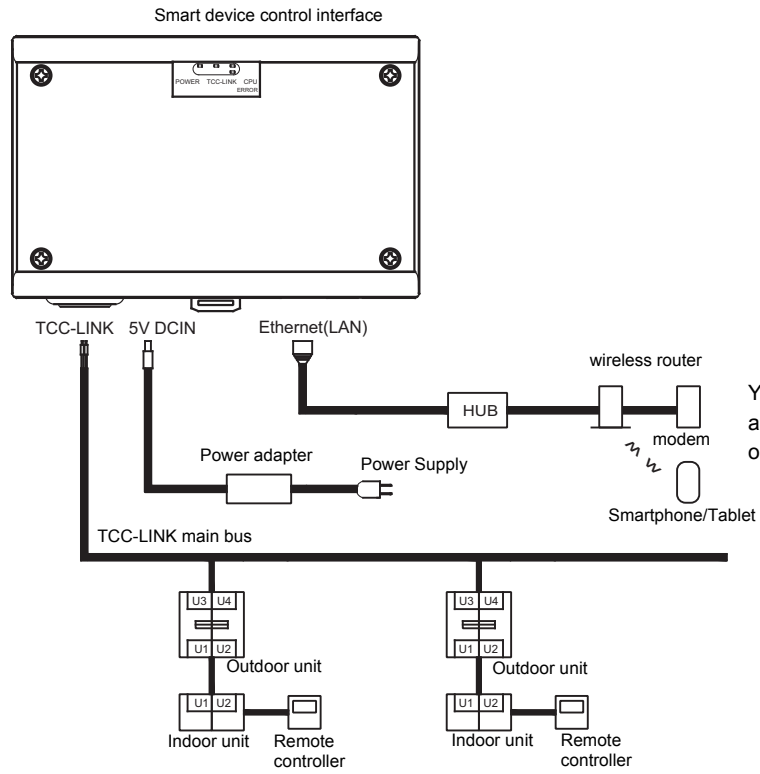
Connection of TCC-LINK Communication Cables Connect the supplied power adapter Connect the LAN cable

CAUTION

The TCC-LINK communication cable have no polarity.

! * Secure the TCC-LINK communication cable and power cable to the switchboard etc. using the supplied cable tie to ensure that no excess load is placed on the power cable connection and TCC-LINK communication cable connection.

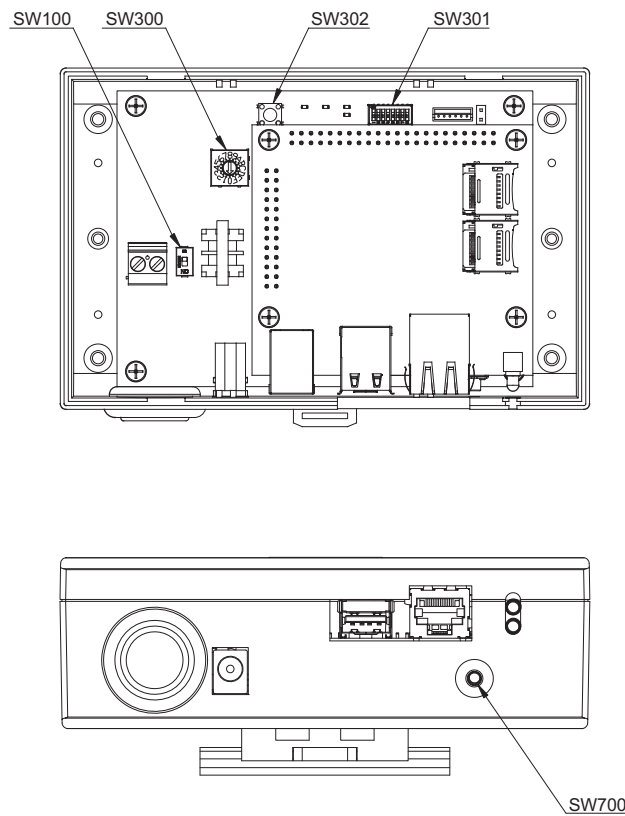
■ Example of System Wiring Connections



3 Settings

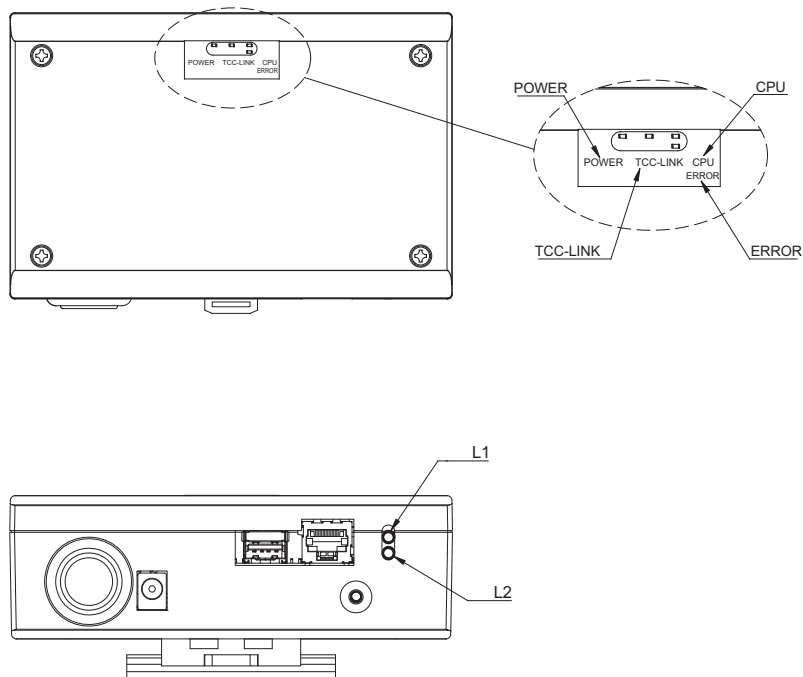
3-1. Switch setting

- SW300 Not used
- SW301 Test switch
Set all bits to "OFF".
- SW302 Test button
Not used during normal operation.
- SW100 TCC-LINK terminator resistor setting switch
Set the TCC-LINK terminator resistor on the air conditioner side. Set SW100 to "OFF".
- SW700 Shutdown function button
Use this button to stop network process of the Smart device control interface.



3-2. LED

LED	LED color	Use
POWER	Red	Power indicator
TCC-LINK	Orange	TCC-LINK communication status indicator
ERROR	Red	TCC-LINK communication error indicator
CPU	Green	Communication status indicator in the Smart device control interface
L1	Green	Power indicator
L2	Red	Boot status indicator



3-3. Wireless router setting

Refer to the manual for the wireless router to set the IP address/SSID/password, etc.

3-4. Application setting

Download the application to the smartphone or tablet that you are using for the test run. Refer to the Owner's Manual for details about the procedure for downloading the application.

3-5. Smartphone / Tablet setting

After setting up the wireless router, refer to the manual for your smartphone or tablet to confirm the connections to the wireless router.

* If you are using the product over the internet, you need to connect the Smart device control interface that is connected to the wireless router to the internet. Confirm that your smartphone or tablet, which is connected to the wireless router, can connect to the internet.

3-6. Factory default setting

The default IP address of Smart device control interface is as follow.

Default IP address: 192.168.0.99

Subnet mask: 255.255.255.0

- * Assign the IP address for the wireless router and the IP address for the Smart device control interface to the same segment. Or, set the Smart device control interface to automatically acquire an IP address. The Settings File Creation Software for Smart device control interface is needed to set the IP address for the wireless router. For details, contact your dealer.

4 Test run

To perform test run of the Smart device control interface, Lan and TCC-LINK communication setting are required.

[Before test run]

■ Import the settings file to the micro SD card

The settings file is needed to use the Smart device control interface.

Import the settings file you created using the Setting File Creation Software for Smart device control interface to the micro SD card for the Smart device control interface.

Ask our sales representative to create the settings file and import it to a micro SD card.

■ Confirm the test run of the air conditioner

Finish confirming the test run of the air conditioner and turn on the power to the unit.

[Test run]

■ Start up the Smart device control interface

Confirm the connections of the signal lines and power lines to the Smart device control interface, and then turn on the Smart device control interface. After turning on the power, confirm that the power LED lights. Five minutes after turning on the power, confirm that the TCC-LINK LED and the CPU LED are flashing. Check the following items because they may cause these LEDs to not flash.

Cause	Action
Smart device control interface have not been turned on.	Make sure that Smart device control interface is turned on.
The indoor and outdoor units have not been turned on.	Make sure that indoor and outdoor units are turned on.
The indoor and outdoor units are being initialized.	Make sure that indoor and outdoor units are turned on. Make sure they have been on for at least 10 minutes.
The TCC-LINK cables have been incorrectly connected.	Connect the cables correctly.

■ Confirm communication with the Smart device control interface

You need to log in to operate the air conditioner from the controller.

Refer to the Owner's Manual for a detailed procedure on logging in.

After logging in, do operations from your smartphone or tablet to confirm.

Confirm whether the following items are the cause that you cannot log in.

Cause	Action
Wireless router has not been turned on.	Make sure that Wireless router is turned on.
Smartphone or Tablet cannot communicate to Wireless router.	Refer to the manual for your smartphone or tablet to confirm the connections to the wireless router.
The Smart device control interface and the wireless router are not connected.	Refer to the owner's manual for the Setting File Creation Software for Smart device control interface when setting the DHCP or synchronizing IP address segment for the wireless router and the Smart device control interface.

■ Confirm communications over the internet

* Implement this only if you are operating the product over the internet. If you are not doing operations over the internet, then the test run were finished in the previous section.

If you are operating over the internet, you need to disconnect the Smart device control interface from the wireless router to which it is connected, and then connect it to a different internet environment through which it can communicate (4G/LTE communications etc.).

Refer to the Owner's Manual for a detailed procedure on logging in to the internet. Confirm whether the following items are the cause that you cannot log in.

Cause	Action
The wireless router cannot connect to the internet.	Refer to the manual for the wireless router to do the settings again.
If an internet service provider permanently registered the user's PC or MAC address (Identification number) of the modem, the Smart device control interface may not be connected to the internet.	Contact the internet service provider.
Internet may not be available due to the firewall.	Contact the internet service provider.
Some wireless router can send abnormal DNS (Domain Name Server) even though internet is connected, the Smart device control interface may not be connected to internet.	Contact the internet service provider.
You followed what the internet service provider directed but cannot be still connected to the internet.	Contact your dealer.

TOSHIBA CARRIER CORPORATION

336 TADEHARA, FUJI-SHI, SHIZUOKA-KEN 416-8521 JAPAN

DEA6729101