

Description

The Johnson Controls[®] P2000 Security Management System (SMS) represents the latest technology in integrated security solutions. Using Microsoft[®] Windows[®] operating systems, operators can easily configure and use the P2000 software. An underlying Microsoft SQL Server[™] database engine offers high performance without high overhead.

The enhanced user interface (UI) provides operators access to interactive real-time facility maps featuring dynamic icons, to monitor and control major facility systems and functions.

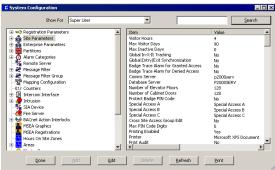
Authorized operators can create cardholder records, define hardware components, and control access using badging, Closed Circuit Television (CCTV), Digital Video Recorders (DVRs) and Video Management Systems (VMSs), area control, mustering, and elevator control to name a few, as well as monitor local and remote transactions and alarm activity in real time.

The P2000 Core version covered in this document is a fully expandable base P2000 system that supports multiple concurrent user connections via thin or thick clients. It includes all of the standard P2000 features in addition to the following items:

- Metasys[®] Integration
- Remote Server Connections
- Mercury Integration
- Message Filtering
- Elevator Control
- P2000 workstations
- Cabinet Control
- 25,000 cardholders
- Guard Tour

Features and Benefits

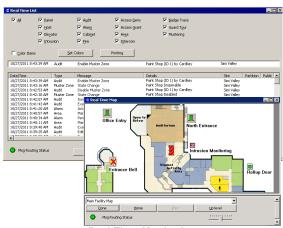
- Plug-and-Play Software Packages offer customers a complete package
 with the software pre-installed on a computer for plug-and-play operation or as
 software-only packages for use on extra platforms or international applications.
- Support of Multiple Microsoft Windows Operating Systems allows the system to use the latest drivers, UI, and features supplied through the Microsoft operating system.
- User Software Privileges enable administrators to use a combination of user accounts, menu permissions, and password controls to provide very tight restrictions on the viewing and editing of cardholder data and on the operational functions available to a particular user within the system. P2000 optionally integrates to a customer's Active Directory for user authentication.
- Simplified System Configuration and Monitoring provides a user-friendly interface for easy operation. Operators can accomplish critical system functions from the:
 - **System Configuration** window to enable operators to configure and manage controllers, readers, input points, and output points.
 - Cardholder window to facilitate setup and maintenance of badge-holders and related access parameters particular to the individual.
 - **Alarm Monitor** window to provide immediate access to the current alarm queue with maps of the alarm site.
- Online Tutorial presents an overview of the P2000 system's major features and options, covering a number of system configuration, installation, and troubleshooting tips. The modular design enables navigation to tutorial topics and sub-topics through Adobe[®] Flash[®] presentations that provide audio narration (with matching text if desired) to guide users on how to make the most of P2000's most popular features.
- Real-Time Monitoring provides dynamic displays of system transactions
 and operations using the Real Time List, which is a time-stamped display of local
 or remote transactions as they occur; and the Real Time Map, which displays
 the current status of local terminals, doors, intrusion components, intercom
 stations, inputs, outputs, and other defined elements on a map layout of the
 facility.
- Web Access enables users to perform various P2000 tasks from any webready computer or tablet. Users can send requests to add, edit, or delete cardholder records; add a visitor to the P2000 system; track cardholder activity; immediately disable a cardholder record in case of an emergency; print and encode cardholder badges from a Web Access computer; and more.
 Web Access provides the flexibility and convenience of using a standard web



Simplified System Configuration



Alarm Monitoring



Real-Time Monitoring



Cardholder Management



- browser to keep a facility's cardholder data current and perform other important security functions such as monitor, acknowledge, and remove alarms; activate or deactivate output points (for example, turn on/off lights); and lock or unlock doors.
- System Status Display graphically displays status information
 of panels and associated devices configured in the system. This
 troubleshooting tool allows operators to quickly determine if
 panels and connected devices are communicating. If
 communications go down between the server and the devices,
 the system displays the known status of the devices.
- Hours on Site Reporting records cardholders' accumulated hours present at a site. This feature is used exclusively for tracking and reporting purposes, and works by recording the cardholder's time interval between an in badging and out badging at reader terminals defined to monitor Hours on Site.
- Message Filtering and Routing allows operators to transmit and receive specific messages to and from specific local or remote P2000 systems, thereby reducing network traffic by transmitting and receiving only messages that pass a filter criteria. The Remote Message Server (RMS) maintains central control over all message routing and transmits messages only to P2000 servers or workstations that the RMS assumes are able and willing to receive messages.
- Remote Messaging with External Systems (P2000 Remote Messaging Service [RMS]-XML Interface) allows a remote server or external application to receive real-time messages from other P2000 systems or third-party components. This interface enables applications to receive access grant and access deny messages, hardware status change messages, alarm messages, and audit messages. A message filter can optionally be configured to limit the type of messages transmitted. The RMS-XML interface is an extension of the existing RMS Interface designed to send P2000 real-time messages to other P2000 systems.
- Encryption secures every message to and from the controller using Advanced Encryption Standard (AES) to protect the P2000 system from unauthorized sources. P2000 Version 3.12 Encryption is implemented using Federal Information Processing Standards (FIPS) 140-2, validated, (Certificate #1336), cryptographic module, from Microsoft http://www.microsoft.com
- Application Programming Interface (API) allows applications to execute methods in the P2000 system to lock and unlock doors, set and reset output points, acknowledge alarms, trigger P2000 host events, and more.
- System Reports provide operators access to system data, such as the cardholder database, or specific system transactions or configurations. Operators can review the reports on-screen or print them. The P2000 system integrates with SAP[®] Crystal Reports[®] software to create custom reports. An Archive and Report Server software option is also available for sites requiring the storage of data and generation of reports on a separate server. This ensures rapid creation of reports and also frees the P2000 server from having its system resources used to create reports, increasing speed and stability for both systems.
- Elevator Access Control communicates with a variety of elevator equipment to provide cardholders with access to various elevators and floors in a facility. The P2000 system provides a low-level and high-level interface.
- Event Triggers and Actions automatically initiate a sequence of system commands (actions) based on system events and messages (triggers). Triggers determine which conditions must be met to initiate a specific action.
- Security Threat Level provides a rapid method of restricting access in case of an emergency. In the event of a security breach, an authorized operator can quickly change access privileges for

- any or all cardholders at any or all terminal readers defined for security level control.
- Intrusion Detection enables operators to sense intrusion in a protected building and report it to responsible parties. This feature is accomplished with a combination of detection, control, and reporting devices such as a control panel, input devices (sensors), and output devices (bells, sirens). P2000 operators can send intrusion commands to the intrusion panel (OPC Aritech or Bosch®) to arm and disarm areas, test inputs in a selected area, start or stop bypass on selected zones, and silence an annunciator from P2000 servers or workstations.
- Area Control controls the number of cardholders allowed within a specific area. Operators can monitor the area at any time to determine the current number of cardholders in a particular area, and the entry and exit of personnel or vehicles into a controlled area (for example, a room or parking structure). The system can report and display in real time the number and names of cardholders within the area at any given time.
- Mustering allows operators to track personnel movement in
 the event of an emergency. When an emergency occurs, all
 personnel within a risk area are expected to evacuate and must
 present their badge at a reader away from the risk area. Real-time
 printed reports and online display information enable the operator
 to track movement of personnel out of the risk area. Operators
 can use the same information to direct search and rescue
 operations.
- Intercom interfaces with Zenitel and Commend™ intercom systems to establish audio communication links between any two or more defined intercom stations. This interface provides P2000 applications to control and display all intercom call requests coming from defined intercom stations. The operator can select a call request from the list and connect to any single intercom station, or to a group of stations. The P2000 server retrieves messages coming from the intercom equipment and uses them for event activation and distribution to P2000 workstations for the processing of intercom history messages and alarms.
- Guard Tour provides real-time monitoring of guard activities, to verify and record that a guard has physically visited a facility within a specified time reporting an early or late arrival to a designated guard tour station. The P2000 system uses readers and input points to define each guard tour station. The system allows alarm configuration to report guard tour conditions and provides a control application to start and stop tours, and monitor their progress.
- High Availability uses Stratus[®] everRun MX[®] software as a fault tolerance solution to provide high availability for the P2000 system. The Stratus everRun MX software is layered onto standard Microsoft server software. It ensures lockstep process and maintains full data integrity between two redundant physical servers.
- Mercury Access Control Products and LifeSafety Power® panel assemblies are now integrated with the P2000 SMS, providing added flexibility to help customers meet the needs of their site's security requirements and applications using a well known and time-tested security products manufacturer while making it easy to power, house, and store the Mercury components in a secure enclosure and in a variety of configurations. In addition, the P2000 Mercury integration allows the use of existing Authentic Mercury EP Series access control hardware without firmware updates. Customers can migrate to P2000, leveraging their Authentic Mercury EP Series hardware from other manufacturers. For more information regarding the Mercury integration, refer to the Mercury Products Open Platform Solution Product Bulletin (LIT-12011850).



- Digital Video Recorder (DVR)/Video Management System (VMS) Integration— integrates with approved DVR/VMS systems, allowing authorized operators to manage recording and Pan, Tilt, and Zoom (PTZ) functions of many cameras from a single P2000 workstation. Depending on the DVR/VMS equipment used, operators can search, retrieve, and download real-time or archived Audio/Video (AV) recordings from any transaction or surveillance camera. Additionally, operators can tie P2000 event triggers and actions to live AV recordings.
- Enterprise Configuration allows a group of systems, consisting of more than one P2000 server, to exchange cardholder information to create global cardholders, with access permissions over multiple sites. A system administrator enters the information only at the central server and the system subsequently synchronizes the information with the other regional sites within the Enterprise system. This feature also enables operators to view remote alarm messaging information across the Enterprise system.
- Enhanced MIS Interface enables the P2000 system to receive cardholder information and data requests from an external database source such as a Human Resource database. Using the MIS Interface in conjunction an external Open Database Connectivity (ODBC)-based program, the MIS Interface can add, modify, and delete cardholders and their badges in the P2000 system according to data input from an external system. Both the external system and the P2000 system can exchange a wide range of data between the Input and Output tables, including access groups, time zones, partition data, and even pictures. Operators can query cardholder information using wildcards.
- Metasys System Integration provides complete support of the integration between the Metasys system and the P2000 system. The Metasys building management system uses webbased technology to monitor and supervise facility controls such as HVAC, lighting, and fire control system supplementary monitoring. This high-level integration enables Metasys operators to access certain key security management features of the P2000 system from the Metasys web-based user interface. This interface allows the P2000 Host and Panel objects to be visible to the Metasys user. The user can browse P2000 items, view alarms and messages, send access control commands, and create interlock events.
- Video Imaging provides visual identification of cardholders using custom badge layouts, which operators can create quickly and easily through the graphical user interface. An operator can add multiple elements to a badge, including company logos, cardholders portraits, custom text, bar codes, and signatures.
- Change Tracking provides features designed to assist facilities that may be subject to Food and Drug Administration (FDA) Title 21, Code of Federal Regulation (CFR) Part 11 for electronic records and electronic signatures. The regulations for Title 21 CFR Part 11 provide the criteria under which the FDA accepts electronic records and electronic signatures as equivalent to paper-based records and traditional handwritten signatures, and regulates how these electronic records should be created, modified, maintained, archived, and transmitted.
- Database Partitioning restricts user access to a certain subset of records within the database, so that a user of one partition, for example, cannot add, modify, or view cardholder records of another partition. Operators can assign users to single or multiple partitions.
- Distributed Deployment enables you to separate the P2000 services from the P2000 database, useful for installations where the database needs to be housed on a separate computer, such as on a database server.

- Closed Circuit Television (CCTV) Integration interfaces with approved CCTV systems to provide visual security in areas that may require real-time surveillance monitoring. The P2000 software provides on-screen controls to operate the switches, cameras, and monitors that are part of the CCTV system. Other components that are part of the CCTV system include switch alarms, macros, auxiliaries, and tours; monitor sequences; and camera patterns, presets, and auxiliaries. You can configure your CCTV system to operate continuously or run by event actions to monitor particular events.
- Data Import and Export for CK721-A and S321-IP
 Controllers allows you to import and export CK721-A and
 S321-IP hardware configuration data, which reduces the
 commissioning time required to enter this information during
 configuration. Site administrators can preconfigure controllers,
 terminals, time schedules, access groups, and other configuration
 settings using a standard Microsoft Excel® spreadsheet provided
 by a Johnson Controls representative. After you save the .xls file
 as a comma separated values (.csv) file, the settings can be
 imported into a P2000 database.
- Third-Party Controllers from several manufacturers are supported through P2000 expansion options allows additional customization, such as combination reader/controller or wireless devices to the P2000.

P2K-SW-CORE312 Software Package

The P2K-SW-CORE312 software package is P2000's fully expandable base product that supports five concurrent user connections via thin or thick clients. P2K-SW-CORE312 includes the following features, which are not included in the Express version:

- · Elevator and Cabinet Control
- Guard Tour
- · Metasys Integration
- Mercury Controller Integration (complimentary license required)
- Remote Server Connections
- · Message Filtering
- P2000 up to 5 Workstations
- · 25,000 cardholders

We also offer a series of purchase options that enable you to expand the system beyond the core features and size limitations.

Note: All readers controlled by CK7xx and S321-IP controllers are not licensed, so there is no additional cost to expand the number of readers used with these controllers.

For information on the P2000 Express version, which is offered as a non-expandable, entry-level SMS, refer to the *P2000 Security Management System (Express Version 3.11) Catalog Page (LIT-1900815)*.

Expansion options include:

- · Additional cardholders in 25,000 increments
- Enterprise Access Management
- · Additional user connections in 5-user increments
- Archive and Report Server
- Change Tracking for FDA Title 21 CFR Part 11 compliance
- · Video Imaging for badge design and printing
- High Availability, which allows P2000 to run on multiple computers without re-registering



- Integration options with the following DVR/VMS products:
 - Aimetis Symphony®

 - Avigilon® Control Center
 Bosch® Video Management System
 Genetec® Omnicast®

 - Honeywell® Rapid Eye®
 - Milestone Xprotect® Corporate, Enterprise, Professional and Express
 - Nice[®]
 - OnSSI® Ocularis® CS
 - Panasonic® WJ-ND300 and WJ-ND400
 - Pelco® DX8100 and Endura®
 - Verint® Nextiva®

Note: For information on the specific models and software versions compatible with P2000, refer to the P2000 DVR Integration Manual (Part Number 24-10685-41).

- · D620 Serial Panel Interface (16 Readers)
- Cotag[®]/P900 Interface (16 Readers)
- S321-DIN Serial Panel Interface (32 Readers)
- HID® Edge® and Edge EVO® Reader/Controller Interface (5 Readers)
- PowerNet by Isonas Reader/Controller Interface (5 Readers)
- Stanlev® OSI & Wi-Q™ Wireless Reader Interface (5 Readers)
- Assa Abloy® IP Reader (5 Readers)
- Aritech Intrusion Interface (Europe Only)
- Bosch Intrusion Interface (1 panel)
- Notifier® Fire Interface (1 Connection Europe Only)
- SIA Interface to Bosch D6600 (1 Connection)
- Zenitel Intercom Interface (1 Connection)
- Commend™ Intercom (1 Connection)
- Otis[®] Compass™ Destination Elevator System Interface
- KONE™ IP Elevator Interface

In an example of a P2K-SW-CORE312 base system expanded to support 10 concurrent user connections, 64 readers connected to CK721-A controllers, 10 PowerNet readers, and 50,000 cardholders, you would order the following:

- · P2K-SW-CORE312 (base system)
- P2K-SW-5USR312 (5 additional user connections, equaling 10 when combined with the 5 users in the base system)
- P2K-SW-C25K312 (25,000 additional cardholders, equaling 50,000 when combined with the 25,000 cardholders in the base
- P2K-P-POE312 (PowerNet Reader Integration for 5 readers; two P2K-P-POE312 support 10 readers)

Note: Since the readers are connected to CK721-A controllers in the previous example, they do not require licensing.

Ordering Information (Part 1 of 2)

Product Code	Description
Number	
P2K-SW-CORE312	Fully expandable base P2000 system that supports 5 concurrent user connections via thin or thick clients. Includes all of the standard P2000 features. In addition, provides support for the following: Metasys Integration, Elevator Control, Cabinet Control, Guard Tour, High Availability, Remote Server Connections, Message Filtering, Serial Panels, Intercom, and P2000 Workstations. Also supports 25,000 cardholders.
P2K-SW-C25K312	Upgrades server cardholder database capacity from 25,000 to 50,000 cardholder records. Available in increments of 25,000.
P2K-SW-ARS312	P2000 Archive Report Server software option, enabling operators to store data on a separate server and generate detailed reports using the server's data.
P2K-SW-ENT312	P2000 Enterprise Access Management option. This option enables two or more existing P2000 installations to form an enterprise system. One P2K-SW-ENT312 required for each participating P2000.
P2K-SW-5USK312	Upgrades P2000 system to allow an additional 5 concurrent user connections included with the 5 provided with the P2K-SW-CORE312 base system. Available in increments of 5.
P2K-SW-CGTRK312	P2000 Change Tracking option for Food and Drug Administration (FDA) Title 21 Code of Federal Regulations (CFR) Part 11 compliance.
P2K-SW-VI312	P2000 Video Imaging license. Package includes license certificate. No additional hardware or software supplied with this option (the P2000 Installation DVD contains the video imaging workstation software). One license required per P2000 video imaging station.
P2K-SW-HA312	P2000 High Availability option – Allows P2000 to run on multiple computers without having to re-register.
P2K-SW-312SP2	P2000 Service Pack 2 update
P2K-DV-AMTS312	Aimetis Integration
P2K-DV-AVGN312	Avigilon Integration
P2K-DV-BVMS312	Bosch VMS Integration
P2K-DV-GNTEC312	Genetec integration option
P2K-DV-RPEYE312	Honeywell Rapid Eye integration option
P2K-DV-MILE312	Milestone integration option
P2K-DV-NXTVA312	Verint Nextiva integration option
P2K-DV-NICE312	Nice integration option
P2K-DV-ONSSI312	OnSSI Ocularis CS integration option
P2K-DV-PAN312	Panasonic integration option
P2K-DV-XPRT312	Pelco integration option
P2K-P-ASSA312	Assa Abloy IP controller interface (5 readers)
P2K-P-CKY312	D620 serial panel interface (16 readers)
P2K-P-COTAG312 P2K-P-EDGE312	Cotag/P900 interface (16 readers)
FZN-P-EDGE312	HID Edge and Edge EVO reader/controller interface (5 readers)
P2K-P-OSI312	Stanley OSI OMNILOCK and Wi-Q wireless reader interface (5 readers)
P2K-P-OSI312 P2K-P-POE312	
	reader interface (5 readers) PowerNet by Isonas reader/controller interface
P2K-P-POE312	reader interface (5 readers) PowerNet by Isonas reader/controller interface (5 readers) S321-DIN serial panel interface (32 readers) Bosch Intrusion interface (1 panel)
P2K-P-POE312 P2K-P-SER312	reader interface (5 readers) PowerNet by Isonas reader/controller interface (5 readers) S321-DIN serial panel interface (32 readers)



Ordering Information (Part 2 of 2)

O ,		
Product Code Number (Continued)	Description	
P2K-CS-SIA312	SIA interface to Bosch D6600 (1 connection)	
P2K-INT-CMD312	Commend Intercom interface (1 connection)	
P2K-INT-ZEN312	Zenitel intercom interface (1 connection)	
P2K-ELV-CMPS312	Otis Compass Destination Elevator System interface	
P2K-ELV-KONE312	KONE High Level Elevator IP integration	
P2K-P-MERC312	P2000 Mercury panel interface option	

Software Support Agreements

Johnson Controls also offers a Software Support Agreement (SSA) for the P2000 Security Management System. As part of the agreement, customers receive all available updates of our P2000 Security Management Software and access to factory technical support. For more information, refer to the P2000 Software Support Agreement (SSA) Catalog Page (LIT-1900819).

Technical Specifications

P2000 Requirements		
Server Operating Systems ¹	Windows Server 2008 Standard 32-bit and 64-bit, Windows Server 2008 R2 Standard, Windows Server 2012 Standard	
Workstation Operating Systems	32-bit and 64-bit: Windows 7 (Professional, Ultimate, and Enterprise) and Windows 8 (Professional and Enterprise)	
Database Engine ¹	SQL Server® 2008 R2 Standard 32-bit, SQL Server 2008 R2 Enterprise 64-bit, SQL Server 2008 R2 Express, Express with Tools and Express with Advanced Services 32-bit and 64-bit, SQL Server 2012 Standard 32-bit and 64-bit, SQL Server 2012 Express 32-bit and 64-bit	
Number of Seats Supported	5 for the base system (expandable to 40)	
Number of Readers Supported	128 (expandable to 2,048, depending on the server's capacity)	
Number of Badging Stations Supported	0 to 40	
Number of Cardholders Supported	25,000 for the base system (expandable to 10,000,000)	
Panel Types Supported	CK721-A v3.1 or greater CK721 v2.8 CK720 v2.6 CK705 v2.6 CKM-EPXXXX and Authentic Mercury EPXXXX Versions 1.17.3 and 1.18.7 Schlage® PIM400-1501 Versions 1.17.3 and 1.18.7 S321-DIN (all versions) S321-IP v2.10 or greater Stanley OSI & Wi-Q (Version 3.00.38, Portal Firmware Version 3.0.17.155, and Reader Version 3.00.039) Isonas (Freescale 9.21 and PIC 3.08) HID Edge Version 2.2.7.39 HID Edge EVO Version 2.3.1.926 Assa Abloy (N05+) S320 (all versions) D620 (143G) D620-TIU (173E) D600 AP (PS 155B+) P900 (Mark I.II)	

^{1.} For supported operating system and database engine combinations, refer to the P2000 Software Installation Manual (24-10685-130).



Related Documentation

Document Title	Document Number
P2000 Archive Report Server Administrator Guide	Part No. 24-10685-17
P2000 Archive Report Server User Guide	Part No. 24-10685-25
P2000 Database Table Definitions	Part No. 24-10685-33
P2000 DVR/VMS Integration Option Manual	Part No. 24-10685-41
P2000 Enterprise Configuration Option Manual	Part No. 24-10685-68
P2000 Integrated Video Imaging with EPI Builder Manual	Part No. 24-10685-76
P2000 Integrated Video Imaging with ID Server Manual	Part No. 24-10685-84
P2000 MIS Interface Configuration Manual	Part No. 24-10685-92
P2000 Metasys System Integration Manual	Part No. 24-10685-106
P2000 Quick Reference Guide	Part No. 24-10685-114
P2000 RMS-XML Application Programming Interface Manual	Part No. 24-10685-122
P2000 Software Installation Manual	Part No. 24-10685-130
P2000 Software Release Notes	Part No. 24-10685-149
P2000 Software User Manual	Part No. 24-10685-157
P2000 Web Access Manual	Part No. 24-10685-165
P2000 Video Imaging Option Catalog Page	LIT-1900425
P2000 DVR/VMS Integration Catalog Page	LIT-1900426
P2000 Intercom Interface Option Catalog Page	LIT-1900427
P2000 Change Tracking (FDA Title 21 CFR Part 11) Catalog Page	LIT-1900434
P2000 Enterprise Solution Option Catalog Page	LIT-1900435
P2000 Third-Party IP Reader/Controller Integration Catalog Page	LIT-1900646
P2000 Bosch Intrusion Interface Catalog Page	LIT-1900761
P2000 Otis Compass Destination Elevator System Interface Catalog Page	LIT-1900773
P2000 Archive Report Server (ARS) Catalog Page	LIT-1900814
P2000 and KONE IP Elevator System Integration Catalog Page	LIT-1900816
What's New (At a Glance) for P2000 Version 3.12	LIT-12011445
P2000 Bosch Intrusion Interface Product Bulletin	LIT-12011780
P2000 and Metasys System Integration Product Bulletin	LIT-12011781
P2000 Commend Intercom Interface Option Product Bulletin	LIT-12011792
P2000 Third-Party Reader/Controller Integration Product Bulletin	LIT-12011797
P2000 Archive Report Server (ARS) Product Bulletin	LIT-12011840