

# **DS-K2600 Series Access Controller**

<u>UD.6L0206D1018A01</u>

Quick Start Guide

Thank you for purchasing our product. If there is any question or request, please do not he sitate to contact dealer.

The figures in the manual are for reference only.

This manual is applied for the following modules:

Module	Series	Device Name
	DS-K2601	Access Controller
	D3-K2001	for Single Door
A a a a a Ca wheellan	DS-K2602	Access Controller
Access Controller	D3-K2002	for Two Doors
	DC K3C04	Access Controller
	DS-K2604	for Four Doors

#### **About this Manual**

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#### Support

Should you have any questions, please do not hesitate to contact your local dealer.

# Regulatory information FCC information

FCC compliance: This equipment has been tested and found to comply with the limits for a digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

#### **FCC conditions**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference.
- 2. This device must accept any interference received, including interference that may cause undesired operation.

#### **EU Conformity Statement**



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed

under the Low Voltage Directive 2006/95/EC, the EMC Directive 2004/108/EC, the RoHS Directive 2011/65/EU.



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info.

## **Preventive and Cautionary Tips**

Before connecting and operating your device, please be advised of the following tips:

- Ensure unit is installed in a well-ventilated, dust-free environment.
- Unit is designed for indoor use only.
- Keep all liquids away from the device.
- Ensure environmental conditions meet factory specifications.
- Ensure unit is properly secured to a rack or shelf. Major shocks or jolts to the
  unit as a result of dropping it may cause damage to the sensitive electronics
  within the unit.
- Use the device in conjunction with an UPS if possible.
- Power down the unit before connecting and disconnecting accessories and peripherals.
- A factory recommended HDD should be used for this device.
- Improper use or replacement of the battery may result in hazard of explosion.
   Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the manufacturer.



#### SafetvInformation

Signs	Description		
<b>A</b> Warning	Follow these safeguards to prevent serious injury or death.		
Note	Follow these precautions to prevent potential injury or material damage.		
Tips	The additional information as a complimentary of the contents.		



- Please adopt the power adapter from the legitimate factory which can meet the safety extra low voltage (SELV) standard.
- Do not install, wiring, or uninstall when the power is still on.
- To reduce the risk of fire or electrical shock, do not expose this product to rain or moisture.
- This installation should be made by a qualified service person and should conform to all the local codes.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)



- Please do not drop the objects on hard surface, and keep the equipment from the magnetic field. Avoid install the equipment to the vibrated or vulnerable places.
- Please do not install the deviœ in the extreme temperature (higher than 65°C or lower than -20°C)
- Keep ventilation.
- Do not operate in humid environment.
- Do not operate in explosive environment.
- Keep the device clean and dry.
- Avoid bare electrical wire.

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# 1. Product Description

#### 1.1 Overview

DS-K2600 is designed with TCP/IP network interface and its signal processed with special encryption and can be run offline. Anti-tampering function is also supported.

#### 1.2 Product Function

- The access controller is equipped with 32-bit high-speed processor;
- Support TCP/IP network communication, with self-adaptive network interface. The communication data is specially encrypted to relieve the concern of privacy leak;
- Support recognition and storage of card number with maximum length of 20;
- The access controller can store 100 thousand legal cards and 300 thousand card swiping records;
- Support multi-door interlock function, anti-passback function, multi-card function, first card open function, super card and super password function, online upgrade function and remote control of the doors;
- Support tamper-proof alarm for card reader, alarm for door not secured, force
  opening door alarm, alarm for door opening timeout, duress card and code alarm,
  blacklist alarm and alarm for illegal cards wiping attempts reaching the limit.;
- The alarm input of controller supports short circuit protection function and cut-proof function;
- Support RS485 interface and Wiegand interface for accessing card reader. RS485
  interface adopts dual-interface design and supports loop breakpoint detection and
  redundancy function; Wiegand interface supports W26,
- W34 and is seamlessly compatible with third-party card reader with Wiegand interface;
- Support various card types as normal/disabled/blacklist/patrol/guest/duress/ super card, etc.;
- Various indicators to show different status;

- Support time synchronization via NTP, manual or a utomatic method;
- Support record storage function when it is offline and insufficient storage space storage alarm function;
- The access controller has backup battery design, watchdog design and tamper-prooffunction;
- Data can be permanently saved after the access controller is powered off.

# 2. Appearance

## 2.1 Indicators and Switches Description

#### 2.1.1 DS-K2600 Series Indicators and Switches

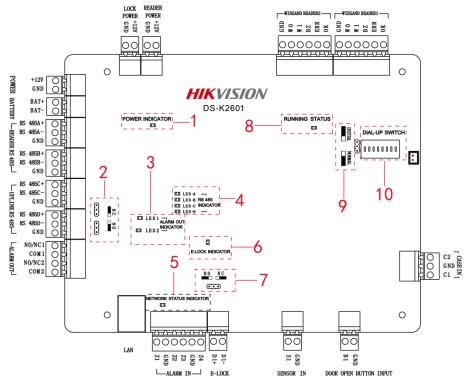


Figure 2-1 DS-K2601Indicators and Switches

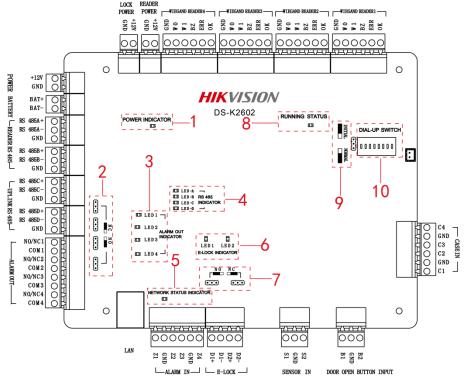


Figure 2-2 DS-K2602 Indicators and Switches

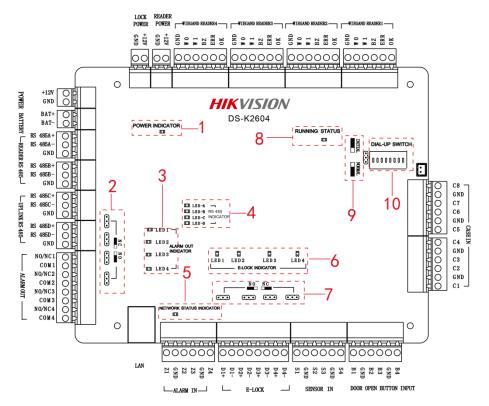


Figure 2-3 DS-K2604 Indicators and Switches

#### 2.1.2 DS-K2600 Indicators and Switches

No.	Indicators and Switches Description			
NO.	DS-K2601	DS-K2602	DS-K2604	
1	PowerIndicato	r		
2	Alarm Relay Ou	tput Status (NC/N	10)	
3	Alarm Relay Ou	tput Indicators		
	Downlink Reader RS485 Communication			
4	Indicator			
5	Network Status Indicator			
6	Door Relay Output Indicator			
7	Door Relay Output Status (NC/NO) Choice			
8	RunningStatus			
	Hardware Initialization and Normal Working			
9	Choice			
10	Main board dial-upswitch/ Reserved			

Table 2-1 DS-K2600 Series Indicators and Switches

# 3. Ports Description

## 3.1 DS-K2601Terminal Description

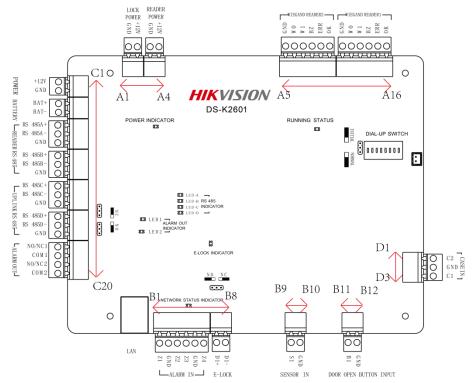


Figure 3-1 DS-K2601 Terminals

No.			DS-K2601
A1	Last Damas	GND	Grounding
A2	Lock Power	+12V	Power Output of the Lock
A3	Card Reader	GND	Grounding
A4	Power	+12V	Power Output of the Head Read
A5		GND	Grounding
A6		W0	Wiegand Head Read Data Input Data0
A7	Wiegand	W1	Wiegand Head Read Data Input Data1
A8	Card Reader	BZ	Card Reader Buzzer Control Output
A9	2	ERR	Indicator of Card Reader Control Output (Invalid Card Output)
A10		ОК	Indicator of Card Reader Control Output (Valid Card Output)
A11		GND	Grounding
A12		W0	Wiegand Head Read Data Input Data0
A13	Maria and and	W1	Wiegand Head Read Data Input Data1
A14	Wiegand	BZ	Card Reader Buzzer Control Output
A15	Card Reader 1	ERR	Indicator of Card Reader Control Output (Invalid Card Output)
A16		ОК	Indicator of Card Reader Control Output (Valid Card Output)
B1		<b>Z</b> 1	Arming Region Access Terminal 1 (Only for Linkage of Alarm Relay Output)
B2		GND	Grounding
В3	Arming Region Input	Z2	Arming Region Access Terminal 2 (Only for Linkage of Alarm Relay Output)
В4		<b>Z</b> 3	Arming Region Access Terminal 3 (Only for Linkage of Alarm Relay Output)
B5		GND	Grounding
В6		Z4	Arming Region Access Terminal 4 (Only for Linkage of Alarm Relay Output)

No.			DS-K2601
В7	E La ele	D1+	Door 1 Door Bolow Invest (Dr. Contact)
B8	E-Lock	D1-	Door 1 Door Relay Input (Dry Contact)
В9	Door	S1	Door 1 Door Contact Detector Input
B10	Contact Input	GND	Grounding
B11	Door Open	B1	Door 1 Door Open Button Input
B12	Button	GND	Grounding
C1	Danna	+12V	DC12V Cathode
C2	Power	GND	DC12V Grounding Input
C3	Patton/	BAT+	DC12V Battery Cathode
C4	- Battery	BAT-	DC12V Battery Anode
C5		RS 485A+	Card Reader RS485+ Access
C6		RS 485A-	Card Reader RS485- Access
C7	485 Card	GND	Grounding
C8	Reader	RS 485B+	Card Reader RS485+
C9		RS 485B-	Card Reader RS485-
C10		GND	Grounding
C11		RS 485C+	
C12	Access	RS 485C-	
C13	Controller	GND	Dagarrad
C14	RS485	RS	Reserved
C14	Interface	485D+	
C15		RS 485D-	
C16		GND	
C17	Alarm	NO/NC1	Alarm Relay 1 Output (Dry Contact)
C18	Output	COM1	Alailli Nelay 1 Output (Diy Colltact)

No.			DS-K2601
C19		NO/NC2	Alarma Balay 2 Output (Dry Contact)
C20		COM2	Alarm Relay 2 Output (Dry Contact)
D1		C2	Event Alarm Input 2
D2	EventInput	GND	Grounding
D3		C1	Event Alarm Input 1

Table 3-1 DS-K2601 Terminal Description

## 3.2 DS-K2602Terminal Description

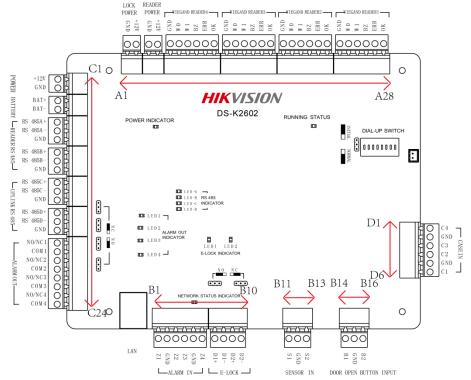


Figure 3-2 DS-K2602 Terminal Description

No.			DS-K2602
A1	Power for	GND	Grounding
A2	E-Lock	+12V	Power Output of the Lock
A3	Power for	GND	Grounding
A4	Card Reader	+12V	Power Output of the Head Read
A5		GND	Grounding
A6		W0	Wiegand Head Read Data Input Data0
A7	\\\\! = == = d	W1	Wiegand Head Read Data Input Data1
A8	Wiegand Card	BZ	Card Reader Buzzer Control Output
A9	Reader 4	ERR	Indicator of Card Reader Control Output (Invalid Card Output)
110		011	Indicator of Card Reader Control Output
A10		OK	(Valid Card Output)
A11		GND	Grounding
A12		W0	Wiegand Head Read Data Input Data0
A13	\\\\! = == = d	W1	Wiegand Head Read Data Input Data1
A14	Wiegand Card	BZ	Card Reader Buzzer Control Output
A15	Reader 3	ERR	Indicator of Card Reader Control Output (Invalid Card Output)
A1C		OK	Indicator of Card Reader Control Output
A16		ОК	(Valid Card Output)
A17		GND	Grounding
A18		W0	Wiegand Head Read Data Input Data0
A19	Wingand	W1	Wiegand Head Read Data Input Data1
A20	Wiegand Card Reader 2	BZ	Card Reader Buzzer Control Output
A21		ERR	Indicator of Card Reader Control Output (Invalid Card Output)
A22		ОК	Indicator of Card Reader Control Output (Valid Card Output)
A23	Wiegand	GND	Grounding
		•	•

No.	DS-K2602		
A24	Card	W0	Wiegand Head Read Data Input Data0
A25	Reader 1	W1	Wiegand Head Read Data Input Data1
A26		BZ	Card Reader Buzzer Control Output
427		EDD	Indicator of Card Reader Control Output
A27		ERR	(Invalid Card Output)
A28		ОК	Indicator of Card Reader Control Output
AZO		UK	(Valid Card Output)
B1		Z1	Arming Region Access Terminal 1 (Only for
PI		21	Linkage of Alarm Relay Output)
В2		GND	Grounding
В3		Z2	Arming Region Access Terminal 2 (Only for
БЭ	Arming	22	Linkage of Alarm Relay Output)
B4	Region	Z3	Arming Region Access Terminal 3 (Only for
D4		23	Linkage of Alarm Relay Output)
B5		GND	Grounding
B6		<b>Z</b> 4	Arming Region Access Terminal 4 (Only for
ВО		24	Linkage of Alarm Relay Output)
В7	E-Lock1	D1+	Door 1 Door Relay Input (Dry Contact)
В8	E-LUCKI	D1-	Door 1 Door Keray Input (Dry Contact)
В9	E-Lock2	D2+	Door 2 Door Relay Input (Dry Contact)
B10	L-LOCK2	D2-	boot 2 boot Keray input (biy contact)
B11	Door	S1	Door 1 Magnetic Detector Input
B12	Magnetics	GND	Signal Grounding
B13	Detector	S2	Door 2 Magnetic Detector Input
B14	Door	B1	Door 1 Door Button Input
B15	Door	GND	Signal Grounding
B16	Button	B2	Door 2 Door Button Input
C1	Dower	+12V	DC12V Cathode
C2	Power	GND	Grounding

No.	DS-K2602		
C3	Datta	BAT+	DC12V Battery Cathode
C4	Battery	BAT-	DC12V Battery Anode
C5		RS 485A+	Card Reader RS485+ Access
C6	Card	RS 485A-	Card Reader RS485- Access
С7	Reader 485	GND	Grounding
C8	Interface	RS 485B+	Card Reader RS485+
C9		RS 485B-	Card Reader RS485-
C10		GND	Grounding
C11		RS 485C+	
C12		RS 485C-	
C13	RS-485	GND	Reserved
C14	Interface	RS 485D+	Reserveu
C15		RS 485D-	
C16		GND	
C17		NO/NC1	Alexan Belevia Outroot (Bar Contest)
C18		COM1	Alarm Relay 1 Output (Dry Contact)
C19		NO/NC2	Alarm Relay 2 Output (Dry Contact)
C20	Alarm	COM2	Arami Keray 2 Output (Dry Contact)
C21	Output	NO/NC3	Alarm Relay 3 Output (Dry Contact)
C22		сом3	Arami Keray 3 Output (Dry Contact)
C23		NO/NC4	Alarm Relay 4 Output (Dry Contact)
C24		COM4	Additional of the state of the
D1		C4	Event Alarm Input 4
D2	EventInput	GND	Grounding
D3		C3	Event Alarm Input3

No.		DS-K2602
D4	C2	Event Alarm Input 2
D5	GND	Grounding
D6	C1	Event Alarm Input 1

Table 3-2 DS-K2602 Terminal Description

## 3.3 DS-K2604 Terminal Description

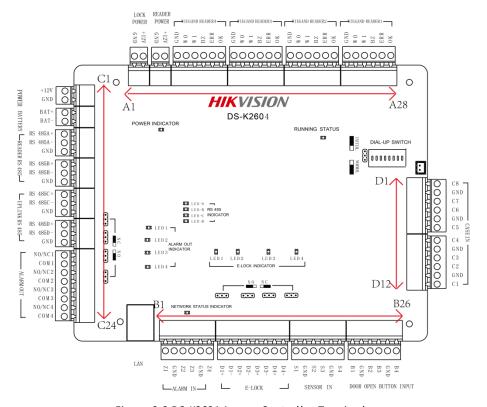


Figure 3-3 DS-K2604 Access Controller Terminals

A1 Power Supply of E-Lock   A2 Supply of E-Lock   A3 Power GND Grounding  A4 Supply of Card Reader   A5 GND Grounding  A6 Wiegand Card Reader Data Input Data   A8 Card Reader   A9 A1 GND Grounding  A10 OK Gresset of Card Reader Control Output (Valid Card Output)  A11 A12 A13 A14 Card Reader   A15 A16 OK GND Grounding  A16 A17 Wiegand Card Reader Data Input Data   A18 A19 A18 A19 A20 A18 A22 A22 OK A22 A22 A22 A22 A22 A22 A22 A22 A22 A2	No.	DS-K2604			
A2 E-Lock A3 Power A4 Power A5 Supply of Card Reader A5 A6 Wiegand A7 Wiegand A8 Card Reader A9 A10 A11 A12 A13 A14 A14 A14 A14 A15 A15 A16 A16 A17 A18 A16 A17 A18 A19 A20 A22	A1	Power	GND	Grounding	
A4 Supply of Card Reader Power Supply of Card Reader Output  A5 A6 A7 Wiegand A8 Card Reader A9 A9 A10 A11 A12 A12 A13 A14 A14 A15 A16 A16 A17 A18 A16 A17 A18 A18 A19 A20 A22 A22 A22 A22 A22 A22 A22 A22 A22	A2	,	+12V		
A4 Card Reader A5 GND Grounding A6 Wiegand Card Reader Data Input Data 0 A7 Wiegand A8 Card Reader A9 4 ERR Unvalid Card Reader Control Output A10 OK Cresset of Card Reader Control Output (Valid Card Output) A11 GND Grounding A12 Wiegand A14 Card Reader A15 3 ERR Cresset of Card Reader Control Output A16 OK Card Output)  A17 A18 A18 A19 Wiegand A20 Wiegand A22 ERR Cresset of Card Reader Control Output A22 ERR Cresset of Card Reader Control Output A22 Cresset of Card Reader Control Output A23 Cresset of Card Reader Control Output A24 Cresset of Card Reader Control Output A25 Cresset of Card Reader Control Output A26 Cresset of Card Reader Control Output A27 Cresset of Card Reader Control Output A28 Cresset of Card Reader Control Output A29 Cresset of Card Reader Control Output A20 Cresset of Card Reader Control Output A20 Cresset of Card Reader Control Output A21 Cresset of Card Reader Control Output A22 Cresset of Card Reader Control Output A22 Cresset of Card Reader Control Output A22 Cresset of Card Reader Control Output A20 Cresset of Card Reader Control Output A21 Cresset of Card Reader Control Output A22 Cresset of Card Reader Control Output A23 Cresset of Card Reader Control Output A24 Cresset of Card Reader Control Output A25 Cresset of Card Reader Control Output A26 Cresset of Card Reader Control Output A27 Cresset of Card Reader Control Output A28 Cresset of Card Reader Control Output A29 Cresset of Card Reader Control Output A20 Cresset of Card Reader Control Output A20 Cresset of Card Reader Control Output A20 Cresset of Card Reader Control Output	А3	Power	GND	Grounding	
Wiegand   Wiegand Card Reader Data Input Data0	A4		+12V	Power Supply of Card Reader Output	
A7  A8  A8  Card Reader  A9  A10  A10  A11  A12  A13  A14  A15  A16  A16  A17  A18  A19  A18  A19  A19  A10  A10  A10  A11  A12  A13  A14  A15  A15  A16  A17  A18  A19  A18  A19  A19  A20  A22  A22  A22  A22  A22  A22  A2	A5		GND	Grounding	
A8 Card Reader A9 4 ERR Cress et of Card Reader Control Output (Invalid Card Output)  A10 OK Cress et of Card Reader Control Output (Valid Card Output)  A11 ON OK OR OR OUTPUT  A12 ON OR OR OR OUTPUT  A13 ON OR OR OR OUTPUT  A14 ON OR OR OR OUTPUT  A15 ON OR OR OR OUTPUT  A16 ON OR OR OR OUTPUT  A17 ON OR OR OR OUTPUT  A18 ON OR OR OUTPUT  A18 ON OR OR OUTPUT  A19 ON OR OR OUTPUT  A20 ON OR OR OUTPUT  A21 ON OR OR OUTPUT  A22 ON ON OR OR OUTPUT  A22 ON ON OR OUTPUT  A22 ON ON OR OUTPUT  A22 ON ON OR OUTPUT  CRESS ET OF CARD Reader Control Output (Invalid Card Reader Data Input Data)  A20 ON OR OUTPUT  A22 ON ON OUTPUT  CRESS ET OF CARD Reader Control Output (Invalid Card Reader Control Output (Invalid Card Output)  CRESS ET OF CARD Reader Control Output (Invalid Card Reader Control Output (Invalid Card Output)  CRESS ET OF CARD Reader Control Output (Invalid Card Output)  CRESS ET OF CARD Reader Control Output (Invalid Card Output)  CRESS ET OF CARD Reader Control Output (Invalid Card Output)  CRESS ET OF CARD Reader Control Output (Invalid Card Output)	A6		W0	Wiegand Card Reader Data Input Data0	
A8 Card Reader A9 4 ERR Cresset of Card Reader Control Output (Invalid Card Output)  A10 OK Cresset of Card Reader Control Output (Valid Card Output)  A11 A12 Wiegand A13 Wiegand A14 Card Reader A15 3 ERR Cresset of Card Reader Data Input Data1  BZ Buzzer of Card Reader Data Input Data1  BZ Buzzer of Card Reader Control Output (Invalid Card Output)  Cresset of Card Reader Control Output (Invalid Card Output)  A16 OK Card Output)  A17 A18 Wiegand A20 Card Reader A21 PERR Wiegand A22 Card Reader A22 Card Reader A23 Card Reader A24 Card Reader A25 Card Reader A26 Card Reader A27 Cresset of Card Reader Control Output (Invalid Card Output)  Cresset of Card Reader Control Output (Invalid Card Output)  Cresset of Card Reader Control Output (Invalid Card Output)  Cresset of Card Reader Control Output (Invalid Card Output)  Cresset of Card Reader Control Output (Invalid Card Output)	A7	Wingand	W1	Wiegand Card Reader Data Input Data1	
A9 4 ERR Cresset of Card Reader Control Output (Invalid Card Output)  A10 OK Cresset of Card Reader Control Output (Valid Card Output)  A11 A12 A13 Wiegand A14 Card Reader Data Input Data0  A15 A16 OK Cresset of Card Reader Data Input Data1  BZ Buzzer of Card Reader Control Output (Invalid Card Output)  Cresset of Card Reader Control Output (Invalid Card Output)  A16 OK Cresset of Card Reader Control Output (Valid Card Output)  A17 A18 A19 Wiegand A20 Card Reader Data Input Data1  A20 Card Reader A21 Card Reader Control Output (Invalid Card Reader Control Output Card Reader Control Output Card Reader Control Output Card Reader Data Input Data1  BZ Buzzer of Card Reader Data Input Data1  BZ Buzzer of Card Reader Control Output (Invalid Card Reader Control Output Card Reader Control Output Card Reader Control Output (Invalid Card Output)  Cresset of Card Reader Control Output (Invalid Card Output)  Cresset of Card Reader Control Output (Invalid Card Output)	A8		BZ	Buzzer of Card Reader Control Output	
A10  A10  OK  Cresset of Card Reader Control Output (Valid Card Output)  A11  A12  A13  A14  Card Reader  A15  A16  A17  A18  A19  A20  A21  A22  A22  Cresset of Card Reader Control Output (Valid Card Output)  Cresset of Card Reader Control Output  (Invalid Card Reader Control Output (Valid Card Output))  Wiegand Card Reader Control Output (Valid Card Output)  Wiegand Card Reader Control Output (Valid Card Output)  Wiegand Card Reader Data Input Data0  Wiegand Card Reader Data Input Data0  Wiegand Card Reader Data Input Data1  BZ  Buzzer of Card Reader Control Output  (Invalid Card Reader Control Output  (Invalid Card Reader Control Output  (Invalid Card Output)  Cresset of Card Reader Control Output  (Invalid Card Output)  Cresset of Card Reader Control Output  (Invalid Card Output)  Cresset of Card Reader Control Output  (Invalid Card Output)  Cresset of Card Reader Control Output  (Invalid Card Output)	40		EDD	Cresset of Card Reader Control Output	
A10  A11  A12  A13  A14  A15  A16  A16  A17  A18  A19  A20  A22  A22  A22  A22  A22  A21  A22  A22  A22  A33  A44  A44  A45  A46  A47  A48  A48  A49  A48  A49  A48  A49  A48  A49  A40  A40  A41  A42  A42  A42  A42  A43  A44  A44  A45  A46  A47  A48  A48  A49  A48  A49  A49  A40  A40  A40  A41  A42  A42  A42  A42  A44  A45  A46  A47  A48  A48  A49  A48  A49  A49  A40  A40  A40  A40  A40  A40	A9	4	ERR	(Invalid Card Output)	
A11 A12 A13 A14 A15 A16 A16 A17 A18 A19 A20 A20 A22 A22 A22 A22 A22 A22 A22 A22	440		01/	Cresset of Card Reader Control Output (Valid	
A12 A13 A14 A15 A15 A16 A16 A17 A18 A19 A20 A20 A22 A22 A22 A22 A22 A22 A22 A22	A10		OK	Card Output)	
A13 A14 A15 A15 A16 A16 A17 A18 A19 A20 A20 A22 A22 A22 A22 A22 A22 A22 A22	A11		GND	Grounding	
A14	A12		W0	Wiegand Card Reader Data Input Data0	
A14 Card Reader  A15  BZ Buzzer of Card Reader Control Output  Cresset of Card Reader Control Output (Invalid Card Output)  A16  OK  Card Output)  A17  A18  A19  A20  Card Reader  A21  A21  BZ Buzzer of Card Reader Control Output (Valid Card Output)  Wiegand Card Reader Data Input Data 1  BZ Buzzer of Card Reader Data Input Data 1  BZ Buzzer of Card Reader Control Output  Cresset of Card Reader Control Output  Cresset of Card Reader Control Output  Cresset of Card Reader Control Output  (Invalid Card Output)  Cresset of Card Reader Control Output (Invalid Card Output)  Cresset of Card Reader Control Output (Valid)	A13	Wings and	W1	Wiegand Card Reader Data Input Data1	
A15  3  ERR  Cresset of Card Reader Control Output (Invalid Card Output)  OK  Cresset of Card Reader Control Output (Valid Card Output)  A17  A18  A19  A20  A20  A21  A21  A21  A22  Cresset of Card Reader Control Output (Valid Card Reader A21  Card Reader A21  Cresset of Card Reader Control Output (Invalid Card Reader Control Output (Invalid Card Output)  Cresset of Card Reader Control Output (Invalid Card Output)  Cresset of Card Reader Control Output (Invalid Card Output)	A14	_	BZ	Buzzer of Card Reader Control Output	
A16  A17  A18  A19  A20  A21  A21  A21  A21  A22  A22  A22	A15		ERR	·	
A18 A19 Wiegand A20 Wiegand Card Reader A21  A21  A22  W0 Wiegand Card Reader Data Input Data 1  BZ Buzzer of Card Reader Control Output  Cress et of Card Reader Control Output  (Invalid Card Output)  Cress et of Card Reader Control Output (Valid)	A16		OK	, ,	
A19 Wiegand Card Reader A21  BZ Buzzer of Card Reader Control Output Cresset of Card Reader Control Output (Invalid Card Output)  Cresset of Card Reader Control Output (Valid)	A17		GND	Grounding	
A20  A21  BZ  Buzzer of Card Reader Control Output  Cress et of Card Reader Control Output  (Invalid Card Output)  Cress et of Card Reader Control Output (Valid)	A18		W0	Wiegand Card Reader Data Input Data0	
A20 Card Reader  A21 2 ERR Cresset of Card Reader Control Output  (Invalid Card Output)  Cresset of Card Reader Control Output  (Sometimes of Card Reader Control Output)  Cresset of Card Reader Control Output (Valid)	A19	Card Reader	W1	Wiegand Card Reader Data Input Data1	
A21 2 ERR Cresset of Card Reader Control Output (Invalid Card Output)  Cresset of Card Reader Control Output (Valid  OK	A20		BZ	Buzzer of Card Reader Control Output	
(Invalid Card Output)  Cress et of Card Reader Control Output (Valid A22 OK	421		ERR	Cresset of Card Reader Control Output	
A22	A21			(Invalid Card Output)	
	422		ОК	Cresset of Card Reader Control Output (Valid	
	A22			Card Output)	

No.	DS-K2604			
A23		GND	Grounding	
A24		W0	Wiegand Card Reader Data Input Data0	
A25		W1	Wiegand Card Reader Data Input Data1	
A26	Wingond	BZ	Buzzer of Card Reader Control Output	
A27	- Wiegand Card Reader 1	ERR	Cresset of Card Reader Control Output (Invalid Card Output)	
A28		ОК	Cresset of Card Reader Control Output (Valid Card Output)	
B1	Arming Region Input	Z1	Arming Region Access Terminal 1 (Only for Linkage of Alarm Relay Output)	
B2		GND	Grounding	
В3		Z2	Arming Region Access Terminal 2 (Only for Linkage of Alarm Relay Output)	
B4		<b>Z</b> 3	Arming Region Access Terminal 3 (Only for Linkage of Alarm Relay Output)	
B5		GND	Grounding	
В6		Z4	Arming Region Access Terminal 4 (Only for Linkage of Alarm Relay Output)	
В7	E-Lock 1	D1+	Door 1 Door Relay Input (Dry Contact)	
В8	L-LUCK I	D1-	Door 1 Door Keray Input (Dry Contact)	
В9	E-Lock 2	D2+	Door 2 Door Relay Input (Dry Contact)	
B10	E-LUCK Z	D2-	Door 2 Door Relay Input (Dry Contact)	
B11	E-Lock 3	D3+	Door 3 Door Relay Input (Dry Contact)	
B12	L LOCK 3	D3-	2001 3 2001 Relay iliput (Diy Collact)	
B13	E-Lock 4	D4+	Door 4 Door Relay Input (Dry Contact)	
B14	D4-			
B15	Door	S1	Door 1 Magnetic Detector Input	

No.	DS-K2604			
B16	Magnetics	GND	Signal Grounding	
B17	Input	S2	Door 2 Magnetic Detector Input	
B18		\$3	Door 3 Magnetic Detector Input	
B19		GND	Signal Grounding	
B20		S4	Door 4 Magnetic Detector Input	
B21		B1	Door 1 Door Button Input	
B22		GND	Signal Grounding	
B23	Door Dutton	В2	Door 2 Door Button Input	
B24	Door Button	В3	Door 3 Door Button Input	
B25		GND	Signal Grounding	
B26		В4	Door 4 Door Button Input	
C1	Dower	+12V	DC12V Cathode	
C2	Power	GND	Grounding	
C3	Dattoni	BAT+	DC12V Battery Cathode	
C4	Battery	BAT-	DC12V Battery Anode	
C5		RS	Card Reader RS485A+	
		485A+	Caru Neader N3483A1	
C6		RS 485A-	Card Reader RS485A-	
C7	Card Reader	GND	Grounding	
C8	RS485	RS	Card Reader RS485B+	
Co		485B+	Card Reader N3483B1	
C9		RS 485B-	Card Reader RS485B-	
C10		GND	Grounding	
C11		RS 485C+		
C12	Accord	RS 485C-		
C13	Access Controller	GND	Pasanad	
C14	RS485	RS	Reserved	
C14	1/2403	485D+		
C15		RS 485D-		

No.	DS-K2604			
C16		GND		
C17		NO/NC1	Alarm Rolay 1 Output (Dry Contact)	
C18		COM1	Alarm Relay 1 Output (Dry Contact)	
C19		NO/NC2	Alarm Rolay 2 Output (Dry Contact)	
C20	Alarm	COM2	Alarm Relay 2 Output (Dry Contact)	
C21	Output	NO/NC3	Alasma Balay 2 Output (Dm. Cartast)	
C22		сомз	Alarm Relay 3 Output (Dry Contact)	
C23		NO/NC4	Alarm Ralay 4 Output (Dry Contact)	
C24		COM4	Alarm Relay 4 Output (Dry Contact)	
D1		C8	Event Alarm Input 8	
D2		GND	Grounding	
D3		C7	Event Alarm Input 7	
D4		C6	Event Alarm Input 6	
D5		GND	Grounding	
D6	Event Innut	C5	Event Alarm Input 5	
D7	Event Input	C4	Event Alarm Input 4	
D8		GND	Grounding	
D9		C3	Event Alarm Input3	
D10		C2	Event Alarm Input 2	
D11		GND	Grounding	
D12		C1	Event Alarm Input 1	

Table 3-3 DS-K2604 Port Description



#### Note:

- 1) The correct connection of the access control host is crucial for its proper running.
- 2) The Alarm input hardware interface is normally open by default. So only the normally open signal is allowed. It can be linked to the buzzer of the card reader and access controller, and the alarm relay output and open door relat output.
  - 3) Arming region alarm inpt is only for the a larm relay output linkage.

4) RS485 card ID should be set as 1 to 8. For example, the ID of door 1 is 1 and 2 standing for in and out respectively.

# 4. Connecting the Access Control Host

The access control host usually works with the card reader, the door lock, the magnetics contact, the door button and other access control devices. To use the access control host properly, you must connect the wires correctly.

#### 4.1 A Display of Inside of the Access Controller

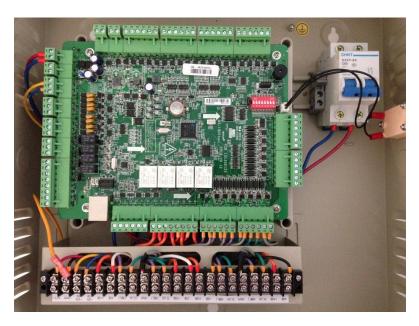


Figure 4-1 Inside Look of Access Controller

#### 4.2 External Terminal Description

#### 4.2.1 DS-K2601 External Terminals

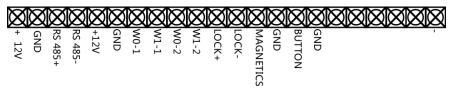


Figure 4-2 DS-K2601 External Terminals

#### 4.2.2 DS-K2602 External Terminals

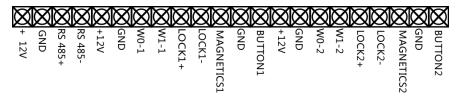


Figure 4-3 DS-K2602 External Terminals

#### 4.2.3 DS-K2604 External Terminals

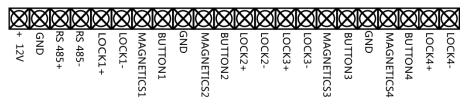
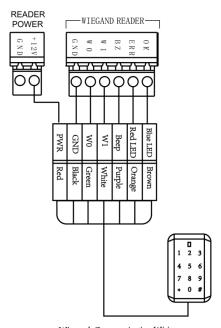


Figure 4-4 DS-K2604 External Terminals

#### 4.3 Connecting Card Reader to Access Control Host

There are two kinds of card you can connect, the Wiegand card reader and the RS-485 card reader.

## 4.3.1 The Connection of Wiegand Card Reader



Wiegand Communication Wiring

Figure 4-5 Wiring diagram of Wiegand card reader

#### Note:

You must connect the OK/ERR/BZ, if using access controller to control the LED and buzzer of the Wiegand card reader.

#### 4.3.2 RS485 Card Reader Connection

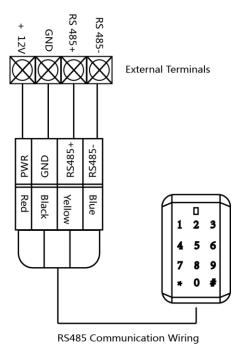


Figure 4-6 Wiring diagram of RS485

## 4.4 Connecting E-Lock to Access Controller

#### 4.4.1 Connecting to Cathode Lock

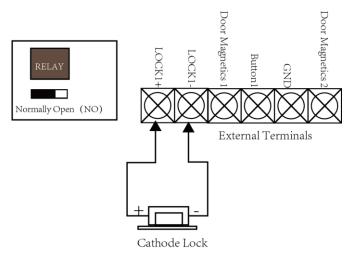


Figure 4-7 Wiring diagram of cathode lock

## 4.4.2 Connecting to Anode Lock

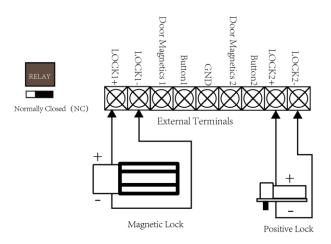


Figure 4-8 Wiring diagram of anode lock

## 4.5 Connecting the External Alarm Device

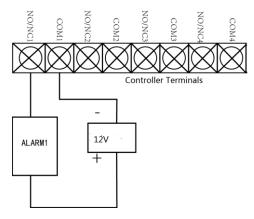


Figure 4-9 External Alarm Device Connection

## 4.6 Connecting Door Button

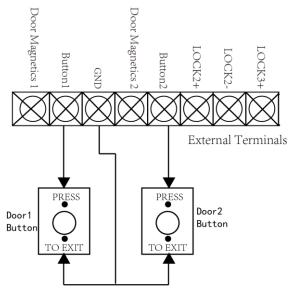


Figure 4-10 Power Button Connection

## 4.7 Connecting Door Magnetics

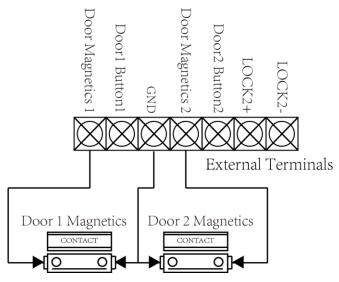


Figure 4-11 Magnetics Connection

## 4.8 Connecting Power Supply

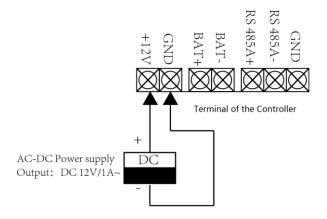


Figure 4-12 Power Supply Connection

## 4.9 Arming Region Input Terminal Connection

#### 4.9.1 Connecting Normally Open Detector

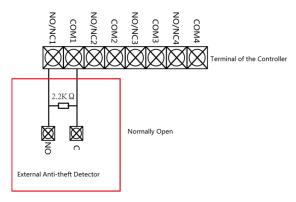


Figure 4-13 Normally Open Status

#### 4.9.2 Connecting Normally Closed Detector

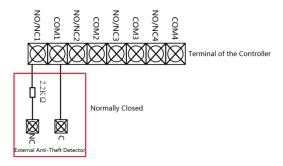


Figure 4-14 Normally Closed Status

# 5. Configuring Access Control Host

#### 5.1 Initializing the Hardware

#### Steps:

- 1. The jumper cap jumps from Normal to Initial.
- 2. Disconnect the power and restart the access controller, the controller buzzer buzzes along warning.
- 3. After the buzzer stops, jump the jumper cap back to Normal.
- 4. Disconnect the power and restart the access controller.

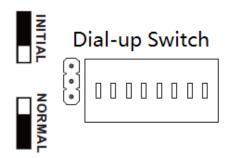


Figure 5-1 Initialization Dial-up



The initializing of the hardware will restore all the parameters to the default setting and all devices event are wiping out.

## 5.2 Relay Input NO/NC

#### 5.2.1 Lock Relay Output

#### 5.2.1.1 Lock Relay Normally Open Status

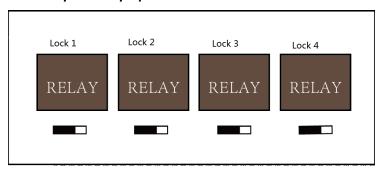


Figure 5-2 Normally Open Status

#### 5.2.1.2 Lock Relay Normally Closed Status

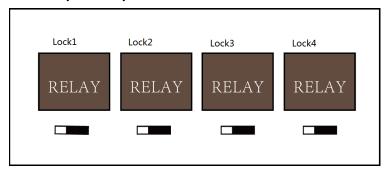


Figure 5-3 Normally Closed Status

#### 5.2.2 Alarm Relay Output Status

#### 5.2.2.1 Alarm Relay Output Normally Open

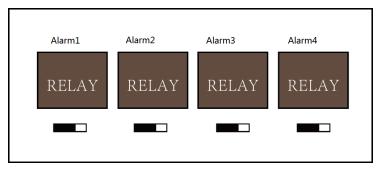


Figure 5-4 Alarm Relay Output Normally Open

#### 5.2.2.2 Alarm Relay Output Normally Closed

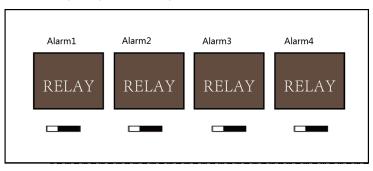


Figure 5-5 Normally Closed Status

# 6. Configuring the Access Controller via lyms-4200 Client

After you done all the physical connections, you can configure the access controller via the client software, such as the permission control, the card reader and access controller management, the user management and access controller event management.

For detailed information, pleases ee the user manual of the clients oftware.

Refer to the following work flow:

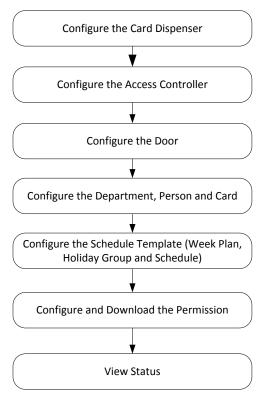


Figure 6-1 Software Client Work Flow

# 7. Specification

Module	DS-K2601	DS-K2602	DS-K2604	
Power	DC 12V/1A			
Processor	32bit			
Capacity		16M		
Uplink				
Communication	TCP/IP Interface and RS-485 Interface			
Interface				
Downlink				
Communication	RS-485 and Wiegand			
Interface				
Normal Card/	100,000 normal card and 300,000 card wiping logs			
Event Log	Expandable for 200,000 normal cards and 600,000 card			
Lvent Log	wiping logs.			
LED Indicators	Power Status, Communication Status, Exception Status			
Embedded Timer	Yes			
	2* RS485 Card	4* RS485 Card	8* RS485 Card	
Card Readers	Reader and 2*	Reader and 4*	Reader and 4*	
Caru Readers	Wiegand Card	Wiegand Card	Wiegand Card	
	Reader	Reader	Reader	
	Alarm Input*4,	Alarm Input*4,	Alarm Input*4,	
	Door	Door	Door	
Innut Dort	Magnetics*1,	Magnetics*2,	Magnetics*4,	
Input Port	Door Button*1,	Door Button*2,	Door Button*4,	
	Case Input*2,	Case Input*4,	Case Input*8,	
	Anti-Tamper*1	Anti-Tamper*1	Anti-Tamper*1	
Output Port	Door Relay * 1	Door Relay * 2	Door Relay * 4	
Output Port	Alarm Relay * 2	Alarm Relay * 4	Alarm Relay * 4	
Working		-20℃+65℃		

Temperature		
Working	100/ 000//2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
Humidity	10%90%(noncondensing)	
Dimension	370mm(L)*345mm(w)*90mm(H)	

Table 6-1 DS-K2600 Specification

