



# BUILDING DISTRIBUTOR

Model No. CCU-BS



## COMMAX Co.,Ltd.

- Thank you for purchasing our COMMAX product.
- Please carefully read this User's Guide (in particular, precautions for safety) before using the product and follow the instructions to use your product exactly.
- The company is not responsible for any safety accidents caused in abnormal operation of the product.

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# Warnings and caution

◎ Make sure to follow the instructions to prevent any danger or property losses.

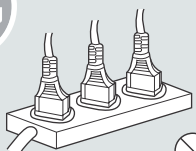


**Warning** Death or serious injury is expected.

- It indicates prohibition.
- It indicates prohibition of disassembly.
- It indicates prohibition of contact.
- It indicates dos and don'ts.
- It indicates that the plug should be pulled out from the socket.



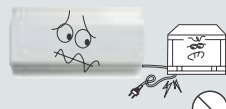
**Warning**



**Do not put the plug in the socket simultaneously.**  
It may generate abnormal heat or cause a fire.



**Do not connect to other products while in use.**  
It may cause breakdown.



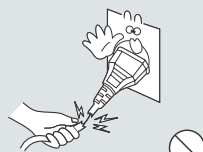
**Do not forcibly bend the cord or put a heavy object on the product.**  
It may cause a fire.



**Do not use water, thinner or a detergent used to wash oil products when you wash the exterior.**  
Make sure to wash it by using a dry cloth to prevent any breakdown or electric shock.



**Do not install the product in a humid place.**  
It may cause an electric shock or a fire.



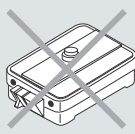
**Do not forcibly pull out the cord from the socket.**  
If the cord is damaged, it may cause a fire or an electric shock.



**Do not put the plug in the socket with a wet hand.**  
It may cause an electric shock.



**Do not disassemble, repair or modify the product.**  
It may cause a fire, an electric shock or an injury due to malfunction of the product.



**Do not use AC circuit breaker.**  
It may cause an electric shock.

# Warnings and caution

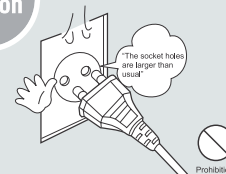


**Caution** An injury or property losses are expected

- It indicates prohibition.
- It indicates prohibition of disassembly.
- It indicates prohibition of contact.
- It indicates dos and don'ts.
- It indicates that the plug should be pulled out from the socket.



**Caution**



**If the socket holes are larger than normal, do not put the plug.**  
It may cause an electric shock or a fire.



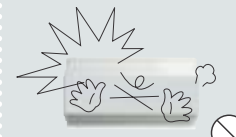
**Make sure that dust or foreign substances are not gathered on the product.**



**Make sure to prevent foreign substances from entering the product.**  
It may cause a breakdown.



**Do not put a heavy object on the product.**  
It may cause a breakdown.



**Do not disassemble or give an impact to the product.**



**Avoid direct rays of the sun or heating devices at a time of installation.**



**Install the product in a flat and stable place.**  
Otherwise, it may not function properly.



**Pull the plug if the product is not used for a long time.**



**If the product generates strange sound, make sure to pull the plug immediately and contact Commax service center.**

# 1. Application

This is a Building distributor which is a DIN RAIL type compact in size.  
 It is a connector between Floor Distributor(CCU-FS) and Outside distributors (CCU-OS), and is connected to Multi Entry Panel(DRC-MSB/MSB).  
 It needs a power source of DC 24~28V to supply the power and signals to In-house units.



# 2. Specifications

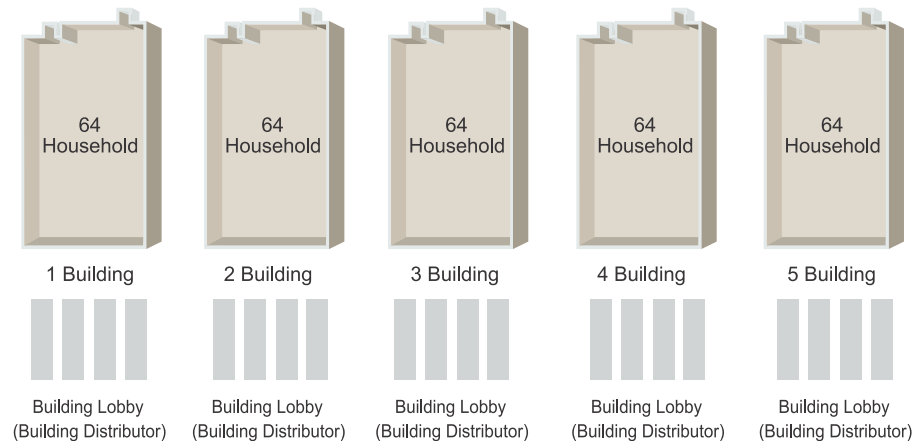
Items	Model
	CCU-BS
WIRING	Common 8-wire (talk2, Data 2, Video 2, VCC, GND) ~ To Multi Entry Panel (DRC-MSB/MSB) Common 6-wire (talk2, Data1, VCC, Video, GND) ~ To Outside Distributor (CCU-OS)
Power Voltage	24~28V/5A
Power Requirements	When connecting 4 Multi entry Panels and one of them is [DRC-nSB + DR12MS x 2]. Standby : 215mA Maximum Operation : 1.3A(When an LED name card is activated)
Installation Range & Wiring	Range: 1. Building Distributor to last Floor Distributor, 200M 2. Building Distributor to Panel, within 20M on normal power operation 3. Building Distributor to Panel, using separate power supply maximum of up to 100 Meters  Wiring : All UTP(CAT.5)

When you use DC28V/5A as a power source for a Floor Distributor, it can cover up to 8 Floor Distributor units with a single power supply and Maximum of 32 In-house units when connecting 1 in-house-unit per residence

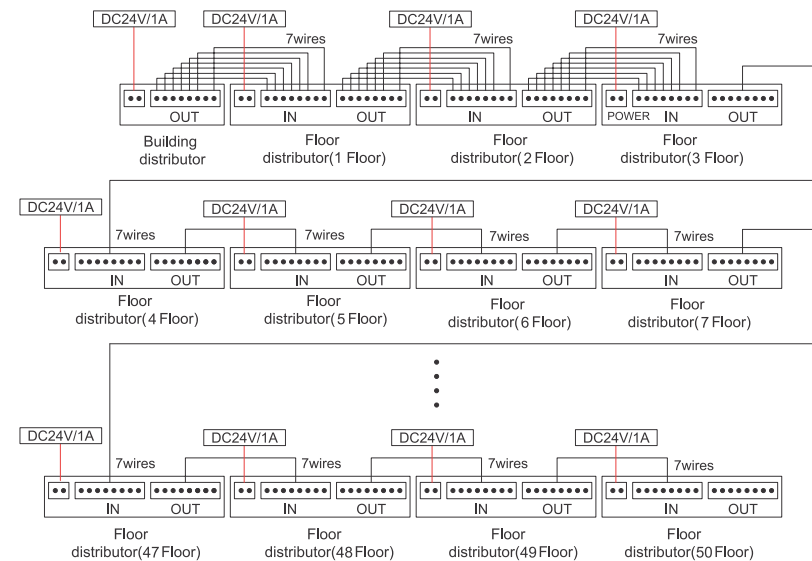
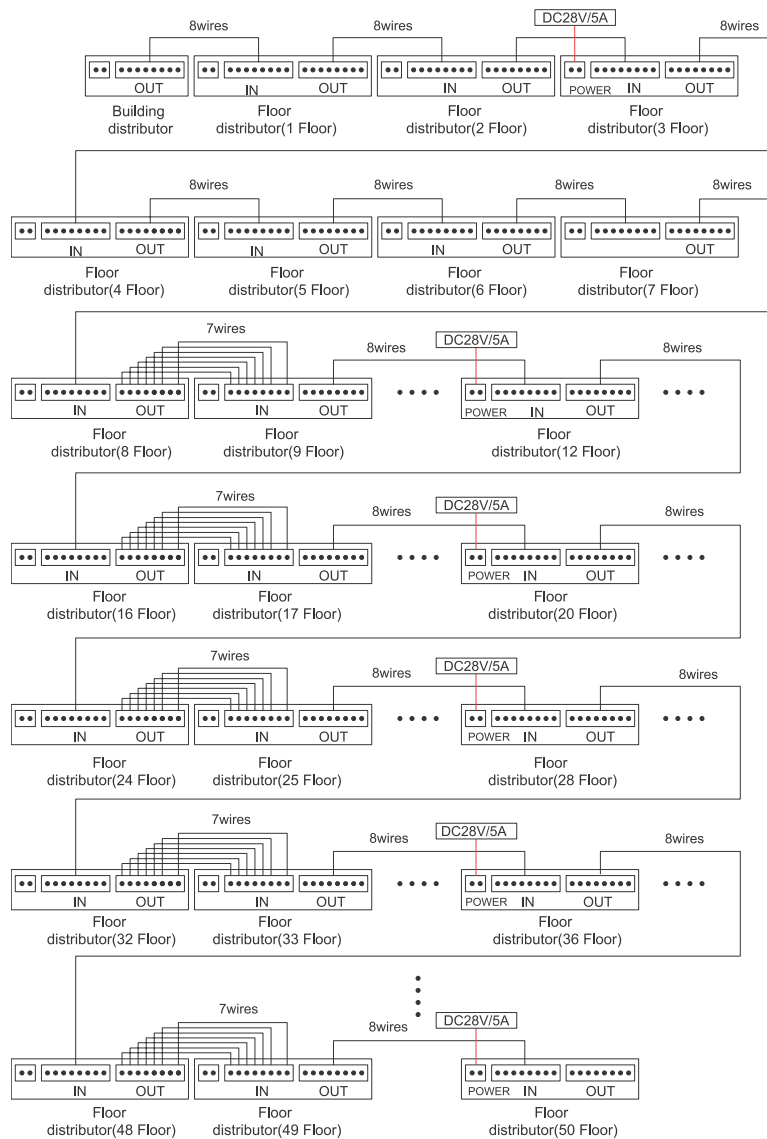
# 3. System Configuration & Wiring

## ♣ CCU-BS System Configuration (28V/5A reception capacity)

- For DC28V/5A power requirements, one power supply distributor can cover up to 8 floors (32 house units).
- The diagram below details the maximum capability for one power supply coverage.
- The first power supply should be powered with the 3rd floor distributor unit (28V/5A).
- One building distributor (CCU-BS) can supply a maximum of 4 entry panels.
- From each entry panel unit, there is an 8-wire connection (TALK 2, DATA 2, VIDEO 2, POWER, GROUND)
- From the building distributor unit (CCU-BS) to the floor distributor (CCU-FS), UTP(8P) cable wiring is used.
- The wiring distance between the entry panel units and the CCU-BS should be within 20 meters.
- If the distance between the entry panels and the CCU-BS exceeds the 20 meter range, then a separate power supply is required to extend the distance to up to 100 meters.
- In case Multi entry panel is connected with an entry panel extension(DRC-nMS), a separate power supply is required. (24V/1A)



♣ **System power diagram(When one power supply cover up to 8 floor distributors)**



- The picture above shows the maximum power one building distributor can cover. This supports for stable power distribution to run.

- The picture above shows the maximum power one building distributor can cover. This supports for stable power distribution to run.

① it is highly recommended to install the power supply to the 3rd floor □ floor distributor to provide ample power between the floor 1 through floor 8 distributors. Power source: (DC28V/5A)

② The following wiring is recommended for stable power supply and to prevent possible interference.

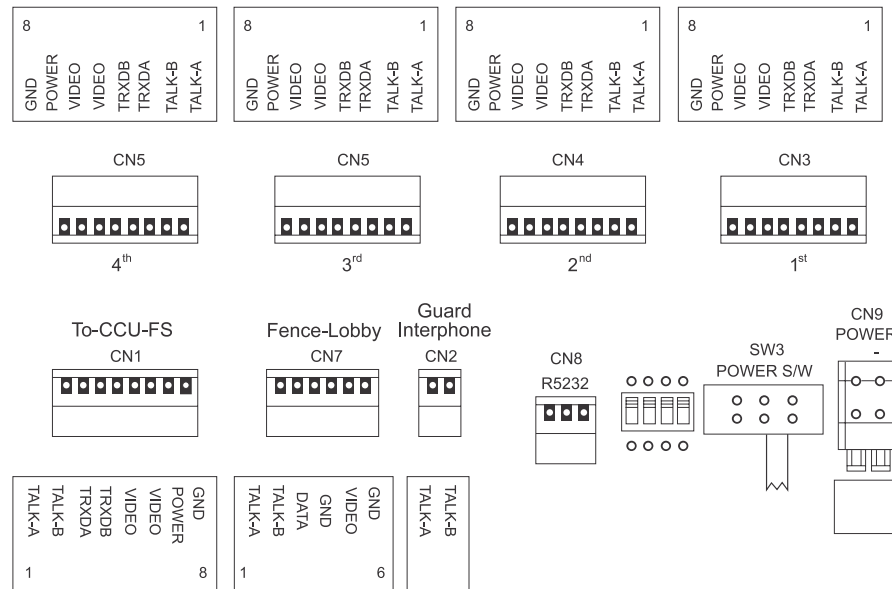
- Disconnect from the 16th floor distributor OUT-terminal to 7th wire(+28V VCC) in the 17th floor distributor IN-terminal, because the 12rd floor distributor power supply (28V/5A) will be transmitted to each floor distributors from floors 9 through 16.

- Disconnect from the 24th floor distributor OUT-terminal to 7th wire(+28V VCC) in the 25th floor distributor IN-terminal, because the 20rd floor distributor power supply (28V/5A) will be transmitted to each floor distributors from floors 17 through 23

- Disconnect from the 32th floor distributor OUT-terminal to 7th wire(+28V VCC) in the 33th floor distributor IN-terminal, because the 28rd floor distributor power supply (28V/5A) will be transmitted to each floor distributors from floors 24 through 31

- Disconnect from the 40th floor distributor OUT-terminal to 7th wire(+28V VCC) in the 41th floor distributor IN-terminal, because the 36rd floor distributor power supply (28V/5A) will be transmitted to each floor distributors from floors 33 through 41.
- Disconnect from the 48th floor distributor OUT-terminal to 7th wire(+28V VCC) in the 49th floor distributor IN-terminal, because the 44rd floor distributor power supply (28V/5A) will be transmitted to each floor distributors from floors 42 through 49.
- The final 50th floor distributor power supply(28v/5A) cover only for 50 th floor distributor.

### ♣ Wiring and the role of each connector.

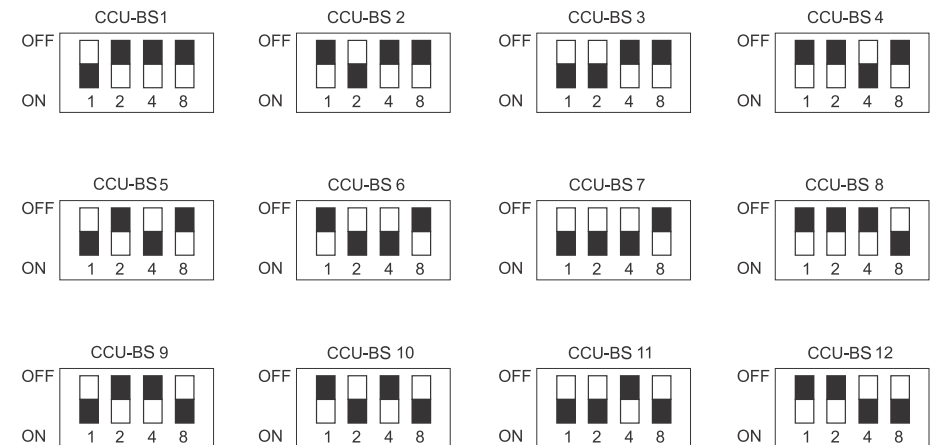


- CN1 : Connect to Floor Distributor (CCU-FS) with 8 wires (Talk 2, Data2, VIDEO2, POWER, GND)
- CN2 : Connect to Audio type Guard Station unit. (Talk 2)
- CN3 : [CHANNEL 1] Connect to 1st Multi Entry unit with 8 wires (TALK2 , TRX 2, VIDEO2, POWER, GND)
- CN4 : [CHANNEL 2] Connect to 2nd Multi Entry unit with 8 wires (TALK 2, TRX 2, VIDEO2, POWER, GND)
- CN5 : [CHANNEL 3] Connect to 3rd Multi Entry unit with 8 wires (TALK 2, TRX 2, VIDEO2, POWER, GND)

- CN6 : [CHANNEL 4] Connect to 4th Multi Entry unit with 8 wires (TALK 2, TRX 2, VIDEO2, POWER, GND)
- CN7 : Connect to Outside Distributor(CCU-OS) with 6 wires (TALK 2, TRX 2, VIDEO2, POWER, GND) (Connectable only where External Entrance unit is )
- CN8 : Connect to Personal computer to register residents' list.
- CN9 : Connect to DC Power.
- SW1 : ID Setting of Building Distributor.
- SW3 : Power ON/OFF for Building Distributor.

## 4. ID Setup

This is for ID Setting of each Main distributors



- Switch setting is as following :  
 First Switch "ON" position = 1  
 Second Switch "ON" position = 2  
 Third Switch "ON" position = 4  
 Fourth Switch "On" position = 8

The sum of the numbers of each Switch "On" is equal to the resident ID  
 Resident IDs are assigned from 1 to 12

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