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Preparation - For the purpose of this document, the following products were used:

1. Latest iVMS-4200 version \geq (2.7.2.4)

Download link: https://www.hikvision.com/au-en/Support/Downloads/Client-Software

- 2. 1 master lift control and 1 distributed lift control: DS-K2210, DS-K2M0016A
- 3. 1 apartment door station and 1 indoor station(Firmware version V1.4.72 or above)
- 4. 1 HIKVISION card reader connecting to the master lift control via Wiegand or RS485(only when you need card reader in the system)
- 5. Set up the indoor station to connect to the door station



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How to set up elevator controller to work with intercom system

1. DIP Switch configuration



 The DIP switch of the card reader should be decimal 1 or 2. The DIP switch of distributed elevator controller (DS-K2M0016A) is decimal 3-10. All devices use binary dialing codes.

DIP Switch status for distributed lift control	Decimal	The corresponding floor
1100 0000	3	1-16
0010 0000	4	17-32
1010 0000	5	33-48
0110 0000	6	49-64
1110 0000	7	65-80
0001 0000	8	81-96
1001 0000	9	97-112
0101 0000	10	113-128

2. Wiring

 Master lift control RS-485 A+ connects to distributed lift control RS-485 A+ as well as card reader RS485A

Master lift control RS-485 A- connects to distributed lift control RS-485 A- as well as card reader RS485B

Master lift control LC_NC connects to distributed lift control LC_NC

Master lift control LC_COM connects to distributed lift control LC_COM

Master lift control LC_NO connects to distributed lift control LC_NO

Master lift control LC_COM2 connects to distributed lift control LC_COM2

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3. Configuration

1) Open iVMS-4200 and activate lift controller in "Device Management"

			×			
Online Device	(6)			2	😯 Refresh Every	60s 👋
+ Add to Cli	ient 🕂 Add All 🛛 🗹 M	lodify Netinfo 💛 Reset Pa	ssword 🌻 A	ctivate	Filter	
IP	Device Type	Firmware Version	Security	Server Port	Device Serial	Start Ti 1
10.5.6.30	DS-7732NI-K4	HOLNVR32-IN V1.1.1.	2 Active	8000	DS-7732NI-K4 2	2017-0
192.0.0.64	DS-K2210	V1.0.0build 161130	Inactive	8000	DS-K2210201 2	2017-0
		3				•
4						•

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2) Add the lift controller to client.

File	e System View	Tool Help		<u> </u>	ivms 📩	-4200	100	ADMIN	•	15:58:04	•	- • ×
	Control Pane	91			Add				×ent			
Ę	Device for Mana	agemen Add	ina Mode:								•	Refresh All
-51	🗎 🕂 Add 🕑 I	Modify 💿 IF	P/Domain	IP Segment	O Hik-Conn	ect D O EHo	me 🔘	Serial Port				
E	Device Type I	Nicknan 🔿 IF	Server O	HIDDNS	O Batch Imp	ort				Net Status	F	Refresh
-(0	A	dd Offline Device									
			N	ckname:	Elevator	ontroller						
			Ac	idress:	10.5.6.11	7						
			P	ort:	8000							
\$			U	ser Name:	admin							
			Pa	assword:	•••••		•					
2	9			Export to Grou	p							
	5		Si co	at the device nar innected to the c	ne as the group n levice to the group	ame and add all t	he channels		\$			
ļ:::	o											
	Online Device (1)					Add	Cance		😯 Refre	sh Ever	y 60s 💛
	+ Add to Clie	ent + Add All	🗹 Modify Netinfo	🥎 Reset Pa	ssword 🔮 Act	vate			Filter			
	IP	Device Type	Firmwa	re Version	Security	Server Port	Device Serial	. Start Time		Added		Support I
	10.5.6.117	DS-K2210	V1.0.0b	uild 161130	Active	8000	DS-K2210201	. 2017-07-2	L 15:57:56	No		N/A
	4											,

- 3) Click remote configuration of the door station and set up the elevator control for the door station.
 - Elevator NO"1". If there is more than 1 master lift control in the system, we need to distribute different elevator NO to different master lift control. One door station can add up to 4 master lift control
 - Elevator control type "DS-K2210"
 - Interface type "Network Interface"
 - Enable or not "Yes"
 - Server IP address is the IP address of the master lift controller. Server port should be 8000.
 - User name "admin"
 - Password is the one you used for activating the lift control
 - Save once done

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- 🗞 System	Configuring the Door	r and Ladder Parameters	
② Device Information	Access Control		
🎡 General		Upload Alarm for Not-Closed Door	
🎯 Time	Door No.:	1	
System Maintenance	Door-unlocked Duration:	15 s	
🎯 User		Encrypt Card	
@ RS485		Save	
🖃 🚳 Intercom	Elevator Control		7
ID Configuration	Elevator No.:	1	
🎡 Time Parameters	Elevator Type:	DS-K2210	
Permission Password	Negative Floor		
Access and Elevator Control	Negauve Floor.		
IO Input/Output	Interface Type:	Network Interface	
Wolume Input/Output		the same interface type.	
Arming Information	Enable Or Not:	Yes	
Intercom Protocol	Server IP Address:	192.168.1.119	AR III
🛨 🚳 Network	Server Port:	8000	
🛨 🚳 Video Display	User Name:	admin	
	Password:	••••••	
		Save	

- 4) Setup an indoor station to connect to the door station
- 5) Click remote configuration of the indoor station. Setup the floor NO for the indoor station (the example below is shown as NO 2)

– 🐼 System	Configuring the Room Numbers
Device Information	Device No. Configuration
💮 General	Device Type: Indoor Station
🎡 Time	Room No: 205
🎡 System Maintenance	
🎡 User	FIOOTNO.: 2
@ RS485	Save
🖸 🚳 Intercom	
🔅 ID Configuration	
③ Time Parameters	
Permission Password	
Zone Alarm	
🎯 IP Camera Information	
Volume Input/Output	
Ring Import	
Arming Information	
Reference Protocol	
Network	

6) Now when you unlock the door from the indoor station, it will trigger relay output 2 in the distributed lift control

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4. Set up the activation time for each relay output of the distributed lift control.

1) We need to setup the activation time for each relay output of the distributed lift control. Click "Access Control" tab in iVMS-4200



2) Click "Advanced Function"



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- 3) Click any floor under "lift control". Floor 1 used as an example below
 - If the master lift control is using firmware V1.0.0, then the floor relay action time is the relay output activation time
 - If the master lift control is using firmwareV1.0.1, then the elevator control delay time is the relay output activation time

File	System	View	Tool	Help	💩 iVMS-4200	
	Cont	trol Pane		Access Control		
모	Acce	ess Cont	trol Par.	💽 Card Reader Au	uthe Access Control athe 📼 Open Door with Fi 🖶 Anti-P 🖨 Cross-Controller Anti-passi 📔 Multi-door Int 🗏	II A
66	Contr	roller List	t		Door Information:	
	Sear	rch		9	Nickname: Floor 1	
		💄 lift co	ontrol	- Ó	Door Magnetic Sensor: Remain Closed 🗸	
Ø		E F	oor 1		Exit Button Type: Remain Open	
		📔 Fl	oor 2	U	Floor Relay Action Time: 10 s	
		E Fl	oor3			
¢		E F	oor4		Door Open Duration by Card for Disabled P 15 s	
		E F	oor5		Door Open Timeout Alarm: 30 s	
ų.		FI	oor6		Enable Locking Door when Door Closed: Yes 🗸	
		FI	oor7		Duress Code:	
R		📔 Fl	oor8		Super Password:	
EQ		F)	oor9		Dismise Code:	
		📑 Fl	oor10			
		E F	oor11		Elevator Control Delay Time: 1	
		FI	oor12		Status Duration Settings	
		E F	oor13			
		E FI	oor14			

5. Enroll users to the system

1) Click the "Access Control" tab in iVMS-4200

File System View Tool	Help		L IVMS-4200	zhaoxichang
Control Panel				
		~		
Operation and Control				
Main View Viewing lite wit unclionally an parameters. Status Monitoring Monitoring the and the card's access control	eo, controlling PTZ d setting image	Remote Playback Searching the record files and playback. Time and Attendance Setting attendance rule, generatin attendance report, etc.	 Access Control Amaging persons, c permissions for acce application; Providing Marray Point Astrong the Astrong and Information 	ards. ss.co.ntol video intercom
Maintenance and Manage	nent			

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2) Add an organization first



3) Add a user and input user information. Once done, select "Add" under the "Credential" tab

		Add Person	n	×
Person No.:	3			
Person Name:	Nick			
Gender:	Male	O Female	•	
Phone No.:				
Date of Birth:	2018-10-19	2		
Place of Birth:				
Email:				
			Upload Picture Take Photo	
Credential	🕃 Details 🤱	Permission 🛅	Attendance Rule	
🖾 Card 👤	Face Picture 🛛 🧔	Fingerprint		
🕇 Add 🗹	Modify 🗙 Dele	te 🖗 Link	謎 QR 上 Link & Rep	
Index	Card No.	Link Fingerprint	nt Link Face Picture Card Effective	(

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4) Select a card reader which is connected to the master lift control. Now select "Read" to read the card number and save the information after the card details are displayed

) bbA	Card	×	×
P	General Card Smar	t Card			
P	Card Type:	Normal Card		~	
G	e Remark:				
P	Card Password:	Password		9	
D	Effective Period:	From 2018-10-19 1	3:55:00 📆 To 2028-10-19	13:55:00 📆	
P	a	Access Contro	Entrance Card Reader1	Read	
	Card Reader Mode:	 Card Enrollme Manually Input 	G door 2	Enter	noto
			- 👢 lift control		
			Entrance Card I		
	1		Transferred Exit Card Reade		(
	Index C	ard No. Card		Card Effec	
]	
			ок	Cancel	

5) Go to the "Permission" tab and "Add" a new permission. Distribute different floors to different users

File System View Tool Help		• iVMS-4200
Control Panel Recess Control	A	Add Permission *
Apply	Permission Name: J Template: Whole Week Template	Add Template
Permission Na Template Person	Person	Selected Personel(1)
e l	Search	P Search P
	— • 🆌 нік	Person Name Organization
	Nick	L Nick HIK
V	🗆 🚨 Tom	
*	Access Control Point/Device	< Selected Door/Device(2)
	Search	P Search P
	🖃 🔳 lift control	Access Contro Door Group
	🗹 📕 Floor 1_lift control	Floor 1 lift control
	🗹 📓 Floor 2_lift control	Floor 2 lift control
	🗆 📕 Floor3_lift control	<
	🗆 📓 Floor4_lift control	
	🗆 📕 Floor5_lift control	
		OK Cancel

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6) Download the permission to maser lift control by clicking "Apply Changes"

File S	System View Tool Help		ivms-4
	Control Panel 🛛 🔤 Access Control		
早	🕂 Add 🔀 Modify 🗙 Delete 🔒 Apply All	Apply Changes	Ģ.
	Permission Na Template Person	Door Details	Status
Ê.	Test Whole Week Nick	Floor 1_lift co <u>Details</u>	Not Applied
	0		
9			

7) Now when you badge the card in the card reader which is connected to the lift controller, it will trigger the related relay output on distributed lift controller



- 6. Installation
- 1) Controller installation diagram

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2) Principle:

(<u>The DIP switch of distributed elevator controller (DS-K2M0016A) is decimal 3-10</u>) : We control the buttons in the elevator, by connecting NC (normally closed) and COM (common) into the button circuit. If the permission is verified, the relay will action and you can press the corresponding level button. The reason for connecting normally closed is that in the normal state the relay coil is energized and the relay contact are open. When the relay output is triggered, the relay contacts will close and allow the relevant button to be pressed. The advantage of this circuit is that it will allow the button to be pressed if the power supply fails and is unable to power the relay coil.



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Connect the relay output to the corresponding button

Relay connection



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