## Overview

- T&J door signage is a complete system for the hotel guest room's signage control.

- T&J door signage has built-in logic control on the DND, MUR, WAIT and Bell operation. These logic include the interlocking between DND, MUR and door bell chime. It shall control the related indicator LED on both door signage and switch panel inside the room.

- T&J door signage shall help cut down the electrical wiring for implementing the signage function by using one Cat5 cable.

- T&J door signage shall built-in RS-485 communication port for remote control / monitoring.
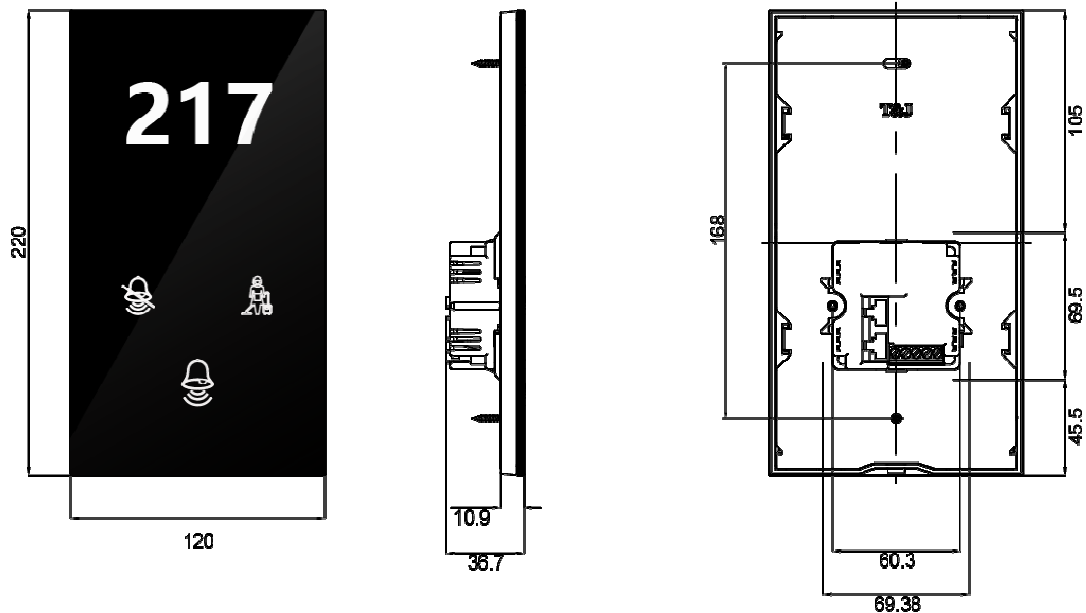
General specifications

- Tampered glass
  - thickness: 3mm
  - hardness: 5.5-6
- Frame: fire-retardant Polycarbonate
- housing: Coated iron sheet

Electrical

- Power
  220~250VAC version
  - DL-HM-DMB   (DND, MUR, Bell)
  - DL-HM-DMPB   (DND, MUR, WAIT, Bell)
  9~12VDC version
  - DL-HM9-DMB   (DND, MUR, Bell)
  - DL-HM9-DMPB   (DND, MUR, WAIT, Bell)
- Power consumption: $\leqslant$ 2.5W
- Over-voltage protection: Yes
- Touch-sensing Bell Switch
- Backlight on the room number display.
- Indicator's color:
  - DND indicator: red
  - MUR indicator: green
  - WAIT indicator: amber
  - Bell indicator: white
- Relay output for door bell
  - 3A @ 250V AC (max)
  - 3A @ 24V DC (max)
  - 3A @ 12V DC (max)
- Input point
  - common ground connection
  - sensing voltage at 5V
  - sensing current 5mA (max)

DND /
MUR /
WAIT
Switch
input

5V
5mA (max)

Schematic
diagram
for
digital
input

GND
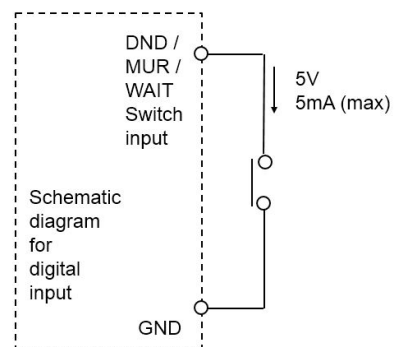
- LED output
    - common voltage connection
    - DC output voltage: 5 V
    - output current: 5 mA (max)
    - The schematic diagram for LED output is shown on left picture.

Schematic diagram For LED output
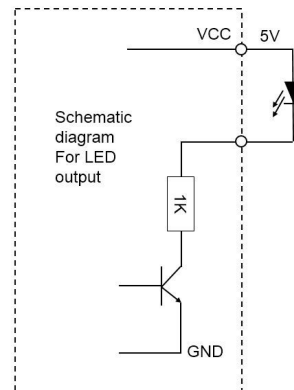
Environment

- Temperature ：-20ºC~ +75ºC
- humidity ：10%~ 85%
- net weight: 657g
- ingress protection: IP 20

Terminals

- screw size: 5mm
  cable size: ??
- RJ45 socket: cat 5 cable or cat 5e cable
  - Max cable length: 5m
- RS485 port
  - 2-wire RS-485
  - Baud: 9600 bps
  - Parity: none
  - Stop bit: 1
- Wall box
  - 1Gang wall box with depth of 35mm (minimum)

Product code

220~250VAC version
    DL-HM-DMB-xxx   (DND, MUR, Bell)
    DL-HM-DMPB-xxx   (DND, MUR, WAIT, Bell)
9~12VDC version
    DL-HM9-DMB-xxx   (DND, MUR, Bell)
    DL-HM9-DMPB-xxx   (DND, MUR, WAIT, Bell)

xxx – color code for the glass

Operation Instruction

There are only few components to form the Signage system. The door signage installed outside of hotel room, the switch panel and door chime. The typical configuration is shown on below picture.

The doorbell touch switch is on the same location as doorbell logo.
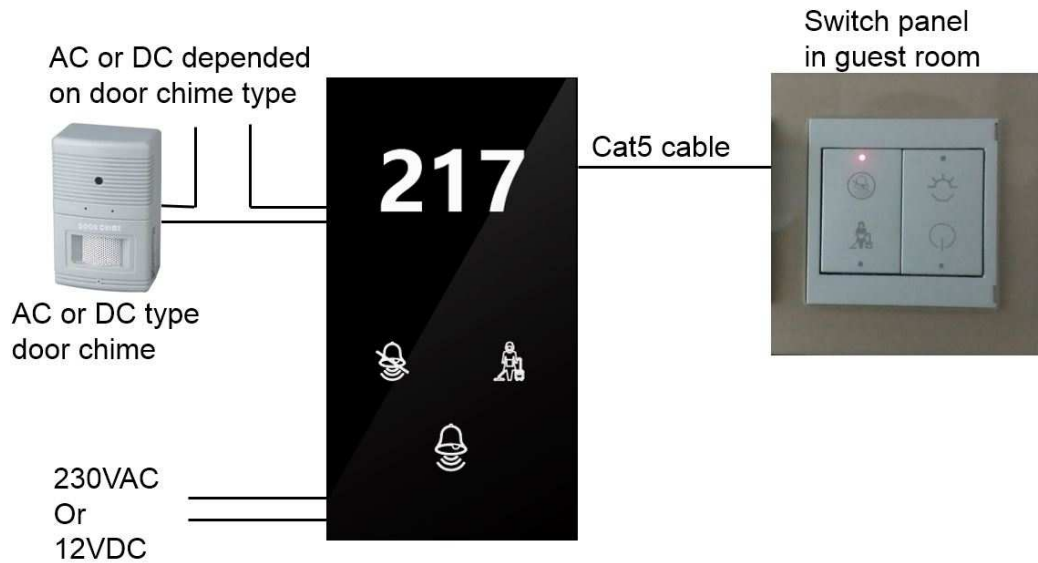
Typical configuration

Normal mode

After power up the door signage, it is on normal mode, default status:
- room number: ON
- doorbell indicator: ON
- doorbell switch: enabled
- DND indicator: OFF
- MUR indicator: OFF
- WAIT indicator: OFF (for DL-HMx-DMPB)

- When doorbell switch has been touched, the door chime shall has been activated. At the same time, the doorbell indicator shall blink. The bell shall go on as long as doorbell switch has been touched.

- When hotel guest press the MUR or WAIT switch on the Switch Panel, the MUR or WAIT indicator on Door Signage and Switch Panel shall be turned "ON". When it is pressed again, it shall turn OFF.

DND mode

When DND switch on switch panel has been pressed, Door Signage shall go to DND mode.

Indicator on Door Signage
- DND indicator: ON
- MUR indicator: OFF
- WAIT indicator: OFF
- Doorbell switch: disable
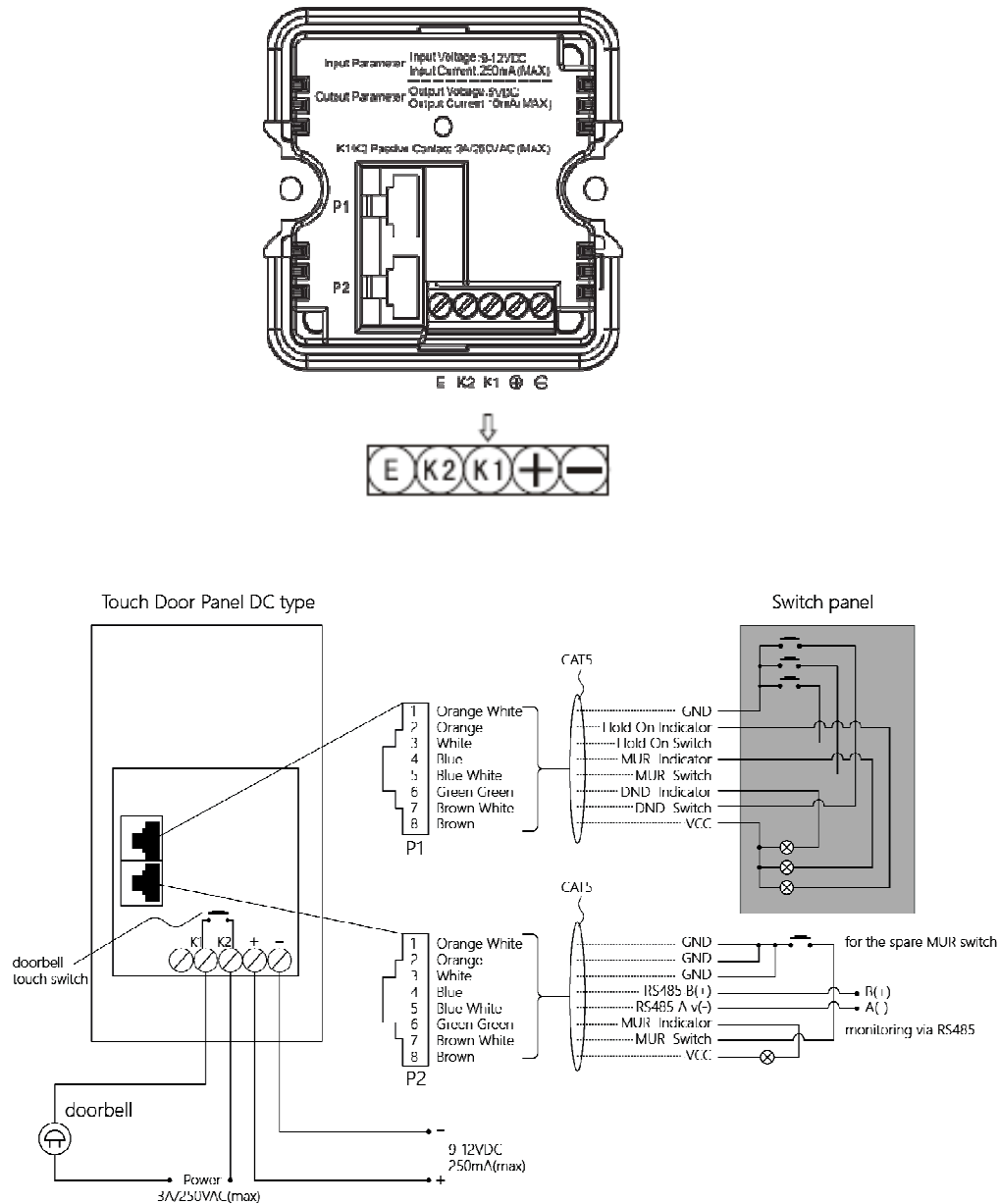
Indicator on Switch Panel
- DND indicator: ON
- MUR indicator: OFF
- WAIT indicator: OFF

No matter what is the status of MUR or WAIT, once Signage system go to DND mode, both of them are OFF
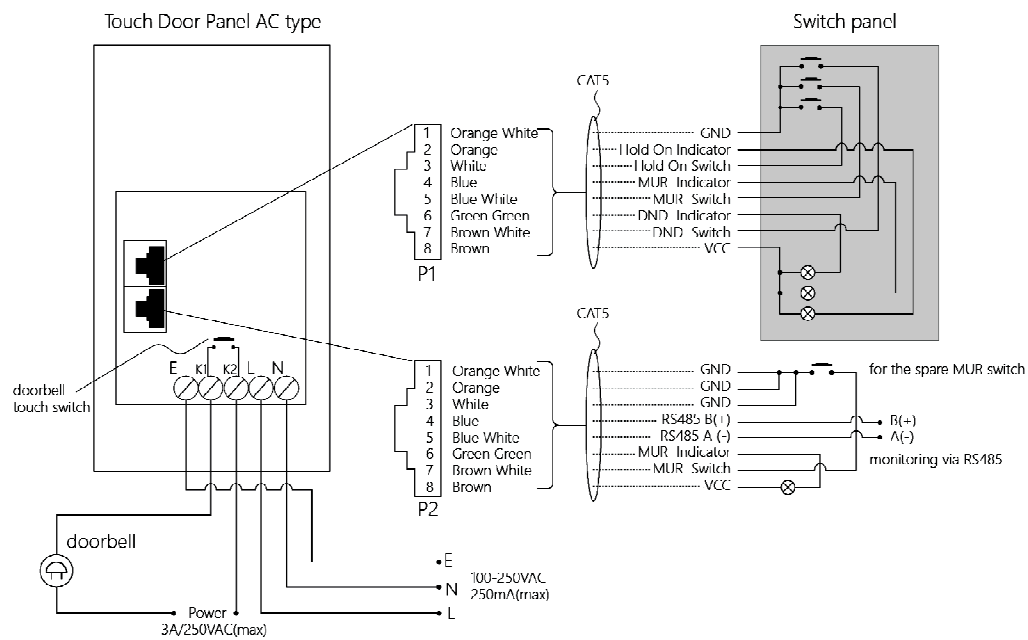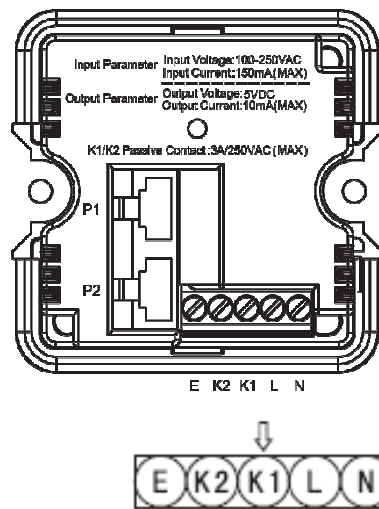
After the Signage system in DND mode, any press on the MUR or WAIT button, it shall go back to normal mode and its corresponding indicator shall be turned ON.

Wiring diagram

DC version

Input Parameter — Input Voltage:9-12VDC / Input Current:250mA(MAX)

Output Parameter — Output Voltage:8VDC / Output Current:10mA(MAX)

K1/K2 Passive Contact:3A/250VAC (MAX)

E K2 K1 ⊕ ⊖

(E)(K2)(K1)(+)(−)

Touch Door Panel DC type

CAT5

P1
1	Orange White	GND
2	Orange	Hold On Indicator
3	White	Hold On Switch
4	Blue	MUR Indicator
5	Blue White	MUR Switch
6	Green Green	DND Indicator
7	Brown White	DND Switch
8	Brown	VCC

Switch panel

CAT5

P2
1	Orange White	GND
2	Orange	GND
3	White	GND
4	Blue	RS485 B(+)
5	Blue White	RS485 A v(-)
6	Green Green	MUR Indicator
7	Brown White	MUR Switch
8	Brown	VCC

for the spare MUR switch

B(+)
A(-)

monitoring via RS485

doorbell touch switch

K1 K2 + −

doorbell

9 12VDC
250mA(max)

Power
3A/250VAC(max)

AC version

Compatible T&J switches with Door Signage

Door Signage	Compatible T&J switch	
DL-HM-DMB DL-HM9-DMB	DL-W2722L-D3E - Top red LED - Bottom green LED	
	217 — Straight Cat5 cable from P1 RJ45 socket	
Door Signage	Compatible T&J switch	
DL-HM-DMPB DL-HM9-DMPB	DL-W2722L-D3E - Top red LED - Bottom green LED DL-W2721L-D4A - Bottom amber LED	
	217 — Straight Cat5 cable from P1 RJ45 socket	

Installation instruction

Step1:

To dig a hole to with the dimension more than 70mm x 70mm，fix a 86 bottom case; open a wire hole, and thread all the cables (power line, cat5 for ports P1, P2) through the hole.
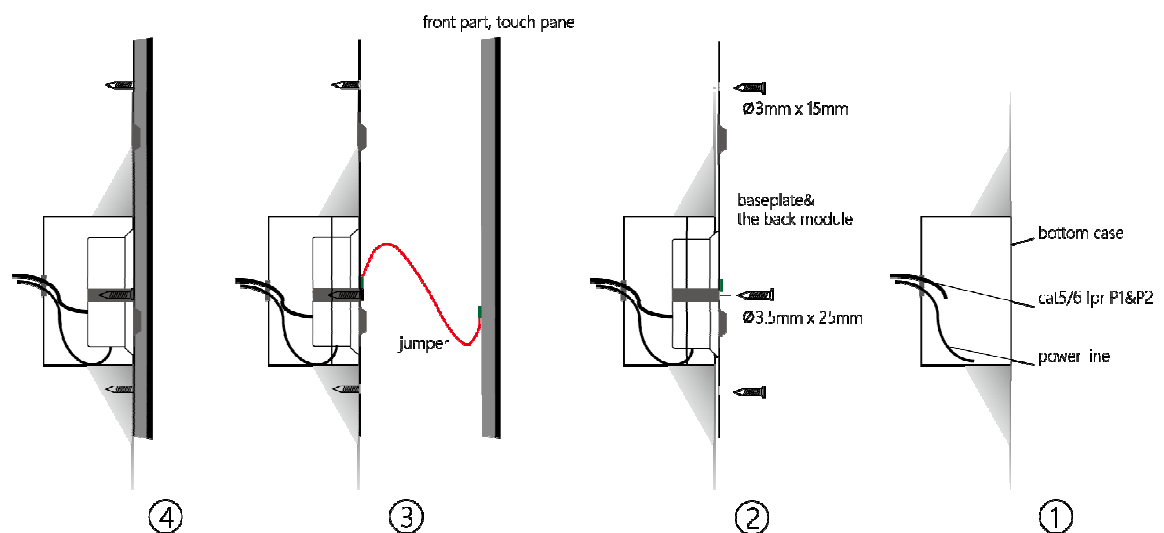
Step2:

After connect cables to the module's ports, then mount the back plate& back module with screws (3mm * 15mm, 3.5mm * 25mm).

Step3:

To fix the jumper line between the touch panel and the back module.

Step4:

To fix the touch panel at back plate's bayonet, then finish the installation.

front part, touch pane

Ø3mm x 15mm

baseplate&
the back module

Ø3.5mm x 25mm

jumper

bottom case

cat5/6 lpr P1&P2

power line

④   ③   ②   ①

Note: Don't power on until the device's installation has been finished.