Software Operation

701ServerSQL Software Manual



V250117

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1. Introduction to 701ServerSQL and 701ClientSQL Functions and Installation Timing

The main function of 701ServerSQL is hardware connection, controller monitoring, parameter editing, and bridging across heterogeneous platforms with database system host functionalities. Each system requires and can only have a single 701ServerSQL computer. The main function of 701ClientSQL is to provide a user interface for operations, including personnel access permissions, entry and exit records, attendance reports, message broadcasting, and graphical central monitoring. Users can install one or multiple sets of 701ClientSQL software based on their needs, for example, choosing one Client computer specifically for managing personnel access permissions and another one or more Client computers dedicated to graphical control management and monitoring entry and exit records.

1.1 Overview of 701Server Version Names

- 701Server 6.X: Supports Windows 2000 system, no database functionality
- 701Server 8.X: Supports Windows XP system, no database functionality
- 701Server 9.X: Supports Windows 7–10 and above systems, no database functionality
- 701ServerSQL 10.X: Supports Windows 7–10 and above systems, supports MariaDB / JSON data format.
- 701ServerSQL 11.X: Supports Windows 7–10 and above systems, supports MariaDB / MSSQL / JSON data format.
- 701ServerSQL 2025: Supports Windows 7–10 and above systems, supports WEB API / MariaDB / MSSQL / JSON data format.

1.2 Features of 701ServerSQL

Database system or traditional file system mode

Users can choose between MariaDB database system, MSSQL database system, or traditional file system based on their needs.

Support for Remote Sharing Mode for Multiple Client PCs

Support for Multiple Client PCs Remote Sharing Server PC Data (This feature is only supported when installing the database system mode)

Synchronous Multitasking in 16 Areas, Supporting up to 4064 Controllers

Support for Multi-Area Mode, Able to Simultaneously Control up to 16 Areas * 254 Stations = 4064 Access Control and I/O Devices

• Unicode Architecture Supports Global Languages / Time Download Across Time Zones

Easily Translate Software Resource Documents into Multiple Languages; Support for 16 Independent Time Zone Settings in Each Area

Support for Card Reader/IO Module Devices(TCP/RS485/Modbus)

TCP IO, LAN model options: TCP_IO; RS485 IO, LAN model options: RS485_IO; Modbus I/O, LAN model options: MODBUS_TCP

• Support for Remote Active Message Upload (Enterprise Edition E Series Controllers)

Eliminates Waiting Time in Passive Polling Mode Queues, Immediately Reports New Events or Status Changes, Fast Speed, No Waiting, Reduces Server Polling Workload

• SOYAL-LINK provides a rich and user-friendly interface for integrating with third-party heterogeneous platforms

701ServerSQL 10V5 can act as a communication bridge, facilitating integration applications with SOYAL access control, I/O devices and various third-party platform software. It can use JSON commands to integrate with visitor system, attendance system, monitoring system; Use Modbus commands to integrate with central monitoring BMS, SCADA system.



More Details :_

SOYAL-LINK provides a rich and user-friendly interface for integrating with third-party heterogeneous platforms

1.3 Functions of 701Server

Once all hardware is set up, user settings need to be configured. In a standalone system, each unit must be configured individually, while in a networked system, settings can be unified and user data can be downloaded to the controllers either separately or synchronously, allowing for the quickest completion of access control settings. Additionally, all entry and exit records, attendance reports, etc., can be viewed on the computer, making the networked approach the best option for access control systems.

701ServerSQL is a resident software responsible for hardware configuration, computer communication settings, and system hardware planning. This includes communication port settings, data collection, controller parameter configuration, network architecture, connection status checks, etc., all operated by system engineers.



Access Control / WEB PLC Network Architecture Settings



Controller Connection Status Display



Controller Parameter Settings



Controller Active Messaging Mode / Controller Passive Polling Mode



Fingerprint and Facial Data Upload/Download

1.4 Three Ways to Connect 701ServerSQL to Controllers

701ServerSQL supports TCP/IP and RS485 communication interfaces, making it compatible with the entire range of SOYAL controllers. For devices that only have an RS485 interface, network connectivity can be achieved through the AR-727-CM serial network server.



- **1** RS485 to TCP/IP \rightarrow Connect via the AR-727-CM network communication converter
- 2 Direct TCP/IP \rightarrow Connect through the built-in RJ45 of the Enterprise Edition (E Series) controller
- 3 RS485 to USB \rightarrow Connect via the USB/RS-485 converter AR-321-CM
- 2.Differences Between Legacy Data File System and Database System & Single Computer/Multi-Computer Modes
 - 2.1 Comparison Table of Differences Between Traditional File System and Database System & Single Computer/Multi-Computer Modes

S	ystem Red	quirements	Manage hardware and human-machine interface on the same computer	One computer i while multiple o human-mac	manages hardware computers manage chine interfaces
Co	omputer m	anagement	Manage hardware and human-machine interface	Only manage hardware	Only manage human- machine interface
Software	701ServerS	QL	Installation required	Installation required	x
required	701ClientS	QL	Installation required	X	Installation required
	A. File Syst	tem	X	X	X
		MariaDB	Installation required	Installation required	x
	B.MariaDB	ODBC Connector (32-bit version installation file)	Installation required	Installation required	Installation required
Data Access		ODBC 32 DSN (701Server)	Installation required	Installation required	Installation required
Modes		MSSQL	Installation required	Installation required	Х
	C. MSSQL	ODBC Connector (X86version installation file)	Installation required	Installation required	Installation required
		ODBC 32 DSN (701ServerSQL)	Installation required	Installation required	Installation required







- 1. Using MariaDB as example: Select 64-bit version installation
- 2. MSSQL : Database installation file (Microsoft official website)

ODBC Connector

1. MariaDB: Select 32-bit version installation (ODBC Connector Official Website) 2. MSSQL : Select the X86 version of the installation file (Microsoft official website)

701ServerSQL

Input IP Address and Port in [Local TCP-LINK Address] of COM Setting

ODBC Connector

1. MariaDB: Select 32-bit version installation (ODBC Connector Official Website)

2. MSSQL Select the X86 version of the installation file (Microsoft official website)

701ClientSQL

It is required to input the same setting of PC IP Address and Port of 701ServerSQL software in "Connect to 701Server" .

X This document is for educational purposes only; please obtain software licenses from the original manufacturer.

2.2 Single PC Operation Mode: 701ServerSQL & 701ClientSQL Installation under same PC

User can choose Database mode or File System mode according to needs and requirement. Built-in the same operation user interface for both modes provides seamless upgrade from File System to Database easy and can be done without relearning.

- File System: Easy to set up and maintain, suitable for small to medium scale system
- Database System: Suitable for complex exchange data and transaction, centralized system, and medium to large scale system that required higher security.

The two systems supported on a single computer have the same functionality; the main difference lies in the operating system modes.





Database system

2.3 Multi PC Operation Mode (Install one 701ServerSQL computer and multiple 701ClientSQL computers)

701ServerSQL is installed on the main computer, while 701ClientSQL is installed on the computers of operators in different locations.



2.4 Three Ways to Manage the Database

Microsoft SQL Server, abbreviated as MSSQL. The term MSSQL will be used to refer to the Microsoft SQL Server database throughout the explanation.

**** The system offers three modes. Please choose carefully before installation, as once selected, they cannot be changed.**



3. Downloading and Installing 701ServerSQL

3.1 Software Installation Precautions

You can choose to use either the database system or file system mode as needed. The same user interface is used, so no re-learning is required, ensuring an easy and seamless upgrade.

If you plan to use a database, ensure the following are prepared in advance:

- A. Install the appropriate database engine
- B. Add ODBC 32 DSN
- C. Create a database named "701Server"
- D. Create users for 701ServerSQL and 701ClientSQL

NOTE

• The maximum disk sector/cluster size supported by SQL Server is 4096 bytes. Some high-end drives may have their sector/cluster sizes set above 4096, which can cause SQL Server to fail to start after installation. Therefore, please check the disk sector/cluster size before installation. For detailed information, refer to the official Microsoft documentation: Troubleshoot errors related to system disk sector size greater than 4 KB

3.2 Installation Process

NOTE

Before the initial installation of the software or updating to version 11.X, a backup must be performed. For detailed backup steps, please refer to section <u>11.5-Back Up DATA</u>

3.2.1 Database System Installation Instructions



How to Transfer Setting Parameters & Relevant Data Back to File System Mode from Database Mode?

The message recorded in Database Mode is non reversible, we cannot read the message from 701ClientSQL with File System Mode. The recommendation is using Export to Text File Function to record the relevant data as txt or excel file via 701ClientSQL.

The introduction about Export to Text File Function please refer to 701ClientSQL Manual 7.1 Export to Text File

User data, Parameter Setting and etc. can use Import/Export Function to get back from Database Mode. The introduction about Import/Export Function please refer to <u>701ClientSQL Manual 3. Backup</u>

- User interface of database and its operation is the same like file base system, but all the data is saved on the database.
- When upgrading to Database Mode, the old data that is recorded on file system mode will still save under file system format. Once you upgrade into the database, all of old data will automatically transferred to database and cannot be converted back to file system data. For event log (msg files), you required to do
 'Message Import' manually from 701ServerSQL to convert the data from file system into database format.
- If you want to preserve the old data under file system format, make a copy and stored in a safe place (refer to 11.5-Back Up DATA)
- Data that is remain on file system base even after upgrade to database mode:

1.time attendance report such as DUTY file

- 2.lift and floor data
- 3.fingerprint and face data
- Upgrade from Windows XP to Windows 10, all of the data must be copy and directly paste to C:\Program Files (x86)



3.2.2 Installation Process for Traditional File Mode & Database Mode



3.3 Windows Service Auto Start Setup

Reason:

- Windows automatic updates
- Windows restarts, causing some programs to malfunction

701ServerSQL is a resident software that usually starts up during boot. However, when multiple users share a computer, at least one user must be logged in to start the software set to start up with the computer. This is especially problematic when Windows is set to automatically update and restart the system after installation. In this case, 701ServerSQL may not start up, causing 701ClientSQL to fail to return record data. To solve the problem of 701ServerSQL failing to start up during Windows system boot, the Windows Service feature must be enabled to start up 701ServerSQL and 701ClientSQL without any user login.

%The installation file of 701ServerSQL after version 10V5 includes the activation file for Windows Service, which is stored in the "...\701Server\service" path.

XNote: Below step is applied for PC with operating system Win 10/11



Step 1. If there is no "service" folder in the path "..\701Server\service", please download and install the necessary files first. (Download the necessary installation files)

Step 2. Place the files in the path of 701ServerSQL (C:\Program Files (x86)\701Server) inside the "service" folder.



Step 3. Enter cmd or PowerShell and execute it (administrator privilege required). Enter the code:

sc.exe create "SOYAL701Server" binPath= "C:\Program Files (x86)\701Server\service\ Soyal701Server.exe" displayname= "Service of 701ServerSQL" start= auto



Administrator: Command Prompt	-		\times
(c) Microsoft Corporation. All rights reserved.			
.C:\Windows\System32>sc.exe create "SOYAL701Server" binPath= " (x86)\701Server\service\Soyal701Server.exe" displayname= "Ser SQL" start= auto [SC] CreateService SUCCESS	C:\Prog vice of	ram Fi 701Se	les rver
C:\Windows\System32>sc.exe start "SOYAL701Server"			
SERVICE_NAME: SOYAL701Server TYPE : 10 WIN32_OWN_PROCESS STATE : 2 START_PENDING (NOT_STOPPABLE, NOT_PAUSABLE,)	IGNORES	S_SHUTI	DOMN
WIN32_EXIT_CODE : 0 (0x0) SERVICE_EXIT_CODE : 0 (0x0) CHECKPOINT : 0x0 WAIT_HINT : 0x7d0 PID : 3352 FLAGS :			
C:\Windows\System32>_		Step	4.

Step 4. Then enter the code: sc.exe start "SOYAL701Server"

Sonvicos	Name		Descri
Services	Senso	r Data Service	Delive
App	Senso	r Monitoring Service	Monit
	Senso	r Service	A serv
	Server		Suppo
	Servic	e of 701ServerSQL	Stept
	Share	d PC Account Manager	Mana
eneral Log On Recovery D	Dependencies	General Log On Recovery Dependencies	
Ceneral Log On Recovery D	Dependencies	General Log On Recovery Dependencies	
Seneral Log On Recovery D Service name: SOYAL701S	Dependencies erver	General Log On Recovery Dependencies Log on as:	7/11
General Log On Recovery D Service name: SOYAL701S Display name: Service of 70	Dependencies erver 1ServerSQL	General Log On Recovery Dependencies Log on as: Local System account Allow service to interact with desktop	7.
Service name: SOYAL701Se Display name: Service of 70 Description:	Dependencies erver 1ServerSQL	General Log On Recovery Dependencies Log on as: Local System account Allow service to interact with desktop This account:	Z-
General Log On Recovery D Service name: SOYAL701Se Display name: Service of 70 Description:	Dependencies erver 1ServerSQL	General Log On Recovery Dependencies Log on as: Local System account Allow service to interact with desktop This account: Password:	Zn Browse
General Log On Recovery D Service name: SOYAL701S Display name: Service of 70 Description:	Dependencies erver 1ServerSQL er/service\Soyal701Server.exe Step16.	General Log On Recovery Dependencies Log on as: • Local System account • Allow service to interact with desktop • This account: Password:	7. Browse

- Step 5. Go to the "Services" menu, find the item "Service of 701ServerSQL," and double-click to open.
- Step 6. In the menu bar, select "General," and choose [Automatic (Delayed Start)] as the startup type.
- Step 7. In the menu bar, select "Log On," and check [Allow service to interact with desktop].



Step 8. In the menu bar, select "Recovery," and after selecting the items, press OK:

- First failure: Restart the Service.
- Second failure: Restart the Service.
- Subsequent failures: Take No Action.
- Step 9. The Service of 701ServerSQL will display "Automatic (Delayed Start)."

Step 10. Click on "Service701Server run as administrator.bat" to start.

After startup, 701ServerSQL will launch approximately 1 minute after booting without logging in.

4. Download and Install 701Software Troubleshooting

Key Points for Connecting 701ServerSQL and 701ClientSQL



Essential Checkpoints for Connecting 701ServerSQL and 701ClientSQL

1- IP / PORT

701ServerSQL needs to configure the IP/Port in COM settings for communication with the 701ClientSQL software. Therefore, when running 701ClientSQL for the first time with administrator privileges, an IP/Port configuration window will pop up. At this point, you should enter the IP/Port of 701ServerSQL in the COM section marked in red.

COM:1 COM:2 COM:3 COM:4 COM:5 COM:7 COM:8 COM:9 COM:10 COM:11 COM:12 COM:13 COM:14 COM:15 COM:16 COM:17 COM:18 COM:19 COM:20 COM:21 COM:22 TCP/IP Only O Disable Remote Co-701Server TCP-LINK Connection 192.168.0.18 : 1631 Enable Event Polling Polling Interval 800ms Local TCP-LINK Address 127.0.0.1 Port 1631 Save Current Area Yes Cancel	COM:1 COM:2 COM:3 COM:4 COM:5 COM:6 COM:7 COM:8 COM:9 COM:10 COM:11 COM:12 COM:13 COM:14 COM:15 COM:16 COM:9 COM:10 COM:11 COM:12 COM:13 COM:14 COM:15 COM:16 COM:17 COM:18 COM:19 COM:20 COM:21 COM:22 TCP/IP Only Image: Comparison of the comparison of	IngA	×	
COM:9 COM:10 COM:11 COM:12 COM:13 COM:14 COM:15 COM:16 COM:17 COM:18 COM:19 COM:20 COM:21 COM:22 TCP/IP Only O Disable Remote Co-701Server TCP-LINK Connection Enable Event Polling Polling Interval Local TCP-LINK Address 127.0.0.1 Port 1631 Cancel	COM:9 COM:10 COM:11 COM:12 COM:13 COM:14 COM:15 COM:16 COM:17 COM:18 COM:19 COM:20 COM:21 COM:22 TCP/IP Only O Disable Remote Co-701Server TCP-LINK Connection 192.168.0.18 : 1631 Image: Comparison of the comparison of	1:3 COM:4 COM:5	COM:6 COM:7 C	COM:8
COM:17 COM:18 COM:20 COM:21 COM:22 TCP/IP Only Disable Remote Co-701Server TCP-LINK Connection I92.168.0.18 : 1631 E Enable Event Polling Polling Interval E Cancel Save Current Area Yes Cancel	COM:17 COM:18 COM:19 COM:20 COM:21 COM:22 TCP/IP Only Disable Remote Co-701Server TCP-LINK Connection Port Port Port Port Port Port Cancel Comparing Comparing Comparing Comparing Compari	4:11 O COM:12 O COM:13	COM:14 COM:15	COM:16
Correction Disable Remote Co-701Server TCP-LINK Connection 192.168.0.18 1631 Source Source Save Current Area Yes Cancel	Disable Remote Co-701Server TCP-LINK Connection 192.168.0.18 : 1631 800ms Local TCP-LINK Address 127.0.0.1 Port 1631 Save Current Area Yes Cancel	4:19 O COM:20 O COM:21	COM:22 OTCP/IP Only	1
Remote Co-701Server TCP-LINK Connection 192.168.0.18 : 1631 Enable Event Polling Polling Interval 800ms Local TCP-LINK Address 127.0.0.1 Port 1631 Save Current Area Yes Cancel	Remote Co-701Server TCP-LINK Connection 192.168.0.18 : 1631 Enable Event Polling Polling Interval 800ms Local TCP-LINK Address 127.0.0.1 Port 1631 Save Current Area Yes Cancel			
Enable Event Polling Polling Interval 800ms Local TCP-LINK Address 127.0.0.1 Port 1631 Save Current Area ✓ Yes The Cancel	Enable Event Polling Polling Interval 800ms Local TCP-LINK Address 127.0.0.1 Port 1631 Save Current Area Yes Cancel	LINK Connection	192.168.0.18	: 1631
Local TCP-LINK Address 127.0.0.1 Port 1631	Local TCP-LINK Address 127.0.0.1 Port 1631	Polling Interval		800ms
Local TCP-LINK Address 127.0.0.1 Port 1031	Local TCP-LINK Address 127.0.0.1 Port 1631			0
Here Save Current Area	Save Current Area	127.0.0.1	Port 1631	
Yes Yes Cancel	Yes Cancel		-	1
		Ves Yes	Can	cel
	Connect to 701Server			×
Connect to 701Series	Connect to rorserver			^
Connect to 701Server X				
Connect to 701Server X				
	Connect to 701Server		4:3 COM:4 COM:5 4:11 COM:12 COM:13 4:19 COM:20 COM:21 LINK Connection Polling Interval 127.0.0.1 Yes	4:3 COM:4 COM:5 COM:6 COM:7 4:1 COM:12 COM:13 COM:14 COM:15 4:19 COM:20 COM:21 COM:22 TCP/IP Only LINK Connection 192.168.0.18 Polling Interval Image: Compare to the second s

NOTE

Many people mistakenly fill in the IP/Port of the 727CM converter or the E-series card reader in these two fields, resulting in errors. For those who encounter this error, please consider how you would fill in the IP/Port if your architecture includes multiple 727CM converters or E-series card readers.

2-Firewall

To avoid communication abnormalities or blocking of messages returned by card readers, ensure that 701ServerSQL and 701ClientSQL are excluded from the firewall settings. For detailed instructions, please refer to --> Q2: Device connection to 701Software become offline and unable to connect

Q1. "The specified address cannot be assigned" error message or "Listen on: XXXX Failed: 1631, Please Check Port Value"

錯誤	X TCP Li	ink Start	×	
The specified address cannot	be assigned Lister	n On: 10.11.47.1:1631 Failed: 163	1,Please Check Port Value!	
	ОК		ОК	
Local TCP-LINK Address	192.168.1.82	Step 1. Port 6631		
Connect to 701Server		Ste	en.2-	
701Server IP Address	192.168.1.79	701Server Port	631 631	

A3. Both of the error is as a result that your antivirus software is blocking connection to 701 Software. To solve this issue, please change the Listen Port connection between TCP-LINK Server and TCP-LINK Client into other Port that is not 163, for example 6631.

Step 1. On 701ServerSQL's COM section change the Port from 1631 into 6631

Step 2. After changing the Port on 701ServerSQL, all of the 701ClientSQL Port (connection to 701ServerSQL) must also be changed from 1631 into 6631

Q2. Device connection to 701Software become offline and unable to connect

A4. Because Software 10.2 Version is enabling multiple port and connection that leaning on internet connection, sometimes Windows defender Firewall and/or antivirus software might block the connection to 701Software. If doing Troubleshooting Q3 problem still persists, please follow the steps listed below:



(02:Connect Failed)10.11.47.129:(0x1800



1- Allowing both 701ServerSQL and 701ClientSQL on Windows **Defender Firewall**

1: Windows Security Alert message



Step 1. If you are installing 10.2 directly in the first place you will find Windows Security Alert message. Tick both private networks and public networks.

This procedure must also be done with both 701ServerSQL and 701ClientSQL.

2 : Check the Windows Defender Firewall inside the Control Panel

Step 1.		
🗧 🚽 👻 🔶 Control Pa	nel 🗧 System and Security 🗧 Windows Defender Tirewall	~ O
Control Banel Home Allow an app or feature through Windows Defeature	Help protect your PC with Windows Defender Firewa Windows Defender Firewall can help prevent hackers or malicious so through the Internet or a network.	all Itware from gaining access to your PC
Firewall Change notification settings	Private networks	Not connected 📎
💼 Turn Windows Defender	 Circetter sublicientosolad 	Connected (A)

Allow apps to communicate through Windows Defender Firewall

To add, change, or remove allowed apps and ports, click Change settings.	Step 2.
What are the risks of allowing an app to communicate?	Change settings
Allowed apps and features:	
Name © @FirewallAPI.dll,-80206	Private Public ^
Step 3. ent Application	
SOYAL 701ServerSQL	
	Details Remove
	Allow another app

	Riowsp				×	
Add an app	(a) • • • • • • • • • • • • • • • • • • •	Program Files (x86) 2: 701Client (X)	v u	Search 701Client	P	
Select the app you want to add, or click Browse to find one that is not	Organize * New folder			6-	- 🔳 📀	
listed, and then click OIC	🖬 Pictures 🚿 🗖 Nar	me i A	Date modified	Type	Size	
Apps:	CineDrive	dvi	2/19/2021 4:29 P <mark>M</mark>	File (older		
	🧶 This PC	Language PonGra	2/19/2021 4:29 PM 2/23/2021 1:39 PM	File folder File folder		
	30 Objects	sound	2/19/20/1 4/19 PM	File solder		
	Desktop	clientexe	2/8/2021 4:52 PM	Application	4.145	
	- Uowniteds	uninstaatexe	Veralizing and Automatic	Appression	2,430	
	J Music					
	Pictures					
Path: Drowseni	Undeos					
What are the risks of antifactor of an opa? Step 15:	v (>	
You can choose which retwork types to add this app to.	file name: clie	entexe	¥	Applications (".exe;	".com;".icd) 😽	
network (ges		<u> </u>		Open	Cancel	
Apps:		Step 7-nd features			P	
701Client Application		☑ 701Client Application				
Path: C:\Program Files (x86)\701Client	\client.exe Browse					
What are the risks of unblocking an app?						
ou can choose which network types to add S	tep 6.					
Network types	Add Cancel					
Step 1 If you happened to	o skin the procedu	ure an to Contro	Panel > S	System ar	nd Securi	ity >
Windows Defende	s Skip the proceed	and, go to contro				iy -
	er Firewall and ma	anually added /C	i ServerSC			
allow connection of	on both public and	d private network	s. Select [/	Allow an	app or fe	ature
through Windows	Defender Firewal	II]				
Step 2. Select [Change S	ettings]					

- Step 3. Tick Private and Public on [SOYAL 701ServerSQL]
- Step 4. Select [Allow another app] to setup 701ClientSQL for the next step
- Step 5. Select Browse and enter [C:\Program Files (x86)\701ClientSQL] > then select client.exe > click [Open]
- Step 6. Select [Add]
- Step 7. Tick both Private and Public for [701ClientSQL Application]

2- Allowing both 701ServerSQL and 701ClientSQL on Antivirus Software

Example 1: Norton Antivirus

Fire	ewall Alert 🖄		- ×	
1	Suspicious network activity has be	en detected.		Step 1. On Firewall Alert setting options, select Allow Always on
	Very Few Users Fewer than 5 users in the Norton Community have used this file	McuServer.exe	Info	McuServer.exe
.11	Very New This file was neleased less than 1 week ago. Unproven There is not enough information about this file to recommend it.	DESKTOP-OLASONA 10.11.47.180900 Port 1 Date and Time: 21/04/20 Options Block1	1) Q P 10.11.47.129 1621 10.11.47.129:1621 121 335:16 pm this instance (recommen ~ w always	



Example 2: Bitdefender

Protection Features Real-time protection blocks any threat from running on your device. Open	Firewall Application access Network Adapters Settings
Online Threat Prevention Protection Our coud-based Global Protective Network secures your device by blocking any online threat. Settings	B Bitdefender Firewall × B Bitdefender Create Rule Apply this rule to all applications Bitdefender Firewall
Firewall Utilities Image: Second S	This rule will have less priority than individual application rules. Program path: C:\Program Files (x86)\701Server\Mc: Browse Permission Allow Conductor
	Network Type Any Network Image: Constraint of the second
	Show advanced settings V Step 5. Save Cancel
Image: metaserver.exe NETWORK PROTOCOL TRAFFIC Any Network Any Both	Step 6. Ports IP ACCESS Any Any

- Step 1. Run Bitdefender software and select Protection > Firewall Setting
- Step 2. Select Rules > Add rule
- Step 3. Click Browse
- Step 4. Enter C:\Program Files (x86)\701ServerSQL > and select 'McuServer.exe'
- Step 5. Select Save
- Step 6. McuServer.exe has been added to Firewall Setting and Access is allowed. This also allowing access to Any Ports and IP Address without restriction

Q3. Already following the installation step by step and install DBMS with its ODBC Connector but software still shows 'File System Mode'



- A1. 701ServerSQL and 701ClientSQL connection to Database is not successful so software will remain as File System Mode.
- Step 1. Go to Registry Editor
- Step 2. Select Computer\HKEY_CURRENT_USER\SOFTWARE\SOYAL\701ServerSQL\ODBC → double click [CANCEL] value and change from 1 into 0 → select [OK]
- Step 3. Select Computer\HKEY_CURRENT_USER\SOFTWARE\SOYAL\701ClientSQL\ODBC→ double click [CANCEL] value and change from 1 into 0 → select [OK]

Q4. Does not select "Run as Administrator", when running software it does not convert to SQL Database Mode







- Step 1. Go to Registry Editor
- Step 2. Select Computer\HKEY_CURRENT_USER\SOFTWARE\SOYAL\701ServerSQL\ODBC → double click 'CANCEL' value and change from 1 into 0 → select 'OK'
- Step 3. Select Computer\HKEY_CURRENT_USER\SOFTWARE\SOYAL\701ClientSQL\ODBC \rightarrow double click 'CANCEL' value and change from 1 into 0 \rightarrow select 'OK'
- Step 4. Right click on 701ServerSQL and choose "Run as administrator". Repeat the same method with 701ClientSQL software.

Q5. 0xc000007b, mfc140u.dll and api-ms-win-crt-runtime-l1-1-0.dll problems when installing 701ServerSQL and 701ClientSQL

After installing 701ServerSQL and 701ClientSQL, when running the application it shows an error 0xc000007b, mfc140u.dll and api-ms-win-crt-runtime-l1-1-0.dll





Both problems can be solved after installing below file. For OS Win32, please download vc_redist.x86.exe For OS Win64, please download vc_redist.x64.exe Reference: https://support.microsoft.com/zh-tw/ help/2977003/the-latest-supported-visual-c-downloads

Redistributable version for Windows operating system: Win 7 : redistributable version 2010 Win 10 : distributable version 2015-2019

Q6. Could not load previous date data when loading msg files, how to track the data stored on the database?

A6. Taking MariaDB for example, after download and install MariaDB, HeidiSQL shortcut will be automatically created

Logged in into HeidiSQL and you will get to see database and table item.



- Step 1. Double click to open HeidiSQL
- Step 2. Select Network type, if you are newest version of HeidiSQL, select [MySQL (TCP/IP)]
- Step 3. Hostname / IP: select 127.0.0.1 for host computer, if enabling TCP-LINK enter server PC's IP address
- Step 4. User enter [root]
- Step 5. Password enter [admin]
- Step 6. Port enter [3306]
- Step 7. Select [Open]
- Step 8. You will see the table of 701Software UI and data here
- Step 9. Select table that you want to look the data of, and then select [Data].

Q7. Could not logged in to HeidiSQL

A7. Make sure the Network type, Hostname/IP, User, and Password has already correct

Session manager				ŕ	×	Default insta	nce properties	MariaDR	1
Filter			🖌 Settings 🎤	Advanced II Statistics		MariaDB 10.4	(x64) database configuration	on Server 5	The
ession name	Host	Last Co	Network type:	MySQL (TCP/IP)	\sim			010	
🎺 Unnamed *	127.0.0.1	2021	Library:	libmariadb.dll	\sim	Modify passwo	ord for database user 'r	Step8:	
			Hostname / IP:	127.0.0.1		New root passy	word:	Enter new root password	
				Prompt for credentials		Confirm:		Retype the password	
				Use Windows authenticatio	on Step 1-9		cess from remote machin	nes for 'root'	
			User:	root		user ⊔			
			Password:	•••••		🔽 Use UTF8 as de	efault server's characte	r set Stop /	
			Port:	3306					
			Databarar	Separated by remical an					
			Comment		mariadb-1	0.4			
			Comment		.18-winx64	100		<u>Step 5.</u>	
New 🔽 🤗	Save	Delete		Open Cancel M	More 🔽 Si			Back Next Cance	el
Database settings				×	Session manager			?	×
Database settings Hefault instance MariaDB 10.4 (x64)	properties database configu	ration	Ма	- • × riaDB Server	Session manager Filter	Hot Lat Co	🖌 Settings 🎸	? Advanced 1	×
Database settings Default instance (MariaDB 10.4 (x64)	properties database configu	iration	Ma	riaDB	Session manager Filter Session name Innamed *	Host Last Co	Settings Network type:	? Advanced 11 Statistics MySQL (TCP/IP)	×
atabase settings efault instance MariaDB 10.4 (x64) Install as service	properties database configu	iration	Ma	riaDB	 Session manager Filter Session name ^ Unnamed * 	Host Last Co 127.0.0.1 2021	 Settings Network type: Library: 	? Advanced 11 Statistics MySQL (TCP/IP) libmariadb.dll	× *
Database settings lefault instance MariaDB 10.4 (x64) Install as service Service Name:	properties database configu MariaDB	ration	Ма	riaDB	 B Session manager Filter Session name ^ Unnamed * 	Host Last Co 127.0.0.1 2021	Settings Network type: Library: Hostname / IP:	? Advanced 11 Statistics MySQL (TCP/IP) libmariadb.dll 127.0.0.1	× *
Database settings efault instance y MariaDB 10.4 (x64) Install as service Service Name:	properties database configu MariaDB	ration	Ma	- · × riaDB Server	 B Session manager Filter Session name ^ Unnamed * 	Host Last Co 127.0.0.1 2021	Settings Network type: Library: Hostname / IP:	? Advanced in Statistics MySQL (TCP/IP) libmariadb.dll 127.0.0.1 Prompt for credentials	×
Database settings Default instance p MariaDB 10.4 (x64) Install as service Service Name: Enable networking	properties database configu MariaDB	ration	Ma	- X riaDB Server	 B Session manager Filter Session name ^ Unnamed * 	Host Last Co 127.0.0.1 2021	Settings Network type: Library: Hostname / IP:	? Advanced 11 Statistics MySQL (TCP/IP) libmariadb.dll 127.0.0.1 Prompt for credentials Use Windows authentication	× *
Database settings Default instance p MariaDB 10.4 (x64) Instal as service Service Name: Enable networking TCP port:	properties database configu MariaDB	tep 6.	Ma	- • × riaDB Server	 Session manager Filter Session name ^ Unnamed * 	Host Last Co 127.0.0.1 2021	Vetwork type: Library: Hostname / IP:	? Advanced 11 Statistics MySQL (TCP/IP) libmaniadb.dll 127.0.0.1 Prompt for credentials Use Windows authentication root	×
Installase settings efault instance j MariaDB 10.4 (x64) Install as service Service Name: Enable networking TCP port:	properties database configu MariaDB	ration	Ma	- • × riaDB Server	 Session manager Filter Session name ^ Unnamed * 	Host Last Co 127.0.0.1 2021	 Settings Network type: Library: Hostname / IP: User: Password: 	2 Advanced In Statistics MySQL (TCP/IP) libmariadb.dll 127.0.0.1 Prompt for credentials Vindows authentication root	×
Patabase settings efault instance j MariaDB 10.4 (x64) Install as service Service Name: Enable networking TCP port: Inmodb engine sel Suffer anal city:	properties database configu MariaD8 3307 S ttings	ration	Ma	riaDB Server	 Session manager Filter Session name ^ Unnamed * 	Host Last Co 127.0.0.1 2021	 Settings Network type: Library: Hostname / IP: User: Password: Port: 	? Advanced In Statistics MySQL (TCP/IP) libmaniadb.dll 127.0.0.1 Prompt for credentials Use Windows authentication root 	×
Database settings tefault instance j MariaDB 10.4 (x64) Install as service Service Name: Enable networking TCP port: Innodb engine set Buffer pool size: Page 872*	properties database configu MariaD8 3307 S ttings	ration	Ma	riaDB Server	 Session manager Filter Session name ^ Unnamed * 	Host Last Co 127.0.0.1 2021	 Settings Network type: Library: Hostname / IP: User: Password: Port: 	? Advanced In Statistics MySQL (TCP/IP) libmariadb.dll 127.0.0.1 Prompt for credentials Use Windows authentication root 3307	×
Database settings Default instance p MariaDB 10.4 (x64) Install as service Service Name: Enable networking TCP port: Innodb engine set Buffer pool size: Page size:	MariaD8 MariaD8	ration tep 6.	Ma	riaDB Server	 Session manager Filter Session name ^ Unnamed * 	Host Last Co 127.0.0.1 2021	 Settings Network type: Library: Hostname / IP: User: Password: Port: Databases: 	2 Advanced II Statistics MySQL (TCP/IP) libmariadb.dll 127.0.0.1 Prompt for credentials Use Windows authentication root 3307 Compressed client/server protor Separated by semicolon	
Patabase settings efault instance MariaDB 10.4 (x64) Install as service Service Name: Enable networking TCP port: Innodb engine set Buffer pool size: Page size:	MoriaDB 3307 S ttings	ration tep 6. MB KB	Ma	riaDB Server	 Session manager Filter Session name ^ Unnamed * 	Host Last Co 127.0.0.1 2021	 Settings Network type: Library: Hostname / IP: User: Password: Port: Databases: Comment: 	? Advanced Statistics MySQL (TCP/IP) libmariadb.dll 127.00.1 Prompt for credentials Use Windows authentication root 3007 Step 77. Compressed client/server protor	

Then there is a possibility that you have download and install W701S software before which using the same port 3306. Then for 701ServerSQL connection to database instead of Port 3306, change it into Port 3307.

- Step 1. On the MariaDB program files, right click > select [Uninstall]
- Step 2. After finished uninstall MariaDB, right click > Select [Install] again
- Step 3. During the installation, Enter [New root password] and [Confirm] as admin. This password is used for connection to database, please **do not forget** this password.
- Step 4. Then tick [Enable access from remote machine for 'root' user] and [User UTF8 as default server' s character set]

Step 5. Select [Next]

Step 6. Enter TCP Port [3307]

Step 7. Logged in to HeidiSQL and change the Port into [3307].

Q8. Installation on Windows Server 2012 show MFPlat.DLL Error when running 701ClientSQL



A9. Required to enable some Media Feature Role in administrator console and download Windows Server Essentials Media Pack in order for 701ClientSQL to running normally.

Q9. Why it shows error input on HeidiSQL?

Example of error:

199 Unnamed∖701server File Edit Search T Ø ▼ Ø 📭 😭	\eventlog\ - ools Go to	HeidiSQ Help	L 11.0.0.5919		08	X • • • •	9 II. Q 🗸 🤞 🔥	100
🋴 Database fil 代 Tabl	e filter 🔶 📩	H	ost: 127.0.0.1	Datal	base: 701sen	rer 📘 Table: eventlog	g 🔠 Data 🕨 Query	* 🐻
∨ 🔏 Unnamed		701ser	ver.eventlog: 9	81 rows to	tal (approxi	mately), limited to 1,000)	
✓	4.9 MiB	VEL	LOGIEN	LOG B	IFEER		LOG NUMBER	LISER ADDR
email_a	16.0 KiB	VLL	LOOLELIN	200_0	E2 a		LOO_NOMBER	OSEN_ADDIN
eventlog	144.0 KiB		1	9:	2 A.	*		0
seq_eve	16.0 KiB		1	- q:	pro p	+	+	0
seg user	16.0 KiB		1	881	AT BE	*	*	0
tbl area	4.0 MiB		1	88?	♠? 服	+	+	0
thl area	16.0 KiB		1	@ ?	♠? 歴	+	+	0
thi area	16.0 KiB		1	@ ?		?	?	0
thi dona	16.0 Kip		1	?		?	?	2
tbi_depa	10.0 KID		1	?		?	?	0
tbl_depa	16.0 KIB		1	@ ?		?	?	0
tbl_depa	16.0 KiB		4	(長?	12 1日	?	?	0
tbl_door	16.0 KiB		1	@ ?		?	2	0
tbl duty	272.0 KiB							

A8. It is because the data shows is under HEX format, please click to show binary data on text format instead of HEX format.

File Edit Search Tools Go to Help

Q10. Installation on Windows 7 in Database Mode show "This application is only supported on Windows 10, Windows Server 2016, or higher."

A10. Please install MariaDB version 10.4.12 and before, ODBC version 3.1.0, and Redistributable 2010

Q11. When running the software, an error message "CSHTSV10.DLL not found" is displayed.



Please make sure to install Microsoft Visual C++ Redistributable before backing up the data. ****Backup procedure > Backup and Restore 701ServerSQL and 701ClientSQL**

組合管理 • 解除安裝		登錄編輯程式 >本	機 > Win10	(C:) > Program Fil	es (x86)
Step 1.		·檔案(F) 編輯(E) 檢視(V) 我的最愛(A) 說明(H)			
T01Client 10.5.2 230505	御殿内社(1)	電腦\HKEY_CURRENT_USER\SOFTWARE\SOYAL\;	Ŧ	名稱	~
10.5.1 230427	₩际女 殺(U)	✓ SOYAL ▲ 名稱		701Client	
		Ston 2 701Client	Step 3.	TOTCHCHE	
		701Server		701Server	

- Step 1. Please uninstall the 701Server & 701Client software from the "Programs and Features" section in the Control Panel.
- Step 2. Search for "regedit" (Registry Editor) on your computer. Find the SOYAL software path at "Computer\HKEY_CURRENT_USER\SOFTWARE\SOYAL" and delete the 701Server & 701Client folders.
- Step 3. Delete the 701Server & 701Client folders from the installation directory. If you have any backup requirements, please make sure to copy them before deleting.
- Step 4. Run the installation file for 701ServerSQL/701ClientSQL again to proceed with the software installation.

More Details :

 FAQ : After install and execute 701Server/701Clinet, the screen will appear <u>"Reinstall program" message...</u>

5. Frequently Asked Questions -

Q1. Current software version 8.06, could it perform to upgrade directly to Ver. 10.2?

A1: We recommend to do the upgrade step by step, 8.06 > 9.02 > 10.2First, please do the backup data of 8.06 software and directly update with 9.02 version.After that follow the instruction on Chapter 1. Please note that Version 8.06 can only be used on Windows XP meanwhile, 701 Software version 10.2 can only be used on Windows 7 or 10.

Q2. After updating software to Ver. 10.2 and, is preserving old data under file system is possible?

Yes you can. Please refer to 2.3.3 Back Up DATA

Q3. How to convert old data from file base to database?

File Mode to Database Mode Conversion Original Data Migration:

- Configuration Data: Configuration data from the old file mode will be automatically converted to the database format.
- Access Records (*.msg files): Manual selection of "Message File Import" is required in 701ServerSQL to switch file system data. The operation steps are as follows:

3) 7(S	step	1.	📜 « Progi	ra > 701Server	× ~	U	© Search 701Server	
	File	Set	<mark>ting </mark> View Help						10.50
1	⊋ 1		Select Serial Port	New folder					?
; (COM	D2 LAH	LAN Configuration	~ ^ /	Name	^		Date modified	Typ
		4	701E On 992		Ivanic			Dute mounied	Typ
	SUAR	and and	992E NODE ID		📕 Language			5/4/2021 1:40 PM	File
		96	Pause Scan Nodes		20210429.msr	Sten 2		4/29/2021 2:13 PM	Out
		31 11 1	RCU Configuration		20210511.msc			5/11/2021 6:21 PM	Out
		<u>_</u>	992E DI/DO DDC						1000
		Há* na	Controller Parameters	File name:	20210511.msg		~	Message File(*.msg)	\sim
5	STEP 2		Time Attendance					Open - Cancel	
			Message Import	J				Cancer	

Step 1. Open 701ServerSQL > Select [Setting] > Select [Message Import] Step 2. Select msg files to import > Select [Open]

Database Mode to File Mode Conversion Data Requires Rebuilding (Avoid if Possible):

• Configuration Data: Database data does not support file conversion and requires import and rebuilding. Before system conversion, export the old configuration data to text file format. After the system is converted to file format, import the text files one by one to restore the old data.

• Access Records (*.msg files): Old data can only be accessed in the old system.

Files Not Related to Operating System Format:

1.Attendance reports (*.DUT) / 2.Face (*.FxL) / 3. Fingerprint Feature Files (*.FP3/*.FP5)

 Example of Attendance Report DUTY Files 	 Face and Fingerprint Feature Files
20210504.dut	 FP00000.FxL FP00001.FP3 FP00001.FxL

Q4. How to backup data in Database Mode?

Example tools as an example: HeidiSQL

1- Backup Data Step by Step:

	701Server\701server\ - Heidis	SQL 11.0.0.5919				
	File Edit Search Tools Go	to Help				
	💉 • 💉 🖣 🖬 🖘 🖶	🕘 - 🛤 🖬 🕽 🕗 🖌 🖉) O O X	🕨 = 🖿 🖱 👢	QQ	oto =
ПЭ	🛴 Database filter	式 Table filter	*	Host: 192.168.1.20	Data	base: 701serve
· · · · · · · · · · · · · · · · · · ·	V # 701Server	ten/25		Name ^	Rows	Size
HeidiSOL	V 701server		6.2 MiR	email_account	0	16.0 KiB
	email_account	Edit	Alt+Enter	eventlog	8,701	1.5 MiB
Open	eventlog	Top		seq_eventlog	1	16.0 KiB
	seq_eventlog	Empty table(s)	Shift+Del	seq_user_profile	1	16.0 KiB
Step 1 en file location	seq_user_profile	Run routine(s)		tbl_areadoorn	15,181	1.8 MiB
Run as administrator	tbl_areadoorname	To Create new		• tbl_areaioname	0	32.0 KiB
	tbl_areaioname	Clear data tab filter		tbl_areaname	16	16.0 KiB
	tbl_areaname			tbl_areanetidn	4,064	160.0 KiB
	thi areanetidname	Export database as SQL			1	1

	× 🔳 🎜 70	01Server		Maintenance	Q Find te	at 🔜 So	QL export 🔵 Bulk table e	ditor		
	> 🗹 🗸	701server 6 information_schema	i.2 MiB	Database(s): Fable(s):	Drop	⊠ci ⊠ci	step 3.			
	> 🗆	mysql	C	Data:	Insert					Step
		performance_schema	N	Max INSERT size:	1,024		KB (0 = Single INSERTs)		Options	
		(C)(C	Output:	Single .sql fi	le				Step
× 🛧 🗌	< OS (C:) >	Program Files (x86) > 701Server >	F	ilename:					~	Step
	Name	Date modified								
	📙 Language	8/30/2021 1:25 PM								
p7.	service	8/16/2021 6:29 PM						Step	9	
File name:	701Server							Export	Clos	se
ve as type:	SQL files (*.sql)								



- Step 1. Run HeidiSQL and open the database by selecting [Run as administrator]
- Step 2. Select the database you want to back up, click right and select [Export database as SQL]
- Step 3. On Database and Table option, choose [Create] by ticking the box
- Step 4. On Data option select [Insert]
- Step 5. Output option select [Single .sql file]
- Step 6. Select folder path to save file
- Step 7. Name the backup file, for example: 701Server; and save under extension file .sql
- Step 8. Click [Save]
- Step 9. Select [Export] to start exporting data for backup

The backup file has been created on the designated path under format SQL-Script

2- Restore Data Step by Step:



- Step 1. Run HeidiSQL and open the database by selecting [Run as administrator]
- Step 2. Select the database you want to restore, click right and select [Edit]
- Step 3. Select Collation and change into [utf8_general_ci]
- Step 4. Select [OK]
- Step 5. Select [File] > select [Load SQL File]
- Step 6. Select backup file to restore
- Step 7. Select Encoding type [UTF-8]
- Step 8. Select [Open]
- Step 9. Select [Run file(s) directly] and data will be restore back to database

Q5. How to configure or change TCP Port and Modbus Port?

After 701ServerSQL startup, two TCP ports will be opened:

- Soyal Link for 701Client : 1631
- Modbus TCP: 502

To configure or change them, please refer to the following instructions:

1- TCP Port :

	Registry Editor			Registry Editor			
Step 1.	File Edit View Favorites Help			File Edit View Favorites Help			
	Computer\HKEY_CURRENT_USER\SOFTW	ARE\SOYAL\701Server\TCPLISTEN		Computer\HKEY_CURRENT_USER\SOFTWARE\	SOYAL\701Client\701S	erver	
Registry Editor	SOYAL	Name Type (Default) REG_SZ ADDRESS REG_SZ MODBUS PORT Step 3. PORT REG_SZ Edit String Value name: PORT Step 4. 6631 OK	Data (value not set) 127.0.0.1 502 1631 ×	SOYAL Step 5 nt V01Server Control Bars-Bar0 Control Bars-Summary Frail Files IPCAM IPCAM1 IPCAM3 ODBC Settings UnderSenet	A Name A Defarita A Port Edit String Value name: Port 5000777 1000777	Type REG SZ C. <u>FG SZ</u> REG_SZ	Data (value not set) 127:0,0.1 1631 X Cancel

- Step 1. Run the [Registry Editor]
- Step 2. Navigate to the path:Computer\HKEY_CURRENT_USER\Software\SOYAL\701Server\TCPLISTEN
- Step 3. Right-click on the PORT and select Modify.
- Step 4. Set the string value to [6631] or any other allowed value, and click OK.
- Step 5. Navigate to the path: Computer\HKEY_CURRENT_USER\SOFTWARE\SOYAL\701Client\701Server
- Step 6. Right-click on the PORT and select Modify.
- Step 7. Set the string value to [6631] or any other allowed value (must be the same as the setting in Step 4), and click OK.

% Note: The Port settings in Step 4 and Step 7 must be consistent.

2- Modbus Port :

	Computer\HKEY	CURRENT_USER\SOF	TW	ARE\SOYAL\701Ser	ver\TCPLISTEN	
	✓ 1 ≤	SOYAL	^	Name	Туре	Data
eaistry Editor	>]	323DMaster		(Default)	REG_SZ	(value not set
Succession and a second	>	701Client		ADDRESS	REG_SZ	127.0.0.1
	~]	701Server		MODBUS_POR	Step 3.	502
		📜 Comm		PORT	REG_SZ	1631
		📜 Files		Edit String		
		- 📜 HTTP		Luit Stillig		~
		- 📜 ODBC		Value name:		
		- 📜 Recent File List		MODBUS PORT		
		- 📜 RMSER		Step 4.		
	Step	2. Settings		Value data:		
		TCPLISTEN		1502		
		Window Pos				
		CommView			- OK	Cancel

※ Please update the instructions to version 10V5 230531 onwards.

- Step 1. Run the [Registry Editor].
- Step 2. Navigate to the path: Computer\HKEY_CURRENT_USER\Software\SOYAL\701Server\TCPLISTEN
- Step 3. Right-click on MODBUS_PORT and select Modify.
- Step 4. Set the string value to [1502] or any other allowed value, and click OK.

NOTE

 If the MODBUS_PORT entry is missing in the Registry Editor even after updating 701ServerSQL to version 10V5 230531 onwards, please restart 701ServerSQL and press F5 to refresh the Registry Editor screen.

6. 701ServerSQL Basic Concept

6.1 Log in 701ServerSQL



6.2 Main Menu & Toolbar



Setting:

V1

сом

∰2

LAN

1. Select Serial Port:

- Select a serial port (COM port or TCP/IP) that can link the PC and controllers.
- Setting of Local TCP-LINK IP Address and Port] - Start or stop polling

2. LAN Configuraton:

Set the Area, Node ID, model no. type, IP Address and Port (for IP-Based controller), and Net-Point Name (editable) of the controller to help achieve the correct connection and data transmission.



Controller On/Off Line:

Controller connection status, including access controller direct wiring (Node) and/or bypass wiring control panel (Node) and controller beneath (SubNode)



- 4. Controller Parameters:
 - Set the Node ID and related parameters of AR-716-E18



- 5. Parameter Setting for Home Series (H Series) Controller
- 6. Parameter Setting for Enterprise Series (E Series) Controller and Control Panel AR-716-E16

- 7. Time Attendance: Set Time Attendance setting and user capacity of the system
- 8. Message Import: Import other message files (.msg file)
- 9. Save LAN Setting: Save and back-up LAN Configuration setting
- 10. Load LAN Setting: Load saved LAN Configuration setting

View:

11. Standard:

Show or hide tool bar (tick means show toolbar)

12. Status bar: Show or hide status bar (tick means show status bar)

Help:

13. About:

Check 701ServerSQL version and mode (file system file or database system)

- 14. Login: re-log in or change log in user
- **15.** Authorization:

Operator authorization edit, to change log in user Login Name and Password, for authorized user to modify user's access level

16. Access Level:

Setting of access level for user that assigned below or above specified access level function such as view or modify setting of:

- 1. controller online status (LINE)
- 2. COM and LAN setting, controller parameter setting
- 3. Access Level setting

More Details : • FAQ :<u>How to revise the 701Software Toolbars?</u>

6.3 Authorization & Access Level

S 701Server		Access Level	\times
File Setting View	Help C About Login Authorization Access level	Online State00 ~Setting10 ~Access Level =>20 ~	
אסן		Yes Cance	el

Only highest Access Level Level 63 has permission to create new and edit user Access Level. User with Access Level below 63(0-62) can only managed to change their own username and password.

Operator Authorizati Step 2 Operator Login Name Password	ion Edit 2. # 000 V Access I guest	START START START START START START START START START START	View Help 3 332 2 332 2 11 2 111	About Step 1. Authorization Access Level
Operator Authoriza Step) Operator Login Name Password	tion Edit 2. Step # 001 V Access supervisor	Step 5.re	habet Exit	× Supervisor (default) Access Level: All function

Step 1. Select 'Authorization'

- Step 2. Operator #: 0-119 operators for editing their access level, login name and password.
- Step 3. Access Level: 0-63 access level for editing. 63 is the highest authority.
- Step 4. Login Name: login name can have up to a total of 18 English letters or 9 Chinese characters.
- Step 5. Password: password can have up to a total of 18 English letters or 9 Chinese characters.



6.4 701ServerSQL Base Map

Image:		STEP 2. QLAN-control	et your wiring method and your wiring method and your your wiring method and the second se	Image: Control Image: Contro Image: Contro Image: Contro </th <th>100mm 100mm</th> <th>•</th>	100mm 100mm	•
Image: Start Part Pender Pender Betters Image: Start Pender Pender Betters Image: Start Pender Pender Betters Image: Start Pender Pend		Marka 10 2001-254 * Rate are to pro- list that the Com- STEP 3. & LINE - Com	Controller	EXECUT: 237(725) affare at formal and ruler (1980) 1977/320 1977/32 1977/3	Nat Point Name	
 > This PC > OS (C:) > Program Files (x86) > 701Server > Name Date modified Type Size Language 2/2/2021 3:03 PM File folder 		STEP 4. 🔐 🛣 Cantrol I	sectine Panel Setting → FINISH (Disfault Login Name Editudi Pasa-andi approjek Ediyrigik 1879K. Technology (met 6	
Name Date modified Type Size Language 2/2/2021 3:03 PM File folder		•> Other Setting -				
Language 2/2/2021 3:03 PM File folder	> This	PC > OS (C:) > Proc	gram Files (x86) → 701:	Server >		
	> This	PC > OS (C:) > Prog	gram Files (x86) → 701: ^	Server > Date modified	Туре	Size

When first logged in into 701ServerSQL, the base map will show 701ServerSQL quick guide. For more detail please refer to the PDF file in the installation path C:\Program Files (x86)\701ServerSQL



7. 701ServerSQL Networking Architecture

There are slight differences in between setting under Passive Polling Mode and Active Communication Mode (Non-Polling), other than that all of the setting is the same.

Difference	Passive Polling Mode	Active Communication Mode (Non-Polling)			
Must set TCP- Link Setting	Does not required, only required when software system under database system and enabling Multi-Client mode Local TCP-LINK Address 127.0.0.1 Port 1631	Required, the setting is to paired 701ServerSQL TCP-Link IP Address and Port setting equivalent to Hardware Message Server setting - 701ServerSQL Setting Local TCP-LINK Address 192.168.1.46 Port 1631 - Hardware Message Server point to 701ServerSQL as main server Area ID (0~15) 0 Node ID (Device ID) 2 Message Server IP 1st 1631 (1024~65530, 0:disable, 8031:Text Mode)			
Enable Event Polling	Required	Should not tick this option			
Tick connected Node ID	Required Node Number for Polling Area 00:Taipei 000 327E/3xxE/7xxE/8xxE/716Ev5 001 101H/323D/321&8888W/721/723/75	Area 00:Taipei 000 327E/3xxE/7xxE/8xxE/716Ev5 001 101H/323D/321&888W/721/723/75			
Checking Connection Status	Via 3 LINE menubar	Via E Series Controller Parameter Setting Image: Controller Parameter Edit H/E Serial Controller Parameter Edit Target Node 00:Taipei Image: Controller Firmware Ver:4.4			

7.1 Polling Mode Setting

S 701Server -----File Setting View Help ¥1 Com 5 992 5 RCU -₽7 716E 💬 🛈 😋 €A Line 821/9 **⊕**2 LAN 96 삼 U. 43

3 steps to setting up the hardware to the software:



- 1. COM: Serial Port Communication
- 2. LAN: Hardware Setting



3. LINE: Connection Status

7.1.1 COM: Serial Port Communication



1	Communication Port Setting	×
м 🚺	Select Area : 00:SOYAL	
2	Area Communication Port COM:1 COM:2 COM:3 COM:4 COM:5 COM:6 COM:7 COM:8 COM:9 COM:10 COM:11 COM:12 COM:13 COM:14 COM:15 COM:16 COM:17 COM:18 COM:20 COM:21 COM:22 TCP/IP Only	
3	O Disable O Remote Co-701Server TCP-LINK Connection 192.168.0.1 :	
4	🛛 🖂 Enable Event Polling 🔹 Polling Interval 📮 👘 0m:	s
5	Local TCP-LINK Address 192.168.1.18 Port 1631	
	Save Current Area Yes Cancel	
	1 Select Area	
	 2 Select communication setting 3 Remote Co-701Server Setting 4 Polling Setting 	
	5 701ServerSQL TCP-LINK Setting	
More Details :		
FAQ : Why	y could not see Event Log while 701Server Setting is correct?	

Select Area

Communication Port Setting

Communication Port Setting	1		A		
Select Area : 00	0:SOYAL			701ServerSQL	1F Area00
Area Communication P	D:SOYAL			SOYAL	Aleauu
O COM:1 O COM:2 02	2:				
○ COM:9 ○ COM:10	3:		B		
COM:17 COM:180	4: 5:				2F
O Disable	6: 7-	701ServerSQL 701ClientSQL		701ServerSGL SOYAL	Area01
Remote Co-701Ser	7. 8: 9:	SOYAL			
10 Enable Event Polling	D: 1:	Main Server PC (Engine Room)		ß	
Local TCP-LINK Addres	2: 3:	(Englite Room)		701ServerSQL	B1 Area02
14	4: 5·			SOYAL	

Area selection range: 00-15, total 16 Areas (upgrade to 10.2 version all of the controller will automatically classified to Area00)

X Area Name can be changed in LAN Setting, details referring to page 4-1-39 Select and rename Area
2 Select communication setting

When selecting communication setting, it is divided into two method: Local Area (Single-Server) and Remote Area (setting required software under Database Mode and suitable for Multi-Server system).

- Local Area

Communication port come from COM Port and/or TCP/IP



- 1. COM:1 COM:22 : for hardware wiring via USB (Via AR-321-CM*; RS485 to USB Conveter) OR for system with two way wiring both USB and TCP/IP (according to the USB COM Port)
- 2. TCP/IP Only: Via Ethernet cable or AR-727-CM, RS485 to Ethernet Converter



converter for each controller?

• FAQ : Is it possible to use TCP/IP and RS485 for connection and with 701Server at same time?



3 Remote Co-701Server Setting

elect Area	:	00:SOYAL				~	
rea Comm	unication P	ort					
COM:1	O COM:2	O COM:3	O COM:4	O COM:5	O COM:6	O COM:7	O COM:8
COM:9	O COM:10	O COM:11	O COM:12	O COM:13	O COM:14	O COM:15	O COM:16
COM:17	O COM:18	O COM:19	O COM:20	O COM:21	O COM:22	• TCP/IP C	Dnly

- 1. Disable (default): if there is no remote Area, the setting is disable
- 2. If the system is enabling Multi-Server, fill in the remote Area's Server IP Address and Port

4 Polling Setting

When selecting communication setting, it is divided into two method: Local Area (Single-Server) and Remote Area (setting required software under Database Mode and suitable for Multi-Server system).

Communication	n Port Settin	g						×	
Select Area :	C	0:SOYAL				~			
Area Commu	nication Po	rt							
O COM:1	O COM:2	O COM:3	O COM:4	O COM:5	O COM:6	O COM:7	O COM:8		
O COM:9	O COM:10	O COM:11	O COM:12	O COM:13	O COM:14	O COM:15	O COM:16		
O COM:17	O COM:18	O COM:19	O COM:20	O COM:21	○ COM:22	• TCP/IP O	nly		
O Disable									
O Remote	Co-701Serv	er TCP-LINK	Connection			192.168.0.1	:	1631	
				-	્રા				
🗹 Enable Ev	ent Polling		Polling Inte	erval				0ms	

Enable Event Polling:

by ticking Enable Event Polling will polling all real time transaction log on 701 Client and untick it will stop the polling

Polling Interval:

Polling Interval is defining interval of event polling is received by the software. For small system we recommend to set it to 1000ms (polling per min.) for bigger system, recommend to set it to 100ms.

Enable Event Polling	Polling Interval	100ms
🗹 Enable Event Polling	Polling Interval	1000ms

5 701ServerSQL TCP-LINK Setting

elect Area :		00:SOYAL				\sim		
Area Commu	nication Po	ort						
O COM:1	COM:2	O COM:3	O COM:4	O COM:5	O COM:6	O COM:7	O COM:8	
O COM:9	COM:10	O COM:11	O COM:12	O COM:13	O COM:14	O COM:15	O COM:1	5
O COM:17	COM:18	O COM:19	O COM:20	O COM:21	O COM:22	• TCP/IP C	Inly	
○ Disable								
○ Remote (Co-701Ser	ver TCP-LINK	Connection			192.168.0.1	:	1631
🗸 Enable Ev	ent Pollino	1	Polling Inte	erval				5000m

· Default Setting:



• Under Database Mode and enable TCP-LINK connection to Multi-Server and Multi-Client required setting.



Refer to Installation Guide Chapter 3. Download and Install 701Software Part 6-Setting TCP-LINK Server and TCP-Link Client



• FAQ : Sometimes the selected Com Port Number always change , how to fix it?

7.1.2 LAN: Specify Device Connection Settings



- Step 1. Select Area to be set
- Step 2. Rename the Area if required

(Software will input the area number automatically, ex. 00:XXX /01:XXX... and etc.)



2 Hardware Node ID

Step	1 per for Polling					(Step)2.
Sten	10:TAIPEI	~	IP Address	Port	Net-Point Name	Node Range
	327E/3xxE/7xxE/8xxE/716Ev5	~ []	P 0 . 0 . 0 . 0	0	Node000	000 - 007 🛛 🗸
001	327E/3xxE/7xxE/8xxE/716Ev5	~ [P 192.168.1.176	1621	Entrance (1F)	000 - 007
002	327E/3xxE/7xxE/8xxE/716Ev5	~ 1	P 0 . 0 . 0 . 0	0	Hall Gate (11F)	016 - 023

Step 1. Select Node ID of the Hardware

Step 2. Node Range: Each page contains 7 Node ID, to go to the other Node ID range, select Node Range

3 Hardware type

Area	00:buildingA ~	ļ	IP Address	Port	Net-Point Name	Node Ra	nge
000	327E/3xxE/7xxE/8xxE/716Ev5	IP	0.0.0.0	0		000 - 000	07 ~
001	327E/3xxE/7xxE/8xxE/716Ev5		192 . 168 . 1 . 127	1621			
002	MODBUS_TCP TCP_IO	🗌 IP	0.0.0.0	0			
003	RS485_IO 327E/3xxE/7xxE/8xxE/716Ev5	□ IP	0.0.0.0	0			
004	721E_1024 3K_321/331/725/888H		0.0.0.0	0		1	Yes
005	821EV		0.0.0.0	0			
006	821EF v9		0.0.0.0	0			5 .44
007	821EF V3		0.0.0.0	0		9	Exit
	716E V3/Ei 829E V3 727/747H V3 101H/323D/321&888W/721/723/757 V3 727H Old 821EF 1450 829E Old 821E_Lift 821EF 1920 716Ei Old 716E Old 716E 704E Unsupported		Detailed controlle FAQ : 701Server	er sele	ection introduction	on, please	e refer to

[Modbus_TCP] : Used for Modbus devices, enter Port 502, and you need to set it in Regedit. The settings are as follows:

Node Nu	umber for Polling						
Area	00:buildingA	\sim		IP Address	Port	Net-Point Name	Node Range
000	327E/3xxE/7xxE/8xxE/716Ev5	~		0.0.0.0	0		000 - 007 🗸 🗸
001	MODBUS_TCP	~		192 . 168 . 1 . 127	502	PLC_Modbus TCP	
002	327E/3xxE/7xxE/8xxE/716Ev5	~	🗌 IP	0,0,0,0	0		
003	307E/3vvE/7vvE/8vvE/716Ev5			0 0 0 0	n		

Example: Device Area: 00, Station Number: 001, Digital Input/Output: 16 DI/8 DO



- Step 1. Go to Registry Editor
- Step 2. Navigate to the path: Computer\HKEY_CURRENT_USER\Software\SOYAL\701Server
- Step 3. Right-click and select New -> Key.
- Step 4. Enter "Modbus" to create the Modbus folder.



- Step 5. Navigate to the path: Computer\HKEY_CURRENT_USER\Software\SOYAL\701Server\Modbus
- Step 6. Right-click and select New -> String Value
- Step 7. Enter the name "Area00.001" (it is recommended to use the area and station number as the name).
- Step 8. Enter the numerical data (refer to the data format definition in the following figure), and click OK to complete the setup.

The data format for numerical values is defined as follows:

- I: Start address for digital inputs (number of DIx)
- X: Start address for digital outputs (number of DOx)
- R: Start address for register/Analog inputs (number of Al)
- H: Start address for holding register/Analog outputs (number of AO)

XNote: Address calculation is in decimal.



701ServerSQL LANbased summary of options

No.	LAN Model No. 10.2 version and before	LAN Model No. 10.2 version and after	Correspondent Hardware Model No.	Communication Interface	Port	Active Communication Mode (Non-Polling)
1.	Modbus_TCP	Modbus_TCP	PLC Modbus TCP	Modbus	502	x
2.	TCP_IO	TCP_IO	IP Based I/O Module - AR-727-CM-IO- 0804M - AR-401-PLC-0808R - AR-401-PLC-1616R	TCP/IP	1601	YES (required additional setting of Message Server IP point to 701ServerSQL's Local TCP Link Address & TCP Port)
3.	RS485_10	RS485_IO	RS485 I/O Module - AR-401-IO-0016R - AR-401-IO-1709R - AR-403-IO Series	RS485 (via AR-321-CM converter)	1601	Х
	001/007		All Enterprise Series Controller (E Series) : AR-725-E / AR-331E&EF / AR-837-E&EF / AR-727-E / AR-327-E	TCP/IP (if onboard TCP/IP module)	1621	YES (required additional setting of Message Server IP point to 701ServerSQL's Local TCP Link Address & TCP Port)
4.	/331E&EF /82XEv5/721 /725Ev2/727 /327Hv5	327E/3xxE/ 7xxE/8xxE/ 716Ev5	Control Panel -AR-716-E16	TCP/IP (via AR-727-CM converter)	CH1 1621 CH2 1623	x
			Enterprise Series Controller(Old Version): AR-881-EF / AR-829-EV5	RS485 (via AR-321-CM converter)		х
5.	721E_1024	721E_1024	Dual WG control panel - AR-716-E02	RS485 (via AR-321-CM converter)		x

No.	LAN Model No. 10.2 version and before	LAN Model No. 10.2 version and after	Correspondent Hardware Model No.	Communication Interface	Port	Active Communication Mode (Non-Polling)
6	3K 321/331/	3K 321/331/	Home Series (H Series) controller that support	TCP/IP (via AR-727-CM converter)	CH1 1621 CH2 1623	x
0.	725/888H	725/888H	AR-321H / AR-331-H /AR- 725-H / AR-888-H	RS485 (via AR-321-CM converter)		х
7			Controller: AP 821 EV	TCP/IP (via AR-727-CM converter)	CH1 1621 CH2 1623	х
7.	02120	821EV	Controller. An-62 I-LV	RS485 (via AR-321-CM converter)		x
0	821EE \/0			TCP/IP (via AR-727-CM converter)	CH1 1621 CH2 1623	х
0.	021LI V9			RS485 (via AR-321-CM converter)		х
0			Control Panel:	TCP/IP	1621	
э.	716E V3/Ei	6E V3/EI / 16E V3/EI	AR-716-E18	RS485		x
10.	829E V3	829E V3	Controller: AR-829-H	RS485 (via AR-321-CM converter)		x
11.	727/747 H V3	727/747 H V3	Controller AR-327-H / AR-727-H / AR-747-H	RS485 (via AR-321-CM converter)		x
12.	323D/321&888W /721/757/737 /723/101H V3	101H/323D /321&888W /721/723/757	Home Series (H Series) controller that support 1000 user interface: AR-101-H / AR-323D / AR-888-W / AR-721-H / AR-723-H / AR-757-H	TCP/IP (via AR-727-CM converter)	CH1 1621 CH2 1623	x
			Controller (Old version): AR-757-H / AR-321W	RS485 (via AR-321-CM converter)		х
13.	829E Old	829E Old	Controller (Old version): AR-829-E	RS485 (via AR-321-CM converter)		х

NOTE

To display fire alarm door release messages from AR-727-CM-IO or AR-716-E16 in 701ClientSQL, you need to set the IP and Port of AR-727-CM-IO or AR-716-E16 in the LAN settings. For detailed configuration instructions, please refer to \rightarrow AR-727-CM HTTP Server Manual

4 TCP/IP configuration (Skip this step connection via COM)

Area	00:SOYAL	~		IP Address	Port	Net-Point Name	Node Range
000	327E/3xxE/7xxE/8xxE/716Ev5	~	IP	0,0,0,0	0	Node000	000 - 007 ~
001	327E/3xxE/7xxE/8xxE/716Ev5	~	✓ IP	192 . 168 . 1 . 176	1621	Entrance (1F)]
002	327E/3xxE/7xxE/8xxE/716Ev5	~	🗹 IP	0.0.0.0	0	Hall Gate (11F)]
003	327E/3xxE/7xxE/8xxE/716Ev5	~	🗹 IP	0.0.0.0	0	Sales Department]
004	327E/3xxE/7xxE/8xxE/716Ev5	~	IP	0.0.0.0	0	R&D Department	Yes
005	327E/3xxE/7xxE/8xxE/716Ev5	~	🗌 IP	0.0.0.0	0	Health Management Dep]
006	327E/3xxE/7xxE/8xxE/716Ev5	~	🗌 IP	0.0.0.0	0	Accounting Department	
007	327E/3xxE/7xxE/8xxE/716Ev5	~	IP	0.0.0.0	0	Product Warehouse	

This step is necessary for controller wired with Ethernet. Skip this step and left it untick and blank if your controller is wired via USB instead.

- Step 1. Tick the IP
- Step 2. Input the IP address of the controller (default IP address is 192.168.1.127)
- Step 3. Each controller default value is 1621, thus you need to type 1621 in the PORT field. Other case that your controller PORT is not 1621:
 - If you are wiring through AR-727CM via CH2, the PORT is 1623.
 - If your hardware is I/O module to control I/O enter 1601.

More Details :

- FAQ : How to copy 701Server LAN Setting from Computer A to Computer B?
- FAQ : How to add new model option for selecting under 701Server LAN Base setting?

NOTE

How to change default IP Address to designated IP Address?

 Enterprise (E Series) Controller : Default IP Address: 192.168.1.127

St	ep 1.
← → C @	192.168.1.127
	Windows 安全性 X
TM	iexplore.exe
SOYAL ACCESS CONTROLLER	伺服器 192.168.1.178 正要求您提供使用者名稱與密碼。
0	該伺服器也回報: "network.htm"。
Current State	警告:將在不安全的連線上使用基本驗證來傳送您的使用者名稱與 Step)2.
Network Setting	SuperAdm
Event Logs	••••••
<u>User List</u>	□ 記住我的認證

- Step 1. Confirm the hardware is TCP/IP Module flash TX/RX (green/orange LED), indicated the TCP/IP module works then enter default IP Address 192.168.1.127 *If the PC network segment is different with hardware, please set the PC network segment to have the same value with hardware.
- Step 2. Select [Network Setting] and enter log in account. Default value: Account: SuperAdm / Password: 721568

Step 3.									
Network Setting	You need to change the ho	You need to change the host IP with new IP Address in Internet Browser							
Channel 1 Setting									
	ltem		Setting						
Channel 2 Setting	Stepi3lame	S2E-Device	_						
User Password	LAN IP Address	192.168.1.127							

Step 3. After Modifying the IP address, click [Update]. Important: please complete the modification within 15 seconds

• AR-727-CM :

Default IP Address: 192.168.1.127

(←) → ♂ û	192.168.1.127	
	Windows 安全性 X	
	iexplore.exe	
SOYAL ACCESS CONTROLLER	伺服器 192.168.1.178 正要求您提供使用者名稱與密碼。	
	該伺服器也回報: "network.htm"。	
Current State	警告:將在不安全的連線上使用基本驗證來傳送您的使用者名稱與 Devi Step)2.	
Network Setting	CON SuperAdm	
Event Logs		
<u>User List</u>	□ 記住我的認識	
Step 3.		
Network Setting	You need to change the host IP with new IP Address in Internet Browser	
Channel 1 Setting		
	Item Setting	
Channel 2 Setting	Step[3]ame S2E-Device	
User Password	LAN IP Address 192.168.1.127	

- Step 1. Confirm the hardware is TCP/IP Module flash TX/RX (green/orange LED), indicated the TCP/IP module works then enter default IP Address 192.168.1.127 *If the PC network segment is different with hardware, please set the PC network segment to have the same value with hardware.
- Step 2. Select [Network Setting] and enter log in account. Default value: Account: SuperAdm / Password: 721568
- Step 3. After Modifying the IP address, click [Update]. Important: please complete the modification within 15 seconds



)→ C' û 0	192.168.1.127 Step 4		··· 🗵 🕁	»
SOYAL ACCESS CONTROLLER		F/W: 5.00	0	
urrent State	Channel 1	Step 5.	Setting	
ep(5. Setting hannel 1 Setting		Ope Step 6 Server ~ Local Port 1621 (1024~65535)		
	102 169 1127			
	152.100.1.127			»
SOYAL ACCESS CONTROLLER		F/W: 5.00		
rrent State	Channel 2	Step 7	Setting	
twork Setting	с	Protocol TCP ~		
p/a		Remote Port 1623 (1024~65535)		

- Step 5. Select [Channel 1 Setting] > on the Protocol field select as [TCP]
- Step 6. [Local Port] default setting is 1621, after completed the setting click [Update]
- Step 7. Select [Channel 2 Setting] > on the Protocol field select as [TCP]
- Step 8. [Local Port] default setting is 1623, after completed the setting click [Update]

5 Net-Point Name

Node N	umber for Polling				
Area	00:SOYAL	~	IP Address	Port	Ret-Point Name
000	327E/3xxE/7xxE/8xxE/716Ev5	~ IP	0.0.0.0	0	Node000
001	327E/3xxE/7xxE/8xxE/716Ev5	~ I P	192 . 168 . 1 . 176	1621	Entrance (1F)

Step 1. Change the Net-Point Name to desire name to easily distinguish each hardware and position.

7.1.3 LINE: Connection Status



You can check the connection status without logging into the software:



Step 1. Right-click on the 701ServerSQL icon in the bottom right corner of the computer.

Step 2. Select [OnLine] to check the connection status.



7.2 The Demonstration of Controller Connect with 701ServerSQL

SOYAL Controllers and IO Module can connect with 701ServerSQL via different methods, the methods are as below:

- 1. RS485 convert USB → Connection of <u>SOYAL ALL Series Controller</u> via USB / RS-485 Converter AR-321-CM
- RS485 convert TCP/IP →
 Connection of <u>SOYAL ALL Series Controller</u> via TCP/IP / RS485 Converter AR-727-CM
- 3. TCP/IP directly →
 Connection via RJ45 built-in the Enterprise Series (E Series) Controller
 4. TCP/IP directly →

Connection via Multi-door Networking Control Series (ex.AR-716-E16)

5. TCP/IP directly \rightarrow

Remotely control electricity equipment via TCP/IP with <u>Industry Series I/O Module</u> (ex.AR-727-CM-IO-0804M)

6. RS485 convert USB \rightarrow

Connection of AR-401/AR-403 IO Module Using AR-321CM to Connect PC via RS-485



7.2.1 RS485 convert USB → Connection of SOYAL ALL Series Controller via USB / RS-485 Converter AR-321-CM

Applicable Model: SOYAL All Series Controller

Step 1. Connect the controller with PC via AR-321CM (using E Series Controller AR-727-E as example)



Step 2. Modify the Controller Node ID

The default Node ID is 001, please change it if you already have the same Node ID. The function is as below (using AR-727-E as example):

(1)Enter the program mode by keypad: *123456#

(2)Select the options through LCD screen:

3.Parameters 1 -> 1.Node ID -> Input New Node ID: Range 001~254 -> Press # until the setting complete.

Step 3. Connect the Controller via 701ServerSQL

(S) 701Server		
File Setting View	Help	
Сон Ф ² 5 Сон 5 2		
Communication Port Set	tting)
	2	
Select Area :	2 00:SOYAL	
Select Area : Area Communication	2 00:SOYAL	
Select Area : Area Communication COM:1 COM.	2 00:SOYAL Port 3 © COM:3 COM:4 COM:5 COM:6 COM:7 COM:8	
Select Area : Area Communication COM:1 COM: COM:9 COM:1	2 00:SOYAL Port 3 COM:3 COM:4 COM:5 COM:6 COM:7 COM:8 10 COM:11 COM:12 COM:13 COM:14 COM:15 COM:16	

(S) 701Serve	S	7	01	S	e	n	/e	-
--------------	---	---	----	---	---	---	----	---

F 4	Setting View Help						
	2 5 CA3 5 5	0, 20, 3		• C			
Node N	umber for Polling						\rightarrow
Area	00:SOYAL	~	IP Address	Port	Net-Point Name	Node Range	
000	327E/3xxE/7xxE/8xxE/716Ev5	~ _ IP	0.0.0.0	0	Node000	000 - 007	\sim
⊘ 001	327E/3xxE/7xxE/8xxE/716Ev5	~ IP	0.0.0.0		Entrance (1F)		
002	327E/3xxE/7xxE/8xxE/716Ev5	~ IP	0.0.0.0	0			

(1) Start 701ServerSQL, select [1.COM]

- (2) Select Area
- (3) Select Area Communication Port and Save





- (4) Select [2.LAN]
- (5) Select Area
- (6) Tick the Controller Node ID and model (ex. AR-727-E with Node ID 001) Details please refer to the introduction: <u>FAQ : 701ServerSQL LANbased</u>
- Step 4. Check the Line Status

Select [3.Line] to check the Controller on/off line

S 701	Server							
File	Setting	View	Help					
1 (A3 5 me 992	RCU 716E	82179	0,	P . C	P + 00	企
Contro	oller On/O	ff Line						
	ROOT							
	SOYAL .	001 · Entr	ance (1E					

7.2.2 RS485 convert TCP/IP → Connection of SOYAL ALL Series Controller via TCP/IP / RS485 Converter AR-727-CM

Applicable Model: SOYAL All Series Controller





- Step 0. Determine whether the IP Addresses' are consistent (AR-727-CM default IP is 192.168.1.127)
 - Example 1: PC IP is 192.168.1.XXX, and then the IP Address are consistent. → Please start from Step 2
 - Example 2: PC IP is 192.168.0.XXX, and then the IP Address are inconsistent. → Please start from Step 1

NOTE

• This features required connection to the internet. Step below is how to know your PC's IP Address:

Step 1.	Command Prompt	Command Prompt
	Microsoft Windows [Version	Ethernet adapter 乙太網路 2:
Command Prompt	(c) Microsoft Corporation. Step 2. C:\Users\info <mark>ripconfig_</mark>	Connection-specific DNS Suffix . : Step 3 and HPv6 Address fc80b031.29 IPv4 Address 192.168.1.82
Step 1. Search for	[Command Prompt]	

- Step 2. Enter [ipconfig] and press [Enter]
- Step 3. IPv4 Address is your PC's IP address. In this example, 192.168.1.82 is the IP Address.

Step 1. Modify the PC IP Address to match the AR-727-CM IP Address

The PC IP Address range is 192.168.0.1~86 in example2, so that we need to change the AR-727-CM IP from 192.168.1.127 to 192.168.0.87 to match the internet.

Firstly, we need to modify the PC IP from 192.168.0.XXX to 192.168.1.XXX to control AR-727-CM, the institution is as below:

(Additional Information: Subnet Mask 255.255.255.0 means the fourth number of IP range is changeable from 1~255)

ŵ	Best match	🖭 Control Pane	el				
ര	Control Panel	$\leftrightarrow \rightarrow 1$	Control Panel				
	Desktop app	Adj	ust your computer's	s settings			
ŝ			System and Se	ecurity			
2			Save backup copie	s of your files with e (Windows 7)	n File History		
		<pre></pre>	View network and I View network statu Choose homegrou	nternet is and tasks ip and sharing opt	tions		
撞 Net	work and Internet				3 <u></u>		×
← -	👻 🕆 撞 > Control Panel > Net	twork and Internet \Rightarrow	ٽ ~	Search Conf	trol Panel		<i>م</i>
Cor	itrol Panel Home	Network and Sharing Center					
Syst	em and Security	View network status and tasks Connect	to a network Vie	w network cor	mputers ar	nd devic	es
• Net	work and Internet	HomeGroup					



	rk and Internet 🗧 Network and Shar	ing Center	Search Control P	anel P
Control Danal Home	View your basic netwo	ork information and set u	up connections	
control Parlel Home	View your active networks			
Change adapter settings	new your active networks			
Change advanced sharing	Network	A	ccess type: Internet	
settings	Public network	C	onnections: 📱 Ethernet	
Network Connections		Ethernet Properties	s	×
→ · ↑ 😰 › Co	ntrol Panel > Network and Int	Networking		
rganize 👻 Disable th	is network device Diagnos	Connect using:		
Ethernet		🚽 Qualcomm Athe	ros AR8151 PCI-E Gigabit E	themet Contro
	bla		Г	Configure
Uisa	DIE	This connection uses t	the following items:	
Stat	us	Client for Mice	rosoft Networks	•
Diag	nose	File and Printe	er Sharing for Microsoft Netw	vorks
😌 Bride	ge Connections	QoS Packet	Scheduler	2
C	te Shortcut	Internet Proto	ocol Version 4 (TCP/IPv4)	
Dela		Microsoft Net	Work Adapter Multiplexor Pro	otocol
	LC.	Internet Proto	col Version 6 (TCP/IPv6)	~
V Kena	ame 6	<		>
Prop	perties	Inetall	Uninetall	Properties
		in iscai	Crimitatian	riopenies
		Description		
		Description Transmission Contro	ol Protocol/Internet Protocol	The default
		Description Transmission Contro wide area network p	ol Protocol/Internet Protocol. protocol that provides commu	The default unication
		Description Transmission Contro wide area network p across diverse inter	ol Protocol/Internet Protocol. protocol that provides commu connected networks.	. The default unication
		Description Transmission Contro wide area network p across diverse inter	ol Protocol/Internet Protocol. protocol that provides commu connected networks.	. The default unication
		Description Transmission Contro wide area network p across diverse inter	ol Protocol/Internet Protocol. protocol that provides commu connected networks. OK	The default unication
		Description Transmission Contro wide area network p across diverse inter	ol Protocol/Internet Protocol. protocol that provides commu connected networks. OK	The default unication
ternet Protocol Version 4 (TCP)	/IPv4) Properties	Description Transmission Contro wide area network p across diverse inten	of Protocol/Internet Protocol. protocol that provides commu connected networks. OK OK	The default unication Cancel
ternet Protocol Version 4 (TCP, Seneral	/IPv4) Properties	Lescription Transmission Contro wide area network p across diverse inten Internet Protocol Version General	ol Protocol/Internet Protocol. protocol that provides commu connected networks. OK OK	Cancel
Iternet Protocol Version 4 (TCP, Seneral You can get IP settings assigned this capability. Otherwise, you n for the appropriate IP settings.	/IPv4) Properties	X Internet Protocol Version General You can get IP setting this capability. Otherw for the appropriate IP	ol Protocol/Internet Protocol. protocol that provides commu- connected networks. OK on 4 (TCP/IPv4) Properties s assigned automatically if your n ise, you need to ask your networ settings.	Cancel Cancel X etwork supports rk administrator
ternet Protocol Version 4 (TCP, Seneral You can get IP settings assigned this capability. Otherwise, you m for the appropriate IP settings.	/IPv4) Properties	X Internet Protocol Version General You can get IP setting this capability. Otherw for the appropriate IP	ol Protocol/Internet Protocol. protocol that provides commu- connected networks. OK on 4 (TCP/IPv4) Properties s assigned automatically if your n ise, you need to ask your networ settings. ress automatically	The default unication Cancel × retwork supports rk administrator ter
Iternet Protocol Version 4 (TCP) General You can get IP settings assigned this capability. Otherwise, you n for the appropriate IP settings. Obtain an IP address auton Obtain an IP address auton	/IPv4) Properties	X Internet Protocol Version General You can get IP setting this capability. Otherw for the appropriate IP Obtain an IP add	ol Protocol/Internet Protocol. protocol that provides commu- connected networks. OK on 4 (TCP/IPv4) Properties assigned automatically if your n ise, you need to ask your networ settings. ress automatically IP address:	The default unication Cancel × etwork supports rk administrator ter
ternet Protocol Version 4 (TCP, Seneral You can get IP settings assigned this capability. Otherwise, you n for the appropriate IP settings. Obtain an IP address auton Obtain an IP address auton Use the following IP address IP address:	/IPv4) Properties	 A Description Transmission Control wide area network pacross diverse international across diverse international diverse international diverse international diverse international diverse diverse international diverse diverse international diverse diverse international diverse diverse diverse international diverse diverse diverse international diverse di diverse diverse diverse diverse d	ol Protocol/Internet Protocol. protocol that provides commu- connected networks. OK on 4 (TCP/IPv4) Properties s assigned automatically if your n ise, you need to ask your networ settings. ress automatically IP address: 192.168.	Cancel Cancel X network supports rk administrator ter 1 . 1
ternet Protocol Version 4 (TCP, Seneral You can get IP settings assigned this capability. Otherwise, you m for the appropriate IP settings. Obtain an IP address auton Obtain an IP address auton Use the following IP address IP address: Subnet mask:	/IPv4) Properties	 A Description Transmission Contro wide area network p across diverse inten Internet Protocol Version General You can get IP setting this capability. Otherw for the appropriate IP Obtain an IP addi Use the following IP address: Subnet mask: 	ol Protocol/Internet Protocol. protocol that provides commu- connected networks. OK on 4 (TCP/IPv4) Properties s assigned automatically if your n ise, you need to ask your networ settings. ress automatically IP address: 192 . 168 . 1 255 . 255 . 25	The default unication Cancel × network supports rk administrator ter
ternet Protocol Version 4 (TCP, Seneral You can get IP settings assigned this capability. Otherwise, you n for the appropriate IP settings. O Obtain an IP address auton O Use the following IP address IP address: Subnet mask: Default gateway:	/IPv4) Properties	 Description Transmission Contro wide area network p across diverse inten Internet Protocol Version General You can get IP setting this capability. Otherw for the appropriate IP Obtain an IP addi Use the following IP address: Subnet mask: Default gateway: 	ol Protocol/Internet Protocol. protocol that provides commu- connected networks. OK on 4 (TCP/IPv4) Properties s assigned automatically if your n ise, you need to ask your networ settings. ress automatically IP address: 192 . 168 . 1 255 . 255 . 25 192 . 168 . 1	The default unication Cancel × network supports rk administrator ter 1 . 1 55 . 0 1 . 254
Iternet Protocol Version 4 (TCP) General You can get IP settings assigned this capability. Otherwise, you n for the appropriate IP settings. Obtain an IP address auton Obtain an IP address auton Use the following IP address IP address: Subnet mask: Default gateway: Obtain DNS server address	/IPv4) Properties	 Description Transmission Contro wide area network p across diverse internet across diverse internet general You can get IP setting: this capability. Otherw for the appropriate IP Obtain an IP addi Use the following IP address: Subnet mask: Default gateway: Obtain DNS serve 	ol Protocol/Internet Protocol. protocol that provides commu- connected networks. OK on 4 (TCP/IPv4) Properties s assigned automatically if your n ise, you need to ask your networ settings. ress automatically IP address: 192 . 168 . 255 . 255 . 25 192 . 168 . er address automatically	The default unication Cancel X etwork supports rk administrator ter 1 . 1 55 . 0 1 . 254
Iternet Protocol Version 4 (TCP, Seneral You can get IP settings assigned this capability. Otherwise, you n for the appropriate IP settings. Obtain an IP address auton Obtain an IP address auton Use the following IP address IP address: Subnet mask: Default gateway: Obtain DNS server address Obtain DNS server address	/IPv4) Properties	 Description Transmission Controwide area network pacross diverse international across diverse international diverse international diverse international diverse international diverse diverse international diverse di diverse diverse diverse di diverse diverse diverse diverse di	ol Protocol/Internet Protocol. protocol that provides commu- connected networks. OK OK on 4 (TCP/IPv4) Properties as assigned automatically if your n tise, you need to ask your networ settings. ress automatically IP address: 192 . 168 . 1 255 . 255 . 25 192 . 168 . 1 er address automatically DNS server addresses:	The default unication Cancel × etwork supports rk administrator ter 1 . 1 55 . 0 1 . 254
Iternet Protocol Version 4 (TCP, Seneral You can get IP settings assigned this capability. Otherwise, you n for the appropriate IP settings. Obtain an IP address auton Use the following IP address IP address: Subnet mask: Default gateway: Obtain DNS server address Obtain DNS server address Use the following DNS server Preferred DNS server:	/IPv4) Properties	 Description Transmission Contro wide area network p across diverse inten Internet Protocol Version General You can get IP setting this capability. Otherw for the appropriate IP Obtain an IP addi Use the following IP address: Subnet mask: Default gateway: Obtain DNS serve Use the following Preferred DNS serve 	ol Protocol/Internet Protocol. protocol that provides commu- connected networks. OK on 4 (TCP/IPv4) Properties s assigned automatically if your n ise, you need to ask your networ settings. ress automatically IP address: 192 . 168 . 1 255 . 255 . 25 192 . 168 . 1 er address automatically DNS server addresses: er:	The default unication Cancel × network supports rk administrator ter 1 . 1 55 . 0 1 . 254
ternet Protocol Version 4 (TCP, Seneral You can get IP settings assigned this capability. Otherwise, you n for the appropriate IP settings. Obtain an IP address auton Obtain an IP address auton Use the following IP address IP address: Subnet mask: Default gateway: Obtain DNS server address Obtain DNS server address Obtain DNS server: Alternate DNS server:	/IPv4) Properties	 Description Transmission Controwide area network pacross diverse international across diverse international diverse international diverse international diverse international diverse diverse international diverse diverse diverse diverse international diverse di	ol Protocol/Internet Protocol. protocol that provides commu- connected networks. OK OK on 4 (TCP/IPv4) Properties s assigned automatically if your n ise, you need to ask your networ settings. ress automatically IP address: 192 . 168 . 255 . 255 . 25 192 . 168 . er address automatically DNS server addresses: er:	The default unication Cancel Cancel Cancel Cancel Cancel Cancel Cancel Cancel Cancel Cancel C

Step 2. Modify the AR-727-CM IP Address



• Example1 : PC IP and AR-727-CM IP are inconsistent

 \rightarrow change the IP to 192.168.0.87

(6) Press "Update"



Step 3. Modify the PC IP back to the default value, ignoring this step if you did not change the PC IP (Step 1.)

eneral		
You can get IP settings ass this capability. Otherwise, y for the appropriate IP setti	igned automatically if your network supports you need to ask your network administrator ngs.	
Obtain an IP address Use the following IP a	automatically ddress:	
 Obtain an IP address Use the following IP address: 	automatically ddress: 192 . 168 . 0 . 1	-
Obtain an IP address Use the following IP a IP address: Subnet mask:	automatically ddress: 192 . 168 . 0 . 1 255 . 255 . 255 . 0	

Step 4. Connect the PC and AR-727-CM to the same HUB



Step 5. Setting Controller Node ID

5-1. Using AR-721-H as example

Please use command to set up Controller Node ID by keypad (do not be duplicate)

- (1) Enter the program mode: * 123456#
- (2) Set the Node ID to 002: 00 * 002#
- (3) Exit the Program Mode: *#

5.2 Using AR-403-IO Universal IO Module as example

Please note that AR-403-IO Universal IO Module can only modify Node ID via CommView software

- (1) Select COM Port
- (2) Input the current Node ID(default Node ID is 1)
- (3) Input the current Node ID, or you can input 255 for auto research if you forgot it, but please note that the IO Module must connect with PC 1 on 1
- (4) Press "READ" to read data
- (5) Input the new Node ID(ex.4) in field below, please be aware that the field above is still the current Node ID
- (6) Press "WRITE" to complete the modification

		Send
		TX Modbus
	IP Adapter 192.168.1.16; 34-97-f6-8c-df-6a; (Realtek PCIe GBE Family Controller)	TX
	~	Get Message
		Del Message
		CharManage
		Clear Message
		Clock Set
		Clock Verify
		Start Mon
		Start Moni
	~	9600 V
	< > Universal I/O Operation Mode Selection	9600 V None V
	Universal I/O Operation Mode Selection Standard Mailbox O Delay M-0 O FF/RF falling O FF/RF rising O O O	9600 None Leading 0x7E
4. 4	Universal I/O Operation Mode Selection Standard Mailbox Opelay M-0 OFF/RF falling OFF/RF rising O O Node 1 500 (ms) READ WRITE TEST	9600 View None View Leading 0x7E Long Format
de 4	Universal I/O Operation Mode Selection Standard Mailbox Opelay M-0 OFF/RF falling OFF/RF rising O O O 3 Node 1 500 (ms) 4 READ WRITE TEST	9600 > 9600 > None > Leading 0x7E Long Format Erase Screen
de 4	Universal I/O Operation Mode Selection Standard Mailbox Opelay M-0 OFF/RF falling OFF/RF rising O O Node 1 500 (ms) READ WRITE TEST Communication Port	9600 9600 None Leading 0x7E Long Format Erase Screen Exit

Step 6. Connect the Controller and the AR-727-CM (using AR-721-H as example)

Wiring AR-721-H to Channel 1 of AR-727-CM(refer to the picture below)



The default Port of Channel 1 of AR-727-CM is 1621, we can also input the IP Address on browser to get the Port number

S Controller × +	
← → C	
SOVAL [™] AR-727 i/CM 220425	
ACCESS CONTROLLER F/W: 5.03	
Circinent State	Setting
Protocol TCP -	
Network Setting Operation Mode Server •	
Local Port [1621 (1024~65535)	
Channel 1 Setting Remote Port 1621 (1024~65535)	



- Step 7. Connect the Controller via 701ServerSQL
 - (1) Start 701ServerSQL, select [1. COM], tick "Enable Event Polling" and set the Polling Interval as 500ms, press "Save Current Area".

S 701Server		
File Setting View	Help	
COH CAN CO €3 52		
Communication Port Settin	ng X	
Select Area :	00:SOYAL	
Area Communication Po	vrt	
○ COM:1 ○ COM:2	O COM:3 O COM:4 O COM:5 O COM:6 O COM:7 O COM:8	
○ COM:9 ○ COM:10	○ COM:11 ○ COM:12 ○ COM:13 ○ COM:14 ○ COM:15 ○ COM:16	
○ COM:17 ○ COM:18	○ COM:19 ○ COM:20 ○ COM:21 ○ COM:22 ○ TCP/IP Only	
○ Disable		
O Remote Co-701Serv	ver TCP-LINK Connection 192.168.0.1 : 1631	
3 ✓ Enable Event Polling	Polling Interval	R
Local TCP-LINK Addres	s 127.0.0.1 Port 1631	
Save Curre	nt Area	

(2) Select [2. LAN], and set up the parameters as below:

S 701Server				
File Setting View Help				
ОН ОН	L 🔤 C 🍄 98 AF 9			
Node Number for Polling				×
Area 00:SOYAL	V IP Address	Port	Net-Point Name	Node Range
000 327E/3xxE/7xxE/8xxE/716Ev5	V IP 0.0.0.	0 0	Node000	000 - 007 🛛 🗸
001 3K 321/331/725/888H	✓ IP 192.168.0.	87 1621	00.001	
002 101H/323D/321&888W/721/723/75	7 ∨ ☑ IP 192.168.0.	87 1621	00.002	
003 327E/3xxE/7xxE/8xxE/716Ev5	✓ IP 192.168.0.	87 1623	00.003	
004 RS485_IO	✓ IP 192.168.0.	87 1623	00.004	Yes
	2	3		Y 1

- (2-1) Tick the Controller Node ID and select the model
 - Details please refer to the introduction: FAQ : 701ServerSQL LANbased
- (2-2) Tick IP, input AR-727-CM IP Address
- (2-3) Input Port number, 1621 for controller connect to Channel 1, 1623 for controller connect to Channel 2

Step 8. Check the Line status

Select [3.Line] to confirm the controller is on/off line, or you can check the LED on AR-727-CM also. CH1-TxRx's red and green LED flashing turns means the communication is online.



7.2.3 TCP/IP directly → Connection via RJ45 built-in the Enterprise Series (E Series) Controller

Applicable Model: SOYAL All Series Controller

Step 1. Connect the Controller and PC to the same HUB (using AR-837-E as example)



Step 2. Modify the Controller IP Address and Node ID

Controller default IP is 192.168.1.127, default Node ID is 001, modification requirement via browser to login E Series Controller's built-in HTTP Server website. Details please refer to: <u>Enterprise Series HTTP Server Manual</u>

Step 3. Connect the Controller via 701ServerSQL

S 701Server	
File Setting View	Help
COH COH CO 100 000 000 000 000 000 000 000 000 00	
Communication Port Settin	ng
2	
Select Area :	00:SOYAL ~
Area Communication Po	ort
○ COM:1 ○ COM:2	○ COM:3 ○ COM:4 ○ COM:5 ○ COM:6 ○ COM:7 ○ COM:8
○ COM:9 ○ COM:10	○ COM:11 ○ COM:12 ○ COM:13 ○ COM:13 ○ COM:15 ○ COM:16
○ COM:17 ○ COM:18	
1) Start 701Server	rSQL, select [1. COM]
2) Select Area	

(3) Select Port as "TCP/IP Only", press "Save Current Area"



③ 7019	Server						
1	Setting View Help						
	2 5 63 5 FO	0, E) (1 C1	-		
2 Node N	lumber for Polling						>
Area	00:SOYAL	~	IP Address	Port	Net-Point Name	Node Range	
3 000	327E/3xxE/7xxE/8xxE/716Ev5	~ _ IP	0.0.0.0	0	Node000	000 - 007	\sim
001	327E/3xxE/7xxE/8xxE/716Ev5	~ I P	192 . 168 . 1 . 174	1621	Entrance (1F)		
002	327E/3xxE/7xxE/8xxE/716Ev5	~ 🗆 IP	0.0.0.0	0			
003	327E/3xxE/7xxE/8xxE/716Ev5	~ IP	0.0.0.0	0			

- (4) Select [2.LAN]
- (5) Tick the Area
- (6) Tick the Controller Node ID and select the model (using AR-837-E with Node ID 001 as example)

Details please refer to the introduction: FAQ : 701ServerSQL LANbased

Step 4. Check the Line status

Select [3.Line] to confirm the controller is on/off line, green light means online.



7.2.4 TCP/IP directly → Connection via Multi-door Networking Control Series(ex.AR-716-E16)

Applicable Model: SOYAL Multi-door Networking Control and All Series Controller

Architecture Diagram:



- Step 0. Precautions:
 - (1) Before wiring to Control Panel, each of Access Controller should be assigned to a specific Sub-Node ID range 1~16, or we can only change it by the keypad after we connect Access Controller to the AR-716-E16.
 - (2) Multi-door Networking Control Series' Port is set up default value 1621, and it has the subordinate relationship with the Access Controllers under control. LAN Setting is for Control Panel or Access Controller Node ID, but Access Controller wire under Control Panel is assigned as Sub-Node ID so it is not required for Access Controller to set up in LAN setting. Only Control Panel needs to set up on LAN setting
- Step 1. Setting the Controller Node ID (AR-721-H \ AR-837-E)
 - (1) Please set up the Controller Node ID following the connection CH of AR-716-E16: WG0: Node ID is fixed to 17 while connected and fixed to trigger the K1 Relay WG1: Node ID is fixed to 18 while connected and fixed to trigger the K2 Relay CH1: RS-485 Reader Node ID must be set up from 03~08
 CH2: RS-485 Reader Node ID must be set up from 09~16
 - (2) Setting the Controller Node ID (ex. AR-721H)

Please set up the Node ID as the rule above, we can change it with the command below,

- 1. Enter the Program Mode: *123456#
- 2. Set the Node ID to 003: 00*003#
- 3. Exit the Program Mode: *#

Step 2. Wiring the Controllers with AR-716-E16, and connect AR-716-E16 with PC by the same HUB.

Step 3. Using 701Server to communicate Multi-door Networking Control Panel

S 701Server		
File Setting View	Help	
	8 <mark>7167 821/3 0 □</mark> (♀) 99	
Communication Port Setti	ing	×
Select Area :	00:SOYAL	~
Area Communication P	ort	
○ COM:1 ○ COM:2	○ COM:3 ○ COM:4 ○ COM:5	○ COM:6 ○ COM:7 ○ COM:8
○ COM:9 ○ COM:10	○ COM:11 ○ COM:12 ○ COM:13	O COM:15 O COM:16
○ COM:17 ○ COM:18	3 COM:19 COM:20 COM:21	COM:22 • TCP/IP Only
○ Disable		
O Remote Co-701Ser	ver TCP-LINK Connection	192.168.1.174 : 1621
3		
Enable Event Polling	Polling Interval	1000ms
Local TCP-LINK Addre	ss 127.0.0.1 F	Port 1631
4 Save Curre	ent Area	Cancel

- (1) COM Setting
- (2) Select TCP/IP Only
- (3) Select Enable Event Polling
- (4) Save
- (5) Yes



S 701S File	erver Setting View Help			
6 Г 1 Сом	∰2 55 €&3 55 50 ==		P 86 AV 20 0	Q
Node N	lumber for Polling			
Area	00:SOYAL	V IP Address	Port Net-Point Name	Node Range
000	327E/3xxE/7xxE/8xxE/716Ev5	V IP 0.0.0.0		000 - 007 ~
001	327E/3xxE/7xxE/8xxE/716Ev5	✓ IP 192.168.1.17	73 1621 01	
002	RS485_IO	✓ □ IP 192.168.1.12	27 1623 02	
003	327E/3xxE/7xxE/8xxE/716Ev5	✓ □IP 192.168.1.17	73 1621 03	10
004	327E/3xxE/7xxE/8xxE/716Ev5	✓ □ IP 192.168.1.17	74 1623 04	Yes
005	327E/3xxE/7xxE/8xxE/716Ev5	✓ □IP 0.0.0.0	0 05	
006	327E/3xxE/7xxE/8xxE/716Ev5	✓ □IP 0.0.0.0	0 06	
007	327E/3xxE/7xxE/8xxE/716Ev5	V [] IP [0 . 0 . 0 . 0) 0 07	

- (6) LAN Setting
- (7) Select the Node ID& Model Type (remind it is the type as above)
- (8) Select IP and input the correct IP Address
- (9) Input AR-716-E16 Port 1621
- (10) Yes

Step 4. Connect the Controllers and setting door numbers

Please refer to AR-716-E16 Manual page 4~6 IP Setting

Step 5. Check the Connection

Open Line to confirm the connection status, green light means online.

Help
₩ 1007 Eps H E C
Exit

7.2.5 TCP/IP directly → Remotely control electricity equipment via TCP/IP with Industry Series I/O Module (ex.AR-727-CM-IO-0804M)



- Step 1. Connect AR-727-CM-IO-0804M with PC by the same HUB
- Step 2. Change the IP and Node ID of AR-727-CM-IO-0804M AR-727-CM-IO-0804M has the virtual value IP 192.168.1.127 & virtual Node ID 001, refer to AR-727-CM HTTP Server Manual if you want to change them.
- Step 3. Using 701Server to communicate TCP I/O Module

Communication Port Se	tting	×
Select Area :	00:SOYAL	~
Area Communication	Port	
○ COM:1 ○ COM:	2 O COM:3 O COM:4 O COM:5 C	COM:6 COM:7 COM:8
○ COM:9 ○ COM:	10 O COM:11 O COM:12 O COM:13 O	COM:12 COM:15 COM:16
○ COM:17 ○ COM::	18 O COM:19 O COM:20 O COM:21 O	COM:22 OTCP/IP Only
ODisable		
O Disable O Remote Co-701S	erver TCP-LINK Connection	192.168.1.178 : 1601
O Disable O Remote Co-701S	erver TCP-LINK Connection	192.168.1.178 : 1601
○ Disable ○ Remote Co-701S ☑ Enable Event Pollin	erver TCP-LINK Connection	192.168.1.178 : 1601 500ms
○ Disable ○ Remote Co-701S ☑ Enable Event Pollin	erver TCP-LINK Connection	192.168.1.178 : 1601 500ms

- (1) COM Setting
- (2) Select TCP/IP Only
- (3) Select Enable Event Polling
- (4) Save
- (5) Yes

File	Setting View Help					
6 Сом		7 6 8	0. 🖪 🤇 🤉	96		Q.
Node N	umber for Polling				An United States	
Area	00:SOYAL	~	IP Address	Port	Net-Point Name	Node Range
007	327E/3xxE/7xxE/8xxE/716Ev5	~ <u>I</u> P	80.0.0.0	9		000 - 007 🗸
001	TCP_IO	~ 🔽 IP	192.168.1.174	1601	01	
002	RS485_IO	~ I P	0.0.0.0	0	02	
003	327E/3xxE/7xxE/8xxE/716Ev5	~ I P	0.0.0.0	0	03	10
004	327E/3xxE/7xxE/8xxE/716Ev5	~ I P	0.0.0.0	0	04	Yes
005	327E/3xxE/7xxE/8xxE/716Ev5	~ I P	0.0.0.0	0	05	
006	327E/3xxE/7xxE/8xxE/716Ev5	~ I P	0.0.0.0	0	06	
007	327E/3xxE/7xxE/8xxE/716Ev5		0.0.0.0	0	07	

S 701Server

File	S	etting	g V	'iew	He	lp			
₹1 Com	∰2 LAN	9	Ca ³ Line	5 992	5 RCU	-0 7 716E	821/9	0,	: 6
Controlle	er On/O	Off Line							
	R001	YAL:0	01:01						
				•	Exi	t			

- (6) LAN Setting
- (7) Select the Node ID& Model Type (TCP_IO)
- (8) Select IP and input the correct IP Address
- (9) Input Port 1601
- (10) Yes
- (11) Check the Connection

Open "Line" to confirm the connection status, green light means online.

7.2.6 RS485 convert USB → Connection of AR-401/AR-403 IO Module Using AR-321CM to Connect PC via RS-485



- Step 1. Connect AR-401/AR-403 I/O Module with PC
- Step 2. Set up the Node ID of AR-403-IO-0404M, refer to the AR-403 IO Series Manual
- Step 2. Using 701Server to communicate AR-401/AR-403 I/O Module

Ommunication Port S	cting	
Select Area :	00:SOYAL	~
COM:1 COM COM:9 COM COM:17 COM	2 • COM:3 COM:4 COM:5 CO 10 COM:11 COM:12 COM:13 CO 18 COM:19 COM:20 COM:21 CO	M:6 COM:7 COM:8 M:14 COM:15 COM:16 M:22 CTCP/IP Only
0		192 168 1 174
O Disable O Remote Co-701	Gerver TCP-LINK Connection	192.100.1.174

- (1) COM Setting
- (2) Select COM Port (To check what is your AR-321CM COM port, right click on Windows ICON >> Device Manager)

å	裝	置省	理員																		
檔案	棄(F	Ð	動作(A)	檢視	₹(V)		說明	(H)												
þ	=)		•		?		[P	2	×	(٠									
	>	Ó	處理論	8		1.1							_								
	>		軟體	して																	
	>	Ψ̈́.	通用用	家列国	而流	排控	制器	몸													
	v	ŵ	連接地	€ (C	MC	和L	PT)														
		1	i US	B-to	-Sei	rial (on	nm l	Port	(CO	M	3)									
	>	0	滑鼠)	及其作	也指	標裝	置														
		ř	雷器																		

- (3) Select Enable Event Polling
- (4) Save
- (5) Yes



③ 701S	Server					
File 6	Setting View Help					
№ 1 Сом	⊕2 → €3 Line 992 RCU 716	7 Ep 8 (9. 🖪 🤇 🗘	96		Q
Node N	umber for Polling					
Area	00:SOYAL	~	IP Address	Port	Net-Point Name	Node Range
000	327E/3xxE/7xxE/8xxE/716Ev5	IV IP	0.0.0.0	0		000 - 007 🗸 🗸 🗸
001	RS485_IO	~ 🗆 IP	0.0.0.0	0	01	
002	327E/3xxE/7xxE/8xxE/716Ev5	~ 🗆 IP	0.0.0.0	0	02	
003	327E/3xxE/7xxE/8xxE/716Ev5	~ 🗆 IP	0.0.0.0	0	03	8
004	327E/3xxE/7xxE/8xxE/716Ev5		0.0.0.0	0	04	Yes
005	327E/3xxE/7xxE/8xxE/716Ev5	~ I P	0.0.0.0	0	05	
006	327E/3xxE/7xxE/8xxE/716Ev5	~ _ IP	0.0.0.0	0	06	- Ev#
007	327E/3xxE/7xxE/8xxE/716Ev5	✓ □IP	0.0.0.0	0	07	

S 701Server



- (6) LAN Setting
- (7) Select the Node ID& Model Type (RS485_IO)
- (8) Yes
- (9) Check the Connection

Open "Line" to confirm the connection status, green light means online.

7.3 Enable card machine event message proactive delivery server.

More related information :

• FAQ : How to improve the response speed of card machine messages and how to connect to a dynamic IP device.

Setting Procedure:

- 1. Set up 701 Server TCP Link IP/Port on 701Server
- 2. Set up controller parameter on HTTP Browser
 - Change the controller door number/Area number/Node ID
 - -Enable the setting of MSG Server IP Addr. (701 Server TCP Link IP/Port)
- 3. Set up Controller Parameters on 701Server
- 4. Test the message reception on 701Client

7.3.1 Set up 701ServerSQL TCP-Link IP Address & Port

S 701Server			
Step 1 ting View Help			
COM CAN 5 CA3 5 5 F	🔐 👷 🔍 📰 🖓 🕀 🔤		
Communication Port Setting			×
Select Area : 00:A	rea00	~	
Area Communication Port			
○ COM:1 ○ COM:2 ○ 0	COM:3 COM:4 COM:5	○ COM:6 ○ COM:7 ○ COM:8	3
○ COM:9 ○ COM:10 ○ C	COM:11 O COM:12 O COM:13	○ COM:14 ○ COM:15 ○ COM:1	16
○ COM:17 ○ COM:18 ○ 0	COM:19 OCOM:20 OCOM:21	○ COM:22	
○ Disable			
O Remote Co-701Server T	CP-LINK Connection	192.168.1.8 :	1631
Step/2.vent Polling	Polling Interval		400ms
Local TCP-LINK Address	192.168.1.8 P	ort 1631	

Step 1. Select COM

Step 2. Fill in 701Server IP number /Port Number

Note: Fill in the IP address of the computer's network card, Port default value is 1631; if the default port number is blocked by anti-virus or firewall, please change

7.3.2 Controller HTTP Browser Setting



	Controller Farameters		
Current State	Step 4. Item	Main Controller	WG Port
Network Setting	Door Number (1 ~ 255)	101	2
	Master Code (6 Digital)	123456	
Event Logs	Arming Code (4 Digital)	1234	
<u>User List</u>	Door Relay Time (0~600, 601~609 for 0.1 ~ 0.9 Sec)	7	7
Controller Parameters	Alarm Relay Time (0~600 Sec)	15	
	Door Close Delay (Sec)	15	15
User Add / Change	Force Alarm		
Time Zone	Serial Port (RS485-1)	Controller/PC V	
	PIN Access	PIN Code(4) Only V	
Login Password	Door Relay	Off	
Clock	Open Door (Main / WG)	Pulse (Auto Close) V Active	Pulse (Auto Close) V Active
	Step 5.	Update	

Step 1. Enter IP address {Default 192.168.1.127}

- Step 2. Click [Controller Parameters]
- Step 3. Enter Login Username{Default SuperAdm}{Password 721568}
- Step 4. Go to [Controller Parameter] > Enter Door number [101] WG[101] (for example)
- Step 5. Click [Update] to save changed



PIC State	After you have changed the IP addre Please update the IP address in the	ess, the device will restart (hardware reset). browser after any changed.
Event Logs	Item	Setting
	Device Name	CONTROLLER (Can be any unique identifier)
User List	LAN IP Address	192.168.1.177
Controller Parameters	LAN Net Mask	255.255.255.0
	Default Gateway	192.168.1.254
User Add / Change	Primary DNS Server	168.95.1.1
Time Zone	Secondary DNS Server	168.95.192.1
Louis December	MAC Address	00-13-57-05-54-9B
Login Password	DHCP Client	
Clock	TCP Listen Port	1621 (1024~65530)
	HTTP Server Port	80 (80~65530)
Ste	p 7 cket Timeout	120 (0~600)sec. (TCP Client Keep Alive:0)
	Area ID (0~15)	0
	Node ID (Device ID)	101
	Message Server IP 1st	192.168.1.8
	Message Port 1st	1631 (1024~65530, 0:disable, 8031:Text Mode)
	Message Server IP 2nd	0.0.0.0
	Message Port 2nd	0 (1024~65530, 0:disable or 8031:Text Mode)
	St	

Step 6. Go to [Network Setting]

- Step 7. Set up Area ID [0]
 - Enter Node ID for example [101] (controller Node ID must be changed accordingly)
 - Message [IP 192.168.1.18], equivalent to 701ServerSQL 'Local TCP-Link Address' setting
 - Message Port [1631], equivalent to 701ServerSQL 'Local TCP-Link Port' setting
- Step 8. Click [Update], the controller will automatically restart

7.3.3 COM: Serial Port Communication

S 701Server		
Step 1. tting View	Help	
COM COM COM COM COM		
Communication Port Setti	ng	X
Step 2.		
Select Area :	00:SOYAL	~
Area Communication P	ort	
○ COM:1 ○ COM:2	○ COM:3 ○ COM:4 ○ COM:5 ○ CC	DM:6 COM:7 COM:8
○ COM:9 ○ COM:10	○ COM:11 ○ COM:12 ○ COM:13 ○ CC	DM:14 Step 35 COM:16
○ COM:17 ○ COM:18	○ COM:19 ○ COM:20 ○ COM:21 ○ CC	DM:22 • TCP/IP Only
○ Disable		
O Remote Co-701Ser	ver TCP-LINK Connection	192.168.0.1 : 1631
Step 4.	_	
🗹 Enable Event Polling	Polling Interval	Oms
Local TCP-LINK Addres	ss 192.168.1.18 Port	1631
Step 5.	Step 6.	
Save Curre	ent Area Yes	Cancel

Set up Controller Parameters on 701Server

- Step 1. Click [1 COM]
- Step 2. Select Area [0]
- Step 3. Tick [TCP/IP Only]
- Step 4. Please don't tick [Enable Event Polling]
- Step 5. Click [Save Current Area]
- Step 6. Click [Yes] to finish setting

S 701Server

01						
HSte	P77-ng View Help					
	² → ² → ³ →	.C 🌩 9	ê 04 <mark>100</mark> (I (]		
Node N	umber for Polling Step 8.					Step 9.
Area	00:Area00 🗸	IP Add	lress	Port	Net-Point Name	Node Range
096	327E/3xxE/7xxE/8xxE/716Ev5 ~	IP0.	0.0.0	0		096 - 103 🗸
097	327E/3xxE/7xxE/8xxE/716Ev5 ~	IP 0.	0.0.0	0		
098	327E/3xxE/7xxE/8xxE/716Ev5 ~	IP0 .	0.0.0	0		
099	327E/3xxE/7xxE/8xxE/716Ev5 ~	IP 0.	0.0.0	0		Step 11.
Step 100	327E/3xxE/7xxE/8xxE/716Ev5 ~	IP0	0.0.0	0		Ves
101	327E/3xxE/7xxE/8xxE/716Ev5 ~	✓ IP 0.	0.0.0	1621		

Step 7. Click [2 LAN]

Step 8. Select Area [0]

Step 9. Select Node Range [[096-103]

Step 10. Enter [101] Controller IP Address and Port 1621

Note: Don't tick Node ID number

Step 11. Click [Yes] to finish setting

Card presentation on the controller will immediately transmit the event log to 701ClientSQL through the operation above, not required to wait for the polling procedure of 701ServerSQL, improving the message receiving efficiency significantly.

6 7010	Client - [TRAM	NSACTION RECORDS2023/0	7/05]						-
File	Edit View	Windows Setting To	ools Help						
i 🔓 🎸	ə 🗟 🗊	9 🛗 🌆 😫 🗊 🕯	5 🕑 🖸	r 🕎 🔚	生 🔯 «	'a » 0 >	• • •	••• _	
	Default.pic	TRANSACTION RECORDS	2023/0					14	
Index	Time	Station	Num	Name	Department	Departme	UserID	Status	Detail
0001	13:50:13		01	0				(L20)Login Server	
0002	13:59:31		01	0				(L21)Logout Server	
0003	13:59:37		01	0				(L20)Login Server	
0004	14:03:12	_:101						(M24)701E Power On	
0005	14:03:23	_:101						(M24)701E Power On	
0006	14:04:10	Area00:101-17:Door A	0001	Andy	Dep_00	Dep2nd_00	A00002	(M11)Normal Access	65129:52566

If not all devices are connected remotely, when the "Enable Event Polling" option is selected and the remote card reader is set to actively return messages, once the connection is established, messages can be polled.

After the controller is connected, the Node ID should be selected.

101	327E/3xxE/7xxE/8xxE/716Ev5 ~	✓ IP	192 . 168 . 1 . 140 1621	
				_

In the event of a controller disconnection, the server will send a notification message, allowing monitoring of the controller's connection status at any time.

6) 7010	Client - [TRAN	SACTION RECORDS2023/07	7/05]						_
File	Edit View	Windows Setting To	ols Help						
1 🔓 🗞	∋ i≥⁄ 🗊	🧐 🛗 📶 😫 🗊 🏘	I 🕐 🖸	۲	🛨 🔯 🗶	′ ۹ ≫ ⊙ ۶	• • •	••• -	
)efault.pic	TRANSACTION RECORDS2	2023/0						
Index	Time	Station	Num	Name	Department	Departme	UserID	Status	Detail
0116	17:00:07	Area00:101-17:Door A	0001	Andy	Dep_00	Dep2nd_00	A00002	(M11)Normal Access	65129:52566
0117	17:00:07	Area00:101-17:Door A	0001	Andy	Dep_00	Dep2nd_00	A00002	(M11)Normal Access	65129:52566
0118	17:01:13		101					(L22)Controller Off Line	

7.3.4 LAN: Hardware Setting

Area	00:Area00 ~	l)	IP Address	Port	Net-Point Name	Node Range
000	327E/3xxE/7xxE/8xxE/716Ev5	IP	0.0.0.0	0		000 - 007 ~
001	327E/3xxE/7xxE/8xxE/716Ev5	IP	0.0.0.0	0		
002	TCP IO RS485 IO	IP	0.0.0.0	0		
000	327E/3xxE/7xxE/8xxE/716Ev5	IP	0.0.0.0	0		
004	3K 321/331/725/888H	IP	0.0.0.0	0		. Yes
005	725E	IP	0.0.0.0	0][
006	821EF V9 AI-100	IP	0.0.0.0	0		
007	821EF V3 401E	IP	0.0.0.0	0		Exit
6	716E V3/Ei 829E V3		2000 100 100 100 100 100 100 100 100 100][
	727/747H V3	D				
	727H Old	W				
	821EF 1450 829E Old	12				
	821E_Lift					

No.	LAN Model No. 10.2 version and before	LAN Model No. 10.2 version and after	Correspondent Hardware Model No.	Communication Interface	Port	Active Communication Mode (Non-Polling)
1.	TCP_IO	TCP_IO	IP Based I/O Module - AR-727-CM-IO- 0804M - AR-401-PLC-0808R - AR-401-PLC-1616R	TCP/IP	1601	YES (required additional setting of Message Server IP point to 701ServerSQL's Local TCP Link Address & TCP Port)
2.	RS485_IO	RS485_IO	RS485 I/O Module - AR-401-IO-0016R - AR-401-IO-1709R - AR-403-IO Series	RS485 (via AR-321-CM converter)	1601	x
	881/837 /331E&FE	327E/3xxE/	All Enterprise Series Controller (E Series) : AR-725-E / AR-331E&EF / AR-837-E&EF / AR-727-E / AR-327-E	TCP/IP (if onboard TCP/IP module)	1621	YES (required additional setting of Message Server IP point to 701ServerSQL's Local TCP Link Address & TCP Port)
3.	/82xEv5/721 /725Ev2/727 /327Hv5	7xxE/8xxE/ 716Ev5	Control Panel -AR-716-E16	TCP/IP (via AR-727-CM converter)	CH1 1621 CH2 1623	х
			Enterprise Series Controller(Old Version): AR-881-EF / AR-829-EV5	RS485 (via AR-321-CM converter)		х
4.	721E_1024	721E_1024	Dual WG control panel - AR-716-E02	RS485 (via AR-321-CM converter)		х
-	3K 321/331/	3K 321/331/	Home Series (H Series) controller that support	TCP/IP (via AR-727-CM converter)	CH1 1621 CH2 1623	х
э.	725/888H	725/888H	AR-321H / AR-331-H /AR- 725-H / AR-888-H	RS485 (via AR-321-CM converter)		x
6	901EV	921EV/		TCP/IP (via AR-727-CM converter)	CH1 1621 CH2 1623	х
0.	02120	OZ TEV		RS485 (via AR-321-CM converter)		х
-				TCP/IP (via AR-727-CM converter)	CH1 1621 CH2 1623	X
/.	821EF V9	821EF V9	Controller: AR-821-EF	RS485 (via AR-321-CM converter)		X

No.	LAN Model No. 10.2 version and before	LAN Model No. 10.2 version and after	Correspondent Hardware Model No.	Communication Interface	Port	Active Communication Mode (Non-Polling)
0	7165 1/2/5;	7165 \/2/5;	Control Panel:	TCP/IP	1621	
δ.	716E V3/EI	7 16E V3/EI	AR-716-E18	RS485		х
9.	829E V3	829E V3	Controller: AR-829-H	RS485 (via AR-321-CM converter)		х
10.	727/747 H V3	727/747 H V3	Controller AR-327-H / AR-727-H / AR-747-H	RS485 (via AR-321-CM converter)		х
11.	323D/321&888W /721/757/737 /723/101H V3	101H/323D /321&888W /721/723/757	Home Series (H Series) controller that support 1000 user interface: AR-101-H / AR-323D / AR-888-W / AR-721-H / AR-723-H / AR-757-H	TCP/IP (via AR-727-CM converter)	CH1 1621 CH2 1623	X
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Controller (Old version): AR-757-H / AR-321W	RS485 (via AR-321-CM converter)		х
12.	829E Old	829E Old	Controller (Old version): AR-829-E	RS485 (via AR-321-CM converter)		x

7.3.5 Controller Parameter: Connection Status

S 701Server								
File Setting	View He	lp	Step	1.				
	992 RCU	716E 821/9		67	96			
H/E Serial Control	ler Parame	ter Edit	—					
Target Node	00:SOYAL	~ 101	~	Main	WG			
New Node ID	101	Enable Force	Alarm					
Door Relay	7	Enable Antipa	issback					
Relay [WG]	7	Enable Push t	o Exit					
Open too long	15	Egress Beep Sounds						
too long[WG]	15	Enable Auto F	Relock					
Alarm Relay	15	Close Stop Alarm						
Armed Delay	1							
Alarm Delay	1	Enable Free Z	one					
Edit Pwd	•••••	Free Zone Open Imm.						
Armed Pwd	1234							
Deer Nr.	101							
Door Nr.	101	01 Door Open for Any Tag						
Door Nr[WG]	101			•				
Card or PIN Access Mode								
F/M: Version :								
	Step	4.						
Read	E	mpty Log Read File						
Write		Exit Write File						

To check the hardware is successfully connected

Step 1. Click [E Controller Parameter Setting]

Step 2. Select [Area 00][Node ID [101]

Step 3. Click[Read] to read controller parameter

Step 4. The firmware will show

[E-controller Firmware Ver: 4.4] means hardware is successfully connected and parameter setting can be read from the software

The mean the controller is connected to setup paramet



NOTE

How to change default IP Address to designated IP Address?

 Enterprise (E Series) Controller : Default IP Address: 192.168.1.127

	St	ep 1.	
← → ♂ ☆	U	192.168.1.127	
		Windows 安全性	×
	M	iexplore.exe	
SOYAL ACCESS CONTROLLER		伺服器 192.168.1.178 正要求您提供使用者名稱與	密碼 。
	Cu	該伺服器也回報: "network.htm"。	
Current State	De	警告:將在不安全的連線上使用基本驗證來傳送您的 Step}2.	的使用者名稱與
Network Setting	CC	SuperAdm	
Event Logs		••••••	
<u>User List</u>		□ 記住我的認證	
Step 8.		-	
Network Setting	Y	ou need to change the host IP w	ith new IP Address in
Channel 1 Setting			
Observation of the second		Item	
Channel 2 Setting	5	Step13 ame	S2E-Device
User Password	l	AN IP Address	192.168.1.127

Step 1. Confirm the hardware is TCP/IP Module flash TX/RX (green/orange LED), indicated the TCP/IP module works then enter default IP Address 192.168.1.127 *If the PC network segment is different with hardware, please set the PC network

Internet Browser

Setting

segment to have the same value with hardware.

- Step 2. Select [Network Setting] and enter log in account. Default value: Account: SuperAdm / Password: 721568
- Step 3. After Modifying the IP address, click [Update]. Important: please complete the modification within 15 seconds
- AR-727-CM :

Default IP Address: 192.168.1.127

(←) → ୯ ŵ	ep 1. 192.168.1.127
SOYAL ACCESS CONTROLLER	Windows安全性 × iexplore.exe 伺服器 192.168.1.178 正要求您提供使用者名稱與密碼。 該伺服器也回報: "network.htm"。 Image: War a
Current State De Network Setting Ce	
Event Logs User List	••••••• □ 記住我的認證

7. 701ServerSQL Networking Architecture

Step 3. Network Setting	You need to change the host IP	with new IP Address in In	ternet Browser	
	ltem		Setting	
Channel 2 Setting	Otvissolame	S2E-Device	octaing	
User Password	LAN IP Address	192.168.1.127		
$\epsilon ightarrow$ C $ ightarrow$ D	192.168.1.127 Step 4.		··· 🗵 🕁	»
SOYAL ACCESS CONTROLLER		F/W: 5.00		
Current State	Channel 1 Step		Setting	-
Step 5. Setting Channel 1 Setting	Ope <mark>Step</mark> 6	e Server → prt 1621 (1024~65535)		
← → C ŵ	192.168.1.127		···· 🗵 🕁	» B
SOYAL ACCESS CONTROLLER		F/W: 5.00		
Current State	Channel 2 Step	74	Setting	
<u>Carrone Otato</u>	Protoc	ol TCP 🗸		
Network Setting	Ope Step 8	e Server ~		
Step 7.1 Setting Channel 2 Setting	Local Po Remote Po	rt 1623 (1024~65535) rt 1623 (1024~65535)		

- Step 1. Confirm the hardware is TCP/IP Module flash TX/RX (green/orange LED), indicated the TCP/IP module works then enter default IP Address 192.168.1.127 *If the PC network segment is different with hardware, please set the PC network segment to have the same value with hardware.
- Step 2. Select [Network Setting] and enter log in account.
 - Default value: Account: SuperAdm / Password: 721568
- Step 3. After Modifying the IP address, click [Update]. Important: please complete the modification within 15 seconds
- Step 4. Enter the new IP Address on the browser
- Step 5. Select [Channel 1 Setting] > on the Protocol field select as [TCP]
- Step 6. [Local Port] default setting is 1621, after completed the setting click [Update]
- Step 7. Select [Channel 2 Setting] > on the Protocol field select as [TCP]
- Step 8. [Local Port] default setting is 1623, after completed the setting click [Update]

8. Controller Parameter Setting

S 701Server File Setting View Help **₩**1 COM ₽2 LAN S RCU -07 716E 821/9 €a Line 56 삵

Controller parameter setting divided into three categories:

716E	

Control Panel AR-716-E18



Home Series (H Series) Access Controller



Enterprise Series (E Series) Access Controller and Control Panel AR-716-E16

I. Main Steps to Change Parameter Setting

There are basic four steps required to do every time changing the parameter setting until successfully save the new setting changes.

Note: The default value of each controller is Node ID 1. Before establishing wiring and installation of the whole system, the first thing to do is to assign each controller with different node ID to distinguish between one another. This also mean, one-to-one wiring is required for initial setup.

Step 1:	ller Parame	eter Edit								×
Target Node	00:SOYAL	· · · 101 · ·	Main	WGA					Free Zone	Narm Schedule
New Node ID Door Relay Relay [WG] Open too long too long[WG] Alarm Relay	101 7 7 15 15 15	Enable Force Alarm Enable Antipassback Is Entry Door Enable Push to Exit Egress Beep Sounds Enable Auto Relock Close Stop Alarm				Duress Code Duress	0 ish Menual Format(DD/MI ck Tag pass(TZ61) f Expiried	۹)	Duty Shift Lift Control Time (Se Body Temperature H Area Code (none Pol RS485 - 1	721Ev2 kc.) 150 li ling) 0
Armed Delay	1	Share Door Relay Enable Free Zone				Ev5 WG o	ut / Hv3 Lift ou neck at Finger A	it Access	Lift Controller LED Panel) Host Comm. Port) Line Printer
Alarm Delay Edit Pwd Armed Pwd	1 ••••• 1234	Free Zone Open Imm. Ena. Disarm Zone(62) Is Duty Reader				└ Lock Keyb └ Enable du ✓ Show WG	oard ty shift table Port message o	on LCD	RS485 - 2 (CN11) ③ 3DO-1500 ○ Face-EA	
Door Nr. Door Nr[WG]	101 101	Skip PIN Check Door Open for Any Tag				Dupl. chec	k at enroll Fin	ger 0		CMOS
Card or PIN Acco	Card or PIN Access Mode Card or PIN Access Mode Pin Code Only (M8)						error times ium O Leve	5 I High	 Lift Controller Card Reader / V Line Printer 	/oice Module
F/M: Version :	F	mpty Log Reg	ad File		Target Contr Selecte User Range :	oller d Only O	All Connected	Controller	RS485 - 3 (CN9) Ulift Controller Line Printer LED Panel Card Reader / N	/oice Module
Write	Ste	Exit Wri	te File		Write Fing Read Fing	er/Face er/Face	Delete Finge Transfer (V9	r/Face >V5)		
- Step 1. Target Node: Select Area and Node ID of the specified controller
- Step 2. Read: Read the current setting of the specified controller
- Step 3. Change Parameter Setting

Explained in detail according to controller model no., please refer to:

9.1 Control Panel AR-716-E18

9.2 Home Series (H Series) Access Controller

9.3 Enterprise Series (E Series) Access Controller

9.4 Control Panel AR-716-E16

Step 4. Write: After modifying the parameter setting of the controller, must click Write in order to save changes the new parameter setting and effective.

II. Backup and Restore Parameter Setting

NOTE

Notes: Backup and restore parameter setting feature is only available for:

- Home Series (H Series) Controller
- Enterprise Series (E Series) Controller
- Control Panel AR-716-E16

• Function:

1. Back-up controller's parameter setting

By read parameter setting saved on controller's to be backed up to PC. This features will be handy for back-up purpose if you accidentally factory reset the controller and lost all of the parameter setting, you can still revive it without redo the setting.

	Ste	ep 1.				
Target Node	001 ~		Main	WGA	Ste	p4
New Node ID	1	Enable Force Alarm		Н	Duress Code 0	Free Zone Alarm Scher
Door Relay	7	Is Entry Door			None English Menual	
Relay [WG]	7	Enable Push to Exit			Date Time Format(DD/MM)	Duty Shift 721Ev2
Open too long	15	Egress Beep Sounds			Enable Black Tag	Lift Control Time (Sec.) 15
too long[WG]	15	Enable Auto Relock			Reset Antipass(TZ61)	
Alarm Relay	15	Close Stop Alarm			Alarming if Expiried	RS485 - 1
Armed Delay	1	Enable Free Zone			WG Output Mode	O Lift Controller Host Cor
Alarm Delay	1	Free Zone Open Imm.			Free RF Check at Finger Acces	O LED Panel O Line Print
Edit Pwd		Ena. Disarm Zone(62)			Enable duty shift table	RS485 - 2
Armed Pwd	1234	Is Duty Reader	\checkmark		Show WG Port message on LC	0-
Door Nr.	1	Skip PIN Check			Dupl. check at enroll Finger	O
Door Nr[WG]	2	Door Open for Any Tag			Master 1 3	O FP9000 Photo/CMOS
					Max keypad error times 3	0-
Card or PIN Ac	cess Mode			Finge	erprint Security Level	Card Deades (Meine Medu
O Address +	PIN Code (M	(14) Pin Code Onl	ly (M8)	OL	evel Low 💿 Level Medium 🔿 Level High	Card Reader / voice modu
Firmware Ver:4	1.3					RS485 - 3
	Step	2.	1		Target Controller Selected Only All Connected Controller	O Lift Controller O O LED Panel
Read From	E	Empty Log F	Read File	Ster	User Range 0 499	Card Reader / Voice Modu
Write To		Exit V	Vrite File		Read Fingerprinit Transfer (V9>V5)	

Step 1. Select node ID of your controller that you want to do the parameter setting back-up

Step 2. Select [Read From] to read the saved parameter setting on controller

Step 3. This step only required for Enterprise Series (E Series) Controller & Control Panel AR-716-E16 You need to click 'Free Zone', 'Alarm Schedule', 'Duty Shift' and '721Ev2'(available for multi-door controller AR-716-E16 only) button first in order to activate and enable [Write File] function

-You can also edit parameter setting that you want on 701Server before save and back-up the parameter setting (refer to step 3-1 until 3-5)



Step 3-1 Basic Parameter Setting (Parameter setting on the main menu)

725EV2/837E/EF	Parameter	Ctop 4	-4									×
Target Node	001 ~	Step4	N	Main	WGA							
Now Node ID	5	Enable Force A	larm				Duress Co	ode	ο		Free Zene	Alarm Sahadula
Door Pelay	7	le Entry Door	SDACK		Н		None E	nalish M	lenual		Free Zone	Aidim Schedule
Door relay	-	Enable Push to	Exit					me Forr	mat(DD/MM)		Duty Shift	721Ev2
Relay [WG]	1	Egress Beep S	ounds					Black T	an an			
Open too long	10	Enable Auto Re	lock				Reset	Antinass	(T761)		Lift Control Time	(Sec.) 15
too long[WG]	15	Close Stop Alar	m					a if Exp	iried		RS485 - 1	
Alarm Relay	15	Share Door Rel	ay					itput Mo	de		C Lift Controller	Host Comm. Port
Armed Delay	1	Enable Free Zo	ne				Free Rf	F Check	at Finger Ac	ces	O LED Panel	C Line Printer
Alarm Delay	1	Free Zone Oper	n Imm.				Lock Ke	eyboard			RS485 - 2	
Edit Pwd	•••••	Ena. Disarm Zo	ne(62)				Enable	duty shi	ift table		O 3D-1500	
Armed Pwd	1234	Skip PIN Chock					Show V	NG Port	message on	LC	0-	
Door Nr.	5	Door Open for /			-		Dupl. cl	heck at	enroll Finger		0-	
Door Nr[WG]	6	Door Open for A	any iag				Master	1	3		O FP9000 Pho	to/CMOS
							Max keypa	ad error	times 3		0-	
Card or PIN Ac	cess Mode				Fi	ngerprint Sec	urity Level				Card Reade	r (Vaiaa Madula
O Address +	PIN Code (N	/4)	ode Only ((M8)		Level Low	Level M	ledium	O Level Hi	gh	Card Reade	T Voice Module
Firmware Ver:4	1.3										RS485 - 3	
	Target Controller									HIS .		
	Selected Only All Connected Controller											
Read From	F	mpty Log	Rea	ad File		User Ra	nge 0		- 499		Card Reade	r / Voice Module

Step 3-2 [Free Zone] Parameter Setting

725EV2/837E/	Free Zone Editor	
Target Node	Auto Open Zone	
New Node ID	Sun Mon Tue Wed Thu Fri Sat Hol Begin End Main	Step 4-2. Free Zone Alarm Schedule
Door Relay		nual
Relay [WG]		t(DD/MM) Duty Shift 721Ev2
Onen tee leng		Lift Control Time (Sec.) 15
Open too long		Z61)
too long[WG]		RS485 - 1
Alarm Relay		Lift Controller Host Comm. Po
Armed Delay		t Finger Acces O LED Panel O Line Printer
Alarm Delay		RS485 - 2
Edit Pwd		table O 3D-1500
Armed Pwd		ressage on LC
Door Nr.		roll Finger
Door NrfWG1		O FP9000 Photo/CMOS
		nes 5 O-
Card or PIN		Lift Controller
Address		Card Reader / Voice Module
		O Line Printer
Firmware Ve		RS485 - 3
		O Lift Controller
	OK Cancel	nected Controller
		499 Card Reader / Voice Module



New Node ID	1	Enable Ant	ipassback		Duress Code 0	Free Zone	Alarm Schedule
Door Relay Relay [WG]	Duty Shift			×	Date Time Fo. Step 4-3.	Duty Shift	721Ev2
Open too long oo long[WG] Alarm Relay	Weekday Begin 08:00 🜩	SUN Ending 18:00	∨ Duty (Workday) Duty:On (0 ∨	Duty (Holiday) Duty:On (0 V	Reset Antipass(TZ61) Alarming if Expiried WG Output Mode	Lift Control Time RS485 - 1 O Lift Controller	(Sec.) 15
Armed Delay Alarm Delay Edit Pwd Armed Pwd Door Nr.	18:01 - 00:00 - 00:00 - 00:00 -	00:00 ÷ 00:00 ÷ 00:00 ÷	OVT:On (: ~ Duty:On (0 ~ Duty:On (0 ~ Duty:On (0 ~	Duty:On (0 ~ Duty:On (0 ~ Duty:On (0 ~ Duty:On (0 ~	Free RF Check at Finger Acces Lock Keyboard Enable duty shift table Show WG Port message on LC Dupl. check at enroll Finger	O LED Panel RS485 - 2 3D-1500 O O	O Line Printer
Card or PIN	00:00 🔹 00:00 🔹 00:00 🔹	00:00 👻 00:00 👻 00:00 👻	Duty:On (0 ~ Duty:On (0 ~ Duty:On (0 ~	Duty:On (0 ~ Duty:On (0 ~ Duty:On (0 ~	Master 0 0 Max keypad error times 5 ecurity Level • © Level Medium O Level High	FP9000 Ph Lift Controll Ord Reade Line Printer	oto/CMOS er er / Voice Module
Firmware V		Yes	Cance	l .	Controller ected Only O All Connected Controller	RS485 - 3 O Lift Controll O	er



Target Node	- 6	104					Main	WG	A						
New Node	Daily A	larm S	chedu	ıle						×	Code	0	7	Ereo Zono	Alam Sahadu Stop 4-4
Door Relay	Time	Table									• English	Menual	_	Free Zone	Main Sciedu Otep/4-4.
Relay IWG	Sun	Mon	Tue	Wed	Tue	Fri	Sat	Hol	Begin	Sec.	Time Fo	ormat(DD/M	IM)	Duty Shift	721Ev2
Open too k									12:00 🌲	10	ble Black	Tag		Lift Control Time	(Sec.) 15
tas lans 046									00:00 🜩	000	et Antipa:	ss(TZ61)			
Alarm Rela									00:00	000	ning if E:	xpiried		RS485 - 1	
Armed Delu									00:00	000	Output N	Mode		O Lift Controller	Host Comm. Port
Almed Dek									00:00	000	RF Che	eck at Finger	Acces	O LED Panel	O Line Printer
Alarm Dela									00:00	000	Keyboa	ird		RS485 - 2	
Edit Pwd									00:00	000	w WG P	shift table	e on LC	O 3D-1500	
Armed Pwo									00:00	000	. check	at enroll Fin	iger	0-	
Door Nr.									00:00	000			_		ato/CMOS
Door Nr[W									00:00	000		0	0	0-	
									00:00	000	ypad ern	ortimes	5	C Lift Controlle	er
Card or P					<u> </u>				00:00	000				Card Reade	er / Voice Module
O'Addre					Ц				00:00	000	Mediun	n 🔾 Leve	el High	C Line Printer	
Firmware				-	-				00.00	000				RS485 - 3	
									00:00	000				Lift Controlle	er
									00.00	000	() All	Connected	Controller	O I ED Panel	
Read			Г	VE	~			EVIT				499		Card Reade	er / Voice Module
ricuu				YE	5			EXH			nt	Delete F	Fingerprint		
											2				

Step 3-5 [721E-V2] parameter setting for connected controller and WG (only for AR-716-E16)

	725EV2/83	7E/EF Parameters									×		
	Target No		2.52	Main	WGA								
	Now Node	Controller Paramete	ers					× I	F	Alarm Cabadula			
	Door Rela	Node ID	Door #	Relay Port	Node ID	Door # F	Relay Port		Free Zone	Alarm Schedule	top 4-E		
	Relay [W	CH1 (01/WG0)	⊘ 1		CH2 (09)	9 N	None 🗸 🗸		Duty Shift	721Ev2	step 4-5.		
	Open too	CH1 (01/WG1)	2		CH2 (10)	✓ 10		L	ift Control Time	(Sec.) 15			
	too long[V	CH1 (03)	✓ 3	None ~	CH2 (11)	☑ 11			RS485 - 1				
	Alarm Re	CH1 (04)	☑ 4		CH2 (12)	✓ 12		C) Lift Controller	Host Comm. P	ort		
	Alarm De	CH1 (05)	5		CH2 (13)	✓ 13		9	LED Panel	O Line Printer			
	Edit Pwd	CH1 (06)	6		CH2 (14)	L 14			CS485 - 2 3D-1500				
	Armed Pv	CH1 (07)	7		CH2 (15)	15			0-				
	Door Nr.	CH1 (08)	8		CH2 (16)	16			○ ○ FP9000 Ph	oto/CMOS			
	Page with												
725EV2/837E/EF	Parameters	U.					C	另存新檔			Step 5		×
Target Node	Step	Main	WGA		S	tep 3.		- → ^ 1	« Program Files	s (x86) > 701Server	701Ser	/er	P
New Node ID	1 Enabl	e Antipassback		Duress Code	0	Free Zone	Alarm Scher	组合管理 • 新北	普資料夾			(je •	0
Door Relay	7 Is Ent	ny Door		None English	Menual	Duty Shift	721Ev2	🔚 圖片	^ 名稱	^	修改日期	類型	a
Relay [WG]	7 Enabl	s Beep Sounds	V	Date Time Fo	rmat(DD/MM)	Unity Shill		■ 影片	📙 Lang	uage	2020/4/9 下午 05	檔案資料夾	
Open too long	15 Enabl	e Auto Relock		Reset Antipas	iag ss(TZ61)	Lift Control Time ((Sec.) 15	Win105000	Build	ling 1 Parameter.Epara	2020/4/14 下午 0	EPARA 檔案	
too long[WG]	Close	Stop Alarm		Alarming if Ex	piried	RS485 - 1		E CONDUCTO					
Armed Delay	Share	Door Relay		WG Output N	lode	C Lift Controller	Host Cor	inetpub					
Alarm Delay	1 Free 2	Zone Open Imm.		Free RF Che	ck at Finger Acces	O LED Panel	U Line Print	🧵 Intel					

Alarm Delay 1 Free Zone Open Imm.	S485-2 My Docume 3D-1500 Perfogs - Program Fil - Program Fil
Door M(WG) 2 Master 1 - 3 Card or PIN Access Mode Fingerprint Security Level 3 3 O Address + PIN Code (M4) Image: Pin Code Only (M8) Level Low Level Medium Level High	□ To Controller □ To Controller ◎ Card Peace/ Voice Modu ○ Line Printer ■ 在我(N) ③ Dillions # France ● Card Peace/ Voice Modu □ Line Printer
Firmware Ver-4.3 Step 2. Read Firm Empty Log Write To Exit Write To Exit Target Controller Step 2. Read File Target Controller Step 4. Read File Read	R3465-3 OLIII Controller OLIII Controller OLIIII Controller OLIII Controller OLIII Control

Step 4. Select [Write File] to save the parameter to PC

- Step 5. Select path folder that you prefer to save the parameter setting
- Step 6. Rename the parameter setting and remove the [*] symbol on the file name
- Step 7. Click [save] and your parameter setting is backed up

2. Save default setting and copy to multiple controller's

Create one default parameter setting for one controller and save it (copy), then write it (paste) to other controllers with the same setting. That way, you do not need to do the same process for many controllers with same setting.

725EV2/837E/EF	Param Step 1	V			S 器数		×	
Target Node	001 Enable Force Alarm	Main WGA			🔶 🖃 👻 🔨 🔳 « Program File	s (x86) → 701Server	ひ 授夢 701Server P	
New Node ID	1 Enable Antipassback		Duress Code 0	Free Zone Alarm Schedu	组合管理 • 新增資料夾		Step 4. 🛛 🖉	
Door Relay	7 Is Entry Door		None English Menual	Duty Shift 721Ev2	📔 文件	^ 名稱	^	
Relay [WG]	7 Enable Push to Exit		Date Time Format(DD/MM)	Duty of the	🌗 音樂	Language	Step 5	
Open too long	15 Enable Auto Relock		Enable Black Tag	Lift Control Time (Sec.) 15	늘 桌面	📃 Building 1 Pa	rameter.Epara	
too long[WG]	15 Close Stop Alarm		Alarming if Expiried	RS485 - 1	⊵ 圖片			
Alarm Relay	15 Share Door Relay		WG Output Mode	O Lift Controller Host Com	■ 影片			
Armed Delay	1 Enable Free Zone		Free RF Check at Finger Acces	O LED Panel O Line Printe	win rusu0GB (C:)			
Alarm Delay	1 Free Zone Open Imm.		Lock Keyboard	RS485 - 2	ESD SD			
Edit Pwd	Is Duty Reader		Enable duty shift table	O 3D-1500	inetpub		沒有預覽可用	
Armed Pwd	Skip PIN Check		Dupl. check at enroll Finger	0-	Intel			
Door Nr.	Door Open for Any Tag			FP9000 Photo/CMOS	My Documents			
Door MUWG]	2		Master 0 0 Max keynad error times	0	PerfLogs			
Card or PIN Acc	ess Mode	Fingerprin	at Security Level	Lift Controller	📜 Program Files			
O Address +	PIN Code (M4) Pin Code O	ly (M8)	Low Level Medium Clevel High	Card Reader / Voice Module	Program Files (x86)			
	_			O Line Printer	701Client			
Firmware Ver:4	3			Lift Controller	701Server	× 4	>	
C+	000	Stop	ted Only OAll Connected Controller	O				
Read From		Read File	er Range 0 499	O LED Panel O Card Reader / Voice Module	福興名稱(N): [Building 1 Parameter.Epara	Controller Parameters(*.Epara ~ 展版(O) 取消	

- Step 1. Select node ID of your new controller that you wish to paste the existed parameter setting
- Step 2. Select [Read From] to read current parameter setting of controller
- Step 3. Select [Read File] to read the saved parameter setting
- Step 4. Select path folder that you prefer to read the parameter setting
- Step 5. Select the parameter setting's file
- Step 6. Click [open] and your parameter setting will be loaded on 701Server

725EV2/837E/EF	Parameters	s								
Target Node	001 ~	i	Main	WGA						
New Nede ID	5	Enable Force Alarm								
New Node ID	- Si									
Door Relay		Enable Push to Exit								
Relay [WG]	1	Egress Beep Sounds								
Open too long	15	Enable Auto Relock								
too long[WG]	15	Close Stop Alarm								
Alarm Relay	15	Share Door Relay								
Armed Delay	1	Enable Free Zone	\checkmark							
Alarm Delay	1	Free Zone Open Imm.	\checkmark							
Edit Pwd	•••••	Ena. Disarm Zone(62)								
Armed Pwd	1234	Is Duty Reader	\checkmark	\checkmark						
Door Nr.	5	Skip PIN Check								
Door Nr[WG]	6	Door Open for Any Tag								
20		ep 7a								
Card or PIN Acc	cess Mode			Fing						
O Address +	PIN Code (N	14) Pin Code On	ly (M8)							
Firmware Ver:4	.3									
Read From Empty Log Read File										
Write To	Step 8. Write To Exit Write File									

Picture above is after loading (Read File) of saved parameter setting. You will notice that the parameter setting is difference than the default one. Before you directly write and save the parameter, please change:

Step 7. Input 'New Node ID', 'Door Nr.' And Door Nr [WG]' to differentiate one controller with another. This is because both three setting included on parameter setting BUT each unit controller must have different node ID, door no. and WG door no. this step does not applicable for AR-716-E16 as AR-716-E16 node ID is set up by DIPSWITCH and does not have RFID function on it so door no. and WG door no. does not exist.

Step 8. Select [Write To] to save the new parameter setting

III. Parameter Setting Overview

8.1 Control Panel AR-716-E18 Parameter Setting

Control Panel AR-716-E18 built-in 4 digital input (DI1, DI2, DI3, DI4) and 4 relay output (K1, K2, K3, K4) that can be assign and set according to requirement and needs.

With expansion relay board AR-716-E-8I8O, it offer additional input and output total 8 digital input and 8 relay output.

• 8.1.1 On-line Reader Setting

 7	Multi Door Controller Parameter X
716E	Time-scheduled Output DI Input V.S. Relay Output Connection Parking Space Read On-line Reader Door Number Duress Code Reader Relay vs 716E Relays
Multi Door Controller Parameter X	New Node Address 1 F/W Version: 10.08 Clear Messages
Step 1. Domain Controller Read From Controller Image: Controller	Reader 1-8 CH 1 001 002 003 004 005 006 007 008
Read	Reader 9-16 CH 2 Enable Auto Open (Zone:63) Step 5.
Write Cancel 套用(A)	□ 013 □ 014 □ 015 □ 016 □ 011 Active Release All Doors Step 7. □ Auto Reset Anti-Pass (Zone:61) Step 8.
No de ID Cottin en	On K2 While Reader Off Line Step 9.

Node ID Setting:

- Step 1. Select Area and Node ID of the specified controller
- Step 2. Select AR-716-E18 connected access controller, CH1: Node ID range 1-8 / CH2: Node ID range 9-16

Parameter Setting:

- Step 3. If "K3: Anti-passback Err / K4: Alarm" option is ticked: when someone violates the antipassback rule, K3 relay of AR-716E will be activated or when the alarm system is activated, K4 relay of AR-716E will be simultaneously activated as well.
- Step 4. If "Enable Auto Open (Zone: 63)" option is ticked: enable auto open during the period of time zone 63. After time zone 63 is finished, the lock will be automatically locked again.
- Step 5. If "Enable Auto Disarming (Zone: 62)" option is ticked, the selected access controller will automatically enter arming mode during the period of time zone 62. After time zone 62 is finished, the selected access controller will return its former state. That is, if the access controller is already in arming mode before time zone 62, nothing will change; in contrast, if the access controller is at the standby state before time zone 62, it will enter arming mode when time zone 62 begins, and return to the former standby state after time zone 62 is finished.
- Step 6. If "DI1 Active Release All Doors" option is ticked: this option is mainly designed for emergency evacuation during fire event. When an alert signal like smoke detection is sent to DI1 of AR-716-E18, it can release all electric locks controlled by the access controllers connected with AR-716-E18 to facilitate the process of evacuation.
- Step 7. If "Auto Reset Anti-pass (Zone: 61)" option is ticked: auto reset anti-pass-back function in time zone 61. When the user violates the anti-passback rule, user cannot get access anymore. Reset allows the user get access again at this time regardless of the violation of the anti-passback rule before. This function is suitable for limited lunch controller in which employee can only retrieve lunch once a day and auto restart to be function as usual for the next day.



- Step 8. If "Auto Reset Anti-pass (Zone: 61)" option is ticked: auto reset anti-pass-back function in time zone 61. When the user violates the anti-passback rule, user cannot get access anymore. Reset allows the user get access again at this time regardless of the violation of the anti-passback rule before. This function is suitable for limited lunch controller in which employee can only retrieve lunch once a day and auto restart to be function as usual for the next day.
- Step 9. If "On K2 While Reader Off Line" option is ticked: when any access controller connected to AR-716-E18 is disconnected, K2 relay of AR-716-E18 will be activated and a message will be sent to inform the administrator.
- Step 9. Click "Write" button to save all settings.

Firmware Information:

This section will show current read controller's firmware version

F/W Version: 10.08

• 8.1.2 Door Number Setting

Each door number represents a specific location. When event logs are sent to the computer, you can identify where the location is by the door number.

Physical Node ID: Node ID of the controller for connection with control panel or directly to PC, used for communication identification.

Logical Node ID: correspond to the name of the place and the identification of the entry/exit when editing the access door group to set the permission access for the user's access group, so that any controller wired to electric lock needs to specify the door number.

Read On-	line Reader	Door Nun	nber Dur	ess Code	Read	er Relay	/ vs 716E
Reader 1-8							Step
Reader 1	1 Reader	2 2	Reader 3	3 Rea	ader 4	4	CH 1
Reader 5	5 Reader	6 6	Reader 7	7 Rea	ader 8	8	
Reader 9-1	6						
Reader 9	9 Reader1	0 10	Reader11	11 Rea	der12	12	CH 2
Reader13	13 Reader1	4 14	Reader15	15 Rea	der16	16	0112
Wiegand R	eader 1 (Node:1	17)	Wiegand R	leader 2 (N	lode:18))	Miegor
Door Nu	mber 16		Door Nu	mber 1	6		wiegai
🗌 Antipa	ss-back IN Do	or	🗌 Antipa	or			
Armin	a (DI3 is Sensor)	Armin	a (DI4 is S	ensor)		

Step 1. Click "Door Number" and input the assign door number of each reader Step 2. Click "Write" button to save all settings.

NOTE

There are two WG ports of AR-716-E18, and each port could connect with 1 WG access reader. The Node ID of the first WG reader is 17, and the Node ID of the second WG reader is 18. For Wiegand Reader setting, you can select the following functions:

1. Anti-passback

2. DI3/DI4 of AR-716-E18 can act as a sensor for the WG readers.

More Details :

FAQ : <u>How to setup the door number ?</u>

• 8.1.3 Duress Code

In the event that an assailant or robber ambush you at the entrance and force you to open the door or disarm the system, try to keep calm and input Duress code to open the door, which will simultaneously send a silent alert to the monitoring station or security guards.

Multi Door Controller Para	meter	×
Time-scheduled Output	DI Input V.S. Relay Output Connection	Parking Space
Read On-line Reader	Door Number Duress Code Reader Re	elay vs 716E Relays
Force On/Off Code 1 0 2 3 0 4		
Duress Code	Step 1.	
1 0 2 3 0 4		
	Step/2. Write Cancel	套用(A)

Step 1. Enter 4 sets of 4-digit duress code.

If access controller has been set Duress Code before, access controller connected to the control panel AR-716-E18 must listen to the AR-716-E18 control, so there will be four sets of help codes.

Step 2. Click "Write" button to save all settings.

NOTE

Force On/Off Code, which can be set as 4 sets of 4-digit code, used to control AR-716-E18 relay and corresponding AR-716-E-8180 I/O Relay to control ON or OFF status of the I/O devices such as the rolling door, air-conditioning, alarm activation... etc.

• 8.1.4 Reader Relay vs 716E Relays

For security concerns, we can set the synchronization output of relays between the relay of the readers connected to AR-716-E18 and the 4 relays of AR-716-E18 (K-1 \sim K-4), as well as the action time how long these relays will be activated. With an additional extension relay board, AR-716-IO, there can be 8 more relays for further setting.

Multi Door Controller Parameter			×
Time-scheduled Output DI In	put V.S. Relay Output Co	nnection Parking Space	e
Read On-line Reader Door N	Number Duress Code	Reader Relay vs 716E Rela	iys
Reader 1-16 Reader 1	~		
On Relay while Reader's Door Rel	lay On		
K1 Relay 0 R	Relay 4 🗌 EX-K1 🔤	_ EX-K5	
K2 Relay 1 R	Relay 5 🔄 EX-K2	EX-K6	
K3 Relay 2 R	Relay 6 🗌 EX-K3 🔤	EX-K7	
K4 Relay 3 R	Relay 7 🗌 EX-K4 🛛	EX-K8	
Node:01 (Relay1) 7000 n	ns Node:09 (Relay5)	7000 ms	
Node:02 (Relay2) 7000 n	ms Node:10 (Relay6)	7000 ms	
Node:03 (Relay3) 7000 n	ms Node:11 (Relay7)	7000 ms	
Node:04 (Relay4) 7000 n	ms Node:12 (Relay8)	7000 ms	
	Step 2.		
	Write	Cancel 套用(A)	E .

- Step 1. Select the Node ID of the reader in "Reader 1-16" field and tick one or more relays between K-1 ~ K-4 to be simultaneously ON when reader's door relay is on. EX-K1 until EX-K8 is setting that is available when AR-716-E18 is wired to I/O expansion board AR-716-E-8I8O
- Step 2. Set the reader node ID 1-16 relay output time.
- Step 3. Click "Write" button to save all settings.

8.1.5 Time-scheduled Output

You can set the time-scheduled output of designated relay of AR-716-E18 on designated time, weekday for specific interval (second). This function is mainly applied to alarm in the office or industrial automatic control.

Multi Doo	or Contr	oller Param	eter							×
Read	On-lir	ne Reader	Do	or Numbe	r Du	ress Code	e Rea	ader F	Relay vs 716	E Relays
Time-s	schedule	ed Output	C	OI Input V.	S. Relay	/ Output	Connec	tion	Parking	Space
Wee	ep 1. ekday	Sunday	~	Step/2 Range	01	-06 ~	ļ	D	Step 5 Output Re	elay
Step 3	Time	e to trigger			Int	erval (Se	c) Step	<u>74.</u>	K1 K2 K3	3 К4
				00:00			00	00		
				00:00			00	00		
				00:00			00	00		
				00:00			00	00		
				00:00			00	00		
				00:00			00	00		
				Step 6	Wr	ite	Ca	incel	套	用(A)

- Step 1. Select a specific day in "Weekday" field
- Step 2. Select the range of displayed data (6 groups at a time).
- Step 3. Select "Time to trigger", for example: 04:50 for the first group and 09:40 for the second group (by 24-hour clock).
- Step 4. Select the activating interval, for example: 10 sec.
- Step 5. Select relay for output.
- Step 6. Click "Write" button to save all settings.

More Details :

• FAQ : How to set up "Time-scheduled Output" on AR-716E, and how to connect the alarm?

• 8.1.6 DI Input V.S. Relay Output Connection

The DI of AR-716E can be used to control relays and request to exit (RTE) buttons.

Multi Door Controller Param	eter			×
Read On-line Reader	Door Number	Duress Code	Reader Rel	ay vs 716E Relays
Time-scheduled Output	DI Input V.S. I	Relay Output Co	nnection	Parking Space
DI Input (1-4) DI 1 ~		Step1		
Reader 1-8				
Reader 9-16 🗌 🗌				
Relay 0-7				
Step)2.8-15				
K1- K4(Sec.) 🔽 1				
Card Access V.S. 701E Rela	y 0-6 Timing	005		
		Write Step 3.	Cancel	套用(A)

- Step 1. Select one DI input from DI 1 ~ DI 4 and assign to reader
- Step 2. Select one corresponding relay from K1 ~ K4 by ticking the box and input relay time. For example K1 for DI1 and K2 for DI2 (please set all the relay time in the window when DI 1 is selected).

K1- K4(Sec.)	1	<mark>√</mark> 1	1	1
	K1	K2	K3	K4

If you didn't select the corresponding relay, the relay of the access controller will be activated for the period of Door Relay Time (Electric Door relay Operate Time) which is set directly in program mode of this access controller.

Step 3. Click "Write" button to save all settings.

More Details :

- FAQ : <u>AR-727H + AR-716E to set anti-passback</u>, how to set alarm to be active when breach of <u>anti-passback setting?</u>
- FAQ : Reader Relay vs AR-716E Relay at 716E parameter.

• 8.1.7 Parking Space

This function is used for parking lot control, which can monitor the parking space status and output message to the designated device.

Time-scheduled Outp	out D	Input	V.S. Relay Output Connec	tion	Parking Spac	e Relay
Single Anti Pass Back	Group					Relay
Total Space	50	00	Space Full Output	NO	\sim	Relay
Inside Cars	0		Space Empty Output	NO	\sim	Relay
Multi Anti Pass Back	Group (Ba	ico on F	oor Number mod 16)			Relay
Multi Anti Fass back	Space	Coun	iter	Spa	ace Counter	Relay
Park Lot Group01	100	0	Park Lot Group0	9 100	0	Relay
Park Lot Group02	100	0	Park Lot Group1	0 100	0	Relay
Park Lot Group03	100	0	Park Lot Group1	1 100	0	Relay
Park Lot Group04	100	0	Park Lot Group1	2 100	0	Relay
Park Lot Group05	100	0	Park Lot Group1	3 100	0	- Relay
Park Lot Group06	100	0	Park Lot Group1	4 100	0	Relay
Park Lot Group07	100	0	Park Lot Group1	5 100	0	Relay
Park Lot Group08	100	0	Park Lot Group1	6 100	0	K1
						K2
						K3

AR-716-E18 built-in parking space management and single/multi anti-passback group. At the same time, it has on-board function of external LED display integration to show current status of the parking lot.

Single Anti Pass Back Group:

- Step 1. Total Space: set a number of total space of the parking lot
- Step 2. Space Full Output: when the parking lot is totally full, K3 will be activated and send a
- message signal like "No Vacancy" to an external LED display.
- Step 3. Inside Cars: get the current number of cars inside the parking lot
- Step 4. Space Empty Output: when there is any parking space available in the parking lot, K4 will be activated and send a message signal like "Spaces Available" to an external LED display.

NOTE

Space Full Output/Space Empty Output selection:

Relay 0-15: relay of access controller Node ID 1-16

K1, K2, K3, K4: select activated relay output trigger from on-board relay AR-716-E18 between K1-K4 NO: there is no designated relay assigned for this action

Multi Anti Pass Back Group (Base on Door Number mod 16):

This function is used for Multi-Cars share One Parking Space, in which car is denied to enter when all spaces within the group are occupied.

Customized firmware required for AR-716-E18 to enable this function.

More Details :

- FAQ :How to edit user to access each door at different specific time zone on 716E?
- FAQ: How to enable AR-716E [Force On/Off Code] function?
- FAQ: How to setup anti-pass back function on wiegand reader and AR-727H which are under AR-716E?

More Details :

- FAQ: Why swiping card on controller under AR-716E the event log shows card code 00000?
- FAQ: How to clear all messages which are saved in the controller?

8.2 Control Panel AR-716-E16 Parameter Setting

Control Panel AR-716-E16 built-in 3 relay output (K1, K2, K3) that can be assign and set according to requirement and needs.

8.2.1 Set the connected access controller Node ID



Step 1. Tick the connected access controller

- AR-716-E16 built-in 2 WG Port connection. If wiring plan to wire WG Port 0 and WG Port 1, for access controller please start from node ID 3.

This is because WG Port 0, 1 and Node ID 1, 2 share the same Door Number

- Please refrain from ticking the connected Node ID if the controller is not connected.



Example 1: WG Port wired to WG reader

NOTE wiring to WG reader does not required to tick the box

	Door #	Relay Port	Node ID	Door #	RS4 A t P a	185 F I D 0 r	Read E g r e s s	r Do T i m e A	F o r c e A	enso R e I o k	or/Relay O p e n Z o	/ Board Door Tm	Max Open	
CH1 (01/WG	0) 🗌 12	None 🗸	CH2 (09)	9		0						7	15	Node ID
CH1 (02/WG	1) 🗌 13		CH2 (10)	2 10								7	15	Nodo ID
CH1 (03)	3	None v	CH2 (11)	11								7	15	Node ID
CH1 (04)	4		CH2 (12)	12								7	15	Node ID
CH1 (05)	5		CH2 (13)	13								7	15	NedelD
CH1 (06)	6		CH2 (14)	14								7	15	Node ID
CH1 (07)	7		CH2 (15)	15								7	15	Node ID
CH1 (08)	8		CH2 (16)	16								7	15	Node ID

CH1	CH2	WG
	Node ID 9	WG0
	Node ID 10	WG1
Node ID 3	Node ID 11	
Node ID 4		
Node ID 5		
Node ID 6		
Node ID 7		
Node ID 8		

Example 2: WG Port does not wire to any WG reader

Controller Parameter	s													×
Node ID	Door #	Relay Port	Node ID	Door #	RS4 A n t P a	185 F I D o r	Read E g r e s s	er Do T i m e A t	F o r c e A	R e l o k	or/Re O p e n Z o	lay Board Door Tm	Max Open	
CH1 (01/WG0)	2	None ~	CH2 (09)	9					0			7	15	
CH1 (02/WG1)	2		CH2 (10)	10								7	15	
CH1 (03)	3	None ~	CH2 (11)	11								7	15	
CH1 (04)	4		CH2 (12)	12								7	15	
CH1 (05)	5		CH2 (13)	13								7	15	
CH1 (06)	6		CH2 (14)	14				\Box	\Box			7	15	
CH1 (07)	7		CH2 (15)	15		\bigcirc						7	15	
CH1 (08)	8		CH2 (16)	16	0							7	15	
PDF	E	AQ V	DEO				ок					Cancel		

CH1	CH2	WG
Node ID 1	Node ID 9	
Node ID 2	Node ID 10	
Node ID 3	Node ID 11	
Node ID 4	Node ID 12	
Node ID 5	Node ID 13	
Node ID 6		
Node ID 7		
Node ID 8		

Step 2. Door #: enter Door Number

- Step 3. Relay Port: Available for WG Port 0*, RS485 CH1 Node ID 3, and RS485 CH2 Node ID 9. This setting is to enable reader wired under AR-716-E16 to use on-board relay output instead of the access controller own relay.
 - K1/K2: the built-in relay of control panel to externally control the electric lock (if this function is selected, access controller's connection to electronic lock is disabled, and the electric lock is connected to the K1/K2 contact). It is suitable for public door access such as Gate & Back Door access to provide safer connection.

For example: Gate installed Node ID 3 use K1 contact and Back Door installed Node ID 9 use K2 contact.

K3 : Public alarm

None: Use the access controller on-board relay to control the electric lock

WG Port 0 Relay Port option is only for dual door interlocking with CH2 Node ID 9 (Node ID 9 controller must be activated dual-door interlocking function by inputting command 44)

• 8.2.2 High-Security Mode Settings

1. When CH1 is connected to the I/O expansion board, the selection for station numbers 01 to 08 must be unchecked.

	Relay FUIL	Node ID	Door #	RS4	185 F	Read	ler D	oor S	Sens	or/Rela	y Board	
				Α	I.	Е	Т	F	R	0	Door Tm	Max Open
				n +	n	g	i	0	e	p		
				i	0	e	e	c	0	n		
				P	0	s	Α	е	k	Z		
				а	r	S	t	A		0		
	None ~	CH2 (09)	9				\checkmark				7	15
2		CH2 (10)	10								7	15
3	None ~	CH2 (11)	11								7	15
4		CH2 (12)	2 12								7	15
5		CH2 (13)	2 13								7	15
6		CH2 (14)	14								7	15
7		CH2 (15)	1 5								7	15
8		CH2 (16)	16								7	15
	J		_	-			1					
E	AQ V	IDEO				ок					Cancel	
	1 2 3 4 5 6 7 8	1 None ∨ 2 None ∨ 3 None ∨ 4 5 6 7 8 ✓	1 None ∨ CH2 (09) 2 CH2 (10) 3 None ⊂ 4 CH2 (11) 5 CH2 (12) 6 CH2 (13) 7 CH2 (15) 8 CH2 (16)	1 None CH2 (09) 9 2 CH2 (10) 10 3 None CH2 (11) 11 4 CH2 (12) 12 5 CH2 (13) 13 6 CH2 (14) 14 7 CH2 (15) 15 8 CH2 (16) 16	A n t i P a 2 2 3 None CH2 (09) 9 9 2 CH2 (10) 9 10 3 CH2 (11) 9 11 3 CH2 (12) 9 12 2 CH2 (13) 9 13 3 CH2 (14) 9 14 2 CH2 (15) 9 15 CH2 (16) 9 16	A I n n t D i o P o a r CH2 (10) Ø 10 CH2 (11) Ø 10 CH2 (12) Ø 12 CH2 (13) Ø 13 CH2 (14) Ø 14 CH2 (15) Ø 15 CH2 (16) Ø 16 FAQ VIDEO	A I E n n g t D r o e P o s a r s 2 CH2 (10) Ø 10 3 None CH2 (11) Ø 10 CH2 (12) Ø 12 6 CH2 (12) Ø 12 CH2 (13) Ø 13 6 CH2 (14) Ø 14 CH2 (15) Ø 15 CH2 (16) Ø 16 FAQ VIDEO OK	A I E T n n g i t D r n o e e P o s A a r s t CH2 (10) Ø 10 CH2 (11) Ø 11 CH2 (12) Ø 12 CH2 (13) Ø 13 CH2 (13) Ø 13 CH2 (14) Ø 14 CH2 (15) Ø 15 CH2 (16) Ø 16 CH2 (16) Ø 16 CH2 (16) Ø 16 CH2 (17) Ø 10 CH2 (17) Ø 12 CH2 (17) Ø 12	A I E T F n n g i o t D r m c p o s A e a r s t A 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	A I E T F R n n g i o e t D r m r i o e t D r m r i o e t 1 None CH2 (09) Ø Ø Ø Ø Ø Ø 2 CH2 (10) Ø 10 Ø Ø Ø Ø Ø 3 None CH2 (11) Ø 11 Ø Ø Ø Ø 4 CH2 (12) Ø 12 Ø Ø Ø Ø Ø 5 CH2 (13) Ø 13 Ø Ø Ø Ø Ø 6 CH2 (14) Ø 14 Ø Ø Ø Ø Ø 7 CH2 (16) Ø 16 Ø Ø Ø Ø 8 CH2 (16) Ø 16 Ø Ø Ø Ø FAQ VIDEO	A I E T F R O n n g i o e p t D r m r I e c o n P o s A e k Z a r s t A CH2 (10) Ø 10 CH2 (11) Ø 10 CH2 (12) Ø 12 CH2 (12) Ø 12 CH2 (13) Ø 13 CH2 (14) Ø 14 CH2 (15) Ø 15 CH2 (16) Ø 16 FAQ VIDEO OK	A I E T F R O Door Tm n n g i o e p p i D r m r I e i p i D e e c o n p i i e e p 1 None CH2 (09) Ø 9 Ø Ø Ø Ø 7 2 CH2 (10) Ø 10 Ø Ø Ø Ø 7 3 None CH2 (11) Ø 11 Ø Ø Ø Ø 7 4 CH2 (12) Ø 12 Ø Ø Ø Ø 7 5 CH2 (13) Ø 13 Ø Ø Ø Ø 7 6 CH2 (14) Ø 14 Ø Ø Ø Ø 7 8 CH2 (15) Ø 16 Ø Ø Ø Ø 7 <tr< td=""></tr<>

2. Function Description

				A n t P a	I D o r	gi rr ee s/ st	F o n c A e A	R e I o k	O p e n Z o	Door Tm	Мах Орен
CH1 (01/WG0) 🗌 1	None ~	CH2 (09)	9							7	15
CH1 (02/WG1) 🗌 2		CH2 (10)	10				9 🗆			7	15
CH1 (03) 3	None ~	CH2 (11)	11		~					7	15
CH1 (04) _ 4		CH2 (12)	12				9 🗆			7	15
CH1 (05) 5		CH2 (13)	13							7	15
CH1 (06) 6		CH2 (14)	14							7	15
CH1 (07) 7		CH2 (15)	15							7	15
CH1 (08) 8		CH2 (16)	16							7	15

	701ServerSQL Screen Names	Function Description
1	Anitipa	Anti-pass-back
2	Indoor	Entry/Exit Reader
3	Egress	Exit by Push Button
4	TimeAt	Entry and Exit Access is recorded on Duty Report
5	ForceA	Enable force Open trigger alarm
6	Relok	Activate close door automatically lock (Auto-Relock)
7	OpenZo	Auto Open

8.2.3 Reader Setting

Partial AR-716-E16 Parameter Setting is divided into 'Main' & 'WG'

'Main' section is for AR-716-E16 as master controller and WG Port 0 reader

'WG' section is for WG Port 1 reader

H/E Serial Contro	oller Param	eter Edit			
Target Node	00:Main 9	Serve v 001 v	Main	WGA	
New Node ID Door Relay Relay [WG] Open too long	1 5 1 7 15	Enable Force Alarm Enable Antipassback Is Entry Door Enable Push to Exit Egress Beep Sounds Enable Auto Relock			Duress Code 0 None English Menual Date Time Format(DD/MM) Enable Black Tag Reset Antipass(TZ61)
Alarm Relay Armed Delay Alarm Delay Edit Pwd Armed Pwd	20 0 0 1234	Close Stop Alarm Share Door Relay Enable Free Zone Free Zone Open Imm. Ena. Disarm Zone(62) Is Duty Reader			 Alarming if Expiried Ev5 WG out / Hv3 Lift out Free RF Check at Finger Acces: Lock Keyboard Enable duty shift table Show WG Port message on LCI Dupl. check at enroll Finger
Door Nr. Door Nr[WG]	1	Door Open for Any Ta			Master 0 0

More Details :

• FAQ : How to enable Anti-Pass back function in-between multi-doors under 716E

8.3 Home Series (H Series) Controller Parameter Setting



The parameter setting of H Series is the same like in E Series but is limited to particular function than E Series controller. The unusable setting is disable and could not be set.

H/E Serial Controller Parameter Edit

Step 1.	Target Node	00:SOYAL	× 001 ×	Main	WGA		Free Zone Alarm Schedule
Step 3.	New Node ID	1	Enable Force Alarm Enable Antipassback			Duress Code 0	Duty Shift 721Ev2
Step 4	Relay [WG]	1	Is Entry Door Enable Push to Exit			Date Time Format(DD/MM)	Lift Control Time (Sec.) 150
Step 5.	Open too long	15	Egress Beep Sounds Enable Auto Relock			Enable Black Tag	Area Code (none Polling) 0
Step 6.	too long[WG] Alarm Relay	1	Close Stop Alarm			Alarming if Expiried	RS485 - 1 • Lift Controller O Host Comm. Port
Step 7	Armed Delay	0	Enable Free Zone			Free RF Check at Finger Access	O LED Panel O Line Printer
Step 9.	Edit Pwd	•••••	Free Zone Open Imm. Ena. Disarm Zone(62)			Lock Keyboard Enable duty shift table	RS485 - 2 (CN11) () 3DO-1500
Step 10 Step 11	Armed Pwd Door Nr.	1234	Is Duty Reader Skip PIN Check			Dupl. check at enroll Finger	○ Face-EA
-	Door Nr[WG]	2	Door Open for Any Tag			Master 0 0 Max keypad error times 0	FP9000 Photo/CMOS
	Card or PIN Acce Address + F	ess Mode PIN Code (M4	4) OPin Code Onl	y (M8)	Fingerprint Secu	Inter Report Give Lines	 Lift Controller Card Reader / Voice Module Line Printer
	F/M: Version :	RS485 - 3 (CN9) Lift Controller Line Printer					
St	epi2. _{Read}	Er	mpty Log Re	ad File	User Range : Write Fin	0 499 ger/Face Delete Finger/Face	Card Reader / Voice Module
	Write		Exit	rite File	Read Fing	ger/Face Transfer (V9>V5)	

- Step 1. Target Node: Select Area and Node ID of the specified controller
- Step 2. **Read:** Read the current setting of the specified controller
- Step 3. After the communication is successful, you can also modify the Node ID of this access controller in "New Node ID" field.
- Step 4. Door Relay: Door Relay Time of the access controller, after access identification is successful, controller will trigger the relay to release lock and how long the lock is being released to indicate door open is determined by Door Relay Time.
 The setting of Door Relay Time is based on what type of electric lock installed onsite.
 Recommended setting:
 - 1. Fail-Safe type of lock such as Electric Bolt Lock and Magnetic Lock is 15 seconds (recommended to combine with Auto Relock function)
 - 2. Fail-Secure type of lock such as Electric Strike and Cabinet Lock is 0.2 seconds. Default value is 7 seconds.

<u>Pulse setting (short-term release)</u>: range 001~600 seconds, if set as 01-0.9seconds enter 601~609 <u>Latch setting (output continuously</u>): enter 000 Step 5. Open too long: or also known as Door Close Time or Door Open Waiting Time. After the period of door relay time trigger relay and open the door, the door contact will start detecting the door status; however, sometimes the door is not be closed in time, so the door close time gives users a buffer time (delay time) to close the door properly before the door contact starts detecting it as Door Open Too Long.

For example: Default value of door open too long is 15 seconds (default), the door contact will start detecting after Door Relay Time (10 sec) + Door Close Time (15 sec), and the user should close the door properly within the total period (25 sec).

Note: Door Open Too Long will not be acknowledge if activating Auto Relock function, as door will relock immediately whenever door contact detect door is closed. Default value is 15 seconds.

Step 6. Alarm Relay: When alarm event is triggered, alarm will output continuously for a period of time according to Alarm Relay Time.

<u>Pulse setting (short-term release)</u>: range 001~600 seconds, if set as 01-0.9seconds enter 601~609 <u>Latch setting (output continuously)</u>: enter 000 Default value is 15 seconds.

- Step 7. Armed Delay: After activating Arming mode, access controller enter Arming mode after a period of Arming Delay Time, which gives users a buffer time to exit without triggering the alarm. Default value is 1 second.
- Step 8. Alarm Delay: Before Alarm Event is triggered, there is a set of time period between conditions that triggered the alarm and the alarming event which is called Alarm Delay Time. Alarm Delay Time gives users a buffer time to turn off the alarm before the beeper is sounding or an alarm signal is sent to the security guards. Default value is 1 second.
- Step 9. Edit Pwd: Master Code or Programming Code of the Access Controller can be changed from this field. Default Master Code is 123456.
- Step 10. Armed Pwd: There are three method to enabling Arming Mode 1. Enter programming mode and exit programming mode by entering **# 2. Swipe Master Range card 3. Enter Arming Password. To enter the Arming Password there are two procedures:
 - 1. Normal door open procedure + 4-digit Arming PWD + #
 - 2. Without opening the door + 4-digit Arming PWD + Presenting a valid card
 - Default Arming Password is 1234.
- Step 11. Door Nr.: Each door number of the controller can be changed according to the corresponding area or door number assigned. Access control system managed by PC will show specific door number on entry or exit record. Door number can be repeated and used in the same area but corresponding to the area and door itself. Default value is 1.

Target Node	00:SOYAL	~ 001 ~ M	ain WGA		Free Zone Alarm Schedule
New Node ID	1	Enable Force Alarm	Step 12.	Duress Code 0	
Door Relay	1	Enable Antipassback	<u>Step 13.</u>	None English Menual	Duty Shift 721Ev2
		Is Entry Door	Step 14.	Date Time Format(DD/MM)	Lift Control Time (Sec.) 150
Relay [WG]	1	Enable Push to Exit	Step 15.		Body Temperature Hi
Open too long	15	Egress Beep Sounds	Step 16.		Area Code (none Polling)
too long[WG]	15	Enable Auto Relock	Step 17.	Reset Antipass(TZ61)	
Alarm Relay	1	Close Stop Alarm	Step 18.	Alarming if Expiried	RS485 - 1
	0	Share Door Relay		Ev5 WG out / Hv3 Lift out	Lift Controller O Host Comm. Port
Armed Delay	0	Enable Free Zone	<u>Step 19.</u>	Free RF Check at Finger Access	O LED Panel O Line Printer
Alarm Delay	U	Free Zone Open Imm.	□ □ Step 20.	Lock Keyboard	RS485 - 2 (CN11)
Edit Pwd	•••••	Ena. Disarm Zone(62)		Enable duty shift table	() 3DO-1500
Armed Pwd	1234	Is Duty Reader	Step 21.	Show WG Port message on LCD	O Face-EA
Door Nr.	1	Skip PIN Check		Dupl. check at enroll Finger	O
Door Nr[WG]	2	Door Open for Any Tag	□ □ <u>Step</u> 22.	Master 0 0	O FP9000 Photo/CMOS
	1. C.			Max keypad error times 0	O

H/E Serial Controller Parameter Edit

Step 12. Enable Force Alarm: In the event that any door is opened without normal access like presenting a valid card from the outside or pressing the RTE button from the inside, it will cause a Force Open condition. This situation will trigger the Force Open Alarm if the access controller is under Arming mode.

- Step 13. Enable Antipassback: If there is an external WG reader connected to this access controller, you can tick this option to enable the anti-passback rule.
- Step 14. Is Entry Door: Determine door is exit or entry If selecting controller for entry, check the "Is Entry Door" box If selecting controller for exit, do not check "Is Entry Door" box, just left it unchecked
- Step 15. Enable Push to Exit: Enable or disable exit door by Egress Button. Default value is enabling for both Main and WG.
- Step 16. Egress Beep Sounds: Enable or disable beeper sound when Egress is pressed. Default value is enabling for both Main and WG.
- Step 17. Enable Auto Relock: The electric lock will be only lockable after the period of Door Relay Time, so there might be a gap between closing the door and the door being actually locked. By enabling the Auto Relock function which will let the door relock immediately whenever detecting the door is closed by the door contact. This setting is suggested for fail-safe lock installation such as electric bolt and magnetic lock.
- Step 18. Close Stop Alarm: There are three options to stop alarming event 1. Swipe valid card 2. Press egress button 3. Close door

When Close Stop Alarm function is checked, alarming event will stopped when door is closed or pressing egress button.

When this option is remain unchecked, alarming event will only stop when valid card is presented.

Default value is unchecked means alarm event will only stop when swiping valid card

Step 19. Enable Free Zone: This option is to enable or disable auto open zone (Timezone 63) function. Meanwhile, Auto open time zone setting refer to Step 43.

Complete method of Auto Open Zone Setting:

- E Series Controller : Auto Open Zone for all E/H-V5 series controller
- H Series Controller: <u>Auto Open Zone for all H series controller and digital door lock</u>
 <u>AR-323D without keypad</u>

>

Step 20. Free Zone Open Imm.: There are two ways to enable auto open timezone (Timezone 63):

1. When Auto-Time Zone begin, the door will be automatically open without presenting 1st valid Card.

2. When Auto-Time Zone begin, the door don't automatically be opening till any one authorized user present a valid card to controller to open the door (Default Value)

By enabling this function, it will enable auto open zoon when time has come.

- Step 21. Is Duty Reader: Set controller and reader into Time Attendance device, when this option is checked, the event logs recorded will be integrated to the Time Attendance Report. Default value is enabling for both Main and WG
- Step 22. Door Open for Any Tag: Used for short-term activities or temporary events which enable door open whenever a card with the same frequency of the access controller is presented.

Target Node	00:SOYAL	~ <u>001</u> ~	Main	WGA		Free Zone Alarm Schedule
New Node ID	1	Enable Force Alarm		Step 23	Duress Code 0	Duby Chiff 7215/2
oor Relay	1	Is Entry Door			None English Menual	Lift Control Time (Sec.) 150
elay [WG]	1	Enable Push to Exit			Date Time Format(DD/MM)	Body Temperature Hi
pen too long	15	Egress Beep Sounds			Enable Black Tag	Area Code (none Polling) 0
oo long[WG]	15	Enable Auto Relock			Reset Antipass(TZ61)	R5485 - 1
larm Relay	1	Close Stop Alarm				Lift Controller
rmed Delay	0	Enable Free Zone			Free RF Check at Finger Access	O LED Panel O Line Printer
larm Delay	0	Free Zone Open Imm.			Lock Keyboard	RS485 - 2 (CN11)
dit Pwd	•••••	Ena. Disarm Zone(62)			Enable duty shift table	() 3DO-1500
rmed Pwd	1234	Is Duty Reader			Show WG Port message on LCD Dupl check at enroll Finger	O Face-EA
oor Nr.	1	Skip PIN Check				0
Door Nr[WG]	2	Door Open for Any Tag		Step 25	Master 0 0	O FP9000 Photo/CMOS
tep 26.					Max keypad error times 0	
Card or PIN Acc	ess Mode		. (110)	Fingerprint Secu	rity Level	Card Reader / Voice Module
Address +	PIN Code (M	4) OPin Code Onl	y (M8)	O Level Low	Level Medium C Level High	O Line Printer

Step 23. Duress Code: In case an assailant or robber ambush

at the entrance and force you to open the door or disarm the system, try to keep calm and input Duress code to open the door, which will simultaneously send a silent alert to the monitoring station or security guards.

Default value: 0 (not set)

H/E Sorial Controllor Parameter Edit

- Step 24. Ev5 WG out / Hv3 Lift out: For E Series controller, check this option will enable controller converted into a reader function (convert duress and arming output into WG Mode WG0 Output and WG1 Output), for H series controller this check this function will enable lift control function (convert the alarm output terminal into lift control function)
- Step 25. Master Range: Range of Master(Administration) user address to be set. Master user has authority to enter programming mode by swipe card + press #. For example if entering 1-5 means set user range 1-5 as Master/Admin.
- Step 26. Card or PIN Access Mode: SOYAL offer three options of access mode

- Address + PIN Code (M4): Access by entering user address + PIN

- PIN Code Only (M8): Access by entering PIN only (Default)

M6: Standalone only, this option is not available for networking thus this option is not available in Software setting.

8.4 Enterprise Series (E Series) Controller Parameter Setting



Enterprise Series (E Series) Controller with connection to WG reader and second unit of egress, door sensor, and door lock function achieved dual-door controller feature. This means, E Series Controller eligible to edit parameter setting of its WG reader.

H/E Serial Controller Parameter Edit

Step 1	Target Node	00:SOYAL	✓ 001 ✓	Main	WGA		Free Zone Alarm Schedule
Step 3.	New Node ID	1	Enable Force Alarm			Duress Code 0	Duty (bift 7015)/2
Step 4.	Door Relay	1				None English Menual	
Step 5.	Relay [WG]	1	Enable Push to Exit			Date Time Format(DD/MM)	Lift Control Time (Sec.) 150
Step 6.	Open too long	15	Egress Beep Sounds			Enable Black Tag	Body Temperature HI
Step 7		15	Enable Auto Relock			Reset Antipass(TZ61)	Area Code (none Polling) 0
Stop 8		1	Close Stop Alarm			Alarming if Expiried	RS485 - 1
Otep 0.	Armed Delay	-	Share Door Relay			Ev5 WG out / Hv3 Lift out	Lift Controller O Host Comm. Port
Step 9.	Armed Delay	0	Enable Free Zone			Free RF Check at Finger Access	O LED Panel O Line Printer
Step 10	- Alarm Delay	0	Free Zone Open Imm.			Lock Keyboard	RS485 - 2 (CN11)
Step 11	Edit Pwd	•••••	Ena. Disarm Zone(62)			Enable duty shift table	(e) 3DO-1500
Step 12	Armed Pwd	1234	Is Duty Reader			Show WG Port message on LCD	◯ Face-EA
Step 13	Door Nr.	1	Skip PIN Check			Dupi, check at enroll Finger	0
Step 14	Door Nr[WG]	2	Door Open for Any Ta	9		Master 0 0	O FP9000 Photo/CMOS
_						Max keypad error times 0	0
	Card or PIN Acce	ess Mode			Fingerprint Secu	rity Level	
	Address + F	PIN Code (M4	4) OPin Code On	ly (M8)	O Level Low	Level Medium Level High	
	F/M: Version :						RS485 - 3 (CN9)
Ct					Target Cont	roller d Only O All Connected Controller	Lift Controller Line Printer Line Printer LIFD Panel
J	Read	Er	mpty Log Re	ead File	User Range :	0 499	Card Reader / Voice Module
					Write Fing	er/Face Delete Finger/Face	
	Write		Exit W	rite File	Read Fing	er/Face Transfer (V9>V5)	

- Step 1. Target Node: Select Area and Node ID of the specified controller
- Step 2. **Read:** Read the current setting of the specified controller
- Step 3. After the communication is successful, you can also modify the Node ID of this access controller in "New Node ID" field.
- Step 4. Door Relay: Door Relay Time of the access controller, after access identification is successful, controller will trigger the relay to release lock and how long the lock is being released to indicate door open is determined by Door Relay Time.
 The setting of Door Relay Time is based on what type of electric lock installed onsite.
 Recommended setting:
 - 1. Fail-Safe type of lock such as Electric Bolt Lock and Magnetic Lock is 15 seconds (recommended to combine with Auto Relock function)
 - 2. Fail-Secure type of lock such as Electric Strike and Cabinet Lock is 0.2 seconds. Default value is 7 seconds.

<u>Pulse setting (short-term release)</u>: range 001~600 seconds, if set as 01-0.9seconds enter 601~609 <u>Latch setting (output continuously</u>): enter 000

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- Step 5. Relay [WG]: Door Relay Time Setting for Wiegand Reader (only eligible for E Series controller's WG Reader and WG Port 1 under AR-716-E16) Default value is 7 seconds.
- Step 6. Open too long: or also known as Door Close Time or Door Open Waiting Time. After the period of door relay time trigger relay and open the door, the door contact will start detecting the door status; however, sometimes the door is not be closed in time, so the door close time gives users a buffer time (delay time) to close the door properly before the door contact starts detecting it as Door Open Too Long.

For example: Default value of door open too long is 15 seconds (default), the door contact will start detecting after Door Relay Time (10 sec) + Door Close Time (15 sec), and the user should close the door properly within the total period (25 sec).

Note: Door Open Too Long will not be acknowledge if activating Auto Relock function, as door will relock immediately whenever door contact detect door is closed. Default value is 15 seconds.

- Step 7. too long[WG]: Door Close Time for Wiegand Reader (only eligible for E Series controller's WG Reader and WG Port 1 under AR-716-E16) Default value is 15 seconds.
- Step 8. Alarm Relay: When alarm event is triggered, alarm will output continuously for a period of time according to Alarm Relay Time.

Pulse setting (short-term release): range 001~600 seconds, if set as 01-0.9seconds enter 601~609 Latch setting (output continuously): enter 000

- Default value is 15 seconds.
- Step 9. Armed Delay: After activating Arming mode, access controller enter Arming mode after a period of Arming Delay Time, which gives users a buffer time to exit without triggering the alarm. Default value is 1 second.
- Step 10. Alarm Delay: Before Alarm Event is triggered, there is a set of time period between conditions that triggered the alarm and the alarming event which is called Alarm Delay Time. Alarm Delay Time gives users a buffer time to turn off the alarm before the beeper is sounding or an alarm signal is sent to the security guards. Default value is 1 second.
- Step 11. Edit Pwd: Master Code or Programming Code of the Access Controller can be changed from this field. Default Master Code is 123456.
- Step 12. Armed Pwd: There are three method to enabling Arming Mode 1. Enter programming mode and exit programming mode by entering **# 2. Swipe Master Range card 3. Enter Arming Password. To enter the Arming Password there are two procedures:
 - 1. Normal door open procedure + 4-digit Arming PWD + #

2. Without opening the door + 4-digit Arming PWD + Presenting a valid card Default Arming Password is 1234.

- Step 13. Door Nr.: Each door number of the controller can be changed according to the corresponding area or door number assigned. Access control system managed by PC will show specific door number on entry or exit record. Door number can be repeated and used in the same area but corresponding to the area and door itself. Default value is 1.
- Step 14. Door Nr. [WG]: WG Door Number can be changed according to the corresponding Main access controller's area and door number. WG Door Number is only eligible for E Series controller's WG Reader and WG Port 1 under AR-716-E16. Default value is 2.

Target Node	00:SOYAL	× 001 × I	Main	WGA			Free Zone	Alarm Schedule
New Node ID	1	Enable Force Alarm		Step 15.	Duress Code 0		Duty Shift	721Ev2
Door Relay	1	Is Entry Door		Step 10.	None English Menual			/21EV2
Relay [WG]	1	Enable Push to Exit		□ Step 18.	Date Time Format(DD/MM	1)	Body Temperatur	(Sec.) 150
Open too long	15	Egress Beep Sounds		Step 19.	Enable Black Tag		Area Code (none	Polling)
too long[WG]	15	Enable Auto Relock		Step 20.	Reset Antipass(TZ61)			
Alarm Relay	1	Close Stop Alarm		Step 21.	Alarming if Expiried		Lift Controller	Host Comm Port
Armed Delay	0	Share Door Relay		Step 22.	Ev5 WG out / Hv3 Lift out			
Alarm Delay	0	Free Zone Open Imm.		Step 23.	Lock Keyboard	ACCESS	RS485 - 2 (CN11)
Edit Pwd	•••••	Ena. Disarm Zone(62)		Step 25	Enable duty shift table		(0.1500) 3DO-1500	,
Armed Pwd	1234	Is Duty Reader		□ Step 26.	Show WG Port message o	on LCD	O Face-EA	
Door Nr.	1	Skip PIN Check		Step 27.	Dupl. check at enroll Fing	ger	O 	
Door Nr[WG]	2	Door Open for Any Tag		□ Step 28.	Master 0 0	0	O FP9000 Pho	to/CMOS

H/E Serial Controller Parameter Edit

- Step 15. Enable Force Alarm: In the event that any door is opened without normal access like presenting a valid card from the outside or pressing the RTE button from the inside, it will cause a Force Open condition. This situation will trigger the Force Open Alarm if the access controller is under Arming mode.
- Step 16. Enable Antipassback: If there is an external WG reader connected to this access controller, you can tick this option to enable the anti-passback rule.
- Step 17. Is Entry Door: Determine door is exit or entry If selecting controller for entry, check the "Is Entry Door" box If selecting controller for exit, do not check "Is Entry Door" box, just left it unchecked
- Step 18. Enable Push to Exit: Enable or disable exit door by Egress Button. Default value is enabling for both Main and WG.
- Step 19. Egress Beep Sounds: Enable or disable beeper sound when Egress is pressed. Default value is enabling for both Main and WG.
- Step 20. Enable Auto Relock: The electric lock will be only lockable after the period of Door Relay Time, so there might be a gap between closing the door and the door being actually locked. By enabling the Auto Relock function which will let the door relock immediately whenever detecting the door is closed by the door contact. This setting is suggested for fail-safe lock installation such as electric bolt and magnetic lock.
- Step 21. Close Stop Alarm: There are three options to stop alarming event 1. Swipe valid card 2. Press egress button 3. Close door

When Close Stop Alarm function is checked, alarming event will stopped when door is closed or pressing egress button.

When this option is remain unchecked, alarming event will only stop when valid card is presented.

Default value is unchecked means alarm event will only stop when swiping valid card.

- Step 22. Share Door Relay: if the WG reader and the access controller control the same one door, check this option (this setting is only available for WG).
- Step 23. Enable Free Zone: This option is to enable or disable auto open zone (Timezone 63) function. Meanwhile, Auto open time zone setting refer to Step 43.

Complete method of Auto Open Zone Setting:

- E Series Controller : Auto Open Zone for all E/H-V5 series controller
- H Series Controller: <u>Auto Open Zone for all H series controller and digital door lock</u> <u>AR-323D without keypad</u>

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Step 24. Free Zone Open Imm.: There are two ways to enable auto open timezone (Timezone 63):

1. When Auto-Time Zone begin, the door will be automatically open without presenting 1st valid Card.

2. When Auto-Time Zone begin, the door don't automatically be opening till any one authorized user present a valid card to controller to open the door (Default Value)

By enabling this function, it will enable auto open zoon when time has come.

- Step 25. Ena. Disarm Zone(62): Timezone 62 is specifically assigned for controller' s autmomatically set as arming and disarming. The start time will automatically set controller into arming mode, and the end time will automatically set controller into disarming mode (standby mode). For example: set Timezone 62 as 08:00-12:00 means controller will enter arming mode at 08:00 and disarming at 12:00.
- Step 26. Is Duty Reader: Set controller and reader into Time Attendance device, when this option is checked, the event logs recorded will be integrated to the Time Attendance Report. Default value is enabling for both Main and WG.
- Step 27. Skip PIN Check: For a system that has both controller and reader with keypad and no keypad, user access mode set as "Card & PIN" could not enter PIN in no keypad controller/reader. In this case, for no keypad controller or reader to omit enter PIN required to enable "Skip PIN Check" function.
- Step 28. Door Open for Any Tag: Used for short-term activities or temporary events which enable door open whenever a card with the same frequency of the access controller is presented.

Target Node	00:SOYAL	~ <u>001</u> ~	Main			Free Zone Alarm Schedule
New Node ID Door Relay Relay [WG]	1 1 1	Enable Force Alarm Enable Antipassback Is Entry Door Enable Push to Exit		Step 29, Duress Co Step 30, None E Step 31, Date T	de 0 English Menual ime Format(DD/MM)	Duty Shift 721Ev2 Lift Control Time (Sec.) 150 Body Temperature Hi
open too long oo long[WG] Jarm Relay	15	Egress Beep Sounds Enable Auto Relock Close Stop Alarm		Step 33. Reset / Step 34. Alarmir	Antipass(TZ61)	Area Code (none Polling) 0 RS485 - 1
armed Delay	0	Share Door Relay Enable Free Zone		Step 35. Evs W Step 36. Free R	G out / Hv3 Lift out	Lift Controller O Host Comm. Port LED Panel Line Printer
dit Pwd Armed Pwd	•••••	Ena. Disarm Zone(62) Is Duty Reader			duty shift table	S485 - 2 (CN11) ③ 3DO-1500 ○ Face-EA
Door Nr. Door Nr[WG]	1 2	Skip PIN Check Door Open for Any Tag		Step 41. Master	0 0	FP9000 Photo/CMOS

Step 29. Duress Code: In case an assailant or robber ambush

at the entrance and force you to open the door or disarm the system, try to keep calm and input Duress code to open the door, which will simultaneously send a silent alert to the monitoring station or security guards.

Default value: 0 (not set)

- Step 30. None English Manual: Setting for LCD access controller only, checking this setting will only display Chinese language manual (required power restart to apply this function). Default Value: English Manual.
- Step 31. Date Time Format (DD/MM): Setting for LCD access controller only, checking this option will change the Date Time format into DD/MM (required power restart to apply this function). Default value: MM/YY.
- Step 32. Enable Black Tag: Blacklisted designated card number to restrict access. The designated card number is send to controller by protocol command via Commview Tools.

Step 33. **Reset Antipass(TZ61):** Timezone 61 is used to automatically reset anti-passback function. When the user violates the anti-pass-back rule, user could not have access anymore. Reset allows the user get access again at this time regardless of the violation of the anti-pass-back rule beforehand.

More Details :

FAQ : How to use "Reset Anti-pass back" function of V5 series controllers to limit each staff to take one meal only during every meal interval section?

Step 34. Alarming if Expired: If any expired card is presented (exceed date limit), it will trigger an alarm.

More Details :

• FAQ : What is the purpose of option "Alarming if Expired" on Parameter Setting?

- Step 35. Ev5 WG out / Hv3 Lift out: For E Series controller, check this option will enable controller converted into a reader function (convert duress and arming output into WG Mode WG0 Output and WG1 Output), for H series controller this check this function will enable lift control function (convert the alarm output terminal into lift control function)
- Step 36. Free RF Check at Finger Access: Setting for Fingerprint access controller only, Check this option to make it unnecessary for access by card identification, only fingerprint can be used for access.
- Step 37. Lock Keyboard: Check this option to lock keypad function, which also means access by PIN is illegible.
- Step 38. Enable duty shift table: There are two methods to record Time Attendance 1. Base on Work Time (First and Last Records) 2. Depend on Duty Function Key. For LCD access controller, it is built-in function key F1, F2, F3, and F4. Each of the function key can be pressed and set the Duty Shift manually (example: pressing F1 will interchange Duty ON and Break ON setting). Beside manually set the Duty Shift, management can set controller to change Duty Shift by enabling "Enable duty shift table", then controller will automatically change Duty Shift according to the timetable set in Step 45.
- Step 39. Show WG Port message on LCD: Setting for LCD access controller only, show card number and reader event in access controller' s LCD.
- Step 40. **Dupl. check at enroll Finger:** Setting for Fingerprint LCD access controller only, check this setting whether the same fingerprint is existed (duplicated) and show the duplicated information in access controller' s LCD.
- Step 41. **Master Range:** Range of Master(Administration) user address to be set. Master user has authority to enter programming mode by swipe card + press #. For example if entering 1-5 means set user range 1-5 as Master/Admin.
- Step 42. Max keypad error times: Attempting access (invalid) for N times before controller's locked itself from access and granted access again for a period of times. N can be set according to requirement.

Default Value: max keypad error is after attempting invalid access for 5 times.



H/E Serial Contr	oller Parameter Edit			
Target Node	00:SOYAL ~ 001 ~	Main WGA		Step 43. Step 44. Free Zone Alarm Schedule
New Node ID	1 Enable Force Alarm		Duress Code 0	Duty Shift 721Ev2
Door Relay			None English Menual	Step 45. Step 46.

Step 43. Free Zone: Set up to 16 free time zones for weekday, weekend, and holiday for Main access controller and WG. Must enable 'Enable Free Zone' function mentioned in Step 23

Auto Open Zone 2 3 Sun Mon Tue Wed Thu Fri Sat Hol Begin End Main Image: Sun Weight of the Sun Mon Tue Weight of the Su	 Select day to set auto open zone. Determining which date is categorized as Holiday, must be set separately in 701ClientSQL.
	 Select begin and end time (note: setting time exceed midnight must be set into two separate times. Example: 22:00-06:00 / Timezone 1 22:00-23:59 / Timezone 2 00:00-06:00 Select setting for target controller Main/WG (for control panel select WG-A for WG Port 0 and WG-B for WG Port 1). Check the box for selected target controller. For example selecting Main for Timezone 1 and 2.
	Meanwhile for WG-A is selecting only Timezone 1. Auto Open Zone Sun Mon Tue Wed Thu Fri Sat Hol Begin End ✓ ✓ ✓
	Auto Open Zone Sun Mon Tue Wed Thu Fri Sat Hol Begin End WG-A ∨ ✓ ✓ ✓ 08:00 + 09:00 + ✓ ✓ ✓ 12:00 + 13:00 +

5. Select "OK" to save changed.

Complete method of Auto Open Zone Setting:

- E Series Controller : Auto Open Zone for all E/H-V5 series controller
- H Series Controller: <u>Auto Open Zone for all H series controller and digital door lock</u>
 <u>AR-323D without keypad</u>

More Details :

- FAQ : 881EF/EV, 829Ev5 and 725E-V2 free zone edit cannot set from 00:00~23:00. Why?
- FAQ : How to set Auto open door function on 829EV5/821EV5/881E/725EV2 series reader?

Step 44. Alarm Schedule:

Controller built-in bell timer function to ring the bell automatically according to time schedule set. This function is mainly applied to ring in the office, factory, and industrial automatic control. Alarm schedule is set for weekday, weekend, and holiday for Main access controller and WG. Note: Enabling this function will convert alarm output terminal into bell timer and required to set controller into Disarming Mode.

D	Daily Alarm Schedule X											
ł	Step 1. Step 2. Step											03.
	Sun	Mon	Tue	Wed	Tue	Fri	Sat	Hol	ſ	Begin	Sec.	
			\checkmark							08:30 🌲	15	
										12:00 🜲	15	
										06:00 🜲	15	
										00:00 🜲	000	
										00:00	000	
										00:00	000	
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										00:00	000	
										00:00	000	
										00:00	000	
			_									
	S	Step	4.	YE	S			EXIT				

- 1. Select day to ring the bell schedule. Determining which date is categorized as Holiday, must be set separately in 701ClientSQL.
- 2. Select Begin time
- 3. Enter how long the bell will be activated. After the set timer bell will goes off.

The recommended setting for the relay output time (in seconds) is 003 seconds or more to avoid having a too short output time that may result in incorrect triggering of external devices.

4. Select "YES to save changed.

XDue to the changing dates each year, holidays must be reset and downloaded every six months.

Step 45. Duty Shift:

Duty shift will be automatically changed depend on the time setting. According to the shift time, the controller will show shift name (example: DUT ON, DUT OFF). Total of 8 Duty Shift available to set daily. Must 'Enable duty shift table' function in Step 38.

Outy Shift		×	1. Weekday: Select day (range from SUN-SAT)
Weekday	MON	v	
Begin	Ending	Duty (Workday) Duty (Holiday)	TUE
08:00	12:00 🜲	Duty:On (0) > OVT:On (2) >	WED
12:01	12:44	BRK:On (4) ~ Duty:On (0) ~	FRI SAT
12:45	12:59	BRK:Off (5) V Duty:On (0) V	2. elect Begin and Ending time. Time must be set
13:00	18:00 🗘	Duty:On (0) ~ OVT:On (2) ~	without overlapping End time and the next time's
18:01	18:59 🗘	Duty:Off (1) $$	Start time. Correct example: 08:00-12:00 and 12:01-13:00
19:00	20:00	OVT:On (2) \vee Duty:On (0) \vee	3. Select the Duty Shift for both Duty (Workday) & Duty
00:00	00:00	Duty:On (0) $ \lor $ Duty:On (0) $ \lor $	(Holiday)
00:00	00:00	Duty:On (0) ~ Duty:On (0) ~	sun v -Duty= working time
	Vac	Cancel	SUN -OVT= overtime
	Tes	Calicer	TUE -BRK= break time
			THU -Go Out= doing job outside office
			FRI -Return= return to office after Go Out

Notes: If in weekday (SUN-SAT) selecting "Duty: On", on Holiday setting must set as "Ovt:ON"

4. Click "Yes" to save changed.

Step 46. 721Ev2:

This setting is for control panel AR-716-E16 only, refer to 9.2 Control Panel AR-716-E16 Parameter Setting

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Target Node	00:SOYAL	~ <mark>001</mark> ~	Main	WGA		Free Zone	Alarm Schedule	
New Node ID	1	Enable Force Alarm Enable Antipassback			Duress Code 0	Duty Shift	721Ev2	
Door Relay	1	Is Entry Door			None English Menual	Lift Control Time	(Sec.) 150	
Relay [WG]	1	Enable Push to Exit			Date Time Format(DD/MM, Step 48	Body Temperatur	e Hi	
Open too long	15	Egress Beep Sounds Enable Auto Relock			Reset Antipass(TZ61) Step 49	Area Code (none	Polling) 0	
too long[WG] Alarm Relay	1	Close Stop Alarm			Alarming if Expiried	RS485 - 1		
Armed Delay	0	Share Door Relay			Ev5 WG out / Hv3 Lift out	Lift Controller	Host Comm. Port	
Alarm Delay	0	Enable Free Zone			Free RF Check at Finger Access Lock Keyboard Stop 51	PS485 - 2 (CN11		
Edit Pwd	•••••	Ena. Disarm Zone(62)			Enable duty shift table	• 3DO-1500) 	
Armed Pwd	1234	Is Duty Reader			Show WG Port message on LCD	O Face-EA		
Door Nr.	1	Skip PIN Check						
Door Nr[WG]	2	Door Open for Any Tag			Master 0 0 Max keypad error times 0	O	.0/CI103	6
Card or PIN Acco	ess Mode			Fingerprint Sec	urity Level	Card Reader	er / Voice Module	B
• Address + I	PIN Code (M	4) O Pin Code Only	y (M8)	C Level Low	Level Medium Level High			J
F/M: Version :				Target Con	troller ed Only OAll Connected Controller	RS485 - 3 (CN9) Lift Controlle Line Printer	r	
Read	E	mpty Log Re	ad File	User Range	: 0 499	Card Reader	/ Voice Module	

H/E Serial Controller Parameter Edit

- Step 47. Lift Control Time (Sec.): When present card to access in access controller connected to lift control panel AR-401-IO-0016R, the relay output modules will trigger for specific seconds.
- Step 48. Body Temperature Hi: For access controller equipped with Temperature Module, when controller sense user body temperature is higher than the limit, controller equipped with "high t emperature trigger alarm" function will trigger alarm. Range: 36.50 – 39.00 (Default value: 36.50)
- Step 49. Area code (none Polling): There are two ways to obtain transaction log from controller to software, Polling and Active Communication Mode. This setting is used when choosing Active Communication Mode, used to specify the assigned Area (Range 00-15, default value: 15).

More detail about implementing Active Communication Mode

• FAQ: How to improve the speed of receiving the message logs

- Step 50. RS485-1: Controller wiring terminal CN6 is RS485 Host communication. Used mainly for connection to software. If controller communication to software using TCP/IP, RS485-1 setting can be allocated to lift controller, LED Panel, or Line Printer. Default value: Host. Comm. Port
- Step 51. RS485-2: Controller wiring terminal CN11 mainly selected for Face and Fingerprint controller.
 - 3DO-1500 is default value of white sensor module fingerprint controller AR-331-EF/AR-837-EF3DO
 - Face-EA is default value of face controller AR-837-EA
 - FP9000 Photo/CMOS is default value of red sensor fingerprint controller AR-837-EF9DO For non-face and non-fingerprint controller, this terminal can be allocated for Lift Controller, Card Reader/Voice Module, and Line Printer

Step 52. **RS485-3:** Controller wiring terminal **CN9**, extra terminal for expansion feature that can be allocated for Lift Controller, Line Printer, LED Panel, and Card Reader/Voice Module.

NOTE

CN9 and CN11 built-in TTL interface. If required wiring to RS232/RS485 devices, SOYAL provides TTL to RS485 (AR-321L485) or TTL to RS232 (AR-321L232) converter

Step 53. Card or PIN Access Mode: SOYAL offer three options of access mode

- Address + PIN Code (M4): Access by entering user address + PIN
- PIN Code Only (M8): Access by entering PIN only (Default)

M6: Standalone only, this option is not available for networking thus this option is not available in Software setting.



Step 54 ~ Step 60 is eligible for fingerprint and face controller only.

- Fingerprint and face data is separated and is different entity from user card data. The data can be found in C:\Program Files (x86)\701Server. **701ServerSQL** provides read/write fingerprint and face data from PC to controller.
- Data format:
- FPXXXXX.FP5 fingerprint red sensor module (9DO)
- FPXXXXX.FP3 fingerprint white sensor module (3DO)
- FPXXXXX.FxL face data
- XXXXX= 5 digit user address.
- Fingerprint data between red sensor and white sensor could not interchange data between one another.

More Details :

- FAQ : <u>How to set up networking for fingerprint controller AR-837EF via 701 SERVER and</u> <u>download fingerprint data?</u>
- FAQ : <u>How to transfer data from one fingerprint device (331EF/837EF/881EF) to other</u> <u>fingerprint device?</u>

Step 54. Fingerprint Security Level: Setting fingerprint/face controller's security level.

- **Fingerprint:** Available to set from Level Low, Level Medium, and Level High. Recommended setting for fingerprint/face controller' s security level setting (default)
- Face: Available to set from Level Low and Level Medium. Level Low is setting for face controller AR-837-EA enabling access with face mask, Level Medium is default setting.

- Step 55. Target Controller: Select target controller to be read/write fingerprint or face data.
 - Selected Only: Only for one unit controller Node ID that is currently being edited the parameter setting (example: currently editing for Node ID 1, selecting 'Selected Only' will only read/write data from/to Node ID 1)
 - All Connected Controller: Read and write fingerprint or face data from/to all connected controller in the system (example: currently editing for Node ID 1, but the whole system in 701ServerSQL has 3 other fingerprint controller with node ID 2, 3, and 4. Selecting 'All Connected Controller' will read/write data from/to Node ID 1-4)
- Step 56. User Range: Select user range to read/write data
- Step 57. Write Finger/Face: After selecting Target Controller and User Range, select "Write Finger/Face" to transfer data from PC to controller.

Note: selecting this action will overwrite the same user address of existed data in the controller.

- Step 58. Delete Finger/Face: After selecting Target Controller and User Range, select "Delete Finger/Face" to delete data in the controller. To delete finger/face data from PC, go to C:\Program Files (x86)\701Server > select the file to be deleted > delete.
- Step 59. Read Finger/Face: After selecting Target Controller and User Range, select 'Read Finger/Face' to transfer data from controller to PC.

Note: selecting this action will overwrite the same user address of existed data in the PC.

- Step 60. Transfer (V9 V5): This function is to convert oldest version of fingerprint controller V9 into the latest format V5 or what we known as Enterprise Series (E Series) Controller. Note: It is recommended to register again in E controller rather than converting it directly to prevent damage to the fingerprint file)
- Step 61. Write: Write the current setting to saved changed new setting and effectively applied.

More detail about implementing Active Communication Mode

- FAQ: 701Server support Read and Write IP Based E Series Controller's parameter setting
- FAQ: How to use SOYAL E/V5 Controller for Lift Control?

8.5 Parameter Setting by Functions

8.5.1 Node ID and Door Number

H/E Serial Controller Parameter Edit

	Target Node	00:SOYAL	~ <mark>001</mark> ~	Main	WGA
a	New Node ID	1	Enable Force Alarm		
	Deer Delevi		Enable Antipassback		
	Door Relay	1	Is Entry Door		
	Relay [WG]	1	Enable Push to Exit		
	Open too long	15	Egress Beep Sounds		
	too lona[WG]	15	Enable Auto Relock		
	Alarm Relay	1	Close Stop Alarm		
	, , , , , , , , , , , , , , , , , , , ,		Share Door Relay		
	Armed Delay	0	Enable Eres Zone		
	Alarm Delay	0			
	Addit Delay		Free Zone Open Imm.		
	Edit Pwd	•••••	Ena. Disarm Zone(62)		
	Armed Pwd	1234	Is Duty Reader		
2	Door Nr.	1	Skip PIN Check		
3	Door Nr[WG]	2	Door Open for Any Tag		

- New Node ID: After the communication is successful, you can also modify the Node ID of this access controller in "New Node ID" field.
- 2 Door Nr.: Each door number of the controller can be changed according to the corresponding area or door number assigned. Access control system managed by PC will show specific door number on entry or exit record. Door number can be repeated and used in the same area but corresponding to the area and door itself. Default value is 1.
- 3 Door Nr. [WG]: WG Door Number can be changed according to the corresponding Main access controller's area and door number. WG Door Number is only eligible for E Series controller's WG Reader and WG Port 1 under AR-716-E16. Default value is 2.

8.5.2 Door Relay Setting



Door Relay: Door Relay Time of the access controller, after access identification is successful, controller will trigger the relay to release lock and how long the lock is being released to indicate door open is determined by Door Relay Time.

The setting of Door Relay Time is based on what type of electric lock installed onsite. Recommended setting:

1. Fail-Safe type of lock such as Electric Bolt Lock and Magnetic Lock is 15 seconds (recommended to combine with Auto Relock function)

2. Fail-Secure type of lock such as Electric Strike and Cabinet Lock is 0.2 seconds. Default value is 7 seconds.

<u>Pulse setting (short-term release)</u>: range 001~600 seconds, if set as 01-0.9seconds enter 601~609

Latch setting (output continuously): enter 000



- 2 Relay [WG]: Door Relay Time Setting for Wiegand Reader (only eligible for E Series controller's WG Reader and WG Port 1 under AR-716-E16) Default value is 7 seconds.
- 3 Open too long: or also known as Door Close Time or Door Open Waiting Time. After the period of door relay time trigger relay and open the door, the door contact will start detecting the door status; however, sometimes the door is not be closed in time, so the door close time gives users a buffer time (delay time) to close the door properly before the door contact starts detecting it as Door Open Too Long.

For example: Default value of door open too long is 15 seconds (default), the door contact will start detecting after Door Relay Time (10 sec) + Door Close Time (15 sec), and the user should close the door properly within the total period (25 sec).

Note: Door Open Too Long will not be acknowledge if activating Auto Relock function, as door will relock immediately whenever door contact detect door is closed. Default value is 15 seconds.

- 4 too long[WG]: Door Close Time for Wiegand Reader (only eligible for E Series controller's WG Reader and WG Port 1 under AR-716-E16) Default value is 15 seconds.
- 5 Enable Auto Relock: The electric lock will be only lockable after the period of Door Relay Time, so there might be a gap between closing the door and the door being actually locked. By enabling the Auto Relock function which will let the door relock immediately whenever detecting the door is closed by the door contact. This setting is suggested for fail-safe lock installation such as electric bolt and magnetic lock.
- **6** Close Stop Alarm: There are three options to stop alarming event 1. Swipe valid card 2. Press egress button 3. Close door

When Close Stop Alarm function is checked, alarming event will stopped when door is closed or pressing egress button.

When this option is remain unchecked, alarming event will only stop when valid card is presented.

Default value is unchecked means alarm event will only stop when swiping valid card.

• 8.5.3 Arming & Disarming

H/E Serial Controller, Parameter Edit

	The Senar Control					
	Target Node	00:SOYAL	~ <mark>001</mark> ~	Main	WGA	
	New Node ID	1	Enable Force Alarm			Duress Code 0
	Door Relay	1	Enable Antipassback			None English Menual
	Relay [WG]	1	Enable Push to Exit			Date Time Format(DD/MM)
	Open too long	15	Egress Beep Sounds			Enable Black Tag
	too long[WG]	15	Enable Auto Relock			Reset Antipass(TZ61)
	Alarm Relay	1	Close Stop Alarm			Alarming if Expiried
	Armed Delay	0	Share Door Relay			Ev5 WG out / Hv3 Lift out
	Alarm Delay	0	Free Zone Open Imm.			
	Edit Pwd	•••••	Ena. Disarm Zone(62)			Enable duty shift table
27	Armed Pwd	1234	Is Duty Reader			Show WG Port message on LCD
	Door Nr.	1	Skip PIN Check			Dupl. check at enroll Finger
	Door Nr[WG]	2	Door Open for Any Tag			Master 0 0
						Max keypad error times 0

- **1** Armed Delay: After activating Arming mode, access controller enter Arming mode after a period of Arming Delay Time, which gives users a buffer time to exit without triggering the alarm. Default value is 1 second.
- 2 Armed Pwd: There are three method to enabling Arming Mode 1. Enter programming mode and exit programming mode by entering **# 2. Swipe Master Range card 3. Enter Arming Password.

To enter the Arming Password there are two procedures:

1. Normal door open procedure + 4-digit Arming PWD + #

2. Without opening the door + 4-digit Arming PWD + Presenting a valid card Default Arming Password is 1234.

3 Ena. Disarm Zone(62): Timezone 62 is specifically assigned for controller' s autmomatically set as arming and disarming. The start time will automatically set controller into arming mode, and the end time will automatically set controller into disarming mode (standby mode). For example: set Timezone 62 as 08:00-12:00 means controller will enter arming mode at 08:00 and disarming at 12:00.

4 Master Range: Range of Master(Administration) user address to be set. Master user has authority to enter programming mode by swipe card + press #. For example if entering 1-5 means set user range 1-5 as Master/Admin.

• 8	3.5.4 Anti	-pass	back				
	H/E Serial Contro	ller Parame	ter Edit				
	Target Node	00:SOYAL	~ <u>001</u> ~	Main	WGA		
	New Node ID	1	Enable Force Alarm			Duress Code	0
	Door Polov	4	Enable Antipassback			None English M	onual
	Door Relay	1	Is Entry Door		2		
	Relay [WG]	1	Enable Push to Exit			Date Time Form	nat(DD/MM)
	Open too long	15	Egress Beep Sounds			Enable Black Ta	g
	too long[WG]	15	Enable Auto Relock			3 Reset Antipass(TZ61)
	Alarm Relay	1	Close Stop Alarm			Alarming if Expi	ried

1 Enable Antipassback: If there is an external WG reader connected to this access controller, you can tick this option to enable the anti-passback rule.

2 Is Entry Door: Determine door is exit or entry If selecting controller for entry, check the "Is Entry Door" box If selecting controller for exit, do not check "Is Entry Door" box, just left it unchecked

3 Reset Antipass(TZ61): Timezone 61 is used to automatically reset anti-passback function. When the user violates the anti-pass-back rule, user could not have access anymore. Reset allows the user get access again at this time regardless of the violation of the anti-pass-back rule beforehand.

• 8.5.5 Arming & Disarming

H/E Serial Controller Parameter Edit

Target Node	00:SOYAL	~ 001 ~	Main	WGA		3 Free Zone	Alarm Schedule
New Node ID	1	Enable Force Alarm			Duress Code 0		
Door Relay	1	Enable Antipassback			None English Menual	Duty Shift	721Ev2
Polay [WG]	1	Is Entry Door			Date Time Format(DD/MM)	Lift Control Time	(Sec.) 150
Reidy [WG]	15	Enable Push to Exit			Enable Black Tag	Body Temperatur	e Hi
Open too long	15	Egress Beep Sounds				Area Code (none	Polling) 0
too long[WG]	15	Close Stop Alarm				RS485 - 1	
Alarm Relay	1	Close Stop Alam				Lift Controller	O Host Comm. F
Armed Delay	0	Share Door Relay					
Alarm Delay	0	Enable Free Zone					、
Edit Pwd	•••••	Ena. Disarm Zone(62)			Enable duty shift table	• 3DO-1500)

Enable Free Zone: This option is to enable or disable auto open zone (Timezone 63) function. Meanwhile, Auto open time zone setting refer to Step 43.

2 Free Zone Open Imm.: There are two ways to enable auto open timezone (Timezone 63):

When Auto-Time Zone begin, the door will be automatically open without presenting 1st valid Card.
 When Auto-Time Zone begin, the door don't automatically be opening till any one authorized user present a valid card to controller to open the door (Default Value)

By enabling this function, it will enable auto open zoon when time has come.

3 Free Zone: Set up to 16 free time zones for weekday, weekend, and holiday for Main access controller and WG. Must enable 'Enable Free Zone' function mentioned in Step 23

F	ree Zo	one Ec	ditor									×
1	Auto	Open	Zone		0				-0-		3	
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Hol	Begin	End	Main	~
		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			08:00 🗘	09:00 🗘		4
		\checkmark	\checkmark	\checkmark		\checkmark			17:00 🜲	19:00 🜲	\checkmark	
									00:00 🗘	00:00		
									00:00	00:00		
									00:00 🜲	00:00		
									00:00	00:00		
									00:00	00:00		
									00:00	00:00		
									00:00	00:00		
									00:00 🜲	00:00		
									00:00 🌲	00:00		
									00:00 🌲	00:00		
									00:00	00:00		
									00:00 韋	00:00		
									00:00	00:00		
									00:00 🌲	00:00		
			-				-					
			5	1	ок			C	Cancel			

- Select day to set auto open zone. Determining which date is categorized as Holiday, must be set separately in 701ClientSQL.
- Select begin and end time (note: setting time exceed midnight must be set into two separate times.
 Example: 22:00-06:00 / Timezone 1 22:00-23:59 / Timezone 2 00:00-06:00
- Select setting for target controller Main/WG (for control panel select WG-A for WG Port 0 and WG-B for WG Port 1).
- Check the box for selected target controller. For example selecting Main for Timezone 1 and 2, meanwhile for WG-A is selecting only Timezone 1.

Auto	Open	Zone						
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Hol	Begin End Main ~
	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			08:00 - 00:80
	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			12:00 🔹 13:00 🛫 🗸
Auto	Open	Zone						
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Hol	Begin End WG-A ~
	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			08:00 🗘 09:00 🗘 🗸
	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			12:00 🖨 13:00 🖨

5. Select "OK" to save changed.

Complete method of Auto Open Zone Setting:

- E Series Controller : <u>Auto Open Zone for all E/H-V5 series controller</u>
- H Series Controller: <u>Auto Open Zone for all H series controller and digital door lock</u>

AR-323D without keypad

• 8.5.6 Alarm Schedule

H/E Serial Controller Parameter Edit



Open too long: or also known as Door Close Time or Door Open Waiting Time. After the period of door relay time trigger relay and open the door, the door contact will start detecting the door status; however, sometimes the door is not be closed in time, so the door close time gives users a buffer time (delay time) to close the door properly before the door contact starts detecting it as Door Open Too Long.

For example: Default value of door open too long is 15 seconds (default), the door contact will start detecting after Door Relay Time (10 sec) + Door Close Time (15 sec), and the user should close the door properly within the total period (25 sec).

Note: Door Open Too Long will not be acknowledge if activating Auto Relock function, as door will relock immediately whenever door contact detect door is closed.Default value is 15 seconds.

8.5.7 Duty Shift

H/E Serial Controller Parameter Edit

Target Node	00:SOYAL	- ~ 001 ~	Main	WGA		Free Zone	Alarm Schedule
New Node ID	1	Enable Force Alarm			Duress Code 0	3	7015.0
Door Relay	1	Enable Antipassback			None English Menual	Duty Shift	721Ev2
Relay [WG]	1	IS Entry Door			Date Time Format(DD/MM)	Lift Control Time	(Sec.) 150
Open too long	15	Egress Beep Sounds			Enable Black Tag	Body Temperatur	e Hi
	15	Enable Auto Relock			Reset Antipass(TZ61)	Area Code (none	Polling) 0
Narm Polav	1	Close Stop Alarm			Alarming if Expiried	RS485 - 1	
	-	Share Door Relay			Ev5 WG out / Hv3 Lift out	Lift Controller	O Host Comm. I
Armed Delay	0	Enable Free Zone			Free RF Check at Finger Access	O LED Panel	O Line Printer
Alarm Delay		Free Zone Open Imm.			Lock Keyboard	RS485 - 2 (CN11)
Edit Pwd	•••••	Ena. Disarm Zone(62)			2 Enable duty shift table	() 3DO-1500	
Armed Pwd	1234	Is Duty Reader			Show WG Port message on LCD	O Face-EA	

After the communication is successful, you can also modify the Node ID of this access controller in "New Node ID" field.



2 Enable duty shift table: There are two methods to record Time Attendance 1. Base on Work Time (First and Last Records) 2. Depend on Duty Function Key.

For LCD access controller, it is built-in function key F1, F2, F3, and F4. Each of the function key can be pressed and set the Duty Shift manually (example: pressing F1 will interchange Duty ON and Break ON setting). Beside manually set the Duty Shift, management can set controller to change Duty Shift by enabling "Enable duty shift table", then controller will automatically change Duty Shift according to the timetable set in Step 45.

3 Duty Shift:

Duty shift will be automatically changed depend on the time setting. According to the shift time, the controller will show shift name (example: DUT ON, DUT OFF). Total of 8 Duty Shift available to set daily. Must 'Enable duty shift table' function in Step 38.

Duty Shift				×	1. Weekday: Select day (range from SUN-SAT)	
Weekday	MON	~			SUN V	
Begin	Ending I	Duty (Workday)	Duty (Holi	day)	TUE	
08:00	12:00 🜲	Duty:On (0) $$	OVT:On	(2) ~	WED	
12:01	12:44	BRK:On (4) ~	Duty:On (0) ~	THU FRI SAT	
12:45	12:59	BRK:Off (5) ∨	Duty:On (0) ~	2. elect Begin and Ending time. Time must be set	
13:00	18:00	Duty:On (0) $$	OVT:On	(2) ∨	without overlapping End time and the next time's	
18:01 📮	18:59 🜲	Duty:Off (1) $$	Duty:On (0) ~	Start time. Correct example: 08:00-12:00 and	
19:00	20:00	OVT:On (2) ~	Duty:On (0) ~	12:01-13:00	
00:00 🗘	00:00	Duty:On (0) 🗸	Duty:On (0) ~	3. Select the Duty Shift for both Duty (Workday) & Du	ty
00:00	00:00	Duty:On (0) V	Duty:On (0) ~	(Holiday)	
					sun v -Duty= working time	
	Yes	Cance	el 🚽		-OVT= overtime	
					MON TUE -BRK= break time	
					WED THU -Go Out= doing job outside office	
					-Return= return to office after Go Out	

Notes: If in weekday (SUN-SAT) selecting "Duty: On", on Holiday setting must set as "Ovt:ON"

4. Click "Yes" to save changed.

• 8.5.8 Lift Control

H/E Serial Controller Parameter Edit

Target Node	00:SOYAL	~ 001 ~	Main	WGA		Free Zone	Alarm Schedule	
New Node ID	1	Enable Force Alarm			Duress Code 0	Duty Chiff	7215-2	
Door Relay Relay [WG]	1	Is Entry Door Enable Push to Exit			None English Menual Date Time Format(DD/MM)	Lift Control Time	(Sec.) 150	
Open too long	15	Egress Beep Sounds Enable Auto Relock			Enable Black Tag	Area Code (none	Polling) 0	
too long[WG] Alarm Relay	1	Close Stop Alarm			Alarming if Expiried	RS485 - 1	Host Comm Port	
Armed Delay	0	Share Door Relay Enable Free Zone			Free RF Check at Finger Access	CLED Panel		
Alarm Delay Edit Pwd	•••••	Free Zone Open Imm. Ena. Disarm Zone(62)			Lock Keyboard Enable duty shift table	RS485 - 2 (CN1:	1)	
Armed Pwd Door Nr.	1234	Is Duty Reader Skip PIN Check			Show WG Port message on LCD Dupl. check at enroll Finger	O Face-EA		
Door Nr[WG]	2	Door Open for Any Tag			Master 0 0	○ FP9000 Pho	oto/CMOS	
Card or PIN Acco	ess Mode PIN Code (M	4) OPin Code Onl	y (M8)	Fingerprint Secu	irity Level Level Medium Level High	C Lift Controll	er r / Voice Module	
F/M: Version :		1		Target Cont	croller ed Only O All Connected Controller	RS485 - 3 (CN9) Lift Controll Line Printer LED Panel	er	
Read	E	mpty Log Re	ad File	User Range :	0 499	Card Reade	r / Voice Module	

- Ev5 WG out / Hv3 Lift out: For E Series controller, check this option will enable controller converted into a reader function (convert duress and arming output into WG Mode WG0 Output and WG1 Output), for H series controller this check this function will enable lift control function (convert the alarm output terminal into lift control function)
- 2 Lift Control Time (Sec.): When present card to access in access controller connected to lift control panel AR-401-IO-0016R, the relay output modules will trigger for specific seconds.

8 RS485-1: Controller wiring terminal CN6 is RS485 Host communication. Used mainly for connection to software. If controller communication to software using TCP/IP, RS485-1 setting can be allocated to lift controller, LED Panel, or Line Printer. Default value: Host. Comm. Port

4 RS485-2: Controller wiring terminal **CN11** mainly selected for Face and Fingerprint controller.

- 3DO-1500 is default value of white sensor module fingerprint controller AR-331-EF/AR-837-EF3DO
- Face-EA is default value of face controller AR-837-EA

- FP9000 Photo/CMOS is default value of red sensor fingerprint controller AR-837-EF9DO For nonface and non-fingerprint controller, this terminal can be allocated for Lift Controller, Card Reader/Voice Module, and Line Printer

5 RS485-3: Controller wiring terminal **CN9**, extra terminal for expansion feature that can be allocated for Lift Controller, Line Printer, LED Panel, and Card Reader/Voice Module.

>



NOTE

CN9 and CN11 built-in TTL interface. If required wiring to RS232/RS485 devices, SOYAL provides TTL to RS485 (AR-321L485) or TTL to RS232 (AR-321L232) converter

>

• 8.5.9 RS485 & UART

H/E Serial Controller Parameter Edit

Target Node	00:SOYAL	~ <u>001</u> ~	Main	WGA		Free Zone	Alarm Schedule
New Node ID Door Relay Relay [WG] Open too long	1 1 15 15	Enable Force Alarm Enable Antipassback Is Entry Door Enable Push to Exit Egress Beep Sounds Enable Auto Relock			Duress Code 0 None English Menual Date Time Format(DD/MM) Enable Black Tag Reset Antipass(TZ61)	Duty Shift Lift Control Time Body Temperatur Area Code (none	721Ev2 (Sec.) 150 e Hi 900000000000000000000000000000000000
Alarm Relay	1	Close Stop Alarm Share Door Relay			Alarming if Expiried	RS485 - 1 • Lift Controller	O Host Comm. Port
Armed Delay Alarm Delay	0	Enable Free Zone Free Zone Open Imm.			Free RF Check at Finger Access Lock Keyboard	C LED Panel) Line Printer
Edit Pwd Armed Pwd	•••••	Ena. Disarm Zone(62) Is Duty Reader			Enable duty shift table Show WG Port message on LCD	 3DO-1500 Face-EA 	
Door Nr. Door Nr[WG]	1 2	Skip PIN Check Door Open for Any Ta <u>c</u>			Master 0 0	○ ○ FP9000 Phot	to/CMOS
Card or PIN Acc	ess Mode PIN C <mark>ode (</mark> M	4) O Pin Code Onl	y (M8)	Fingerprint Sec	Max keypad error times 0 urity Level • Level Medium C Level High	 Lift Controlle Card Reader Line Printer 	er / Voice Module
F/M: Version : Read	E	mpty Log Re	ad File	Target Cor Select User Range	ntroller ted Only All Connected Controller : 0 499	RS485 - 3 (CN9) Lift Controlle Line Printer LED Panel Card Reader 	er / Voice Module

1 RS485-1: Controller wiring terminal CN6 is RS485 Host communication. Used mainly for connection to software. If controller communication to software using TCP/IP, RS485-1 setting can be allocated to lift controller, LED Panel, or Line Printer. Default value: Host. Comm. Port

RS485-2: Controller wiring terminal **CN11** mainly selected for Face and Fingerprint controller.

- 3DO-1500 is default value of white sensor module fingerprint controller AR-331-EF/ AR-837-EF3DO

- Face-EA is default value of face controller AR-837-EA

- FP9000 Photo/CMOS is default value of red sensor fingerprint controller AR-837-EF9DO For non-face and non-fingerprint controller, this terminal can be allocated for Lift Controller, Card Reader/Voice Module, and Line Printer

RS485-3: Controller wiring terminal **CN9**, extra terminal for expansion feature that can be allocated for Lift Controller, Line Printer, LED Panel, and Card Reader/Voice Module.
• 8.5.10 Fingerprint & Face Data

H/E Serial Controller Parameter Edit

Target Node	00:SOYAL	~ <mark>001</mark> ~	Main	WGA		Free Zone	Alarm Schedule
New Node ID	1	Enable Force Alarm			Duress Code 0		
Door Relay	1	Enable Antipassback			None English Menual	Duty Shift	/21Ev2
Relay [WG]	1	Is Entry Door			Date Time Format(DD/MM)	Lift Control Time (Sec.) 150
Open too long	15	Egress Beep Sounds			Enable Black Tag	Body Temperature	Hi
too long[W/G]	15	Enable Auto Relock			Reset Antipass(TZ61)	Area Code (none I	Polling) 0
	1	Close Stop Alarm			Alarming if Expiried	RS485 - 1	
	-	Share Door Relay			Ev5 WG out / Hv3 Lift out	Lift Controller	O Host Comm. Port
Armed Delay	0	Enable Free Zone			Free RF Check at Finger Access	LED Panel	O Line Printer
Alarm Delay	•	Free Zone Open Imm.			Lock Keyboard	RS485 - 2 (CN11)	
Edit Pwd	•••••	Ena. Disarm Zone(62)			Enable duty shift table	③ 3DO-1500	
Armed Pwd	1234	Is Duty Reader				O Face-EA	
Door Nr.	1	Skip PIN Check				0	
Door Nr[WG]	2	Door Open for Any Tag			Master 0 0	O FP9000 Phot	o/CMOS
				5	Max keypad error times 0	0	
Card or PIN Acce	ess Mode			Fingerprint Secu	urity Level		/ Voice Module
Address + F	PIN Code (M	4) OPin Code Only	/ <mark>(</mark> M8)	O Level Low	Level Medium Level High		Volce + loadie
F/M: Version :				6 Target Con © Select	troller ed Only OAll Connected Controller	RS485 - 3 (CN9) • Lift Controlle Cline Printer LED Panel	
Read	E	mpty Log Rea	ad File	7 User Range 8 Write Fin	ger/Face Delete Finger/Face 9	Card Reader	/ Voice Module
Write		Exit	ite File	10 Read Fin	ger/Face Transfer (V9>V5)		

- **1** Skip PIN Check: For a system that has both controller and reader with keypad and no keypad, user access mode set as "Card & PIN" could not enter PIN in no keypad controller/reader. In this case, for no keypad controller or reader to omit enter PIN required to enable "Skip PIN Check" function.
- Pree RF Check at Finger Access: Setting for Fingerprint access controller only, Check this option to make it unnecessary for access by card identification, only fingerprint can be used for access.
- 3 **Dupl. check at enroll Finger:** Setting for Fingerprint LCD access controller only, check this setting whether the same fingerprint is existed (duplicated) and show the duplicated information in access controller's LCD.
- 4 Body Temperature Hi: For access controller equipped with Temperature Module, when controller sense user body temperature is higher than the limit, controller equipped with "high t emperature trigger alarm" function will trigger alarm. Range: 36.50 – 39.00 (Default value: 36.50)
- **5** Fingerprint Security Level: Setting fingerprint/face controller's security level.
 - **Fingerprint:** Available to set from Level Low, Level Medium, and Level High. Recommended setting for fingerprint/face controller' s security level setting (default)
 - Face: Available to set from Level Low and Level Medium. Level Low is setting for face controller AR-837-EA enabling access with face mask, Level Medium is default setting.

X



6 Target Controller: Select target controller to be read/write fingerprint or face data.

- Selected Only: Only for one unit controller Node ID that is currently being edited the parameter setting (example: currently editing for Node ID 1, selecting "Selected Only" will only read/write data from/to Node ID 1)

- All Connected Controller: Read and write fingerprint or face data from/to all connected controller in the system (example: currently editing for Node ID 1, but the whole system in 701ServerSQL has 3 other fingerprint controller with node ID 2, 3, and 4. Selecting "All Connected Controller " will read/ write data from/to Node ID 1-4)

7 User Range: Select user range to read/write data

8 Write Finger/Face: After selecting Target Controller and User Range, select "Write Finger/Face" to transfer data from PC to controller.

Note: selecting this action will overwrite the same user address of existed data in the controller.

9 Delete Finger/Face: After selecting Target Controller and User Range, select "Delete Finger/Face" to delete data in the controller. To delete finger/face data from PC, go to C:\Program Files (x86)\701Server > select the file to bedeleted > delete.

10 Read Finger/Face: After selecting Target Controller and User Range, select 'Read Finger/Face' to transfer data from controller to PC. Note: selecting this action will overwrite the same user address of existed data in the PC.

11 Transfer (V9 V5): This function is to convert oldest version of fingerprint controller V9 into the latest format V5 or what we known as Enterprise Series (E Series) Controller. Note: It is recommended to register again in E controller rather than converting it directly to prevent

damage to the fingerprint file)

8.5.11 Alarm Event

Target Node	00:SOY	AL ~ 001 ~	Main WGA		Free Zone	Alarm Schedule
New Node ID	1	Enable Force Alarm		Duress Code 0		
Door Relay	1	Enable Antipassback		None English Menual	Duty Shift	/21Ev2
		Is Entry Door			Lift Control Time	(Sec.) 150
Relay [WG]	1	Enable Push to Exit		Date Time Format(DD/MM)	Body Temperatu	re Hi
Open too long	15	Egress Beep Sounds		Enable Black Tag		
	15	Enable Auto Relock		Reset Antipass(TZ61)	Area Code (none	Polling) 0
		Close Stop Alarm		5 Alarming if Expiried	RS485 - 1	
Alarm Relay	1	Charles Day Dalay			Lift Controller	O Host Comm
Armed Delay	0	Share Door Relay		EVS WG OUT / HV3 LIFT OUT		
	-	Enable Free Zone		Free RF Check at Finger Access	ULED Panel	
Alarm Delay	U	Free Zone Open Imm		Lock Keyboard	PS485 - 2 (CN11	N.

Alarm Relay: When alarm event is triggered, alarm will output continuously for a period of time according to Alarm Relay Time.

<u>Pulse setting</u> (short-term release): range 001~600 seconds, if set as 01-0.9seconds enter 601~609 <u>Latch setting</u> (output continuously): enter 000 Default value is 15 seconds. 2 Alarm Delay: Before Alarm Event is triggered, there is a set of time period between conditions that triggered the alarm and the alarming event which is called Alarm Delay Time. Alarm Delay Time gives users a buffer time to turn off the alarm before the beeper is sounding or an alarm signal is sent to the security guards. Default value is 1 second.

3 Enable Force Alarm: In the event that any door is opened without normal access like presenting a valid card from the outside or pressing the RTE button from the inside, it will cause a Force Open condition. This situation will trigger the Force Open Alarm if the access controller is under Arming mode.

4 Close Stop Alarm: There are three options to stop alarming event 1. Swipe valid card 2. Press egress button 3. Close door

When Close Stop Alarm function is checked, alarming event will stopped when door is closed or pressing egress button.

When this option is remain unchecked, alarming event will only stop when valid card is presented.

Default value is unchecked means alarm event will only stop when swiping valid card.

5 Alarming if Expired: If any expired card is presented (exceed date limit), it will trigger an alarm.

• 8.5.12 Others

Farget Node	00:SOYAL	· · · 001 · ·	Main	WGA		Free Zone	Alarm Schedule
New Node ID	1	Enable Force Alarm			Duress Code 0	Duty Shift	72152
Door Relay	1				None English Menual 5	Ducy Shine	7211.02
Relay [WG]	1	Enable Push to Exit			Date Time Format(DD/MM) 6	Lift Control Time	e (Sec.) 150
open too long	15	Egress Beep Sounds			Enable Black Tag	Body Temperatu	
	15	Enable Auto Relock			Reset Antipass(TZ61)	Area Code (none	Polling) 0
larm Relay	1	Close Stop Alarm			Alarming if Expiried	RS485 - 1	
rmod Dolay	-	Share Door Relay			Ev5 WG out / Hv3 Lift out	Lift Controller	O Host Comm. Po
	0	Enable Free Zone			Free RF Check at Finger Access	O LED Panel	O Line Printer
larm Delay	U	Free Zone Open Imm.			Lock Keyboard	RS485 - 2 (CN1	1)
dit Pwd	•••••	Ena. Disarm Zone(62)			Enable duty shift table	• 3DO-1500	
rmed Pwd	1234	Is Duty Reader			Show WG Port message on LCD 9	O Face-EA	
oor Nr.	1	Skip PIN Check			Dupl. check at enroll Finger	O	
oor Nr[WG]	2	Door Open for Any Tag			Master 0 0	O FP9000 Pho	oto/CMOS
	-				Max keypad error times 0 10	0	
Tard or PIN Ac	ress Mode			Fingerprint	Security Level		ler
				, ingerprine	occurry Loren	O Card Reade	r / Voice Module

- **Edit Pwd**: Master Code or Programming Code of the Access Controller can be changed from this field. Default Master Code is 123456.
- **2 Enable Push to Exit:** Enable or disable exit door by Egress Button. Default value is enabling for both Main and WG.
- **3** Door Open for Any Tag: Used for short-term activities or temporary events which enable door open whenever a card with the same frequency of the access controller is presented.
- **Duress Code:** In case an assailant or robber ambush at the entrance and force you to open the door or disarm the system, try to keep calm and input Duress code to open the door, which will simultaneously send a silent alert to the monitoring station or security guards. Default value: 0 (not set)
- 5 None English Manual: Setting for LCD access controller only, checking this setting will only display Chinese language manual (required power restart to apply this function). Default Value: English Manual.
- **6** Date Time Format (DD/MM): Setting for LCD access controller only, checking this option will change the Date Time format into DD/MM (required power restart to apply this function). Default value: MM/YY.
- **7** Enable Black Tag: Blacklisted designated card number to restrict access. The designated card number is send to controller by protocol command via Commview Tools.
- 8 Lock Keyboard: Check this option to lock keypad function, which also means access by PIN is illegible.
- **9** Show WG Port message on LCD: Setting for LCD access controller only, show card number and reader event in access controller's LCD.
- Max keypad error times: Attempting access (invalid) for N times before controller's locked itself from access and granted access again for a period of times. N can be set according to requirement. Default Value: max keypad error is after attempting invalid access for 5 times.
- 11 Area code (none Polling): There are two ways to obtain transaction log from controller to software, Polling and Active Communication Mode. This setting is used when choosing Active Communication Mode, used to specify the assigned Area (Range 00-15, default value: 15).
- 12 Card or PIN Access Mode: SOYAL offer three options of access mode
 - Address + PIN Code (M4): Access by entering user address + PIN
 - PIN Code Only (M8): Access by entering PIN only (Default)

M6: Standalone only, this option is not available for networking thus this option is not available in Software setting.

9. Backup and Restore LAN Setting

Switching from old PC to new PC required to migrate the data saved on 701ServerSQL and 701ClientSQL. It is required to backup from old PC and restore to new PC.



Software before 8.3 versions, you can't save the data and to save the LAN setting record, you can only take picture or take note and manually do the set up again.

More Details :

FAQ : Backup and Restore 701 Server and Client from old PC to new PC

10. Attendance Recording Methods and Importing Message Files -

10.1. Time Attendance Setting

Select Serial Port	Time Attendance Base On Time attendance Base On
LAN Configuration	
9 701E On 992	O Depend On [Duty Function Key]
8 992E NODE ID	Maximum User On System
Pause Scan Nodes	● 5,000 ○ 10,000 ○ 15,000 ○ 20,000
RCU Configuration	
992E DI/DO DDC	Duty Start Time (Day Shift) 03:59
Controller Parameters	Update time clock to controller at program start !
Time Attendance	Auto update Controller Clock 00:00 😴 00:00 🐨
Message Import	Backup Message File(*.msg) to Second Folder
Save LAN Setting	C:\Program Files (x86)\701Server\
Load LAN Setting	Execute another Program while Startup Parameters
	Yes Exit

Time Attendance : Click Setting -> Time Attendance to open "Time Attendance Setting" window. Time attendance Base On : you can decide how the time and attendance is reported from the two choices:

Work Time [First and Last Records]: The first record and last records will be integrated into the time attendance report.

Depend On [Duty Function Key]: records are integrated into the tome attendance report according the shift name shown on the LCD panel of the access controller, for example: "Duty: 0,Duty: F; OVT: 0, OVT: F" .

Maximum User On System: select the user capacity, default value is 5000.

*While modifying the user capacity, please synchronize to the hardware of controller (hardware modification please refer to each controller' s manual). H series controller could select 5000 only, E series controller could select 5000/10000/15000, option 20000 is only for specific version.

	Maximum User On Sys	stem 00	
Maximum User On System	5,000	10,000/15,000	20,000
Applicable Models	 H Series Controllers Mixed Use of H&E Series Controllers 	 E Series Controllers Connected to H Series Controllers under Multi- door Controllers 	Available only for Database Mode and Specific Software

10. Attendance Recording Methods and Importing Message Files



Duty Start Time [Day Shift]: designate the beginning time of day shift, the records will be accumulated as the same day before time to start time, the default duty start time is 03:59, it is restricted to set after 00:00.

*Please remind that the software do not support multi-shift configuration exceeded one day, the setting of multi-shift in one day please refer to <u>701ClientSQL manual – Paragraph 4.6.</u> Update time clock to controller at program start: Synchronize the time of the computer and the controller whenever 701Server is launched or at the midnight(00:00).

Auto Update Controller Clock: you can designate two daily time sets to automatically synchronize the time of the computer and the controller.

Backup Message File: When there is inbound and outbound messaging, it can be additionally backed up to a designated path to ensure that messages are not lost due to accidental deletion (applicable to both file base mode and database mode).

(※Please designate the folder path other than C: disk, or it maight be intervened by the antivirus software and cause error of the time attendance report.)

For file base mode/Database mode message file import/export settings, please refer to >>

Paragraph 4. Frequently Asked Questions - Q3. How to convert old data from file base to database?

• For the best approach to integrating third-party platforms with access control systems, please refer to >><u>11.2 Four Ways of Event Sharing</u>

(It can directly receive all messages from 701ServerSQL, seamlessly integrating with the access control system without the need for development.)

Execute another Program while Startup: you can designate the second program to be automatically launched as long as 701Server is being launched. We normally execute 701Client as the another program.

Yes : Click "Yes" button to save all settings.

More Details :

- FAQ : E serial controller, why cannot add more than 4999 users?
- FAQ : How to automatically backup daily transaction message file to second folder?
- FAQ : <u>How to backup the transaction message from 701Server automatically?</u>
- FAQ : Why can't l set up user number after 4999 at User card Edit of 701Client ?



10.2. Four Ways of Event Sharing

1. When 701ServerSQL receives a message, it actively forwards it.

Detailed setup instructions, please refer to>> Paragraph 11.2.1 701ServerSQL message forwarding to third-party



2. 701ClientSQL converts messages into text files either at scheduled intervals or in real-time, which can be extracted by third-party software.

Detailed setup instructions, please refer to>>

FAQ : How to Enable Cross-system Integration to Get Soyal Controller Transaction Log?



3. The controller uploads text messages to the cloud immediately upon event occurrence, without waiting for confirmation.

Detailed setup instructions, please refer to>>

FAQ : How to Enable Cross-system Integration to Get Soyal Controller Transaction Log?



4.The controller uploads HEX messages to the cloud immediately upon event occurrence but requires confirmation before transmitting the next one. Detailed setup instructions, please refer to>>

FAQ : How to Enable Cross-system Integration to Get Soyal Controller Transaction Log?



• 10.2.1 701ServerSQL message forwarding to third-party

Purpose: The new version of SOYAL 701ServerSQL software supports forwarding the latest records in real-time to a configured secondary server. After receiving response code 0X37 (fixed response code), it will proceed to forward the next record. This function is commonly used in attendance systems to obtain personnel entry and exit records, NVR/DVR systems to obtain access control records for display in surveillance videos, and other third-party platform integration applications.

Upon receiving a message, 701ServerSQL actively forwards it to a third-party. If the third-party platform cannot respond immediately, the system will temporarily store the message in the database, waiting to resend it once the third-party platform reconnects to ensure no message loss.

The steps to enable the "Enable event log bypass" feature mainly involve three steps, please refer to the following:

S 701Server	
File Setting View Help	
About	
701ServerSQL Program Version 10.5 240311	
Copyright (C) 1993-2024	
This Computer Program Protected by Convright Law and International Treaties	1
SQL Database Mode Step 1.	F
STEP E. M LAN - configuration of devices access point	

Step 1. Ensure that 701Server is in SQL Database Mode.





Step 2. In the registry editor (Regedit), navigate to the following path: Computer\HKEY_CURRENT_USER\Software\SOYAL\701Server\LOG_BYPASS Add the following three keys; we'll use the example of the second server IP: 192.168.1.88, Port: 8033, which is a fixed value.

Key Name	Data Type	Value	
ENABLE	REG_DWORD	1	0: Disable, 1:Enable
ADDRESS	REG_SZ	"192.168.1.88"	Remote Listen IP
PORT	REG_SZ	"8033"	Remote Listen Port

Step 3. After setting the parameters, the 701ServerSQL software must be restarted. We use Packet Sender to simulate testing the reception of the latest record forwarded by 701ServerSQL to the second server path and returning response code 0X37.

Complete setup tutorial:

701ServerSQL Event Log Bypass Second Server Example

10.3. Message Import Setting

After backup and restore data from old PC to new PC, transaction record in .msg file format is required to do "Message Import" in order to generate daily duty .dut file again.

	Set	ting	View	Help													
		Sele	ct Serial	l Port	St	« Progr ep)2:	∙a > 7	701Server	>	~	Ö	搜尋	701Server			R	
		LAN	Configu	uration	新垍	資料夾							summer and the second se			0	
	c_{j}	701E	E On 992	2		^	名稱		^				修改日期			類型	
	9	992F		ID			📕 Lar	nguage					2021/3/1	上午1	0:52	檔案言	
	iev	-	- NODE	10			20	210125.m	isg				2021/2/2	5 下午	04:15	Outlo	
	96	Paus	se Scan	Nodes			20	210205.m	isg				2021/3/1	上午1	0:21	Outlo	
St	ep	1.RCU	Config	uration			20	210224.m	isg				2021/2/2	4 下午	07:33	Outlo	
-		0000		DDC			20	210225.m	isg				2021/2/2	5 下午	05:43	Outlo	
		9926	201/00	DDC			20	210226.m	sg				2021/2/2	6 上午	09:12	Outlo	
	H 6 7	Con	troller P	arameters			20	210301.m	isg				2021/3/1	上午 1	0:21	Outlo	
		Time	e Attend	dance		~ <										>	
		Mes	sage Im	port		檔案名稱	爯(N):	20210125	.msg		~	Mes	sage File(*.	msg)		~	
		Save	e LAN Se	etting									開啟(O)		取消		
		Load	LAN Se	etting													

Step 1. Select Message Import

Step 2. Select the .msg file and click 'Open' to import.

10.4. Setting global time schedules for each regional controller

Supports independent time zone settings for Area00 to Area15, with the reference time based on the computer time of the running 701ServerSQL, in hourly increments.

Registry Editor			
File Edit View Favorites Help			
Computer\HKEY_CURRENT_USER\SOFTWARE\SOYAL\70	1Server\Worldtime		
- 🖡 RMSER 🔨	Name	Туре	Data
Settings	(Default)	REG_SZ	(value not set)
	Area00	REG_SZ	+1
Window Pos	Area01	REG_SZ	-8
Worldtime			

NOTE

- 1. To create a time difference, you need to navigate to the "Worldtime" folder within the path of 701Server.
- 2. The type of time difference to create is a "String Value".
- 3. The time creation rule is based on the computer time of executing 701ServerSQL. If it is one hour later than the computer time of 701ServerSQL, it is represented as "+1". If it is 8 hours earlier, it is represented as "-8", and so on.

11. Appendix

11.1 User License Agreement - Third-Party Software

SOYAL software and products may be used in conjunction with other products or software and may include links to third-party software, interfaces, content, or data (hereinafter referred to as "Third-Party Software"). When using such "Third-Party Software," you must obtain authorization from the original manufacturer and comply with the terms and conditions provided by the software licensor, including their privacy policy. By accepting or using "Third-Party Software," you agree to abide by the applicable third-party terms. SOYAL makes no representations or warranties regarding the operation, suitability, or performance of "Third-Party Software." Additionally, SOYAL or its licensors shall not be held liable for any loss or damage arising from the inability to use, limited functionality, or removal of "Third-Party Software."

11.2 Installation Tutorial for MariaDB Database

11.2.1 Installing MariaDB Database Software

NOTE

- Please choose Win32 or Win64 to download and install according to your operating system and download the version MariaDB version 10.3 and after
- This software can't be put in the SOYAL CD. Customers can only download it from the original website to meet the requirements of open source.
- Example we use mariadb-10.4.18-winx64.msi for installation steps demonstration

MariaDB Community	MariaD)B Enterprise	Cloud Re	epo Setup	Connectors	Tools
Community Server	MaxScale	ColumnStore	Xpand Trial			
Download Lightweig and 100%	MariaDB Co nt but powe open source	ommunity Se erful, innovativ e	rver: e but mature,	Version OS	Step 2. MS Windows	(64-bit)
	Open F	ile - Security Warning		×	🛃 MariaDB 10.4 (x64) Setup	-
10-10.4 Stan Q	Do yo	ou want to run this file?				Welcome to the MariaDB 10.4 (x64) Setup Wizard
ib-10.4 <mark>Step 8.</mark> ix64.n i Install	Do ye	Name: C:\Users\ii Publisher: MariaDB Type: Windows From: C:\Users\ii	nfo\Desktop\mariadb-10.4.1 Corporation Ab Installer Package nfo\Der + corpariar' +10.4.1	18-winx64.msi 18-winx64.msi	MariaDB	Welcome to the MariaDB 10.4 (x64) Setup Wizard The Setup Wizard will install Maria08 10.4 (x64) on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
ti 10-104 1x64.n i i install	Do yo	Name: C:\Users\ii Publisher: MariaDB Type: Windows From: C:\Users\ii	nfo\Desktop\mariadb-10.4.1 Corporation Ab Installer Package nfo\Der Step 4. Run	18-winx64.msi 18-winx64.msi Cancel	MariaDB	Welcome to the MariaDB 10.4 (x64) Setup Wizard The Setup Wizard will install Maria08 10.4 (x64) on your computer. Click Next to continue or Cancel to exit the Setup Wizard.

- Step 1. Download the installation from database (using MariaDB as example, please download from <u>MariaDB Official Website</u>)
- Step 2. Select 64-bit version and download
- Step 3. Install MariaDB
- Step 4. Select [Run]
- Step 5. Select [Next]



701ServerSQL Software Manual



Step 6. End-User License Agreement

Accept the License Agreement by ticking [I accept the terms in the License Agreement] and select [Next]

- Step 7. Custom Setup Select [Next]
- Step 8. Enter [New root password] and [Confirm] as admin. This password is used for connection to database, please do not forget this password.
- Step 9. Then tick 'Enable access from remote machine for 'root' user' and 'User UTF8 as default server' s character set'
- Step 10. Select [Next]
- Step 11. Enter TCP Port '3306' (note: if you have installed other software that also required connection to database, please note the TCP Port value cannot have the same value as 701ServerSQL)
- Step 12. Select 'Next'
- Step 13. Select 'Install' to start installation of MariaDB
- Step 14. Select 'Finish' to finish installation
- Step 15. When installing MariaDB, HeidiSQL will also be included as a bundle. That is why, on your desktop HeidiSQL shortcut is automatically created.

11.2.2 Installing MariaDB ODBC Connector

To establish connection between 701ServerSQL and 701Client SQL, ODBC Connector is required. 701 Software offer compatibility with Database Software such as MariaDB, MySQL, and SQLite. We will demonstrate using MariaDB as an example and the ODBC Connector of MariaDB is MariaDB Connector/ODBC

NOTE

- No matter what is your operation system either Win64 / Win32, please download ODBC Connector of Win32.
- This software can't be put in the SOYAL CD. Customers can only download it from the original website to meet the requirements of open source.
- · Example we use mariadb-connector-odbc-3.1.17-win32.msi for installation steps demonstration



- Step 1. Please download the 32-bit version of the installation from the database. (Using MariaDB as an example, please download it from the <u>official website of MariaDB</u>.)
- Step 2. Install MariaDB Connector/ODBC
- Step 3. Select 'Next'
- Step 4. End-User License Agreement Accept the License Agreement by ticking [I accept the terms in the License Agreement] and select [Next]
- Step 5. Select [Typical]
- Step 6. Select [Install] to start installation of MariaDB Connector/ODBC
- Step 7. Tick option [Make User DSN's for older Connector version to use this version] and click [Finish] to finish installation

11.2.3 Setting Up MariaDB ODBC 32 DSN

Setting up ODBC Connector will enabled connection between Remote Client A and B PC to the Main Server.

Main Server Setting (192.168.1.79)

Step 1. ODBC Data Sources (32-bit) App	User DSN System DSN File DSN Driver	bit) s Tracing Connection Pooling	About	
	Name Platform Driver 701Server 32-bit Maria DB ODBC 3.1	Driver	Add Remove	
ODF Step 3. Administrator (32-bit) User DSN System DSN File DSN Drivers Tracing Connection Pr	Create a n	new Data Source to MariaDB Welcome to the MariaDB ODBC Data	Source Wizard!	
System Data Sources: Name Platform Driver Create New Data Source Select a driver for which you want to se Name Driver do Microsoft dBase (*.dbf) Driver 'o Microsoft Braadox (*.dbf) Driver 'o Microsoft Access Driver (*.dbf) Microsoft Access Driver (*.dbf) Microsoft dBase Driver	Add Remove Infigure It up a data source. V 1 1 1 1 3 1 4 data provider. 1 4 Help Cancel	This wizard will help you to create an MariaDB server. What na Step 5 ye to re Name: D1Server How do you want to describe the da Description: < Previous №	COBC data source that you can use to connect to a firer to your data source ? source ? cancel Help	
Create a new Data Source to MariaDB	× Do γou want	tio send initial statement(s) after	establishing connection to MariaDB?	
TCP/IP Server Name: 127.0.0.1 Named Pipe Port: 3306 Please specify a user name and password to connect in	Step 7.	rt(s):	A. 	
Step 8. User name: root Step 9. Password: ••••• Please specify a database to use Database:	Test DSN Step 10	n timeout in sec: 0 automatic reconnect prompt when connecting ion Character Set:	Use compression Read odbc section from my.cnf	
<previou next=""></previou>	Cancel Help	< Previous Next >	Cancel Help	

- Step 1. Go to 'ODBC Data Sources (32-bit)'
- Step 2. Select 701ServerSQL and select Configure

(Skip Step 3-Step 5 if connection to 701Server is established and directly to Step 6)

- Step 3. If connection to 701Server is not establish yet, select Add
- Step 4. Select 'MariaDB ODBC 3.1 Driver, Click [Finish]
- Step 5. Enter [701Server] on Name field and select [Next]
- Step 6. Server Name 127.0.0.1 (connection to Host PC)
- Step 7. On Port setting enter [3306]
- Step 8. Username enter [root]
- Step 9. Password enter [admin] and select [Next]
- Step 10. Tick [Enable automatic reconnect] then select Next

Allow multiple statements Step 1.1.	
Plugins Directory	Browse
< Previous Next >	Cancel Help
Cursor/Results	
Disable driver provided cursor support Return matched rows instead of affected row	ws
Enable SQL_AUTO_IS_NULL Allow spaces after function names Return SOL_NULL_DATA for zero date	
<pre> Step 12. Finish </pre>	Cancel Help

Step 12. The next part does not required set up so click Click Next>until you the end of the page and click [Finish]



11.2.4 Installing HeidiSQL Tool

NOTE

If the MariaDB database software is already installed, this step can be skipped.

When installing the MariaDB database software, the HeidiSQL tool will also be installed and can be found in the toolbar

Download link for the HeidiSQL tool, please download it from the <u>official website of HeidiSQL</u>. The following operations are based on version 12.8.



Step 1. Download the 64-bit version of the HeidiSQL installation file (please download it from the official website of HeidiSQL.)

- Step 2. After executing the installation file, click [Run].
- Step 3. Follow the prompts in the installation process to proceed to the next step, select the required features, and then click [Install].
- Step 4. Click [Finish] to complete the installation.

11.2.5 Running HeidiSQL to Open T-SQL Script Files for Creating Database and User Login Permissions



- Step 1. Launch [HeidiSQL] and click on [NEW].
- Step 2. Enter the password in the Password field: admin (the password is the same as set during installation).
- Step 3. Change the name from Unnamed to [701Server].
- Step 4. Click [Open] to open the database.
- Step 5. Click the [Open File] icon \rightarrow In the path C:\Program Files (x86)\701Server\Database, select the file named MariaDB Create Database 701Server.sql.
- Step 6. Click [Open].
- Step 7. Click [Execute]; after running the T-SQL statement, it will create the default users for 701ServerSQL: user: admin701S and password: Login@701S.

11.3 Installation Tutorial for MSSQL Database

11.3.1 Installing MSSQL Database Software

Download the MSSQL database software installation file (please download it from the <u>official Microsoft website</u>). The following operations are based on the SQL Express version.



- Step 1. Right-click on SQLServer2022-x64-ENU-Dev.iso and mount it.
- Step 2. Select [Installation] → Choose [New SQL Server standalone installation or add features to an existing installation].
- Step 3. Select [Specify a free edition] \rightarrow In the dropdown menu, choose [Express].
- Step 4. If you do not have an Azure account, you can skip this step; uncheck the option.
- Step 5. SQL Express feature options:
 - When installing SQL Express, you do not need to select all features; generally, selecting the following three is sufficient:
 - Database Engine Services
 - Full-Text and Semantic Extractions for Search
 - LocalDB

11. Appendix

or the instance of SQL Server. Instance ID b	ecomes part of the ins	tallation path.		Service Accounts Collation		col c		
				iviicrosoft recommends that you use	a separate account for each	SQL Server serv	ice.	
) Default instance				Service	Account Name	Password	Startup Type	
Named instance: * SQLExpress				SQL Server Database Engine	NT Service\MSSQLSERVER		Automatic	
	Ster	0.6		SQL Full-text Filter Daemon Launc	NT Service\MSSQLFDLa		Manual	
SOLEXPRESS				SQL Server Browser	NT AUTHORITY\LOCALS		Disabled ~	
				Grant Perform Volume Maintenan	ace Tasks privilege to SOL Se	nier Databare Fr	Step 7.	
QL Server directory: C:\Program Files\Mic	rosoft SQL Server\MSS	QL16.SQLEXPRESS		This privilege enables instant file i to information disclosure by allow	initialization by avoiding zero ving deleted content to be ac	oing of data pag cessed.	ges. This may lead	
Instances:	Fastures	Edition	Version	Click here for details				
SOLEXPRESS MSSOL 16 SOLEXPR	SOL Engine SOL En	Express	16.0.1125.1					
Cherry Comments	Less IDD		16.0.1136.1					
Specify the authentication mode and admi Authentication Mode) Windows authentication mode Mixed Mode (SQL Server authentication	nistrators for the Data	base Engine.	TREAM					
Specify the authentication mode and admi Authentication Mode) Windows authentication mode Mixed Mode (SQL Server authentication Specify the password for the SQL Server sy Enter password:	and Windows action stem administrator (second) account.						
Specify the authentication mode and admi Authentication Mode Windows authentication mode Mixed Mode (SQL Server authentication Specify the password for the SQL Server sy Enter password: Confirm password:	and Windows authors	Instances FILES1 base Engine. Pation;) account.						
Specify the authentication mode and admi Authentication Mode Windows authentication mode Mixed Mode (SQL Server authentication Specify the password for the SQL Server sy Enter password: Confirm password: Specify SQL Server administrators	and Windows averages	Instances FILES1 base Engine. Pattory) account.						

- Step 6. Select Named Instance, enter: SQLExpress For Instance ID, enter: SQLEXPRESS
- Step 7. Do not check this option
- Step 8. The installation mode must be set to [Mixed Mode].
 - 8-1 The password field is for logging into the database as 'sa' in the future; you can enter: Soyal@sa8, which can be synchronized with the tutorial document and changed later if needed.
 - 8-2 [Add current user] for easy local login.



11.3.2 Installing MSSQL ODBC Connector

To establish communication connections for 701ServerSQL and 701ClientSQL, the ODBC Connector needs to be installed. The following operations use Microsoft ODBC Driver 18 for SQL Server (X86) as an example.

NOTE

- Regardless of whether the computer's operating system is Win32 or Win64, please download the X86 version of Microsoft ODBC Driver.
- Please download the software from the official website that meets your needs \rightarrow <u>Microsoft official website</u>.



- Step 1. Download the X86 version of the ODBC Connector installation file (please download it from the <u>official Microsoft website</u>).
- Step 2. Install the ODBC Connector (software name: msodbcsql)
- Step 3. Select [Next].
- Step 4. Select [Next].
- Step 5. Select [Next].
- Step 6. Select [Install] to begin installing the ODBC Connector.
- Step 7. Click [Finish] to complete the installation.

11.3.3 Setting Up MSSQL ODBC 32 DSN



- Step 1. Click [Add]
- Step 2. Select [ODBC Driver 18 for SQL Server], then click [Finish].
- Step 3. Enter the Data Source Name and click Next after entering:
 - Name must be: 701ServerSQL
 - Description: 701Server by MSSQL
 - Server: If it is a database host, enter .\SQLEXPRESS; if it is a remote computer, point to the host IP, entering the host IP here.
- Step 4. Choose [With SQL Server authentication using a login ID and password entered by the user].
- Step 5. Login ID: sa, Password: Soyal@sa8 (as set during SQL Express installation).
- Step 6. Check options as shown in the image.





Step 7. Check options as shown in the image; note that you must check [Trust server certificate], as well as [Log ODBC driver statistics to log file].

Step 8.

Cancel

OK

Step 8. Configuration complete; click [OK].

NOTE

· You can click [Test Data Source] to verify if the configuration is correct.

11.3.4 Installing SSMS Tool

Download and install SQL Management Tools SSMS (please download it from the official Microsoft website).

After installing the MSSQL database software, you need to install SQL Management Tools SSMS in order to execute T-SQL statement files for creating the 701Server Database.

-	- RELEASE 20.2 Microsoft SQL Server Management Studio
Welcome. Click "Install" to begin.	Package Progress
Location: CAProgram Files (x86)/Microsoft SQL Server Management Studio 20	Microsoft Analysis Services OLE DB Provider Overall Progress
By clicking the "Install" button, I acknowledge that I accept the <u>Privacy Statement</u> and the License Terms for <u>SQL Server Management Studio</u> SQL Server Management Studio transmits information about your installation experience, as well as other usage and performance data to Microsoft to help improve the product. To learn more about data processing and privacy controls, and to turn off the collection of this information after installation, see the documentation	
	Cancel

Step 1. Click [Install].

Step 2. Wait until the progress bar reaches 100% to complete the installation.

11.3.5 Running SSMS to Open T-SQL Script Files for Creating Database and User Login Permissions

🖵 Connect to Server	×	Nicrosoft SQL Server Management Studio
		File Edit View Tools Window Help
	SQL Server	《 * · · · · · · · · · · · · · · · · · ·
Login Connection Dura	ation [Alicenter Treasure 1] Additional Computing Researchery]	Object Evolution and a second and a second as a second
Server	rues Always Encrypteu Autituonal Connection Fatameters	Connect → ¥ ¥ = 2 → × ↑
Server type:	Database Engine	
Server name:	VOL Express	B ■ Databases Organize ▼ New folder ■ ▼
Authentication:	SOL Server Authentication	■ Server Objects ■ OS (C:) Name Date modified ■ ■ Replication
Login		B Management Anagement Ana
Logni	30.	> — VM (E:)
Password:		> Step)2.
Connection Security	Remember password	File name: MSSQL Create Database 701Server.set
Connection secondy -	Mandatana	Open 🔽
Encryption.		
	I Trust server certificate	
Host name in certificate:		
	Connect Cancel Help Options <<	
Image: Second	atabase 701Server.sql - (local)\SQLExpress.master (sa (71)) - Microsoft SQL Ser Query Project Tools Window Help Carl Revolution Control Con	ver Management Studio Quick Launch (Ctrl+Q) Image: Imag
	GRANT EXECUTE TO db7015_executor; GO	NEWBER -d-:-7015.

Run SSMS to create the 701Server Database and user.

Step 1. Launch SSMS and log in to the SQL Server [.\SQLExpress].

- Server name : Select [.\SQLExpress] .
- Authentication : Choose [SQL Server Authentication].
- Login: sa, Password: Soyal@sa8 (as set during SQL Express installation) (% remember to check "Remember password").
- Encryption: select [Mandatory] (X ensure "Trust server certificate" is checked).
- Step 2. Execute the MSSQL Create Database 701Server.sql by clicking the [Open File] icon → In the path C:\Program Files (x86)\701Server\Database, select the file named MSSQL Create Database 701Server.sql → click [Open].
- Step 3. Click [Execute]; after running the T-SQL statement, it will create the default user for 701ServerSQL: admin701S and password: Login@701S.



11.4 Installing 701ServerSQL Version 11.X



- Step 1. Double-click to start the installation.
- Step 2. During the installation process, keep clicking [Next] until the installation is complete.
- Step 3. Click [Finish] to complete the installation (a shortcut for 701ServerSQL will be automatically created on the desktop).

X After installing the database version, do not run 701ServerSQL V11.X immediately; first, complete the steps to create users for 701ServerSQL and 701ClientSQL before running the software.

- For detailed steps on creating users in MariaDB, please refer to <u>11.2.5 Running HeidiSQL to Open</u>
 <u>T-SQL Script Files for Creating Database and User Login Permissions</u>
- For detailed steps on creating users in MSSQL, please refer to <u>11.3.5 Running SSMS to Open</u>
 <u>T-SQL Script Files for Creating Database and User Login Permissions</u>

NOTE

When installing 701ServerSQL version 11.x, it includes a T-SQL script file that can create the 701Server Database and login users. The T-SQL script file is located at: C:\Program Files (x86)\701Server\Database\MSSQL Create Database 701Server.sql.

📒 Database			×	+							
$\leftarrow \rightarrow$	\uparrow	С	Q	› ···	Prog	ram File	s (x86)	>	701Server	· > [Database
(+) New ~	Χ.	Q	[]		Ċ	Û	↑↓	Sort ~	≡v	iew ~	
Name					^	Date	mod	ified		Туре	
	MSSQL Create Database 701Server.sql						/2024	5:27 F	M	SQL-	Script



- Step 4. Run the software and enter the default username: supervisor and the default password: supervisor.
- Step 5. Click on Help → About in the toolbar of 701ServerSQL; a pop-up About window will display three options, which can be selected as needed. (※ Note: Although there are three modes to choose from, once selected, they cannot be switched.)

NOTE

If the database ODBC DSN 32 is not installed/configured, the database options will be unavailable for selection.

11.5 Back Up DATA

Creating a back-up data is necessary to avoid data from lost during the upgrade especially for .msg files (transaction log) and user data (default.xx)



Step 1. Copy 701 Server folder and paste into Drive D, Desktop, or any hard drive that will be safely stored. Step 2. Copy 701 Client folder and paste into Drive D, Desktop, or any hard drive that will be safely stored.

NOTE

- Full version about backup data could be found in the step-Backup and Restore 701 Server and Client from old PC to new PC
- When upgrading to Database Mode, the old data that is recorded on file system mode will still save under file system format. Once you upgrade into the database, all of old data will automatically transferred to database and cannot be converted back to file system data. For event log (msg files), you required to do 'Message Import' manually from 701ServerSQL to convert the data from file system into database format.
- If you want to preserve the old data under file system format, make a copy and stored in a safe place (refer to 2.3.3. BACK UP DATA)
- · Data that is remain on file system base even after upgrade to database mode:
 - 1. time attendance report such as DUTY file
 - 2. lift and floor data
 - 3. fingerprint and face data
- Upgrade from Windows XP to Windows 10, all of the data must be copy and directly paste to C:\Program Files (x86)

Close 701 Software

Before uninstall and updating new software, make sure 701ServerSQL and 701ClientSQL is properly closed and not under running condition.



Step 1. Click [Show hidden icons] on the right bottom side of the desktop.

Step 2. You will see 701ServerSQL and 701ClientSQL software icon > right click > Select Exit



12. Reference document

FAQ

- <u>how to Solve the trouble when the User Press Duress Code For Access on V5</u> <u>Series Controller to Cause Error Time Attendan</u>
- Solve 701ServerSQL maintain logged in status when Windows Server auto restart
- How to automatically change user access mode for different reader?
- What is "DI Loop2/3 Show Message" under 821E/829E Parameter setting?
- How to set up alarm event on AR-829E?
- How to set up AR-829E auto-shift function?
- How to set up door number on AR-821EF and AR- 829E?
- How to set up "door auto open" function on AR-829E?
- How to enable AR-829E "Auto Disarm(Zone:62)" function?
- <u>AR-716E + 721H*2 the hardware installation is done, how to set software connection?</u>
- How to solve 0xc000007b and mfc140u.dll problems when installing 701Server and 701Client?
- How to use Resources file to translate 701 software to other languages
- How to Run 701Software with Different PC User Account?
- How to translate 701server/client from English to different language?
- How to export the 701Sever/Client registration file?
- 701Server, 701Client data sharing?
- In one site install 721H and 821EF-V5 and download the same user data to two reader at the same time, but the user is asked to only use FP access on 821EF-V5, not use card, How to do it?
- The sensor of AR-821EFB/D-9000DO can't induct/identify fingerprint

Video

《701 Server》 Quick Start